8R Tractors (Serial No. 140001-) North American Edition H8

JOHN DEERE

OPERATOR'S MANUAL

8R Tractors (Serial No. 140001-) North American Edition

OMRE592061 ISSUE H8 (ENGLISH)

CALIFORNIA

Proposition 65 Warning

Diesel engine exhaust and some of its constituents are known to the State of California to cause cancer, birth defects, and other reproductive harm.

If this product contains a gasoline engine:

⚠ WARNING

The engine exhaust from this product contains chemicals known to the State of California to cause cancer, birth defects or other reproductive harm.

The State of California requires the above two warnings.

Additional Proposition 65 Warnings can be found in this manual.

John Deere Waterloo Works
North American Edition
PRINTED IN U.S.A.

Introduction

Foreword

READ THIS MANUAL carefully to learn how to operate and service your machine correctly. Failure to do so could result in personal injury or equipment damage. This manual and safety signs on your machine may also be available in other languages (see your John Deere™ dealer to order).

THIS MANUAL SHOULD BE CONSIDERED a permanent part of your machine and should remain with the machine when you sell it.

MEASUREMENTS in this manual are given in both metric and customary U.S. unit equivalents. Use only correct replacement parts and fasteners. Metric and inch fasteners may require a specific metric or inch wrench.

RIGHT-HAND AND LEFT-HAND sides are determined by facing the direction of forward travel.

WRITE PRODUCT IDENTIFICATION NUMBERS (P.I. N.) in the Specification or Identification Numbers section. Accurately record all the numbers to help in tracing the machine should it be stolen. Your dealer also needs these numbers when you order parts. File the identification numbers in a secure place off the machine.

SETTING FUEL DELIVERY BEYOND PUBLISHED factory specifications or otherwise overpowering will result in loss of warranty protection for this machine.

BEFORE DELIVERING THIS MACHINE, your dealer performed a predelivery inspection. After operating for an agreed upon period, schedule an after-sale inspection with your John Deere™ dealer to ensure best performance.

THIS TRACTOR IS DESIGNED SOLELY for use in customary agricultural or similar operations ("INTENDED USE"). Use in any other way is considered as contrary to the intended use. The manufacturer accepts no liability for damage or injury resulting from this misuse, and these risks must be borne solely by the user. Compliance with and strict adherence to the conditions of operation, service and repair as specified by the manufacturer also constitute essential elements for the intended use.

THIS TRACTOR SHOULD BE OPERATED, serviced and repaired only by persons familiar with all its particular characteristics and acquainted with the relevant safety rules (accident prevention). The accident prevention regulations, all other generally recognized regulations on safety and occupational medicine and the road traffic regulations must be observed at all times. Any arbitrary modifications carried out on this tractor will relieve the manufacturer of all liability for any resulting damage or injury.

REGISTER USED PRODUCTS. If you purchased used John Deere™ products from an authorized John Deere™ dealer, the warranty registration information was updated by the dealer and requires no further information on your part.

If you purchased any used John Deere™ product from an auction, through a trader or from a farmer, please register it now. John Deere™ and John Deere™ dealers value their customer's safety and satisfaction. Your local John Deere™ dealer is best equipped and anxious to provide you superior levels of support for your machine. Please enter your product details and your address online, using the John Deere™ website corresponding to your country. Then select the dealer of your choice.

RW29387,00000CC-19-16JUN14

Emissions Performance and Tampering

Operation and Maintenance

The engine, including the emissions control system, shall be operated, used, and maintained in accordance with the instructions provided in this manual to maintain the emissions performance of the engine within the requirements applicable to the engine's category/ certification.

Tampering

No deliberate tampering with or misuse of the engine emissions control system shall take place; in particular with regard to deactivating or not maintaining an exhaust gas recirculation (EGR) or a DEF dosing system. Tampering with an engine's emissions control system will void the European Union (EU) type approval and applicable emissions-related warranties.

DX,EMISSIONS,PERFORM-19-12JAN18

Look For Supplemental Information

Occasionally new or revised information will become available after manuals are printed. To get this up-to-date information into your hands, publication supplements are prepared and supplied to the field in the machine literature package.

Supplements can be supplied in the following forms and are usually identified with one of these titles:

- Direction(s) Sheet
- Installation Instructions
- Publications Supplement

Before your initial review of the Operator's Manual, look through the machine literature package to see if any supplemental information has been provided. If supplied, review this information to determine which operating procedures are impacted or modified by the revised instructions. Pay close attention to "CAUTION" and "IMPORTANT" statements as they address your safety, the safety of others, and safe operation of the machine.

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When Operator's Manuals are revised, the supplemental information is incorporated directly into the manual, thereby eliminating the supplement.

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AMPSEAL 16™	Trademark of Tyco Electronics
AutoLoad™	Trademark of Deere and Company
AutoPowr™	Trademark of Deere and Company
AutoPowr™/IVT™	Trademark of Deere and Company
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Vari-Cool™	Trademark of Deere and Company
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Glossary

Glossary of Terms

ITEM	ABBREVIATION	DESCRIPTION
Accessory	ACC	Secondary electrical system
Active Seat™ Control Unit	ASU	Computerized system used to control the ActiveSeat™
Air Conditioning	A/C	System used conditioning the air in the cab
Air Quality System	AQS	System used to control conditioned air in the cab
Alternating Current	AC	Electrical current that reverses its direction at regularly recurring intervals
Armrest Control Unit	ACU	Armrest control used to control tractor functions
Automatic Powershift	APS	Transmission feature
AutoPowr™	—	AutoPowr transmission also called IVT™
Auto-Temperature Control	ATC	Automatically controlled air quality system
Battery	Bat	A device used to furnish electrical current
Brakes	BR	Abbreviation
Brake Control Unit	BRC	Computerized system for brake control
Brake Load Sense	BRL	Reference—Brake load sense
Cab Control Unit	CAB	Computerized system for controlling cab electronic functions
Cab Load Center	CLC	Computerized system for controlling cab electrical functions
Cab Switch Module	CSM	Another term for CommandARM™ controls
Chassis Control Unit	CCU	Computerized system for oMonitoring chassis
Circuit	CCT	A complete path of an electrical current
Circulation Motor		Symbols for circulation motor speeds
	O	Medium Speed
	+	Fastest Speed
Clean Oil Reservoir	COR	Reservoir used to contain oil for the tractor hydraulic system
ClimaTrak™		Automatically controlled air quality system
Clockwise	CW	Direction in which the hands of a clock rotate
Cold Cranking Amperes	CCA	Refers to a battery's capability to perform during cold-weather operation
Component Technical Manual	CTM	Technical manual developed for the servicing of major components
Controller Area Network	CAN	A communication system linking on-board electronics
Corner Post Display	CPD	Display for system control units
Counterclockwise	CCW	Direction opposite the rotation of the hands of a clock
Diagnostic Receptacle	DR	A connection where hydraulic pressure can be measured
Digital Multimeter	DMM	An electrical multifunctional measuring device
Direct Current	DC	Electrical current flowing in one direction only
Displacement Control Valve	DCV	Controls hydraulic pump stroke
Economy Mode	ECO	Abbreviation
Electronic Displacement Control	EDC	Senses and communicates to the displacement control valve demand for hydraulic pump stroke
Electrohydraulic	EH	Refers to a hydraulic valve function that is controlled electrically
Electrohydraulic Depth Control	EHDC	Abbreviation
Electrohydraulic Selective Control Valve	EH SCV	Selective control valve operated with electrical solenoids
Electronically Programmable Read-Only Memory	EPROM	Abbreviation
Electronic Components Relay	ELX	Refers to the relay powering most of the electronic components
Engine Control Unit	ECU	Computerized system used to govern engine speed
Evacuation Diagnostic Receptacle	EVAC	Diagnostic receptacle port used for pre-lubrication of the pump drive gears
Excess Flow (SCV/Hitch Flow)	EF	Reference—SCV/Hitch flow
Excess Flow Load Sense (SCV/Hitch Flow)	EFL	Reference—SCV/Hitch load sense
Forward-Neutral-Reverse	FNR	Abbreviation
Forward	FWD	Refers to direction of movement

ITEM	ABBREVIATION	DESCRIPTION
Gallons Per Minute	gpm	Amount of fluid over a period of one minute
GreenStar™ System	GSS	Part of John Deere Precision Farming Systems
Global Positioning System	GPS	Abbreviation
Ground-Driven Pump	GDP	Pump used to operate steering and brakes during emergency conditions
Heating-Ventilating and Air Conditioning	HVAC	Abbreviation
High-Intensity Discharge Light	HID	Abbreviation
High Pressure - Common Rail	HPCR	Fuel injected engine that utilizes high pressure fuel injection and a common pressure rail
Hitch Control Unit	HCU	Computerized system used to control hitch functions
Hitch Slip Command	HSC	System to compensate for traction changes
Housing	Hsg	Abbreviation
Ignition	IGN	Control for starting and stopping the tractor
Independent Link Suspension	ILS	Front axle with an active suspension system that is electrohydraulic controlled
Infinitely Variable Transmission	IVT	A hydro-mechanical transmission with infinitely variable speeds
Inside Diameter	ID	Abbreviation
Instrument Control Unit	ICU	Computerized system controlling tractor warning functions
International Standards Organization	ISO	Standards organization
Intelligent Total Equipment Control	iTEC™	Abbreviation
Joint Industry Council Organization	JIC	Standards organization
Lateral Hitch Position	LHP	Refers to hitch positioning for a row guidance hitch application
Left-Hand	LH or L-H	Abbreviation
Liquid Crystal Display	LCD	A technology used for displaying information
Manifold Air Pressure	MAP	Abbreviation
Mechanical Front Wheel Drive	MFWD	A mechanically powered front axle
Negative	Neg (—)	Refers to a part of an electrical circuit
Number	No.	Abbreviation
O-Ring Face Seal	ORFS ORS	A type of seal used in making hydraulic connections
Outside Diameter	OD	Abbreviation
Performance Monitor	Perf Mon (PrF)	Abbreviation
Positive	Pos (+)	Refers to a part of an electrical circuit
Potentiometer	POT	A device used to vary electrical voltage
Powershift Transmission	PST	Abbreviation
IVT Transmission Control Unit	PTI	Computerized system used to control IVT transmission shift functions
Power Take-Off	PTO	Abbreviation
Powershift Transmission Control Unit	PTP	Computerized system used to control powershift transmission shift functions
Product Identification Number	PIN	Serial number relating to tractor identification
Reverse	Rev	Refers to direction of movement
Revolutions Per Minute	rpm	Abbreviation
Right-Hand	RH or R-H	Abbreviation
Rockshaft	RS	Abbreviation
Selective Control Option	SCo	Control unit for selective control valves 4 and 5
Selective Control Unit	SCU	Computerized system used to control selective control valve functions for selective control valves 1, 2, and 3
Selective Control Valve	SCV	Device used to control remote hydraulic functions
Steering Control Unit	SSU	Computerized system controlling tractor steering

ITEM	ABBREVIATION	DESCRIPTION
Setup Panel	SUP	Operator control panel used to set selective control valve function
Slow Moving Vehicle	SMV	Warning sign on the rear of the tractor
Society of Automotive Engineers	SAE	Engineering Standards Organization
Specification	SPEC	Abbreviation
Suspended Front Axle	SFA	Front axle with an active suspension system that is electronically controlled
Tracks Tractor Steering System Control Unit	SST	Computerized system controlling tractor steering for tracks tractors
Wheel Tractor Steering System Control Unit	SSU	Computerized system controlling tractor steering for wheel tractors equipped with AutoTrac™
Steering Load Sense	STL	Reference—Steering load sense
Switch	SW	Abbreviation
Tachometer	Tach	Abbreviation
Terrain Compensation Module	TCM	Electronic module that corrects for vehicle dynamics such as roll on side-slopes and rough terrain
Tail Light	TL	Abbreviation
Tractor Control Unit - Vehicle	TEC	Electronic system for communicating between vehicle and implement
Tractor Control Unit - Implement	TEI	Electronic system for communicating between implement and vehicle
Temperature	Temp	Abbreviation
Transmission	Trans	Abbreviation
TouchSet Depth Control	TSDC	Abbreviation-Same as EHDC
Voltage (Volts)	V	Abbreviation
Voltage Detector	V Det	Abbreviation
Vehicle Load Center	VLC	Computerized system for controlling vehicle electrical functions
Warning Lamp	WL	Abbreviation
Without	W/O	Abbreviation
Wide-Open Throttle	WOT	Full throttle

Active Seat is a trademark of Deere & Company
CommandARM is a trademark of Deere & Company
ClimaTrak is a trademark of Deere & Company
iTEC is a trademark of Deere & Company

OURX935,000024D-19-09AUG17

Recognize Safety Information

T81389—UN—28JUN13

This is a safety-alert symbol. When you see this symbol on your machine or in this manual, be alert to the potential for personal injury.

Follow recommended precautions and safe operating practices.

DX,ALERT-19-29SEP98

Understand Signal Words

TS187—19—30SEP88

DANGER; The signal word DANGER indicates a hazardous situation which, if not avoided, will result in death or serious injury.

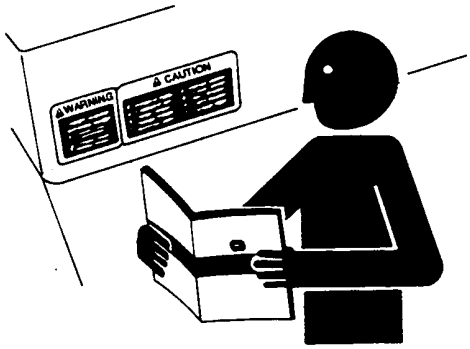
WARNING; The signal word WARNING indicates a hazardous situation which, if not avoided, could result in death or serious injury.

CAUTION; The signal word CAUTION indicates a hazardous situation which, if not avoided, could result in minor or moderate injury. CAUTION may also be used to alert against unsafe practices associated with events which could lead to personal injury.

A signal word—DANGER, WARNING, or CAUTION—is used with the safety-alert symbol. DANGER identifies the most serious hazards. DANGER or WARNING safety signs are located near specific hazards. General precautions are listed on CAUTION safety signs. CAUTION also calls attention to safety messages in this manual.

DX,SIGNAL-19-05OCT16

Follow Safety Instructions



TS201—UN—15APR13

Carefully read all safety messages in this manual and on your machine safety signs. Keep safety signs in good condition. Replace missing or damaged safety signs. Be sure new equipment components and repair parts include the current safety signs. Replacement safety signs are available from your John Deere dealer.

There can be additional safety information contained on parts and components sourced from suppliers that is not reproduced in this operator's manual.

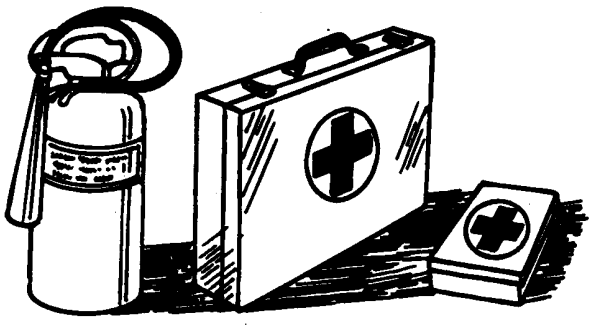
Learn how to operate the machine and how to use controls properly. Do not let anyone operate without instruction.

Keep your machine in proper working condition. Unauthorized modifications to the machine may impair the function and/or safety and affect machine life.

If you do not understand any part of this manual and need assistance, contact your John Deere dealer.

DX,READ-19-16JUN09

Prepare for Emergencies



TS291—UN—15APR13

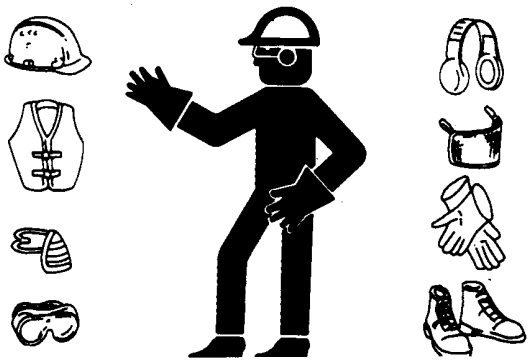
Be prepared if a fire starts.

Keep a first aid kit and fire extinguisher handy.

Keep emergency numbers for doctors, ambulance service, hospital, and fire department near your telephone.

DX,FIRE2-19-03MAR93

Wear Protective Clothing



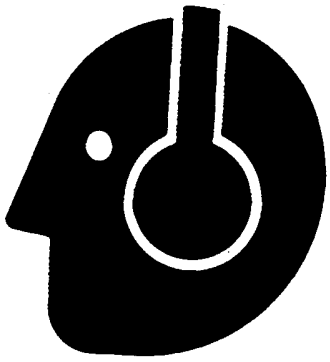
TS206—UN—15APR13

Wear close fitting clothing and safety equipment appropriate to the job.

Operating equipment safely requires the full attention of the operator. Do not wear radio or music headphones while operating machine.

DX,WEAR2-19-03MAR93

Protect Against Noise



TS207—UN—23AUG88

There are many variables that affect the sound level range, including machine configuration, condition and maintenance level of the machine, ground surface, operating environmental, duty cycles, ambient noise, and attachments.

Exposure to loud noise can cause impairment or loss of hearing.

Always wear hearing protection. Wear a suitable hearing protective device such as earmuffs or earplugs to protect against objectionable or uncomfortable loud noises.

DX,NOISE-19-03OCT17

Handle Fuel Safely—Avoid Fires

TS202—UN—23AUG88

Handle fuel with care: it is highly flammable. Do not refuel the machine while smoking or when near open flame or sparks.

Always stop engine before refueling machine. Fill fuel tank outdoors.

Prevent fires by keeping machine clean of accumulated trash, grease, and debris. Always clean up spilled fuel.

Use only an approved fuel container for transporting flammable liquids.

Never fill fuel container in pickup truck with plastic bed liner. Always place fuel container on ground before refueling. Touch fuel container with fuel dispenser nozzle before removing can lid. Keep fuel dispenser nozzle in contact with fuel container inlet when filling.

Do not store fuel container where there is an open flame, spark, or pilot light such as within a water heater or other appliance.

DX,FIRE1-19-12OCT11

Handle Starting Fluid Safely

TS1356—UN—18MAR92

Starting fluid is highly flammable.

Keep all sparks and flame away when using it. Keep starting fluid away from batteries and cables.

To prevent accidental discharge when storing the pressurized can, keep the cap on the container, and store in a cool, protected location.

Do not incinerate or puncture a starting fluid container.

Do not use starting fluid on an engine equipped with glow plugs or an air intake heater.

DX,FIRE3-19-14MAR14

Fire Prevention

To reduce the risk of fire, your tractor should be regularly inspected and cleaned.

- Birds and other animals may build nests or bring other flammable materials into the engine compartment or onto the exhaust system. The tractor should be inspected and cleaned prior to the first use each day.
- A build up of grass, crop material and other debris may occur during normal operation. This is especially true when operating in very dry conditions or conditions where airborne crop material or crop dust is present. Any such build up must be removed to ensure proper machine function and to reduce the risk of fire. The tractor must be inspected and cleaned periodically throughout the day.
- Regular and thorough cleaning of the tractor combined with other routine maintenance procedures listed in the Operator's Manual greatly reduce the risk of fire and the chance of costly downtime.
- Do not store fuel container where there is an open flame, spark, or pilot light such as within a water heater or other appliance.
- Check fuel lines, tank, cap, and fittings frequently for damage, cracks or leaks. Replace if necessary.

Follow all operational and safety procedures posted on the machine and the Operator's Manual. Be careful of hot engine and exhaust components during inspection and cleaning. Before carrying out any inspection or cleaning, always shut OFF the engine, place the transmission in PARK or set parking brake, and remove the key. Removal of the key will prevent others from starting the tractor during inspection and cleaning.

DX,WW,TRACTOR,FIRE,PREVENTION-19-12OCT11

In Case of Fire

TS227—UN—15APR13

CAUTION: Avoid personal injury.

Stop machine immediately at the first sign of fire. Fire may be identified by the smell of smoke or sight of flames. Because fire grows and spreads rapidly, get off the machine immediately and move safely away from the fire. Do not return to the machine! The number one priority is safety.

Call the fire department. A portable fire extinguisher can put out a small fire or contain it until the fire department arrives; but portable extinguishers have limitations. Always put the safety of the operator and bystanders first. If attempting to extinguish a fire, keep your back to the wind with an unobstructed escape path so you can move away quickly if the fire cannot be extinguished.

Read the fire extinguisher instructions and become familiar with their location, parts, and operation before a fire starts. Local fire departments or fire equipment distributors may offer fire extinguisher training and recommendations.

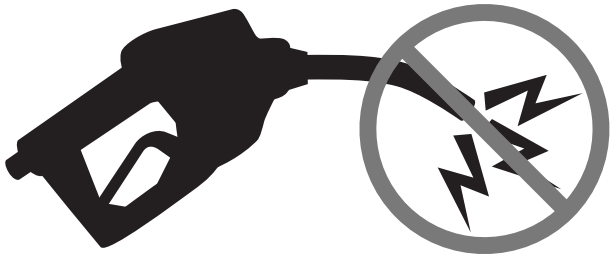
If your extinguisher does not have instructions, follow these general guidelines:

1. Pull the pin. Hold the extinguisher with the nozzle pointing away from you, and release the locking mechanism.
2. Aim low. Point the extinguisher at the base of the fire.
3. Squeeze the lever slowly and evenly.
4. Sweep the nozzle from side-to-side.

DX,FIRE4-19-22AUG13

Avoid Static Electricity Risk When Refueling

RG22142—UN—17MAR14



RG21992—UN—21AUG13

The removal of sulfur and other compounds in Ultra-Low Sulfur Diesel (ULSD) fuel decreases its conductivity and increases its ability to store a static charge.

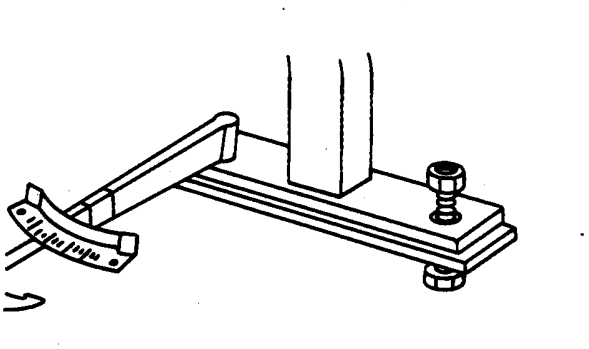
Refineries may have treated the fuel with a static dissipating additive. However, there are many factors that can reduce the effectiveness of the additive over time.

Static charges can build up in ULSD fuel while it is flowing through fuel delivery systems. Static electricity discharge when combustible vapors are present could result in a fire or explosion.

Therefore, it is important to ensure that the entire system used to refuel your machine (fuel supply tank, transfer pump, transfer hose, nozzle, and others) is properly grounded and bonded. Consult with your fuel or fuel system supplier to ensure that the delivery system is in compliance with fueling standards for proper grounding and bonding practices.

DX,FUEL,STATIC,ELEC-19-12JUL13

Keep ROPS Installed Properly



TS212—UN—23AUG88

Make certain all parts are reinstalled correctly if the roll-over protective structure (ROPS) is loosened or removed for any reason. Tighten mounting bolts to proper torque.

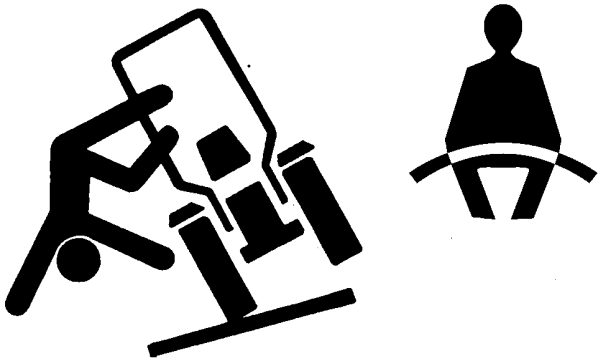
The protection offered by ROPS will be impaired if ROPS is subjected to structural damage, is involved in an overturn incident, or is in any way altered by welding, bending, drilling, or cutting. A damaged ROPS should be replaced, not reused.

The seat is part of the ROPS safety zone. Replace only with John Deere seat approved for your tractor.

Any alteration of the ROPS must be approved by the manufacturer.

DX,ROPS3-19-12OCT11

Use Foldable ROPS and Seat Belt Properly



TS1729—UN—24MAY13

Avoid crushing injury or death during rollover.

- If this machine is equipped with a foldable rollover protective structure (ROPS), keep the ROPS in the fully extended and locked position. USE a seat belt when you operate with a ROPS in the fully extended position.
  - Hold the latch and pull the seat belt across the body.
  - Insert the latch into the buckle. Listen for a click.
  - Tug on the seat belt to make sure that the belt is securely fastened.

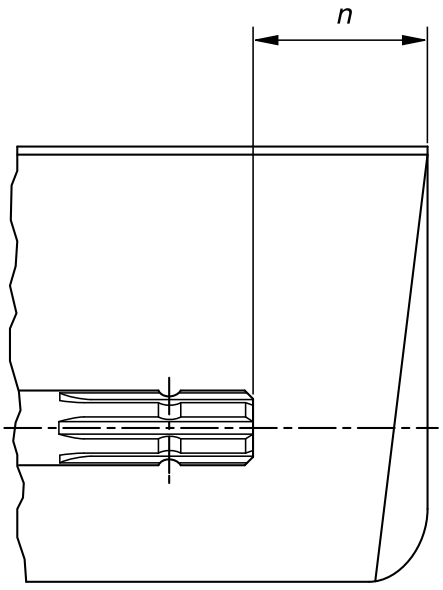
- Snug the seat belt across the hips.

- If this machine is operated with the ROPS folded (for example, to enter a low building), drive with extreme caution. DO NOT USE a seat belt with the ROPS folded.
- Return the ROPS to the raised, fully extended position as soon as the machine is operated under normal conditions.

DX,FOLDROPS-19-22AUG13

Stay Clear of Rotating Drivelines

TS1644—UN—22AUG95



H96219—UN—29APR10

Entanglement in rotating driveline can cause serious injury or death.

Keep tractor master shield and driveline shields in place at all times. Make sure rotating shields turn freely.

Only use power take-off driveshafts with adequate guards and shields.

Wear close fitting clothing. Stop the engine and be sure that PTO driveline is stopped before making adjustments, connections, or cleaning out PTO driven equipment.

Do not install any adapter device between the tractor and the primary implement PTO driveshaft that will allow a 1000 rpm tractor shaft to power a 540 rpm implement at speeds higher than 540 rpm.

Do not install any adapter device that results in a portion of the rotating implement shaft, tractor shaft, or the adapter to be unguarded. The tractor master shield shall overlap the end of the splined shaft and the added adaptor device as outlined in the table.

The angle at which the primary implement PTO driveshaft can be inclined may be reduced depending on the shape and size of the tractor master shield and the shape and size of the guard of the primary implement PTO driveshaft.

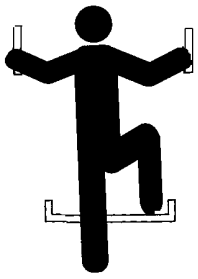
Do not raise implements high enough to damage the tractor master shield or guard of primary implement PTO driveshaft. Detach the PTO driveline shaft if it is necessary to increase implement height. (See Attching/ Detaching PTO Driveline)

When using Type 3/4 PTO, inclination and turning angles may be reduced depending on type of PTO master shield and coupling rails.

PTO Type	Diameter	Splines	n ± 5 mm (0.20 in.)
1	35 mm (1.378 in.)	6	85 mm (3.35 in.)
2	35 mm (1.378 in.)	21	85 mm (3.35 in.)
3	45 mm (1.772 in.)	20	100 mm (4.00 in.)
4	57.5 mm (2.264 in.)	22	100 mm (4.00 in.)

DX,PTO-19-28FEB17

Use Steps and Handholds Correctly



T133468—UN—15APR13

Prevent falls by facing the machine when getting on and off. Maintain 3-point contact with steps, handholds, and handrails.

Use extra care when mud, snow, or moisture present slippery conditions. Keep steps clean and free of grease

or oil. Never jump when exiting machine. Never mount or dismount a moving machine.

DX,WW,MOUNT-19-12OCT11

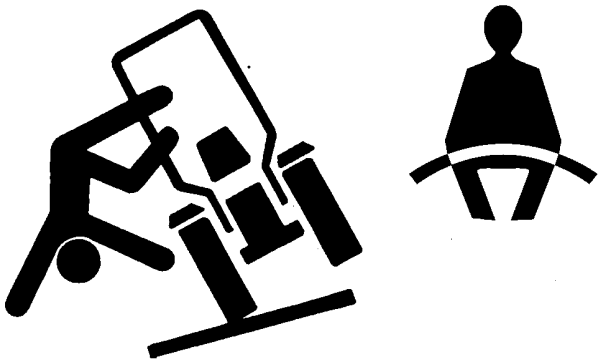
Read Operator's Manuals for ISOBUS Controllers

In addition to GreenStar™ Applications, this display can be used as a display device for any ISOBUS Controller that meets ISO 11783 standard. This includes capability to control ISOBUS implements. When used in this manner, information and control functions placed on the display are provided by the ISOBUS Controller and are the responsibility of the ISOBUS Controller manufacturer. Some of these functions could pose a hazard to either the operator or a bystander. Read the Operator's Manual provided by the ISOBUS Controller manufacturer and observe all safety messages in manual and on ISOBUS Controller product prior to use.

NOTE: ISOBUS refers to the ISO Standard 11783

DX,WW,ISOBUS-19-15JUL15

Use Seat Belt Properly



TS1729—UN—24MAY13

Avoid crushing injury or death during rollover.

This machine is equipped with a rollover protective structure (ROPS). USE a seat belt when you operate with a ROPS.

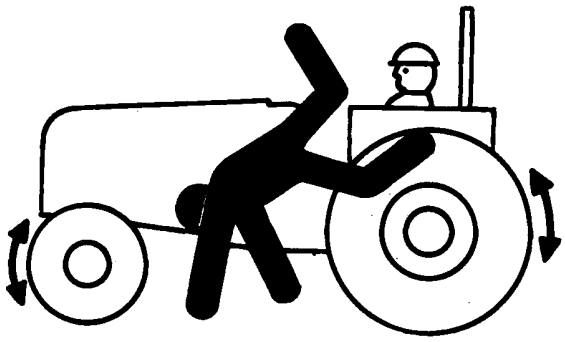
- Hold the latch and pull the seat belt across the body.
- Insert the latch into the buckle. Listen for a click.
- Tug on the seat belt latch to make sure that the belt is securely fastened.
- Snug the seat belt across the hips.

Replace entire seat belt if mounting hardware, buckle, belt, or retractor show signs of damage.

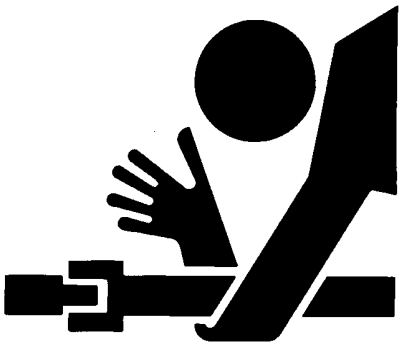
Inspect seat belt and mounting hardware at least once a year. Look for signs of loose hardware or belt damage, such as cuts, fraying, extreme or unusual wear, discoloration, or abrasion. Replace only with replacement parts approved for your machine. See your John Deere dealer.

DX,ROPS1-19-22AUG13

Operating the Tractor Safely



TS290—UN—23AUG88



TS276—UN—23AUG88

You can reduce the risk of accidents by following these simple precautions:

- Use your tractor only for jobs it was designed to perform, for example, pushing, pulling, towing, actuating, and carrying a variety of interchangeable equipment designed to conduct agricultural work.
- This tractor is not intended to be used as a recreational vehicle.
- Read this operator's manual before operating the tractor and follow operating and safety instructions in the manual and on the tractor.
- Follow operation and ballasting instructions found in the operator's manual for your implements/ attachments, such as front loaders
- Follow the instructions outlined in the operator's manual of any mounted or trailed machinery or trailer. Do not operate a combination of tractor-machine or tractor-trailer unless all instructions have been followed.
- Make sure that everyone is clear of machine, attached equipment, and work area before starting engine or operation.

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- Stay clear of the three-point linkage and pick-up hitch (if equipped) when controlling them.
- Keep hands, feet, and clothing away from power-driven parts.

Driving Concerns

- Never get on or off a moving tractor.
- Complete any required training prior to operating vehicle.
- Keep all children and nonessential personnel off tractors and all equipment.
- Never ride on a tractor unless seated on a John Deere approved seat with seat belt.
- Keep all shields/guards in place.
- Use appropriate visual and audible signals when operating on public roads.
- Move to side of road before stopping.
- Reduce speed when turning, applying individual brakes, or operating around hazards on rough ground or steep slopes.
- Stability degrades when attached implements are at high position.
- Couple brake pedals together for road travel.
- Pump brakes when stopping on slippery surfaces.
- Regularly clean fenders and fender valances (mud flaps) if installed. Remove dirt before driving on public roadways.

Towing Loads

- Be careful when towing and stopping heavy loads. Stopping distance increases with speed and weight of towed loads, and on slopes. Towed loads with or without brakes that are too heavy for the tractor or are towed too fast can cause loss of control.
- Consider the total weight of the equipment and its load.
- Hitch towed loads only to approved couplings to avoid rearward upset.

Parking and Leaving the Tractor

- Before dismounting, shut off SCVs, disengage PTO, stop engine, lower implements/attachments to ground, place implement/attachment control devices in neutral and securely engage park mechanism, including the park pawl and park brake. In addition, if tractor is left unattended, remove key.
- Leaving transmission in gear with engine off will NOT prevent the tractor from moving.
- Never go near an operating PTO or an operating implement.
- Wait for all movement to stop before servicing machinery.

Common Accidents

Unsafe operation or misuse of the tractor can result in accidents. Be alert to hazards of tractor operation.

The most common accidents involving tractors:

- Tractor rollover
- Collisions with motor vehicles
- Improper starting procedures
- Entanglement in PTO shafts
- Falling from tractor
- Crushing and pinching during hitching

DX,WW,TRACTOR-19-28FEB17

Avoid Backover Accidents

PC10857XW—UN—15APR13

Before moving machine, be sure that all persons are clear of machine path. Turn around and look directly for best visibility. Use a signal person when backing if view is obstructed or when in close quarters.

Do not rely on a camera to determine if personnel or obstacles are behind the machine. The system can be limited by many factors including maintenance practices, environmental conditions, and operating range.

DX,AVOID,BACKOVER,ACCIDENTS-19-30AUG10

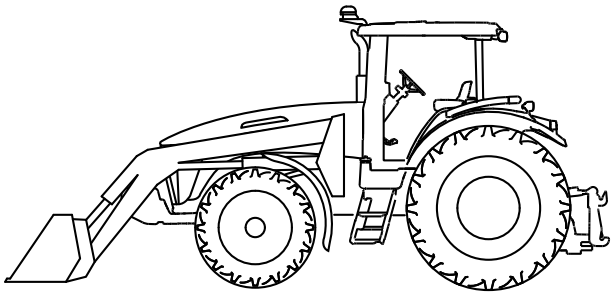
Limited Use in Forestry Operation

The intended use of John Deere tractors when used in forestry operations is limited to tractor-specific applications like transport, stationary work such as log splitting, propulsion, or operating implements with PTO, hydraulic, or electrical systems.

These are applications where normal operation does not present a risk of falling or penetrating objects. Any forestry applications beyond these applications, such as forwarding and loading, requires fitment of application-specific components including Falling Object Protective Structure (FOPS) and/or Operative Protective Structures (OPS). Contact John Deere dealer for special components.

DX,WW,FORESTRY-19-12OCT11

Operating the Loader Tractor Safely



TS1692—UN—09NOV09

When operating a machine with a loader application, reduce speed as required to ensure good tractor and loader stability.

To avoid tractor rollover and damage to front tires and tractor, do not carry load with your loader at a speed over 10 km/h (6 mph).

To avoid tractor damage do not use a front loader or a sprayer tank if the tractor is equipped with a 3 Meter Front Axle.

Never allow anyone to walk or work under a raised loader.

Do not use loader as a work platform.

Do not lift or carry anyone on loader, in bucket, or on implement or attachment.

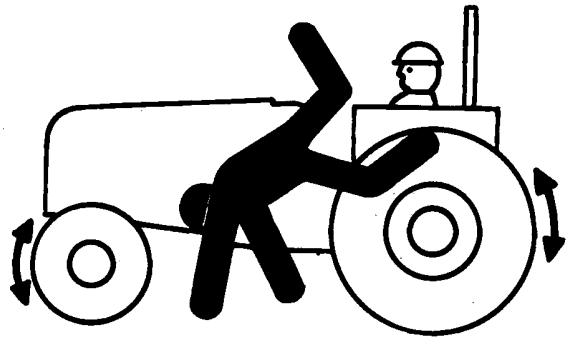
Lower loader to ground before leaving operators station.

The Rollover Protective Structure (ROPS) or cab roof, if equipped, may not provide sufficient protection from load falling onto the operators station. To prevent loads from falling onto the operators station, always use appropriate implements for specific applications (that is, manure forks, round bale forks, round bale grippers, and clampers).

Ballast tractor in accordance to Ballast Recommendations in PREPARE TRACTOR section.

DX,WW,LOADER-19-18SEP12

Keep Riders Off Machine



TS290—UN—23AUG88

Only allow the operator on the machine. Keep riders off.

Riders on machine are subject to injury such as being struck by foreign objects and being thrown off of the machine. Riders also obstruct the operator's view resulting in the machine being operated in an unsafe manner.

DX,RIDER-19-03MAR93

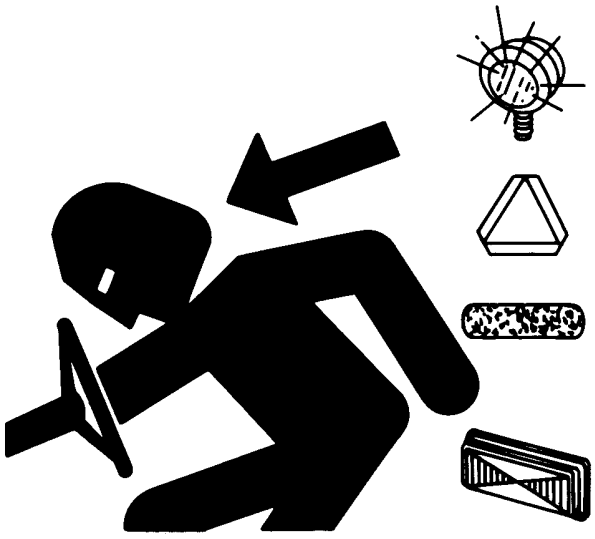
Instructional Seat

TS1730—UN—24MAY13

The instructional seat, if so equipped, has been provided only for training operators or diagnosing machine problems.

DX,SEAT,NA-19-22AUG13

Use Safety Lights and Devices



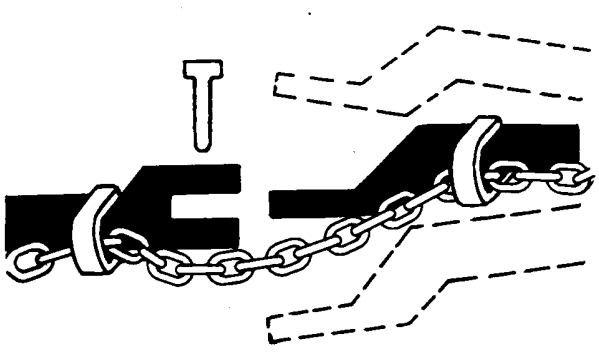
TS951—UN—12APR90

Prevent collisions between other road users, slow moving tractors with attachments or towed equipment, and self-propelled machines on public roads. Frequently check for traffic from the rear, especially in turns, and use turn signal lights.

Use headlights, flashing warning lights, and turn signals day and night. Follow local regulations for equipment lighting and marking. Keep lighting and marking visible, clean, and in good working order. Replace or repair lighting and marking that has been damaged or lost. An implement safety lighting kit is available from your John Deere dealer.

DX,FLASH-19-07JUL99

Use a Safety Chain



TS217—UN—23AUG88

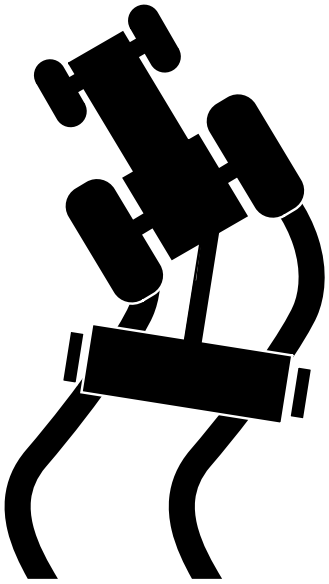
A safety chain will help control drawn equipment should it accidentally separate from the drawbar.

Using the appropriate adapter parts, attach the chain to the tractor drawbar support or other specified anchor location. Provide only enough slack in the chain to permit turning.

See your John Deere dealer for a chain with a strength rating equal to or greater than the gross weight of the towed machine. Do not use safety chain for towing.

DX,CHAIN-19-03MAR93

Transport Towed Equipment at Safe Speeds



TS1686—UN—27SEP06

Do not exceed the maximum transport speed. This towing unit may be capable of operating at transport speeds that exceed the maximum allowable transport speed for towed implements.

Before transporting a towed implement, determine from signs on the implement or information provided in the implement's operator manual the maximum transport speed. Never transport at speeds that exceed the implement's maximum transport speed. Exceeding the implement's maximum transport speed can result in:

- Loss of control of the towing unit/implement combination
- Reduced or no ability to stop during braking
- Implement tire failure
- Damage to the implement structure or its components

Implements shall be equipped with brakes if the maximum fully loaded weight is greater than 1500 kg (3307 lbs) and greater than 1.5 times the weight of the towing unit.

Example: Implement mass is 1600 kg (3527 lbs) and towing unit mass is 1600 kg (3527 lbs), example implement is not required to have brakes.

Implements without brakes: Do not transport at speeds greater than 32 km/h (20 mph).

Implements with brakes:

- If the manufacturer does not specify a maximum

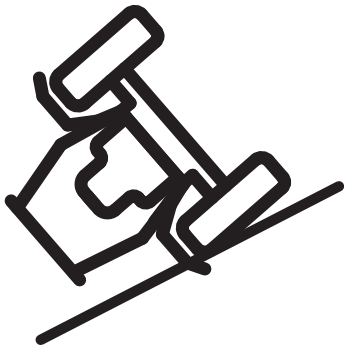
transport speed, do not tow at speeds greater than 40 km/h (25 mph).

- When transporting at speeds up to 40 km/h (25 mph) the fully loaded implement must weigh less than 4.5 times the towing unit weight.
- When transporting at speeds between 40—50 km/h (25—31 mph) the fully loaded implement must weigh less than 3.0 times the towing unit weight.

When towing a trailer, become familiar with the braking characteristics and ensure the compatibility of the tractor/trailer combination in regard to the deceleration rate.

DX,TOW1-19-28FEB17

Use Caution on Slopes, Uneven Terrain, and Rough Ground



RXA0103437—UN—01JUL09

Avoid holes, ditches, and obstructions which cause the tractor to tip, especially on slopes. Avoid sharp uphill turns.

Driving forward out of a ditch, mired condition, or up a steep slope could cause the tractor to tip over rearward. Back out of these situations if possible.

Danger of overturn increases greatly with narrow tread setting, at high speed.

Not all conditions that can cause a tractor to overturn are listed. Be alert for any situation in which stability may be compromised.

Slopes are a major factor related to loss-of-control and tip-over accidents, which can result in severe injury or death. Operation on all slopes requires extra caution.

Uneven terrain or rough ground can cause loss-of-control and tip-over accidents, which can result in severe injury or death. Operation on uneven terrain or rough ground requires extra caution.

Never drive near the edge of a gully, drop-off, ditch, steep embankment, or a body of water. The machine could suddenly roll over if a wheel goes over the edge or the ground caves in

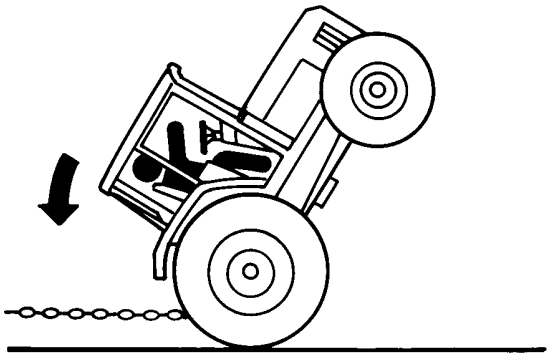
Choose a low ground speed so you will not have to stop or shift while on a slope.

Avoid starting, stopping, or turning on a slope. If the tires lose traction, disengage the PTO and proceed slowly, straight down the slope.

Keep all movement on slopes slow and gradual. Do not make sudden changes in speed or direction, which could cause the machine to roll over.

DX,WW,SLOPE-19-28FEB17

Freeing a Mired Machine



TS1645—UN—15SEP95

TS263—UN—23AUG88

Attempting to free a mired machine can involve safety hazards such as the mired tractor tipping rearward, the towing tractor overturning, and the tow chain or tow bar (a cable is not recommended) failing and recoiling from its stretched condition.

Back your tractor out if it gets mired down in mud. Unhitch any towed implements. Dig mud from behind the rear wheels. Place boards behind the wheels to provide a solid base and try to back out slowly. If necessary, dig mud from the front of all wheels and drive slowly ahead.

If necessary to tow with another unit, use a tow bar or a long chain (a cable is not recommended). Inspect the chain for flaws. Make sure all parts of towing devices are of adequate size and strong enough to handle the load.

Always hitch to the drawbar of the towing unit. Do not hitch to the front pushbar attachment point. Before

moving, clear the area of people. Apply power smoothly to take up the slack: a sudden pull could snap any towing device causing it to whip or recoil dangerously.

DX,MIRED-19-07JUL99

Avoid Contact with Agricultural Chemicals

TS220—UN—15APR13

TS272—UN—23AUG88

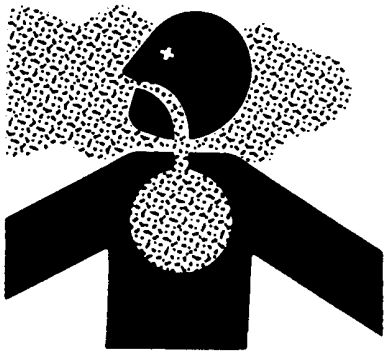
This enclosed cab does not protect against inhaling vapor, aerosol or dust. If pesticide use instructions require respiratory protection, wear an appropriate respirator inside the cab.

Before leaving the cab, wear personal protective equipment as required by the pesticide use instructions. When re-entering the cab, remove protective equipment and store either outside the cab in a closed box or some other type of sealable container or inside the cab in a pesticide resistant container, such as a plastic bag.

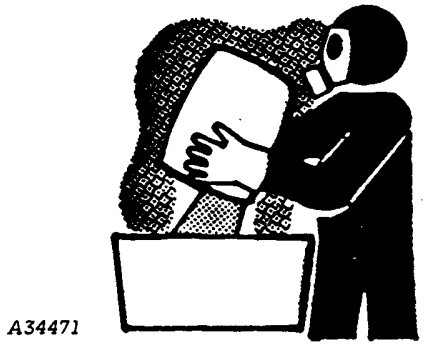
Clean your shoes or boots to remove soil or other contaminated particles prior to entering the cab.

DX,CABS-19-25MAR09

Handle Agricultural Chemicals Safely



TS220—UN—15APR13



A34471—UN—11OCT88

Chemicals used in agricultural applications such as fungicides, herbicides, insecticides, pesticides, rodenticides, and fertilizers can be harmful to your health or the environment if not used carefully.

Always follow all label directions for effective, safe, and legal use of agricultural chemicals.

Reduce risk of exposure and injury:

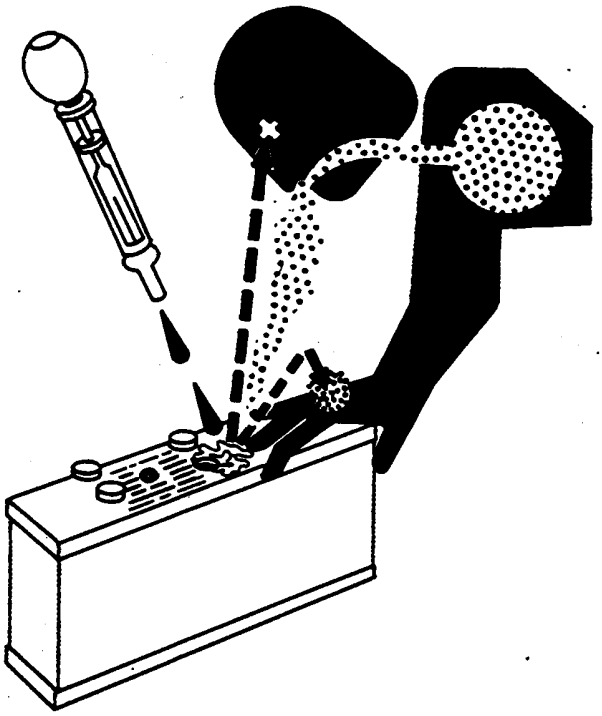
- Wear appropriate personal protective equipment as recommended by the manufacturer. In the absence of manufacturer's instructions, follow these general guidelines:
  - Chemicals labeled **'Danger'**: Most toxic. Generally require use of goggles, respirator, gloves, and skin protection.
  - Chemicals labeled **'Warning'**: Less toxic. Generally require use of goggles, gloves, and skin protections.
  - Chemicals labeled **'Caution'**: Least toxic. Generally require use of gloves and skin protection.
- Avoid inhaling vapor, aerosol or dust.
- Always have soap, water, and towel available when working with chemicals. If chemical contacts skin, hands, or face, wash immediately with soap and water. If chemical gets into eyes, flush immediately with water.
- Wash hands and face after using chemicals and before eating, drinking, smoking, or urination.
- Do not smoke or eat while applying chemicals.

- After handling chemicals, always bathe or shower and change clothes. Wash clothing before wearing again.
- Seek medical attention immediately if illness occurs during or shortly after use of chemicals.
- Keep chemicals in original containers. Do not transfer chemicals to unmarked containers or to containers used for food or drink.
- Store chemicals in a secure, locked area away from human or livestock food. Keep children away.
- Always dispose of containers properly. Triple rinse empty containers and puncture or crush containers and dispose of properly.

DX,WW,CHEM01-19-24AUG10

Handling Batteries Safely

TS204—UN—15APR13



TS203—UN—23AUG88

Battery gas can explode. Keep sparks and flames away from batteries. Use a flashlight to check battery electrolyte level.

Never check battery charge by placing a metal object across the posts. Use a voltmeter or hydrometer.

Always remove grounded (-) battery clamp first and replace grounded clamp last.

Sulfuric acid in battery electrolyte is poisonous and strong enough to burn skin, eat holes in clothing, and cause blindness if splashed into eyes.

Avoid hazards by:

- Filling batteries in a well-ventilated area
- Wearing eye protection and rubber gloves
- Avoiding use of air pressure to clean batteries
- Avoiding breathing fumes when electrolyte is added
- Avoiding spilling or dripping electrolyte
- Using correct battery booster or charger procedure.

If acid is spilled on skin or in eyes:

1. Flush skin with water.
2. Apply baking soda or lime to help neutralize the acid.
3. Flush eyes with water for 15—30 minutes. Get medical attention immediately.

If acid is swallowed:

1. Do not induce vomiting.

2. Drink large amounts of water or milk, but do not exceed 2 L (2 qt.).
3. Get medical attention immediately.

WARNING: Battery posts, terminals, and related accessories contain lead and lead compounds, chemicals known to the State of California to cause cancer and reproductive harm. **Wash hands after handling.**

DX,WW,BATTERIES-19-02DEC10

Avoid Heating Near Pressurized Fluid Lines

TS953—UN—15MAY90

Flammable spray can be generated by heating near pressurized fluid lines, resulting in severe burns to yourself and bystanders. Do not heat by welding, soldering, or using a torch near pressurized fluid lines or other flammable materials. Pressurized lines can accidentally burst when heat goes beyond the immediate flame area.

DX,TORCH-19-10DEC04

Remove Paint Before Welding or Heating

TS220—UN—15APR13

Avoid potentially toxic fumes and dust.

Hazardous fumes can be generated when paint is heated by welding, soldering, or using a torch.

Remove paint before heating:

- Remove paint a minimum of 100 mm (4 in.) from area to be affected by heating. If paint cannot be removed, wear an approved respirator before heating or welding.
- If you sand or grind paint, avoid breathing the dust. Wear an approved respirator.
- If you use solvent or paint stripper, remove stripper with soap and water before welding. Remove solvent or paint stripper containers and other flammable material from area. Allow fumes to disperse at least 15 minutes before welding or heating.

Do not use a chlorinated solvent in areas where welding will take place.

Do all work in an area that is well ventilated to carry toxic fumes and dust away.

Dispose of paint and solvent properly.

DX,PAINT-19-24JUL02

Handle Electronic Components and Brackets Safely

TS249—UN—23AUG88

Falling while installing or removing electronic components mounted on equipment can cause serious injury. Use a ladder or platform to easily reach each mounting location. Use sturdy and secure footholds and handholds. Do not install or remove components in wet or icy conditions.

If installing or servicing a RTK base station on a tower or other tall structure, use a certified climber.

If installing or servicing a global positioning receiver mast used on an implement, use proper lifting techniques and wear proper protective equipment. The mast is heavy and can be awkward to handle. Two people are required when mounting locations are not accessible from the ground or from a service platform.

DX,WW,RECEIVER-19-24AUG10

Practice Safe Maintenance

TS218—UN—23AUG88

Understand service procedure before doing work. Keep area clean and dry.

Never lubricate, service, or adjust machine while it is moving. Keep hands, feet, and clothing away from power-driven parts. Disengage all power and operate controls to relieve pressure. Lower equipment to the ground. Stop the engine. Remove the key. Allow machine to cool.

Securely support any machine elements that must be raised for service work.

Keep all parts in good condition and properly installed. Fix damage immediately. Replace worn or broken parts. Remove any buildup of grease, oil, or debris.

On self-propelled equipment, disconnect battery ground cable (-) before making adjustments on electrical systems or welding on machine.

On towed implements, disconnect wiring harnesses from tractor before servicing electrical system components or welding on machine.

Falling while cleaning or working at height can cause serious injury. Use a ladder or platform to easily reach each location. Use sturdy and secure footholds and handholds.

DX,SERV-19-28FEB17

Avoid Hot Exhaust

RG17488—UN—21AUG09

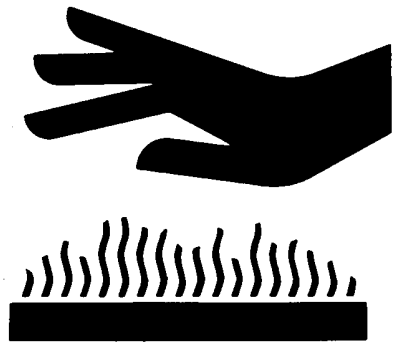
Servicing machine or attachments with engine running can result in serious personal injury. Avoid exposure and skin contact with hot exhaust gases and components.

Exhaust parts and streams become very hot during operation. Exhaust gases and components reach temperatures hot enough to burn people, ignite, or melt common materials.

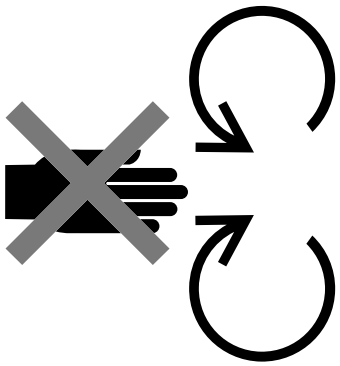
DX,EXHAUST-19-20AUG09

Clean Exhaust Filter Safely

TS227—UN—15APR13



TS271—UN—23AUG88



TS1693—UN—09DEC09

TS1695—UN—07DEC09

During exhaust filter cleaning operations, the engine may run at elevated idle and hot temperatures for an extended period of time. Exhaust gases and exhaust filter components reach temperatures hot enough to burn people, or ignite or melt common materials.

Keep machine away from people, animals, or structures which may be susceptible to harm or damage from hot exhaust gases or components. Avoid potential fire or explosion hazards from flammable materials and vapors near the exhaust. Keep exhaust outlet away from people and anything that can melt, burn, or explode.

Closely monitor machine and surrounding area for smoldering debris during and after exhaust filter cleaning.

Adding fuel while an engine is running can create a fire or explosion hazard. Always stop engine before refueling machine and clean up any spilled fuel.

Always make sure that engine is stopped while hauling machine on a truck or trailer.

Contact with exhaust components while still hot can result in serious personal injury.

Avoid contact with these components until cooled to safe temperatures.

If service procedure requires engine to be running:

- Only engage power-driven parts required by service procedure
- Ensure that other people are clear of operator station and machine

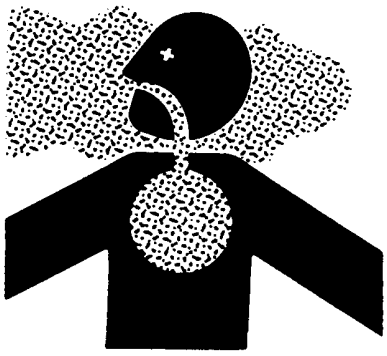
Keep hands, feet, and clothing away from power-driven parts.

Always disable movement (neutral), set the parking brake or mechanism and disconnect power to attachments or tools before leaving the operator's station.

Shut off engine and remove key (if equipped) before leaving the machine unattended.

DX,EXHAUST,FILTER-19-12JAN11

Work In Ventilated Area



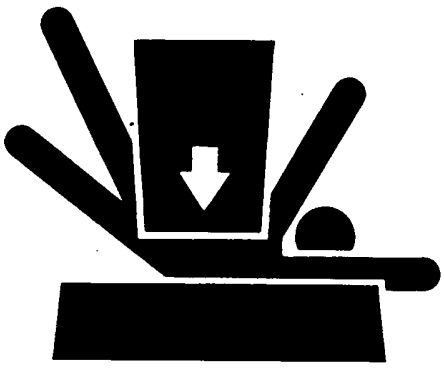
TS220—UN—15APR13

Engine exhaust fumes can cause sickness or death. If it is necessary to run an engine in an enclosed area, remove the exhaust fumes from the area with an exhaust pipe extension.

If you do not have an exhaust pipe extension, open the doors and get outside air into the area.

DX,AIR-19-17FEB99

Support Machine Properly



TS229—UN—23AUG88

Always lower the attachment or implement to the ground before you work on the machine. If the work requires that the machine or attachment be lifted, provide secure support for them. If left in a raised position, hydraulically supported devices can settle or leak down.

Do not support the machine on cinder blocks, hollow tiles, or props that may crumble under continuous load.

Do not work under a machine that is supported solely by a jack. Follow recommended procedures in this manual.

When implements or attachments are used with a machine, always follow safety precautions listed in the implement or attachment operator's manual.

DX,LOWER-19-24FEB00

Prevent Machine Runaway

TS177—UN—11JAN89

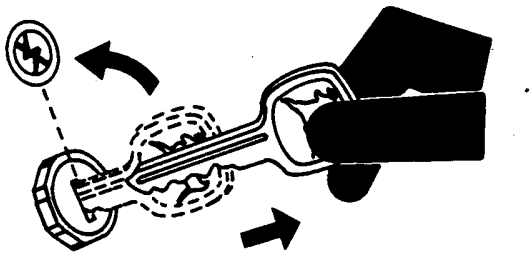
Avoid possible injury or death from machinery runaway.

Do not start engine by shorting across starter terminals. Machine will start in gear if normal circuitry is bypassed.

NEVER start engine while standing on ground. Start engine only from operator’s seat, with transmission in neutral or park.

DX,BYPAS1-19-29SEP98

Park Machine Safely



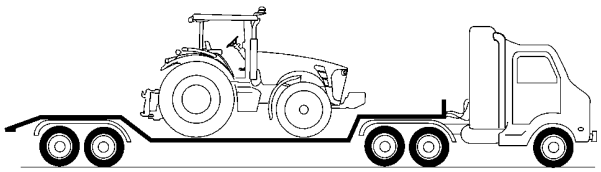
TS230—UN—24MAY89

Before working on the machine:

- Lower all equipment to the ground.
- Stop the engine and remove the key.
- Disconnect the battery ground strap.
- Hang a "DO NOT OPERATE" tag in operator station.

DX,PARK-19-04JUN90

Transport Tractor Safely



RXA0103709—UN—01JUL09

A disabled tractor is best transported on a flatbed carrier. Use chains to secure the tractor to the carrier. The axles and tractor frame are suitable attachment points.

Before transporting the tractor on a low-loader truck or flatbed rail wagon, make sure that the hood is secured over the tractor engine and that doors, roof hatch (if equipped) and windows are properly closed.

Never tow a tractor at a speed greater than 10 km/h (6 mph). An operator must steer and brake the tractor under tow.

DX,WW,TRANSPORT-19-19AUG09

Service Cooling System Safely

TS281—UN—15APR13

Explosive release of fluids from pressurized cooling system can cause serious burns.

Shut off engine. Only remove filler cap when cool enough to touch with bare hands. Slowly loosen cap to first stop to relieve pressure before removing completely.

DX,WW,COOLING-19-19AUG09

Service Accumulator Systems Safely

TS281—UN—15APR13

Escaping fluid or gas from systems with pressurized accumulators that are used in air conditioning, hydraulic, and air brake systems can cause serious injury. Extreme heat can cause the accumulator to burst, and pressurized lines can be accidentally cut. Do not weld or use a torch near a pressurized accumulator or pressurized line.

Relieve pressure from the pressurized system before removing accumulator.

Relieve pressure from the hydraulic system before removing accumulator. Never attempt to relieve hydraulic system or accumulator pressure by loosening a fitting.

Accumulators cannot be repaired.

DX,WW,ACCLA2-19-22AUG03

Service Tires Safely

RXA0103438—UN—11JUN09

Explosive separation of a tire and rim parts can cause serious injury or death.

Do not attempt to mount a tire unless you have the proper equipment and experience to perform the job.

Always maintain the correct tire pressure. Do not inflate the tires above the recommended pressure. Never weld or heat a wheel and tire assembly. The heat can cause an increase in air pressure resulting in a tire explosion. Welding can structurally weaken or deform the wheel.

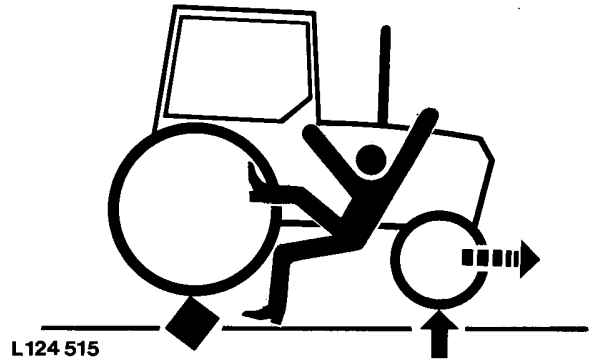
When inflating tires, use a clip-on chuck and extension hose long enough to allow you to stand to one side and NOT in front of or over the tire assembly. Use a safety cage if available.

Check wheels for low pressure, cuts, bubbles, damaged rims, or missing lug bolts and nuts.

Wheels and tires are heavy. When handling wheels and tires use a safe lifting device or get an assistant to help lift, install, or remove.

DX,WW,RIMS-19-28FEB17

Service Front-Wheel Drive Tractor Safely

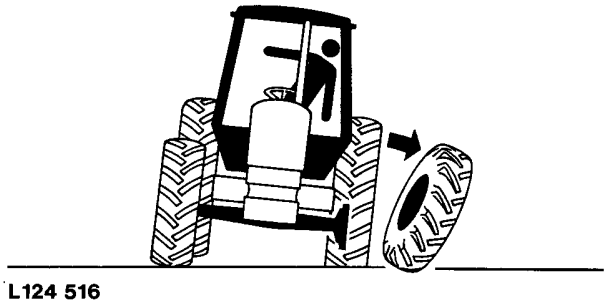


L124515—UN—06AUG94

When servicing front-wheel drive tractor with the rear wheels supported off the ground and rotating wheels by engine power, always support front wheels in a similar manner. Loss of electrical power or transmission hydraulic system pressure will engage the front driving wheels, pulling the rear wheels off the support if front wheels are not raised. Under these conditions, front drive wheels can engage even with switch in disengaged position.

DX,WW,MFWD-19-19AUG09

Tightening Wheel Retaining Bolts/Nuts

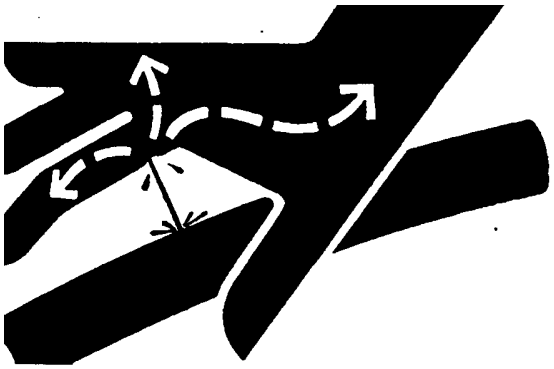


L124516—UN—03JAN95

Torque wheel retaining bolts/nuts at the intervals specified in section Break-In Period and Service.

DX,WW,WHEEL-19-12OCT11

Avoid High-Pressure Fluids



X9811—UN—23AUG88

Inspect hydraulic hoses periodically – at least once per year – for leakage, kinking, cuts, cracks, abrasion, blisters, corrosion, exposed wire braid or any other signs of wear or damage.

Replace worn or damaged hose assemblies immediately with John Deere approved replacement parts.

Escaping fluid under pressure can penetrate the skin causing serious injury.

Avoid the hazard by relieving pressure before disconnecting hydraulic or other lines. Tighten all connections before applying pressure.

Search for leaks with a piece of cardboard. Protect hands and body from high-pressure fluids.

If an accident occurs, see a doctor immediately. Any fluid injected into the skin must be surgically removed within a few hours or gangrene may result. Doctors unfamiliar with this type of injury should reference a knowledgeable medical source. Such information is available in English from Deere & Company Medical Department in Moline, Illinois, U.S.A., by calling 1-800-822-8262 or +1 309-748-5636.

DX,FLUID-19-12OCT11

Do Not Open High-Pressure Fuel System

TS1343—UN—18MAR92

High-pressure fluid remaining in fuel lines can cause serious injury. Do not disconnect or attempt repair of fuel lines, sensors, or any other components between the high-pressure fuel pump and nozzles on engines with High Pressure Common Rail (HPCR) fuel system.

Only technicians familiar with this type of system can perform repairs. (See your John Deere dealer.)

DX,WW,HPCR1-19-07JAN03

Store Attachments Safely

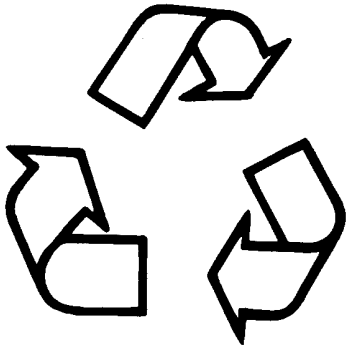
TS219—UN—23AUG88

Stored attachments such as dual wheels, cage wheels, and loaders can fall and cause serious injury or death.

Securely store attachments and implements to prevent falling. Keep playing children and bystanders away from storage area.

DX,STORE-19-03MAR93

Decommissioning — Proper Recycling and Disposal of Fluids and Components



TS1133—UN—15APR13

Safety and environmental stewardship measures must be taken into account when decommissioning a machine and/or component. These measures include the following:

- Use appropriate tools and personal protective equipment such as clothing, gloves, face shields or glasses, during the removal or handling of objects and materials.
- Follow instructions for specialized components.
- Release stored energy by lowering suspended machine elements, relaxing springs, disconnecting

the battery or other electrical power, and releasing pressure in hydraulic components, accumulators, and other similar systems.

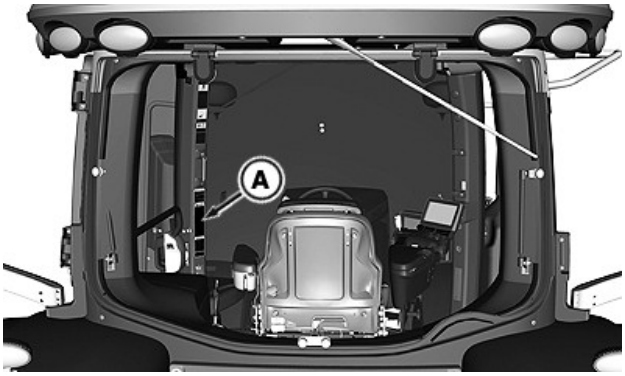
- Minimize exposure to components which may have residue from agricultural chemicals, such as fertilizers and pesticides. Handle and dispose of these components appropriately.
- Carefully drain engines, fuel tanks, radiators, hydraulic cylinders, reservoirs, and lines before recycling components. Use leak-proof containers when draining fluids. Do not use food or beverage containers.
- Do not pour waste fluids onto the ground, down a drain, or into any water source.
- Observe all national, state, and local laws, regulations, or ordinances governing the handling or disposal of waste fluids (example: oil, fuel, coolant, brake fluid); filters; batteries; and, other substances or parts. Burning of flammable fluids or components in other than specially designed incinerators may be prohibited by law and could result in exposure to harmful fumes or ashes.
- Service and dispose of air conditioning systems appropriately. Government regulations may require a certified service center to recover and recycle air conditioning refrigerants which could damage the atmosphere if allowed to escape.
- Evaluate recycling options for tires, metal, plastic, glass, rubber, and electronic components which may be recyclable, in part or completely.
- Contact your local environmental or recycling center, or your John Deere dealer for information on the proper way to recycle or dispose of waste.

DX,DRAIN-19-01JUN15

Safety Signs

Operator's Manual

RXA0149693—19—18AUG15



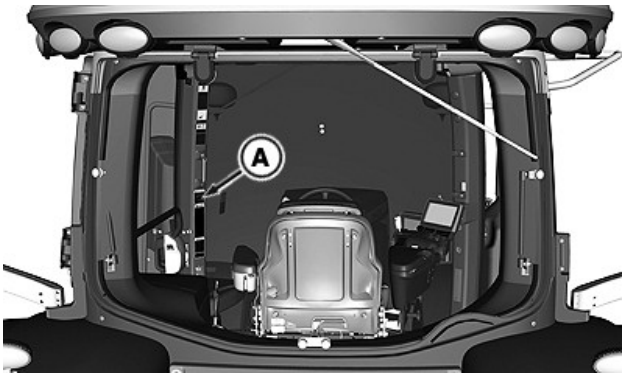
RXA0143795—UN—18JUL14

A—Before Operating Tractor Label

RD47322,0000689-19-01DEC17

Instructional Seat (If Equipped)

RXA0139152—19—07FEB14

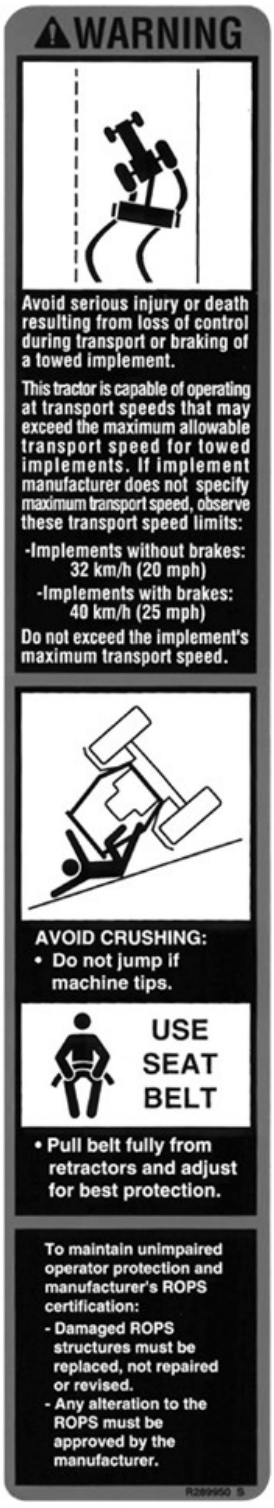


RXA0143797—UN—18JUL14

A—Instructional Seat Label

RD47322,0000668-19-01DEC17

Seat Belt



RXA0161467—19—30NOV17

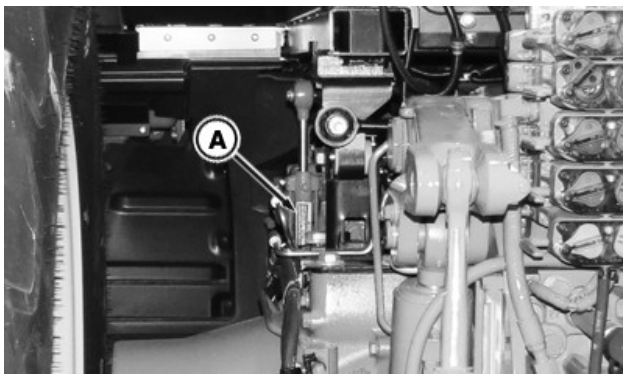
RXA0143796—UN—18JUL14

A—Transport and ROPS Warning Label

RD47322,000068A-19-01DEC17

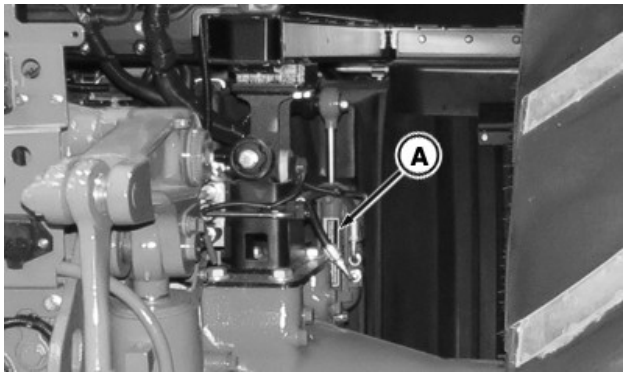
Cab Suspension With Hydraulic Accumulators (If Equipped)

RXA0146397—19—20NOV14



RXA0134885—UN—05AUG13

Cab Suspension Cylinder Label - Left Side



RXA0134886—UN—05AUG13

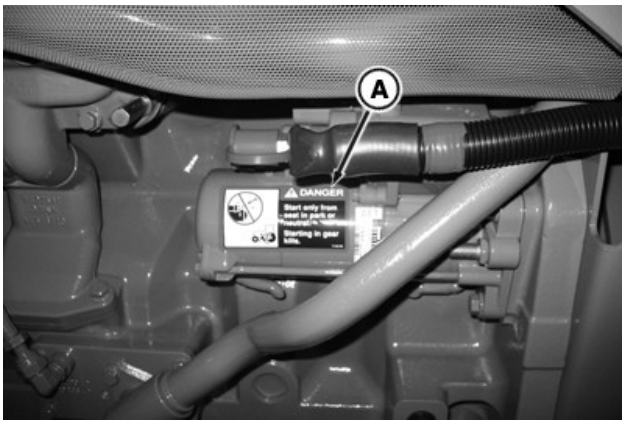
Cab Suspension Cylinder Label - Right Side

A—Cab Suspension Label

RD47322,000004E-19-21AUG18

Starter

RXA0146409—19—26NOV14

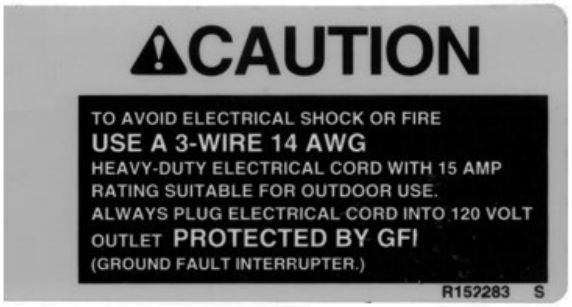


RXA0135942—UN—07OCT13

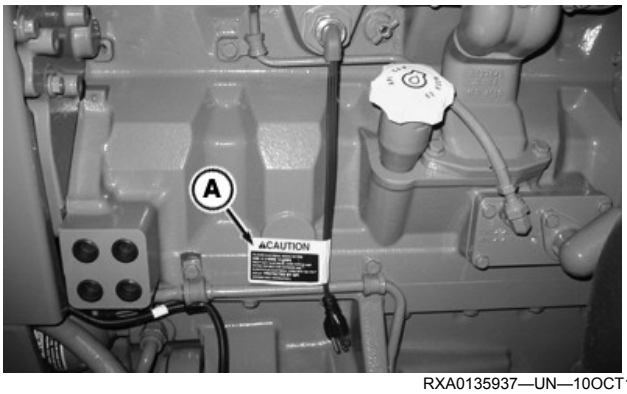
A—Starter Label

RD47322,0000199-19-01DEC17

Engine Block Heater (If Equipped)



RXA0131967—19—15APR13



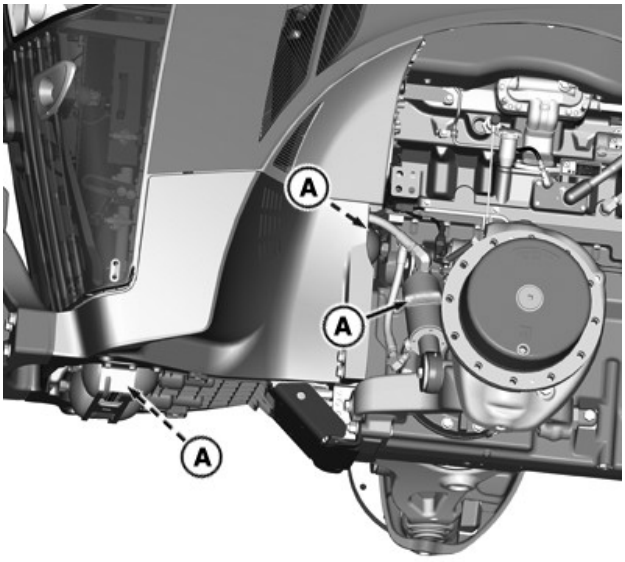
RXA0135937—UN—10OCT13

A—Engine Heater Label

RD47322,00002D1-19-01DEC17

ILS™ (If Equipped)

RXA0146397—19—20NOV14



RXA0143801—UN—22JUL14

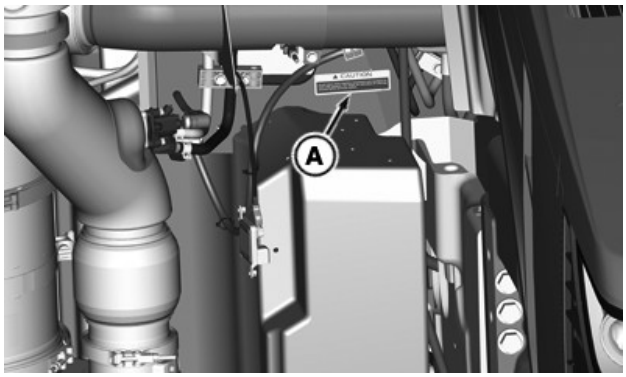
A— ILS™ Label (Left-Hand and Right-Hand)

RD47322,000019A-19-01DEC17

ILS is a trademark of Deere & Company

Brake Accumulator (If Equipped)

RXA0146397—19—20NOV14



RXA0135968—UN—07OCT13

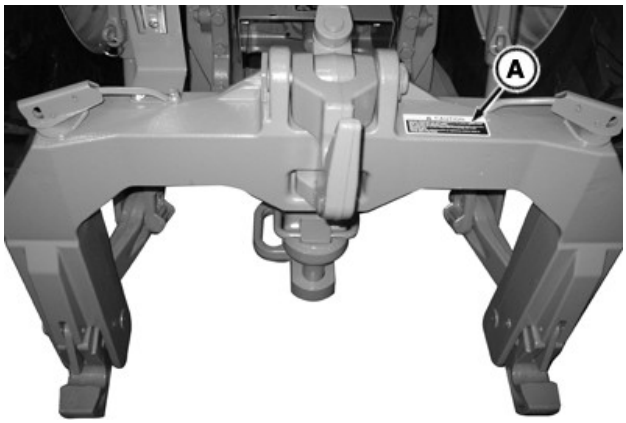
Brake Accumulator Label (Behind Right Front Aftertreatment Device Panel Exhaust - Near Exhaust)

A— Brake Accumulator Label

RD47732,000019B-19-01DEC17

Quick-Hitch (If Equipped)

RXA0146404—19—21NOV14



RXA0135941—UN—10OCT13

A— Quick-Hitch Label

RD47322,000019C-19-13JUL18

Front PTO (If Equipped)

RXA0146423—19—01DEC14

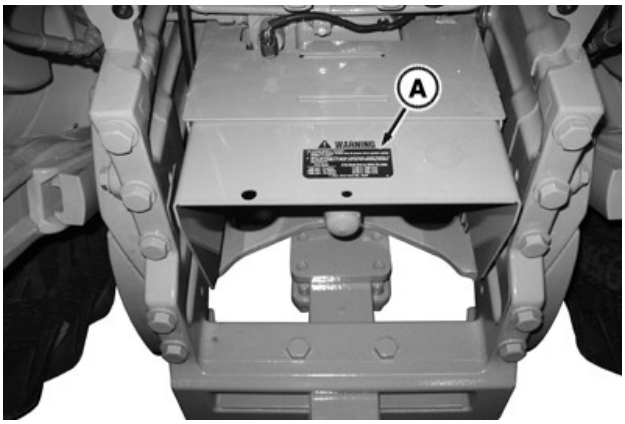
RXA0126055—UN—20APR12

A— Front PTO Label

RD47322,00002F8-19-01DEC17

Rear PTO Shield

RXA0146396—19—21NOV14

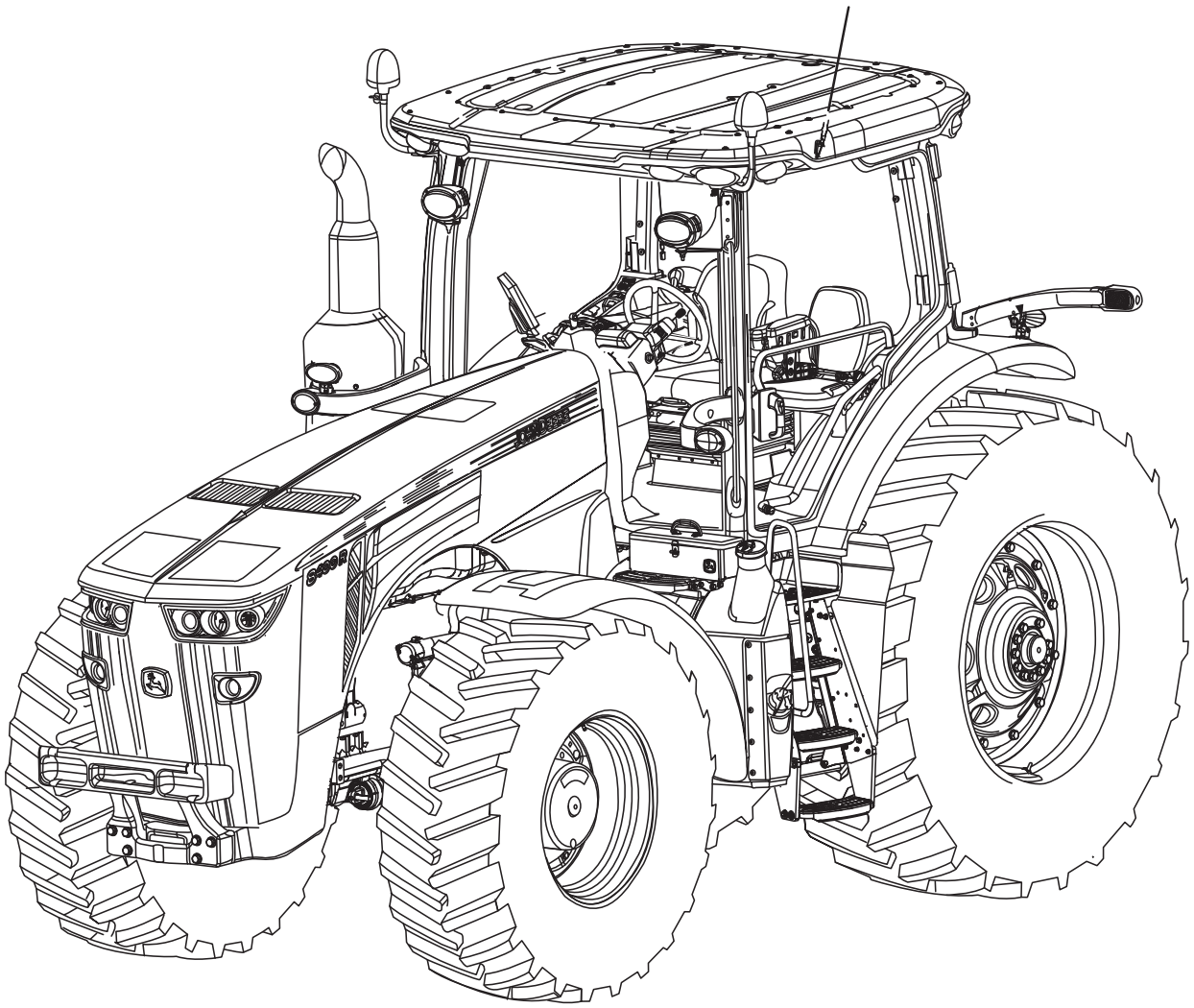


RXA0135940—UN—07OCT13

A— Rear PTO Label

RD47322,000019D-19-01DEC17

8R Series Tractor



RXA0159584—UN—14JUN17

8R Series Tractor (Typical)

KD34109,0000236-19-02JUN17

Operator’s Manual Use

This tractor Operator’s Manual contains information primarily for machine operation and routine maintenance. It is not a detailed service manual. More detailed service information, is available in the appropriate Technical Manual. See your John Deere dealer.

CAUTION: Reduce the possibility of injury or equipment damage. Before operating the tractor by itself, or in conjunction with a mounted implement or trailer become fully familiar with operating characteristics of all equipment. Carefully read appropriate tractor and implement Operator’s Manuals.

Operator’s Manuals and safety decals on this tractor and mounted implements and trailers provide important information on how to operate the equipment in the best manner possible. Thus, it is important for all users to make themselves thoroughly familiar with this information prior to starting any operations.

KT81203,000042B-19-22NOV16

8R Series Tractor

Your 8R Series Tractor has a high power density because of its low overall machine weight and high horsepower rating. Efficiency features found on its transmission, make your tractor an excellent choice in field work and for transport applications such as silage or manure hauling because they provide fast acceleration and low total fluid economy.

World-class efficiency is combined with increased horsepower to push productivity to higher levels than ever before. Intelligent Power Management (IPM) provides a horsepower increase during PTO and transport applications for full PTO power and speed.

The tractor's quiet, comfortable, and intuitive CommandView™ III Cab provides a secure base of operations. A totally redesigned CommandARM™, ten inch CommandCenter™ Display, and a seat with 40-degrees of swivel, help keep you comfortable and productive during long hours spent in the cab.

KD34109,0000238-19-24APR17

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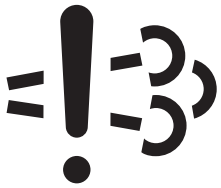
Required Machine Stop Warning

Machine Stop Mandate Occurs



RG22491—UN—21AUG13

IMPORTANT: In some situations, machine engine power may be reduced as described. On notification, immediately place the machine in a safe state and or move it to a safe location. A mandated machine stop can only be removed by a service technician.

Engine Emissions System Malfunction Indicator illuminates when an emission-related fault occurs.

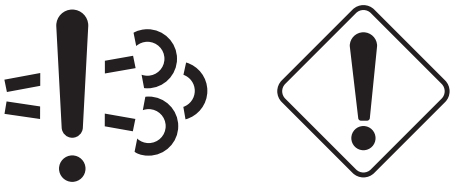
RG22492—UN—21AUG13

Warning Indicator illuminates when a condition exists which requires operator action.

RG22493—UN—21AUG13

Engine Stop Indicator illuminates when a condition exists which requires immediate operator action and service.

Emission System Fault Has Occurred



RG26361—UN—04SEP14

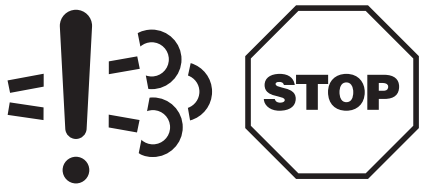
30 minutes remaining, Engine Emissions System Malfunction and Warning Indicators are illuminated and alarm sounds to warn operator of emissions-related fault. “Less than 30 minutes to Power Restriction” displayed on machines with display.

- Engine power is normal.
- Machine operation is normal.
- Place machine in a safe state.
- Contact service provider.

RG26972—UN—26MAR15

20 minutes remaining, Engine Emissions System Malfunction and Engine Stop Indicators are illuminated and alarm sounds to warn operator of emissions-related fault. “Less than 20 minutes to Power Restriction” displayed on machines with displays.

- Engine power and torque are reduced.
- Key Off - Key On will temporarily provide full power.
- Place machine in a safe state.
- Contact service provider.



RG26972—UN—26MAR15

2 minutes or less remaining, Engine Emissions System Malfunction and Engine Stop Indicators are illuminated and alarm sounds to warn operator of emissions-related fault which has not been corrected. “Power Restriction” displayed on machines with displays.

- Engine power is idle only.
- Place machine in a safe state.
- Contact service provider.

DX,MACHSTOPWARN,AG-19-02OCT15

Engine Fuel System and Power Rating

Fuel System

IMPORTANT: Modification or alteration of injection system or emission control devices will terminate warranty to purchaser.

Do not attempt to service injection system. Special training and special tools are required. See your John Deere dealer.

Engine Certification/Power Rating

kW (hp) rating on engine emissions certification label specifies gross engine kW (hp), which is flywheel power without fan.

TS36762,0000174-19-18NOV16

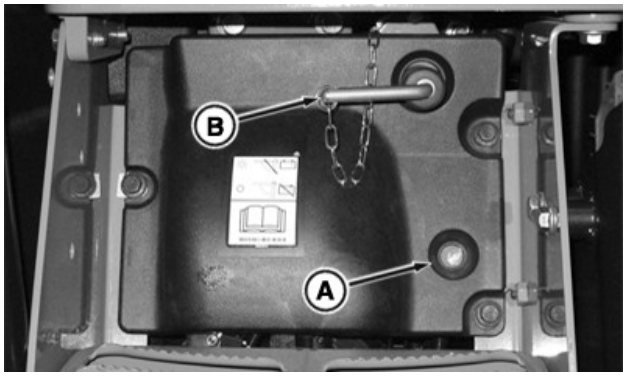
Battery Disconnect Switch

CAUTION: Avoid injury or damage to tractor systems from inadvertent contact with electrical power. Disconnect battery when directed.

IMPORTANT: Never turn power off with the battery disconnect switch while engine is running. This could result in serious damage to tractor electrical components.

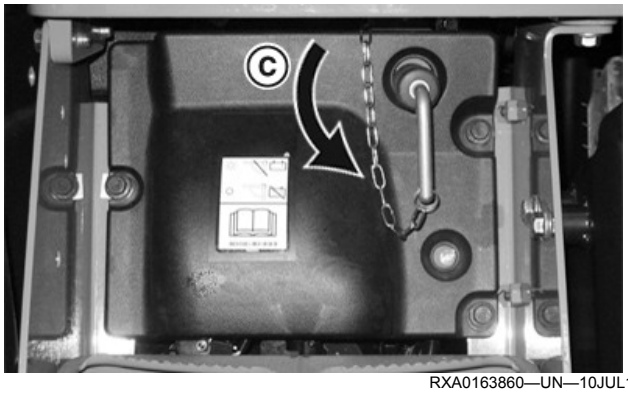
During a long storage period, always turn battery disconnect switch to off position. If battery disconnect switch is left on, battery could lose charge.

1. Stop tractor and place transmission into PARK.



RXA0163859—UN—10JUL18

IMPORTANT: Prevent damage to tractor emissions system. Tractor is equipped with an engine which uses a Selective Catalytic Reduction (SCR) system. Electrical power must be maintained during automatic purge of Diesel Exhaust Fluid (DEF). Light (A) is illuminated during DEF purge. If full system is not purged, any DEF remaining can crystallize and plug system. At temperatures below -15°C (5°F), unpurged DEF freezes and may damage system components. Light is illuminated during Diesel Exhaust Fluid (DEF) purge from system. Do not turn off disconnect switch (B) until light goes out.

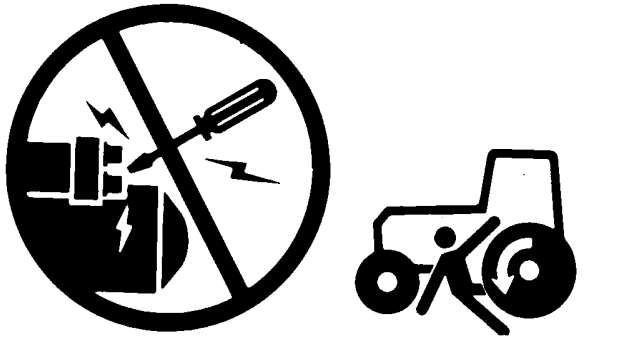


RXA0163860—UN—10JUL18

2. When battery disconnect switch indicator light has gone out, turn disconnect switch off (C).

RX32825,000000E-19-17JUL18

Start the Engine



TS177—UN—11JAN89

CAUTION: Avoid possibility of personal injury or death. Engine starting with shift lever in gear indicates malfunction of starting circuit. Repair immediately. See your John Deere™ dealer.

Do not start engine by shorting across starter terminals. Tractor will start in gear if normal circuitry is bypassed. Start engine ONLY from operator seat.

Before Starting Tractor

1. Move SCV levers to NEUTRAL position.
2. Disengage PTO.
3. Move hand throttle to slow idle position.
4. Move transmission shift lever to PARK position.

CAUTION: Avoid possibility of serious injury or death. Be sure tractor and attached equipment are clear of people and other objects.

5. Depress clutch and brake pedals.
6. Sound horn.

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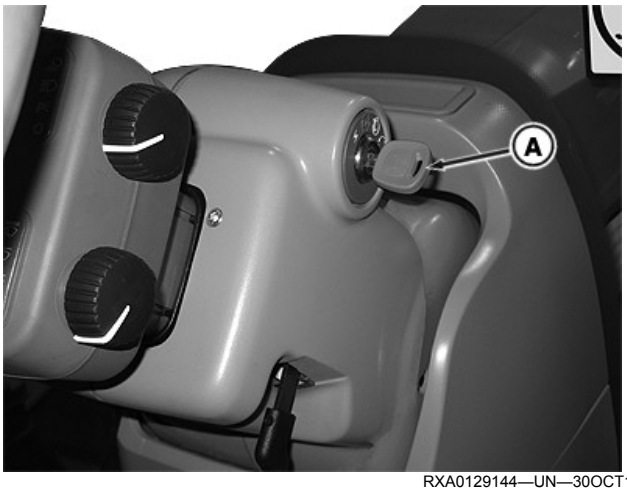

RXA0129144—UN—30OCT12

7. Turn key switch (A) to engage starter. Release key when engine starts.

IMPORTANT: Avoid starter damage. Do not operate starter more than 30 seconds. Wait at least two minutes before trying again.

If Engine Fails To Start:

Check quantity and quality of fuel.

Check electrical system.

In cold weather (at or below -6 °C (21 °F)), follow steps listed in appropriate Cold Weather Starting topic in Cold Weather Operation section of this Operator's Manual.

Engine speed is limited to 1440 rpm based on transmission type and transmission-hydraulic oil temperature:

- 16-speed Powershift transmission - temperature below -18 °C (0 °F).
- e23™ transmission - temperature below -18 °C (0 °F).
- IVT™ /AutoPowr™ transmission - temperature below -5 °C (23 °F).

If engine fails to start after three attempts, see your John Deere™ dealer.

KT81203,0000133-19-29JUN17

Run the Engine

IMPORTANT: Do not start engine with throttle pushed completely forward.

Avoid excessive engine idling (more than 5 minutes). Prolonged idling may cause engine coolant temperature to fall below normal range. Prolonged idling causes crankcase oil dilution, due to incomplete fuel combustion, and permits formation of gummy deposits on valves, pistons, and piston rings. It promotes rapid accumulation of engine sludge and unburned fuel in exhaust system.

Operate engine between 1500—2100 rpm. Do not operate engine constantly below 1500 rpm during heavy draft usage or when tractor is under full PTO load.

For maximum tractor performance:

- Ensure that tractor is correctly ballasted (see Performance Ballasting section of this Operator's Manual).
- For 16-speed Powershift transmission, see 16-Speed Powershift Transmission section of this Operator's Manual.
- For e23™ transmission, see 23™ Transmission section of this Operator's Manual.
- For IVT™/AutoPowr™ transmission, see IVT™/AutoPowr™ Transmission section of this Operator's Manual.

If engine stalls, start immediately to provide lubrication to critical engine parts.

Allow engine to idle for 20 seconds before turning key switch to OFF position.

Contact your John Deere™ dealer if any symptoms that may be early signs of engine problems are detected:

- Sudden drop in oil pressure
- Abnormal coolant temperatures
- Unusual noise or vibration
- Sudden loss of power
- Excessive fuel consumption
- Excessive oil consumption
- Fluid leaks

KT81203,0000134-19-30JAN17

Stop the Engine

IMPORTANT: Before stopping an engine that has been operating at working load, idle engine at least 2 minutes at 1000—1200 rpm to cool hot engine parts. If an Exhaust Filter Cleaning has just been performed, increase engine idle time to 4 minutes. If service work is going to be performed on exhaust filter, increase engine idle time to 10 minutes.

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AutoPowr is a trademark of Deere & Company
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IMPORTANT: Prevent damage to tractor emissions system. Battery disconnect switch with indicator light: Tractor is equipped with an engine which uses a Selective Catalytic Reduction (SCR) system. Light is illuminated during Diesel Exhaust Fluid (DEF) purge from system. Do not turn disconnect switch off until light goes out.

Battery disconnect switch without indicator light: Engine not equipped with SCR system. No waiting period is required before turning off switch.

See Battery Disconnect Switch in Engine Operation section of this Operator's Manual.

1. Pull throttle back to slow idle position.
2. Depress clutch and brake pedals.
3. Put transmission in PARK position.
4. Lower all equipment to ground.
5. Make sure SCV levers are in NEUTRAL position.
6. Pull rear and front PTO (if equipped) switches rearward to disengage PTO.

CAUTION: Remove key to help prevent accidents.

7. Turn key switch to OFF position and remove key.

TS36762,0000178-19-21AUG18

Restart Engine That Has Run Out of Fuel

1. Fill fuel tank.
2. Turn key switch to RUN position to start electric fuel pump and bleed air from fuel system.

NOTE: Steps two and three may need to be repeated as necessary if fuel tanks have been removed or drained.

3. Allow pump to run for 30 seconds to 1 minute before attempting to restart engine.

   Fuel pump will turn off after 1 minute. Key switch must be turned to OFF and back to RUN to turn pump back on.

TS36762,0000179-19-18NOV16

Reduce Fuel Consumption

Fuel consumption reduction guidelines:

- Replace air cleaner, fuel, engine oil, and transmission-hydraulic filter elements at specified service intervals (see Service - Change section of this Operator's Manual) or when indicated by CommandCenter™ display messages.
- Use recommended oils and lubricants only (see appropriate section in Fuel, Lubricants, and Coolant - General Information section of this Operator's Manual).
- Adjust hitch function for most efficient operation (see TouchSet™ Depth Control section of this Operator's Manual).
- Check tires for correct pressure weekly (see Front or Rear Wheels, Tires, and Treads section of this Operator's Manual).
- Ballast tractor for conditions (see Performance Ballasting section of this Operator's Manual).
- For gear transmissions, select correct gear. Always drive in highest possible gear with reduced engine speed. Choose gear so engine speed drops 150-250 rpm when tractor is operating and engine is under load (see appropriate transmission section of this Operator's Manual).

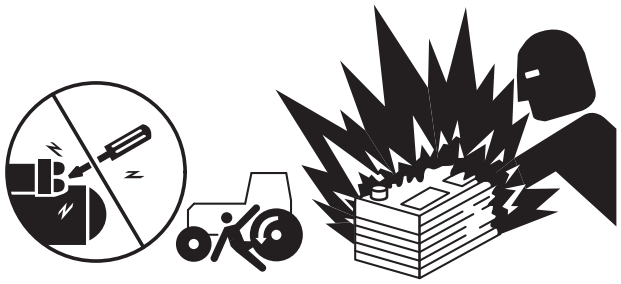
NOTE: For light work, reduce engine speed below 2000 rpm. Select gear so that engine speed drops 200—300 rpm when operating.

Using Maximum Set Speed may improve fuel economy (see Activate and Set Maximum Set Speed and Use Maximum Set Speed with Different Transmission Modes in Transmission - General Information section of this Operator's Manual).

- IVT™/AutoPowr™ transmissions provide additional fuel saving advantages (see IVT™/AutoPowr™ Transmission section of this Operator's Manual).

TS36762,000017A-19-13DEC16

Use Battery Booster or Charger



RXA0086722—UN—10FEB06

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IVT is a trademark of Deere & Company
AutoPowr is a trademark of Deere & Company

CAUTION: Gas given off by batteries is explosive. Keep sparks and flames away from batteries. Make last connection and first disconnection at point away from booster batteries.

CAUTION: Avoid possible injury or death from machinery runaway.

Do not start engine by shorting across starter terminals. Machine will start in gear if normal circuitry is bypassed.

NEVER start engine while standing on ground. Start engine only from operator's seat, with transmission in neutral or park.

IMPORTANT: Be sure polarity is correct before making connections. Reversed polarity will damage electrical system or possibly cause battery to explode.

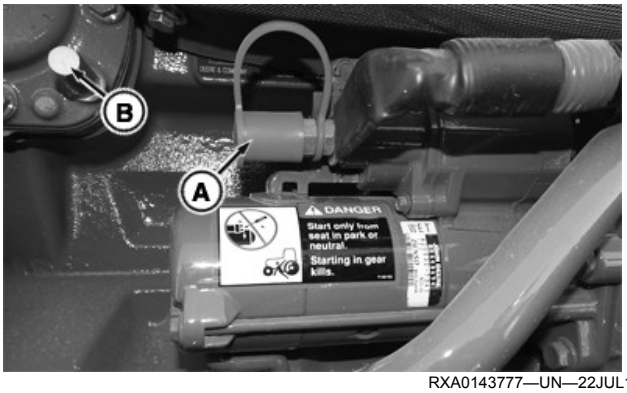
If two or more booster batteries are used, they must be connected in parallel ensuring booster batteries are producing 12 volt charge.

Prevent damage to tractor emissions system. Battery disconnect switch with indicator light: Tractor is equipped with an engine which uses a Selective Catalytic Reduction (SCR) system. Light is illuminated during Diesel Exhaust Fluid (DEF) purge from system. Do not turn disconnect switch off until light goes out.

Battery disconnect switch without indicator light: Engine not equipped with SCR system. No waiting period is required before turning off switch.

See Battery Disconnect Switch in Engine Operation section of this Operator's Manual.

Booster Battery



RXA0143777—UN—22JUL14

1. Remove cap and attach red cable to remote positive terminal (A) of starter and positive terminal of booster battery.
2. Attach black cable to negative terminal of booster battery. Attach other end to ground (B) on tractor frame.
3. Remove ground cable first when disconnecting.

Battery Charger

IMPORTANT: Set battery charger at nominal 12 volt and no more than 16 volt maximum.

1. Remove cap and attach positive charger lead to remote positive terminal with charger in OFF position. Attach negative charger lead to ground at tractor frame, away from batteries.
2. Switch charger to ON and charge battery according to charger manufacturers instructions.
3. Switch charger to OFF. Remove negative charger lead first, then positive lead.

EC82310,000041E-19-21AUG18

Cold Weather Operation

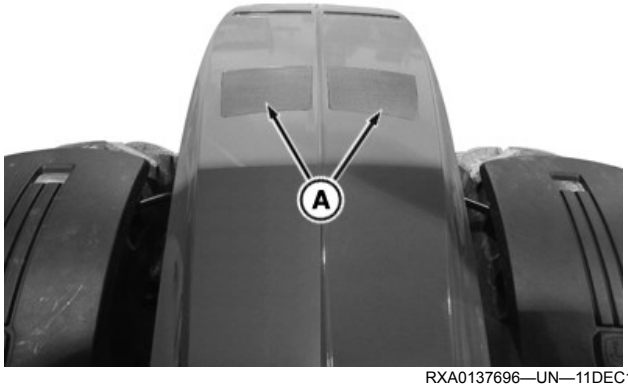
Cold Weather Starting—Without Starting Aid

TS1356—UN—18MAR92

CAUTION: Starting fluid is extremely flammable. While using this product do not smoke and make sure to extinguish all flames. Turn off all pilot lights, stoves, heaters, electrical motors, and other sources of ignition while using this product and/or if vapors are still present. Avoid contact of aerosol with battery terminals, solenoid, or other electrical/electronic components. Do not overuse this product. Keep cap on container and store in cool location when not in use.

NOTE: Use of starter fluid is recommended when starting tractor at or below -6 °C (21 °F) (See Cold Weather Starting—With Starting Aid in this section of this Operator's Manual).

A cold weather starting kit is available from your John Deere™ dealer.



RXA0137696—UN—11DEC13

1. Spray starting fluid into air intake screens (A) once for two or three seconds.
2. Follow steps as outlined in Start the Engine in Engine Operation section of this Operator's Manual.

   If Engine Fails to Start:

   Check quantity and quality of fuel.

   Check electrical system.

   If engine fails to start after three attempts, it may be necessary to consult your John Deere™ dealer.

GH15097,00003E1-19-30JUN17

Cold Weather Starting—With Starting Aid

CAUTION: Avoid personal injury and damage to engine. Inject fluid only while engine is turning. Follow safety information on the container. Do not carry starting fluid cans inside cab.

Starting fluid is highly flammable. While using this product do not smoke and make sure to extinguish all flames. Turn off all pilot lights, stoves, heaters, electrical motors, and other sources of ignition while using this product and/or if vapors are still present. Avoid contact of aerosol with battery terminals, solenoid, or other electrical/electronic components. Do not overuse this product. Keep cap on container and store in cool location when not in use.

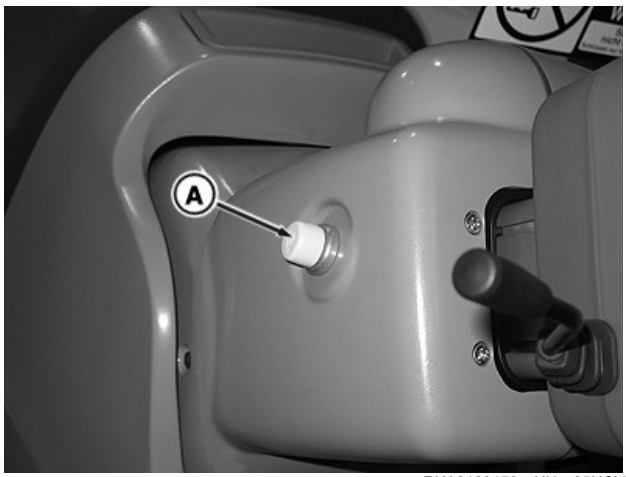
NOTE: Use of cold weather starting option is recommended when starting tractor at or below -6 ° C (21 °F).

1. Start tractor as described in Start the Engine in Engine Operation section of this Operator's Manual.

IMPORTANT: Avoid starter damage. Do not operate starter more than 30 seconds. Wait at least two minutes before trying again.

When applying starter fluid, if pre-ignition knocking is detected, stop using starter fluid immediately.

2. If engine refuses to start, complete these steps while engine is cranking:



RXA0129150—UN—05NOV12

- Press starter fluid button (A) in a series of quick taps rather than stream.

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- After series of taps (no more than three) on starter fluid button, release starter fluid button for three seconds.
- If engine attempts to start but falters, use tapping motion on starter fluid button sparingly and only until engine runs on its own.

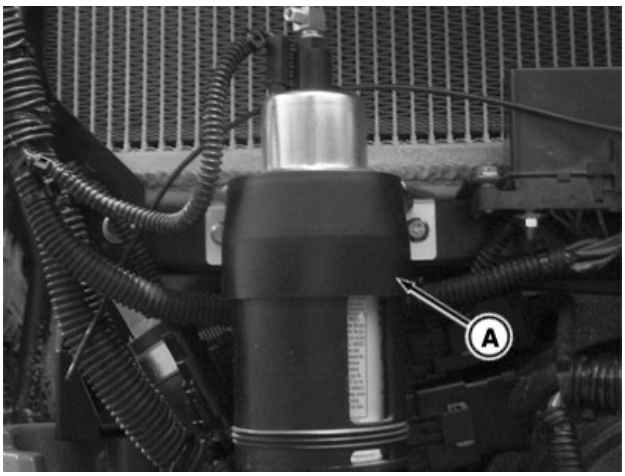
IMPORTANT: Idle engine at approximately 1000 rpm with no load for one to two minutes to assure adequate lubrication. Do not operate under full load until engine has reached normal operating temperature.

3. When engine starts, run engine at approximately 1000 rpm for two minutes.

GH15097,00003E2-19-30JUN17

Change Starting Fluid Canister

CAUTION: Do not use starting fluid near fire, sparks, or flames. Read caution information on container. Protect container against damage. Do not carry starting fluid canisters inside cab.



RXA0135276—UN—28AUG13

1. Access canister (A).Open hood, see Open Hood in Service-General Information section of this Operator's Manual.
2. Remove safety cap and plastic spray nozzle from new canister.

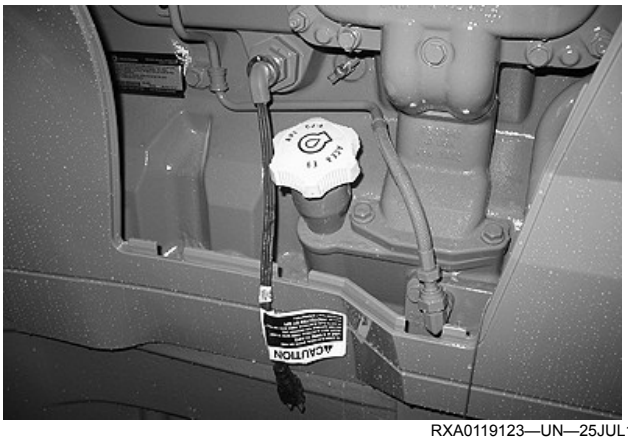
IMPORTANT: To avoid drawing dust into engine, always keep starting fluid canister installed bottom side up, clean and in position.

3. Loosen canister and remove old can.
4. Install new can and tighten canister.

TS36762,000017F-19-29NOV16

Auxiliary Heaters Use

TS210—UN—23AUG88



RXA0119123—UN—25JUL11

CAUTION: To avoid electrical shock or fire, use 3-wire, 14 AWG (14 gauge), heavy-duty electrical cord with 15 amp rating, suitable for outdoor use. Always plug electrical cord into 120 volt outlet protected by GFI (Ground Fault Interrupter).

Before connecting heater to power source, be sure that element is immersed in coolant. NEVER energize heater in air. Doing so can cause element sheath to burst causing personal injury.

IMPORTANT: Ground fault circuit interrupter on tractor protects tractor only, not electrical wiring supplying power to tractor. Test all ground fault interrupters before each use.

Your John Deere™ dealer has ground fault interrupter-equipped heaters:

- Engine Coolant (1000 W)
- Hydraulic Charge Pump (150 W)

Connect heaters and ground fault interrupter to ground fault protected 120 volt electrical outlet.

GH15097,00003E4-19-10JUL15

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Exhaust Filter System Overview—Final Tier 4/Stage V Engine

IMPORTANT: Disable exhaust filter cleaning when temporarily connected to an indoor ducted exhaust system for diagnostic and repair activities. See Auto Exhaust Filter Cleaning Mode—Final Tier 4/Stage V Engine in this Operator's Manual section.

Exhaust filter cleaning will automatically reset back to AUTO mode after every key cycle.

Do not disable automatic exhaust filter cleaning unless absolutely necessary. Repeated disabling or ignoring prompts to perform manual or parked cleaning procedure will cause additional engine power limitation and can eventually lead to required dealer service.

Tractor is equipped with emission compliant engine which cleans and filters exhaust gas. Under normal machine operation and with system in AUTO mode, system requires minimal operator interaction.

To avoid buildup of diesel particulates or soot in exhaust filter system:

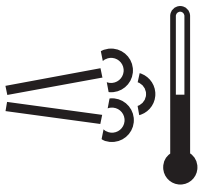
- Use AUTO Exhaust Filter Cleaning mode. See Auto Exhaust Filter Cleaning Mode—Final Tier 4/Stage V Engine in this Operator's Manual section.
- Use Parked Exhaust Filter Cleaning when AUTO Exhaust Filter Cleaning is disabled. See Parked Exhaust Filter Cleaning—Final Tier 4/Stage V Engine in this Operator's Manual section.
- Avoid unnecessary idling.
- Use proper engine oil. See appropriate Diesel Engine Oil in Engine Oil section of this Operator's Manual.
- Use only ultra low sulfur fuel. See Diesel Fuel in Fuel section of this Operator's Manual.

KT81203,00000CE-19-17JUL18

Aftertreatment Indicators Overview

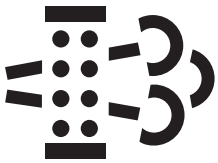
RG22487—UN—21AUG13

Diesel Exhaust Fluid Indicator



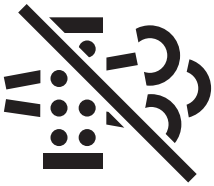
RG22488—UN—21AUG13

Engine Emissions Temperature Indicator



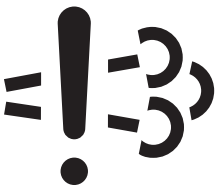
RG22489—UN—21AUG13

Exhaust Filter Indicator



RG22490—UN—21AUG13

Auto Cleaning Disabled Indicator



RG22491—UN—21AUG13

Engine Emissions System Malfunction Indicator

RG22492—UN—21AUG13

Warning Indicator

RG22493—UN—21AUG13

Engine Stop Indicator

IMPORTANT: The operator will be informed by the operator warning system when the emission control system does not function correctly and/or an engine malfunction is detected by the engine control unit. Ignoring the operator warning signals will lead to an emission related derate, resulting in an effective disablement of non-road mobile machinery operation.

It is essential to take prompt action to rectify any incorrect operation, use or maintenance of the emissions control system in accordance with the rectification measures indicated by the warnings referenced below.

The Diesel Exhaust Fluid (DEF) indicator illuminates when the DEF is low. Fill DEF tank.

When the DEF indicator is combined with the warning indicator or engine stop indicator engine performance is reduced by the Engine Control Unit (ECU) because the DEF is below a measurable level. Fill DEF tank.

When engine emissions temperature indicator illuminates exhaust gas temperature is high, elevated idle is active, or exhaust filter cleaning is in process. The machine can be operated as normal unless the operator determines the machine is not in a safe location for high exhaust temperatures and disables auto cleaning.

When engine emissions temperature indicator is combined with the warning indicator or engine stop indicator engine performance is reduced by the ECU because the exhaust gas temperature is higher than expected. Follow Diagnostic Trouble Code (DTC) procedure or see your authorized servicing dealer.

When the exhaust filter indicator illuminates the exhaust filter cleaning is in process, aftertreatment system has a fault, or the exhaust filter is in need of cleaning and the operator has disabled auto exhaust filter cleaning. If conditions are safe, the operator should enable the auto exhaust filter clean setting or perform manual service regeneration or follow DTC procedure.

When the exhaust filter indicator is combined with the warning indicator engine performance is reduced by the ECU because there is an aftertreatment system fault or the soot level of the exhaust filter is moderately high. If conditions are safe, the operator should enable the auto exhaust filter clean function. If conditions are not safe, the operator should move the machine to a safe location and engage the auto exhaust filter cleaning mode. Perform manual service regeneration or follow DTC procedure.

When the exhaust filter indicator is combined with the engine stop indicator engine performance is further reduced by the ECU because there is an aftertreatment system fault or the soot level of the exhaust filter is extremely high. If this combination is present, see your authorized servicing dealer.

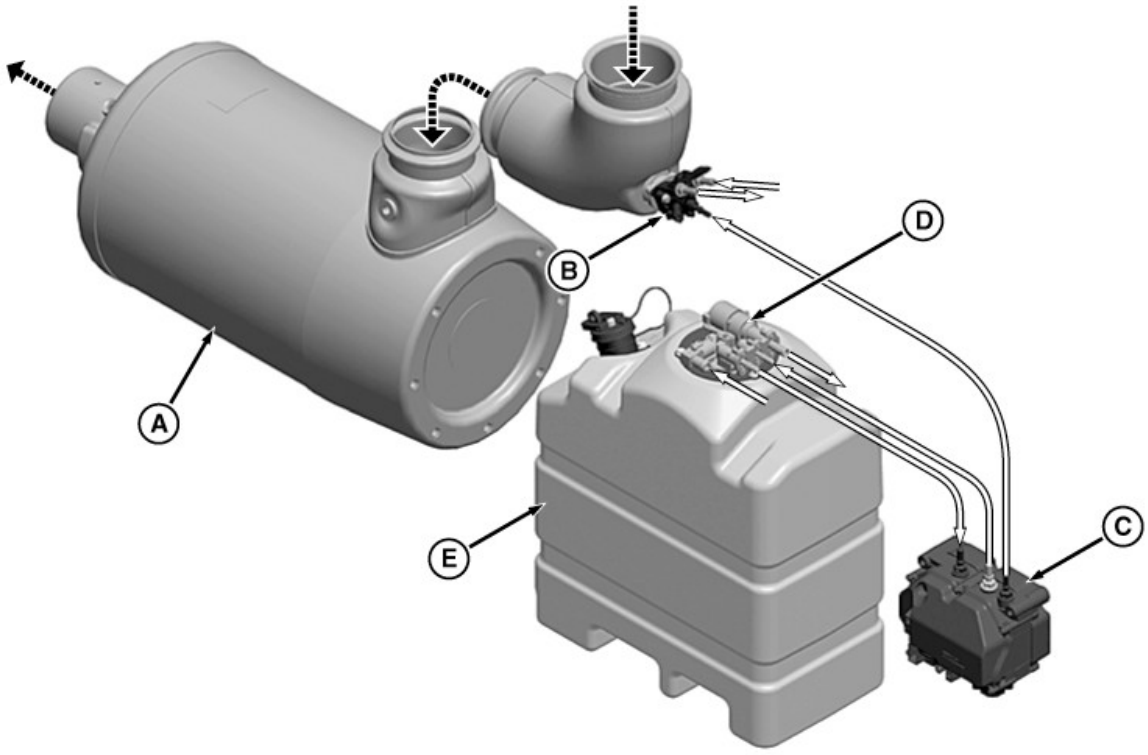
The auto cleaning disabled indicator illuminates when the operator has engaged the request to disable the auto exhaust filter cleaning function. This icon remains illuminated until the operator re-engages automatic exhaust filter cleaning from the diagnostic gauge. Disabling auto mode is not recommended for any situation unless it is safety-related or if the fuel tank lacks the required fuel to complete the cleaning process.

The engine emissions system malfunction indicator illuminates when engine emissions are outside of normal operating range or engine emissions system fault. Follow DTC procedure or see your authorized servicing dealer.

When the engine emissions system malfunction indicator is combined with the warning indicator engine performance is reduced by the ECU because the engine emissions are outside of normal operating range or engine emissions system fault. Follow DTC procedure or see your authorized servicing dealer.

DX,AFTRTREAT,INDCATRS-19-12FEB18

Selective Catalytic Reduction (SCR) System Overview



RG22427—UN—14FEB13

SCR System

A—SCR Catalyst
B—DEF Dosing Injector
C—DEF Dosing Unit
D—DEF Tank Header Assembly
E—DEF Tank

IMPORTANT: Do not remove battery leads for at least 4 minutes after engine stops. The SCR system automatically purges itself of Diesel Exhaust Fluid (DEF) immediately after the engine is stopped. If adequate time is not allowed for lines to be purged, residual DEF can freeze and possibly damage components of the SCR system during cold-weather exposure.

In order to comply with national and local emission requirements, this engine series contains a Selective Catalytic Reduction (SCR) system. The main components of the SCR system include the SCR catalyst (A), DEF dosing injector (B), DEF dosing unit (C), DEF tank header assembly (D), and DEF tank (E). The SCR system is effective at reducing the nitrogen oxides (NOx) emissions. NOx is a major component of smog and acid rain.

During combustion, NOx molecules are formed in the exhaust. DEF is injected into the exhaust stream before the SCR catalyst. Through a chemical reaction in the SCR, NOx is converted into nitrogen and water.

Water vapor is a normal by-product of combustion. During cold-weather operation at low exhaust temperatures, this water vapor can condense and resemble white smoke from the exhaust. This will dissipate as operating temperature increases and the water is further vaporized. This situation is considered normal.

A DEF solution begins to crystallize and freeze at -11 °C (12 °F). With climate temperatures that can range much colder than this, DEF is expected to freeze in the DEF tank. For this reason, the DEF tank contains a heating element that provides rapid thawing of DEF upon start-up. The heating element cycles to maintain fluidity during operation as needed. DEF is not dosed upon initial start-up, therefore it is not necessary to have liquid DEF at cold start-up.

If DEF quality deteriorates and it is no longer within specifications, the engine can derate. DEF should be crystal clear with a light ammonia smell. If DEF appears cloudy, has a colored tint, or has a profound ammonia smell, it is likely not within specification.

DX,SCR,OVERVIEW-19-05SEP14

Auto Exhaust Filter Cleaning Mode—Final Tier 4/Stage V Engine

CAUTION: Never perform this procedure in a closed building unless suitable exhaust is provided.

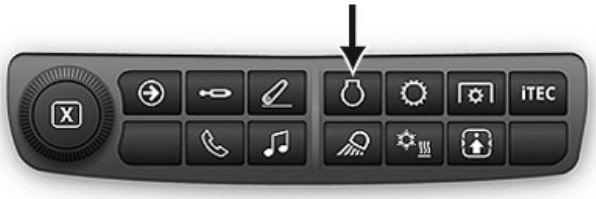
Auto Exhaust Filter Cleaning Mode allows Exhaust Filter System to perform exhaust filter cleaning whenever required. Corner Post Display indicators and CommandCenter™ prompts provide information related to exhaust filter system activity.

IMPORTANT: Disable exhaust filter cleaning when temporarily connected to an indoor ducted exhaust system for diagnostic and repair activities.

Exhaust filter cleaning will automatically reset back to AUTO mode after every key cycle.

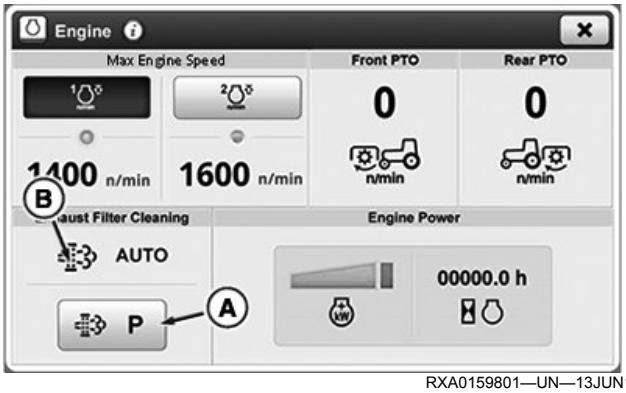
Avoid disabled mode unless absolutely necessary. Repeated disabling or ignoring prompts to perform manual or parked cleaning procedure will cause additional engine power limitation and can eventually lead to required dealer service.

Perform AUTO Exhaust Filter Cleaning:



RXA0133711—UN—16JUL13

1. Use engine shortcut button on navigation bar to access engine main page.



RXA0159801—UN—13JUN17

2. Select Exhaust Filter Cleaning AUTO (B) mode.

   Parked exhaust filter cleaning indicator (A) may be active or inactive (grayed out) depending on exhaust filter restriction level. See Parked Exhaust Filter Cleaning in this section of this Operator's Manual.

RXA0129965—UN—07DEC12

3. Select Automatic Filter Cleaning ON (C) toggle to allow exhaust filter system to perform cleaning as required. Select Automatic Filter Cleaning OFF (D) toggle to disable exhaust filter system.

RXA0161009—UN—02OCT17

Exhaust filter cleaning indicator (E) illuminates when exhaust filter system is performing exhaust filter cleaning.

IMPORTANT: During exhaust filter cleaning operation, there may be higher exhaust gas temperatures and engine may operate at elevated idle.

Exhaust Filter Restricted—Depending on operating conditions, Exhaust Filter System may request a change in tractor operation. CommandCenter™ prompts describe specific operational changes needed.

TS36762,0000182-19-16JUL18

Parked Exhaust Filter Cleaning—Final Tier 4/Stage V Engine

CAUTION: Never perform this procedure in a closed building unless suitable exhaust is provided.

Parked exhaust filter cleaning is automated to allow system to clean exhaust filter when required. During process engine speed is controlled by system and tractor must remain parked to complete procedure. Time required for parked exhaust filter cleaning process is

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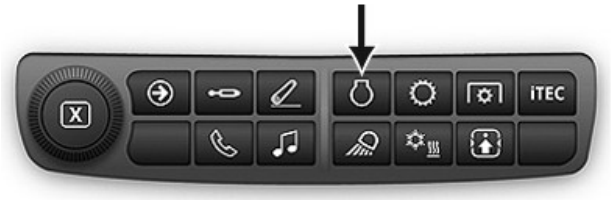
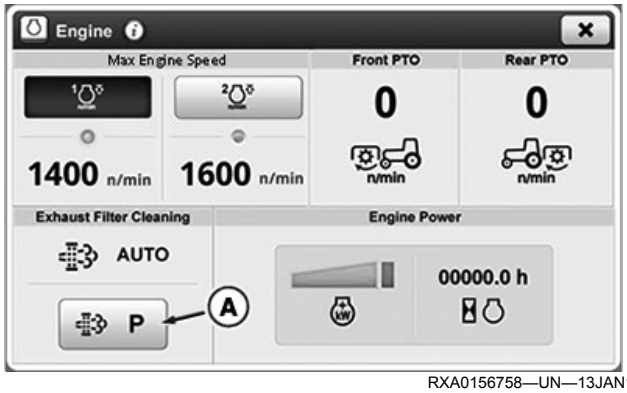
dependent upon level of exhaust filter restriction, ambient temperatures, and current exhaust gas temperature. CommandCenter™ prompts provide estimated time for completion.

Perform Parked Exhaust Filter Cleaning:



RXA0133711—UN—16JUL13

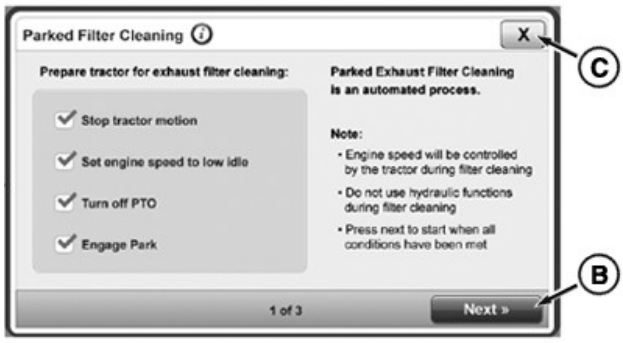
1. Press **Engine Shortcut Button on Navigation Bar.**



RXA0156758—UN—13JAN17

2. Select **Parked Exhaust Filter Cleaning button (A).**
3. **Conditions for Parked Exhaust Filter Cleaning:**
   - Stop tractor motion
   - Set engine speed to low idle
   - Turn off PTO
   - Engage PARK

   If any of these conditions are not met, procedure will not occur.



RXA0141402—UN—02MAY14

4. Select **Next button (B)** once conditions are met.

IMPORTANT: During parked exhaust filter cleaning operation, engine may operate at elevated idle.

Engine speed will be controlled by machine during filter cleaning.

NOTE: At any time during parked procedure, process can be canceled by advancing throttle, engaging transmission, selecting cancel button, or stopping engine.

5. Status page appears when process starts.

   Parked exhaust filter cleaning has two steps: preparation and cleaning. During preparation, exhaust filter system controls engine speed to increase exhaust temperature. During cleaning, diesel particulates or soot are cleaned from exhaust filter system. Parked exhaust filter cleaning may exceed 40 minutes.

6. Once parked exhaust filter cleaning process is complete, select **Close Window button (C)** to return to previously opened screen.

TS36762,0000183-19-16JUL18

Selective Catalytic Reduction (SCR) System —Final Tier 4/Stage V Engine

IMPORTANT: To determine tractor engine type, see Engine Serial Number in Identification Numbers section of this Operator's Manual.

It is unlawful to tamper with or remove any component of the aftertreatment system. It is also unlawful to use Diesel Exhaust Fluid (DEF) that does not meet the specifications provided or to operate the vehicle with no DEF.

Using incorrect or unapproved aftertreatment components can cause damage to vehicle's aftertreatment system and reduce ability of aftertreatment system to function correctly.

NOTE: SCR system monitors quality of DEF flowing through it. If a fluid other than DEF at correct urea concentration is detected, system will display a diagnostic trouble code and a four hour internal counter starts. After four hours, engine power and speed are derated.

SCR system supplies Diesel Exhaust Fluid (DEF) to engine aftertreatment system. DEF works in conjunction with tractor aftertreatment components to reduce emissions. See Diesel Exhaust Fluid (DEF) section of this Operator's Manual for specifications and information about DEF.

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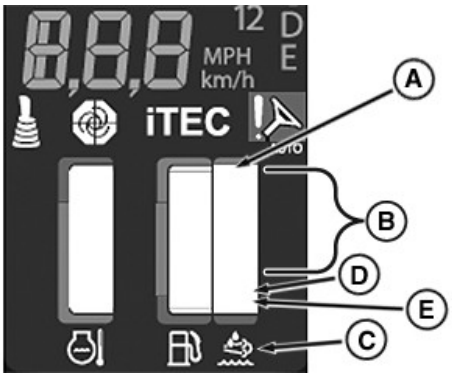


RXA0155004—UN—17OCT16

Corner Post Display

Tractor electronic systems monitor DEF level to assure proper performance. Corner post displays current DEF level (A). When quantity of DEF reaches reduced levels, systems change tractor operation. Refilling DEF tank will cause system to return tractor to normal operation. Refilling DEF tank every time tractor is refueled is recommended. See Fill Diesel Exhaust Fluid (DEF) Tank in Diesel Exhaust Fluid (DEF) section of this Operator's Manual.

DEF level and operation changes:

Normal Operation—When DEF level is within this range (B), DEF symbol is on and tractor operates normally. Always maintain fill within this level for uninterrupted performance.

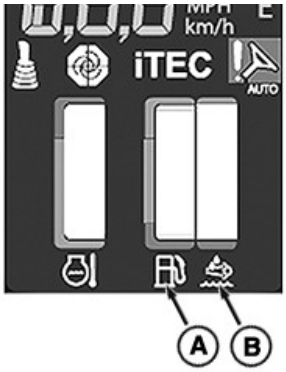
Low DEF Level 1—When DEF level drops to first red bar (D), DEF indicator light (C) flashes and a diagnostic trouble code is displayed and alarm sounds. Tractor operates normally, but refill of DEF tank is recommended.

Low DEF Level 2—When DEF level falls below this point (E), DEF indicator light stops flashing and constantly illuminates. A diagnostic trouble code is displayed and alarm sounds; engine power and speed are derated. Refill DEF tank and restart tractor to resume normal operation.

DEF freezes at -11 °C (12 °F) and will not flow to the SCR system. Tractor systems sense low temperature and allow engine to start, even with no DEF flow. Engine coolant is used to thaw fluid in DEF tank when engine is running. If system senses that DEF has thawed and SCR system is operating normally within forty minutes, tractor is allowed to continue operation. If DEF flow is not sensed within forty minutes, a diagnostic trouble code is displayed and a four hour internal counter starts. After four hours, engine power and speed are derated. Freezing and thawing of DEF does not degrade it.

KT81203,00005FA-19-17JUL18

Low Fuel or Low DEF Warning



RXA0154695—UN—12OCT16

Fuel indicator light (A) will flash and alarm will sound when approximately 39 L (10 gal) of fuel remains.

NOTE: DEF light gauge and indicator are only visible on Final Tier 4/Stage V engine-equipped tractor.

It is recommended that DEF tank is filled at each fuel tank fill.

DEF light (B) will flash and alarm will sound when fluid level is low.

TS36762,0000185-19-17APR18

Disconnect Battery—Final Tier 4/Stage V Engine

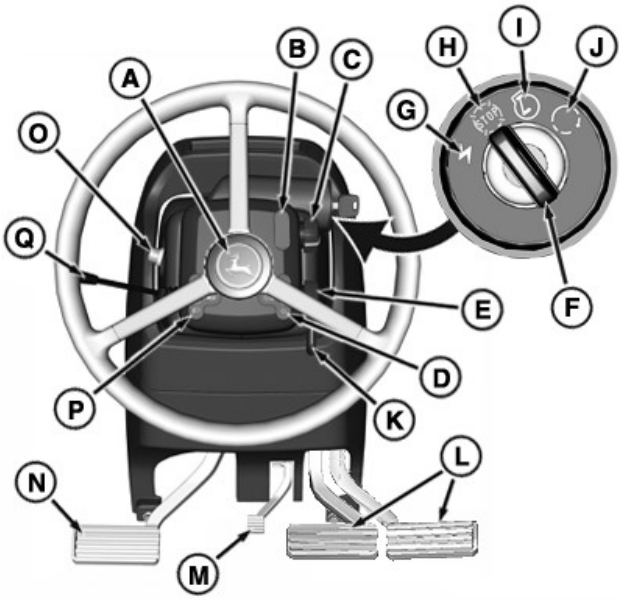
IMPORTANT: Prevent damage to tractor emissions system. Battery disconnect switch with indicator light: Tractor is equipped with an engine which uses a Selective Catalytic Reduction (SCR) system. Light is illuminated during Diesel Exhaust Fluid (DEF) purge from system. Do not turn disconnect switch off until light goes out.

Battery disconnect switch without indicator light: Engine not equipped with SCR system. No waiting period is required before turning off switch.

See Battery Disconnect Switch in Engine Operation section of this Operator's Manual.

TS36762,000029E-19-21AUG18

Front Console



RXA0155916—UN—23NOV16

A—Steering Wheel Telescope Release
B—Light Selection Cluster
C—Light Selector Knob
D—Windshield Wiper Cluster
E—Windshield Wiper Control Knob
F—Key Switch
G—Accessories
H—OFF (STOP)
I—Run
J—Start
K—Steering Column Tilt Release Lever
L—Brake Pedals
M—Steering Wheel Tilt Release
N—Clutch Pedal
O—Starting Aid Switch (If Equipped)
P—Turn Signal Icon, High-Low Beam Road Light Icon and Horn Icon
Q—Turn Signal Lever/Horn

TS36762,0000186-19-13DEC16

CommandARM™ ISOBUS Shortcut Button (ISB)

In an ISOBUS-system, operator can activate function of implement over ISOBUS via Implement's Operator Interface on display, see ISOBUS controller's operator's manual.

After activation, operator can change screen of display in order to operate another implement or interact with other applications.

Deactivation of functions on first implement is not possible unless operator manually switches back to corresponding screen of first implement. ISB provides a direct method to inform all ISOBUS participants about operators desire to deactivate functions that were activated by an ISOBUS control.

CAUTION: Read appropriate operator's manual. ISB button function is proprietary to implement manufacturer. Verify button function in a safe and open area that is clear of bystanders.

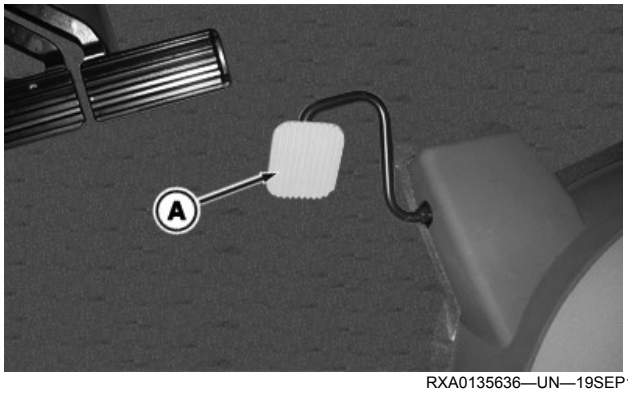
RXA0136449—UN—06NOV13

ISOBUS Shortcut Button (ISB): Pressing ISB button (A) sends "Stop All Implement Operations" signal out on ISOBUS. Reaction on ISB is proprietary to receiving control unit.

Example: Implement currently using ISOBUS Class 3 automation goes to its safe state, see Tractor-Implement Automation™ (TIA™) section of this Operator's Manual.

TS36762,0000187-19-09AUG18

Foot Throttle



RXA0135636—UN—19SEP13

Foot operated throttle controls engine or ground speed dependent on transmission mode. Depress foot throttle (A) to increase engine rpm or wheel speed.

TS36762,0000188-19-18NOV16

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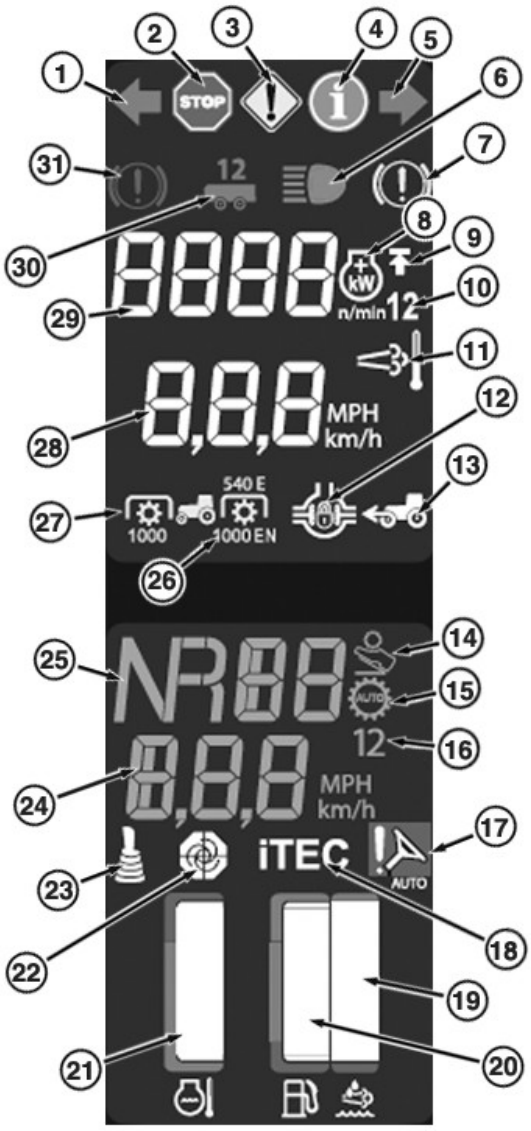
TIA is a trademark of Deere & Company

Corner Post Display



RXA0152774—UN—13JUL16

Corner Post Display

1— Left Turn Indicator
2— Stop Indicator
3— Service Alert Indicator
4— Information Indicator
5— Right Turn Indicator
6— High Beam Indicator
7— Brake Warning Indicator (Yellow)
8— Intelligent Power Management Indicator
9— Maximum Set Speed Indicator
10— Maximum Set Speed Selection (1 or 2)
11— Exhaust Filter Cleaning Indicator
12— Differential Lock Indicator (If Equipped)
13— MFWD Indicator (If Equipped)
14— Foot Pedal Mode Indicator (If Equipped)
15— Automatic Shifting Indicator
16— IVT™/AutoPowr™ Forward Speed Band Indicator (If Equipped)
17— AutoTrac™ Indicator
18— iTEC™ Indicator
19— Diesel Exhaust Fluid (DEF) Gauge (FT4/Stage V Engine)
20— Fuel Level Gauge
21— Coolant Temperature Gauge
22— Tractor Automation Indicator
23— ISOBUS Auxiliary Mode Indicator
24— Set Speed
25— Current Gear/Range
26— Rear PTO Indicator (If Equipped)
27— Front PTO Indicator (If Equipped)
28— Vehicle Ground Speed
29— Tachometer
30— Trailer Indicator (If Equipped)
31— Brake Warning (Red)

DB71512,0000061-19-17JUL18

Information Indicators

STOP, Service Alert, and Information Indicators are accompanied by informative message, diagnostic trouble code, and/or fault description shown on CommandCenter™. For description of indicators and codes, see STOP and Service Alert Indicators and Information Indicators in Troubleshooting - Diagnostic Trouble Codes (DTC) section of this Operator's Manual.

RXA0109847—UN—20AUG10

STOP Engine Indicator (A): Light flashes and alarm sounds continuously.

Service Alert Indicator (B): Light flashes and alarm sounds five times indicating performance or operational problem is detected that needs to be resolved as soon as possible.

Information Indicator (C): Light illuminates continuously and alarm sounds for two seconds, indicating possible fault condition.

TS36762,000018A-19-17APR18

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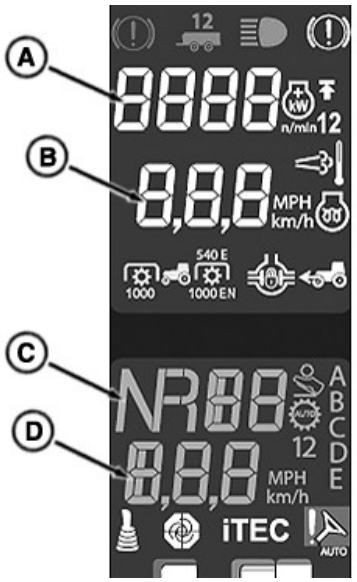
AutoTrac is a trademark of Deere & Company

iTEC is a trademark of Deere & Company
CommandCenter is a trademark of Deere & Company

Digital Indicators—Tachometer, Ground Speed, Transmission, and Set Speed



RXA0154166—UN—06OCT16

A—Tachometer: Displays engine speed in multiples of 10. If "- - -" is displayed, no speed signal is being received.

B—Travel Speed Indicator: Displays travel speed in either miles per hour or kilometers per hour, depending on operator selected units (U.S. or Metric).

If "- - -" is displayed, no speed signal is being received.

C—Transmission Information: Shows if transmission is in Neutral—N, Forward—F, Reverse—R, or Park—P.

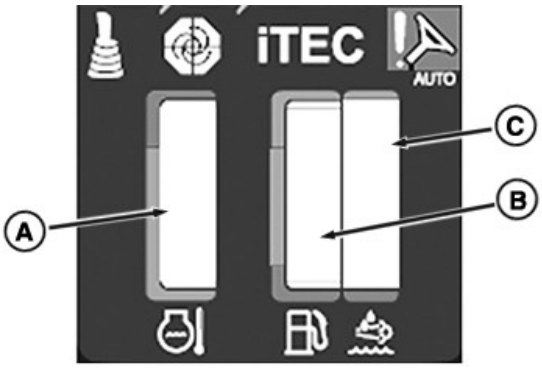
If "- - -" is displayed, no gear signal is being received.

IVT™ /AutoPowr™ Only: Shows speed bands 1 or 2 and speed settings.

D—Set Speed Indicator: Shows what speed is set using set speed adjuster.

TS36762,000018B-19-18NOV16

Gauges—Coolant Temperature, DEF Level and Fuel Level



RXA0154167—UN—28SEP16

A—Coolant Temperature Gauge: Shows engine coolant temperature between 40—120 °C (104—248 ° F). All segments are off when coolant temperature is below 40 °C (104 °F). All segments are lit when temperature is 120 °C (248 °F) and above.

B—Fuel Level Gauge: Displays fuel level in tank. Each lighted segment represents 4% of fuel tank total capacity. When fuel tank is full, all segments are lit. When only bottom segment is lit, tank is nearly empty with approximately 39 L (10 gal) remaining.

NOTE: Diesel Exhaust Fluid is only used on Full Tier 4 / Stage V engine equipped tractors. DEF gauge will not display on tractors without those engines.

C—Diesel Exhaust Fluid (DEF) Gauge (If Equipped): Displays diesel exhaust fluid level. Each lighted segment represents 4% of DEF fluid tank total capacity. When DEF fluid tank is full, all segments are lit. When only bottom segment is lit, tank is nearly empty. DEF fluid tank should be filled whenever fuel tank is filled.

TS36762,000018C-19-16JUL18

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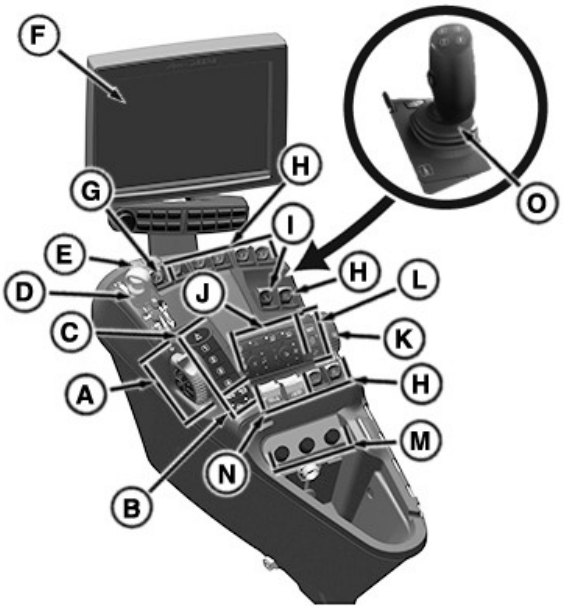
AutoPowr is a trademark of Deere & Company

CommandARM™ Controls

CommandARM™ with Generation 4 CommandCenter™ Display



RXA0156085—UN—09DEC16

A—Hand Throttle Control
B—Differential Lock & Mechanical Front-Wheel Drive (MFWD) Buttons
C—iTEC™ & AutoTrac™ Resume
D—Speed Control Lever/Transmission Shift Lever
E—SCV Control Lever Lock/ISB Lock
F—Generation 4 CommandCenter™
G—Rear Hitch Control Lever
H—SCV Control Levers
I—Front Hitch Control Lever (If Equipped)
J—Climate, Radio and Lighting Controls
K—Depth Adjust Hitch Dial
L—Set/Lock/Resume Buttons
M—Load Depth/Upper Limit/Drop Rate Hitch Dials
N—Front and Rear PTO Control Levers (If Equipped)
O—Joystick (If Equipped)

NOTE: See your transmission section for Efficiency Manager™ options (if equipped).

TS36762,000018D-19-18APR18

Rear and Front Hitch Controls

RXA0156087—UN—09DEC16

A—Rear Hitch Control Lever
B—Front Hitch Control Lever
C—Set Point Button
D—Rear Hitch Control Lever Lock
E—Return to Lower Set Point
F—Depth Adjust Hitch Dial
G—Drop Rate Hitch Dial
H—Upper Limit Hitch Dial
I—Load Depth Hitch Dial

See Hitch sections of this Operator's Manual.

TS36762,000018E-19-13DEC16

SCV Control Levers

RXA0156088—UN—09DEC16

A—SCV 1 Control Lever

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AutoTrac is a trademark of Deere & Company
CommandCenter is a trademark of Deere & Company

B—SCV 2 Control Lever
C—SCV 3 Control Lever
D—SCV 4 Control Lever
E—SCV 5 Control Lever
F—Front Hitch Midstack/SCV 14
G—SCV 15 Control Lever (If Equipped)
H—SCV 6 Control Lever (If Equipped)
I—SCV Control Lever Lock

IMPORTANT: SCV control lever lock (I) locks out control of SCV and front hitch control levers.

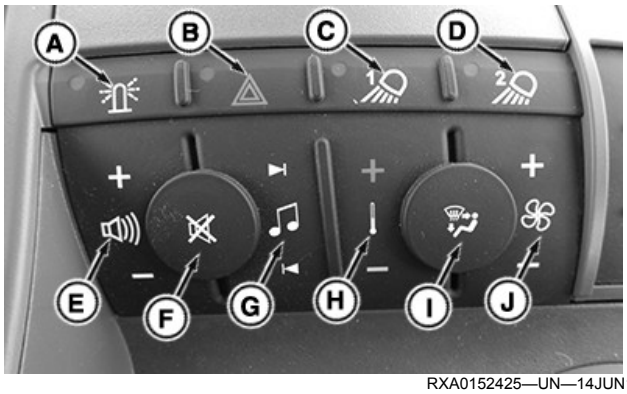
NOTE: Reconfigurable SCV controls allows operator to match device with various implement functions. This process is called Assignment. See Controls Setup in CommandCenter™ section of this Operator's Manual.

RXA0133735—UN—17JUL13
Controls Setup Icon

Controls setup icon appears on SCV control levers that are reconfigurable with joystick.

TS36762,000018F-19-13DEC16

CommandARM™ Climate, Radio and Lighting Controls



RXA0152425—UN—14JUN16

A— Rotary Beacon Lights Button
B— Hazard Lights Button
C— Field Lights 1 Button
D— Field Lights 2 Button
E— Radio Volume
F— Radio Mute Button
G— Next/Previous Station, Preset or Track
H— Temperature Control
I— Air Flow Control
J— Fan Control

TS36762,0000190-19-02JUN17

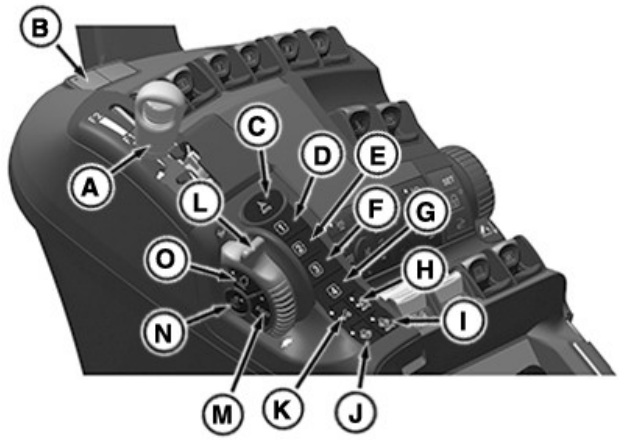
CommandARM™ PTO Control Lever

RXA0142354—UN—09JUN14

A—PTO Control Lever

KD34109,000075E-19-17APR18

Left-Hand Side Controls



RXA0156086—UN—09DEC16

A—Speed Control Lever/Transmission Shift Lever
B—SCV Control Lever Lock/ ISB Lock
C—AutoTrac™ Resume Button
D—iTEC™ 1 Button
E—iTEC™ 2 Button
F—iTEC™ 3 Button
G—iTEC™ 4 Button
H—Auto MFWD Button
I—Auto Differential Lock Button
J—Differential Lock Button
K—MFWD Button
L—Hand Throttle Control
M—ECO ON/OFF Button
N—Foot Throttle Lock/Unlock Button
O—Maximum Set Speed ON/OFF Button

TS36762,0000192-19-09DEC16

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iTEC is a trademark of Deere & Company

Onscreen Help

PC15300—UN—19MAR13

Help Center Application and Information Button

Help Center is a supplement to the paper Operator's Manual. Read the Operator's Manuals prior to operation.

Navigate to Help Center

1. Select Menu.
2. Select System tab.
3. Select Help Center application.

DX,PC,INTRO,HELP-19-17DEC15

Generation 4 CommandCenter™

The John Deere Generation 4 CommandCenter™ is designed for maximum ease of use and productivity. One software system provides commonality while hardware options provide a range of price and functionality. The CommandCenter™ display is attached to the CommandARM™. There are 8.4 and 10 inch display options available.

NOTE: Software in Generation 4 CommandCenter™ is on processor, not display.

4200 CommandCenter™ (8.4 Inch) and **4600 CommandCenter**™ (10 Inch)

PC17355—UN—03DEC13

4200 and 4600 CommandCenter™

- Title Bar displays currently viewed Run Page
- Large Status Center provides more information
- Shortcut Softkeys are always visible.

KD34109,0000814-19-20AUG18

Generation 4 CommandCenter™ Processor

Generation 4 CommandCenter™ software runs on a processor separate from the display.

NOTE: Maximum capabilities for each processor are listed. Depending on machine configuration, some functions may not be available.

PC25546—UN—19APR18

4200 Processor

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PC25545—UN—19APR18

4600 Processor

4200 Processor

- 1 Video Camera Input
- 1 USB Input
- 1 Display Output

4600 Processor

- 4 Video Camera Inputs
- 4 USB Inputs
- 2 Display Outputs
- Upgradable for future applications

KD34109,0000815-19-20AUG18

Generation 4 CommandCenter™ 4600 Processor Wi-Fi® Capabilities

The CommandCenter™ 4600 processor contains a non-enabled wireless (Wi-Fi®) transmitter. Hardware is present to enable future functionality.

Federal Communications Commission Part 15.21 Statement:

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

DX,PC,INTRO,WIFI-19-10MAY16

CommandCenter is a trademark of Deere & Company

Wi-Fi is a registered trademark of Wi-Fi Alliance.

Federal Communications Commission and Industry Canada Notification

This device complies with Industry Canada licence-exempt RSS standard(s). Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

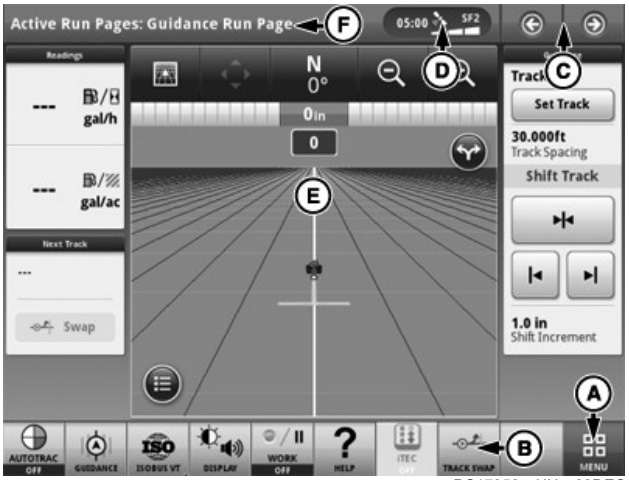
RF Exposure Guidance: This equipment complies with FCC and Industry Canada radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with a minimum distance of 2.5 cm (1 in.) between the radiator and persons. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter, except in accordance with FCC and Industry Canada multi-transmitter product procedures.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes : (1) l'appareil ne doit pas produire de brouillage, et (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

RF Exposure orientation: Cet équipement est conforme aux normes FCC et les limites d'exposition aux rayonnements Industrie Canada énoncées pour un environnement non contrôlé. Cet équipement doit être installé et utilisé à une distance minimale de 2,5 cm (1 in.) entre le radiateur et les personnes. Cet émetteur ne doit pas être co-localisées ou opérant en conjonction avec une autre antenne ou un autre émetteur, sauf en conformité avec la FCC et Industrie Canada Procédures de produits multi-émetteurs.

PC17329—UN—24OCT13
DX,PC,INTRO,FCC-19-17DEC15

Run Page Structure



PC17353—UN—03DEC13

8.4 Inch (4200) and 10 Inch (4600) Display Run Page

A—Menu
B—Shortcut Softkeys
C—Next or Previous Run Page Buttons
D—Status Center
E—Run Page
F—Title Bar/Run Page Selection

Menu (A) lists all applications installed on display and machine.

Shortcut softkeys (B) provide quick access to frequently used applications and functions.

Next and Previous Run Page buttons (C) cycle through multiple run pages.

Select the area indicated (D) to display **Status Center**. Important information for display functions is highlighted, such as GPS signal strength and available data storage.

Run page (E) is configured using Layout Manager application.

Press **title bar** (F) to display **Run Page Selection** page. Choose desired run page from list of available pages.

(Refer to Layout Manager application for information about customizing the run page.)

KD34109,0000816-19-20AUG18

Menu

PC17269—UN—15JUL13

Menu Button

Selecting Menu button lists all applications installed on

display and machine. Select left-hand tabs to view different groups of applications.

NOTE: Available applications vary depending on machine configuration.

DX,PC,INTRO,MENU-19-21DEC15

Machine Settings Overview

RXA0147924—UN—13APR15

Machine Settings tab allows selection of application main pages. Available applications vary depending on tractor configuration.

RXA0134978—UN—07AUG13

Audio

Audio

- Use Audio application to adjust audio settings.
- For more information, see Radio Operation section of this Operator's Manual.

RXA0134955—UN—07AUG13

Engine

Engine

- Use engine application to adjust exhaust filter system settings, Maximum Set Speed settings, or engine rpm.
- For more information, see Engine Operation and Transmission - General Information sections of this Operator's Manual.

RXA0134979—UN—07AUG13

HVAC (Heating Ventilation and Air Conditioning)

HVAC

- Use HVAC application to adjust heating, ventilation, and air conditioning settings.
- For more information, see HVAC section of this Operator's Manual.

RXA0134980—UN—07AUG13

iTEC™

iTEC™

- Use iTEC™ application to program and repeat common tasks.
- For more information, see Intelligent Total Equipment Control (iTEC™) section of this Operator's Manual.

RXA0134956—UN—07AUG13

Lights

Lights

- Use Lights application to adjust lights settings.
- For more information, see Lights section of this Operator's Manual.

RXA0134981—UN—07AUG13

Maintenance and Calibrations

Maintenance and Calibrations

- Use Maintenance and Calibrations application to add/edit service intervals and perform ground radar and wheel slip calibrations.

RXA0134982—UN—07AUG13

Phone

Phone

- Use Phone application to make/receive calls through CommandCenter™.

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- For more information, see Radio Operation section of this Operator's Manual.

RXA0134957—UN—07AUG13

PTO

PTO

- Use PTO application to adjust PTO settings.
- For more information, see PTO, Hitch, and Drawbar section of this Operator's Manual.

RXA0134958—UN—07AUG13

Rear Hitch

Rear Hitch

- Use Rear Hitch application to adjust rear hitch settings.
- For more information, see Rear Hitch section of this Operator's Manual.

RXA0134983—UN—07AUG13

SCV

SCV

- Use SCV application to adjust SCV settings.
- For more information, see Selective Control Valves section of this Operator's Manual.

RXA0152447—UN—27JUN16

Steering

Steering

- Use Steering application to adjust steering settings.
- For more information, see Steering and Steering Settings in this section of this Operator's Manual.

RXA0134976—UN—07AUG13

Suspension

Suspension

- Use Suspension application to adjust suspension settings.
- For more information, see Drive Train section of this Operator's Manual.

RXA0152439—UN—20JUN16

Trailer Brake

Trailer Brake

- Use Trailer Brake application to adjust brake and pre-brake settings and to test trailer brakes.
- For more information, see Trailer Brake Settings in the Brakes section of this Operator's Manual.

RXA0134984—UN—07AUG13

Transmission

Transmission

- Use Transmission application to adjust transmission settings (if equipped).
- For more information, see appropriate transmission section of this Operator's Manual.

KT81203,000049F-19-16AUG17

Operating System Applications Overview

PC15302—UN—19MAR13

Operating System Applications Package

Operating System applications package is installed at the factory, and is updated with periodic software updates from John Deere. These applications are used for basic functions of display.

Calculator

PC23955—UN—24MAR17

Calculator

- Use Calculator application for quick mathematical calculations.
- It is found on Applications tab of the display menu.

COM Port Settings

PC25540—UN—18APR18

COM Port Settings

- Configures RS-232 signal so that the display can communicate with different control units or devices.
- COM Port Settings application requires a 4600.
- It is found on System tab of the display menu.

Controls Setup

PC15326—UN—08JUL13

Controls Setup

- Configures an ISOBUS or machine joystick to control machine or implement functions.
- It is found on Applications tab of the display menu.

Date and Time

PC16674—UN—18MAR13

Date and Time

- Information from Date and Time application is used for several important functions on system. These include error logging, activations, and data recording.
- Date and time are set automatically if a GPS receiver is connected and receiving valid signal. In this case, only set time zone.
- It is found on System tab of the display menu.

Diagnostics Center

PC17272—UN—17JUL13

Diagnostics Center

- Diagnostics Center is the one place to find diagnostics for the entire system.
- It is found on System tab of the display menu.

Display and Sound

PC16685—UN—18MAR13

Display and Sound

- Along with display brightness and volume, Display and Sound is used to calibrate display and configure multiple displays.
- It is found on System tab of the display menu.

Equipment Manager

PC20410—UN—22MAY15

Equipment Manager

- The Machine Profile allows operator to configure GPS offsets and machine dimensions.
- The Implement Profile allows operator to configure Implement Connection Type, Working Width, Dimensions, and Recording Triggers.
- It is found on Applications tab of the display menu.

Fields and Boundaries

PC17260—UN—11JUL13

Fields and Boundaries

- Field names are used to organize information so it is easier to find and use data, such as guidance lines.
- Use Fields and Boundaries application to set up clients, farms, and fields.
- Select client, farm, and field to set current location.
- It is found on Applications tab of the display menu.

File Manager

PC16671—UN—18MAR13

File Manager

- Data and setup information can be transferred between displays or compatible desktop software.
- Perform a Factory Data Reset to clear display of user data.
- It is found on System tab of the display menu.

Flags

PC25539—UN—18APR18

Flags

- Flags are used to mark points of interest within a field.
- It is found on Applications tab of the display menu.

Help Center

PC16684—UN—18MAR13

Help Center

- Onscreen Help about each application and more is available in Help Center.
- Not all Help languages are installed at the factory. Update display software to install Help for all supported languages.
- It is found on Applications tab of the display menu.

ISOBUS VT

PC16682—UN—18MAR13

ISOBUS VT

PC15293—UN—18MAR13

ISOBUS VT Menu

- Monitor and control ISOBUS 11783 compatible controllers and implements.
- It is found on Applications tab of the display menu.

NOTE: Only one ISOBUS controller can be viewed at a time. If more than one controller is connected, select Menu button within ISOBUS VT to view a list of controllers to choose from.

Language and Units

PC16677—UN—18MAR13

Language and Units

- Use Language and Units application to change Language, Number Format, and Units of Measurement.
- It is found on System tab of the display menu.

Layout Manager

PC16678—UN—18MAR13

Layout Manager

- Use Layout Manager to create and modify run pages and shortcut bar so important information and functions can be accessed from the main page.
- It is found on Applications tab of the display menu.

Machine Monitor

PC15318—UN—16MAY13

Machine Monitor

- Machine Monitor displays machine-specific performance values.
- It is found on Applications tab of the display menu.

Mapping

PC20413—UN—11MAY15

Mapping

- Mapping application is used to view spatial features, such as guidance, coverage, work data, and map based prescriptions. (Prescriptions require a CommandCenter™ Premium activation.)
- It is found on Applications tab of the display menu.

Remote Display Access

PC17363—UN—16DEC13

Remote Display Access

- Remote Display Access (RDA) allows someone from a remote location to view an operating display.
- It is found on Applications tab of the display menu.

Settings Manager

PC22543—UN—22APR16

Settings Manager

- Use Settings Manager to load, edit, or save configurations of machine and implement settings.
- It is found on Applications tab of the display menu.

Software Manager

PC15346—UN—11JUL13

Software Manager

- Use Software Manager to update software, activate features, and install onscreen help packages.
- It is found on System tab of the display menu.

StarFire™

PC17388—UN—15MAY14

StarFire

- The StarFire™ application is used to view StarFire™ Receivers. If more than one receiver is connected, select the desired receiver using the application.
- It is found on Applications tab of the display menu.

Users and Access

PC17262—UN—12JUL13

Users and Access

- Users and Access manages user profiles and locks users out of certain settings.
- It is found on System tab of the display menu.

Video

PC23956—UN—24MAR17

Video

- Use Video application to observe areas around the machine that are difficult to see from the operator's station.
- Video can be displayed when certain machine functions are performed, such as reversing.
- It is found on Applications tab of the display menu.

Wireless Settings

PC23092—UN—26SEP16

Wireless Settings

- Access wireless networks to connect to the internet, or create a wireless network to connect mobile devices to the machine.
- It is found on System tab of the display menu.

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StarFire is a trademark of Deere & Company

Work Monitor

PC15317—UN—16MAY13

Work Monitor

- Work Monitor displays averaged and totaled machine and operation-specific values.
- It is found on Applications tab of the display menu.

Work Setup

PC20415—UN—11MAY15

Work Setup

- Use Work Setup to set up operations when changing implements, fields, or applying a different product.
- Use Work Setup to set up and use ISOBUS Tasks provided by TC-GEO (task controller geo-based) AEF (Agricultural Industry Electronics Foundation) certified implements and John Deere pull-type sprayers. All totals provided by the ISOBUS implement, such as time, area, mass, and volume, are recorded in the ISOBUS task in the Work Totals application.
- It is found on Applications tab of the display menu.

Work Totals

PC21878—UN—24NOV15

Work Totals

- Work Totals records work data, including acres worked, average product rate, and total product applied.
- Work Totals application requires a 4200 or 4600.
- It is found on Applications tab of the display menu.

DX,PC,INTRO,OSAPPS-19-25APR18

AMS Applications Overview

PC15301—UN—19MAR13

AMS Applications Package

AMS Applications package is installed at factory, but requires an activation to enable functionality. These applications are installed and updated in packages separate from the Generation 4 Operating System.

AutoTrac™ Guidance

PC16676—UN—18MAR13

AutoTrac™ Guidance

- The AutoTrac™ Guidance application is used for steering machines through the field along guidance tracks. Steering can be done manually or automatically using AutoTrac™.
- It is found on Applications tab of the display menu.

AutoTrac™ Turn Automation

PC24721—UN—14SEP17

AutoTrac™ Turn Automation

- AutoTrac™ Turn Automation is a system which coordinates machine and implement functions during end turns.
- It is found on Applications tab of the display menu.

Overlap Control

PC20399—UN—16FEB15

Overlap Control

- Overlap Control automatically adjusts the header width setting as the combine moves over areas that have already been harvested.
- Overlap Control is only available on combines.
- It is found on Applications tab of the display menu.

AutoTrac is a trademark of Deere & Company

Section Control

PC20399—UN—16FEB15

Section Control

- Section Control turns work point sections on and off automatically to reduce overlap and improve input management.
- Section Control is only available with compatible machines and implements.
- Section Control application requires a 4200 or 4600 with a CommandCenter™ Premium activation.
- It is found on Applications tab of the display menu.

Sharing

PC24722—UN—18SEP17

Sharing

- Use Sharing application to view infield data sharing settings.
- It is found on Applications tab of the display menu.

DX,PC,INTRO,AMSAPPS-19-25APR18

CommandCenter™ Activations

NOTE: Software activations are nontransferable if equipment is lost, stolen, or destroyed. It is recommended to insure machines at their full value, including software activations.

A CommandCenter™ Premium activation or a CommandCenter™ Automation activation is required to operate certain features, such as utilizing Section Control. It is also required to enable certain functions within applications, such as streaming work data wirelessly in the File Manager application to John Deere Operations Center.

CommandCenter™ Premium and CommandCenter™ Automation activations are not listed in the Software Manager application. The individual activations that are included within the CommandCenter™ Premium and CommandCenter™ Automation activations can be found by selecting Menu button > System tab > Software Manager application > Activations tab.

Contact your John Deere dealer to purchase a CommandCenter™ Premium or a CommandCenter™ Automation activation.

DX,PC,INTRO,CCPREMIUM-19-25APR18

Demo Activations

In Software Manager application, demo activations are available to try out features on the display. A blue light next to a feature indicates that demo is turned on.

Demo is available from the factory for 15 hr. of use. For example, AutoTrac™ demo only counts down when it is activated.

DX,PC,INTRO,DEMO-19-21DEC15

Automation Status Overview

RXA0135012—UN—12AUG13

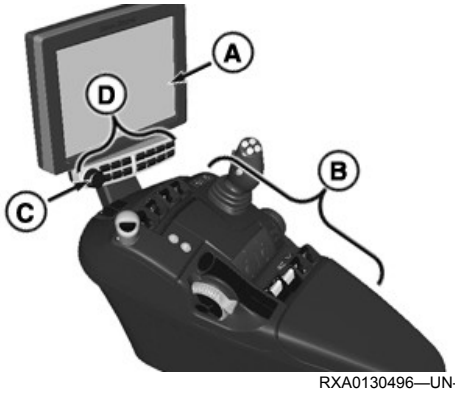
- Use Automation Status application to see which tractor functions are being controlled and their current status.
- It can be found on Applications tab of the display menu.

KT81203,00004A0-19-28NOV16

Navigate Generation 4 CommandCenter™

NOTE: Images are reference and may differ by tractor configuration or operator settings. As operator pages through CommandCenter™, more in- depth information is presented, allowing operator to fine tune tractor functions.

Navigating CommandCenter™ Pages



RXA0130496—UN—09APR13

CommandCenter™ and CommandARM™

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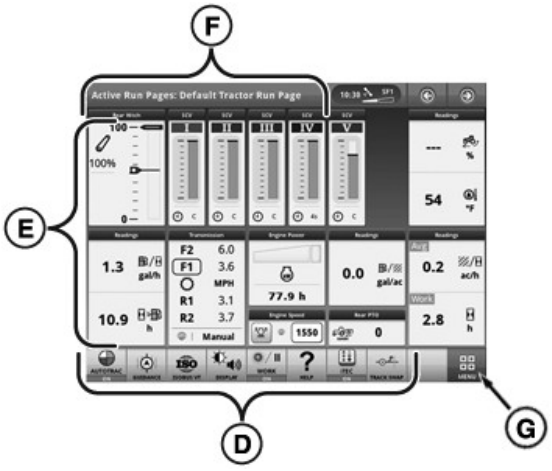
Use Touch Screen CommandCenter™ buttons or icons to make selection. For input boxes use either key pad, or select input box and scroll adjustment dial (C) to desired value. Yellow highlight box appears around selected input box and indicates adjustment dial is active.

A—CommandCenter™: attached to CommandARM™ (B), allows operator to view selected pages required to operate tractor. Display is Touch Screen, allowing operator to touch options on screen to move through pages and access tractor functions.

B—CommandARM™: made up of buttons, joystick (if equipped), switches, and shortcuts allowing operator to manage tractor or implement functions.

C—Adjustment Dial/Close Window Button: allows operator to change values in input boxes. Rotating adjustment dial clockwise raises input box values. Rotating adjustment dial counterclockwise lowers input box values. Push button one time to close window. Push and hold to close all open windows.



RXA0137128—UN—19NOV13

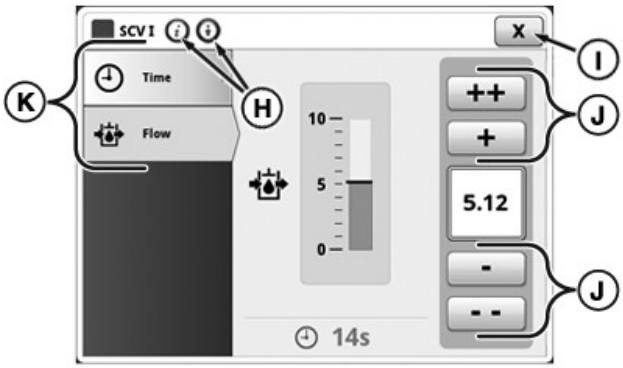
Run Page

D—Shortcut Keys/Buttons: allow operator to access specific functions without going through CommandCenter™ menu.

E—Run Page Modules: allow quick access to functions.

F—Title Bar: select on any run page for drop-down bar to change run page.

G—Menu: lists all applications installed on display and machine. Select left-hand tabs to view different groups of applications.



RXA0137084—UN—13DEC13

Module Functions

H—Help/Advanced Settings Buttons: press title bar, while in application, to view help or change settings for current page when available.

I—Close Button: press to close current page.

J—Increase/Decrease Value Buttons: use to change value within input boxes. Use ++ and - - buttons to make larger incremental changes when adjusting value, rather than touching + or - buttons. For areas that require tighter adjustments, only + and - buttons are available.

K—Tabs: allow operator to change to different section topic.

KT81203,00004A1-19-03AUG17

Power Display On and Off

Generation 4 CommandCenter™ display turns on and off with tractor key switch.

- **Warm boot** occurs when CommandCenter™ display has been run within last 24 hours. Display rests in hibernation state for that time. Display powers up quickly (approximately 10 seconds).
- **Cold boot** occurs if display is not operated for 24 hours or more, or if unswitched power has been disconnected. During this period, display shuts down completely to conserve battery power. Next power-up will take approximately 60 seconds.

NOTE: After turning off engine, avoid turning key switch back on until display screen has gone black.

- **Hard reset** is required when display is unresponsive for more than a few minutes under normal operating conditions.

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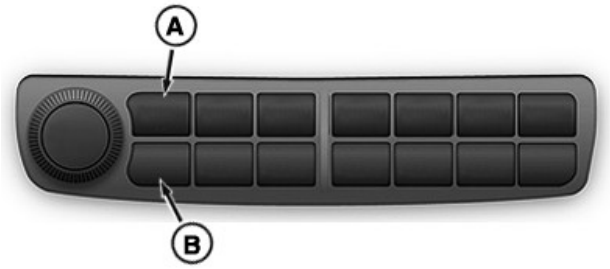


RXA0148512—UN—25JUN15

Navigation Bar

Perform hard rest by pressing left-most upper and lower buttons (A and B), of navigation bar, simultaneously for 5 seconds. If display does not reset, pull fuse 9 located in load center fuse panel and replace after 5 seconds. For more information on load center fuse panel, see Service - Electrical section of this Operator's Manual. If problem persists, see your John Deere dealer.

KT81203,00004A2-19-31JUL17

Navigate Run Pages on Main Page

If more than one run page is in Active Set, there are multiple ways to choose which run page is displayed on main page.

Title Bar

PC17357—UN—03DEC13

A—Title Bar

Select title bar (A) at top of main page to display a list of all run pages that are in Active Set. Choose a run page to return to main page.

Next and Previous Run Page Buttons

PC17358—UN—03DEC13

B—Next and Previous Run Page Buttons
C—Finger Swipe

Select either right or left arrows (B) to cycle through run pages.

Finger Swipe

Swipe finger (C) across display, left and right, to cycle through run pages.

Navigation Bar Shortcut Button

PC17359—UN—03DEC13

D—Navigation Bar Shortcut Button

Select right arrow (D) below display in CommandCenter™ Navigation Bar.

Extended Monitor

Extended monitor is a secondary display used to show a second active run page.

PC23154—UN—10OCT16

Swap Button

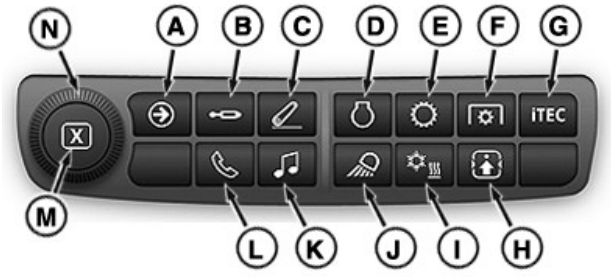
Select the Swap button to transfer active run page to the secondary display. All functionality of the transferred run page remains active on the extended monitor. The next run page in the active set becomes the active run page on the primary display.

For more information on extended monitor, see onscreen help.

DX,PC,LAYOUT,NAV-19-30APR18

Shortcut Buttons

Generation 4 CommandCenter™ navigation bar shortcut buttons allow direct access to specific applications.



RXA0132501—UN—15MAY13

A—Next Run Page
B—SCV
C—Rear Hitch
D—Engine
E—Transmission
F—PTO
G—iTEC™
H—Controls Setup
I—HVAC
J—Lights

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K—Audio
L—Phone
M—Close Button
N—Adjustment Dial

NOTE: If CommandCenter™ becomes unresponsive, reset by holding down Next Run Page button (A) and button below (no icon) for five seconds. If problem continues after reset, see your John Deere dealer.

KT81203,00004A3-19-11OCT17

Display and Sound

PC16685—UN—18MAR13

Display and Sound

Display and Sound application adjusts display brightness and volume level.

If multiple displays are connected, use this application to configure which functions appear on each display.

If screen touches do not register in correct location, use Touchscreen Calibration to realign screen.

Navigate to Display and Sound

1. Select Menu.
2. Select System tab.
3. Select Display and Sound application.

DX,PC,DISP-19-21DEC15

Brightness

Brightness and Color Mode

- ***Auto Mode***

Auto Mode is recommended setting. This synchronizes display brightness with cab light switch. If cab lights are off, display is in Day Mode. If cab lights are on, display is in Night Mode.

- ***Day and Night Modes***

PC15319—UN—20MAY13

A—Day Mode

B—Night Mode

Select either mode to prevent display brightness from synchronizing with cab light switch.

NOTE: The mode selected does not adjust brightness of a second display. Adjust brightness of that display through its settings.

Brightness Settings

PC15320—UN—20MAY13

A—Day Settings
B—Night Settings

Select either settings button to display a popup page for corresponding brightness mode.

PC15321—UN—20MAY13

C—Display Brightness
D—Cab Brightness

Depending on mode selected with settings button, adjust display and cab brightness by using plus (+) and minus (-) buttons.

DX,PC,DISP,BRIGHT-19-07APR17

Sound

PC15322—UN—20MAY13

Display Volume

Change display volume by selecting increase (+) or decrease (-) buttons.

DX,PC,DISP,SOUND-19-21DEC15

Multiple Displays

PC15323—UN—20MAY13

Multiple Displays

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Generation 4 CommandCenter™ may be configured to run with the following John Deere displays connected at corner post.

- GreenStar™ 2 1800 Display
- GreenStar™ 3 2630 Display
- 4640 Universal Display

Some applications, such as AutoTrac™, cannot run on both displays at the same time.

Activations do not transfer between displays. Second display must have its own activations to run AMS applications.

PC20416—UN—12MAY15

GS3 2630 Display

Installing a GS2, GS3, or Generation 4 Display

1. Ensure that key switch and CommandCenter™ are off.
2. Attach display harness to corner post connector and 26-pin display connector to back of display.
3. Turn on the key switch.
4. CommandCenter™ display searches for second display on implement CAN bus for approximately 60 seconds. If CommandCenter™ was previously in Single Display Mode, it displays a message stating, “Multiple Displays Detected.”
5. Select a configuration preset:

   Single Display

   - Do NOT use this option in this scenario. This mode is only used if second display is not installed.

   Multiple Display – Machine Only

   - Precision Ag Applications and ISOBUS implements only appear on second display, not CommandCenter™. Use this option when connected to an ISOBUS implement with Auxiliary Reconfigurable Control.

   Multiple – Implement Viewer

   - Precision Ag Applications appear on second display.
   - ISOBUS implements appear on CommandCenter™ or second display depending on the “Next VT display” setting of implement.

   NOTE: If ISOBUS implement does not have “Next VT display” function, implement appears on display that starts up first.

   Multiple Display – Precision Ag Applications

   - Precision Ag Applications and SeedStar™ 4 HP Planter Applications appear on CommandCenter™.
   - ISOBUS implements appear on second display or CommandCenter™ depending on the "Next VT display" setting of implement.

   NOTE: If ISOBUS implement does not have “Next VT display” function, implement appears on display that starts up first.

   Advanced Setup

   - Manually set configurations.

6. Cycle key switch off and on to save settings.

   When display settings are changed, corresponding changes must be made to the other display.

   If either of these modes is selected:

   Single Display

   - Either disable GreenStar™, task controller, and implement bus virtual terminal (VT) on other display, or disconnect other display.

   Multiple Display – Precision Ag Applications

   - Disable GreenStar™ and task controller on other display.

   To access multiple display settings on other GreenStar™ displays:

   - 4640 Universal Display: Select Menu button > System tab > Display and Sound application > Multiple Display tab.
   - GreenStar™ 3 2630: Select Menu button > Display button > Diagnostics softkey > Multiple Displays tab > Change Settings button.
   - GreenStar™ 2 1800: Select Menu button >

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AutoTrac is a trademark of Deere & Company
SeedStar is a trademark of Deere & Company

Display button > Settings softkey > Multiple Displays softkey.

Removing a GS2, GS3, or Generation 4 Display

1. Ensure that key switch and CommandCenter™ are off.
2. Detach display harness from the 26-pin display connector at back of display.
3. Turn on the key switch.
4. CommandCenter™ display searches for second display on Implement CAN bus for approximately 2—3 minutes. If CommandCenter™ was previously in one of the Multiple Display Modes, it displays a message stating “Second Display Not Found.”
5. Cycle key switch off and on to save settings.

Removing a Third-Party Display

1. Ensure that key switch and CommandCenter™ are off.
2. Detach display harness from third-party display.
3. Turn on the key switch.
4. CommandCenter™ display searches for second display on Implement CAN bus for approximately 2—3 minutes. If CommandCenter™ was previously in one of the Multiple Display Modes, it displays a message stating “Second Display Not Found.” If the “Second Display Not Found” message does not appear after 3 minutes, skip to step 5.
5. Ensure CommandCenter™ is in Single Display Mode and third-party display is unplugged.
6. Cycle key switch off and on to save settings.

Operating AutoTrac™ on CommandCenter™

NOTE: Generation 4 OS software updates 2015-1 (8.12.2500-17) and newer disable Precision Ag Applications when a secondary GreenStar™ display is detected. Disconnect GreenStar™ display inside cab to operate Precision Ag functions on Generation 4 CommandCenter™ with these software versions.

After installing a GS3 2630 Display, AutoTrac™ defaults to that display. Follow these instructions to run AutoTrac™ on CommandCenter™.

NOTE: After procedure, GS3 2630 Display will not run any GreenStar™ applications, including Section Control.

1. Ensure CommandCenter™ is in Single Display Mode and GS3 2630 Display is unplugged. Turn key switch off.
2. Plug in GS3 2630 Display and turn on the key switch.
3. When CommandCenter™ boots up, select Multiple – Compatibility Mode. Reboot display.
4. On GS3 2630 Display, select Menu button > Display button > Diagnostics softkey > Multiple Displays tab. Turn off GreenStar™ application. Depending on configuration, display may reboot.
5. On CommandCenter™, select Display and Sound application > Multiple Displays tab. Turn on Precision Ag Applications. Reboot display.

DX,PC,DISP,MULTI-19-30APR18

Display Calibration

Touch Screen Calibration may be required if screen does not register a touch in a desired location. Touch screen is factory calibrated and should not need to be calibrated under normal service. If calibration does not resolve issue, contact a John Deere dealer.

1. Select Begin Calibration.
2. A large "X" and instructions are provided to lead operators through calibration process.
3. Each time “X” is pressed, instructions change and “X” moves to another area of screen.

NOTE: If touch screen malfunctions, a USB mouse may be used. Connect mouse to display’s USB port.

DX,PC,DISP,CAL-19-21DEC15

Date and Time

PC15314—UN—15MAY13

Date and Time

Information from Date and Time application is used for several important functions on system. These include error logging, activations, and data recording.

Date and time are set automatically if a GPS receiver is connected and receiving valid signal. In this case, only set time zone.

Current date and time can be found at any time by selecting Status Center at top of main run page.

NOTE: Date and Time setting affects how Guidance and Documentation data are filtered on display and desktop software.

Navigate to Date and Time

1. Select Menu.

2. Select System tab.
3. Select Date and Time application.

DX,PC,DATE-19-21DEC15

Change Current Date

PC15315—UN—15MAY13

A—Date Set by User
B—Date Determined by GPS

Date can only be changed if GPS is not connected or GPS signal is not available. Otherwise, GPS signal determines date.

Date Format does not depend on GPS signal, and can be changed at any time.

1. Select day, month, or year.
2. Use keypad to enter correct value.
3. Select Done to apply changes or Cancel to return to previous page without applying changes.

Date Format

1. Select Date Format box.
2. Select desired date format from list.
3. Select Done to apply changes or Cancel to return to the previous page without applying changes.

DX,PC,DATE,DATE-19-21DEC15

Change Current Time

PC15316—UN—15MAY13

A—Time Set by User
B—Time Determined by GPS

Current Time can only be changed if GPS is not connected or GPS signal is not available. Otherwise, GPS signal determines time.

Time Zone and Time Format do not depend on GPS signal, and can be changed at any time.

1. Select hour or minute.
2. Use keypad to enter correct value.
3. Select Done to apply changes or Cancel to return to previous page without applying changes.

Time Zone

1. Select a continent or ocean and select Next.
2. Select a country and select Next.
3. Select a time zone and select Next.
4. Confirm selected time zone and select OK.

Time Format

Use radio button to select 12 Hour or 24 Hour time format.

DX,PC,DATE,TIME-19-21DEC15

Language and Units

PC16677—UN—18MAR13

Language and Units

Language and Units is used to change Language, Number Format, and Units of Measurement.

Different settings can be created for both the display and for controllers that are displayed in ISOBUS VT. Select either tab to change settings.

Navigate to Language and Units

1. Select Menu.
2. Select System tab.
3. Select Language and Units application.

DX,PC,LANG-19-21DEC15

Language and Units Settings

Display

Select Language, Number Format, and Units of Measurement from list boxes.

ISOBUS VT

It is possible for controllers that display in ISOBUS VT to have different units of measure than rest of display. Remove check from *Use Same Units of Measure as Display* to enable list boxes for:

- Number Format
- Distance
- Area
- Volume
- Mass
- Temperature
- Pressure
- Force

Saving Settings

After new settings are selected, select Save button. Display must reboot to apply changes.

DX,PC,LANG,SETTINGS-19-21DEC15

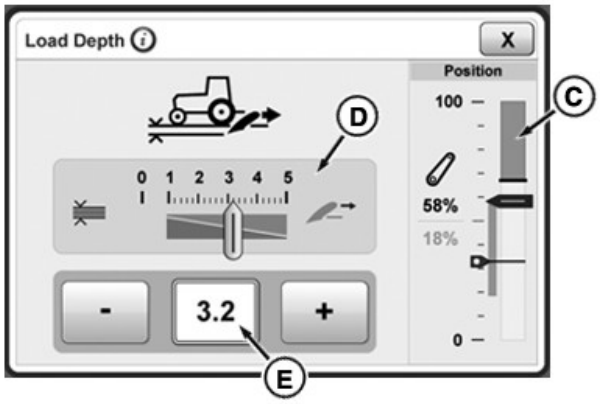
Change Pages and Values

Various methods are provided to allow selection and modification of CommandCenter™ pages and values.

RXA0133414—UN—27JUN13

Input Fields

- **A—Section Tab:** To change to different section topic, click desired section tab.
- **B—Icons:** Select to open application.



RXA0130123—UN—23APR13

Menu

- **C—Bar Graph:** To change value, use increase (+) or decrease (-) buttons.
- **D—Slider Bar:** To change value, select slider bar module and use increase (+) or decrease (-) button.
- **E—Input Box:** Use increase (+) or decrease (-) buttons to adjust value. To enter new values or text, select desired input box.

NOTE: When changing values using adjustment dial, increasing speed of adjustment dial rotation increases speed of value changes.

CommandCenter is a trademark of Deere & Company

If a large range of values is available a numeric keypad appears, allowing direct input of desired value.

KT81203,00004A7-19-03AUG17

Status Center

PC17275—UN—13AUG13

A—8.4 and 10 inch Display Status Center
B—7 inch Display Status Center

Status Center highlights important information for display functions, such as GPS signal strength and notifications. It is located in title bar on 8.4 and 10 inch displays, and in lower left corner on 7 inch displays.

Select Status Center to display additional information in a drop down window. The expanded Status Center provides quick access to notifications and settings.

NOTE: Date and Time and Data Storage are always displayed in Status Center.

Additional information is displayed depending on machine configuration and notifications.

DX,PC,INTRO,STATUS-19-23APR18

Shortcut Softkeys

PC17276—UN—13AUG13

A—Shortcut Softkeys

Shortcut softkeys (A) display status information and provide quick access to application functions.

PC17277—UN—13AUG13

B—7 Inch Display Expand Button

Softkeys are always visible along the bottom of the 8.4 and 10 inch displays. On 7 inch display, select expand button (B) to display softkeys.

(Refer to Layout Manager application for information about customizing the shortcut bar.)

DX,PC,INTRO,SHORTCUTBAR-19-23APR18

Software Manager

PC15346—UN—11JUL13

Software Manager

Use Software Manager to update software, activate features, and find software version details.

Navigate to Software Manager

1. Select Menu.
2. Select System tab.
3. Select Software Manager application.

Software Packages

Generation 4 display software and help files are organized into packages. Each package is listed individually on Installations and Updates tab and Version Information tab.

Generation 4 Operating System

PC23900—UN—17MAR17

- Contains display operating system and basic applications.

Generation 4 Operating System Help

PC23901—UN—17MAR17

- Contains help files for display applications.

AMS Applications

PC23902—UN—17MAR17

- Contains display software.

Machine Applications

PC23903—UN—17MAR17

- Contains Machine software. A John Deere dealer with Service ADVISOR™ is required to install package.

Machine Applications Help

PC23904—UN—17MAR17

- Contains help files for machine applications. Package may be installed without Service ADVISOR™.

NOTE: Onscreen Help packages include each language that the display supports.

DX,PC,SOFT-19-07APR17

Factory and Service ADVISOR™ Installed Onscreen Help

Tractor Application Help Package is installed at factory and with Service ADVISOR™ or Service ADVISOR™ Remote for eight languages listed below:

- Chinese
- English
- French
- German
- Italian
- Portuguese
- Russian
- Spanish

Generation 4 Operating System Help Package is installed for all languages at factory.

For instructions on how to install and update onscreen help packages, see Update Display Software in this Operator's Manual section.

KT81203,00004A9-19-08NOV17

Update Display Software

Determine Software Versions on Display

Version numbers for all installed software packages are available in Version Information tab in Software Manager.

Download Software Updates

PC15348—UN—11JUL13

USB Drive

Software updates are available for download from:

Service ADVISOR is a trademark of Deere & Company

https://my.deere.com/software-downloads/software-manager/

The following items are available:

- Software release notes
- Software Manager utility used to download software to USB drive
- Instructions for using Software Manager utility

Once USB drive has latest software, take it to machine to install update.

Install Software Updates

USB Drive

1. Insert USB drive into upper USB port next to accessory outlet.

PC23932—UN—21MAR17

A—Install Software Button

2. When "USB Drive Options" page is displayed, select Install Software button (A). This displays the Installations & Updates tab of Software Manager.
3. Only software packages that are newer than what is currently installed are displayed. All display software packages are selected by default.
4. Select Install button. If an update does not start, follow the onscreen messages to resolve conflicts.

CAUTION: During software installation:

All applications will be shut down.

No system messages will be displayed.

To prevent injury, ensure that the machine is in Park and maintain electrical power throughout the installation process.

Do not remove USB drive.

PC23933—UN—21MAR17

A—Progress Indicator
B—Install Successful

5. A progress indicator (A) displays percentage of each package that has been installed. A green check mark (B) is displayed when package installs successfully.
6. Message displays when software update is finished. Some software packages require a reboot to finish installation. Select Reboot button to restart display.
7. Remove USB drive and take back to computer. Run Software Manager Utility to upload return files.

NOTE: Return files contain software version information and are used to assist dealers with supporting display and machine.

Online Updates

1. On Installation and Updates tab, select Check for Updates Online. The display searches for available updates.
2. Only software packages that are newer than what is currently installed are displayed. All packages are selected by default.
3. Select Download button. If an update does not start, follow the onscreen messages to resolve conflicts.
4. A progress indicator (A) displays percentage of each package that is being downloaded. A green check mark (B) is displayed when package downloads successfully.
5. Select Install button to begin installation of downloaded software packages.

CAUTION: During software installation:

All applications will be shut down.

No system messages will be displayed.

To prevent injury, ensure the machine is in Park and maintain electrical power throughout the installation process.

6. Message displays when software update is finished. Some software packages require a reboot to finish installation. Select Reboot button to restart display.

Troubleshooting

When a software package fails to install, system rolls back all software to version before update started.

Record error message if software update fails. Remove files from USB drive, and reload software update to USB drive. Repeat software installation process.

If software update continues to fail, contact a John Deere dealer.

DX,PC,SOFT,UPDATE-19-25OCT17

Activations

Use this tab to manage activations on the display.

PC23905—UN—17MAR17

Details Button

StellarSupport.com requires the display serial number, challenge code, and may require a confirmation code in order to generate a code. Select Details button to find this information.

A single code may include multiple features, but it can perform only one type of action (activation or deactivation). For example, one code may activate three features, while a separate code would be needed to deactivate two features.

Enter Activation or Deactivation Code

PC23906—UN—17MAR17

Enter Code Button

1. Select Enter Code button.
2. Using keyboard, enter activation or deactivation code. Select OK button.
3. Record confirmation code, and enter code at StellarSupport.com.

Online Activations

PC24896—UN—23OCT17

Use Online Activations to view or check for available activations using a wireless connection. Activations and subscriptions are generated by StellarSupport.com. The display checks for activations automatically when powered on.

DX,PC,SOFT,ACTIVATE-19-25OCT17

Service ADVISOR™ Remote

PC16682—UN—18MAR13

ISOBUS VT

Service ADVISOR™ Remote is available in the ISOBUS VT application.

PC15293—UN—18MAR13

ISOBUS VT Menu

1. Select Menu button within ISOBUS VT.

PC17281—UN—10SEP13

Remote Software Updates

2. Select Remote Software Updates.

Theory of Operation

Service ADVISOR™ is a diagnostic tool used by John Deere dealers to perform diagnostics as well as updates to machine settings and software. Dealers can access diagnostic trouble codes and diagnostic addresses, create readings and recordings, and program controllers. This technology consists of both software and hardware. Technicians attend a minimum of 8 hours of training to become certified in utilizing this tool.

Service ADVISOR™ Remote (SAR) is a function of Service ADVISOR™ that allows the dealer technician to connect to a SAR enabled machine via the JDLink™ network to remotely access diagnostic trouble code information and record diagnostic data, as well as to remotely program controllers on SAR-enabled machines.

Similar to software (payload) updates in the computer industry, SAR enables John Deere to remotely deliver updated software via the JDLink™ hardware onboard. Remote programming gives John Deere the ability to update software to enhance the performance of the machine. This capability can be used to reprogram most machine controllers. The user actively participates with the dealer in this process by both downloading the software update and installing the software update.

NOTE: Some vehicle controllers may not be compatible for SAR reprogramming.

Vehicle Compatibility

NOTE: If equipped, Users and Access application provides capability to unlock, partially lock, or lock operator access to specific components. This includes the ability to download and install software updates. Please refer to Users and Access for more details.

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JDLink is a trademark of Deere & Company

For a current list of approved vehicles, please contact a John Deere dealer or visit StellarSupport.com.

DX,PC,SAR-19-07APR17

Vehicle Reprogramming

PC20419—UN—13NOV15

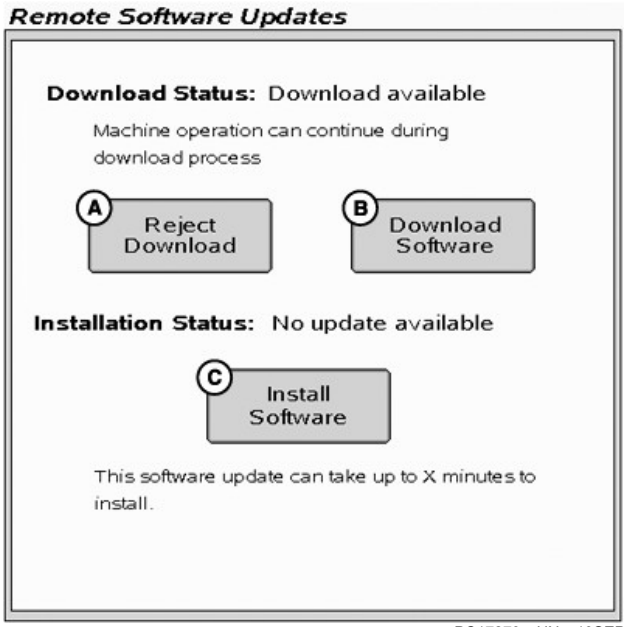
Software Update Available

A—Accept Button
B—Cancel Button

With Service ADVISOR™ Remote (SAR), dealers can send new software to a machine to update control units. Once the dealer sends the software, a message appears on the display stating that there is new software available. Press Accept button (A) to display software updates page.

If the Cancel button (B) is selected, access the page by selecting Remote Software Updates from ISOBUS VT menu.

Download Updates



PC17279—UN—10SEP13

Remote Software Updates

A—Reject Download Button
B—Download Software Button
C—Install Software Button

On the Remote Software Updates page, the operator can either reject (A) or download (B) the new software. Press the Download Software button to start the download process. This process continues in the background and normal machine operation can continue.

Install Updates

PC20420—UN—13NOV15

Update Ready for Install

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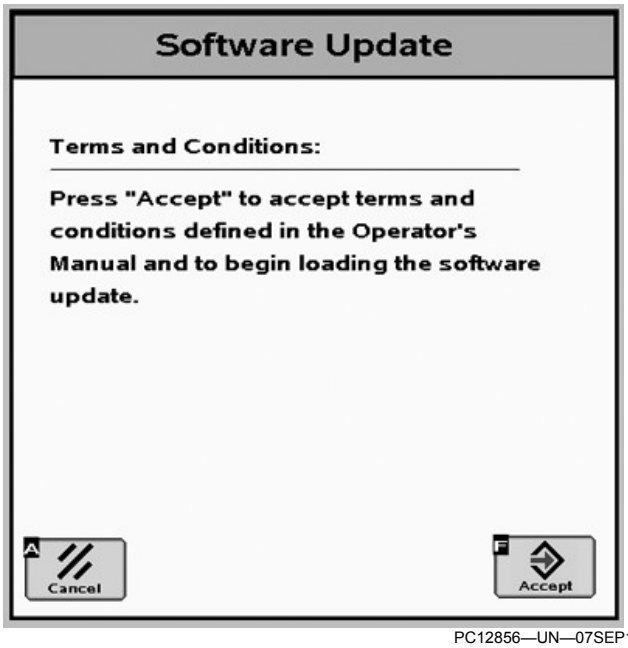
A—Accept Button
B—Cancel Button

Once the software has been downloaded and it is ready for installation, a message appears on the display. Press the Accept button (A) to go to the Remote Software Updates page.

Software installation can take up to 40 minutes. Press the Cancel button (B) to update the software at a later time.



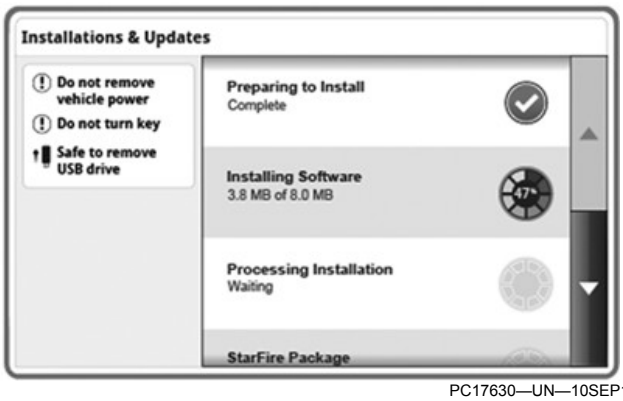
PC12856—UN—07SEP10

PC12672—UN—28JUN10

On the Remote Software Updates page, press the Install Software button to begin the installation process.

Once prompted, accept the terms and conditions and then follow the on-screen instructions.

CAUTION: Some vehicle functions, including lights, may become inoperable during reprogramming. To avoid injury, ensure that the vehicle is in a safe location and configuration before reprogramming. Do not reprogram near public roadways or in active work sites.



PC17630—UN—10SEP13

If a Generation 4 Display update is included with the software download, the display is updated first. When complete, a message appears stating "Software successfully installed" and the display reboots.

Once display is updated, control unit update begins.

PC12857—UN—07SEP10

PC13582—UN—09MAY11

If there is a problem during the install process, the system tries a second install. If the second attempt fails, contact your John Deere dealer.

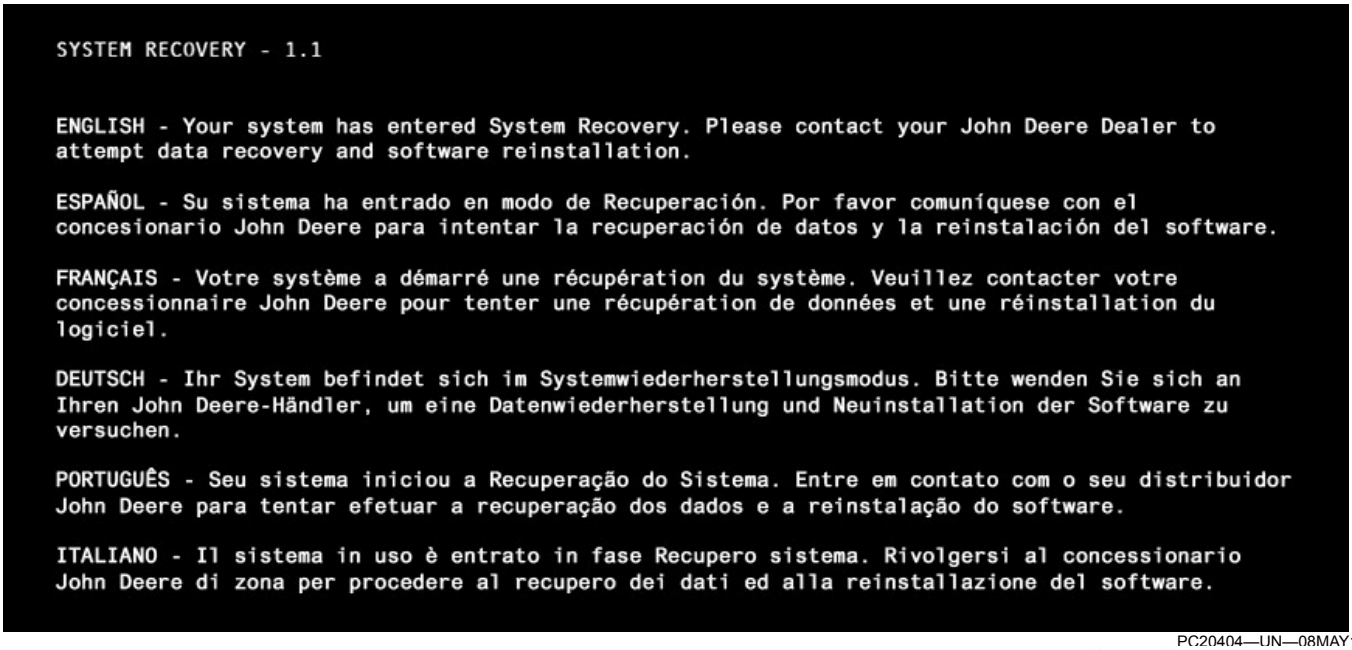
DX,PC,SAR,VEHICLE-19-19APR18

Troubleshooting — Reprogramming

Symptom	Problem	Solution
Accessory Power Lost	Engine started or key turned off.	Do not start engine or remove power while software updates are being installed. Turn key off and return to ON position.
Voltage Low	The system voltage is too low to proceed with the software installation.	Turn off or remove accessories that are unnecessary. Check battery voltage and recharge battery if necessary.
Communication Fault	The software installation cannot be completed because of a communications fault.	Turn key off and then back to on. Then retry software installation. Contact a John Deere dealer if communication cannot be established.
Remote Software Updates button is not on display. *NOTE: Remote Software Updates should be available at all times, whether there is a payload or not.*	Cannot access Remote Software Updates page on the display.	Check harness and connections to MTG.

DX,PC,SAR,TROUBLE-19-19APR18

System Recovery



PC20404—UN—08MAY15

Your system has entered System Recovery. Please contact your John Deere Dealer to attempt data recovery and software reinstallation.

Follow instructions if system recovery message is displayed.

System Recovery tries to protect and potentially save user data. System Recovery initiates when the system detects a conflict that might corrupt the intended functions. For more information about System Recovery, contact your John Deere dealer.

DX,PC,SYS,RECOVERY-19-21OCT16

Remote Display Access

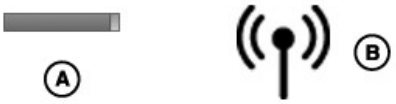
PC17363—UN—16DEC13

Remote Display Access

Use Remote Display Access (RDA) to allow someone from a remote location to view an operating display.

Navigate to Remote Display Access

1. Select Menu.
2. Select Applications tab.
3. Select Remote Access application.



PC17391—UN—16MAY14

A—Signal Strength Bar
B—MTG Connection Icon

Using Remote Display Access

From a computer or mobile device, log in to JDLink.com or MyJohnDeere.com and select the desired machine. Initiate a Remote Display Access session to send an RDA request to the operator in the cab. The request message must be accepted to start the session.

NOTE: When a Remote Display Access session is in progress, there is a blue outline around the display screen to indicate the session is active.

Once connected, the display view is sent through an Ethernet cable to the machine MTG. Using a cellular connection, information from the MTG is sent to the John Deere communications network allowing the display screen to be viewed on JDLink.com or MyJohnDeere.com.

From a remote location, the operator in the cab can be assisted with display setup, optimization, and troubleshooting.

NOTE: Images from Video application are not viewable through Remote Display Access.

Select End Session button on display to stop sharing screen with a remote user.

Troubleshooting

1. Ensure MTG has adequate cellular signal strength. Refer to Signal Strength bar (A).
2. Ensure Ethernet cable is installed correctly to display, MTG, and Ethernet switch (if installed).
3. Ensure software versions of MTG and display are compatible and up to date. Refer to MTG Connection icon (B).

See Network tab in Diagnostics Center for MTG diagnostic readings.

DX,PC,RDA-19-23DEC15

File Manager

PC16671—UN—18MAR13

File Manager

File Manager application is used to transfer data to and from the display. Data can either be transferred wirelessly with John Deere Operations Center, or use a USB drive to transfer data between displays or compatible desktop software.

It is important to back up data to a USB drive periodically.

Display internal memory is intended to have enough capacity to store all data from a machine per season. A message appears when 95% of memory is used. Data should be exported and deleted before memory used exceeds 95%.

Navigate to File Manager

1. Select Menu.
2. Select System tab.
3. Select File Manager Application.

Factory Data Reset

PC17398—UN—22OCT14

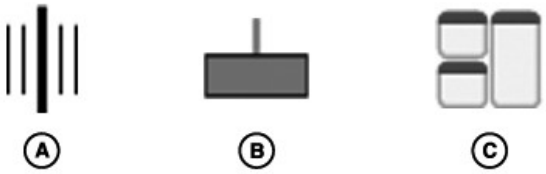
Settings

Select settings at the top of File Manager application to open Factory Data Reset.

Process removes all user data from display and cannot be undone. User data includes setup and documentation data, guidance information, totals, and custom run page layouts. Language and regional settings, and activations are not reset. A reboot is required after reset.

Perform a Factory Data Reset before selling the machine.

Data Types



PC24718—UN—14SEP17

A—Guidance Tracks
B—Implement Profiles
C—Custom Run Pages

- Guidance tracks (A) include guidance lines and associated client, farm, and field names.
- Implement profiles (B) can be transferred between Generation 4 Displays. This includes profiles saved to the display for implements without a controller.

NOTE: Connection type, work recording, operation, and rate controller are not imported with implement profiles.

- Custom run pages (C) can be transferred between Generation 4 Displays that are the same size.

NOTE: Imported run pages are available on the All Run Pages tab in Layout Manager.

Some run page modules reset to default settings when imported.

Run page modules created for ISOBUS VT implement control units appear as unavailable if control unit is not connected to machine.

PC24719—UN—14SEP17

D—Work Data
E—Boundaries
F—Setup Data
G—Prescriptions

- Work data (D) includes mapping and totals data. It can be uploaded to John Deere Operations Center, or unloaded into compatible desktop software. When importing work data, only mapping data is transferred. Work totals cannot be imported.

NOTE: Exporting work data requires a 4200 or 4600 with a CommandCenter™ Premium or a CommandCenter™ Automation activation.

- Boundaries (E) are configured using Fields and Boundaries application.

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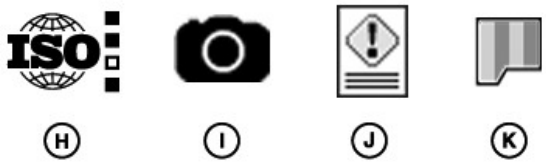
- Setup data (F) includes client, farm, and field names, crop varieties, and products.
- Prescriptions (G) are configured using Work Setup application.



PC24720—UN—14SEP17

H—ISOBUS Tasks
I—Screenshots
J—Error Logs
K—Variety Locator

- ISOBUS tasks (H) are configured using ISOBUS Tasks application.

NOTE: ISOBUS Tasks file size limit is 10 MB.

- Screenshots (I) copy the image displayed on the screen. (Refer to Capture Screenshots for instructions.)
- Error logs (J) are automatically generated by the display and can be used by John Deere to troubleshoot issues.
- Variety locator (K) files are configured using John Deere Operations Center or Apex™.

Data Sync

PC21844—UN—16NOV15

Data Sync

Data Sync is used to manually or automatically send work data directly to John Deere Operations Center. Data is transferred using cellular signal through the modular telematics gateway (MTG).

Data Sync Preference

To automatically send work data, select “Automatically Sync Work Data” checkbox. Data is sent to John Deere Operations Center when MTG is in cellular coverage. If cellular coverage is not available, work data is stored on the display. Data is sent when cellular signal is reacquired and MTG is able to make a call.

Data Triggers

Even though work data is automatically sent from the display to John Deere Operations Center periodically, files cannot be viewed in the Operations Center until one of these triggers occur:

- Start New Work, or change client, farm, or field.
- Lose cellular communication between display and John Deere Operations Center for more than 30 minutes.
- Turn key off, and then turn key on within 30 minutes.
- Turn key off for more than 30 minutes.

Import Data

PC20405—UN—30APR15

Import Data

Select import method:

- Import from USB Drive – Select folders on USB drive that contain data to be imported.
- Import Received Files – Import setup, work data, and prescription files from John Deere Operations Center.

After setup files and prescriptions are imported to the display, use Work Setup to apply the file. Reference help files on John Deere Operations Center for how to create and send setup files to the Generation 4 Display.

Compatibility

Data can be transferred from another Generation 4 Display, GreenStar™ 3 2630 Display, compatible desktop software, or John Deere Operations Center.

John Deere Operations Center does not support the ability to view, send, or receive run pages. If a setup file only contains run pages, the file displays as invalid in John Deere Operations Center. If a setup file contains guidance lines or boundaries, and run pages, the setup file loads correctly, though run pages are not viewable.

NOTE: Update Apex™ or third-party desktop application if there are issues with transferring data.

Choose GS3 2630 card format when exporting from Apex™. To use guidance lines from other GreenStar™ displays, unload guidance lines into Apex™ and then export in GS3 2630 card format.

Data Conflicts

When necessary, imported client, farm, and field names are changed. For example, "Field1" is renamed "Field1 (1)".

If guidance lines are in the same field and created with the same tracking method, the display handles the following conflicts.

Different Name, Same Line

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GreenStar is a trademark of Deere & Company

- If lines are the same, name of guidance line on display is replaced by name on USB drive.

Same Name, Different Line

- If there are two different lines with the same name, line on USB drive is renamed when imported. For example, "Track1" is renamed "Track1(1)".

NOTE: A file may fail to import for multiple reasons. To determine which file is causing problems, remove individual files from USB drive and attempt to import remaining files.

Export Data

PC20406—UN—30APR15

Export Data

Select export method to transfer desired data types.

- Select Custom Export to transfer run pages and field-specific work data and guidance lines.
- Select Export All Data to quickly transfer all work data, guidance lines, and run pages using default settings.
- Select Diagnostic Data to transfer screenshots and error log files.

Delete Data

PC20407—UN—30APR15

Delete Data

Delete data removes selected data types from the display.

- Select Custom Delete to remove work data, guidance lines, prescriptions, and run pages.
- Select Clear Diagnostic Data to remove screenshots and error log files.

DX,PC,FILE-19-25APR18

USB Drive

USB Drive Requirements for John Deere Displays

- Format - Windows FAT or FAT32. This display does not recognize NTFS format.
- Capacity - Recommended capacity is 8 to 32 GB.
- Connectivity - USB 2.0
- Maximum Dimensions - 9.2 mm (3/8 in) thick by 21.7 mm (7/8 in) wide

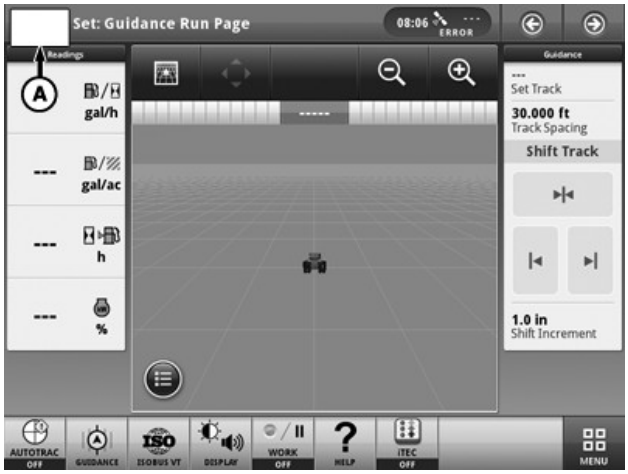
Best Practices

- After inserting USB drive, wait 10 seconds. Large USB drives may take time to be recognized.
- Use a USB drive that is 4 GB or larger, so multiple backups can be stored.
- Clean all files off the USB drive that are not associated with John Deere displays.

Check Display Hardware tab in Diagnostics Center application to determine if display recognizes USB drive.

DX,PC,FILE,USB-19-03OCT17

Capture Screen Shots



PC17263—UN—15JUL13

A—Screen Shot Area

Select area highlighted in top left corner of screen. Press and hold until screen flashes and display makes camera shutter sound.

Insert USB drive and select Export Data to transfer screen shots to drive.

DX,PC,FILE,SCREENSHOT-19-22DEC15

Diagnostics Center

PC17272—UN—17JUL13

Diagnostics Center

Diagnostics Center is the one place to find diagnostics for the entire system. Select one of the tabs for more information.

System Diagnostics

- View diagnostics information for machine, implement, and display applications.

Controller Diagnostics

- Access diagnostic addresses, diagnostic trouble codes, and information specific to each device connected on CAN bus.

Trouble Codes

- View all active or stored diagnostic trouble codes.

Display Hardware

- View diagnostic readings for processor, monitor, and display.

CAN Bus Info

- View diagnostic information for each CAN bus.

Network

- View MTG diagnostic readings.

DataSync

- View Sharing application and data transfer diagnostic information.

Navigate to Diagnostics Center

1. Select Menu.
2. Select System tab.
3. Select Diagnostics Center application.

DX,PC,DIAG-19-25OCT17

Controller Diagnostics

Controller Diagnostics displays the following information for controllers connected on CAN Bus.

Device

- Each device in list is identified by Device ID, CAN Address, and CAN Network location.

Codes

- Indicates if device has diagnostic trouble codes.

Message Count

- Number of CAN messages display has received from controller. Use zero button at bottom of page to reset message count for all devices.

Viewing and Sorting

Select button next to **View by** to change way controllers are displayed. Available views are:

All Devices

- All controllers connected to display are shown.

Implement Bus Devices

- Only controllers on Implement CAN Bus are displayed.

Vehicle Bus Devices

- Only controllers on Vehicle CAN Bus are displayed.

Select button next to **Sort by** to arrange list according to these filters.

Device

- List sorted by device ID.

Has Codes

- List sorted by if device has diagnostic trouble codes.

DX,PC,DIAG,CONTROLLER-19-22DEC15

Diagnostic Information

Select a controller from Controller Diagnostics list for more detailed information.

NOTE: Display is set to Diagnostic Mode when a controller is selected. Diagnostic Mode is removed when controller page is closed.

Diagnostic Addresses

IMPORTANT: Changing settings in Diagnostic Addresses may damage machine or implement controllers. Follow instructions, and use caution when changing address values.

Controllers have addresses that store values for different settings. Each Address is identified by an Address Number and Type. Data addresses can only be viewed (for example, software version information) while Input addresses can be edited (for example, calibration settings).

Diagnostic Trouble Codes

Current and stored codes for the selected controller are displayed. Select a code from list to view code details.

Controller Information

Controller Information displays detailed specifications and identification information from controller. This information is useful for ISOBUS diagnostics.

DX,PC,DIAG,INFO-19-22DEC15

Hide Diagnostic Center

PC15331—UN—08JUL13

Hide Diagnostics Center

Display is set to Diagnostic Mode once a controller is selected. Select Hide Diagnostic Center to minimize application and return to main page.

Hide button is useful for accessing another part of display during a calibration procedure. To return to the same diagnostic page, select Diagnostic Center application from menu.

NOTE: Leaving display in Diagnostic Mode is not recommended, because it can negatively affect performance.

Remove Diagnostic Mode by closing controller page.

DX,PC,DIAG,HIDE-19-22DEC15

Diagnostic Trouble Codes

PC15332—UN—08JUL13

A—Refresh Button
B—Clear Codes Button

Diagnostic Trouble Codes tab displays all current and stored codes that have occurred on the system.

Select Refresh button (A) to clear, and then retrieve all codes.

Select Clear Codes button (B) to remove all codes from display.

Viewing and Sorting

PC15333—UN—09JUL13

Code Types

A—Stop Alert
B—Service Alert
C—Info Alert

Select button next to **View by** to change the way codes are displayed. Available views are:

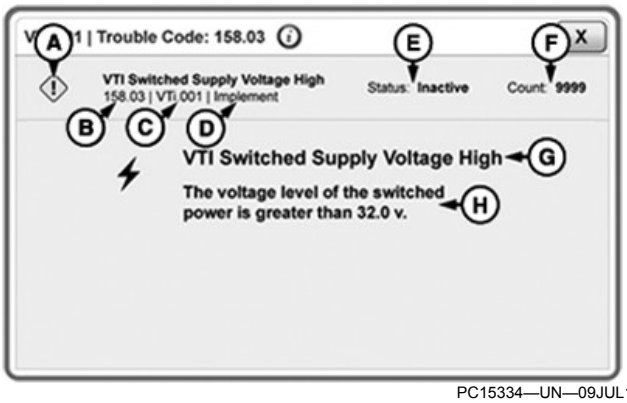
Code

- View by “Code” lists all codes on display. Code Type (A—C), Details, Status, and Count are all displayed. Select a code from list to view Code Details.

Device

- View by “Device” lists all controllers on CAN Bus. Device ID, CAN Network, and if device has codes are all displayed. Select a controller in list to view Device Codes.

Code Details



PC15334—UN—09JUL13

Code Details

A—Diagnostic Trouble Code Type
B—Diagnostic Trouble Code Number
C—Device ID
D—CAN Bus Network
E—Code Status
F—Count
G—Diagnostic Trouble Code
H—Diagnostic Trouble Code Description

Select a diagnostic trouble code to view code details.

DX,PC,DIAG,DTC-19-07APR17

Display Hardware

The following information is available in Display Hardware:

Hardware

- Displays and Processor
  - Part Numbers
  - Serial Numbers
  - Operational Hours
- USB Presence

Electrical

- Unswitched Voltage
- Switched Voltage
- Implement and Vehicle CAN
  - CAN High
  - CAN Low

NOTE: Instantaneous CAN bus voltage averaged each second.

Other

NOTE: Machine must be equipped to receive certain information.

- Radar Input Status
- Radar Frequency
- Implement Switch Status

DX,PC,DIAG,READINGS-19-07APR17

CAN Bus Information

CAN Bus Information tab displays status of communication between the controllers on CAN Bus. Vehicle CAN Bus connects controllers such as engine, hydraulics, and transmission. Implement CAN Bus connects controllers such as StarFire™ receiver, second ISOBUS display, and ISOBUS implements.

PC15335—UN—09JUL13

A—Green Indicator, Normal Range
B—Yellow Indicator, Out of Range

Some values display a green indicator or a yellow indicator with an exclamation point. Depending on machine and implement configuration, yellow might be expected.

- Green Indicator (A) — Value within normal range.
- Yellow Indicator (B) — Value out of normal range.

DX,PC,DIAG,CANINFO-19-07APR17

CAN Bus Values

Network Status

Active

- System is working as expected. In addition to display, at least one controller is connected and communicating on CAN Bus.

Inactive

- Display is not communicating with any other controllers on CAN Bus. If display is only controller on CAN Bus, Total Message Count increases, but Network Status is inactive.

Total Message Count

Total message count is number of messages sent over CAN Bus. When machine is running, this value counts up continuously since there are always messages sent on CAN Bus.

CAN High and CAN Low Voltage

Peak voltage is highest average voltage that has occurred since last cold boot. Voltage measurements are averaged for each second. Peak CAN High and Peak CAN Low voltages normally range between 1.8 and 3.3 Volts.

NOTE: A cold boot occurs after display has been off for 24 hours or after unswitched power has been disconnected from display.

Bus Utilization

Information on CAN Bus is sent in messages between controllers. The John Deere implement CAN Bus is running at a baud rate of 250 kbd, meaning it can switch power up to 256,000 times per second to transmit messages. This is a Bus utilization of 100%.

If a controller, such as an implement, is not running as expected, a Bus utilization of 45% or higher could be a reason for the issue. Some devices cannot send and receive all necessary messages due to high Bus load.

NOTE: Some ISOBUS implements do not work with Bus loads higher than 25%.

A working StarFire™ Receiver causes a Bus load of about 5—7%.

Unplugging implements or GPS receivers can reduce Bus utilization.

Baud Rate

Baud Rate indicates how fast the Bus is working. ISOBUS and John Deere implement Bus are running at a rate of 250 kbd. Any controller connected to this system must work at 250 kbd, otherwise it will not function properly.

CAN Bus State and Error Counts

Four CAN Bus states are possible:

- Active – CAN Bus is running without any problems.
- Passive – Passive errors have occurred.
- Warn – Bus Warn errors have occurred.
- Off – Bus Off errors have occurred.

If one of these errors occurs, display records number of times it happens.

Passive Error Count

- If value counts up higher than zero, a controller on CAN Bus did not receive all messages. Important

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information might have been lost. This is most likely due to high CAN Bus Utilization.

BUS Warn Count

- If value counts up higher than zero, a controller on CAN Bus has issues.

BUS Off Count

- If value counts up higher than zero, a controller on CAN Bus has issues. It missed a certain number of messages and does not receive messages anymore. Important information has been lost. It most likely occurs in combination with high CAN Bus Utilization.

Overrun Error Count

- Overrun Error Count indicates that applications or controllers on CAN Bus receive messages faster than they can process them. This results in missing messages and malfunction of the system. It most likely occurs in combination with high CAN Bus Utilization.

DX,PC,DIAG,CANVALUES-19-22DEC15

Network

Network tab displays diagnostic readings for machines that have a modular telematics gateway (MTG). MTG is one of the main components that enable John Deere telematics solutions, such as JDLink™, Service ADVISOR™ Remote, and John Deere Remote Display Access (RDA).

MTG contains firmware, a cellular modem, and SIM device. It sends and receives data and messages over cellular networks.

RDA requires an uninterrupted cellular connection to function. JDLink™ does not require an uninterrupted cellular connection because the MTG can store up to 1000 hours of data.

DX,PC,DIAG,NETWORK-19-21OCT16

DataSync

DataSync tab displays diagnostics readings for the Sharing application and data transfer.

Shared Work ID is the unique number of the work group the machine is assigned to. Each member of the work group shares the work ID.

Team Client, Team Farm, and Team Field are the names of the client, farm, and field associated with the current work group. Use Sharing application to make changes to these settings.

DX,PC,DIAG,DATASYNC-19-23OCT17

Users and Access

PC17262—UN—12JUL13

Users and Access

Users and Access manages user profile settings to lock users out of certain features.

User Profiles tab

- Change display profile and set PIN for administrator access.

Access Groups tab

- Store display features that are locked.

Navigate to Users and Access

1. Select Menu.
2. Select System tab.
3. Select Users and Access application.

DX,PC,USERS-19-22DEC15

User Profiles

PC17265—UN—15JUL13

A—Administrator Profile
B—Operator Profile

Display can be set to one of two profiles, Administrator or Operator. The active profile is displayed above profile list.

Administrator Profile (A)

Administrator profile always set to Full Access Group. It allows unlimited access of all features, and ability to lock and unlock features in Operator Profile. A PIN can be set to lock users out of the Administrator Profile.

Operator Profile (B)

Operator profile always set to Limited Access Group. It is restricted to only features it is given access to.

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Service ADVISOR is a trademark of Deere & Company

Operator Profile must be active profile and Administrator Profile must have a PIN for features to be locked.

Change Active Profile

PC17266—UN—15JUL13

A—Change Profile Button
B—Edit Button
C—View Button

Select Change Profile button (A) and select profile from list.

NOTE: If a PIN has been created for the administrator profile, it must be entered when switching from Operator Profile to Administrator Profile.

Add/Change PIN

Select Edit button (B) for Administrator Profile. Select Add/Change PIN button.

DX,PC,USERS,PROFILES-19-07APR17

Access Groups

Access Groups store display features users have access to. Full Access group is able to use all features on display, while Limited Access group can be restricted to only certain features.

NOTE: Full Access Group can not be edited.

Limited Access groups can only be edited if Administrator Profile is Active Profile.

PC17267—UN—15JUL13

A—View Button
B—Edit Group Button

Select View button (A) to display Access Group Summary. Select Edit Group button (B) to make changes to Access Group.

Edit Access Group

PC17268—UN—15JUL13

A—Unlock Icon
B—Lock Icon

For each application listed, “None Locked” is displayed if no features are locked. When features are locked, they are listed under the application name and icon changes to locked.

Select an application to highlight it and select Edit button.

Edit Access Rights page displays a list of features that can be locked or unlocked by toggling lock/unlock switch. Save changes by closing page.

DX,PC,USERS,GROUPS-19-07APR17

Layout Manager

PC16678—UN—18MAR13

Layout Manager

Use Layout Manager to create and modify run pages and shortcut bar so important information and functions can be accessed from the main page.

Run pages are made of "modules" or blocks that contain information and buttons. Modules can be added, removed, and rearranged on a run page.

Unlimited run pages can be created and saved. Only one Run Page Set with up to ten run pages can be created.

Custom run pages can be imported from another Generation 4 Display that is the same size. Imported run pages are available in All Run Pages.

Navigate to Layout Manager

1. Select Menu.
2. Select Applications tab.
3. Select Layout Manager application.

DX,PC,LAYOUT-19-22DEC15

Active Set

PC15336—UN—10JUL13

Active Set

Active Set is a collection of up to ten run pages that are grouped together for an operation (i.e. planting or tillage). Only pages in Active Set appear when cycling through run pages on main page.

Select Active Set to display Edit Run Page Set page.

Add Run Page to Active Set

PC15341—UN—10JUL13

Add Run Page Button

Select Add Run Page button to display a list of run pages that can be added to the set. Choose one of the run pages and select OK.

Edit Run Pages in Active Set

PC15338—UN—10JUL13

A—Edit Button
B—Duplicate Button
C—Up Button
D—Down Button
E—Remove Button

Select one of the run pages to show a row of buttons for editing that run page.

Select Edit button (A) to change the modules on run page.

Select Duplicate button (B) to create a new run page with same modules.

Select Up and Down buttons (C and D) to change order of run pages. Run page order is used when cycling through pages on main page.

Select Remove button (E) to delete run page from Active Set. Run page is still in All Run Pages list, just no longer in Active Set.

NOTE: Remove button is not shown if only one run page is in Active Set.

DX,PC,LAYOUT,ACTIVESET-19-07APR17

Shortcut Bar

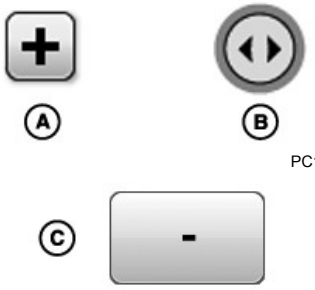
PC17276—UN—13AUG13

A—Shortcut Softkeys

Shortcut bar is a collection of shortcut softkeys that display status information and provide quick access to application functions.

Select Default Shortcut Bar to Edit the Shortcut Bar.

Edit Shortcut Bar



PC17386—UN—15MAY14

PC17387—UN—15MAY14

A—Add Button
B—Move Shortcut Icon
C—Remove Shortcut Button

Shortcuts can be added, removed, and rearranged on the shortcut bar.

NOTE: The same shortcut can only be placed on the shortcut bar once.

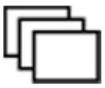
Select Add Shortcut button (A) and choose application with appropriate content. Applications without available shortcuts are grayed out. From list, find shortcut that performs desired function and select Add button.

Once added to shortcut bar, select shortcut to highlight it. Press and slide shortcut (B) to move it to an open area.

To remove a shortcut, select shortcut to highlight it and select Remove button (C).

DX,PC,LAYOUT,SHORTCUTBAR-19-07APR17

All Run Pages

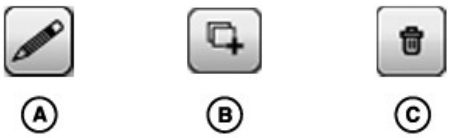


PC15340—UN—10JUL13

All Run Pages

All Run Pages tab displays every run page that has been created on display. These include current run pages that are in Active Set, as well as run pages that will be used in future operations.

Edit Run Page



PC15339—UN—10JUL13

A—Edit Button
B—Duplicate Button
C—Remove Button

Select one of the run pages to show a row of buttons for editing that run page.

Select Edit button (A) to change the modules on run page.

Select Duplicate button (B) to create a new run page with same modules.

Select Remove button (C) to delete run page from display. This permanently removes run page from display and Active Set.

NOTE: Remove button is not shown if factory default run page is selected.

Create Run Page

PC15341—UN—10JUL13

Add New Button

Select Add New button to create a new Run Page.

DX,PC,LAYOUT,ALLRUNPAGES-19-07APR17

Add, Edit, or Duplicate Run Pages

The same interface is displayed when adding, editing, or duplicating a run page. A new run page starts out blank, while duplicate or edited run pages have existing modules.

Run Page Name

PC15337—UN—10JUL13

A—Edit Button
B—Add Module Button

Every run page must have a unique name. Select Edit button (A) to either name or rename run page.

Add Module

Select Add Module button (B) and choose application with appropriate content. From list, find module with desired information and select Add button.

NOTE: The same module can only be placed on a run page once.

NOTE: Start with larger modules before adding smaller modules to fill in space.

Use grid to determine amount of space required for a module.

Rearrange Modules

PC15342—UN—10JUL13

Move Module

Once added to run page, select module to highlight it. Press and slide module to move it to an open area.

Remove Module

PC15343—UN—10JUL13

Remove Module Button

Select module to highlight it, and select Remove button.

DX,PC,LAYOUT,ADDRUNPAGES-19-07APR17

Fields and Boundaries

PC17260—UN—11JUL13

Fields and Boundaries Application

Field names organize information so it is easier to find and use data, such as guidance lines. Using field names is optional, and a "---" appears for undefined names.

Use Fields and Boundaries application to:

- Select field location name used for all other applications.
- Create a client, farm, or field name.
- Change the name of a client, farm, or field.
- Associate a field to a different farm or client.
- Delete a client, farm, or field.
- Create boundaries.

Select Client, Farm, and Field box to set current location and choose field name used for all other applications.

Integration with Guidance

- A field can be associated to a guidance track when the track is created, or by editing the track.
- Guidance track list can be filtered by field name.

Run Page Module

A Location module for the Fields application is available in Layout Manager application. It is available on the default Guidance Run Page, and it can be added to any run page.

Select a field in Location module to:

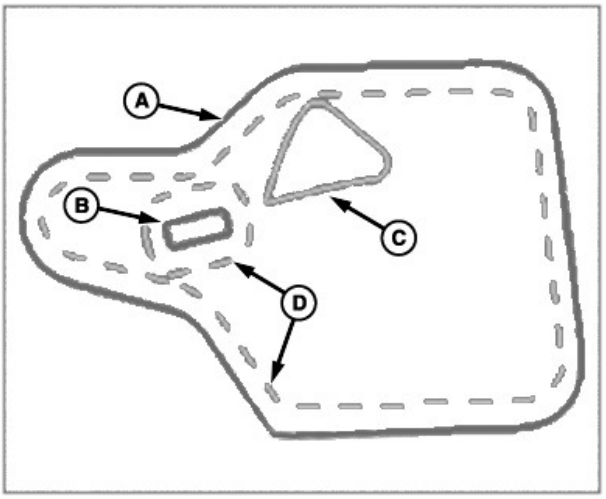
- Filter guidance track list.
- Associate new tracks to the field when they are created.
- Begin new or continue previous work data.

Navigate to Fields

1. Select Menu
2. Select Applications tab.
3. Select Fields application.

DX,PC,FIELDS-19-22DEC15

Field Boundaries



PC21838—UN—19NOV15

A—Exterior Boundary (Pink)
B—Interior Impassable Boundary (Pink)
C—Interior Passable Boundary (Yellow)
D—Headland Boundary (Yellow)

The exterior boundary (A) marks the perimeter of a field.

NOTE: Creating and using interior boundaries requires an exterior boundary.

Interior boundaries mark important areas of field. These can either be impassable (pink) (B) or passable (yellow) (C). An example of an impassable boundary is a well, while an example of a passable boundary is a waterway.

Headland boundaries (yellow dashes) (D) mark areas in the field where there are end rows or turn rows. They are created inside the exterior boundary and around impassable interior boundaries.

When used with Section Control, boundaries prevent application of product inside marked areas of the field and outside of the field.

Area Calculation

An estimated boundary area is calculated on a flat two-dimensional plane. All active interior boundary areas are subtracted from exterior boundary area. Elevation changes are not used in boundary area calculation.

Work Totals include elevation changes in area worked totals. Due to calculation differences, boundary and work totals vary.

Creating a boundary using a coverage map requires the following:

- Field name.
- Coverage map with no coverage gaps around the exterior of the field.

Creating a driven boundary requires the following:

- Field name.
- StarFire™ receiver with SF1 or better signal.

DX,PC,FIELDS,BOUNDARIES-19-23APR18

Manage Clients, Farms, and Fields

Field Organization

PC17389—UN—15MAY14

A—Client
B—Farm
C—Field

Use the following hierarchy to help organize data:

- Clients (A) are the highest level of organization.
- Farms (B) are the middle level of organization. A farm can be associated with a client.
- Fields (C) are the basic level of organization. A field can be associated with a farm and a client.

A strict hierarchy is not necessary, though it is possible to use only field names, and leave farm and client names blank. It is even possible not to use field names at all.

These decisions depend on amount of data being kept. More data requires structure to find fields.

NOTE: In previous John Deere displays, maps and guidance lines were saved based on field names. In the Generation 4 display, data is saved as latitude and longitude points. The field name is only needed as a way to filter data.

Select and Filter Names

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In the Client, Farm, and Field hierarchy, select clients and farms to find fields.

1. Select Client tab.
2. From list, select client. Client name is displayed on Client tab.
3. Farm tab is automatically displayed. Only farms associated with the client are listed.
4. From list, select farm. Farm name is displayed on Farm tab.
5. Field tab is automatically displayed. Only fields associated with the client and farm are listed. Select field.

Remove Filter

Remove filter by selecting Clear Selections button.

Create and Edit Names

NOTE: Clients, farms, or fields should not be renamed after data is recorded. If renamed, change name in other locations, such as John Deere Operations Center.

Client, Farm, and Field names cannot be duplicated. Names associated with different clients and farms must be unique.

Client and Farm Tabs

When Client or Farm tabs are selected, select Edit button at bottom of page to display Edit Client or Edit Farm list.

On either list, select one of the client or farm names to edit it, or select New button at bottom of page to create a name.

Field Tab

When Field tab is selected, highlight field name and select edit button to edit a field. Select New button at bottom of the page to create a name.

Delete Names

To delete a name, edit the client, farm, or field, and select the delete button on the edit page.

- Deleting a client also deletes all farms, fields, and guidance tracks associated with client.
- Deleting a farm also deletes all fields and guidance tracks associated with farm.
- Deleting a field also deletes all guidance tracks associated with field.

DX,PC,FIELDS,MANAGE-19-07APR17

AutoTrac™ Guidance

PC16676—UN—18MAR13

Guidance

Use Guidance application for steering machines through field along guidance tracks. Guidance can be done manually, or automatically using AutoTrac™.

Manual Guidance (included feature)

Manual Guidance, also known as Parallel Tracking™, enables operator to steer manually along guidance tracks using onscreen lightbar, map, and audible tones. A StarFire™ receiver is required to operate Manual Guidance. Parallel Tracking™ shows the machine's position in a field relative to a track determined during the first pass through the field. Parallel Tracking™ has modes to follow a straight, circle, boundary, or curve track. Use the machine icon, lightbar, and line on the display to know which way to steer to stay on the path parallel with the last. Audible alerts allow the operator to focus on the field.

AutoTrac™ Guidance (activation required)

AutoTrac™ is an assisted steering system that automatically steers the machine through the field. AutoTrac™ requires a StarFire™ receiver and an integrated steering system on the machine to operate. After operator enters a reference path (Track 0) in AutoTrac™, machine will steer itself parallel to that track if all conditions are met.

The AutoTrac™ Guidance application provides the tools to:

- Set up a guidance track.
- Change track width.
- Adjust settings to improve guidance performance.
- Engage AutoTrac™.
- View exit codes.

DX,PC,AUTOTRAC-19-30APR18

Equipment Manager

PC20410—UN—22MAY15

Equipment Manager

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Parallel Tracking is a trademark of Deere & Company
StarFire is a trademark of Deere & Company

Select Equipment Manager application to enter Machine and Implement Profile settings. Profile settings are important for accurate performance of John Deere Precision Agricultural applications, such as AutoTrac™, Section Control, and work data maps.

Navigate to Equipment Manager

1. Select Menu.
2. Select Applications tab.
3. Select Equipment Manager application.

DX,PC,EQUIP-19-22DEC15

Machine Profile

General Settings

If display detects machine, some information is automatically set by machine control units.

At this time, profile settings cannot be imported or exported from the display.

Settings specific to certain machine types only appear on page when applicable.

- ***Articulated Tractor Articulation Point***

  Front Axle

  - Distance from articulation point to center of the front axle. Articulation point is the pivoting point of machine when making a turn.

  Rear Axle

  - Distance from articulation point to center of rear axle. Articulation point is the pivoting point of machine when making a turn.
- ***Track Tractor Center of Rotation***

  Center of Rotation

  - Distance from pivot point of the machine to rear axle.

GPS Offsets

- ***GPS Lateral Offset***
  - Lateral distance (left or right) from the center line of the machine to center of GPS receiver. This value is usually set to 0.0 unless GPS receiver is offset left or right of the machine center line. Guidance and Mapping applications require GPS Lateral Offset settings.

- ***GPS Inline Offset***
  - Inline distance from center of the non-steering axle on the machine to center of GPS receiver. Mapping application requires GPS Inline Offset settings.

- ***GPS Height***
  - Vertical distance from GPS receiver to ground.

Connection Offsets

- Inline distance from center of rear axle to connection point. Connection point is location where implement connects to machine. Mapping application requires Connection Offset settings.

Restore Profile to Factory Defaults

NOTE: Only machines detected by the display can have profile settings restored to factory default.

Default machine profile settings are stored in machine control units. Changes to these settings are stored in the display. To reset profile to factory defaults, select settings at the top of Machine Profile page. Then, select Reset Profile button.

Use Help Center Onscreen Help for more information about Equipment Manager and the Machine Profile.

DX,PC,EQUIP,MACHINE-19-07APR17

Implement Profile

Profile name is set automatically based on implement that is auto-detected and cannot be saved. On implements without a control unit, profile name is set by the operator.

Saving Profile Settings

Select Save button to store settings from all tabs and close Implement Profile application. Selecting Save is not required when switching between tabs.

Implement Profile settings are saved in the display according to the following factors:

- Profile Name
- ISO name of the detected implement control unit

NOTE: Set up pre-operation settings in the implement control unit, such as drive configuration, before configuring Implement Profile settings.

ISO name changes when some implement control unit settings change. This includes changing control unit setup between fertilizer and seeding.

Automatic Detection of Profile Settings

NOTE: Section Control must be OFF to detect SeedStar™ 2 or SeedStar™ XP planters when first connected to tractor. After first connection, planter is detected whether Section Control is ON or OFF.

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SeedStar is a trademark of Deere & Company

If an implement control unit is connected, some Implement Profile settings are automatically set by the implement control unit.

An alert stating "Implement Profile Created" is displayed the first time the control unit is connected. When the implement is reconnected in the future, it is identified by its ISO name and Implement Profile settings that are saved in the display are loaded.

NOTE: The alert continues to appear if "Setup Later" is selected.

When an implement is connected that is not recognized, a profile must be created for that implement. Select Add Implement button in Equipment Manager to create an implement profile.

To view currently detected ISO Name, select Diagnostics Center > Controller Diagnostics tab > choose implement control unit > Controller Info tab.

Verify all required settings before operation. Work point is not set automatically.

Connection Types

- Connection type, or hitch, describes how implement is attached to machine and controls how display determines implement movement behind machine.

  Coverage map, documentation, and Section Control require Connection Type settings.

- ***Pivoting Offset***

  Some implements have a pivoting hitch that connects to machine's rear 3-point hitch. The offset for this pivoting location is required for display to determine implement movement behind the machine. Option is available when rear 3-point is selected as the connection type.

Working Width

- Working Width is the width of the area tilled, planted, sprayed, or harvested on each pass through the field. It is used to create work data maps and calculate area worked. Guidance, Mapping, and Area Totals applications require Working Width.

Dimensions

- ***Lateral Offset***

  Lateral distance from center point of the machine to center point of working width of implement. Guidance and Mapping applications require Lateral Offset setting.

- ***Center of Rotation***

  Inline distance from connection point to the implement's center of rotation while in working position. Usually, this is where load bearing parts of implement make contact with ground. Center of Rotation offset is important to accurately model trailing action of implement around curves. Mapping application requires Center of Rotation setting.

- ***Work Point***

  Inline distance from connection point to point where the operation occurs. For example, where seed or product is dropped, a crop is harvested, or ground is tilled. Mapping application requires Work Point setting.

- ***Section Offset (ISOBUS Implements)***

  Inline distance from center of rotation to point where the operation occurs. For example, where seed or product is dropped, a crop is harvested, or ground is tilled. Mapping application requires Section Offset setting.

Work Recording

- Recording Triggers determine when map recording and Work Monitor totals are turned ON and OFF. Not all recording triggers are available for all machine types.

NOTE: In Manual mode, operator must push Record or Pause button to turn work data map recording ON or OFF.

Mechanical Delay

- Mechanical delay is the average time for the product to reach the ground after an ON or OFF command. It may need to change with each machine, implement, and display combination. Mapping application requires Mechanical Delay settings. Settings are critical for Section Control performance.

Use Help Center Onscreen Help for more information about Equipment Manager and the Implement Profile.

DX,PC,EQUIP,IMPLEMENT-19-25APR18

Machine Monitor

PC15318—UN—16MAY13

Machine Monitor

Machine Monitor displays machine-specific performance values. Groupings of values include:

- Speed and Power
- Fuel and Pressure
- Temperature

- Electrical
- Hours

NOTE: Values available in each group depend on machine model.

Select tabs on left-hand side of the page to switch between groups. Select a value to view a popup of just that value.

If a value is not available, dashes will be shown.

Navigate to Machine Monitor

1. Select Menu.
2. Select Applications tab.
3. Select Machine Monitor application.

DX,PC,MACHMON-19-23DEC15

Work Monitor

PC15317—UN—16MAY13

Work Monitor

Work Monitor displays averaged and totaled machine and operation-specific values. Select a value on the page to view a popup window of just that value. Every one of these values can be placed on the main run page.

Use the Reset button at the bottom of the page to clear all values, except instant values. Date and time of the last reset will be indicated next to the button.

To the right of the Reset button, Work Recording indicates whether the Work Monitor is active and currently counting. A pulsing light shows it is active.

Navigate to Work Monitor

1. Select Menu.
2. Select Applications tab.
3. Select Work Monitor application.

DX,PC,WORKMON-19-23DEC15

Work Recording

When Work Recording is ON, map recording and counters that require a recording trigger accumulate. Counters requiring Work Recording include:

- Area Worked
- Time Worked
- Productivity
- Average Fuel Per Area
- Average Working Speed

Select Work Recording in the bottom right hand corner to view a popup window with recording settings.

Recording status is based on the current recording trigger selected in Implement Profile. If the recording trigger does not fit the current operations, press Edit button to change the selected recording trigger. For more information, see Implement Profile section.

NOTE: If recording trigger is set to manual, work recording can be switched on or off by pressing the recording button.

DX,PC,WORKMON,REC-19-23DEC15

Maintenance and Calibrations

PC15324—UN—21MAY13

Maintenance and Calibrations

Maintenance and Calibrations application allows the operator to set up service intervals and perform calibrations on machine components.

Navigate to Maintenance and Calibrations

1. Select Menu.
2. Select Tractor Settings tab.
3. Select Maintenance and Calibrations application.

DX,PC,MAINT-19-23DEC15

Calibrations

Use this application to perform wheel slip calibration and radar calibration.

Radar Calibration

PC23946—UN—22MAR17

Radar Calibration

A radar device needs to be calibrated when it is first installed on the machine or if there is a difference between radar speed and actual ground speed when operating unloaded on a hard surface.

NOTE: In windy conditions, moving parts such as leaves, dust, or gravel can cause inaccurate radar speed.

Wheel Slip Calibration

PC23947—UN—22MAR17

Wheel Slip Calibration

Calibrate wheel slip if there is a mismatch between radar speed and wheel speed when operating unloaded on a hard surface. For more information, see Machine Monitor.

Perform calibration while driving with an unloaded machine on a hard, dry, clean, and level surface.

NOTE: Wheel slip calibration is only available on a connected and calibrated radar device.

Make sure that radar speed is accurate before performing wheel slip calibration.

DX,PC,MAINT,CAL-19-07APR17

Radar Calibration

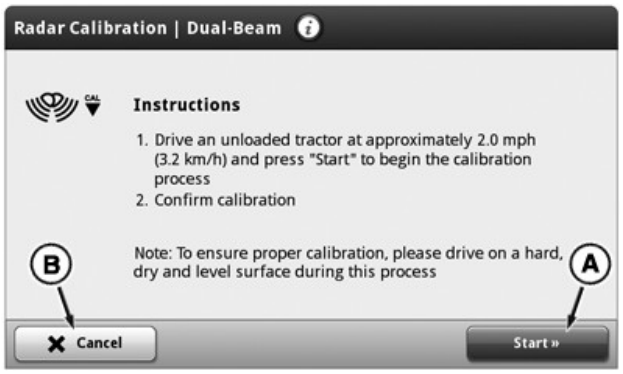
CAUTION: Avoid injury. Perform calibration in safe and open area that is clear of objects and bystanders.

Perform radar calibration if:

- Radar speed and wheel speed are not equal when wheel slip is not present.
- Radar device was installed/replaced.
- Tire size was changed.
- Ballast of tractor was changed.

RXA0147926—UN—13APR15

1. Select **Menu.**
2. Select **Machine Settings tab.**
3. Select **Maintenance & Calibrations icon.**
4. Select **Calibrations tab.**
5. Select **Radar Calibration icon.**
6. Drive unloaded tractor, on hard, dry and level surface, at approximately 3.2 km/h (2.0 mph).



RXA0147580—UN—10MAR15

7. Select Start button (A) to begin radar calibration process.

NOTE: Radar calibration can be canceled by selecting cancel button (B).

RXA0147581—UN—10MAR15

8. Select OK button (C) to complete radar calibration.

If radar calibration is unsuccessful after three attempts, see your John Deere dealer.

KT81203,00004B4-19-01SEP17

Wheel Slip Calibration

CAUTION: Avoid injury. Perform calibration in safe and open area that is clear of objects and bystanders.

Perform wheel slip calibration if:

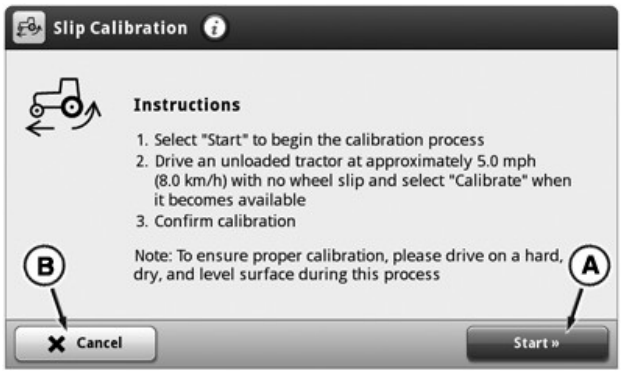
- After radar calibration has been performed.
- Wheel slip is displayed when wheel slip should not be present.
- Tire size was changed.
- Ballast of tractor was changed.

RXA0147928—UN—13APR15

1. Select **Menu.**
2. Select **Machine Settings tab.**
3. Select **Maintenance & Calibrations icon.**
4. Select **Calibrations tab.**

NOTE: Tractor must be in motion for wheel slip calibration icon to appear.

5. Select **Wheel Slip Calibration icon.**



RXA0147582—UN—10MAR15

NOTE: Wheel slip calibration can be canceled by selecting cancel button (B).

6. Select Start button (A) to begin wheel slip calibration process.
7. Drive unloaded tractor, on hard, dry and level surface, at least 8 km/h (5 mph).

RXA0147583—UN—10MAR15

8. Select Calibrate button (C).

RXA0147584—UN—10MAR15

9. Select OK button (D) to complete wheel slip calibration.

If wheel slip calibration is unsuccessful after three attempts, see your John Deere dealer.

KT81203,00004B5-19-01SEP17

Service Intervals

Service Intervals are reminders of when regular maintenance needs to be performed on a machine.

Select Add Service Interval button to create a new service interval. An unlimited number of service intervals can be added.

Once a service interval is created, it is added to the list and displayed with the name, elapsed time, and interval amount.

- The operator selects the name to identify the specific service interval.
- Elapsed indicates the number of hours since the service interval was reset.
- Interval is the number of hours between each service.

The intervals are sorted from least amount of time due to the most amount of time due. They are then sorted by name, in alpha-numerical order, with priority given to numbers.

Twenty hours before the service interval is due, the system will inform the operator that the machine will need to be serviced soon. Once the message has been acknowledged, the system will inform the operator about the upcoming service at every startup until service interval is reset.

DX,PC,MAINT,SERVINTERVAL-19-23DEC15

Service Checks

NOTE: Availability of the Service Checks feature depends on purchase options.

Perform service checks with machine on level ground

and engine off. For accurate readings, wait at least 40 minutes after engine shut down before checking fluid levels.

A light indicates the status of a machine service checkpoint.

- Green light — Normal level
- Red light — High level or low level

The following checkpoints are available:

PC17385—UN—15MAY14

A—Engine Oil Level
B—Engine Coolant Level

- Engine Oil Level (A)
- Engine Coolant Level (B)

DX,PC,MAINT,SERVCHECK-19-07APR17

Steering

RXA0152447—UN—27JUN16

Steering

Steering application allows operator to access and adjust steering settings.

Navigate to Steering

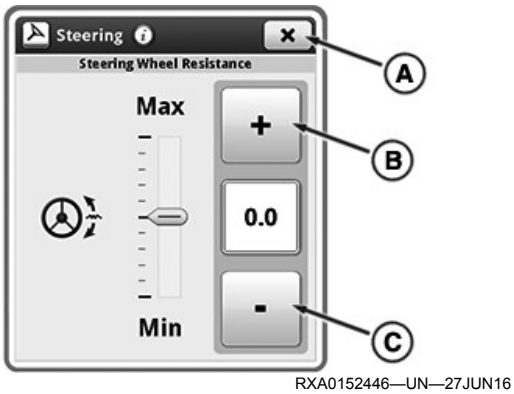
1. Select Menu.
2. Select Machine Settings tab.
3. Select Steering application.

KT81203,00004B8-19-28NOV16

Steering Settings

ACS Steering Setting allows operator to modify force required to turn steering wheel.

1. Access steering application to modify resistance.



RXA0152446—UN—27JUN16

Steering Main Page

2. Select + (B) or - (C) to increase or decrease value.
   - Maximum: 2
   - Minimum: -2
   - Increment: 0.1
   - Default: 0
3. Select close (A).

KT81203,00004B9-19-16JUL18

Controls Setup

PC15326—UN—08JUL13

Controls Setup configures integrated tractor joystick, CommandARM™ levers, iTEC™ buttons, and third-party devices to control tractor or implement functions. ISO Aux implements configures to tractor joystick or third-party device.

Set up assignments:

1. Select Menu.
2. Select Applications tab.
3. Select Controls Setup application.
4. Select from following tabs on left-hand side of page:

NOTE: Unlock tractor joystick to activate default and custom (manually set) assignments. See CommandARM™ Joystick-Custom Setup in Selective Control Valves section of this Operator's Manual.

- **Integrated Tractor Joystick:** assign to control tractor and implement functions (e.g. front hitch).
- **CommandARM™ Levers and iTEC™ Buttons:** assign to control tractor and implement functions (e.g. rear hitch).

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iTEC is a trademark of Deere & Company

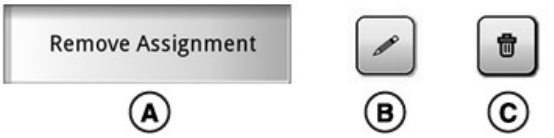
- **Third-Party Devices:** any mechanism, John Deere or non-John Deere, attached to ISOBUS. Once attached, assign control to tractor and implement functions (e.g. wagon).
- **ISO Aux implements:** assign implement (e.g. wagon) function to a specific button on tractor joystick.

5. Select reconfigurable assignment module.

Depending on selected source, the following combinations (assignments) are possible

- **Integrated Tractor Joystick, CommandARM™ Levers and iTEC™ buttons, and Third-Party Devices:** Input + Source + Function
- **ISO Aux Implements:** Function + Device + Input

Manage Assignments:

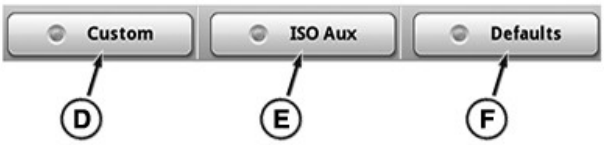


RXA0156706—UN—11JAN17

To edit assignments for tractor joystick, CommandARM™ levers, or iTEC™ buttons, select desired reconfigurable assignment module. To remove assignment, select remove button (A) (in source overlay).

To edit assignments for third-party devices or ISO Aux implements, select edit button (B) in desired reconfigurable assignment module. To remove assignment, select trash button (C).

ISO Aux, Custom, and Defaults:



RXA0156710—UN—12JAN17

NOTE: Select ISO Aux and Custom buttons to enable custom assignments for ISO Aux implements.

ISO Aux (D): determines if messages from tractor joystick are sent to ISO Aux implement. Select to enable implement functions. Select again to disable. Functions are stored until operator edits corresponding assignment.

Custom (E): enables all customized assignments across all groups.

Defaults (F): clears and restores any custom control assignments to factory default settings.

KT81203,00005B2-19-03APR18

Settings Manager

PC22543—UN—22APR16

Settings Manager

Use Settings Manager to load, edit, or save configurations of machine and implement settings. Saved configurations are used to easily restore the settings that a machine and implement use during an operation.

Navigate to Settings Manager

1. Select Menu.
2. Select Applications tab.
3. Select Settings Manager application.

DX,PC,SETTINGS-19-10MAY16

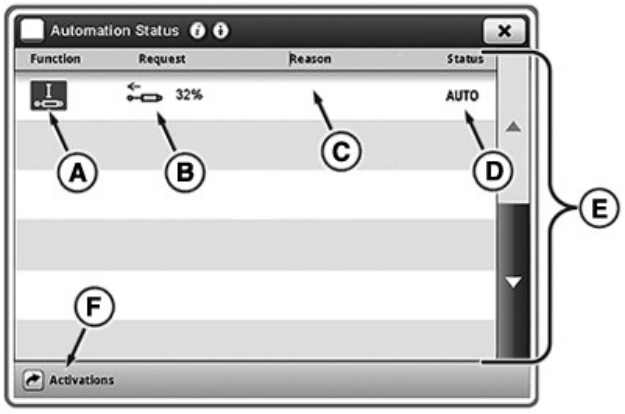
Automation Status

Automation Status allows control of various tractor functions. Automation Status displays which tractor functions are being controlled and their current status.

SCV Function Example: SCV status set to AUTO. Implement actively controls SCV 1. Implement requests SCV flow to be set at 32% in extend direction.

RXA0135014—UN—12AUG13

1. Select **Menu.**
2. Select **Applications tab.**
3. Select **Automation Status icon.**



RXA0135016—UN—12AUG13

Automation Status Page

A—Function
B—Request
C—Reason
D—Status
E—Scroll Bar
F—Activations button

Press Activations button (F) to navigate to Software Manager application.

KT81203,00004BB-19-26JUL17

Read ISOBUS Controller's Operator's Manual

CAUTION: ISOBUS Controller detected

Improper operation can cause unintended machine movement.

To avoid death or serious injury to a bystander, understand how this display operates the functions of the machine.

Read the ISOBUS controller's operator's manual.

Message shown above displays when system detects ISOBUS control unit. For more information, read the ISOBUS controller's operator's manual.

Generation 4 CommandCenter™ display can be used as display device for any control unit meeting ISO 11783 (ISOBUS) standard. This includes capability to control ISOBUS control units. When used in this manner, information and control unit functions placed on the display are provided by control unit and are responsibility of control unit manufacturer. Some of these control unit functions could provide hazard either to operator or bystander. Read operator manual provided by control unit manufacturer and observe all safety messages in manual and on control unit prior to use.

KT81203,00004BC-19-28NOV16

ISOBUS VT

PC16682—UN—18MAR13

ISOBUS VT

This John Deere display supports Agricultural Industry Electronics Foundation (AEF) ISOBUS compatible controllers according to ISO 11783. These controllers can be viewed and operated within the ISOBUS Virtual Terminal (VT).

When an ISOBUS controller is connected, graphic files for the user interface are loaded into ISOBUS VT. Then ISOBUS VT provides a means for the operator to navigate through and operate all available functions of ISOBUS controller.

Navigate to ISOBUS VT

1. Select Menu.
2. Select Applications tab.
3. Select ISOBUS VT application.

Connected ISOBUS Implements and Controllers

The Generation 4 display loads and communicates with different ISOBUS controllers at the same time. A list of all connected ISOBUS controllers is displayed after selecting menu button.

Select desired ISOBUS controller and press OK button to view the user interface.

Troubleshooting

If the interface for an ISOBUS controller does not display correctly:

- View the ISOBUS controller in Status Center, and follow troubleshooting steps for the status indicated. For more information, view ISOBUS controllers in Diagnostic Center.

If the interface still does not display correctly:

1. Select settings at the top of ISOBUS VT application.
2. Select Clean Up ISOBUS VT in advanced settings to clear stored ISOBUS controller user interface files.

The user interface is reloaded the next time the controller is connected.

Run Page Module

ISOBUS VT modules can be added to a run page using the Layout Manager application.

Modules are loaded from implement controller and are only available while controller is connected. The types of modules available are dependent on controller manufacturer. This display is capable of displaying ISOBUS VT version 3.

DX,PC,ISOBUSVT-19-23APR18

StarFire™ GPS Receiver

PC17388—UN—15MAY14

StarFire Receiver

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The StarFire™ GPS receiver acquires global positioning and differential correction signal through a single receiver.

A Terrain Compensation Module (TCM) is integrated into the receiver and corrects for machine dynamics, such as roll and pitch on side-slopes, rough terrain, or varying soil conditions. An accurate TCM calibration is necessary for proper operation.

See the StarFire™ Receiver operator's manual for setup and calibration instructions.

Navigate to StarFire™ GPS Receiver

1. Select Menu.
2. Select Applications tab.
3. Select StarFire™ application.

DX,PC,STARFIRE-19-07APR17

Use Video Display Capability Properly

Avoid Backover Accidents

RXA0109491—UN—05AUG10

Avoid Backover Accidents

CAUTION: Before moving machine, be sure that all persons are clear of machine path. Give audible warning by sounding horn. Turn around and look directly for best visibility. Use mirrors to assist in checking all around machine. Keep windows and mirrors clean, adjusted, and in good condition. Use a signal person when backing if view is obstructed or when in close quarters.

Do not rely on a camera to determine if personnel or obstacles are behind the machine. The system can be limited by many factors including maintenance practices, environmental conditions, and operating range.

CAUTION: Do not rely on a camera for collision avoidance or bystander detection. To avoid possible injury or death to operator or others, always remain alert and aware of surroundings when operating the machine. Read and understand AVOID BACKOVER ACCIDENTS in this section.

IMPORTANT: Avoid damage to equipment. Correctly understand whether the camera is "mirrored" and whether the video application is mirrored.

- **Mount camera in a sturdy and secure location.**
- **Understand camera's field of view.**
- **Keep camera properly serviced.**
- **Keep camera lens clean.**

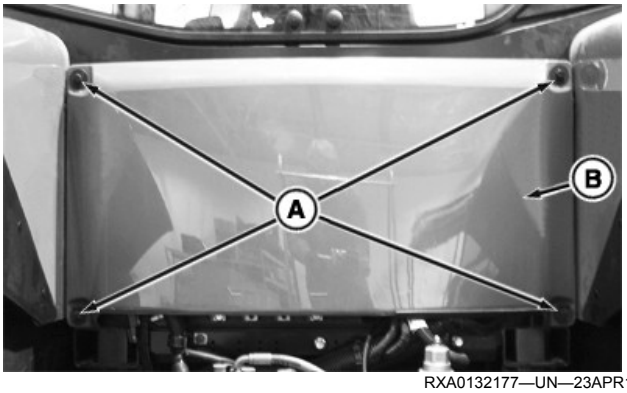
KT81203,00004BD-19-28NOV16

Install Video Display Camera

IMPORTANT: Avoid damaging camera by mounting camera securely to equipment and in location where camera will not be pinched, crushed, kicked, or knocked off.

NOTE: Camera placement is limited to video camera cable length. Consider camera field of view when selecting location.

Tractors equipped with 4200 processor will have one camera input connector and 4600 processor will have four camera input connectors.



RXA0132177—UN—23APR13

Remove Rear Panel

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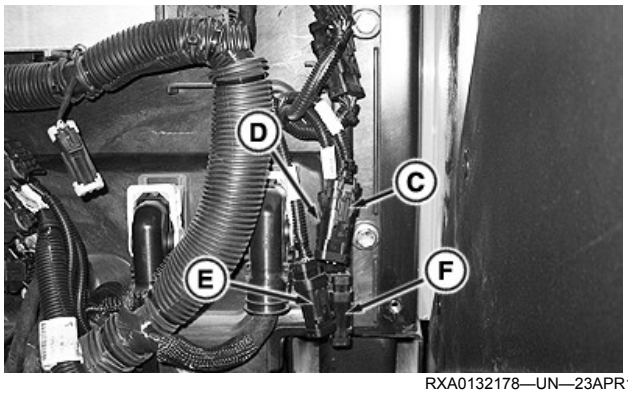
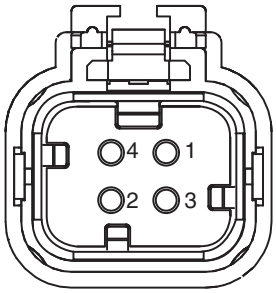


RXA0132178—UN—23APR13

Video Connectors Location (Equipped with 4600 Processor)

1. Tractors are equipped with one or four, 4-pin video connector(s) to attach camera(s). Remove rear cab panel cap screws (A). Remove cab rear panel (B) to access each marked video camera connector(s) (C, D, E or F). Chart shows connector pin/function information.



RXA0107925—UN—28MAY10

Video Connector Pin Identification

Pin Number	Function
1	Power
2	Ground
3	Signal
4	Signal—Ground

2. Connect camera cable into 4-pin connectors, route cable and mount camera at desired location.
3. Install rear panel on cab and tighten screws.
4. Proceed to Video Triggers in this section of this Operator's Manual to select camera settings.

KT81203,00004BE-19-31JUL18

Video

PC15312—UN—15MAY13

Video

CAUTION: Do not rely on a camera for collision avoidance or bystander detection. To avoid possible injury or death to operator or others, always remain alert and aware of surroundings when operating the machine. Read and understand AVOID BACKOVER ACCIDENTS in the safety section.

The Video application is used to observe areas around the machine. Only one video can be viewed at a time.

4600 processor can support up to four camera inputs, while 4200 processor can support only one camera input.

For more information about the different types of displays, see Display Introduction section.

Navigate to Video

1. Select Menu.
2. Select Applications tab.
3. Select Video application.

Switching Cameras

PC23948—UN—22MAR17

Camera Icon

If more than one camera is connected, choose between video inputs by selecting different camera numbers.

Mirror Video

PC23949—UN—22MAR17

Mirror Video Button

Select Mirror Video button to simulate a rear view mirror. This swaps left and right sides of video image.

Contrast

PC23950—UN—22MAR17

Video Contrast Icon

Adjust video contrast using plus (+) and minus (-) buttons. Brighten video by selecting the plus button, and darken video by selecting minus button.

IMPORTANT: Determine if camera image or video application is mirrored before using Video application.

KD34109,0000817-19-20AUG18

Video Triggers

Video can be displayed when certain machine functions are performed (For example: Reversing, PTO engage).

1. Select Edit Triggers to configure settings.
2. Select a trigger.
3. Select camera input for the current trigger. This camera is displayed when trigger is activated.

NOTE: To prevent video from displaying for a trigger, select No Camera.

4. Enter video Timeout length. This is the amount of time video is shown after the trigger becomes inactive.

DX,PC,VIDEO,TRIGGERS-19-23DEC15

Radio Operation

Radio Faceplate Features

Radio faceplate is made up of different buttons, knobs, and switches that perform various audio functions.

RXA0163492—UN—04JUN18

Radio Features		
Features	Option	
	Base (1)	Premium (2)
Radio	•	•
Auxiliary Input	•	•
USB	—	•
Bluetooth®	—	•
Satellite Radio	—	SiriusXM® Ready[a]
Display	7 Segment LCD	Dot Matrix LCD

[a] *XM radio kit must be installed and service activated to use SiriusXM® radio. See SiriusXM® Radio—General Information in this Operator's Manual section for more information.*

Radio Faceplate Controls

A—Volume Control Knob: Turn clockwise to increase and counterclockwise to decrease volume.

B—BND Button: Press briefly to select memory level or wave band. Press and hold to start T-STORE function. T-STORE function scans band and sets FMT or AMT station buttons 1-6 to strongest signals. Press to accept phone call when call is coming in.

C—Power Button: Press and hold for 2 seconds to turn radio on or off. Press briefly during operation to mute radio.

D—Display: Shows current audio activity/information.

E—Menu Button: Access menu for basic settings. When phone is in use, press to end call.

F—Multi-Function Rocker Switch: Use to navigate within display and switch functions. Press left or right to seek up or down to next available station. Press up or down to manually tune frequency, change category when using SiriusXM® (when CAT mode is active), and browse folders when using USB.

G—AUD Button: Press briefly to access audio menu to adjust treble, middle, bass, balance, and fade. Press and hold to restore treble, bass, and middle back to factory sound setting for currently used audio source. Press and hold to restore balance and fade back to factory sound setting for all audio sources.

H—Station Buttons Save as presets. Press and hold to save current station (beep will sound). Press again to bring radio back to saved station. Depending on radio type, station buttons may have these specialized functions:

- **Station Button 1/Play or Pause Button:** When USB is in use, press to pause current track. Press again to play.
- **Station Button 2/RPT:** When USB is in use, press to repeat track. Press again to repeat all tracks in current playlist. Press a third time to turn off.
- **Station Button 3/MIX:** When USB is in use, press to

play songs in current playlist at random. Press again to play all songs at random. Press a third time to turn off.

- **Station Button 4/SCAN:** When USB is in use, press to play all tracks for approximately 10 seconds each until pressed again.
- **Station Button 5/SCRL:** When USB is in use, press to turn scrolling track information on display on or off.
- **Station Button 6:** When USB is in use, press to switch between display of elapsed and remaining playing time of current track.

I—TA Button: Press to switch from user/audio menus to current source or exit radio scan functions. When USB is in use, press and hold to activate playlist mode.

J—SRC Button: Source selection between radio and AUX (also USB, Bluetooth®, and SiriusXM® depending on model) provided medium is inserted or device is connected and turned on.

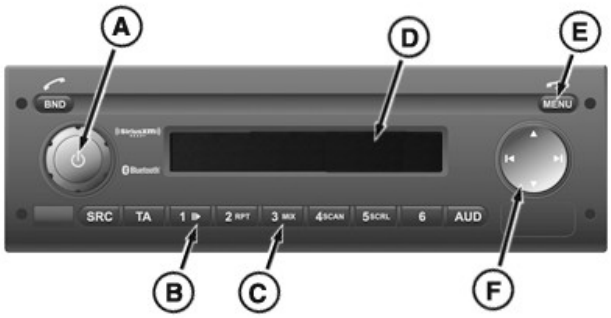
*NOTE: Playlist must be created on computer and saved as *.m3u or *.pls.*

KT81203,0000580-19-05JUN18

Select Radio Receiver Wave Band

Radio stations cannot be received if correct country-specific wave band is not selected for radio receiver. Select correct wave band:

1. Move key switch into ACC position.



RXA0163493—UN—04JUN18

2. Turn off radio with power button (A).
3. Press and hold power button, station button 1 (B), and station button 3 (C) until SETUP appears on display (D).
4. Press menu button (E) until current wave band (example: EUROPE, NAFTA, etc.) is shown on display. Countries and their associated wave bands are shown in chart.
5. If wave band shown on display is not correct, press multi-function rocker switch (F) left or right until correct wave band is shown.

Bluetooth is a trademark of Bluetooth SIG

NOTE: If radio will not store selected wave band, radio may be CommandCenter™ controlled. See your John Deere dealer.

6. Without changing selected wave band, turn off radio.

Wave Band	Country	
EUROPE	Austria Belgium Bulgaria Croatia Denmark United Kingdom Estonia Finland France Hungary Italy Kazakhstan Lithuania Luxemburg	Latvia Netherlands Poland Portugal Romania Russia Serbia Slovakia Spain Sweden Switzerland Turkey Ukraine
NAFTA	Canada Dominican Republic	Mexico United States (USA)
SOTHAMRCA	Argentina Bolivia Brazil Guyana	Nicaragua Uruguay Venezuela
MESTAFRC	Armenia Ethiopia Israel	Oman South Africa Zambia
APAC	China Japan	Korea
AUSTRLNZ	Australia	New Zealand
TAIWAN	Taiwan	
PHILIPIN	Philippines	

KT81203,00004C1-19-06JUN18

Federal Communications Commission (FCC) Bluetooth® Information

FCC ID: YBN-JD-BASE4

IC: 9595A-JD-BASE4

FCC Section 15.19, Labelling Requirements

This device complies with part 15 of the FCC[1] Rules and Industry Canada license-exempt RSS standard(s). Operation is subject to the following two conditions:

1. This device may not cause harmful interference.
2. This device must accept any interference received, including interference that may cause undesired operation.

FCC Section 15.21, Information to User

Changes or modifications not expressly approved by the party responsible for compliance could void the user's

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[1] FCC = Federal Communications Commission

authority to operate the equipment.

KT81203,0000581-19-05JAN17

Set Clock

Set Clock Time

The radio will synchronize the clock if available on the vehicle CAN network. If there is no clock available on the vehicle CAN network, the time can be modified through the radio's user menu.

Set Time Manually:

1. Through the radio user menu – press the MENU button until TIMESET is displayed.
2. TIMESET displays for 2 seconds. Time is displayed with the hour digits flashing.
3. Use volume knob to change hour value.
4. Press the left/right rocker button to move the cursor to the minute digits. The radio changes AM/PM automatically if time format is 12H.
5. When the time is correct, press the SRC button to save and return to normal radio functions.

Time Format

The radio can display the clock time in 12H or 24H format.

Set Clock Format:

1. Press the MENU button until MODE 12H or 24H is displayed.
2. Use the volume knob to between 12H and 24H time format. Setting will be saved after 2 seconds.

Clock Mode

The radio can display the clock time by default (ALWAYS) or on request (TEMP).

- ALWAYS – The time is displayed on the radio faceplate unless a change in radio information is detected. Radio information is displayed on change for 5 seconds. Changes that prompt the radio information to be displayed include, source change, channel change, volume change, preset change, etc.
- TEMP – The time is displayed when requested by the operator. Press and hold the MENU button for 3 seconds. Time is displayed for 5 seconds then reverts to displaying radio information.

Set Clock Mode:

1. Press the MENU button until CLKMODE is displayed.
2. CLKMODE displays for 2 seconds. ALWAYS or TEMP is displayed.
3. Use the volume knob to switch between ALWAYS and TEMP clock mode. Setting will be saved after 2 seconds.

KT81203,0000967-19-12JUN18

Reset Clock

If there is no clock available on the vehicle CAN network, clock will need to be reset after power (example: battery or radio) is disconnected. Follow instruction to Set Time Manually in Set Clock in this Oprerator's Manual section.

KT81203,00009B1-19-13JUN18

Turn Confirmation Beep On/Off (BEEP)

After certain actions (example: pressing and holding button) confirmation beep sounds. Confirmation beep can be turned on or off.

1. Press MENU button, on radio faceplate, until BEEP and current setting ON or OFF are displayed.
2. Turn volume control knob counterclockwise or clockwise to change from ON to OFF or vice versa.
3. Press MENU button several times to exit menu.

KT81203,00004C2-19-06JUN18

Adjust Maximum Volume at Power-On (ONVOL)

Maximum volume when turning radio system on can be adjusted in ONVOL menu. Previously selected volume is used at power-on unless it is above setting for maximum volume at power-on. In this case, maximum volume setting is used.

1. Press MENU button, on radio faceplate, until ONVOL and current setting are displayed.
2. Turn volume control knob counterclockwise or clockwise to adjust maximum volume at power-on from 5 to 25.
3. Press MENU button several times to exit menu.

KT81203,00004C3-19-28NOV16

Program Type (PTY)

Besides station name, some FM stations also transmit information on program type. Program types examples include:

- CULTURE
- TRAVEL
- WEATHER
- JAZZ MUSIC
- NEWS

- POP MUSIC

With this function only stations of specific program type can be selected.

When PTY is turned on and PTY scan has been started, the radio automatically changes from current station or from another mode to station of selected program type.

Turn PTY On/Off

1. Select radio mode.
2. Press MENU button, on radio faceplate, until PTY ON or PTY OFF is displayed.
3. Turn volume control knob counterclockwise or clockwise to turn PTY on or off.
4. Press MENU button several times to exit menu.

Select program type

NOTE: PTY must be turned on.

1. Select radio mode.
2. Press MENU button, on radio faceplate, several times until **PTYTYPE** is displayed.
3. Turn volume control knob counterclockwise or clockwise to select program type.
4. Press MENU button several times to exit menu.

Start PTY scan

NOTE: PTY scan is only available if PTY is turned on and AUTOSEEK or BANDSCAN is selected for ◄ and ► keys in KEY PRG menu. See Set Key Function (KEY PRG) in this Operator's Manual section.

1. Press ◄ or ► button, on radio faceplate, to start scanning.
2. If station of currently selected program type is found, it will be tuned to station.
3. If no station of this program type is found, previously selected station remains on.

KT81203,00004C4-19-08NOV17

Treble Reduction During Interference (HCUT)

HCUT function improves sound when radio reception is poor. If interference with reception is present, level of interference noise is automatically reduced.

1. Select radio mode.
2. Press MENU button, on radio faceplate, until HCUT and current setting OFF, 1 or 2 are displayed.
3. Turn volume control knob counterclockwise or clockwise to adjust or turn off HCUT.
4. Press MENU button several times to exit menu.

KT81203,00004C5-19-28NOV16

Set Key Function (KEY PRG)

Functions can be assigned to ◄ and ► buttons.

Possible key functions	Description
AUTOSEEK	Automatic search for next receivable station
MANSEEK	Manual frequency change in increments
PRSTSCAN	Scanning of stations stored on currently selected memory level
BANDSCAN	Scanning of stations receivable in currently selected wave band

Set key function

1. Select radio mode.
2. Press MENU button, on radio faceplate, until KEY PRG is displayed.
3. Turn volume control knob counterclockwise or clockwise to change between different settings (see table).
4. Press MENU button several times to exit menu.

KT81203,00004C6-19-06JUN18

SiriusXM® Radio—General Information

NOTE: XM radio kit must be installed and service activated to start using SiriusXM® radio. See your John Deere dealer to order kit.

Service will automatically renew and bill at then-current rates until you call us at 1-866-635-2349 to cancel. See our Customer Agreement for complete terms at www.siriusxm.com. Other fees and taxes apply. All fees and programming are subject to change. XL may include frequent explicit language or mature programming. Call SiriusXM® Listener Care at 1-800-967-2346 and ask about our Family Friendly packages; in Canada call 1-877-438-9677. XM satellite service is available only to those at least 18 and older in the 48 contiguous USA and D.C. For more information about program schedules or subscriptions, please visit www.siriusxm.com; in Canada visit www. siriusxm.ca. You may also call to subscribe. USA customers: 1-800-967-2346; Canadian customers: 1-877-438-9677. See Display XM Serial Number in this Operator's Manual section before subscribing.

NOTE: It is prohibited to copy, decompile, disassemble, reverse engineer, hack, manipulate, or otherwise make available any technology or software incorporated in receivers compatible with the SiriusXM® Satellite Radio System or that support the SiriusXM® website, the Online Service or any of its content. Furthermore, the AMBE® voice compression software included in this product is protected by intellectual property rights including patent rights, copyrights, and trade secrets of Digital Voice Systems, Inc.

Canada: Some deterioration of service may occur in extreme northern latitudes. This is beyond the control of SiriusXM® Satellite Radio.

KT81203,000058B-19-06JUN18

Display XM Serial Number

XM serial number and serial number of radio system are identical. Serial number is briefly displayed after XM receiver has been selected. Serial number is required to subscribe to satellite radio service.

1. Have note pad and pen ready.
2. Press SRC button, on radio faceplate, until XM is displayed.
3. After 2 seconds, channel CHN 0 will display.
4. Then RADIO ID is displayed. After another 2 seconds, eight-digit XM serial number (similar to 1A2B3C4D) will display.
5. Record number. Serial number displays for 10 seconds.

KT81203,000058C-19-06JUN18

External Sources

External audio sources can be connected using convenience port on right-hand console/storage tray. Sources can also be connected using Bluetooth® functions. Use ports to charge certain external audio sources. Examples of external audio sources include portable CD player, MiniDisc player, or MP3 player.

NOTE: Charging some external audio sources, such as smart phones and tablets, via audio USB port is not supported. Attempting to charge device that is not supported may shutoff USB port. Device must be removed and cycle radio power to recover.

Activate AUX Input

NOTE: External audio source can only be selected if audio device is connected to external AUX input.

RXA0143013—UN—03JUL14

Connect external audio source using Auxiliary Input (A) and press SRC button several times until AUX is displayed on radio.

Activate USB Input (Premium Radio)

NOTE: USB audio source can only be selected if USB device is connected to external USB input.

Connect USB audio source using USB Input (B) and press SRC button several times until USB is displayed on radio.

Adjust AUX Input Volume

Volume for connected external audio source can be adjusted using radio volume knob after input is selected as audio source using SRC button.

1. Press SRC button several times until installed audio source is displayed.
2. Press MENU button. GAIN and current setting is displayed.
3. Turn volume control knob counterclockwise or clockwise to adjust value from -9 to +9.
4. Press the MENU button several times to exit the menu.

Set Up Bluetooth® (Premium Radio)

Following steps must be performed before Bluetooth® can be used:

NOTE: Bluetooth® connection only relevant to devices/ external audio sources which are Bluetooth® enabled.

NOTE: While pairing Bluetooth® device to radio, pairing process cancels if changes are made to radio (ex: changing source or frequency).

1. Enable Bluetooth® on device.
2. Press MENU button, on radio faceplate until BT MODE displays.
3. Wait 2 seconds until BT ON or BT OFF. Turn volume control knob clockwise or counterclockwise to turn

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Bluetooth is a trademark of Bluetooth SIG

Bluetooth® on or off. Display window may take up to 5 seconds to change.

4. Press MENU button until display shows CON-TYPE. Select connection type phone/audio (default).
5. To pair device, press MENU button until BT Pair displays.
6. Enter pin provided into device.

Pairing process may take up to 5 minutes to complete. Bluetooth® symbol flashes while pairing takes place. When device/external audio source is successfully paired, phone calls and audio streaming can be received and placed via radio system. Device information (contact information, call history, music, etc.) does not transfer to CommandCenter™.

For further instructions on how to pair device/external audio source, select source for connection, and transfer data, see Pair Bluetooth® Device to Generation 4 CommandCenter™ in this Operator's Manual section.

KT81203,00004C8-19-06JUN18

Select Radio Source with Generation 4 CommandCenter™

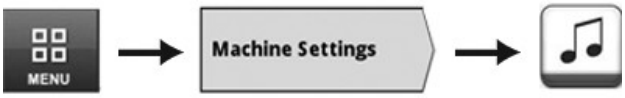
Use radio source tabs on Generation 4 CommandCenter™ to select radio source.

When radio is on, radio page navigates to home page of current source selected. When radio is off, content blocker displays.

NOTE: Selecting radio source will not turn on radio. Turn on radio by pressing power button on radio faceplate.

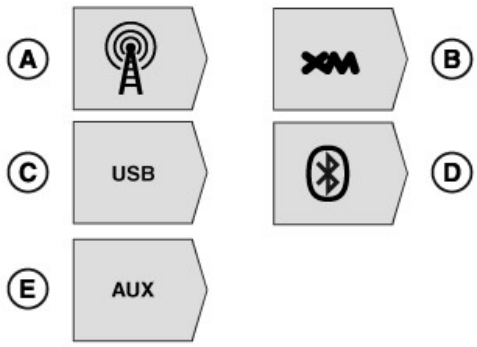
RXA0133718—UN—16JUL13

To access audio main page, use Audio Shortcut Button on Navigation Bar or follow alternative path:



RXA0147929—UN—13APR15

1. Select **Menu.**
2. Select **Machine Settings tab.**
3. Select **Audio icon.**
4. Select desired radio source tab:



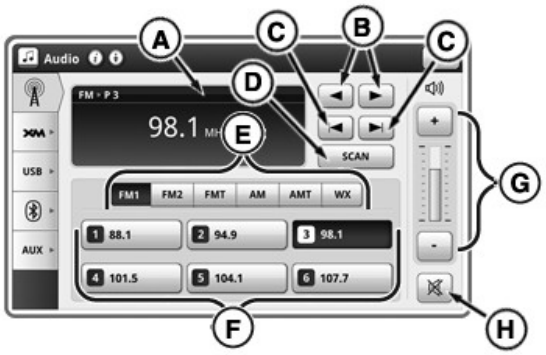
RXA0163496—UN—04JUN18

A—FM, AM, and Weather Tab
B—XM Tab (Premium Radio Only)
C—USB Tab (Premium Radio Only)
D—Bluetooth® Audio Tab (Premium Radio Only)
E—Auxiliary Tab

KT81203,0000582-19-06JUN18

AM, FM, Weather Channel Home Page

Navigate to AM, FM, Weather Channel home page. See Select Radio Source with Generation 4 CommandCenter™ in this Operator's Manual section.



RXA0163498—UN—04JUN18

A—Display Area: Displays current radio activity/ information.

B—Manually Tune Forward/Back: Use left or right button to manually tune in desired station. Each time button is pressed, radio frequency increases or decreases by standard increment.

C—Next/Previous Station: Select to seek next available station before or after current station.

D—Scan Button: Select to cycle through available stations. Each station broadcasts for 5 seconds before moving to next station. Cycle ends if returns to original station or by selecting button again.

E—AM/FM/Weather Button Bar: Cycle through channel presets using toggle bar (FM1, FM2, FMT, AM, AMT, WX).

F—Presets: Six presets can be programmed to FM1, FM2, FMT, AM, and AMT banks. To change presets,

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press preset for 3 seconds, while on desired station, until “beep” sounds. Press again to tune radio to saved station. Six presets are pre-programed into WX bank and cannot be changed. FMT and AMT banks can be set automatically using T-STORE function. For more information, see Use Premium Radio in this Operator’s Manual section.

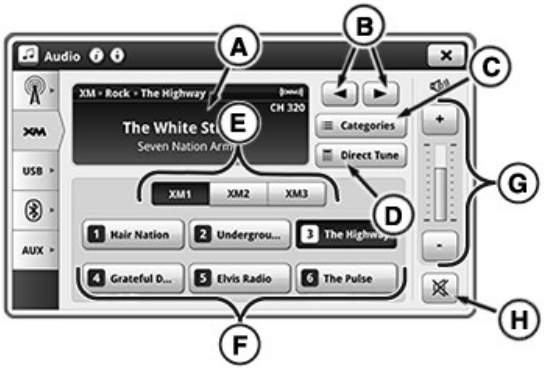
G—Volume Adjustment: Adjust volume.

H—Mute: Silence sound.

KT81203,0000583-19-06JUN18

Premium Radio XM Home Page

Navigate to XM home page. See Select Radio Source with Generation 4 CommandCenter™ in this Operator’s Manual section.



RXA0163501—UN—04JUN18

A—Display Area: Displays XM activity/information.

B—Next/Previous Station: Select to seek next available station before or after current station.

C—(CAT) Category Mode: Select to launch category search mode. Scroll up or down through categories and select station within category.

D—Direct Tune: Select to enter desired channel with keypad.

E—XM Channel Bank: Toggle through banks using buttons (XM1, XM2, XM3).

F—Presets: Six presets can be programmed per bank. To set, press and hold desired preset for at least three seconds.

G—Volume Adjustment: Adjust volume.

H—Mute: Silence sound.

KT81203,0000585-19-06JUN18

Premium Radio USB Home Page

Navigate to USB home page. See Select Radio Source with Generation 4 CommandCenter™ in this Operator’s Manual section.

Connect USB using USB input, on right-hand console/ storage tray, to play stored music. See External Sources in this Operator’s Manual section.

RXA0163502—UN—04JUN18

A—Display Area: Displays current USB activity/ information.

B—Next/Previous Track: Select to skip back to beginning of current track or ahead to beginning of next track. Press previous button twice to skip to previous track.

C—Play/Pause: Play or pause track.

D—Volume Controls: Adjust volume.

E—Mute: Silence sound.

KT81203,0000586-19-07JUN18

Premium Radio Bluetooth® Home Page (If Equipped)

Navigate to Bluetooth® home page. See Select Radio Source with Generation 4 CommandCenter™ in this Operator’s Manual section.

NOTE: If Bluetooth® device with stored music is not connected, select Pair Device and complete pairing process. For more information, see steps 6 and 7 in Pair Bluetooth® Device to Generation 4 CommandCenter™ in this Operator's Manual section.

Radio system is equipped with Bluetooth®, which allows data transfer between radio system and paired close-range Bluetooth® device such as cell phone. Music stored on device does not transfer to CommandCenter™

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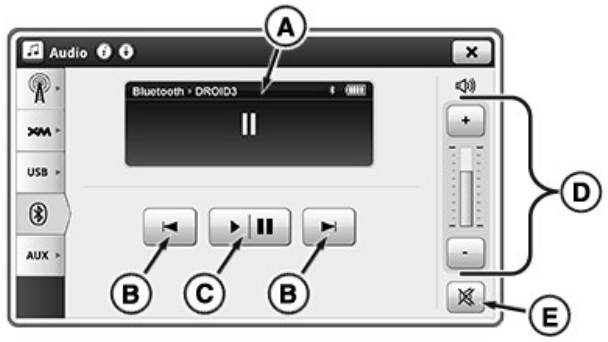


RXA0163504—UN—04JUN18

A—Display Area: Displays current Bluetooth® activity/ information.

B—Next/Previous Track: Skip back to beginning or ahead to beginning of next track. Press previous button twice to skip to previous track.

NOTE: Not all devices support pause function. Devices may mute sound, but not pause play.

C—Play/Pause: Play or pause track.

D—Volume Adjustment: Adjust volume.

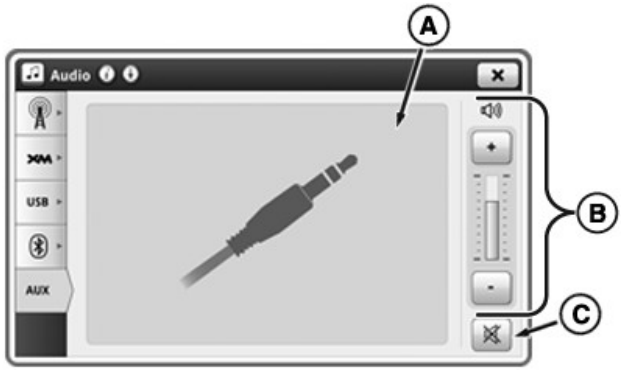
E—Mute: Silence sound.

KT81203,0000587-19-12JUN18

Auxiliary Home Page

Navigate to Auxiliary home page. See Select Radio Source with Generation 4 CommandCenter™ in this Operator's Manual section.

Connect external audio source to listen to stored music. See External Sources in this Operator's Manual section.



RXA0163506—UN—04JUN18

A—Display Area: Displays image shown. Activity or information displays on external device only, not on CommandCenter™ display.

B—Volume Adjustment: Adjust volume.

C—Mute: Silence sound.

KT81203,0000588-19-07JUN18

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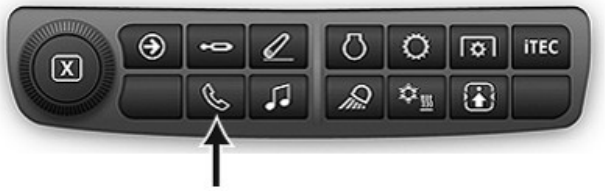
Pair Bluetooth® Device to Generation 4 CommandCenter™

Radio system is equipped with integrated Bluetooth®, which allows data transfer between radio system and paired close-range Bluetooth® device such as cell phone. Up to five device pairings can be stored in radio's Bluetooth® feature. See Manage Paired Bluetooth® Devices in this Operator's Manual section.

Phone book does not appear on CommandCenter™ display.



RXA0133719—UN—16JUL13

To access phone main page, use Phone Shortcut Button on Navigation Bar or follow alternative path:

RXA0147930—UN—13APR15

1. Select **Menu.**
2. Select **Machine Settings tab.**
3. Select **Phone icon.**

NOTE: Not ALL devices are able to use Bluetooth® feature on radio.

4. Enable Bluetooth® mode on device.

RXA0132157—UN—28JUN13

5. Select Pair Device button (A) to start pairing process.

NOTE: Once Bluetooth® pairing process is initiated, changes to radio - such as changing source or frequency - cancels pairing.

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RXA0163558—UN—12JUN18

6. Enter pairing code displayed in Pairing Code box (B) into device. Pairing process begins immediately.
7. Once device is connected successfully, **"Pairing Complete"** is displayed.

KT81203,00004CF-19-12JUN18

Manage Paired Bluetooth® Devices

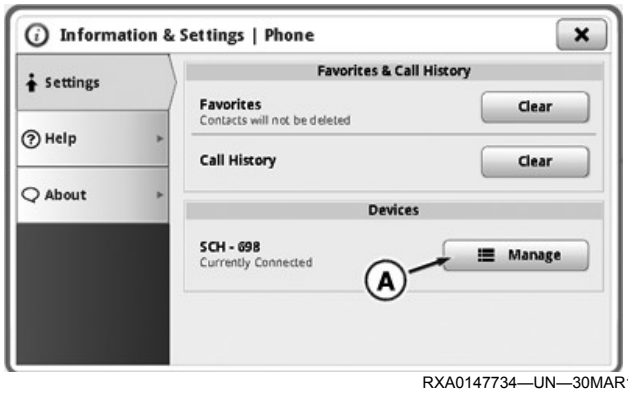
Up to five device pairings can be stored in radio's Bluetooth® feature. See Pair Bluetooth® Device to Generation 4 CommandCenter™ in this Operator's Manual section.

RXA0133719—UN—16JUL13

Use phone advanced settings to connect devices paired to radio or add new devices to paired list.

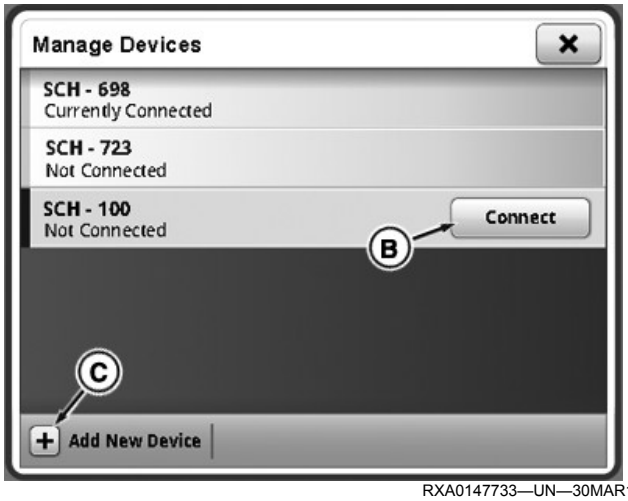
RXA0147944—UN—13APR15

1. Select **Phone Shortcut button on Navigation Bar.**
2. Select **Advanced Settings icon.**
3. Select **Settings tab.**
4. Information & Settings / Phone page appears.



RXA0147734—UN—30MAR15

5. Select Manage Devices button (A).



RXA0147733—UN—30MAR15

6. Choose desired device from list of paired devices and select Connect Device button (B).
7. Select Add New Device button (C) to pair new Bluetooth® device.

KT81203,00004D0-19-08NOV17

Phone Operation

Use Bluetooth® capability to make or receive phone calls from paired Bluetooth® enabled cell phone. See Pair Bluetooth® Device to Generation 4 CommandCenter™ in this Operator's Manual section.

RXA0133719—UN—16JUL13

Press Phone Shortcut button on Navigation Bar or follow alternative path:

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CommandCenter is a trademark of Deere & Company

RXA0147930—UN—13APR15

1. Select **Menu.**
2. Select **Machine Settings tab.**
3. Select **Phone icon.**
4. Phone home page appears.

RXA0137742—UN—11DEC13

NOTE: Phone options A, B, C and E are not available during call. Use cell phone if another number is needed.

Phone controls on this page are disabled while device is syncing with radio.

A—Input Box: Displays typed digits.

B—Backspace Button: Cancel typed digit. Press and hold to cancel multiple digits.

C—Dial Pad: Enter phone number using number buttons.

D—Dial Pad Tab: Press to display dial pad during phone call.

NOTE: Favorites are stored permanently and can be viewed by any operator. Clear favorites before leaving tractor, if desired. See Clear Favorites and Call History in this Operator's Manual section.

E—Favorites Button: View/edit favorites contacts.

F—Recent Button: Review previous missed calls, incoming calls or outgoing calls.

G—Volume Control: Adjust volume.

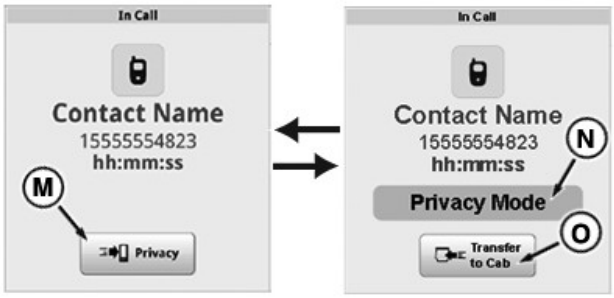
H—Mute Button: Mutes microphone.

I—Battery Icon: Displays battery life.

J—Signal Icon: Displays current phone signal strength.

K—Bluetooth® Icon: If blue, Bluetooth® device is connected. If grayed out, Bluetooth® device is not connected.

L—Call Button: After dialing or selecting number, press to begin call.



RXA0147774—UN—30MAR15

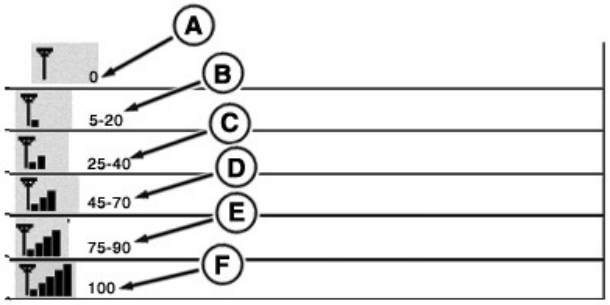
M—Privacy Mode Button: Transfers phone audio from cab speakers to phone speakers during call.

N—Privacy Mode Message: Displays when call has entered privacy mode.

O—Transfer to Cab Button: Exits privacy mode and transfers phone audio from phone speakers to cab speakers.

KT81203,00004D1-19-03APR18

Phone Signal Strength and Battery Charge



RXA0121552—UN—31OCT11

Cell phone signal strength is represented by phone signal strength bars (A-F). Signal strength ranges from no signal (A) to 100 percent signal strength (F).

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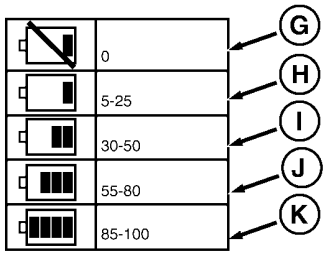


RXA0121554—UN—31OCT11

Cell phone battery charge is represented by phone battery charge bars (G-K). Battery charge ranges from no battery charge (G) to 85-100 percent battery charge (K).

KT81203,00004D2-19-03APR18

Contact List

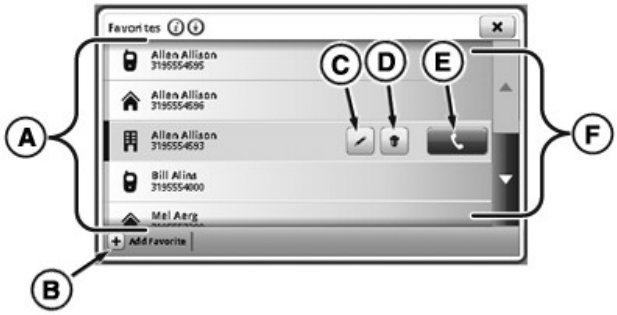
Device's phone book synchronizes with radio, not CommandCenter™. Contacts must be added and edited manually on display.

Maximum number of phone numbers that can be stored in CommandCenter™ is 25. Maximum number of characters in phone number is 21.

Favorites are stored permanently and can be viewed by any operator. Clear favorites before leaving tractor, if desired. See Clear Favorites and Call History in this Operator's Manual section.

RXA0147931—UN—13APR15

1. Select **Menu.**
2. Select **Machine Settings tab.**
3. Select **Phone icon.**
4. Select **Favorites button.**
5. Favorites page appears.



RXA0132498—UN—28JUN13

6. To edit favorites, press Add (B), Edit (C), or Delete (D) Favorite button.
7. Edit Favorite page appears.

A—Favorite List: List of available contacts.

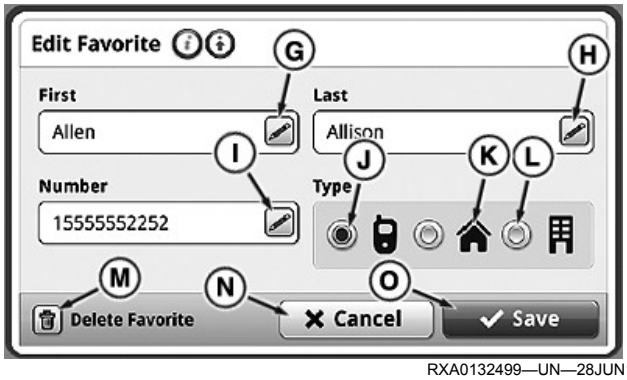
B—Add Favorite Button: Select to add contact manually.

C—Edit Favorite Button: Select to edit current contact.

D—Delete Button: Select to delete contact from favorites.

E—Call Button: Select to call currently selected contact.

F—Scroll Bar: Select to scroll up or down.



RXA0132499—UN—28JUN13

G—Edit Favorite First Name: Select to edit first name.

H—Edit Favorite Last Name: Select to edit last name.

I—Edit Favorite Phone Number: Select to edit phone number.

J—Mobile Phone Button: Select to list contact information under mobile phone.

K—Home Phone Button: Select to list contact information under home phone.

L—Work Phone Button: Select to list contact information under work phone.

M—Delete Favorite Button: Select to delete contact.

N—Cancel Button: Select to cancel edits.

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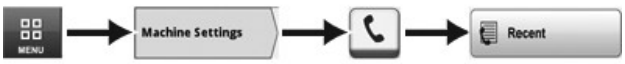
O—Save Button: Select to save edits.

KT81203,00004D3-19-03APR18

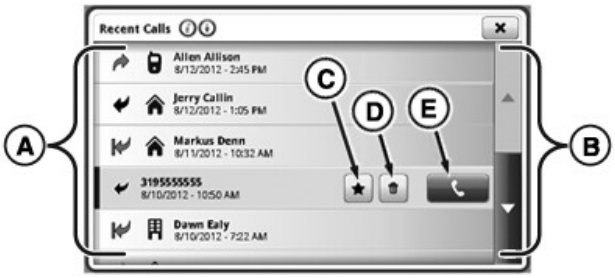
Recent Calls

Review previous missed, incoming or outgoing calls placed or received through CommandCenter™.



RXA0147933—UN—13APR15

1. Select **Menu.**
2. Select **Machine Settings tab.**
3. Select **Phone icon.**
4. Select **Recent button.**
5. Recent Calls page appears.



RXA0132556—UN—28JUN13

A—Recent Calls Contact List: List of recently called contacts.

B—Scroll Bars: Use to scroll up or down through recent calls contact list.

C—Add Favorite Button: Select to add contact to favorites.

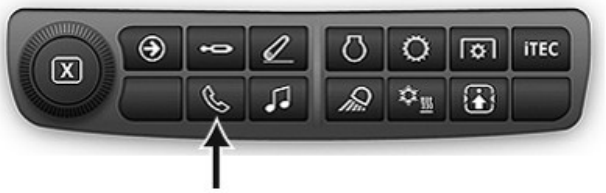
D—Delete Button: Select to delete contact from favorites.

E—Call Button: Select to call currently selected contact.

KT81203,00004D4-19-28NOV16

Clear Favorites and Call History

Use phone advanced settings to clear favorites and call history. Contacts will be cleared on CommandCenter™ display only, not on phone.

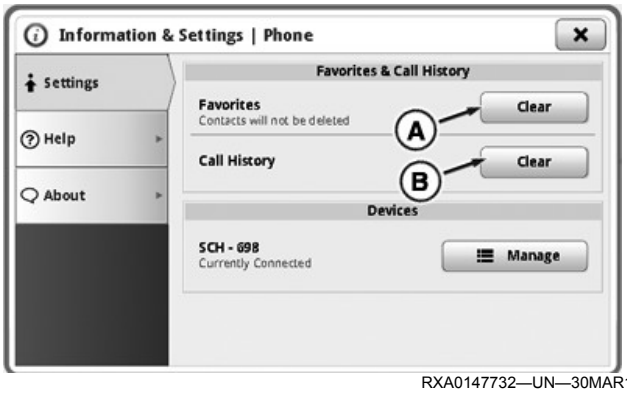


RXA0133719—UN—16JUL13

1. Select **Phone Shortcut button on Navigation Bar.**

RXA0147944—UN—13APR15

2. Select **Advanced Settings icon.**
3. Select **Settings tab.**
4. Information & Settings / Phone page appears.



RXA0147732—UN—30MAR15

5. Press clear favorites button (A) to erase favorites. Phone contacts will not be deleted.
6. Press clear call history button (B) to erase call history.

KT81203,00004D5-19-28NOV16

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Machine Sync

Machine Sync controls synchronized movements between tractor and combine. It guides tractor and grain cart to preset position for unloading relative to specific combine.

Machine Sync utilizes AutoTrac™ and its advanced settings to control tractor. Machine Sync system maintains in line and lateral offset between the combine and tractor using information via the machine and StarFire™ 6000 receiver that is transmitted between machines using the Machine Communication Radio.

Machine Sync system contains three important entities:

- **Operational zone:** area that allows for automation to take over.
- **Calibration zone:** area that allows for calibration of home point.
- **Home point:** in line and lateral offset location relative to combine that tractor will return to every time it syncs with specific combine.

Machine Sync, when engaged, guides tractor and grain cart to home point position set in relation to each specific combine. Tractor and grain cart will maintain that position during operation.

For more information on Machine Sync, see John Deere Machine Sync operator's manual.

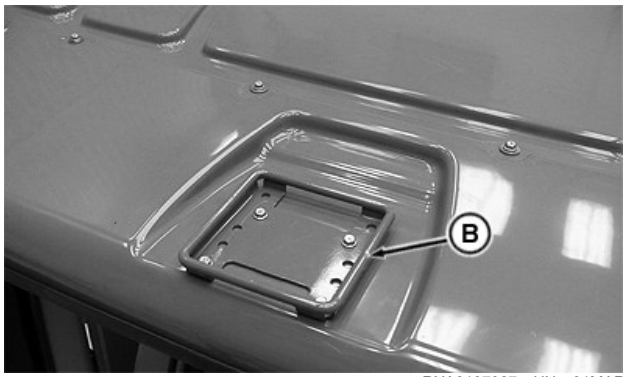
TS36762,0000193-19-18NOV16

Mount StarFire™ Receiver

CAUTION: Falling while installing or removing global positioning receiver can cause serious injury. Use ladder or platform to easily reach mounting location.

Use sturdy and secure footholds and hand holds. Do not install or remove receiver in wet or icy conditions.

RXA0153451—UN—18AUG16



RXA0107027—UN—31MAR10

Mount StarFire™ receiver (A) on StarFire™ receiver bracket (B).

NOTE: Refer to your John Deere dealer or to StarFire™ receiver installation instructions for compatibility.

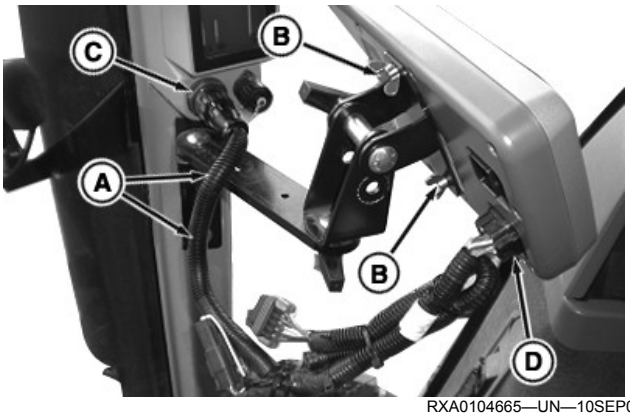
See your John Deere dealer for compatible adapter harnesses.

TS36762,0000194-19-18NOV16

Install GreenStar™ System Components

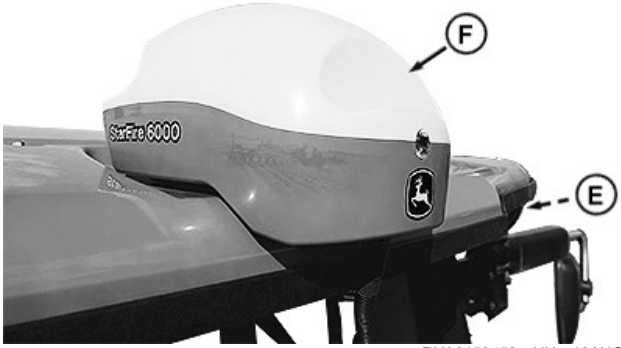
IMPORTANT: This vehicle employs one or more CAN bus networks. Connecting unapproved devices to vehicle network(s) may cause machine to degrade in performance or fail to perform properly. Further, unapproved devices that attempt control of tractor functions should not be connected to implement network (ISOBUS).

AutoTrac is a trademark of Deere & Company



RXA0104665—UN—10SEP09

1. Attach bracket to corner post mounts (A).
2. Attach display to bracket using wing nuts (B) (provided with display).
3. Attach harness to corner post connector (C) and lower GreenStar™ display connector (D) on back of display.
4. Position display so it is comfortable to reach and does not obstruct operator view.



RXA0153452—UN—19AUG16

5. Connect StarFire™ receiver connector (E) to Starfire™ receiver (F).

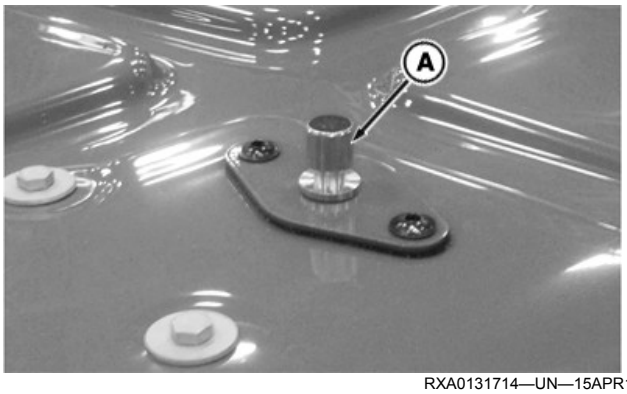
NOTE: See your John Deere dealer for compatible adapter harnesses.

TS36762,0000195-19-18NOV16

Install Machine Communications Radio (MCR) Antenna (If Equipped)

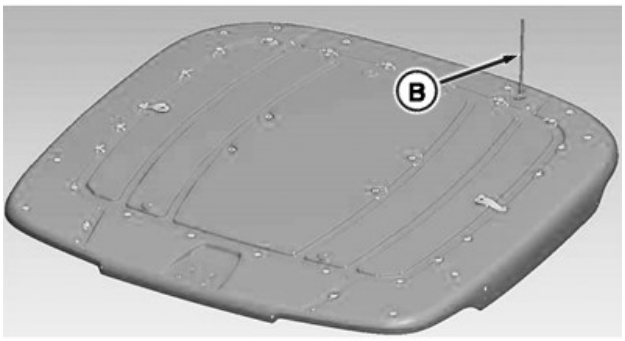
NOTE: This antenna is only available for machines that have a factory installed Machine Communications Radio. Refer to John Deere Machine Communications Radio operator's manual for more information.

1. Remove antenna from storage under instructional seat.



RXA0131714—UN—15APR13

2. Remove cap from MCR antenna post (A) from rear left roof.



RXA0131715—UN—15APR13

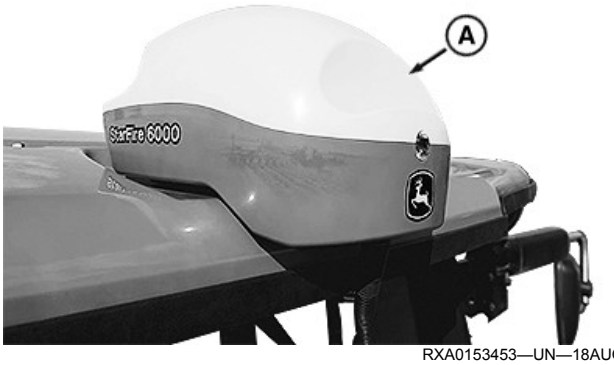
3. Screw MCR antenna (B) onto MCR antenna post.

TS36762,0000196-19-09AUG18

Connect AutoTrac™ Assisted Steering System

NOTE: Electro-hydraulic steering is required for AutoTrac™ to function.

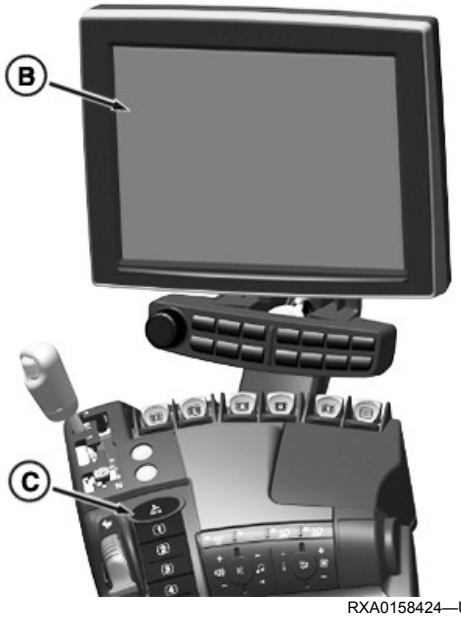
Refer to Generation 4 Applications operator's manual for detailed instructions.



RXA0153453—UN—18AUG16

StarFire is a trademark of Deere & Company

AutoTrac is a trademark of Deere & Company



RXA0158424—UN—28MAR17

- AutoTrac™ system utilizes StarFire™ position receiver (A) and Generation 4 CommandCenter™ Display (B) to assist operator in steering tractor. Other displays are used as well, see Multiple Displays in CommandCenter™ section of this Operator's Manual.
- Operator must take manual control at end of each pass and when field obstacles are encountered. Regain steering control by turning steering wheel. After turn is made, press AutoTrac™ Resume button (C) to engage AutoTrac™.

NOTE: See your John Deere dealer for compatible adapter harnesses.

TS36762,0000197-19-10APR18

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CommandCenter is a trademark of Deere & Company
AutoTrac is a trademark of Deere & Company

Intelligent Total Equipment Control (iTEC™)

CommandARM™ Control Functions

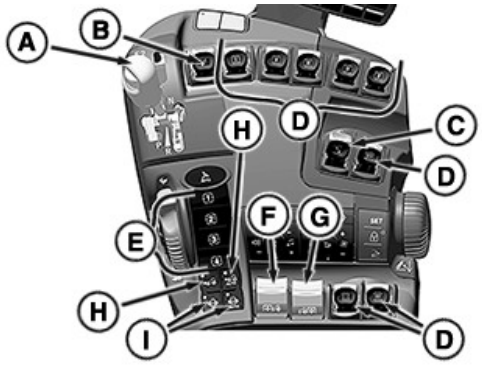
Intelligent Total Equipment Control, iTEC™, allows multiple reoccurring tasks to be performed with touch of one button, up to four sequences.

One sequence made up of series of functions, operations, and distances used at start of field. A second sequence used at water way in center of field. Sequences remain in memory until deleted or overwritten, even if electrical current is switched off.

Each sequence can include up to 20 functions.

A sequence is a course of events from start of first function to completion of last function that operator can start by pressing one of the sequence buttons.

iTEC™ pages are accessed through Generation 4 CommandCenter™.



RXA0156096—UN—09DEC16

Chart below describes item and function from CommandARM™ image.

iTEC™ Functionality		
	Component	**Function(s)**
A	IVT™ /AutoPowr™ Set Speed Forward (IVT™/ AutoPowr™ Only)	Change Set Speed Forward
	e23™ Transmission	Upshift or Downshift in forward gear
B	Rear Hitch (If Equipped)	Raise Detent, Lower Detent, and Fast Lower Detent
C	Front Hitch (If equipped)	Raise, Lower, Float, and Cancel
D	SCVs (CommandARM™)	Extend, Retract, Float, and Cancel
E	iTEC™ Buttons	1/2/3/4
F	Front PTO (If Equipped)	On/Off
G	Rear PTO	On/Off
H	MFWD	On/Off/Auto
I	Differential Lock	On/Off/Auto

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AutoPowr is a trademark of Deere & Company
e23 is a trademark of Deere & Company
iTEC is a trademark of Deere & Company

KT81203,000093C-19-18MAY17

CommandCenter™ Pages Descriptions and Functions

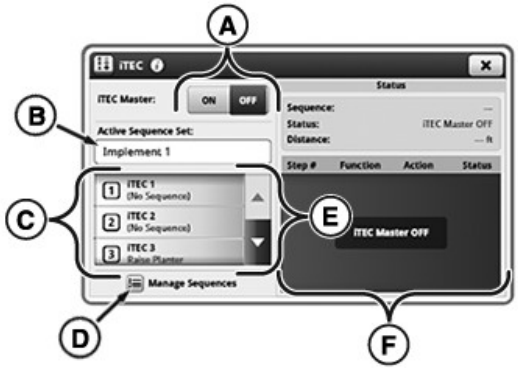
iTEC™ Main Page

RXA0133714—UN—16JUL13

Use shortcut button or follow alternative path:

RXA0145566—UN—01OCT14

1. Select **Menu.**
2. Select **Machine Settings tab.**
3. Select **iTEC™ Icon.**



RXA0158043—UN—02MAR17

- **A — iTEC™ Master Toggle:** Toggle iTEC™ ON/ OFF.
- **B — Active Assignment Set Button:** Select or create an assignment set.
- **C — Assignments List:** List of sequences assigned to iTEC™ buttons.
- **D — Manage Sequences Button:** Edit sequence and assign buttons.
- **E — Scroll Bar:** Scroll up or down.

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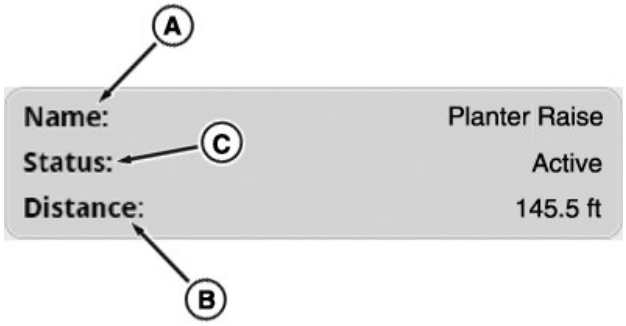
CommandCenter is a trademark of Deere & Company
CommandARM is a trademark of Deere & Company

- **F — Status List:** Shows status of each iTEC™ sequence step as sequence progresses.

KT81203,00004D7-19-10MAY17

Status Area



RXA0131243—UN—08MAR13

- **A—Name:** Name of sequence that is currently running.
- **B—Distance:** Displays accumulated distance while iTEC™ sequence is running.
- **C—Status:** Indicator of current iTEC™ status.
  - **Off** - No sequence execution possible.
  - **Ready** - Waiting for iTEC™ button to which a sequence is assigned to be pressed.
  - **Active** - iTEC™ sequence execution active.
  - **RPM Limit** - Engine speed is out of range. [1]
  - **Park** - Transmission indicates that park lock is engaged.[2]
  - **Operator Presence** - No operator presence, no iTEC™ execution allowed. Operator returns to seat. [1]
  - **Wheel Speed Low** - Wheel speed < 0.5 km/h (0.3 MPH), execution is paused.
  - **Complete** - Sequence successfully completed.
  - **Aborted** - Sequence execution aborted by operator or active abort condition.
  - **Error** - One or more sequence steps did not execute.

KT81203,00004D8-19-10APR18

All Sequence Page

RXA0129723—UN—06MAR13

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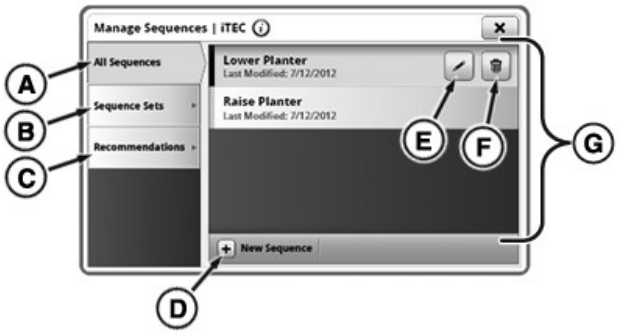
[1] *Sequences pauses or cannot start if this condition exists. Correct condition to resume sequence.*

Select **Manage Sequences button** on iTEC™ main page.



RXA0158044—UN—02MAR17

- **A—All Sequences Tab:** View available, delete saved, edit saved, or add new sequences.
- **B—Sequence Sets Tab:** View assigned sequences or give sequence assignment.
- **C—Recommendations (AutoLearn):** View and edit learned sequences.
- **D—New Sequence Button:** Manually program new sequence.
- **E—Edit Button:** Edit saved sequence.
- **F—Trash Button:** Deleted saved sequence.
- **G—Sequence List:** List of saved sequences.

DB71512,000013B-19-22AUG17

Add New Sequence

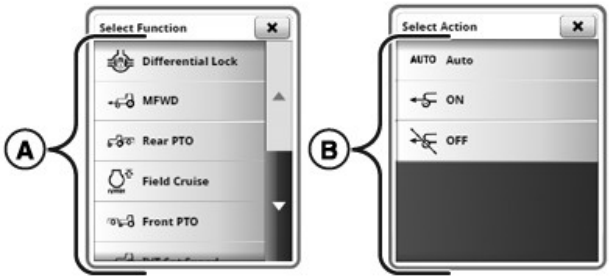
NOTE: For complete list of functions available, see CommandCenter™ Pages Descriptions and Functions in this Operators Manual section.

From iTEC™ main page, follow steps listed below:

RXA0158059—UN—02MAR17

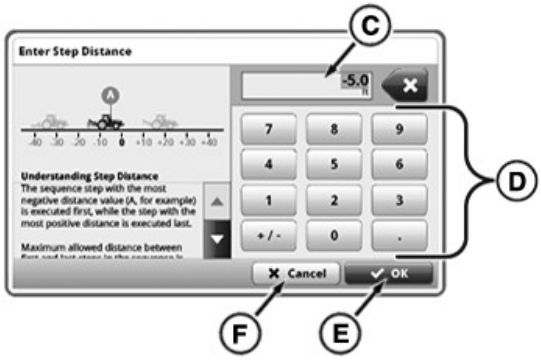
1. Select **Manage Sequences button.**
2. Select **All Sequences tab.**
3. Select **New Sequence button.**
4. Select **Add Step button.**

NOTE: Select Cancel button (F) to exit editing process without saving changes.



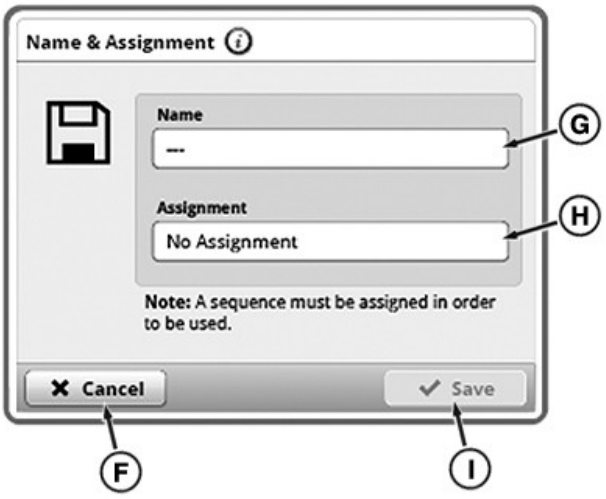
RXA0158057—UN—02MAR17

5. Select from list of functions (A).
6. Select from list of actions (B).



RXA0158047—UN—02MAR17

7. On Step Distance page, use keypad (D) to enter distance into step distance box (C).
8. Select OK Button (E).
9. Repeat steps 4-8 to add steps to sequence.
10. Press **Next button** to continue.



RXA0158048—UN—02MAR17

11. Select Sequence Name box (G). Type name of sequence. Select **Save/OK button** when complete.

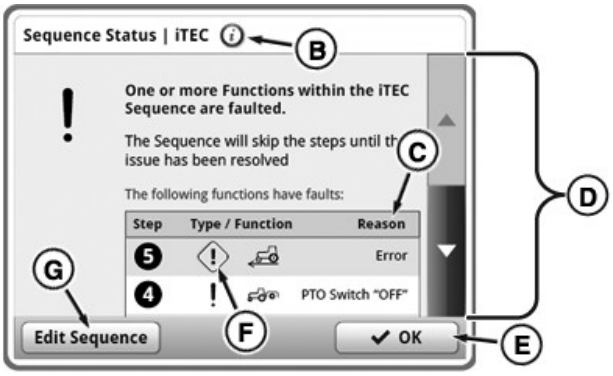
NOTE: A sequence must be assigned in order to be used.

12. Select Sequence Assignment box (H). Select assignment, if desired, and select **Save/OK button** when complete.
13. Select **Save button (I)** to save sequence.

KT81203,00004D9-19-08NOV17

Sequence Step Status

RXA0131170—UN—05MAR13



RXA0131609—UN—25JUL13

NOTE: Press Information Button (B) on any iTEC™ page to access a general status page. General status page will list all functions that are part of the sequences of current selected implement.

Whenever execution of a sequence step is not possible or is interrupted, iTEC™ system informs operator about new issue by displaying Information Alert (A) or Fault Alert (F) next to the sequence or sequence step. Press **Alert Symbol** next to the sequence (in assignment area or sequence assignment tab) to access the sequence status page to read steps with errors. Use scroll bars (D) to scroll up and down list. Select edit sequence button (G) if you want to edit a sequence. Press **Alert Symbol** next to a sequence step (while in EDIT) for information about the issue just for that step. Both views will show a short reason (C) for issue. Press OK button (E) to exit.

KT81203,00004DA-19-28AUG17

Edit or Remove Sequence

From iTEC™ main page:

RXA0129723—UN—06MAR13

1. Select **Manage Sequences button.**

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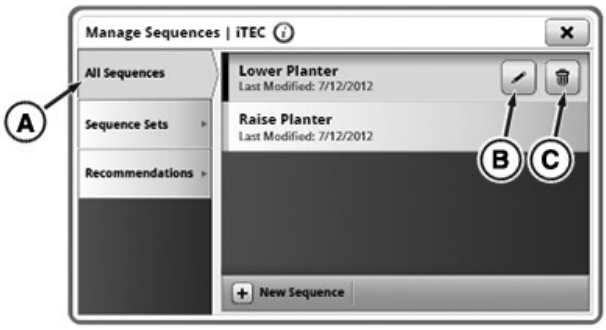
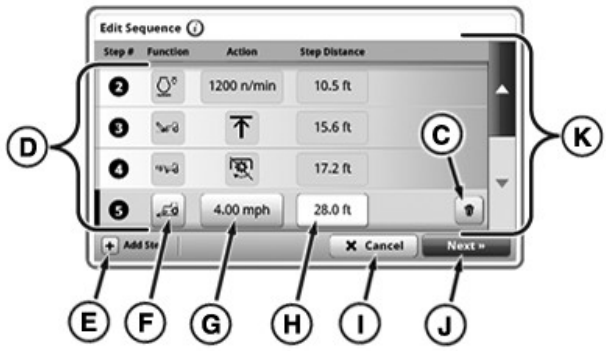


RXA0158049—UN—02MAR17

2. Select All Sequences tab (A).
3. Select desired sequence.

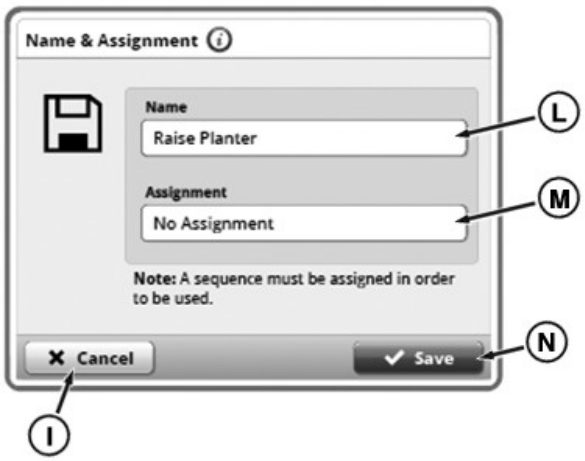
NOTE: Trash button (C) removes sequence or step within sequence.

4. To update sequence steps, select Edit button (B).



RXA0158050—UN—02MAR17

5. Select desired step to edit from sequence step list (D). If needed, use scroll bar (K) to locate step.



RXA0158051—UN—02MAR17

NOTE: To exit editing process without saving changes, select Cancel button (I).

6. To edit step, select add new step (E), function (F), or action (G) buttons or use distance input box (H).
7. Select Next button (J).
8. If needed, edit sequence name (L) or sequence assignment (M).
9. Select Save button (N).

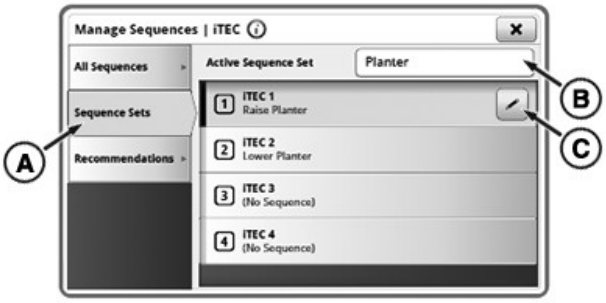
KT81203,00004DB-19-11AUG17

Sequence Sets Page

From iTEC™ main page, use following steps:

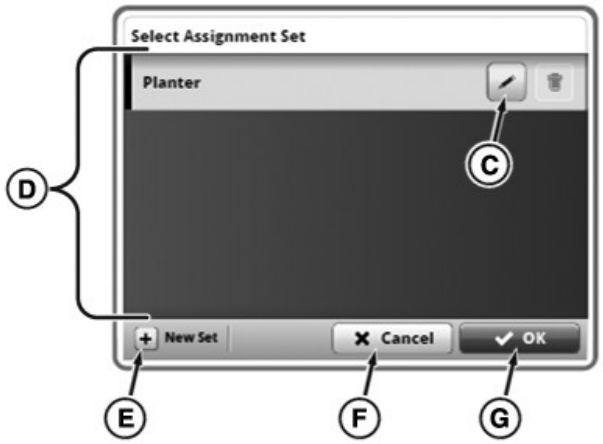
RXA0129723—UN—06MAR13

1. Select **Manage Sequences button.**



RXA0158311—UN—15MAR17

2. Select **Sequence Sets tab (A).**
3. If needed, select Active Sequence Set (B) and follow steps 4-6. If not, skip to step 7.



RXA0158312—UN—15MAR17

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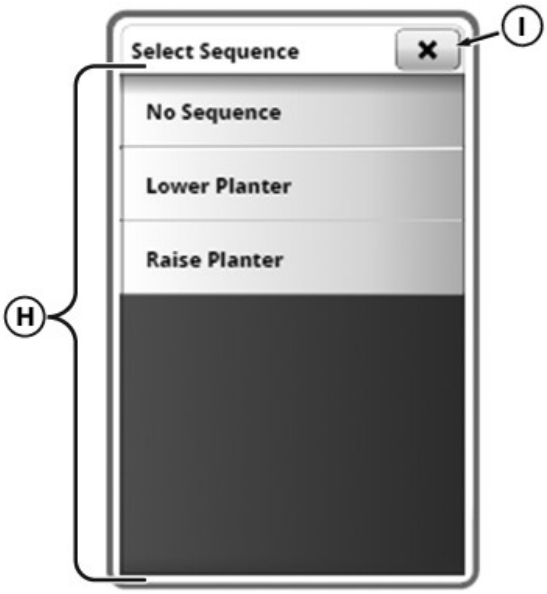


RXA0158313—UN—15MAR17

NOTE: To exit page without saving changes, select Cancel (F) or Close (I) button.

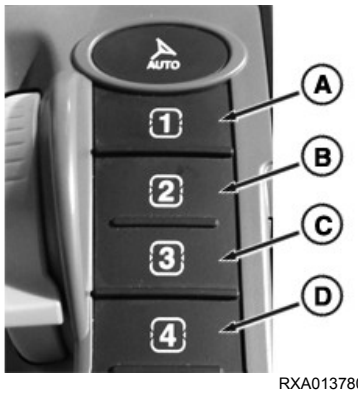
4. Select sequence set from Sequence Set list (D).
5. If needed, select Edit (C) or New Set (E) button.
6. Select OK button (G).
7. Select desired iTEC™ button to assign.
8. Select Edit button (C).
9. Select sequence from Sequence list (H).

KT81203,00004DD-19-01SEP17

Perform Sequence

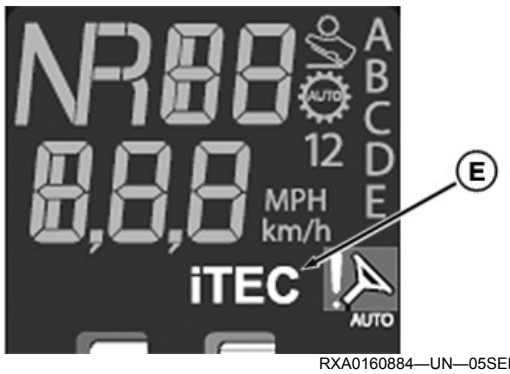
iTEC™ sequence execution requires certain tractor controls be operated in a particular way. Sequence will NOT execute with tractor in PARK position. Transmission shift lever must be in forward position when executing set speeds, gears, or Automatic Gear Shift. Tractor ground speed must be at least 0.5 km/h (0.31 mph).

If a PTO function is included in sequence, PTO must be engaged manually, using PTO switch, for initial engagement. Before performing sequence using SCV functions, relevant SCV levers must be in neutral position.



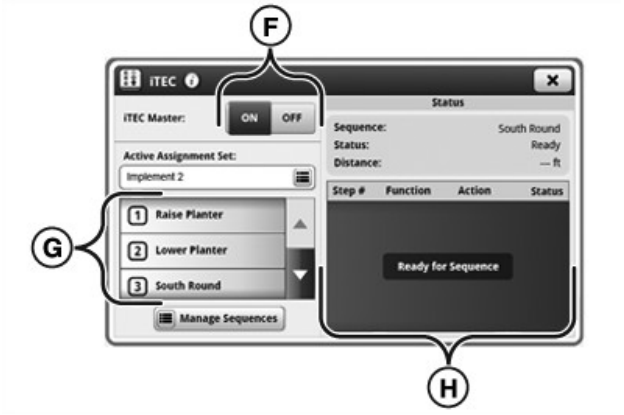
RXA0137808—UN—22JAN14

Abort current sequence at any time by again pressing same **iTEC™ Sequence Button (A-D)** used for starting sequence. Currently active commanded functions will be canceled (for example, hitch motion or SCV flow will stop if previously initiated as part of sequence).



RXA0160884—UN—05SEP17

iTEC™ Indicator (E) is illuminated when active.



RXA0131608—UN—26MAR13

During sequence execution, a function can be actuated manually at any time without execution of sequence being interrupted. Functions that are actuated manually are ignored by iTEC™ for the rest of sequence. Relevant alert icon for this function appears in **Status Area (H)**.

1. Turn **iTEC™ Master Toggle (F)** to ON position.
2. Select **iTEC™ Sequence button (A-D)** on CommandARM™ for desired sequence.

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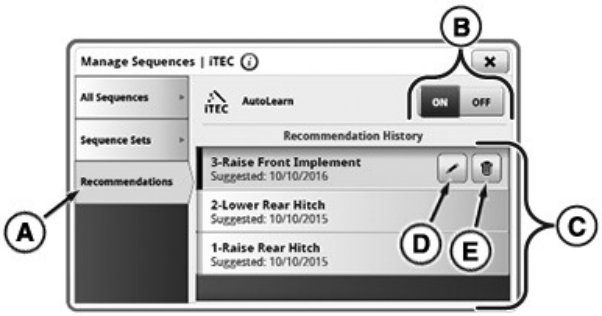
CommandARM is a trademark of Deere & Company

3. Sequence steps appear in **Status Area (H)** and shows progression of steps.

KT81203,00004DF-19-07SEP17

Recommendations (AutoLearn)



RXA0158056—UN—02MAR17

Recommendations (AutoLearn) Page

NOTE: AutoLearn is ON by default. To turn AutoLearn OFF, use AutoLearn ON/OFF toggle (B) .

When AutoLearn is ON, system learns every action tractor completes in the background. When the same patterns, actions, or steps are recognized, AutoLearn creates a new sequence and recommends assignment to iTEC™ button.

From iTEC™ main page, use following steps:

RXA0129723—UN—06MAR13

1. Select **Manage Sequences button.**
2. Select Recommendations (AutoLearn) tab (A).
3. Review recommendation history (C).
4. To edit or assign recommended sequence, select edit button (D). To remove sequence from list, select trash button (E).

TO84419,00000FD-19-11AUG17

iTEC Functions—IVT™/AutoPowr™ Transmission

RXA0134400—UN—25SEP13

A— Speed Band 1
B— Speed Band 2

iTEC™ allows set speeds for IVT™/AutoPowr™ transmission to be preset. Minimum set speed can be saved is 0.8 km/h (0.5 mph).

Changing set speed or moving lever during execution of sequence will not cause iTEC™ to abort, but no set speed changes will be commanded for remainder of sequence.

If iTEC™ sequence commanded set speed exceeds maximum allowable speed in range selected, set speeds change, but are restricted to highest or lowest allowable set speed in current range. For example, tractor reaches maximum allowable set speed if transmission is in speed range F1 and operator executes 50 km/h (31 mph) command. When set speed is changed by iTEC™, control unit reacts as if operator changed set speed, pushing other set speeds up or down as result.

TO84419,00000FE-19-05APR16

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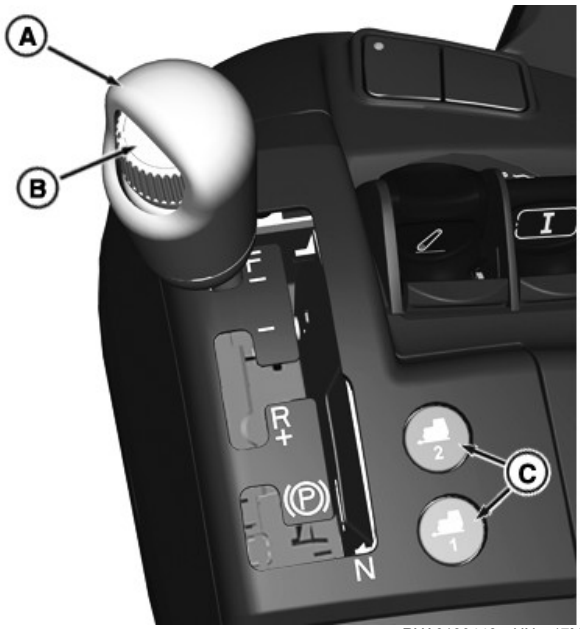
IVT is a trademark of Deere & Company
AutoPowr is a trademark of Deere & Company

iTEC™ Functions—Efficiency Manager™ Powershift Transmission



RXA0139446—UN—17MAR14

Efficiency Manager™ Set Speed Buttons (C): The current forward set speed can be changed up or down with the set speed adjusting wheel (B) on shift knob (A). Transmission changes will be executed at the normal rate once the set speed has been changed.

The minimum set speed that can be saved is 0.8 km/h (0.5 mph). Changing the set speed or shifting during execution of a sequence will not cause iTEC™ to abort, but set speed changes will not be executed for the remainder of the sequence.

When a set speed is changed by an iTEC™ sequence, transmission will react as if the operator changed set speed, shifting up or down as a result.

KT81203,00004E2-19-06DEC16

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iTEC is a trademark of Deere & Company

Tractor-Implement Automation™ (TIA™)

CAUTION: Although phrases "transfer control" and "disengage control" are terms commonly used with TIA™ equipment, at NO time is implement in total control of an operation. Operator ALWAYS has ability to override TIA™ implement. It is operator's responsibility to make sure implement operation does not damage equipment, or pose danger of injury or death to operator or others close by.

Tractor Implement Automation™ must not be put in operation when driving on public roads or when other persons are close by.

For ISO-compliant tractors, TIA™-compatible implements have ability to control certain individual tractor functions. See your implement operator's manual or contact your John Deere dealer with any questions regarding TIA™ compatible implements.

KT81203,00004E3-19-28AUG17

Activate Tractor-Implement Automation™ Equipment

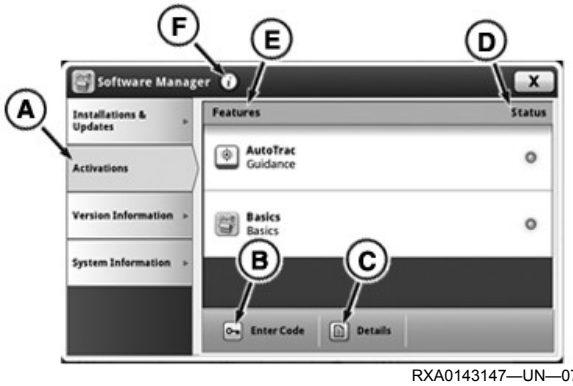
Response Codes, Text Descriptions, and Corrective Actions		
Common Response Codes	Text Displayed	Corrective Action
0	Code Accepted	None Required
4	Implement Not Available to Deactivate	Implement already deactivated
5	Implement Already Activated	None Required, implement should work as expected
6 and 11	Space Unavailable for Activation	Contact your dealer for assistance
17	Demonstration Activation Replaced With Permanent Activation	None Required

NOTE: To obtain tractor serial number, see Product Identification Number Plate in Identification Numbers section of this Operator's Manual.

An activation code is required to allow TIA™ to function. Contact your John Deere dealer with tractor serial number and implement make, model, and serial number. Dealer obtains activation code through John Deere StellarSupport™.

RXA0131994—UN—22APR13

1. Select **Menu**.
2. Select **System Tab**.
3. Select **Software Manager Icon**.



RXA0143147—UN—07JUL14

4. Select **Activations Tab (A)**.
5. When Activations page displays, press Enter Code button (B). Keyboard appears.

NOTE: Some Tractor Automation Activation page keyboard characters are grayed out and are not used in activation codes. If provided activation code includes any characters that are grayed out on Tractor Automation Activation page keyboard, request dealers reconfirm activation code.

6. Using keyboard, enter activation code, then select Save/Enter button.
7. If activation code is entered correctly, confirmation code appears in the enter activation overlay and message is displayed. Code Accepted indicates that activation is complete.
8. If message other than Code Accepted appears, see Response Codes, Text Descriptions, and Corrective Actions table. If message not listed appears, check and reenter code. If problem persists, contact your John Deere dealer.

Up to 20 implement names can be viewed on Tractor Automation Activation page at any given time. When a new entry shows up in Feature List (E), that entry is labeled "Unknown Implement". The text "Unknown Implement" should change to a real name after first time connecting the implement.

KT81203,00004E4-19-03APR18

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StellarSupport is a trademark of Deere & Company

Tractor-Implement Automation™ — Status Page

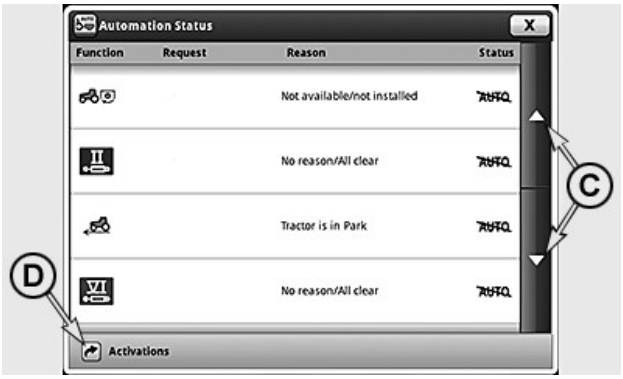
LX1057101—UN—23JUL13

Access CommandCenter™ Menu and select tab (A).

Press Automation Status icon (B) and access automation status page.

On the status page, the status of all the functions available for TIA™ are displayed.

If no TIA™-capable implement is connected, only a text message appears on the display.



LX1057102—UN—23JUL13

If there are too many functions to display on one status page, use scroll bar (C) to move to next or previous pages.

To activate the implements, press activating TIA™ button (D) and access the page for activating the implements. See also Activate Tractor-Implement Automation™ Equipment in this section of this Operator's Manual.

The status page has four columns:

Function	Request	Reason	Status
All functions available for TIA™ displayed	•**Current command** from implement appears on display if function is in auto mode and implement is commanding function.	•**No Reason/All clear** - function is fault-free and can be automated by implement. •**Brief text** - function is not ready to perform commands from implement.	•**AUTO** -function is currently commanded and has no threshold. •~~AUTO~~ -function is currently not controlled by implement or cannot be controlled by it. Operator has control, or must enable function. •**!AUTO!** -function currently has a fault. Cause is displayed in a brief text in second column. •**AUTO**↑ -function has an upper threshold. Command from implement is too high. •**AUTO**↓ -function has a lower threshold. Command from implement is too low.

KT81203,00004E5-19-18APR18

Operate Tractor-Implement Automation™

IMPORTANT: Various requirements must be met by tractor and implements to allow TIA™ to function correctly. See information in this Operator's Manual sections and implement operator's manual sections.

1. Connect TIA™ equipment to tractor using ISO connection, see Connecting Compatible Electronic Equipment in Accessories section of this Operator's Manual.

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TIA is a trademark of Deere & Company

RXA0135370—UN—25SEP13

2. Select AutoTrac™ Resume Button (A) on CommandARM™ .
3. Follow implement operator's manual instructions to operate implement.

KT81203,00004E6-19-08NOV17

PTO Requirements

Before transferring control to implement, prepare implement as indicated in implement Operator's Manual. Transfer control using AutoTrac™ resume button as described in implement Operator's Manual.

Following conditions must be met before transferring control to implement:

- Operator in seat.
- Functional PTO system.
- PTO remote control off.
- PTO engaged (PTO switch On).

NOTE: Implement cannot engage PTO when tractor is stopped unless it is authorized to do so. However, implement can disengage PTO at any time including when tractor is stopped.

While operating and depending on PTO system capabilities, implement has ability to engage/disengage PTO, change PTO gear or adjust PTO speed.

To disengage control, turn PTO switch off.

KT81203,00004E7-19-27SEP17

SCV Requirements

Before transferring control to implement, prepare implement as indicated in implement operator's manual. Transfer control using AutoTrac™ resume button as described in implement operator's manual.

Following conditions must be met before transferring control to implement:

- Operator in seat.
- SCVs are functional.
- SCV control levers in neutral position.
- SCV levers are not locked.

NOTE: Set maximum SCV flow limit which cannot be exceeded by implement.

NOTE: Implement cannot adjust SCV flow when tractor is stopped unless it is authorized to do so. However, implement can stop SCV flow at any time including when tractor is stopped.

While operating, implement has ability to:

- Control SCVs during operations.
- Change SCV flow rate up to set limit.

To disengage control, perform any of the following:

- Actuate specific SCV lever.
- Lock SCV lever.
- Actuate remote control switch on fender.

KT81203,00004E8-19-03APR18

IVT™/AutoPowr™ Requirements

Before transferring control to implement, prepare implement as indicated in implement operator's manual. Transfer control using AutoTrac™ resume switch as presented in implement operator's manual.

NOTE: The implement cannot exceed ground speed set by the operator.

Following conditions must be met before transferring control to implement:

- Operator in seat.
- No malfunctions present in IVT™/AutoPowr™ transmission.

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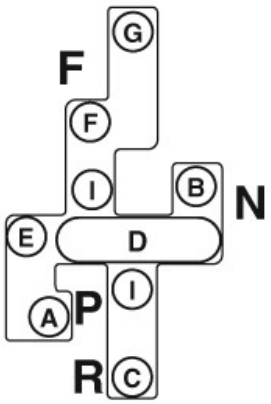
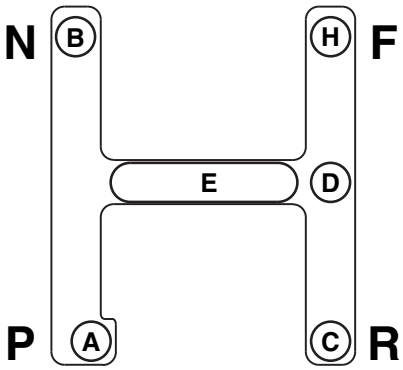
AutoPowr is a trademark of Deere & Company



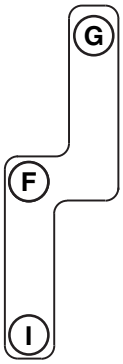
RXA0133408—UN—09DEC13

Right-Hand Reverser



RXA0100319—UN—26JAN09

Left-Hand Reverser



RXA0077571—UN—10JUN05

Left-Hand Reverser Speed Lever

- Reverser lever must be in scroll (E), Power Zero™ (D), or forward position (F or G) for left-hand, right-hand reverser, forward position (H) for left-hand reverser.

While operating, implement has ability to:

- Adjust speed up to operator set limit.
- Stop tractor.
- Drive tractor again after stopping; with operator's confirmation.

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Operator's approval to start or restart motion:

- Cycle reverser lever. Move lever from forward to scroll to forward position again.

  Cycle reverser lever when a round baler stops tractor to eject full bale.
- Depress clutch or brake pedal while tractor rolls to stop. Hold pedal down while tractor is stopped. Tractor starts moving when pedal is released, if implement requests speed.

To disengage control using reverser lever:

- When driving: Move lever out of forward position.
- When stopped: Move lever to reverse, NEUTRAL or PARK.

To disengage control using speed control lever or speed adjusting dial:

NOTE: Speed may always be reduced.

Set speed limit may be increased within 2 seconds after engaging travel speed auto mode. Current travel speed can be limited by other processes (e.g. iTEC™). This limit will be observed; however, the limit will not be considered as an intervention by operator.

- If implement commands stopping tractor and speed is increased, ground speed auto mode will be ended.
- Increasing speed will end auto mode. Implement has all information to inform operator that this interaction will end ground speed auto mode (see implement operator's manual).

KT81203,00004E9-19-01SEP17

Powershift Transmission Requirements

Before transferring control to implement, prepare implement as indicated in implement operator's manual. Transfer control using AutoTrac™ resume button as presented in the implement operator's manual.

NOTE: The implement cannot exceed ground speed set by the operator.

Following conditions must be met before transferring control to implement:

- Operator in seat.
- No malfunctions present in transmission.
- Shift lever in forward.

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NOTE: When transferring control to the implement, Efficiency Manager™ mode will engage.

Speed may always be reduced.

Set speed limit may be increased within 2 seconds after engaging travel speed auto mode. Current travel speed can be limited by other processes (e.g. iTEC™). This limit will be observed; however, the limit will not be considered as an intervention by operator.

To disengage control using the shift lever:

- During driving: Shift up or down manually.
- Increasing the speed will end the auto mode. The implement has all information to inform the operator that this intervention will end the travel speed auto mode. See implement operator's manual.

KT81203,00004EA-19-06NOV17

AutoTrac™ Guidance Requirements

Before transferring control to implement, prepare implement as indicated in implement operator's manual. Transfer control using AutoTrac™ resume button as presented in implement operator's manual.

Following guidelines must be met before transferring control to implement.

- Operator in seat.
- Steering system functional.
- AutoTrac™ is off.
- Steering wheel stationary.
- Vehicle speed below maximum automated speed.
- Transmission not in PARK.

While operating, implement has ability to automatically steer tractor.

To disengage control:

- Turn steering wheel.
- Place tractor in PARK.

KT81203,00004EB-19-06NOV17

Rear Hitch Requirements

Before transferring control to implement, prepare implement as indicated in implement operator's manual. Transfer control using AutoTrac™ resume button as presented in implement operator's manual.

Implement can automatically control hitch depth.

Set raise limit using CommandCenter™.

IMPORTANT: Implement cannot exceed limit.

Following guidelines must be met before transferring control to implement:

- Operator in seat.
- Functional hitch system.
- Hitch control lever in neutral position.
- Hitch unlocked.

NOTE: Unless implement is authorized to adjust hitch depth when tractor is at a standstill, tractor will prevent hitch depth adjustments when at a standstill.

To disengage control:

- Move hitch control lever.
- Lock hitch.
- Activate fender mounted hitch switch (if equipped).

KT81203,00004EC-19-27SEP17

Drive Strategy Requirements

While operating, implement has ability to change drive strategy mode. See IVT™/AutoPowr™ Custom Mode Settings in IVT™/AutoPowr™ Transmission section of this Operator's Manual.

Before transferring control to implement, prepare implement as indicated in implement operator's manual. Transfer control using AutoTrac™ resume button as presented in implement operator's manual.

Following guidelines must be met before transferring control to implement:

- Operator in seat.
- No malfunctions present in transmission.
- Transmission not in PARK.

To disengage control:

- Manually select a drive strategy.
- Place transmission in PARK.

KT81203,00004ED-19-25JUL17

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Drivetrain Overview

Tractor drivetrain consists of:

- Transmission: 16-speed Powershift, e23™ , or IVT™ /AutoPowr™
- MFWD: Conventional Mechanical Front Wheel Drive or ILS™
- Differential: Differential, differential lock, final drives, and axles
- Brakes: Rear or front and rear
- Mechanical, electronic, and hydraulic control systems

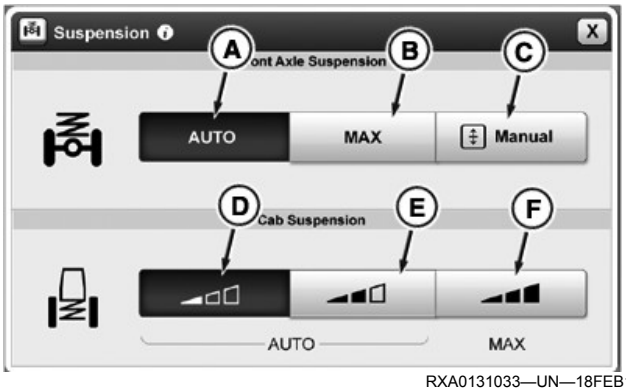
KT81203,000043B-19-21FEB18

Operate Independent Link Suspension (ILS™) and Hydraulic Cab Suspension (If Equipped)

RXA0147938—UN—13APR15

1. Select Menu.
2. Select Machine Settings tab.
3. Select Suspension icon.
4. Select desired front axle and cab suspension setting.

ILS™

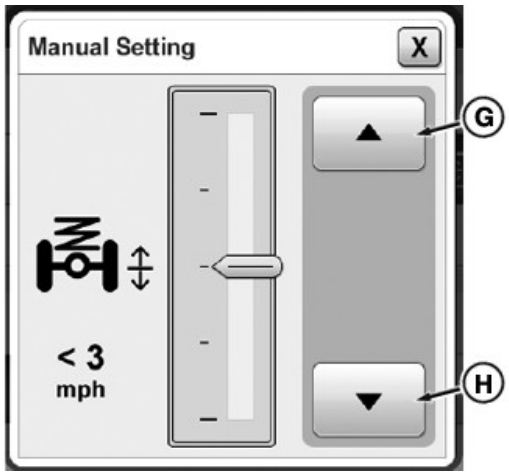


RXA0131033—UN—18FEB13

ILS™ can be set to two different firmness levels and a manual position option: AUTO (A), MAX (B), and Manual (C).

Suspended front axle engages whenever tractor travel speed exceeds 0.5 km/h (0.3 mph). Control after tractor begins moving is delayed. Suspension is active anytime tractor is not in park.

- AUTO: Suspension reacts in response to surrounding conditions and events. Provides best possible comfort by looking at inputs such as travel speed, surface characteristics, implement weight, implement usage, and braking activity.
- MAX: Suspension is set to maximum firmness (example: For operation with a front loader). When travel speed exceeds 30 km/h (18 mph), MAX setting is deactivated. When travel speed drops below 20 km/h (12 mph), MAX setting is reactivated.



RXA0131034—UN—18FEB13

- Manual: Operator is able to adjust chassis height by pressing raise button (G) or lower button (H). Manual setting is overridden when travel speed exceeds 5 km/h (3 mph). When overridden, system returns to previously active mode.

Hydraulic Cab Suspension (If Equipped)

IMPORTANT: Cab suspension should never hit end stops. If this occurs, select a stiffer setting.

Cab suspension can be set to three different firmness levels:

- Auto Soft (D): Suspension operates from 0%— 100% stiffness. Provides best suspension for transport situations. Cab suspension moves most in this setting. If less cab movement is desired, select stiffer setting.
- Auto Medium (E): Suspension operates from 50%—100% stiffness. Provides best suspension for field operation.
- MAX (F): Suspension operates at 100% stiffness. Most suitable for loader operations or operations that require frequent shuttle shifting.

Start Up Mode

- ILS™ does not move until placed into either forward or reverse gear.
- ILS™ flexes when transmission shift lever is placed in NEUTRAL or any forward or reverse gear.
- If tractor has settled, ILS™ may rise about 25 mm (1 in) seeking to center.

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AutoPowr is a trademark of Deere & Company
ILS is a trademark of Deere & Company

- Leveling is completed when tractor wheel speed is above 0.5 km/h (0.3 mph).

ILS™ in Locked Conditions (Restricted Mode)

- Operator activates hitch raise/lower switch.
- Transmission shift lever placed in PARK.
- Wheel speed less than 0.5 km/h (0.3 mph).
- Correcting for unlevel condition.
- Operator applies both brake pedals.

Rear Hitch

- Control units limit suspension response when hitch is raised or lowered with load sense front weight changes.
- Depressing clutch and moving transmission shift lever into gear for four seconds and then back to NEUTRAL adjusts suspension toward mid-point. This can be repeated until tractor levels when attaching and detaching implements.

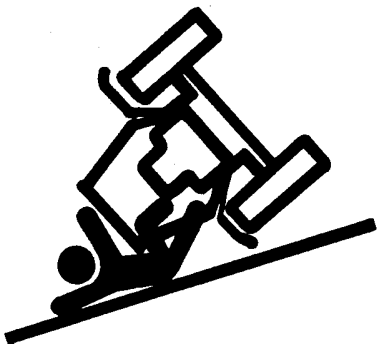
Parking Tractor

IMPORTANT: Prevent possible damage. Do not park tractor with equipment or items under front end of tractor.

- Front end can settle when tractor is parked. Keep front end of tractor away from equipment or other items.

GH15097,00003ED-19-27AUG18

Mechanical Front-Wheel Drive (MFWD)



RW13093—UN—07DEC88

CAUTION: Avoid personal injury or death. Reduce speed when driving on icy, wet, or graveled surfaces.

Ballast tractor correctly to avoid skidding and loss of steering control. Engage front-wheel drive by using MFWD switch mode, rather than AUTO mode for four wheel braking.

IMPORTANT: Use AUTO MFWD or Brake Assist when transporting tractor.

MFWD allows the most power and traction for any road or field condition.

MFWD can be engaged and disengaged in all gears (forward and reverse) during operation and under full load. Select one of three operating modes:

RXA0138503—UN—21JAN14

RXA0160885—UN—06SEP17

AUTO MFWD — Enter Auto mode by pressing AUTO MFWD switch (A) on armrest. While in Auto mode, LED in AUTO switch illuminates. MFWD indicator (C) illuminates when MFWD is engaged. Following is how MFWD operates in AUTO position:

- MFWD automatically *disengages* when either brake pedal is pressed, at speeds above 23 km/h (14 mph) or steering angle is greater than selected value. For more information on how to change MFWD steering angle see Change Mechanical Front-Wheel Drive (MFWD) Disengagement in the section of this Operator's Manual.
- MFWD automatically *engages* when speed falls below 19 km/h (12 mph) and steering angle is below selected value, or when BOTH brake pedals are depressed.

Manual MFWD — Enter Manual mode by pressing Manual MFWD switch (B). While in Manual mode, LED in Manual MFWD switch and MFWD indicator illuminate until disengaged. To disengage Manual MFWD mode, press illuminated Manual MFWD switch. MFWD is engaged when transmission is in PARK.

Brake Assist — If both Manual and Auto mode are deselected, MFWD will be in Brake Assist mode. In Brake Assist mode, MFWD will be off unless both brake pedals are depressed at speeds above 5 km/h (3 mph).

TS36762,0000198-19-06SEP17

Change Mechanical Front-Wheel Drive (MFWD) Disengagement Steering Angle

MFWD disengages to enable tighter turning radius or to reduce ground disturbance in area of turn. To allow for different turning radius of various implements, steering angles to disengage MFWD are higher and have different settings than steering angles to disengage differential lock.

Disabling steering angle to disengage MFWD switches MFWD into "AUTO" mode allowing disengagement of MFWD based on wheel speed and depression of brake pedal, not on steering angle.

MFWD Disengagement Steering Angle is retained through key cycles.

Use Transmission Advanced Settings to adjust steering angle to disengage MFWD.

RXA0133712—UN—16JUL13

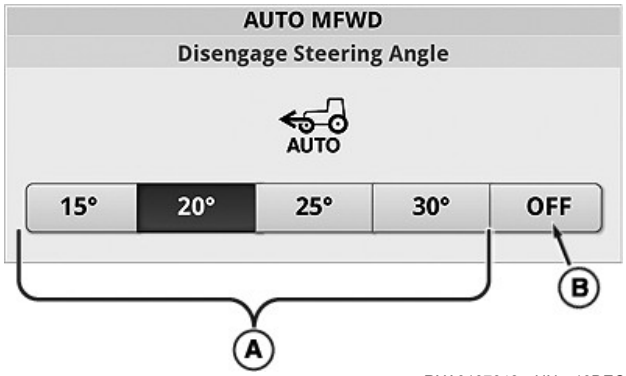
Transmission Shortcut Button on Navigation Bar

1. Select **Transmission Shortcut button on Navigation Bar.**

RXA0130326—UN—11JAN13

Advanced Settings Icon → Settings Tab

2. Select **Advanced Settings icon.**
3. Select **Settings tab.**



RXA0137848—UN—13DEC13

MFWD Steering Angle

4. Select desired steering angle to disengage MFWD using Steering Angle toggle bar (A). To disable steering angle to disengage MFWD, press Steering Angle OFF button (B).

TS36762,0000199-19-16DEC16

Differential Lock

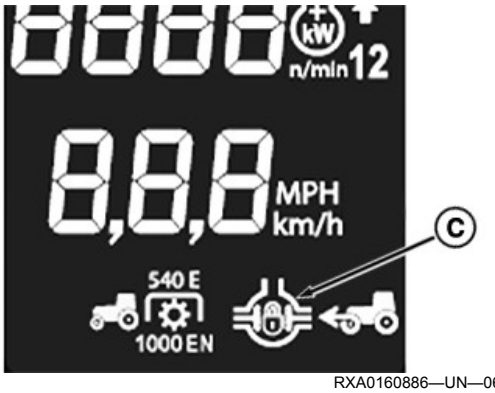
IMPORTANT: Engage differential lock before entering situation where wheel slippage may occur or when all wheels appear to be turning at same speed. If engaged after wheels begin to spin, damage to differential could result.

NOTE: On tractors with front and rear differential locks, front axle differential lock engages when rear differential lock engages.

Differential Lock latches wheel axles together to provide best traction possible for slippery field conditions.

When one wheel begins to slip, differential lock can be engaged by selecting either of the two operating positions:

RXA0141546—UN—12MAY14



RXA0160886—UN—06SEP17

AUTO Lock — Enter auto mode by pressing AUTO lock switch (A) on CommandARM™. When in auto mode, LED in AUTO lock switch illuminates. Differential lock indicator (C) illuminates when differential lock is engaged. AUTO lock:

- Disengages when wheel speed is more than 23 km/h (14 mph), one or both brake pedals are depressed or steering angle greater than selected value. See Change Differential Lock Disengagement Steering Angle in this section of this Operator's Manual.
- Engages when wheel speed falls below 19 km/h (12 mph), steering angle less than selected value and brakes are released.

When AUTO lock switch is pressed, button is always lit until pressed again. Differential lock remains in auto mode until operator selects manual lock (B) on CommandARM™. Differential lock indicator turns on and off depending on the state of differential lock.

Manual Lock — Enter manual mode by pressing manual lock switch on armrest. When in manual mode, Light on CommandArm switch lock switch and differential lock indicator illuminates. Press manual lock switch a second time or both brake pedals to disengage manual mode.

TS36762,000019A-19-09AUG18

Change Differential Lock Disengagement Steering Angle

Higher disengage steering angles require operator to turn steering wheel further before differential lock disengages. Use in high slip field conditions that require large steering corrections to maintain desired path. Differential lock remains engaged while making steering corrections across field, but automatically disengages on headland turns.

Moderate disengage steering angles are useful in loader situations. Differential lock remains engaged when entering into a pile, but quickly disengages while turning.

Lower disengage steering angles allow differential lock to disengage sooner (less movement of the steering wheel), which is useful in high traction (example: paved surface) conditions. Differential lock remains engaged during straight-line work, while minimizing tractor jerk when disengaged or reengaged during turns.

Steering angle is factory set at 6°. Any custom settings are maintained until readjusted.

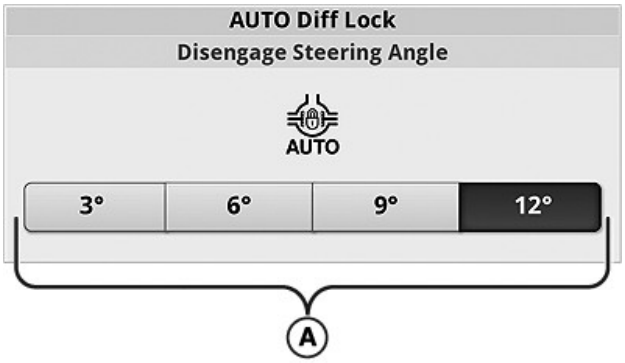
Adjust steering angle to disengage differential lock:

RXA0133712—UN—16JUL13

1. Select Transmission Shortcut button on Navigation Bar.

RXA0130326—UN—11JAN13

2. Select Advanced Settings icon.
3. Select Settings tab.



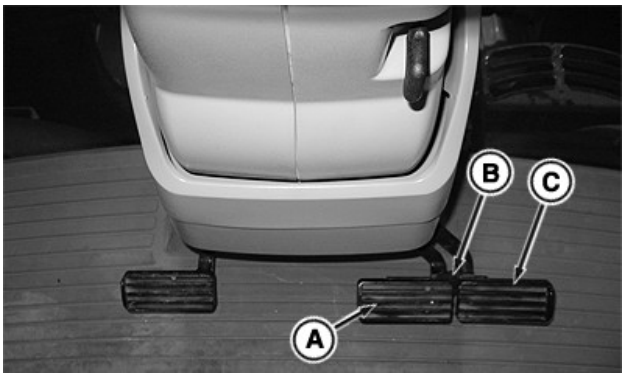
RXA0137847—UN—13DEC13

4. Select desired steering angle to disengage differential lock using Steering Angle toggle bar (A).

TS36762,000019B-19-27JUN18

Brakes

Brake Use



RXA0129148—UN—30OCT12

CAUTION: Avoid possible injury from losing control of tractor:

- **Before operating on roads, while tractor is in parked position, lock brake pedals together with the pedal lock tab (B). Tractor speed limited to 40 km/h (24.9 mph) when brake pedals are unlocked.**
- **Reduce speed if towed load weighs more than the tractor or when transporting loads under adverse conditions. Avoid hard braking applications. See Tow Loads in Transport Section of this Operator's Manual.**
- **Tractor wheels may lock and skid on slippery downhill slopes. For IVT™/AutoPowr™ tractors, see Downhill Operation and Slippery Conditions, in the IVT™/AutoPowr™ Transmission section.**

IMPORTANT: MFWD engages if MFWD Brake Assist mode is selected and both brake pedals are depressed at speeds above 5 km/h (3 mph). See Mechanical Front-Wheel Drive (MFWD) in this section for more information.

DO NOT rest feet on brake pedals during tractor operation to avoid unnecessary wear on brakes and increased fuel consumption.

Test brakes with engine stopped to be sure that manual brake system is functioning. See 250 Hour Service in Service - Record Charts section of this Operator's Manual.

Use individual brake pedals to assist in making sharp turns when working in field.

Depress both brake pedals (A and C) to stop tractor while disengaging clutch pedal. Use brake pedal lock tab (B) to lock brakes together.

Individual brake pedals can assist with slow speed off road turning situations, such as when hooking up implements.

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Maintain at least 1800 engine rpm during aggressive braking events to ensure that adequate cooling oil flow is directed to vehicle brakes. Do not over speed engine as it may cause damage to engine or transmission components.

For IVT™/AutoPowr™ Tractors

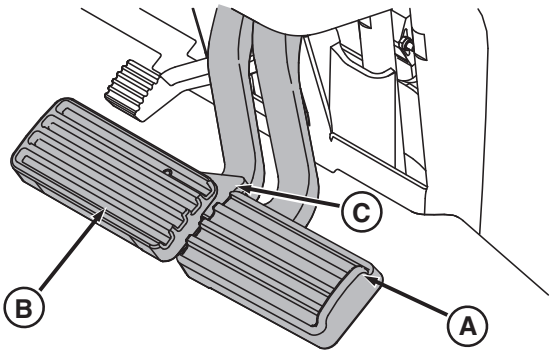
When operating at low idle, individual brake pedals stop tractor without use of clutch pedal. To assist slow speed turning, depress either brake pedal while slowly increasing engine speed until desired turn is achieved. Returning engine speed to low idle while continuing to depress one brake pedal slows the tractor to a stop.

Using Brakes with AutoClutch (If Equipped)

CAUTION: Avoid possible injury. Braking the tractor while commanding a high engine speed requires a higher brake pedal force.

Avoid injury due to sudden or unexpected acceleration. When brake pedals are released, the tractor automatically accelerates to the speed currently commanded by throttle and speed control levers.

IMPORTANT: Damage to brakes could result if brake pedals are not locked together during transport when using AutoClutch



RXA0122335—UN—17NOV11

For IVT™/AutoPowr™ Tractors Only: Individual brake pedals (A) and (B) can assist with slow speed off-road turning, such as hooking up to implements. At low idle, AutoClutch feature stops tractor if operator depresses only one brake pedal. IT IS NOT NECESSARY TO DEPRESS CLUTCH PEDAL.
To assist in hooking up implement, depress either brake pedal while slowly increasing engine speed until desired turn is achieved. Returning engine speed to low idle while continuing to depress one brake pedal slows the tractor to a stop.

Parking Tractor with AutoClutch

1. Depress both brake pedals. Brakes activate AutoClutch (automatic clutch function within transmission) to stop tractor. **It is not necessary to depress clutch, reduce throttle, or move speed control lever.**

CAUTION: Avoid possible injury due to losing control of tractor. Use pedal lock tab (C) to couple brake pedals together when driving on roads.

2. Move speed control lever to slowest position and stop tractor.

CAUTION: Always place reverser lever in PARK position before dismounting tractor.

3. Shift reverser or shift lever to PARK position.

   Transmission PARK position holds tractor stationary.

4. Lower implements and shutoff PTO.
5. Shut off engine and remove ignition key.

TS36762,000019C-19-31JUL18

Brake Warning Indicators

Brake warning indicators illuminate when a fault in the brake system occurs.

RXA0155981—UN—30NOV16

Brake Warning Indicator (Red) (A)

NOTE: Brake Warning Indicator (Red) illuminates while trailer air brakes reach operating pressure, indicator will turn off once operating pressure is reached.

If indicator is solid red, a serious fault has been detected that affects brake system performance:

- Immediately stop tractor.
- Park tractor on level ground and prevent tractor from rolling away.
- Diagnostic Trouble Code (DTC) will display on CommandCenter™, follow instructions to fix the fault.
- If fault cannot be fixed, see your John Deere dealer.

If indicator is flashing red, park lock cannot engage:

- Park tractor on level ground and prevent tractor from rolling away.
- DTC will display on CommandCenter™, follow instructions to fix the fault.
- If fault cannot be fixed, see your John Deere dealer.

Brake Warning Indicator (Yellow) (B)

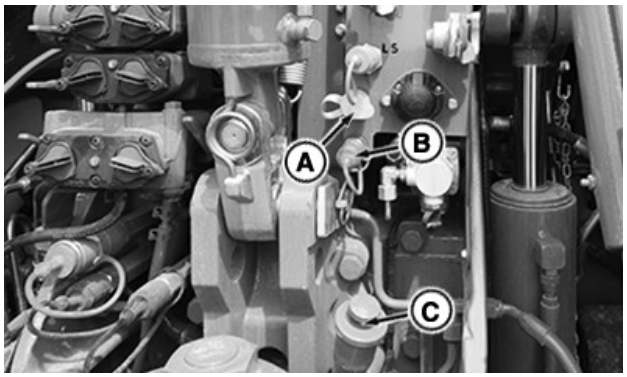
Yellow indicates an electrical fault has been detected that affects the ability to detect additional faults:

- Park tractor on level ground and prevent tractor from rolling away.
- DTC will display on CommandCenter™, follow instructions to fix the fault.
- If fault cannot be fixed, see your John Deere dealer.

DB71512,0000139-19-01DEC16

Hydraulic Trailer Brakes (If Equipped)

CAUTION: Avoid possible injury from losing control of tractor equipped with IVT™ /AutoPowr™ transmission operating on downhill slopes. Tractor wheels may lock and skid on slippery downhill slopes (see Downhill Operation in Slippery Conditions in IVT™/ AutoPowr™ Transmission section of this Operator's Manual).



RXA0159846—UN—15JUN17

A— Yellow Hydraulic Trailer Brake Coupler (Control)
B— Red Hydraulic Trailer Brake Coupler (Supply)
C— Hydraulic Oil Filler Tube

Shift transmission to PARK and turn tractor OFF. Clean connections before attaching hydraulic hoses. Connect yellow hydraulic brake coupler (control) first. Lift dust cover from trailer hydraulic brake coupler and connect trailer hydraulic hose coupling. Seal connections with dust covers whenever hoses are disconnected.

IMPORTANT: To reduce brake wear, make sure pressure hoses are connected, select same gear for both downhill and uphill driving, and check hydraulic trailer brake regularly for correct functionality.

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Depress brake pedals to operate hydraulic trailer brakes. Braking effect depends on pressure applied to brake pedals.

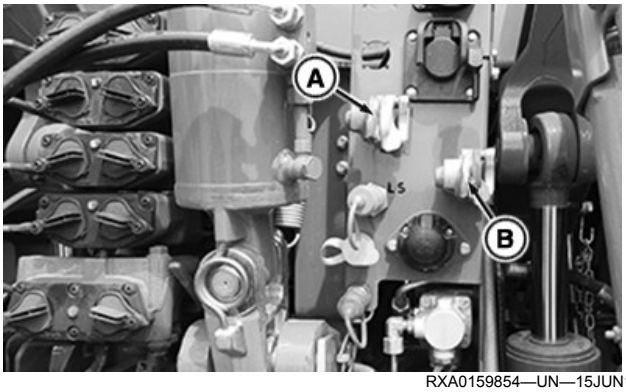
Bring tractor-trailer to complete stop, shift transmission to PARK and turn tractor OFF before dismounting tractor and disconnecting hydraulic lines from couplers. Seal connections with dust covers whenever hoses are disconnected.

NOTE: Depressing clutch pedal to stop IVT™/ AutoPowr™ tractor is unnecessary.

DB71512,000003F-19-30JUN17

Air Trailer Brakes (If Equipped)

CAUTION: Avoid possible injury from losing control of tractor equipped with IVT™/ AutoPowr™ transmission operating on downhill slopes. Tractor wheels may lock and skid on slippery downhill slopes (see Downhill Operation in Slippery Conditions in IVT™/ AutoPowr™ Transmission section of this Operator's Manual).



RXA0159854—UN—15JUN17

Dual-line air trailer brake system employs yellow control (A) and red supply (B) line couplers.

Shift transmission to PARK and turn tractor OFF. Clean connections before attaching air hoses. Connect yellow air brake coupler (control) first. Lift dust cover from trailer air brake coupler and connect trailer air hose coupling. Seal connections with dust covers whenever hoses are disconnected.

Start engine and allow air system to reach working pressure. While air pressure builds, Diagnostic Trouble Code and an accompanying message comes on CommandCenter™ display. When operating pressure is reached, indicator light and warning display shut off automatically.

IMPORTANT: To reduce brake wear, make sure pressure hoses are connected, select same gear for both downhill and uphill driving, and check air brakes on trailer regularly for correct functioning.

With trailer lines connected, do not drive tractor until operating pressure is reached and service alert indicator and warning display are off.

NOTE: Depressing clutch pedal to stop IVT™/ AutoPowr™ tractor is unnecessary.

To stop tractor-trailer, disengage clutch and depress brake pedals.

Air trailer brakes are equipped with an automatic bleed valve which can be checked manually (see Trailer Air Brakes in Service - Check section of this Operator's Manual).

DB71512,0000040-19-30JUN17

Trailer Brake Settings

NOTE: If equipped. If brake adjustability screen is not displayed, see John Deere dealer to adjust brake settings.

Trailer Brake application allows operator to adjust brake and pre-brake settings, as well as testing the trailer brakes.

Navigate to Trailer Brake

1. Select Menu.
2. Select Machine Settings tab.
3. Select Trailer Brake application.

Brake Gain

Brake Gain allows operator to adjust brake to be more aggressive to match trailer requirements.

Modify when:

- Trailer is slow to stop.
- Trailer wheels lock up when brakes applied.

Procedure to modify:

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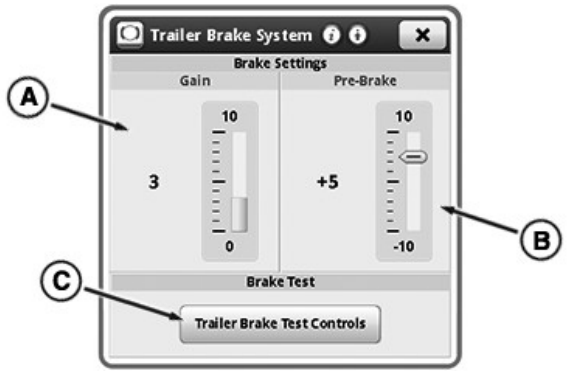
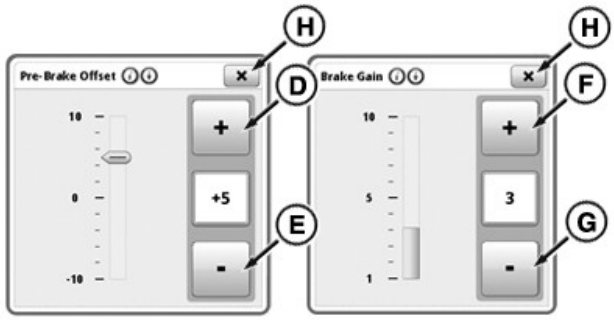
CommandCenter is a trademark of Deere & Company



RXA0152440—UN—20JUN16

1. Select Brake Gain (A) module to modify value.



RXA0152444—UN—20JUN16

2. Select + (F) or - (G) to increase or decrease value
3. Select the close button (H) to exit.

Pre-Brake

Pre-Brake allows operator to change timing of trailer brake initiation. Trailer brake initiation may need to be adjusted to avoid the trailer “pushing” the tractor.

Modify when:

- After connecting trailer to tractor.

Procedure to modify:

1. Select Pre-Brake (B) module to modify value.
2. Select + (D) or - (E) to increase or decrease value.
3. Select the close button (H) to exit.

Trailer Brake Test

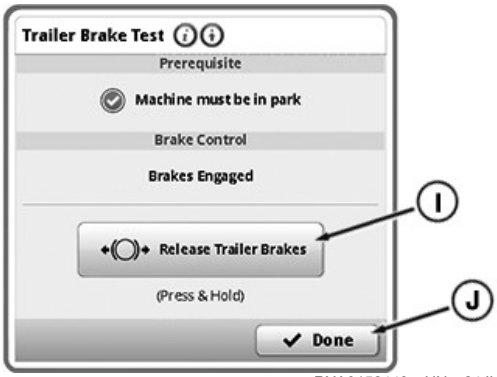
Tractors equipped with dual-line hydraulic trailer brakes have a Trailer Brake Test. Use test to confirm tractor's park brake will hold both tractor and trailer if the trailer brakes are released when parked. The Trailer Brake Test overrides the default park state of the braking system and forces brakes to release.

Modify when:

- Verifying park brake performance.
- Attaching different trailer.

Procedure to modify:

1. Place tractor in PARK.
2. Press trailer brake test controls button (C) to access trailer brake test.



RXA0152443—UN—24JUN16

3. Press and hold release trailer brakes button (I) to bleed brakes.
4. Press done button (J) when finished.

KT81203,0000519-19-04APR18

Use AutoClutch (If Equipped)

IVT™/AutoPowr™ and e23™ transmissions are equipped with an AutoClutch feature. With AutoClutch, when the operator presses the brake pedal, clutch begins disengaging, pressing brake pedal further then applies the rear brakes (Front brakes as well - if equipped).

NOTE: To keep AutoClutch from disengaging before trailer brakes are applied, AutoClutch Sensitivity options allow operator to adjust AutoClutch settings to load requirements. Larger trailers take lower AutoClutch Sensitivity settings. ***AutoClutch Sensitivity factory default setting is set to High, which will support most operations.***

RXA0133712—UN—16JUL13

To access transmission main page, use Transmission Shortcut Button on Navigation Bar or follow alternative path:

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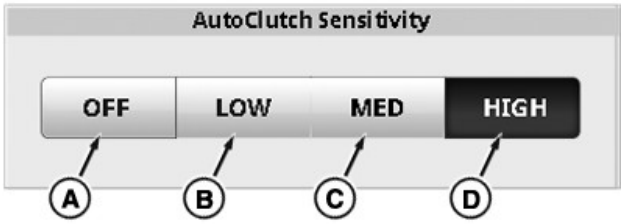
AutoPowr is a trademark of Deere & Company
e23 is a trademark of Deere & Company

RXA0147943—UN—13APR15

1. Select **Menu.**
2. Select **Machine Settings tab.**
3. Select **Transmission icon.**

RXA0130326—UN—11JAN13

4. Select **Advanced Settings icon.**
5. Select **Settings tab.**



RXA0137943—UN—17DEC13

6. Select appropriate AutoClutch setting.
   - ON/OFF (A) disables or enables AutoClutch.
   - Low (B) is for heavy trailers (load).
   - Medium (C) is for medium trailers (load).
   - High (Factory Default) (D) is for light or no trailer (load).

RD47322,0000366-19-27JUN17

Transmission Top Speed Note

NOTE: It is only possible to uprate the tractor from 40 km/h (24.8 mph) to 50 km/h (31 mph) if tractor was equipped for 50 km/h before leaving the factory.

All transmissions can be manually programmed to limit top speed. Tractors programmed for 50 km/h (31 mph) top speed can be permanently downrated to 40 km/h (24.8 mph) top speed. This may be advisable, if particular legal requirements for 50 km/h (31 mph) tractors cannot be met. Examples include a different class of driver's license, or similar restrictions. If top speed is changed, this must be recorded in the vehicle documents.

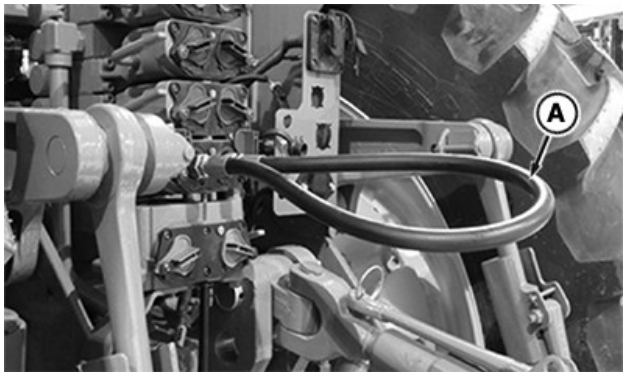
For more information, contact your John Deere dealer.

RW29387,000062A-19-24APR17

Warm-Up Transmission-Hydraulic System

Set Detent Time

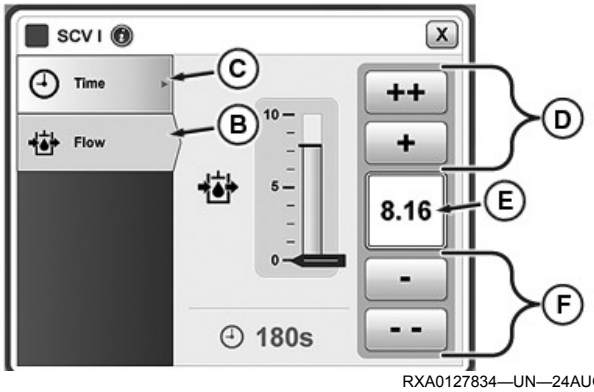
IMPORTANT: Avoid operating tractor under load until transmission-hydraulic system has warmed up. Tractor-hydraulic warm-up procedure is recommended at temperatures at or below -5 °C (23 °F).



RXA0159855—UN—15JUN17

Install Jumper Hose Into SCV Coupler

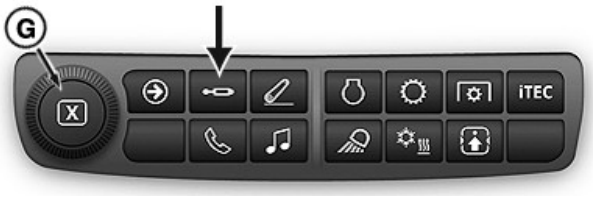
1. Install jumper hose (A) into SCV I couplers.
2. Place transmission lever in PARK position before starting tractor.
3. Turn key switch to START position.
4. Press SCV Shortcut Button on Navigation Bar.
5. Select SCV I module.



RXA0127834—UN—24AUG12

A—Jumper Hose
B—Detent Flow Tab
C—Detent Time Tab
D—Increase Time button
E—Input Box
F—Decrease Time button
G—Adjustment Dial

6. Select SCV I Time tab (C).

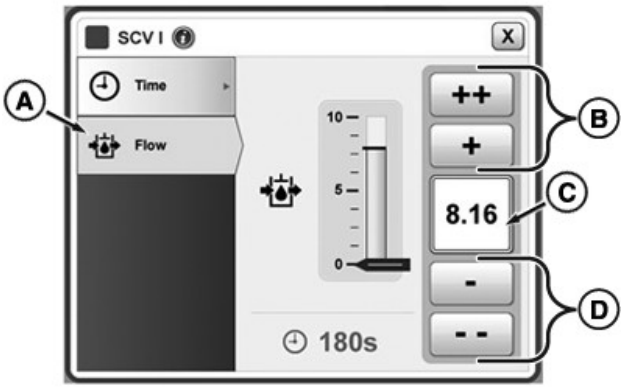


RXA0141641—UN—22MAY14

7. Select increase (+) button (D) to extend flow time to C (continuous) in input box (E). Adjustment dial (G) can also be used to increase or decrease desired detent time setting.
8. Set SCV II to C using steps 5 through 7.

Set Detent Flow

NOTE: Flow is displayed in increments of 0.04 beginning at 0.04 through 10 located in input box (C). Pushing (+) increases flow by 0.04, pushing (+ +) increases flow by 1.00, and by pushing (-) and (- -) decreases flow setting by same increments.

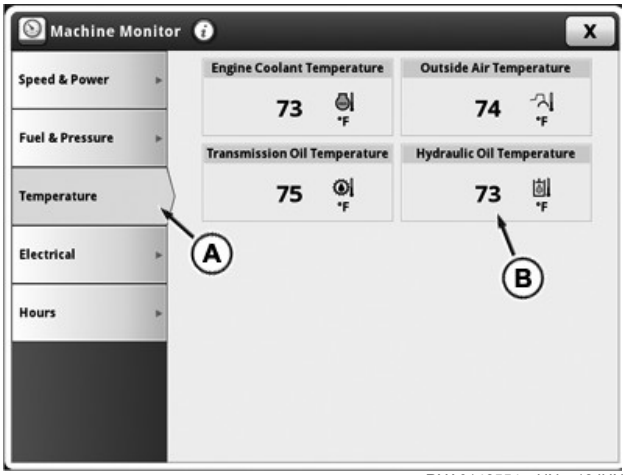


RXA0131683—UN—28MAR13

1. Select SCV I flow tab (A).

RXA0142612—UN—16JUN14

CommandARM™



RXA0142554—UN—12JUN14

4. Select Temperature tab (A).
5. Select hydraulic oil temperature reading (B) and monitor until temperature reaches 38 °C (100 °F).
6. Return SCV I and SCV II lever to neutral position.
7. Disconnect jumper hose and return to normal operation.

KT81203,0000191-19-30JUN17

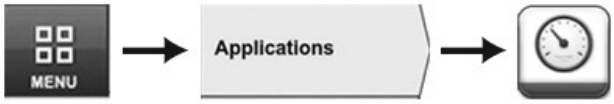
RXA0131233—UN—09MAY13

A—SCV 1 Flow Tab
B—Increase Flow buttons
C—Flow Input Box
D—Decrease Flow buttons
E—SCV I Lever
F—SCV II Lever
G—Adjustment Dial

2. Set SCV I flow to 8.00 or above (C) by pressing buttons (B) to increase flow or buttons (D) to decrease flow setting. Adjustment dial (G) can be used to increase or decrease desired detent flow setting.

Monitoring Hydraulic Oil Temperature

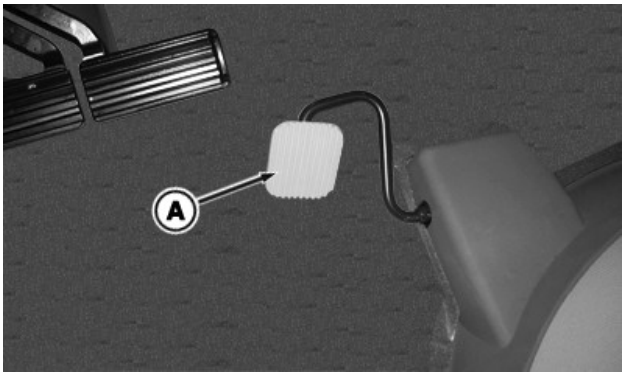
1. Select **Menu.**
2. Select **Applications tab.**



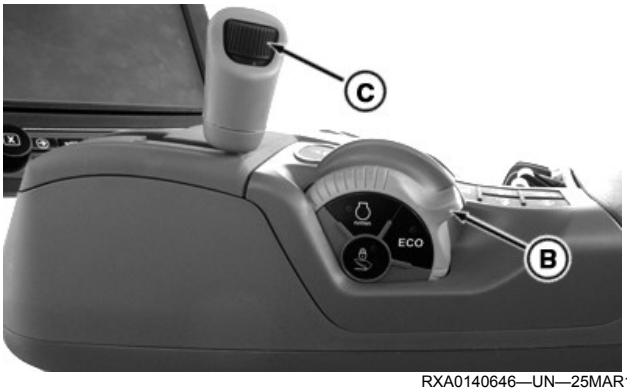
RXA0126813—UN—12JUN12

3. Select **Machine Monitor icon.**

Foot Pedal Mode (If Equipped)



RXA0135636—UN—19SEP13



RXA0140646—UN—25MAR14

Foot pedal mode is a function that allows the operator to control wheel speed independently of engine speed by using foot pedal (A) while using hand throttle (B) to keep engine at a constant speed.

When the foot pedal is released, vehicle decelerates to a minimum travel speed of 0.5 – 2 km/h (0.3 - 1.2 mph). To come to a complete stop, brake pedal with AutoClutch function must be used.

To cover transport applications with foot pedal only, leave hand throttle in lowest position; engine speed is increased or decreased from drive strategy based on fuel economy settings. When hand throttle is not at its lowest position, engine speed is controlled directly by hand throttle while foot pedal controls wheel speed only.

If engine speed is being held at low rpm via hand throttle, vehicle may not reach wheel speed commanded by set speed adjuster dial (C).

Foot pedal mode is intended for applications where it is important to keep engine speed at a constant rpm independent from wheel speed (mowing for example).

RXA0152782—UN—13JUL16

NOTE: If equipped, foot pedal mode indicator (D) is on when foot pedal mode enabled. Indicator goes out when foot pedal mode is disabled.

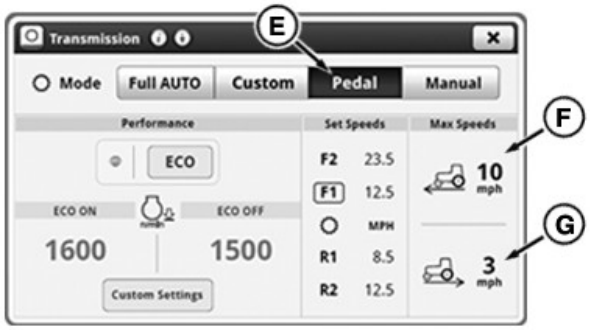
Enable Foot Pedal Mode

Fuel economy settings and automatic mode functions become active when foot pedal mode is enabled.

1. Place transmission shift lever in PARK position.

RXA0133712—UN—16JUL13

2. Press Transmission shortcut button on Navigation Bar.



RXA0159861—UN—26JUL17

3. Press Foot Pedal Mode button (E)

Maximum forward and reverse speeds are adjusted using maximum forward (F) and reverse (G) speed module. For more information see IVT™/AutoPowr™ Modes and Setting Maximum Speed in IVT™/ AutoPowr™ Transmission section of this Operator's Manual.

RXA0159862—UN—26JUL17

Lock or unlock foot pedal settings using foot pedal lock/ unlock button (H).

NOTE: Foot pedal will not lock if foot pedal lock button is held more than 1 second.

Following are ways to unlock foot pedal:

- Depressing foot pedal a second time.
- Depressing brake pedal.
- Pressing foot pedal set lock/unlock button.
- Moving speed control lever or left-hand reverser to PARK position.

DB71512,0000069-19-30JUN17

Activate and Set Maximum Set Speed

Limiting engine speed in light load situations may improve fuel economy. Maximum Set Speed utilizes a constant speed governor curve, providing instant response to varying loads. Two different Maximum Set

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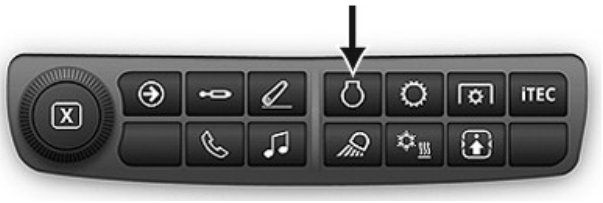
Speed speeds can be set, enabling operator to toggle quickly from one to the other.

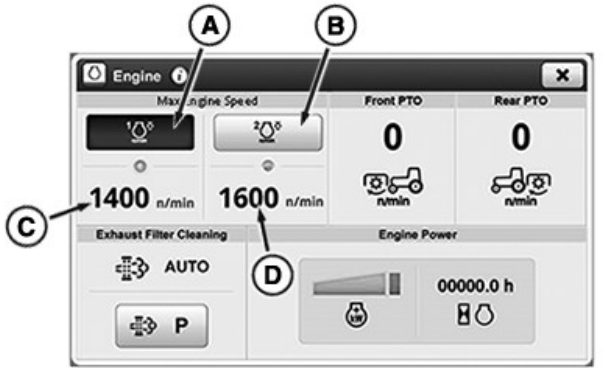
Activate Maximum Set Speed

Engine must be running for Maximum Set Speed adjustment to operate.



RXA0133711—UN—16JUL13

1. Select Engine Shortcut Button on Navigation Bar



RXA0156761—UN—13JAN17

2. When engine page appears, select Maximum Set Speed 1 (A) or 2 (B) ON/OFF toggle button.

RXA0137795—UN—12DEC13

NOTE: Maximum Set Speed can also be activated using Maximum Set Speed ON/OFF button (E) on CommandARM™. When CommandARM™ Maximum Set Speed ON/OFF button is pressed, last Maximum Set Speed mode selected with CommandCenter™ will be activated.

Adjust Maximum Set Speed

Maximum Set Speed is an upper limit to engine speed. Engine speed limit can be adjusted from 1100 to 2150 RPM. Changes to Maximum Set Speed take place immediately.

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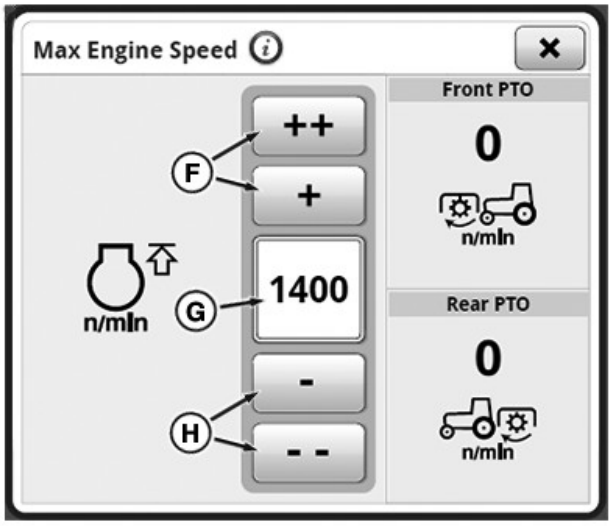
1. Select Maximum Set Speed 1 (C) or 2 (D) input module.



RXA0161047—UN—11OCT17

2. When Maximum Set Speed 1 or 2 page appears, select desired speed by using Maximum Set Speed increase (F) or decrease (H) button. “++” and “- -” buttons increase or decrease values at higher rate than “+” and “-” buttons. Maximum Set Speed value appears in Maximum Set Speed input box (G).

KT81203,00000EC-19-11OCT17

Use Maximum Set Speed with Different Transmission Modes

Change transmission mode by using Transmission Page on CommandCenter™ display. Following is how Maximum Set Speed works with different transmission modes:

Full Auto: At full throttle, minimum engine speed is 1200 rpm with PTO off. Transmission downshifts and engine speeds up to Maximum Set Speed, to compensate for increasing workloads. Available engine speed range is 1200 rpm to Maximum Set Speed.

Custom: Minimum engine speed depends on ECO engine speed setting on transmission page. Transmission downshifts and engine speeds up to Maximum Set Speed, to compensate for increasing workloads. Available engine speed range is ECO engine speed setting to Maximum Set Speed.

Foot Pedal (If Equipped): Maximum Set Speed function is replaced by Engine Set Speed function. Engine speed stays constant at engine speed selected. Hand throttle will take over control of engine speed if moved out of position.

Manual: Operator sets engine speed using hand

throttle. Engine speed stays constant, but limited by Maximum Set Speed.

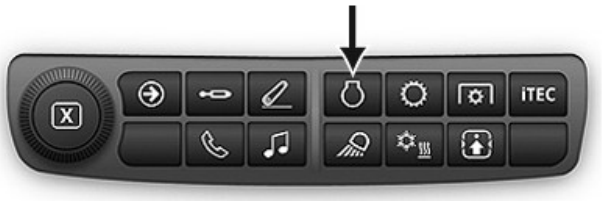
TS36762,00001A6-19-18NOV16

Intelligent Power Management

Intelligent Power Management (IPM) is available as factory or field installed option. IPM provides controlled power boost of up to 26kW (35hp) to tractor when:

- Accelerating at transport speeds, power boost occurs in steps through range of 23-28 km/h (14.3-17.4 mph).
- Decelerating at transport speeds, power boost ramps down in equal steps in range of 23-18 km/h (14.3-11.2 mph).
- PTO is under load and consuming moderate power and tractor is moving at 0.5 km/h (0.3 mph) or more.
- With tractor moving and rear PTO under load or in transport above 23 km/h (14.3 mph), power increase indicator will appear on display and IPM level is displayed on CommandCenter™

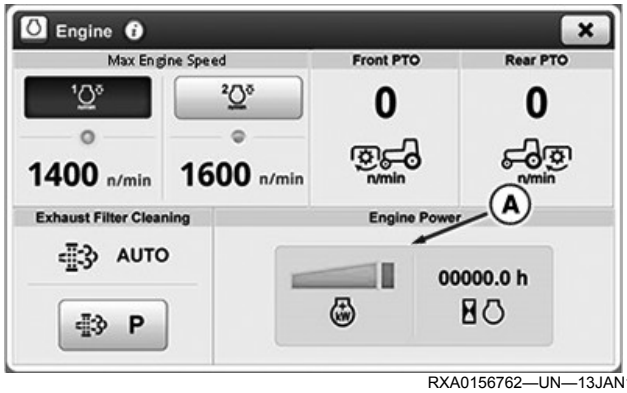
Power increase is not provided under draft applications or non-loaded rear PTO applications. Power increase is only provided when required.



RXA0133711—UN—16JUL13

Engine Shortcut Button on Navigation Bar

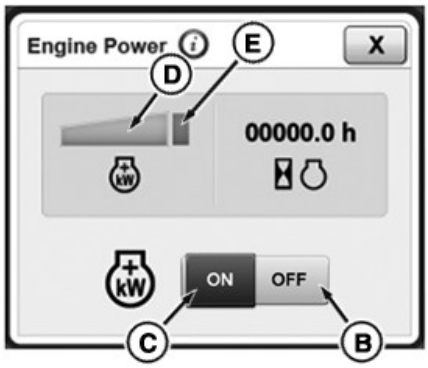
1. Press **Engine Shortcut Button on Navigation Bar.**



RXA0156762—UN—13JAN17

Intelligent Power Management

2. Select IPM module (A) to activate IPM.
3. IPM On/Off toggle appears.



RXA0141563—UN—13MAY14

Engine Power Overlay

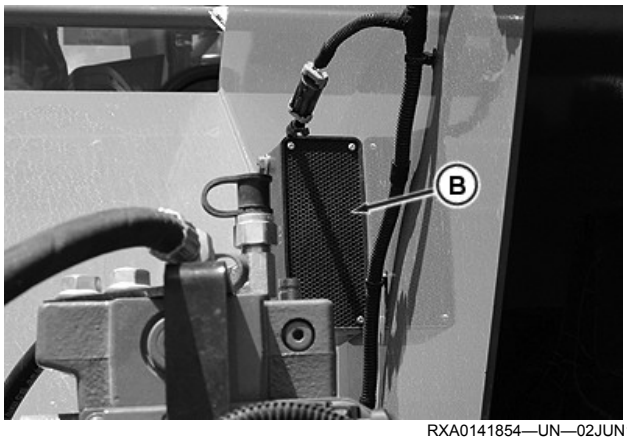
4. Toggle ON IPM (C).
5. IPM engaged icon (E) appears.

   When IPM is engaged, IPM level is identified by solid portion displayed in IPM Graph (D). Segments to right of solid portion indicate additional engine power above rated.

TS36762,00001A2-19-17JAN17

Backup Alarm

CAUTION: Backup alarm emits an audible sound to alert anyone near by. Tractor will be traveling in a reverse direction.



RXA0141854—UN—02JUN14

NOTE: Backup alarm (B) is located on rear cross member.

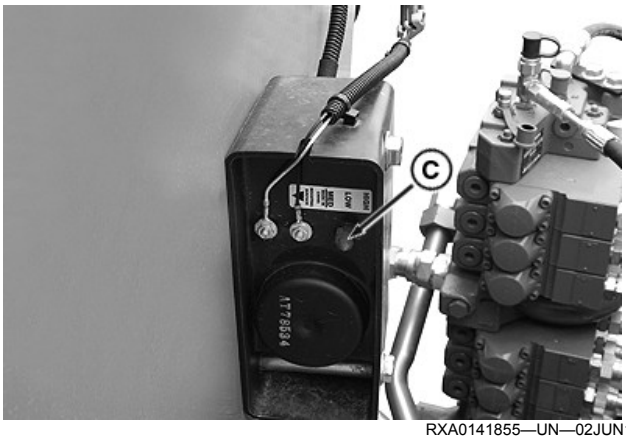
CommandCenter is a trademark of Deere & Company

RXA0142551—UN—13JUN14

Backup alarm will sound when key switch is **ON** and transmission shift lever (A) is in reverse gear.

Alarm can be set at three different volume levels:

- High
- Low
- Medium



RXA0141855—UN—02JUN14

Turn volume control knob (C), on back of alarm, to desired setting.

KT81203,00001E7-19-03JUL17

Come Home Mode

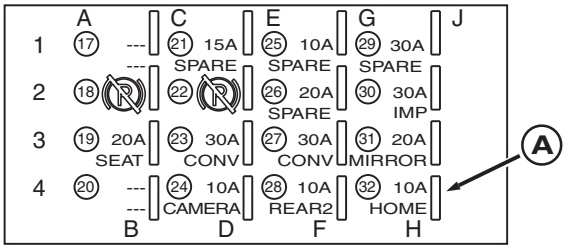
CAUTION: When driving tractor in come home mode, do not exceed tractor limited capability.

Come home mode may be used if tractor becomes inoperable due to failures and must be moved. In come home mode, tractor can be moved short distances at reduced speeds and with limits on function:

- For 16-Speed Powershift transmission in come-home mode, tractor is limited to 1500 rpm and first gear in any range.
- For e23™ transmission in come home mode, tractor engine speed is limited to 1500 rpm and Efficiency Manager™ is disabled.

e23 is a trademark of Deere & Company
Efficiency Manager is a trademark of Deere & Company

- For IVT™/AutoPowr™ transmission in come-home mode, maximum tractor speed is limited to 5 km/h (3.1 mph).



RXA0154827—UN—13OCT16

When fuse #32 (A) is removed and tractor is placed in gear, back-up pump will provide pressure oil for brake and steering functions.

1. Remove fuse #32 (A) and retain.
2. “Transmission come home mode active” displays on CommandCenter™.
3. Turn key switch to START position.
4. Step on brake pedal momentarily.

CAUTION: Before operating tractor, verify correct operation of steering and brakes. In some situations, braking may require additional force due to lower hydraulic pressure.

5. Depress clutch pedal.
6. Select Forward or Reverse direction.
7. Release clutch pedal to put tractor in motion.
8. When destination is reached, put transmission shift lever in PARK position.
9. Turn key switch to OFF position.
10. Replace fuse #32.

KT81203,0000135-19-06JUL17

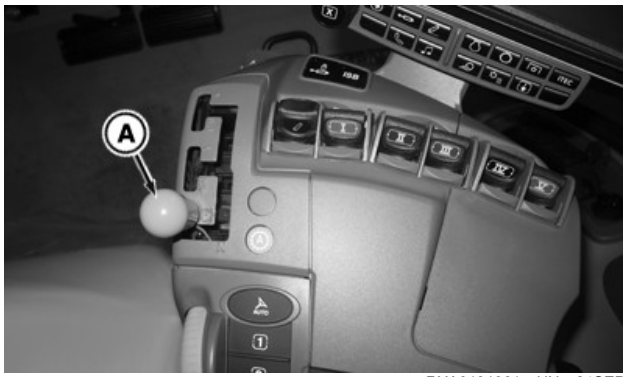
IVT is a trademark of Deere & Company
AutoPowr is a trademark of Deere & Company
CommandCenter is a trademark of Deere & Company

Operate 16-Speed Powershift Transmission

CAUTION: Avoid personal injury or damage to tractor. If engine starts with transmission shift lever in forward or reverse positions, there is a malfunction in starting circuit. Repair immediately. See your John Deere dealer.

IMPORTANT: Prevent transmission or clutch damage:

- **Never depress clutch pedal while tractor is rolling downhill or coasting since serious transmission damage can result.**
- **Never attempt to start tractor by towing or pushing.**
- **Operator can always move shift lever to PARK Position; however park brake will not engage until ground speed is below 1.75 km/h (1.0 mph).**
- **Avoid excessive ballast.**
- **Avoid continuous operation under full throttle and full load conditions below 1800 rpm.**
- **Clutch pedal must be fully depressed to completely disengage clutch.**



RXA0131061—UN—24SEP13

Transmission is shifted using lever (A) on CommandARM™.

Transmission can be shifted, without use of clutch pedal, into a forward or reverse.

Clutch pedal allows operator maximum manual control of modulation for ease of connecting to implements, operating in confined areas or slow movement of tractor during precise maneuvers. Depress clutch pedal to preselect forward or reverse command gear from park.

RXA0160895—UN—06SEP17

When shift lever is moved from PARK to NEUTRAL position, parking brake release and corner post display (B) shows pre-selected forward or reverse gear and letter ”N” for NEUTRAL. When lever is in forward or reverse, display shows an ”F” or an ”R” along with ”commanded” gear.

Engine only starts with shift lever in PARK or NEUTRAL.

Shifts are made one at a time by “bumping” the shift lever. Multiple “bumps” or pushing and holding lever forward or pulling and holding lever rearward can result in skip shifts.

NOTE: The seat assembly contains an operator presence safety device to prevent initiation of movement of tractor without operator sitting in the seat.

When tractor is loaded to a very low engine speed, Powershift transmission can default to NEUTRAL, then PARK engages once wheel speed drops below 1.75 km/h (1.0 mph) for drivetrain protection.

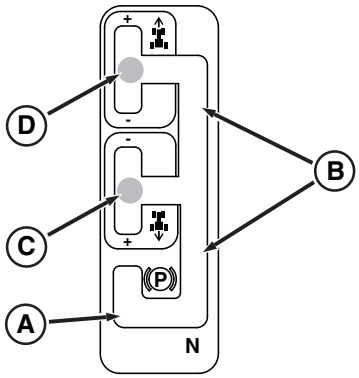
To re-engage transmission, move transmission lever to PARK, reduce load, and then shift into desired operating gear.

A diagnostic trouble code are stored and displayed when this condition occurs.

DB71512,000006A-19-06SEP17

CommandARM is a trademark of Deere & Company

Shift Transmission



RXA0086587—UN—09FEB06

Shift Lever Positions

PARK — Rear slot (A) — The Park brake is applied when lever is fully forward in the rear slot.

NEUTRAL — Right slot (B) — The park brake is released when lever is moved to the right slot.

Reverse — Center slot (C) — The tractor begins moving rearward when lever enters this slot. Push lever forward for downshifts and pull rearward for upshifts.

Forward — Front slot (D) — The tractor begins moving forward when lever enters this slot. Push lever forward for upshifts and pull rearward for downshifts.

NOTE: Transmission is in NEUTRAL position whenever shift lever is not in PARK, forward, or reverse positions.

Commanded Gears

NOTE: Optimum engine speed is 1800 - 2200 rpm in full load conditions. Using higher gear and lower engine speed for light load operation saves fuel and reduces wear. Under full load conditions, use full throttle engine speed.

Each time transmission enters forward or reverse shift pattern, transmission starts in command gear, shown on corner post display.

Transmission starts out in F7 or R2 after engine is started. These are default command gears. Startup default command gears can be changed from F1 - F11 in forward and R1 - R3 in reverse (see Setting Start Gear in this section of Owner's Manual).

Command gear temporarily changes to the last gear used when shuttling between forward and reverse, or shifting from gear to neutral.

Forward Gear— Gears between F1 and F11 can be preselected by depressing clutch pedal, putting the shift lever in front (forward) slot, and bumping the shift lever up or down until the desired command gear is displayed.

Reverse Gear— Gears between R1 and R3 can be preselected by depressing clutch pedal, putting the shift lever in center (reverse) slot, and bumping the shift lever up or down until the desired command gear is displayed.

Transmission starts in the preselected forward or reverse gear when clutch pedal is released.

Cold Weather Starting

When temperature is -10°C (14°F) or lower, it can take one minute to the release park brake with operator in the seat and shift transmission lever in gear. Several shifts between PARK and NEUTRAL can be required to release park in extremely cold conditions.

When temperature is -10°C (14°F) or above, it can take 3 seconds to release park brake with operator in the seat.

When shift lever is moved to NEUTRAL, corner post display shows "N" for three seconds. If park brake does not release, "N" changes back to "P". Move shift lever back to PARK then back to NEUTRAL until "N" displays more than three seconds.

Delayed shifting, slow hydraulic operation, hard steering, and limited engine rpm can also be noticeable until operating temperature is obtained.

Shift Without Using Clutch Pedal

Gear to Gear — Hold lever forward to shift up or rearward to shift down until desired gear is reached. Transmission shifts one gear at a time until lever is released.

Gear to Gear — Quickly "bump" lever forward to shift up or rearward to shift down to desired gear. Transmission can skip gears if lever is moved faster than transmission can shift.

Shift Using Clutch Pedal

IMPORTANT: Clutch pedal must be fully depressed to completely disengage clutch for correct operation.

Gear to Gear — Depress clutch pedal and hold or "bump" lever forward to shift up or rearward to shift down

until desired gear is displayed. Transmission goes into commanded gear when clutch pedal is released.

Transport Shift

When tractor is in light load condition, the transmission can shift faster by rapidly “bumping” shift lever until the desired transport speed is reached. To reach transport speed quickly from a stop, depress the clutch and “bump” the shift lever to F11. Transmission will shift directly to F11 when the clutch pedal is released to reach the desired gear.

Press and Hold Shift

When operator holds the shift control lever in the up or down position, the transmission shifts through the gears one gear at a time.

Double Shift

The transmission can shift two gears at a time by double “bumping” shift lever to slow down or speed up. A double “bump” down shift is useful in field operations when hitting tough spots. Double “bumping” can also be useful in making headland turns.

Ground Speed Matching

CAUTION: Avoid possible accident and injury from loss of vehicle control. Never coast down hill.

The transmission shifts gears to match ground speed as clutch is released if the tractor is traveling above start up gear or F11 speed.

The transmission will *not* match ground speeds as clutch is released after the tractor slows when clutch pedal is depressed at gears F11 and below. The transmission remains above start up gear or F11 even if the tractor comes to a complete stop.

In manual mode, the transmission will not up shift to match ground speed as clutch is released if tractor speeds up while clutch pedal is depressed.

Shuttle Shift (Direction Change)

Moving shift lever between forward and reverse slots causes transmission to modulate directly to opposite direction of travel without clutching or braking.

Shuttle shift occurs between last commanded forward and reverse gears.

Commanded gear is R2, regardless of previous reverse gear, when shifting from F14—F16 to reverse.

Starting Out With Load — 11F

Starting out in F11 with a heavy load can cause clutch to slip excessively. A flashing transmission symbol and a Service Alert warning light displays. Downshift to a lower gear.

Automatic Downshifting When Excess Heat Is Detected

If too much heat is detected and transmission is not manually downshifted, transmission will automatically downshift from gears F13, F12, F10, F8, or F6.

RD47322,000016E-19-05JUL17

Set Startup Gear and RPM Droop

Selecting Forward Startup Gear

RXA0133712—UN—16JUL13

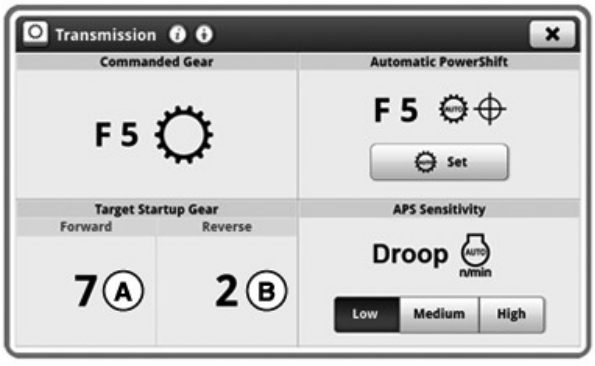
Press **Transmission Shortcut Button on Navigation Bar** or follow alternative path:

RXA0149608—UN—11AUG15

1. Press **Menu.**
2. Press **Machine Settings Tab.**
3. Press **Transmission Icon.**

RXA0130326—UN—11JAN13

4. Press **Advanced Settings Icon.**



RXA0131019—UN—20FEB13

5. Press forward gear drop down box (A).
6. Select the desired forward target gear.

Selecting Reverse Startup Gear

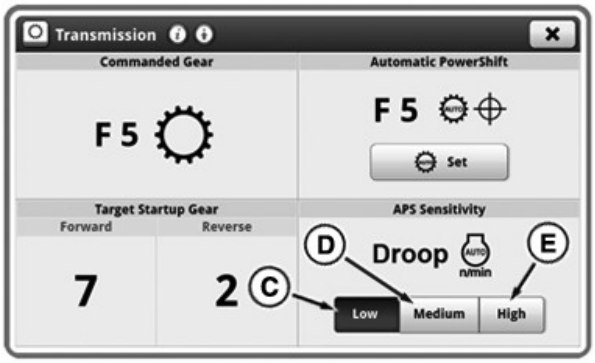
1. Press reverse gear drop down box (B).
2. Select desired reverse target gear.

Selecting RPM Droop

Press **Transmission Shortcut Button on Navigation Bar.**

1. Press **Advanced Settings button.**
2. Select your droop setting.

Autoshift sensitivity can be changed through transmission setting in CommandCenter™. Medium setting set from factory should satisfy most field applications.



RXA0160067—UN—03JUL17

Low (C) — Most sensitive engine speed control setting for APS load mode. Used for applications where strict engine speed control is desired. Minimal engine speed droop is required to initiate automatic shifts. This setting is automatically selected by the PTP control unit when PTO is ON.

Medium (D) — Moderately sensitive engine speed control setting for APS load mode. Factory default and used for most field applications where a moderate level of change in load is encountered and a balanced sensitivity to changing loads is desired.

High (E) — Least sensitive engine speed control setting for APS load mode. Used for applications with highly variable load conditions. This setting allows more of a load change before initiating any automatic shifts.

Transmission downshifts as many gears as necessary under heavy load. Throttle position change allows a maximum downshift or upshift of three gears.

RD47322,000016F-19-30JUN17

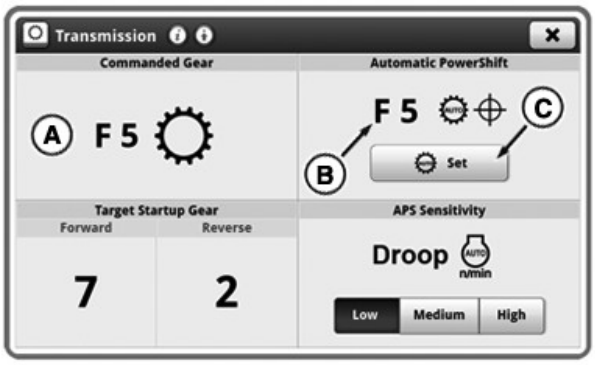
Operate Automatic Powershift *(APS)*

Automatic Powershift (APS) shifts transmission to maintain engine speed. APS will not shift above the set gear. Control unit determines shift points based on throttle setting, engine speed, and engine load.

Setting APS

RXA0133712—UN—16JUL13

1. Press **Transmission Shortcut Button on Navigation Bar.**



RXA0131021—UN—20FEB13

2. Place tractor in forward gear. Selected gear appears in current gear box (A).
3. As tractor travels forward in selected gear, select APS softkey (C) to activate APS. Current gear now appears in both current gear box and set gear box (B).
4. Transmission can now be shifted to any other gear.

RXA0131017—UN—24SEP13

5. When Resume switch (D) is selected, transmission will default to set gear.

- Set throttle to full speed.
- Select maximum forward gear.
- Select the **APS Softkey**. APS indicator will light. APS will automatically downshift and upshift as engine rpm or load changes when using Automatic Powershift.

Any manual shift cancels APS. Pressing Automatic Powershift button restores control of shifting to APS.

Depressing clutch pedal suspends APS but will not

cancel APS function. APS will resume when clutch pedal is released.

NOTE: APS can be programmed into iTEC™.

APS is cancelled when operator shifts transmission to another gear, neutral or reverse.

RD47322,0000171-19-30JUN17

Operate e23™ Transmission with Right-Hand Reverser

CAUTION: Avoid personal injury or damage to tractor. If engine starts with right-hand reverser lever in forward or reverse positions, there is a malfunction in starting circuit. Repair immediately. See your John Deere dealer.

IMPORTANT: Prevent transmission or clutch damage:

- **Never depress clutch pedal while tractor is rolling downhill or coasting as transmission can over-speed and cause serious damage to the transmission.**
- **Never attempt to start tractor by towing or pushing.**
- **Shift lever can be moved to PARK position at any time; however, park brake will not engage until ground speed is below 1.75 km/h (1.0 mph).**
- **Avoid excessive ballast.**
- **Avoid continuous operation under full throttle and full load conditions below 1800 rpm.**

RXA0130275—UN—19AUG13

Transmission Shift Lever with Right-Hand Reverser

Shift transmission with CommandARM™ shift lever (A).

Transmission can be shifted, without use of clutch pedal, into forward or reverse.

Clutch pedal allows maximum manual control of modulation for ease of connecting implements, operating in confined areas, or slow movement of tractor during precise maneuvers. Depress clutch pedal to pre-select forward or reverse command gear from PARK.

RXA0160895—UN—06SEP17

When shift lever is moved from PARK to NEUTRAL position, park brake releases and corner post display (B) shows pre-selected forward or reverse gear and letter “N” indicating NEUTRAL. When lever is in forward or reverse, display shows “F” or an “R” along with commanded gear.

Engine only starts with shift lever in PARK or NEUTRAL.

Shifts are made one at a time by “bumping” the shift lever. Multiple “bumps” or pushing and holding lever forward or pulling and holding lever rearward can result in skip shifts.

NOTE: The seat assembly contains an operator presence safety device to prevent initiation of movement of tractor without operator sitting in the seat.

When the tractor is loaded to below low idle speed, the transmission can default to NEUTRAL for powertrain protection. The park brake engages once the wheel speed drops below 1.75 km/h (1.0 mph).

To re-engage transmission, move transmission lever to PARK, reduce load, and shift into desired operating gear.

A diagnostic trouble code is stored and displayed when this condition occurs.

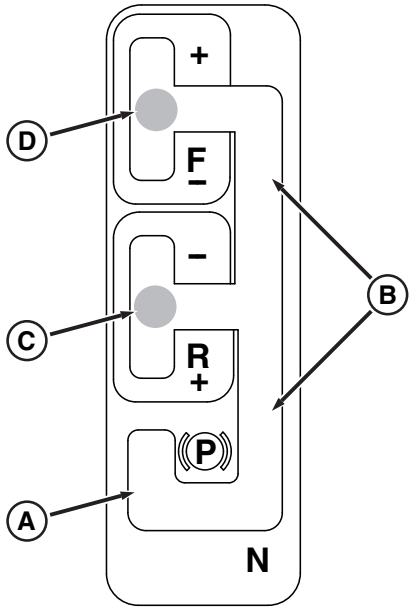
DB71512,000006B-19-06SEP17

Shift e23™ Transmission with Right-Hand Reverser

Shift Lever Positions

CommandARM is a trademark of Deere & Company

IMPORTANT: Operator can always move shift lever to PARK Position; however, park brake will not engage until ground speed is below 1.75 km/h (1.0 mph). Repeated engagement of the park brake, while the tractor is moving, may damage the park brake.



RXA0107694—UN—18MAY10

PARK (A) — Park brake is applied when lever is fully forward in rear slot.

NEUTRAL (B) — Park brake is released when lever is moved to anywhere in right slot.

Reverse (C) — Tractor begins moving rearward when the lever enters this slot. Push lever forward for downshifts and pull rearward for upshifts.

Forward (D) — Tractor begins moving forward when lever enters this slot. Push lever forward for upshifts and pull rearward for downshifts.

NOTE: Transmission is in NEUTRAL position whenever shift lever is not in PARK, forward, or reverse positions.

Command Gears

NOTE: Optimum engine speed is 1800 — 2200 rpm in full load conditions. Using higher gear and lower engine speed for light load operation saves fuel and reduces wear. Under full load conditions, use full throttle engine speed.

Each time transmission enters forward or reverse slots, transmission starts in command gear, shown on corner post display.

If no other command gears have been selected, transmission starts out in either 8F or 4R after engine is started. These are default command gears. Startup default command gears can be changed from F1 - F15 in forward and R1 - R6 in reverse, see Set Startup Gears in this section of this Operator's Manual.

Command gear temporarily changes to the last gear used when shuttling between forward and reverse, or shift from gear to neutral.

Transmission starts in the preselected forward or reverse gear when clutch pedal is released.

Forward Gear— Gears between F1 and F15 can be preselected by depressing clutch pedal, putting the shift lever in forward slot, and bumping the shift lever up or down until the desired command gear is displayed.

Reverse Gear— Gears between R1 and R6 can be preselected by depressing clutch pedal, putting the shift lever in reverse slot, and bumping the shift lever up or down until the desired command gear is displayed.

Cold Weather Starting

When temperature is -10°C (14°F) or lower, it can take one minute to release the park brake with operator in the seat and shift transmission lever in gear. Several shifts between PARK and NEUTRAL can be required to release park in extremely cold conditions.

When temperature is -10°C (14°F) or above, it can take 3 seconds to release park brake with operator in seat.

When shift lever is moved to NEUTRAL, corner post display shows "N" for three seconds. If park brake does not release, "N" changes back to "P". Move shift lever back to PARK then back to NEUTRAL until "N" displays more than three seconds.

Delayed shift, slow hydraulic operation, hard steering, and limited engine rpm can also be noticeable until operating temperature is obtained.

Shift Without Using Clutch Pedal

Gear to Gear — Hold shift lever forward or rearward in slot until desired gear is reached. Transmission shifts one gear at a time until lever is released.

Gear to Gear — Quickly bump shift lever forward or rearward in slot to desired gear. Transmission can skip gears if lever is moved faster than transmission can shift.

Shift Using Clutch Pedal

IMPORTANT: Clutch pedal must be fully depressed to completely disengage clutch for correct operation.

Gear to Gear — Depress clutch pedal and hold or bump lever to shift forward or rearward in slot until desired gear is displayed. Transmission goes into commanded gear when clutch pedal is released.

Transport Shift

When tractor is in light load condition, transmission can shift faster by rapidly bumping shift lever until desired

transport speed is reached. To reach transport speed quickly from a stop, depress clutch and bump shift lever to F15. Transmission shifts directly to F15 when clutch pedal is released. If direct shift to F15 is not desired, bump shift lever to shift rapidly to reach desired gear and speed.

Press and Hold Shift

Hold shift lever forward or rearward, transmission shifts through gears one at a time until shift lever is released.

Double Shift

Double bump shift lever forward or rearward to shift transmission up or down two gears at a time.

Shuttle Shift (Direction Change)

Moving shift lever between forward and reverse slots causes transmission to modulate directly to opposite direction of travel without clutching or braking. Shuttle shift occurs between last commanded forward and reverse gears.

Ground Speed Matching

CAUTION: Avoid possible accident and injury from loss of vehicle control. Never coast downhill.

Transmission shifts gears to match ground speed if clutch pedal is pressed.

Transmission shifts up to prevent engine overspeed if vehicle accelerates. The transmission also shifts down to F15 or the startup gear as the vehicle decelerates.

If Efficiency Manager™ is engaged, transmission returns to original set speed once the clutch pedal is released.

When the clutch is released in manual mode, transmission does not return to same gear it was in prior to pressing the clutch pedal.

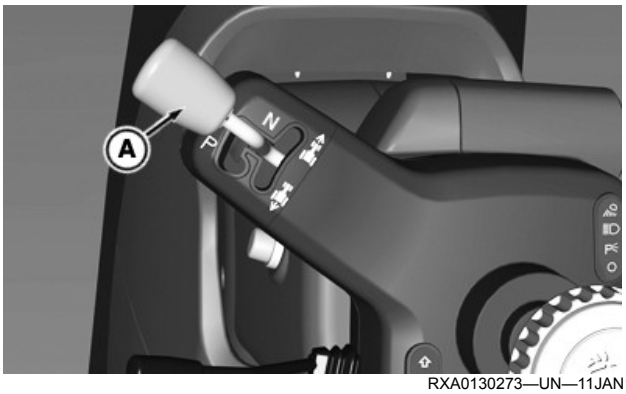
TS36762,00001A8-19-04APR18

Operate e23™ Transmission with Left-Hand Reverser

CAUTION: Avoid personal injury or damage to tractor. If engine starts with left-hand reverser lever in forward or reverse positions, there is a malfunction in starting circuit. Repair immediately. See your John Deere dealer.

IMPORTANT: Prevent transmission or clutch damage:

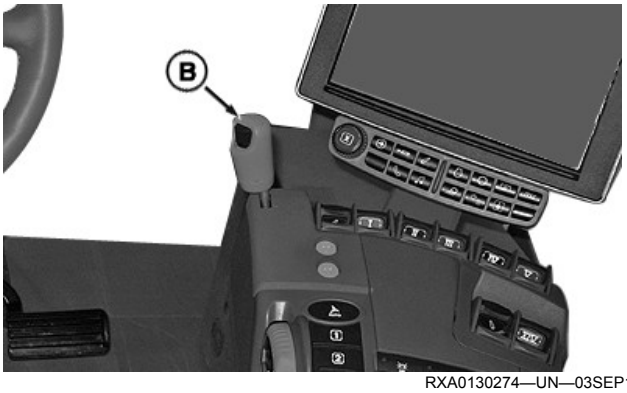
- **Never depress the clutch pedal while tractor is rolling downhill or coasting as transmission may overspeed and cause serious damage to the transmission.**
- **Never attempt to start tractor by towing or pushing.**
- **Operator can always move shift lever to PARK Position; however, park brake will not engage until ground speed is below 1.75 km/h (1.0 mph).**
- **Avoid excessive ballast.**
- **Avoid continuous operation under full throttle and full load conditions below 1800 rpm.**



RXA0130273—UN—11JAN13

Left-Hand Reverser

Place left-hand reverser (A) into desired directional slot.



RXA0130274—UN—03SEP14

Transmission Shift Lever with Left-Hand Reverser

Shift transmission using lever (B) on CommandARM™.

Transmission can be shifted, without use of clutch pedal, into forward or reverse.

Clutch pedal allows maximum manual control of modulation for ease in connecting implements, operation in confined areas, or slow movement of tractor during precise maneuvers.

Depress clutch pedal to preselect forward or reverse direction from park.

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CommandARM is a trademark of Deere & Company

RXA0152785—UN—13JUL16

When left-hand reverser is moved from PARK to NEUTRAL position, park brake releases and corner post display (C) shows pre-selected forward or reverse gear and letter “N” for NEUTRAL. When lever is in forward or reverse, display shows “F” or an “R” along with commanded gear.

Shifts are made one at a time by “bumping” lever forward or rearward. Multiple bumps or pushing and holding lever forward or rearward may result in skip shifts.

NOTE: The seat assembly contains an operator presence safety device to prevent initiation of movement of tractor without operator sitting in seat.

When the tractor is loaded to very low engine speed, the transmission may default to NEUTRAL for powertrain protection. The park brake engages once the wheel speed drops below 1.75 km/h (1.0 mph).

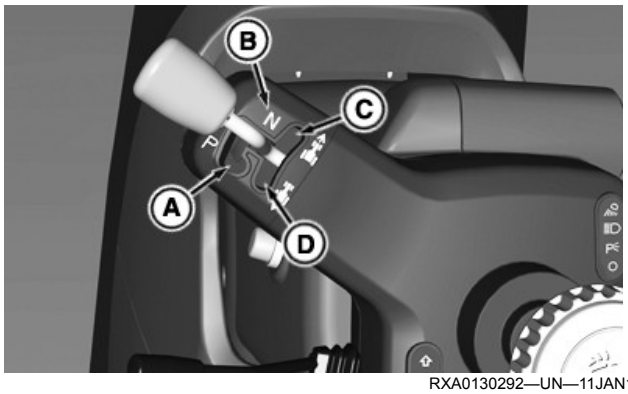
To re-engage transmission, move shift lever to PARK, reduce load, and shift into desired operating gear.

A diagnostic trouble code is stored and displayed when this condition occurs.

DB71512,000006C-19-30JUN17

Shift e23™ Transmission with Left-Hand Reverser

Shift Lever Positions



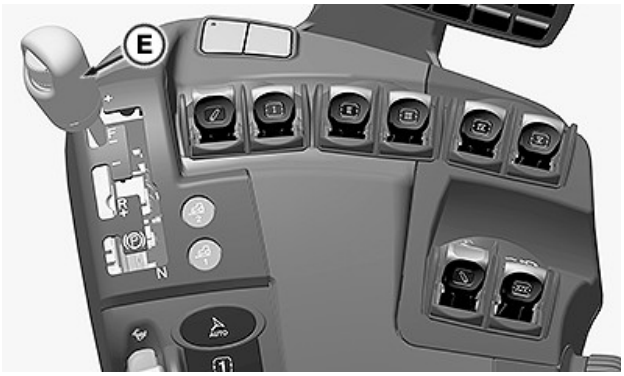
RXA0130292—UN—11JAN13

PARK (A) — Park brake is applied when lever is fully inward in slot.

NEUTRAL (B) — Park brake is released when lever is moved to this slot.

Forward (C) — Tractor begins moving forward when lever enters this slot.

Reverse (D) — Tractor begins moving rearward when lever enters this slot.



RXA0156095—UN—09DEC16

Shift Lever (E) — After direction is selected, push shift lever forward (+) for upshifts or pull rearward (-) for downshifts.

IMPORTANT: Operator can always move shift lever to PARK Position; however, park brake does not engage until ground speed is below 1.75 km/h (1.0 mph).

Command Gears

NOTE: Optimum engine speed is 1800 — 2200 rpm in full load conditions. Using higher gear and lower engine speed for light load operation saves fuel and reduces wear. Under full load conditions, use full throttle engine speed.

Each time transmission enters forward or reverse shift pattern, transmission starts in command gear, shown on corner post display.

Transmission starts out in F8 and R4 after engine is started. These are default command gears. Startup default command gears can be changed from F1 - F15

in forward and R1 - R6 in reverse (see Set Startup Gears in this section of this Operator's Manual).

Command gear temporarily changes to the last gear used when shuttling between forward and reverse, or Shift from gear to neutral.

Initial command gear can be changed before initiating motion to match operation.

Forward Gear—Gears between F1 and F15 are preselected by depressing clutch pedal and pushing or pulling shift lever until desired command gear is displayed.

Reverse Gear—Gears between R1 and R6 are preselected by depressing clutch pedal and pushing or pulling shift lever until desired command gear is displayed.

The transmission starts in the preselected forward or reverse gear when clutch pedal is released.

Cold Weather Starting

When temperature is -10°C (14°F) or lower, it can take one minute to release park brake with operator in the seat and the transmission shifted into gear. Several shifts between PARK and NEUTRAL can be required to release park in extremely cold conditions.

When temperature is -10°C (14°F) or above, it can take 3 seconds to release park brake with operator in the seat.

When left-hand reverser lever is moved to NEUTRAL, corner post display shows "N" for three seconds. If park brake does not release, "N" changes back to "P". Move left-hand reverser lever back to PARK then back to NEUTRAL until "N" displays more than three seconds.

Delayed Shift, slow hydraulic operation, hard steering, and limited engine rpm can also be noticeable until operating temperature is obtained.

Shift Without Using Clutch Pedal

Gear to Gear — Hold lever to shift forward or backward in slot until desired gear is reached. The transmission shifts one gear at a time until lever is released.

Gear to Gear — Quickly bump lever to shift up or down to desired gear. The transmission can skip gears if lever is moved faster than transmission can shift.

Shift Using Clutch Pedal

IMPORTANT: Clutch pedal must be fully depressed to completely disengage clutch for correct operation.

Gear to Gear — Depress clutch pedal and hold or bump shift lever forward or rearward until desired gear is displayed. Transmission goes into displayed gear when clutch pedal is released.

Transport Shift

When tractor is in a light load condition, transmission can shift faster by rapidly bumping shift lever until desired speed is reached. To reach transport speed quickly from a stop, depress clutch pedal and bump shift lever to F15. Transmission shifts directly to F15 when clutch pedal is released. If direct shift to F15 is not desired, bump shift lever to shift rapidly to reach desired gear and speed.

Press and Hold Shift

Hold shift lever forward or rearward to continuously shift transmission through gears until desired gear is reached then release shift lever.

Double Shift

Transmission shifts up or down two gears when shift lever is double bumped forward or backward. A double bump down shift is useful in field operations when hitting tough spots. Double bumping can also be useful in making headland turns.

Shuttle Shift (Direction Change)

Moving shift lever between forward and reverse slots causes transmission to modulate directly to opposite direction of travel without clutching or braking. Shuttle shift occurs between last commanded forward and reverse gears.

Ground Speed Matching

CAUTION: Avoid possible accident and injury from loss of vehicle control. Never coast downhill.

Transmission shifts gears to match ground speed if clutch pedal is pressed.

Transmission shifts up to prevent engine overspeed if tractor accelerates. Transmission shifts down to F15 or the startup gear as tractor decelerates.

If Efficiency Manager™ is engaged, transmission returns to original set speed once clutch pedal is released

In manual mode, transmission does not return to the gear it was in prior to pressing clutch pedal when clutch is released.

TS36762,00001AA-19-20DEC16

Set Startup Gears

NOTE: Up to one reverse and two forward startup gears may be set.

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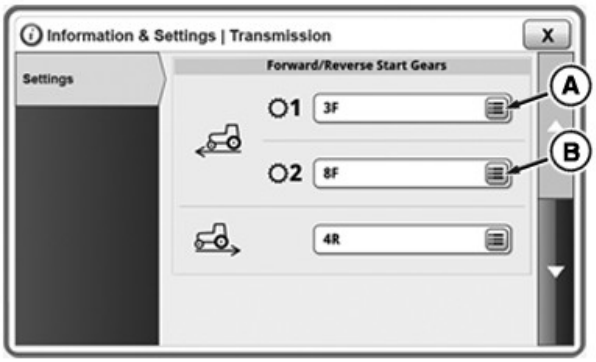
RXA0133712—UN—16JUL13

Press **Transmission Shortcut Button on Navigation Bar.**

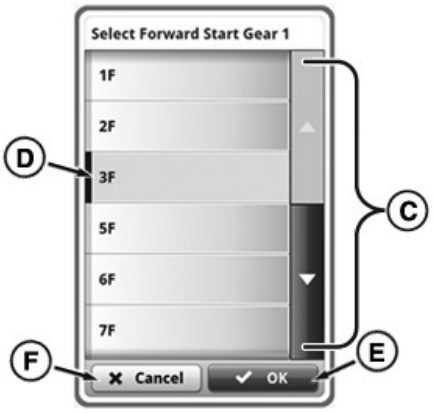
RXA0130326—UN—11JAN13

1. Press **Advanced Settings icon.**
2. Press **Settings tab.**



RXA0155805—UN—17NOV16

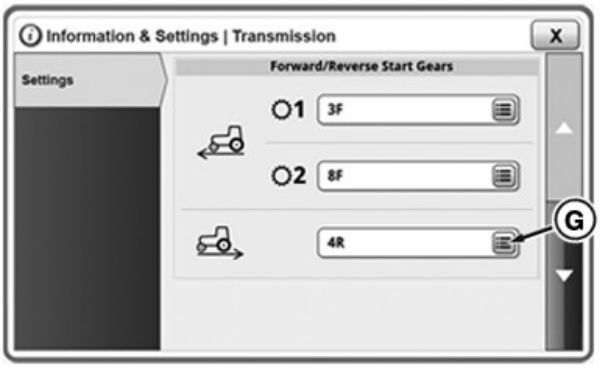
3. Press Forward Start Gear 1 button (A). List of forward gears appears.



RXA0155806—UN—17NOV16

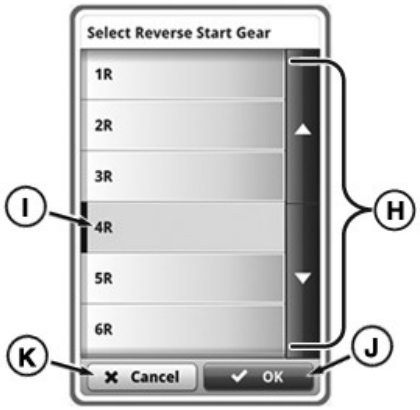
4. Scroll through list of gears (C).
5. Select desired gear (D) and press OK button (E) to finish selection or (F) to cancel.
6. Press Forward Start Gear 2 button (B). List of forward gears appears.
7. Repeat step 4 and 5 to select Forward Start Gear 2.

Select Reverse Start Gear



RXA0155807—UN—17NOV16

1. Press Reverse Start Gear button (G). List of forward gears appears.

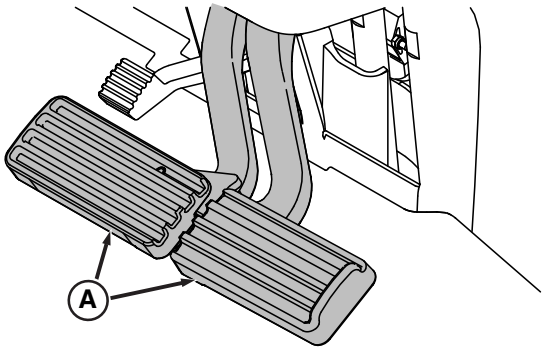


RXA0155829—UN—17NOV16

2. Scroll through list of gears (H).
3. Select desired gear (I) and press OK button (J) to finish selection or (K) to cancel.

TS36762,00001AB-19-18NOV16

Stop and Park Tractor



RXA0068273—UN—27AUG03

1. Reduce throttle to low idle.

CAUTION: Avoid possible injury due to losing control of tractor. Couple brake pedals (A) together when driving on roads.

2. Depress both brake pedals. Brakes activate

AutoClutch (automatic clutch function within transmission) to stop tractor. It is not necessary to depress clutch. See Use AutoClutch (If Equipped) in Brakes section of this Operator's Manual.

3. Move speed control lever to slowest position.

CAUTION: Always place reverser lever in PARK position before dismounting tractor.

4. Shift reverser to PARK position.
5. Lower implements and shut off PTO.
6. Shut off engine and remove key.

Stopping Tractor using AutoClutch

CAUTION: Avoid possible injury. Braking tractor while commanding a high engine speed requires higher brake pedal force.

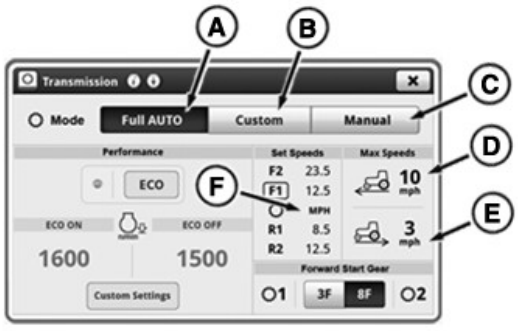
Avoid possible injury due to sudden or unexpected acceleration. When brake pedals are released, tractor automatically accelerates to speed currently commanded by throttle and speed control lever.

Depress both brake pedals. Brakes will activate AutoClutch. When brakes are released, tractor accelerates to currently commanded speed. **It is not necessary to depress clutch, reduce throttle, or move speed control lever.**

TS36762,00001AC-19-13DEC16

CommandCenter™ Transmission Main Page

e23™ transmission offers three modes of operation to optimize fuel efficiency and load control of the tractor. These modes are selected from the CommandCenter™ transmission main page.



RXA0154273—UN—03OCT16

Full AUTO (A) — Automatically adjusts engine speed and gear selection to optimize fuel economy while maintaining performance. This mode automatically responds to loads created by the hitch or SCVs. During PTO use, engine speed is automatically controlled to provide appropriate PTO speed.

Custom (B) — Similar to Full AUTO mode except the operator can modify some of the limits and parameters used in Full AUTO mode. Modifications allow for maximum engine performance for a specific application. See custom transmission settings in this section.

Manual (C) — Operator selects engine throttle position and gear.

Maximum Ground Speed

Set maximum ground speed using transmission main page. Main page displays maximum forward (D) and reverse (E) speed.

Changing Maximum Ground Speed

RXA0133712—UN—16JUL13

Press **Transmission Shortcut Button on Navigation Bar.**

1. Press appropriate speed limit (D or E) on the Transmission Main page. The value adjustment page appears.

RXA0131233—UN—09MAY13

2. Adjust the ground speed to the desired value by using increase (+) and decrease (-) buttons. Also turning adjusting dial (G) can be used to increase or decrease ground speed settings.

NOTE: If operator changes maximum forward or reverse speed below current speed, the set speed (F) decreases to the maximum speed and the vehicle speed will decrease.

Efficiency Manager™ Set Speed

There are two programmable set speeds for each direction used in Efficiency Manager™. They are

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activated by pushing the set speed buttons on CommandARM™. Once activated, Efficiency Manager™ will shift gears and change engine speed so that the ground speed will match the set speed. The set speeds are changed through the set speed adjusting wheel. See Efficiency Manager™ on the e23™ Transmission in this Operator's Manual section.

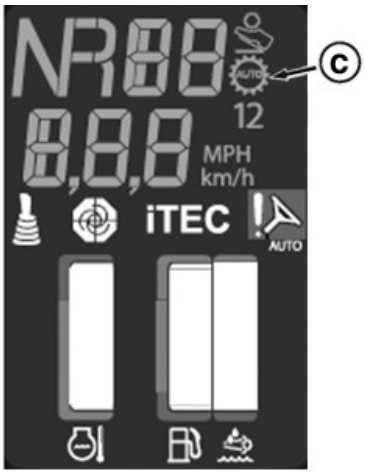
TS36762,00001AD-19-26JUL18

Efficiency Manager™ on the e23™ Transmission

Efficiency Manager™ controls transmission gear Shift and engine speed to maintain the desired ground speed (set speed). Shift decisions are based on load conditions, throttle command, and operator settings.

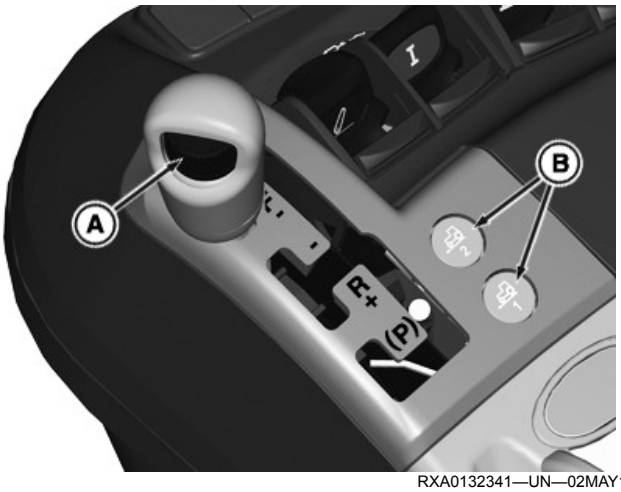
- Efficiency Manager™ is always running in Full AUTO and Custom modes.
- Efficiency Manager™ runs in Manual Mode when the set speed buttons are active.

Using Efficiency Manager™



RXA0152786—UN—13JUL16

- The Efficiency Manager™ indicator light (C) is on the corner post display.
- It is recommended the hand throttle be placed in the full forward position at all times when Full AUTO and Custom mode is used.
- The tractor only reaches the set speed if the engine throttle is fully forward for maximum engine rpm.
- In high load applications, the throttle should be set to maximum rpm.
- The transmission may shift gears if either the hand throttle or foot throttle is changed.



RXA0132341—UN—02MAY13

Set Speed Buttons with Right-Hand Reverser

RXA0132342—UN—02MAY13

Set Speed Buttons with Left-Hand Reverser

- The operator has a choice of setting two separate set speeds, 1 and 2 (B).
- The set speed is adjusted on the active set speed button by using the set speed adjusting wheel (A) on the shift lever. Press either set speed button 1 or 2, then rotate set speed adjusting wheel clockwise to increase speed and counterclockwise to decrease set speed. Repeat process for setting the second set speed. The transmission may shift gears with changes in set speed while in gear.
- Bumping the shift lever when in Full AUTO and in Custom modes, temporarily makes a large change in the set speed. The transmission may shift gears and the engine speed may change. The speeds stored in the set speed buttons do not change.
- Efficiency Manager™ will not shift gears if the clutch pedal is partially depressed.
- If the clutch pedal is fully depressed and the tractor is stationary, Efficiency Manager™ selects the start-up gear and may reduce the engine speed.
- Efficiency Manager selects the start-up gear when shifting from neutral or park to gear.

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Efficiency Manager is a trademark of Deere & Company

- If the clutch pedal is fully depressed and the tractor is moving above the start-up gear speed, Efficiency Manager™ selects a gear and engine speed to match the ground speed.
- If the clutch pedal is fully depressed and the tractor is moving below the start-up gear speed, Efficiency Manager™ selects the start-up gear speed.

NOTE: Efficiency Manager™ set speeds can be programmed into iTEC™,

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Efficiency Manager™ on e23™ Transmission in Manual Mode

RXA0154275—UN—03OCT16

Right-Hand Reverser

RXA0154274—UN—03OCT16

Left-Hand Reverser

- Press either set speed button (A) to activate Efficiency Manager™ in Manual Mode.

IMPORTANT: When Efficiency Manager™ is disabled, the engine rpm changes and tractor may accelerate or decelerate to appropriate speed commanded by current throttle position.

- Press same set speed button a second time in Manual Mode to disengage Efficiency Manager™.
- Bump shift lever forward or rearward in Manual Mode to disengage Efficiency Manager™. Transmission changes engine speed and shift gears to match throttle position.

All other features and functions of Efficiency Manager™ are the same whether in Full AUTO Mode or Custom Mode.

TS36762,00001AF-19-18NOV16

e23™ Custom Mode Settings

NOTE: Settings discussed can only be modified when Efficiency Manager™ is in Custom or Manual Mode.

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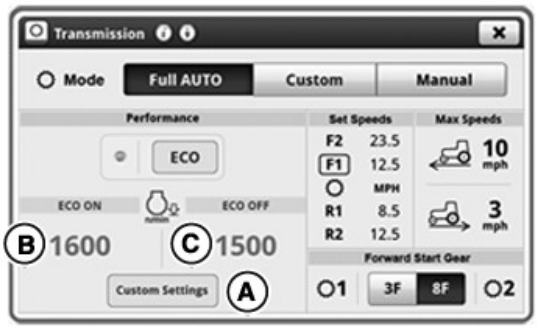
Press Transmission Shortcut Button on Navigation Bar.

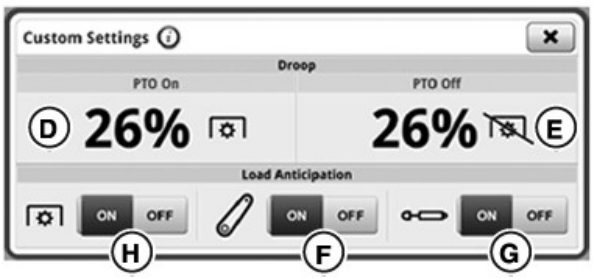
On Mode bar, select Custom Mode.



RXA0143050—UN—07OCT14

Select Custom Settings button (A).

Set Auto Shift Engine Droop



RXA0130327—UN—07OCT14

Under full load, Auto Shift Engine Speed Droop PTO On (D) and Auto Shift Engine Speed Droop PTO Off (E)

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limits the engine speed droop before Efficiency Manager™ automatically downshifts. Allowable droop is a percentage of selected ECO engine speed. A lower percentage means less droop is allowed before downshift.

For example: ECO OFF is selected and set to 2100 rpm, PTO OFF is set to 18% droop and PTO is not activated. Engine will maintain 2100 rpm at set speed until engine speed starts to droop due to load. Once engine speed droops to 1700 rpm (2100 x 0.82), transmission begins to downshift to maintain engine speed at the cost of ground speed. Once draft load is reduced, engine recovers engine speed back to 2100 rpm and begins upshifting as Efficiency Manager attempts to reacquire set speed.

1. Select Auto Shift Engine Speed Droop PTO On. Value adjustment page appears.

NOTE: Different values can be entered for operation with or without the PTO:

- *Auto Shift Engine Speed Droop PTO On can be set from 6% —26%.*
- *Auto Shift Engine Speed Droop PTO Off can be set from 14% — 26%.*

2. Adjust value to desired percentage by using increase (+) and decrease (-) buttons.
3. Select Auto Shift Engine Speed Droop PTO Off. Repeat step 2.

Minimum Engine Speed

ECO ON (B) and ECO Off (C) limits how much Efficiency Manager™ shifts up and throttles engine speed back to save fuel under light loads. It is recommended ECO ON is set to a value less than ECO OFF. Common setting will be ECO ON to 1200 rpm for transport or headland turn, and ECO OFF for loaded working condition.

1. Select ECO ON. Value adjustment page appears.
2. Adjust value to desired engine speed by using increase (+) and decrease (-) buttons.
3. Select ECO OFF. Repeat step 2 to select desired engine speed.

Load Anticipation

e23 transmission adjusts engine speed to help maintain wheel speed while SCV, PTO, or hitch are in use. Load anticipation functions can be enabled/disabled for SCV (G), PTO (H), or hitch (F).

NOTE: All load anticipation functions are active while in Full AUTO mode and cannot be adjusted. If adjustment is desired, Custom Mode must be utilized.

Load anticipation functions are engaged when:

- SCV – Flow rate is 25% or greater, and/or SCV is set to continuous time detent.
- PTO – Transmission automatically downshifts to maintain wheel and PTO speed.
- Hitch – While hitch is being raised or lowered.

For example: If unit is in 3-point tillage application and hitch Load Anticipation is ON and in Full AUTO, engine speed will burst to prepare engine for a large swing in engine load. In other words, if engine was running at 1200 rpm during a headland turn, engine will burst up to 1500 rpm as soon as hitch lever is moved.

TS36762,00001B0-19-26JUL18

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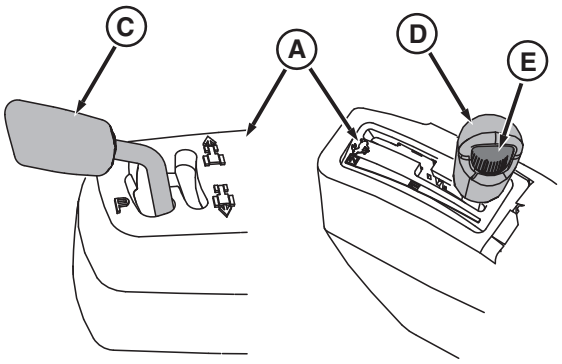
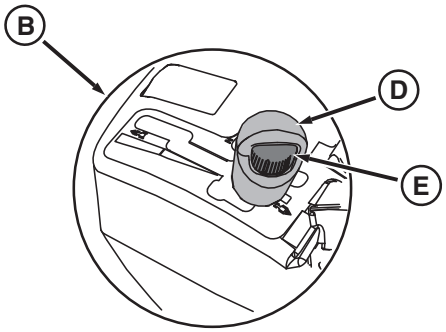
Controls Identification

IVT™/AutoPowr™ transmission provides infinite ground speeds in forward mode from 50 meters per hour (164 feet per hour) to 50 km/h (31 mph) depending on tractor specifications. Reverse mode provides infinite ground speeds from 50 meters per hour (164 feet per hour) to 20 km/h (12.4 mph). Maximum speeds can vary slightly due to tire size.



RXA0155008—UN—17OCT16



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IVT™/AutoPowr™ tractors are equipped with either left-hand reverser (A) or right-hand reverser (B). Transmission is controlled by two levers in the left-hand configuration. Left-hand reverser lever (C) controls tractor direction, park, and neutral. Second lever, speed control lever (D), is located on CommandARM™ and controls ground speed.

Right-hand reverser option consists of right-hand reverser lever on CommandARM™ and controls tractor direction, park, neutral, and ground speed.

There are two variable speed bands in forward direction on all tractors. Tractors equipped with left-hand reverser have two-speed bands in reverse. Tractors equipped with right-hand reverser have single reverse band.

Set speeds are maximum ground speeds in each speed band. Speed control lever must be pushed to end of slot to achieve set speeds. Set speed adjusting dial (E) on speed control lever rotates to adjust set speeds, see Adjust Set Speeds in this section of this Operator's Manual.

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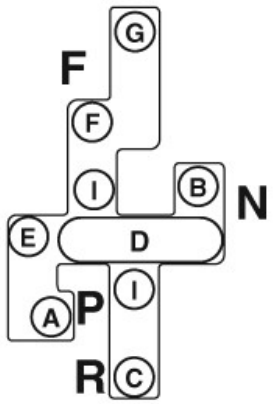
Left-hand and Right-hand Reverser Shift Patterns



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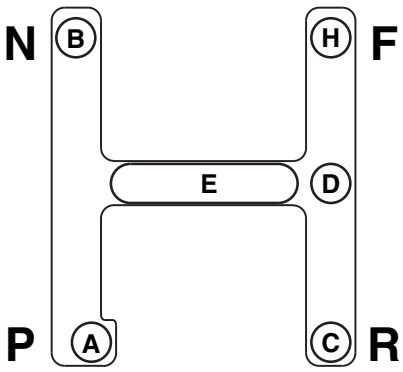
Right-Hand Reverser Speed Lever



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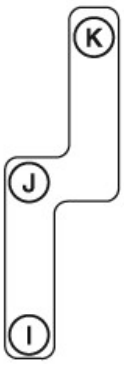
Left-Hand Reverser



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Left-Hand Reverser Speed Lever

(A) Park: Engages park brake to hold tractor stationary preventing tractor from rolling; "P" appears on corner post display.

(B) Neutral: Disengages park brake, allowing tractor to

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roll, but does not transmit power to wheels; "N" appears on corner post display.

(C) Reverse: Transmits power to wheels for rearward travel; "R" appears on corner post display.

(D) PowerZero™: Hand-held position temporarily holds tractor stationary on relatively flat surface.

(E) Scroll Position: Scrolls through set speeds on corner post display continuously while tractor is not moving.

(F) Forward Speed Band 1: Transmits power to wheels for forward travel; "F1" appears on corner post display.

(G) Forward Speed Band 2: Transmits power to wheels for forward travel; "F2" appears on corner post display.

(H) Forward: Transmits power to wheels for forward travel; "F" appears on corner post display.

(I) Minimum Speed: Transmits power to wheels in direction selected.

(J) Maximum Forward and Reverse Set Speed 1: Transmits power to wheels in direction selected.

(K) Maximum Forward and Reverse Set Speed 2: Transmits power to wheels in direction selected.

TS36762,00001B2-19-01SEP17

Operate the Transmission

Start Engine

CAUTION: Avoid personal injury or damage to tractor. If engine starts with left-hand reverser lever in forward or reverse positions, there is a malfunction in starting circuit. Repair immediately. See your John Deere dealer.

Tractors with right-hand reverser cannot start in neutral. If tractor does start in neutral, repair immediately, see your John Deere dealer.

IMPORTANT: Tractor with left-hand reverser can start in neutral.

Prevent transmission or clutch damage:

- **Never depress clutch pedal while tractor is rolling downhill or coasting, as serious transmission damage can result.**
- **Never attempt to start tractor by towing or pushing.**
- **Transmission can be placed in PARK at any time; however, park brake does not engage until ground speed is below 1.75 km/h (1.0 mph).**
- **Avoid excessive ballast.**
- **Clutch pedal must be fully depressed to completely disengage clutch. Never rest foot on clutch pedal while tractor is moving.**

NOTE: Operator presence sensor is built into seat to prevent movement of tractor while in gear without operator sitting in seat.

Place transmission into PARK position. Corner post display shows “P”. Start engine.

Stop Engine

CAUTION: Always place reverser lever in PARK position before dismounting tractor.

For tractors with left-hand reverser, reduce engine speed to low rpm, pull speed control lever back to slowest setting, and depress brake pedals until travel stops. Move left-hand reverser lever to PARK position. Slowly release brakes and shut off engine.

For tractors with right-hand reverser, reduce engine speed to low rpm, pull speed control lever back to slowest setting, and depress brake pedals until travel stops. Move right-hand reverser lever to PARK position. Slowly release brakes and shut off engine.

Shuttle Shift (Direction Change)

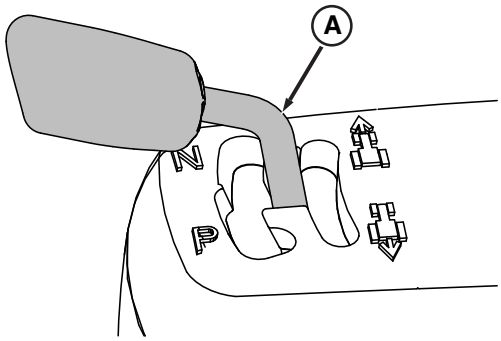
Moving shift lever between forward and reverse slots causes transmission to modulate directly to opposite direction of travel without clutching or braking. Shuttle shift occurs between last commanded forward and reverse gears.

TS36762,00001B3-19-20DEC16

Adjust Set Speeds

CAUTION: Avoid unexpected rapid acceleration. Check and adjust set speeds before putting tractor in motion.

Turn key switch to RUN position (for tractors with right-hand reverser, engine must be running to change set speeds).



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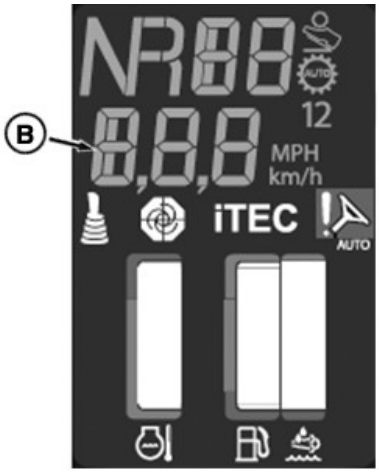
Left-Hand Reverser Shown

Move lever (A) to Scroll position. Forward and reverse set speeds scroll on corner post display pausing at each speed for 2 seconds.

Adjust each speed when displayed by rotating set speed adjuster on speed control lever clockwise to increase set speed value or counterclockwise to decrease it.

NOTE: Set speed adjustments can affect corresponding set speed of opposite direction (see Adjust Reverse/Forward Set Speed Ratio in this section of this Operator's Manual).



RXA0152787—UN—13JUL16

RXA0156089—UN—09DEC16

On corner post display, set speed of selected speed band displays in orange and ground speed of tractor displays in white letters. Set speed can be adjusted while tractor is moving by rotating set speed adjuster (C). Increasing set speed value increases ground speed. Decreasing set speed value decreases ground speed. New set speed shows on display (B).

Select set speed approximately 3.2 km/h (2 mph) higher than desired working speed to obtain maximum productivity where precise forward speed is **not** critical (such as plowing). Tractor reaches higher set speed value during no load or light load condition.

Maximum ground speed of selected speed band is attained at full throttle when speed control lever (D) is pushed fully forward to end of slot in respective speed band.

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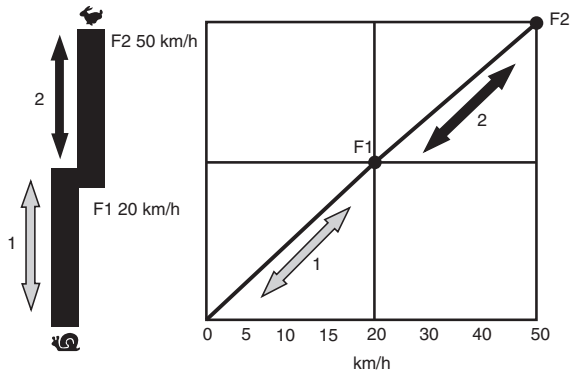
Set Speeds—Guidelines and Examples

Value of Set Speed 1 is always at least 10% less than value of Set Speed 2. This ensures smooth transition between speed bands and is illustrated in following examples.

NOTE: F1 refers to Forward mode for Set Speed in speed band 1. F2 refers to Forward mode for Set Speed in speed band 2.



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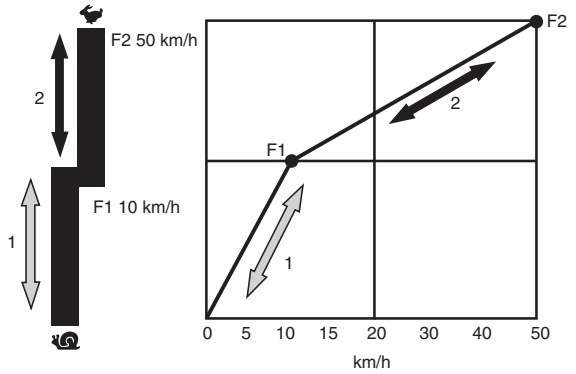
Example 1

Example 1: Maximum Forward Set Speeds are selected for each speed band.

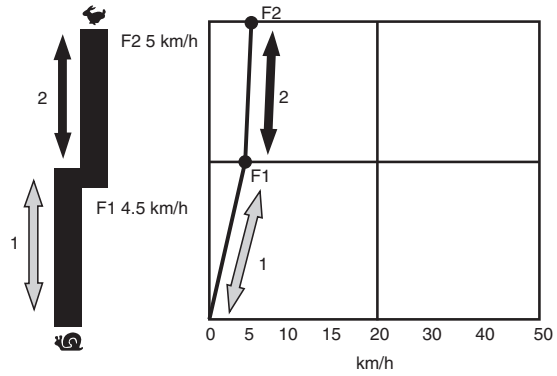


RXA0053045—UN—26APR01

Example 2

Example 2: Value of Set Speed 1 is reduced to 10 km/h (6 mph). Set Speed 2 value is not changed, but lower portion of speed band 2 has automatically decreased to meet top end of speed band 1.

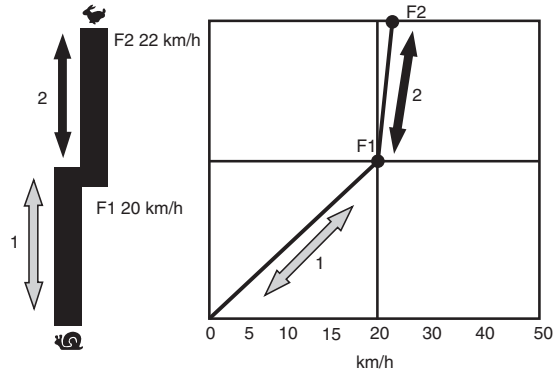
NOTE: Actual set speed increases or decreases at least 10% of adjusted speed band and ranges up to 12.5%. 10% is used in illustrations of Examples 3 and 4, and can differ by 2.5% of speeds shown.



RXA0053049—UN—26APR01

Example 3

Example 3: Set Speed 2 is reduced to 5 km/h (3 mph). Set Speed 1 automatically decreases to 4.5—4.3 km/h (2.8—2.7 mph), 10—12.5% below new value of Set Speed 2.



RXA0053047—UN—26APR01

Example 4

Example 4: Set Speed 1 is increased to 20 km/h (12.4 mph), which is higher than value of Set Speed 2. Set Speed 2 automatically increases to 22—22.5 km/h (13.7—14.0 mph), 10—12.5% above new value of Set Speed 1.

TS36762,00001B5-19-18NOV16

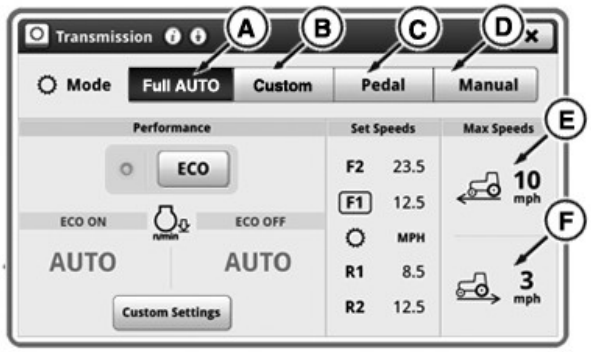
IVT™/AutoPowr™ Modes and Set Maximum Speed

RXA0133712—UN—16JUL13

Press transmission shortcut button on navigation bar or follow alternative path:

RXA0160859—UN—31AUG17

1. Press Menu button.
2. Press Machine Settings button.
3. Press Transmission button.
4. Transmission home page appears.



RXA0130021—UN—05JUN13

Forward maximum speed (E) or reverse maximum speed (F) are displayed. To change maximum speed, select module (E or F), use increase (+) or decrease (-) buttons to change value. If operator changes maximum forward or reverse speed below current set speed, set speed decreases to maximum speed and vehicle speed decreases.

IVT™/AutoPowr™ offers four modes for fuel efficiency and load control from tractor:

NOTE: Full AUTO Mode is designed to provide maximum fuel efficiency under most applications and drawbar loads. Use settings in Custom Mode to keep engine elevated above 1700 rpm if:

- *Machine is operated in applications where maximum power is needed for extended periods of time.*
- *High loads are causing engine to stall on take-off.*

- **Full AUTO Mode (A)**

  Automatically adjusts Minimum Engine Speed allowing tractor to use most fuel efficient engine speed under light load. Automatically adjusts Auto Shift Engine Speed Droop allowing tractor to use entire torque curve in most applications.

- **Custom Mode (B)**

  Operator can customize settings for Performance, Minimum Engine Speed, Auto Shift Engine Speed Droop, and Load Anticipation reaction.

- **Foot Pedal Mode (C)**

  Operator can control wheel speed independently of

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engine speed by using the accelerator pedal. Operator can only choose Pedal Mode when the tractor is stopped and park brake is applied.

Tractor performs as if equipped with normal transmission and reacts to controls. No Fuel Economy or Load Control functions active.

- **Manual Mode (D) (if equipped)**

Full AUTO Mode (A)	Custom Mode (B)	Pedal Mode (C)	Manual Mode (D)
• Auto Shift (or Load Control) ON. • Load Anticipation for Hitch ON. • Load Anticipation for SCVs ON. • Auto Shift Engine Speed Droop maintained at maximum tractor power. • Maximum engine speed limit adjusted according to PTO rated speed.	• Auto Shift (or Load Control) ON. • Auto Shift Engine Speed Droop with PTO On is Adjustable. • Auto Shift Engine Speed Droop with PTO Off is Adjustable. • Performance and Minimum Engine Speed with ECO ON is Adjustable. • Performance and Minimum Engine Speed with ECO OFF is Adjustable. • Load Anticipation for Hitch is Adjustable. • Load Anticipation for SCVs is Adjustable.	When hand throttle control is pulled all the way to the rearward position: • Auto Shift (or Load Control) ON. • Load Anticipation for Hitch ON. • Load Anticipation for SCVs ON. • Auto Shift Engine Speed Droop maintained at maximum tractor power. • Maximum engine speed limit adjusted according to PTO rated speed. When hand throttle control is at any other position: • Constant engine speed corresponding to the throttle position is commanded. • Auto Shift (or Load Control) ON. • Activating Engine Set Speed Button would engage constant engine speed functionality.	• Auto Shift (or Load Control) OFF. • Use when application is causing undesired automatic shifting. • Use when operating on steep and/or slippery downhill slopes.[a]

[a] *(See Downhill Operation in Slippery Conditions in this section.)*

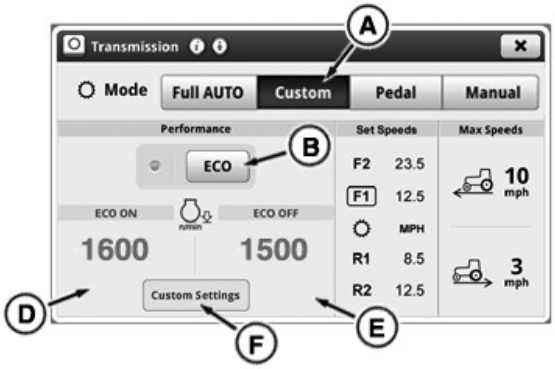
TS36762,00001B6-19-26JUL18

IVT™/AutoPowr™ Custom Mode Settings

NOTE: Settings apply only when IVT™/AutoPowr™ transmission is in Custom Mode.

Transmission is equipped with two ECO settings that are adjustable (1200—2100 rpm) to fit machine application:

- ECO ON – must be same or lower value than ECO OFF.
- ECO OFF – must be same or higher value than ECO ON.



RXA0130022—UN—16DEC13

RXA0137863—UN—21MAR14

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AutoPowr is a trademark of Deere & Company

Operators can set a minimum engine speed for both ECO ON and ECO OFF. ECO is turned ON/OFF by pressing button (B) on the transmission main page or corresponding ECO button (C) on hand throttle control. When ECO mode is active, light on CommandARM™ and transmission home page are illuminated.

For example: Setting would be to set ECO ON to 1200 rpm and ECO OFF to 1800 rpm. Settings allow operator to switch ECO OFF for maximum power while implement is functioned and ON for low load operations like headland turns.

RXA0133712—UN—16JUL13

Press **Transmission Shortcut Button on Navigation Bar.**

Press **Custom Mode toggle (A).**

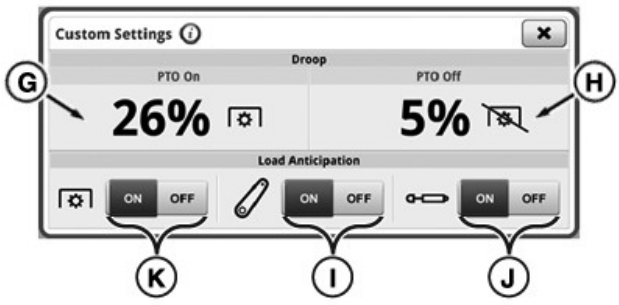
Set Engine Speed ECO ON

- Press ECO ON Engine Speed module (D).
- Adjust percentage value using increase (+) or decrease (-) to set desired value.

Set Engine Speed ECO OFF

- Press ECO OFF Engine Speed module (E).
- Adjust percentage value using increase (+) or decrease (-) to set desired value.

Auto Shift Engine Speed Droop



RXA0155830—UN—17NOV16

Transmission Custom Settings Page

Set for both PTO On (G) and PTO Off (H) when engine operates at full load condition before Custom Mode automatically downshifts. Lower percent causes transmission downshifts earlier, higher percent causes transmission downshifts later.

NOTE: Auto Shift Engine Speed Droop PTO On or Off can be set from 2% —26%.

Set Auto Shift Engine Speed Droop PTO On

- Press PTO On to set Auto Shift Engine Speed Droop.
- Adjust percentage value using increase (+) or decrease (-) to set desired value.

NOTE: Must make adjustments in PTO Off if machine is not equipped with PTO. PTO On adjustments will not affect transmission operation.

Set Auto Shift Engine Speed Droop PTO Off

- Press PTO Off to set Auto Shift Engine Speed Droop.
- Adjust percentage value using increase (+) or decrease (-) to set desired value.

Load Anticipation

Load Anticipation – IVT™/AutoPowr™ transmission adjusts engine speed to maintain wheel speed, while SCV, PTO, or hitch are in use. Toggle load anticipation functions ON/OFF for SCV (J), PTO (K), or hitch (I).

NOTE: All load anticipation functions are active while in Full AUTO mode and cannot be adjusted. If adjustment is desired, use Custom Mode.

Load anticipation functions are engaged when:

- SCV – Flow rate is 25% or greater, and/or SCV is set to continuous time detent.
- PTO – Transmission automatically downshifts to maintain wheel and PTO speed.
- Hitch – While hitch is being raised or lowered.

For example: If unit is in 3-point tillage application and hitch Load Anticipation is ON and in Full AUTO, engine speed will burst to prepare engine for a large swing in engine load. In other words, if engine was running at 1200 rpm during a headland turn, engine will burst up to 1500 rpm as soon as hitch lever is moved.

TS36762,00001B7-19-25JUL18

Adjust Reverse/Forward Set Speed Ratio

Reverse/Forward Ratio can be set to operate independently of each other or from 0.3 to 1.3 times as fast (in 0.1 increments). Forward and Reverse Set Speeds are same at 1.0 setting (1 to 1 ratio).

Maximum reverse speed is 20 km/h (12 mph) regardless of ratio.

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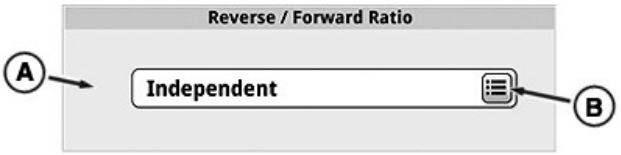
RXA0133712—UN—16JUL13

Press **Transmission Shortcut Button on Navigation Bar.**

RXA0130326—UN—11JAN13

1. Press **Advanced Settings icon.**
2. Press **Settings tab.**



RXA0127891—UN—29AUG12

3. Scroll to Reverse/Forward module (A).
4. Press Reverse/Forward Ratio button (B) to access list of reverse/forward ratio options.

Forward Set Speed is 4 km/h (2.5 mph) and Ratio is:	Reverse Set Speed km/h (mph) is:
0.3	1.2 (0.4)
0.4	1.6 (0.8)
0.5	2.0 (1.2)
0.6	2.4 (1.5)
0.7	2.8 (1.75)
0.8	3.2 (2.0)
0.9	3.6 (2.2)
1.0	4.0 (2.5)
1.1	4.4 (2.7)
1.2	4.8 (3.0)
1.3	5.2 (3.2)
Independent	No ratio because reverse and forward set speeds function independent of each other. Reverse Set Speed is limited to be no more than 5 km/h (3 mph) faster than Forward Set Speed.

TS36762,00001B8-19-14NOV17

Put Tractor in Motion

CAUTION: Avoid possible injury due to sudden or unexpected acceleration. Be aware of set speeds and throttle position before putting tractor in motion.

If operator is not seated, transmission will not engage gears. Information indicator lights and corresponding message appears on CommandCenter™ display when Forward, Reverse, or NEUTRAL positions are selected and operator is not in seat.

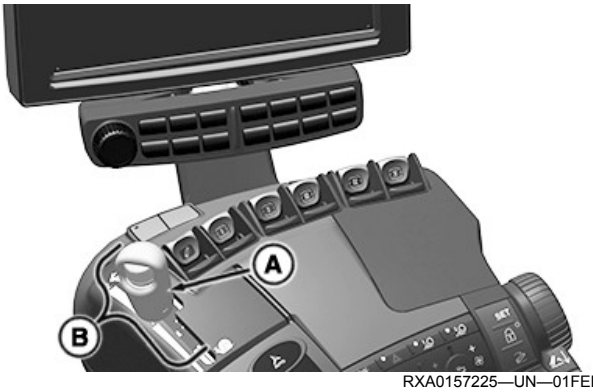
To initiate motion, move reverser lever from PARK position to either Forward or Reverse position with operator seated.

NOTE: Cold conditions can affect IVT™/AutoPowr™ tractor performance:

- *Engine speed is limited to 1500 rpm if transmission oil temperature is less than -5 °C (23 °F).*
- *Wheel speed is limited to 5 km/h (3 mph) if transmission oil temperature is less than -15 °C (5 °F).*

Using clutch to put tractor in motion is not necessary.

NOTE: In event of seat switch failure, tractor can still be put into motion by cycling (depress/release) clutch or brake pedals.



RXA0157225—UN—01FEB17

Left-Hand Reverser Shift Lever

Adjust throttle to desired engine speed. Adjust speed control lever (A) within speed band (B) to obtain desired speed.

RD47322,0000552-19-27JUN17

Use Creeper Mode

Creeper Mode is entered automatically when a set speed of less than 2 km/h (1 mph) is selected in speed band 1.

To eliminate rapid acceleration when lever is moved from speed band 1 to speed band 2, a ratio of 2.5:1 is set between maximum speed of band 2 and band 1. For example, if speed band 1 is set at 100 m/h (328.1 ft/h),

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AutoPowr is a trademark of Deere & Company

corresponding maximum speed in band 2 is 250 m/h (820.2 ft/h).

Standard ratio can be temporarily overridden (such as when making headland turns) by increasing speed band 2 to a maximum of 10 km/h (6 mph). Moving lever back to band 1 restores previous working speeds.

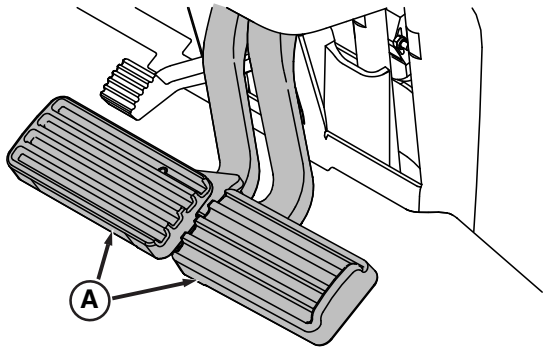
In creeper mode, reverse set speed can be set to less than forward set speed. Reverse set speed limit can be temporarily overridden by moving Right-Hand Reverser Lever into Reverse Speed Band and increasing reverse set speed. Moving Right-Hand Reverse Lever from Reverse Speed Band to Forward Speed Band 1 and not changing Forward Set Speed 1 resets Reverse Set Speed to less than Forward Set Speed.

Creeper mode is exited when Set Speed 1 is adjusted above 2 km/h (1 mph) or Set Speed 2 is adjusted above 10 km/h (6 mph).

TS36762,00001BA-19-18NOV16

Stop and Park Tractor

1. Reduce throttle to low idle.



RXA0068273—UN—27AUG03

CAUTION: Avoid possible injury due to losing control of tractor. Couple brake pedals (A) together when driving on roads.

2. Depress both brake pedals. Brakes activate AutoClutch (automatic clutch function within transmission) to stop tractor. It is not necessary to depress clutch. See Use AutoClutch (If Equipped) in Brakes section of this Operator's Manual.
3. Move speed control lever to slowest position.

CAUTION: Always place reverser lever in PARK position before dismounting tractor.

4. Shift reverser to PARK position.
5. Lower implements and shut off PTO.
6. Shut off engine and remove key.

Use AutoClutch

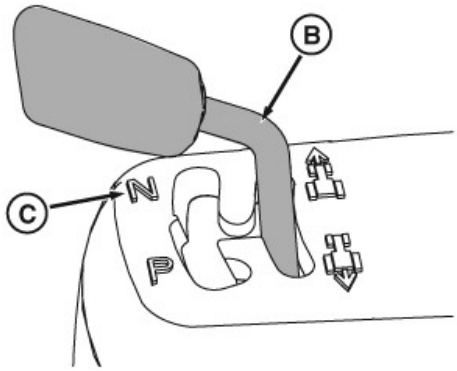
CAUTION: Avoid possible injury. Braking tractor while commanding a high engine speed requires higher brake pedal force.

Avoid possible injury due to sudden or unexpected acceleration. When brake pedals are released, tractor automatically accelerates to speed currently commanded by throttle and speed control lever.

Depress both brakes to activate AutoClutch and tractor slows and stops without depressing clutch pedal. When brakes are released, tractor accelerates to currently commanded speed. It is not necessary to depress clutch, reduce throttle, or move speed control lever.

Use PowerZero™ Position

CAUTION: Depending on speed and load, PowerZero™ cannot bring tractor to stop if already in motion.



RXA0130864—UN—06FEB13

Left-hand Reverser

Hold reverser lever in Power Zero™ position (B) to temporarily hold tractor stationary. Move lever to direction desired to resume motion.

Use NEUTRAL Position

Move shift lever to NEUTRAL (C) to stop transmission from powering wheels. Tractor rolls freely with transmission in NEUTRAL whether engine is running or not.

TS36762,00001BB-19-01SEP17

Downhill Operation in Slippery Conditions

CAUTION: Avoid possible injury from losing control of tractor while operating on a downhill slope. Tractor wheels can lock and skid on slippery downhill slopes. Observe following precautions:

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RXA0133712—UN—16JUL13

1. Press **Transmission Shortcut Button on Navigation Bar.**
2. When transmission page displays, select Manual toggle.
3. Adjust set speed value to a safe downhill operating speed.
4. Do not make major speed reductions with speed control lever.
5. Turn MFWD on.

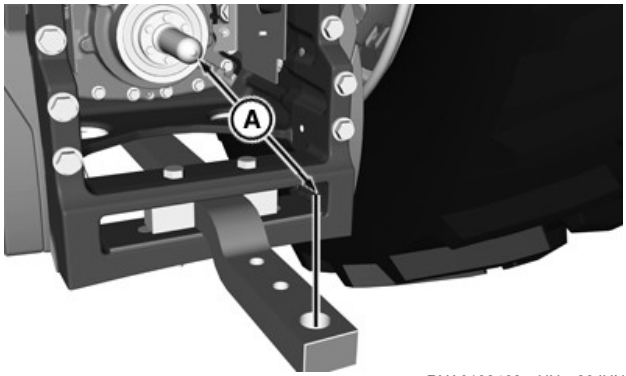
TS36762,00001BC-19-18NOV16

Attach PTO-Driven Implement

TS1644—UN—22AUG95

CAUTION: Entanglement in rotating driveline can cause serious injury or death. STOP ENGINE and be sure PTO driveline is stopped before making adjustments, connections, or before cleaning PTO-driven equipment.

Keep PTO shield and driveline shields in place at all times. Make sure rotating shields turn freely. Wear close fitting clothing.



RXA0132462—UN—28JUN13

PTO Shaft	PTO Shaft End to Hitch Pin Hole (A) mm (in)
1000 rpm - 21 Splines[a]	400 (16)
1000 rpm - 20 Splines[b]	508 (20)

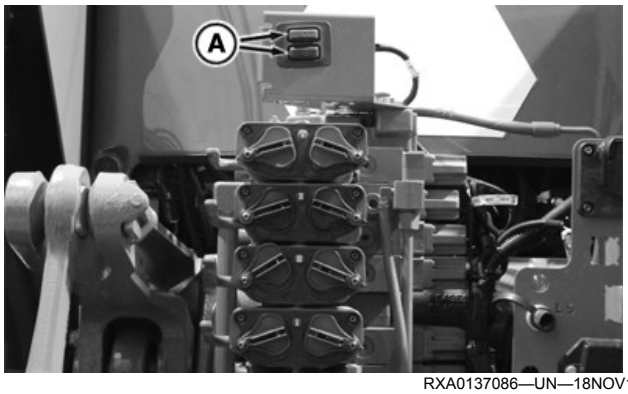
[a] 35 mm (1-3/8 in) Shaft Diameter
[b] 45 mm (1-3/4 in) Shaft Diameter

1. Lock drawbar in center position.
2. Remove clevis assembly.
3. Attach implement to drawbar before connecting PTO driveline. If implement will be connected to quick-hitch, be sure drawbar will not interfere.
4. Connect driveline to PTO shaft. Turn shaft slightly by hand, to line up splines. Be sure yoke is in correct position and firmly locked.
5. Move PTO shield into position for PTO shaft size being used.

GH15097,000045A-19-13JUL18

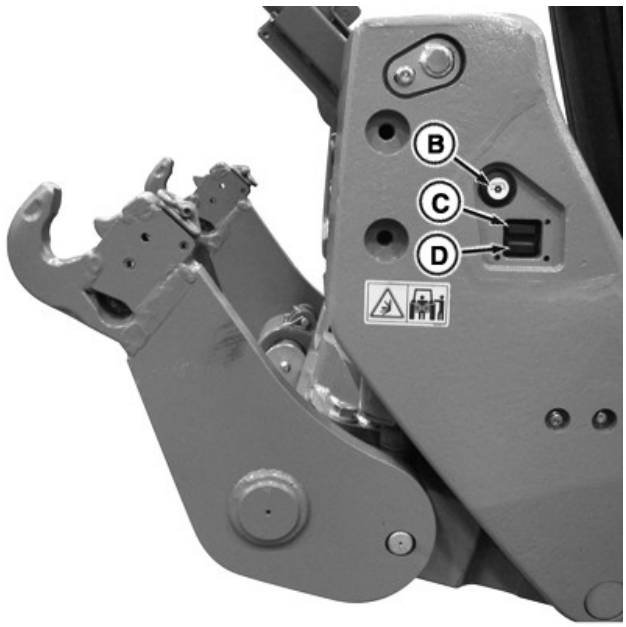
Hitch, SCV and PTO External Switches

CAUTION: To prevent injury or damage caused by tractor movement, be sure transmission is in PARK position before using external raise/lower switches. Stay clear of interference points when using external raise/lower switches.



RXA0137086—UN—18NOV13

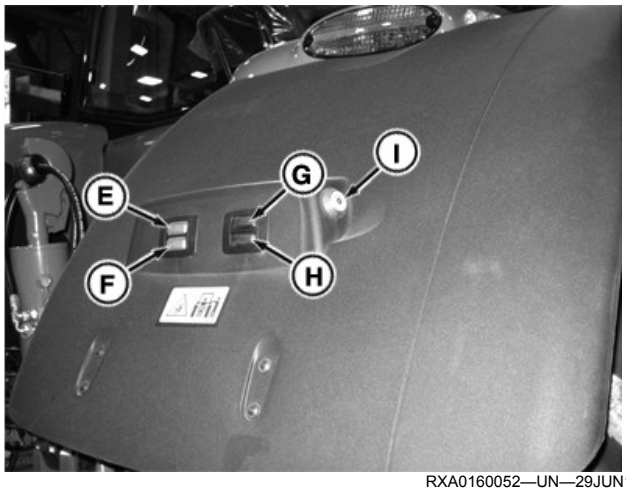
Tractors without fender extensions have rear hitch external switches (A) mounted on valve stack.



RXA0137087—UN—18NOV13

Front hitch and front PTO equipped tractors may also be equipped with front mounted external switches. Tractors equipped with front hitch may have external raise (C) and lower switches (D). Tractors with front PTO may have external front PTO switch (B).

Fender Extension Switches (If Equipped)



RXA0160052—UN—29JUN17

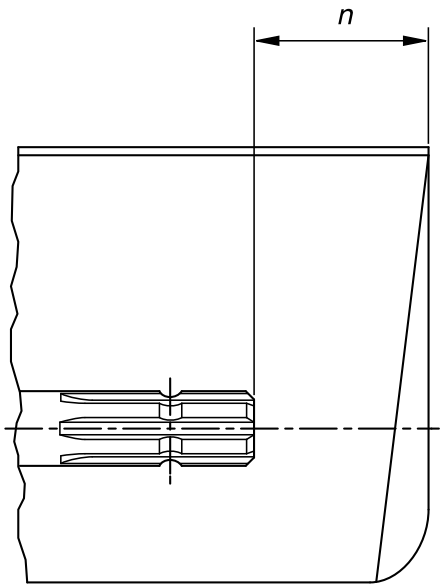
Tractors with optional fender extensions may have optional raise (G) and lower switches (H) on rear fenders. SCV III extend (E) and retract (F) switches are available for hydraulic center link. External rear PTO switch (I) is also available.

KT81203,00000E3-19-21AUG17

PTO - General Information

Stay Clear of Rotating Drivelines

TS1644—UN—22AUG95



H96219—UN—29APR10

Entanglement in rotating driveline can cause serious injury or death.

Keep tractor master shield and driveline shields in place at all times. Make sure rotating shields turn freely.

Only use power take-off driveshafts with adequate guards and shields.

Wear close fitting clothing. Stop the engine and be sure that PTO driveline is stopped before making adjustments, connections, or cleaning out PTO driven equipment.

Do not install any adapter device between the tractor and the primary implement PTO driveshaft that will allow a 1000 rpm tractor shaft to power a 540 rpm implement at speeds higher than 540 rpm.

Do not install any adapter device that results in a portion of the rotating implement shaft, tractor shaft, or the adapter to be unguarded. The tractor master shield shall overlap the end of the splined shaft and the added adaptor device as outlined in the table.

The angle at which the primary implement PTO driveshaft can be inclined may be reduced depending on the shape and size of the tractor master shield and the shape and size of the guard of the primary implement PTO driveshaft.

Do not raise implements high enough to damage the tractor master shield or guard of primary implement PTO driveshaft. Detach the PTO driveline shaft if it is necessary to increase implement height. (See Attching/ Detaching PTO Driveline)

When using Type 3/4 PTO, inclination and turning angles may be reduced depending on type of PTO master shield and coupling rails.

PTO Type	Diameter	Splines	n ± 5 mm (0.20 in.)
1	35 mm (1.378 in.)	6	85 mm (3.35 in.)
2	35 mm (1.378 in.)	21	85 mm (3.35 in.)
3	45 mm (1.772 in.)	20	100 mm (4.00 in.)
4	57.5 mm (2.264 in.)	22	100 mm (4.00 in.)

DX,PTO-19-28FEB17

Select PTO Cruise Speed

NOTE: Option is only available on tractors equipped with an electronic shift PTO.

CAUTION: Before engaging PTO, make sure that selected PTO speed is correct for attached implement. Incorrect PTO speed could result in severe damage to implement.

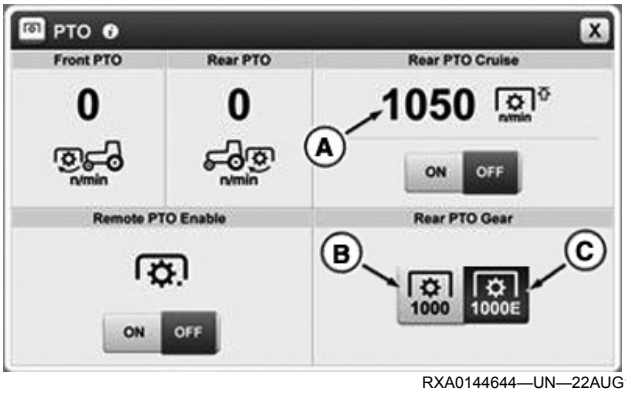
Engine must be shut off when an implement is being connected.

NOTE: PTO must be disengaged to select standard PTO speed.

Front PTO and Rear PTO operation is described in Front PTO and Rear PTO sections of this Operator's Manual.

RXA0133713—UN—16JUL13

1. Select PTO icon on navigation bar to access PTO module.



RXA0144644—UN—22AUG14

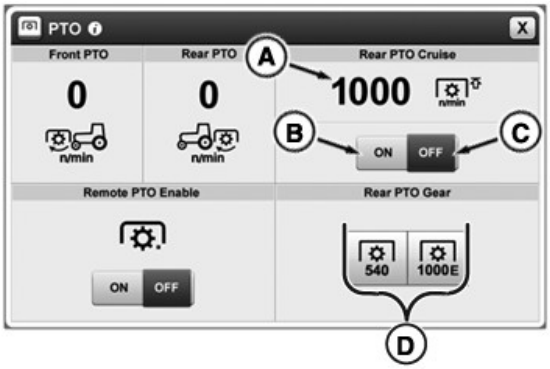
2. Select desired PTO 1000E (B) or 1000 (C) PTO speed.
3. PTO standard speed (A) appears in display window. It can be activated or deactivated using ON/OFF buttons located below PTO standard speed (A).

TS36762,00001C0-19-17NOV17

Fine Adjust PTO Cruise Speeds

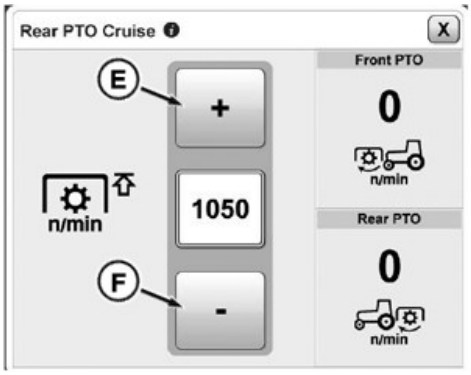
RXA0133713—UN—16JUL13

Press PTO shortcut button on navigation bar.



RXA0144647—UN—22AUG14

If desired, maximum PTO speed can be set. Press PTO standard speed (A) to access PTO cruise module.



RXA0137730—UN—16DEC13

Select increase value (E) and decrease value (F) softkeys in PTO cruise module to input desired maximum PTO speed. Close module and press ON (B) button to activate maximum PTO speed.

When maximum PTO speed is activated, engine speed is restricted so that set PTO speed is not exceeded, even at full throttle. When PTO is switched off, engine can be operated at its full speed range again.

To deactivate maximum PTO speed, press the OFF (C) button. Standard PTO speeds (D) can also be selected at any time.

NOTE: If engine speed limit is set on engine settings page (see Activate and Set Maximum Set Speeds in Transmission - General Information section of this Operator's Manual), lower limit applies.

TS36762,00001C1-19-14DEC16

Front PTO

Operate Front PTO

CAUTION: Avoid personal injury. Stop engine and allow telescoping driveline to stop before adjusting, connecting, or cleaning PTO-driven equipment.

Always disengage PTO when not in use.

PTO can be engaged or disengaged without operating clutch.

Stationary front PTO operation is:

- Allowed:
  - If wheel speed is less than 0.5 kph (0.3 mph)
- Not allowed:
  - If wheel speed is greater than 0.5 kph (0.3 mph), and
  - If operator leaves seat for seven seconds, front PTO will disengage.

RXA0156103—UN—09DEC16

Push front PTO control lever (A) to engage PTO and front PTO indicator on display lights.

IMPORTANT: If PTO disengages during start-up in cold-weather operation, wait 5 minutes before reengaging PTO to avoid damage.

If PTO speed drops below 100 rpm for more than 1 second during normal operation, front PTO turns off. The information indicator activates.

If engine speed drops below 500 rpm while PTO is running or being engaged, front PTO shuts off to keep engine from stalling.

Pull front PTO control lever to disengage clutch and PTO brake engages automatically.

NOTE: If engine is stopped and restarted while PTO is running, PTO does not operate. Disengage PTO switch and engage PTO again.

Operating Front PTO in Cold Weather

CAUTION: Avoid personal injury. Keep PTO area clear of bystanders. PTO shaft or attached implement can rotate when engine is started in cold weather.

When air temperatures are expected to drop below -5 C (23 F), use John Deere Low Viscosity Hy-Gard™ oil in self contained front PTO reservoir.

Other oils can be used when John Deere Standard JDM J20D is adhered to.

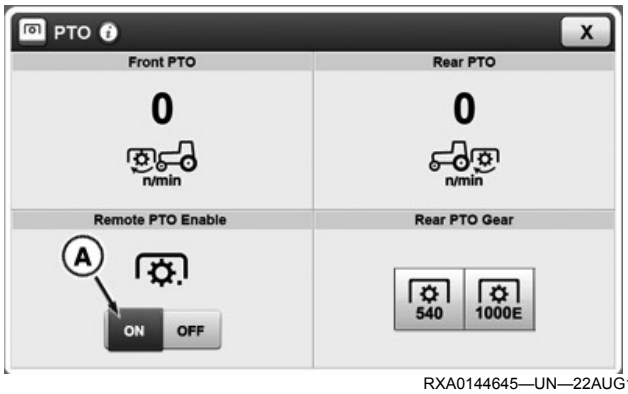
GH15097,00008E7-19-30JUN17

Remote Front PTO Switch

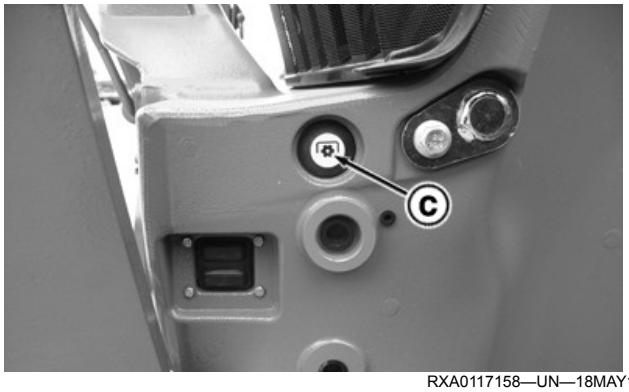
Front PTO can be operated from outside of cab.

RXA0160860—UN—31AUG17

1. Select **Menu.**
2. Select **Machine Settings tab.**
3. Select **PTO icon.**



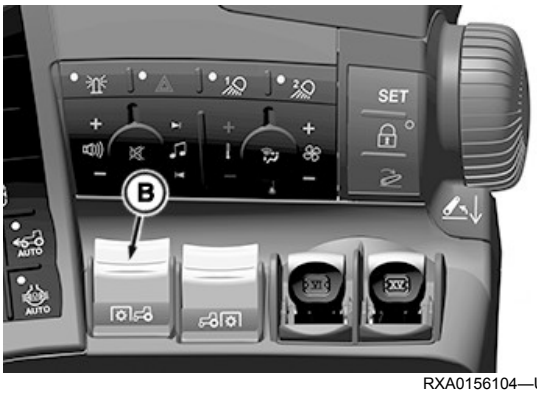
RXA0144645—UN—22AUG14



RXA0117158—UN—18MAY11

4. Select remote PTO enable (A) on CommandCenter™ to enable front remote PTO button (C).

Hy-Gard is a trademark of Deere & Company
CommandCenter is a trademark of Deere & Company



RXA0156104—UN—09DEC16

5. Push front PTO control lever (B). An audible warning sounds, by one second beeps and hazard warning lights will flash (PTO has not started yet).
6. Press and hold remote front PTO button. Front PTO will start slowly. Hazard warning lights will go out.
   - Press and hold switch for at least 4 seconds:
     - Hazard warning lights turn off
     - PTO continues to operate
     - Front PTO indicator will light on corner post display
   - Release switch within 4 seconds:
     - PTO will slowly stop
     - An audible warning sounds, by one second beeps
     - Hazard warning lights will flash

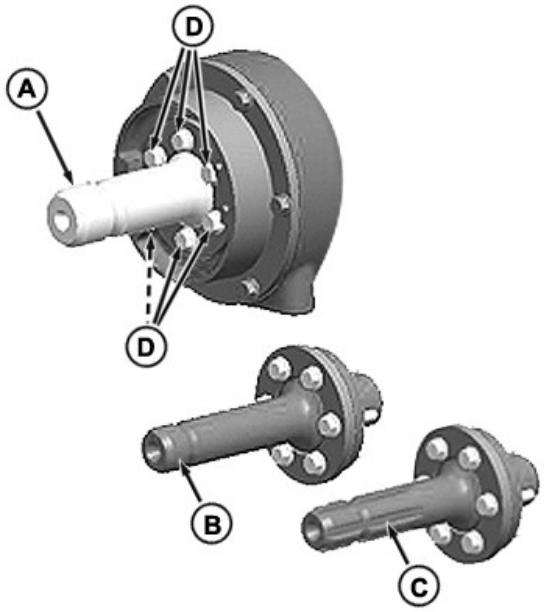
Shut off front PTO by pressing remote front PTO button (audible warning will sound and hazard warning lights will flash) **OR** pull front PTO control lever inside cab. Return front PTO function to normal operation by disabling the remote PTO button. If PTO control lever is **ON**, PTO returns to remote state.

NOTE: If front PTO is switched on in cab, front PTO may be shut off at remote PTO switch. If front PTO is switched off in cab, steps 1 through 4 must be repeated if normal operation has been resumed.

GH15097,00005C5-19-19SEP17

Change Optional PTO Shafts-Front

Front PTO is factory-equipped with one of three optional front PTO shafts:



RXA0135432—UN—11SEP13

- 45 mm (1-3/4 in) 20 Spline Shaft (A)
- 35 mm (1-3/8 in) 21 Spline Shaft (B)
- 35 mm (1-3/8 in) 6 Spline Shaft (C)

See your John Deere dealer for additional optional shafts.

To change shaft:

1. Remove six M8 cap screws (D).
2. Remove factory-installed shaft.
3. Install new shaft.
4. Reinstall six caps screws and tighten to 40 N·m (30 lb·ft).

GH15097,0000824-19-30JUN17

PTO Engagement Rate

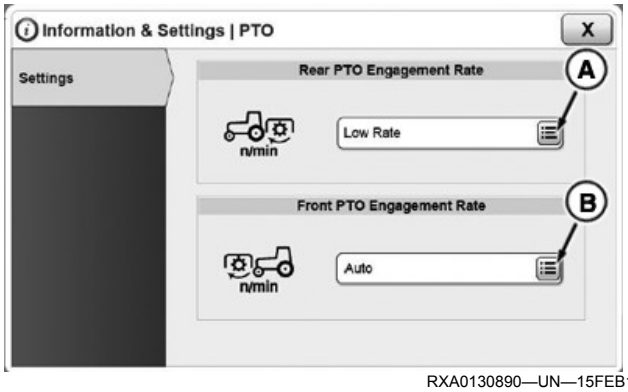
RXA0133713—UN—16JUL13

Navigation Bar PTO Shortcut Button

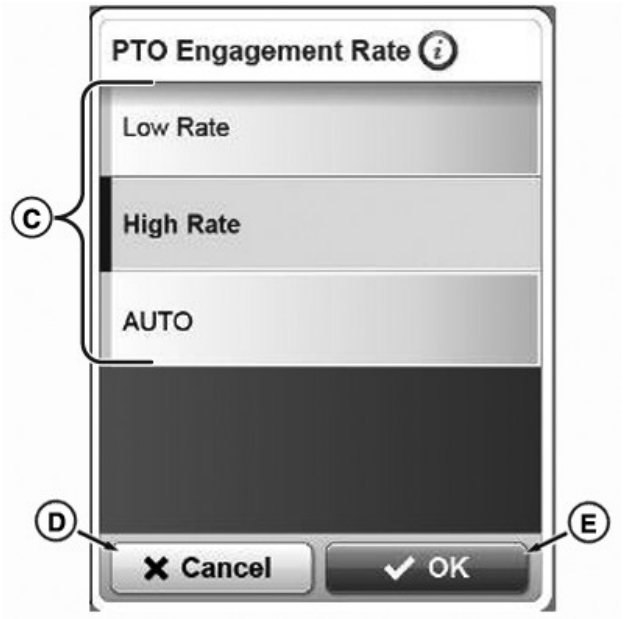
Use navigation bar PTO button or follow alternative path:

RXA0148323—UN—05JUN15

1. Select **Menu button.**
2. Select **Machine Settings tab.**
3. Select **PTO button.**
4. Select **Information and Settings icon.**
5. Select **Settings tab.**



RXA0130890—UN—15FEB13



RXA0130891—UN—15FEB13

A—Rear PTO Engagement Rate Button
B—Front PTO Engagement Rate Button (If Equipped)
C—PTO Engagement Rate Settings
D—Cancel Button
E—OK Button

Operator can select from three different engagement rates for both front and rear PTO: AUTO, Low, and High.

AUTO: Used for most implements, and is factory setting in CommandCenter™. This setting provides software logic to determine engagement rate for PTO clutch, based on PTO speed sensor feedback. If PTO does not turn fast enough during initial PTO clutch engagement, engagement rate is automatically increased to avoid clutch slip and PTO shutdown.

Low: Can be used where gradual PTO start-up is required, or if Auto engagement is too aggressive or inconsistent.

High: Can be used for applications where PTO clutch engagement must be aggressive.

IMPORTANT: If problems with PTO clutch engagement occur in Auto setting and Under Speed Diagnostic Trouble Code is displayed, change PTO engagement setting in CommandCenter™ from Auto to High Rate to prevent power train damage.

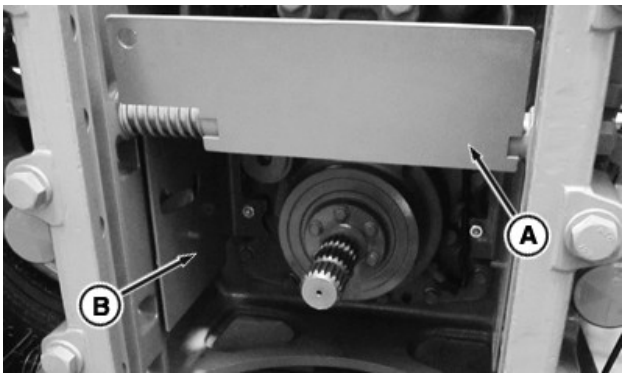
Operating PTO with excessive load could damage PTO clutch and other components. When excessive load is detected, PTO automatically disengages. Wait 15 seconds before attempting to reengage PTO. If problem occurs during engagement, PTO speed may need to be decreased.

GH15097,0000793-19-19SEP17

CommandCenter is a trademark of Deere & Company

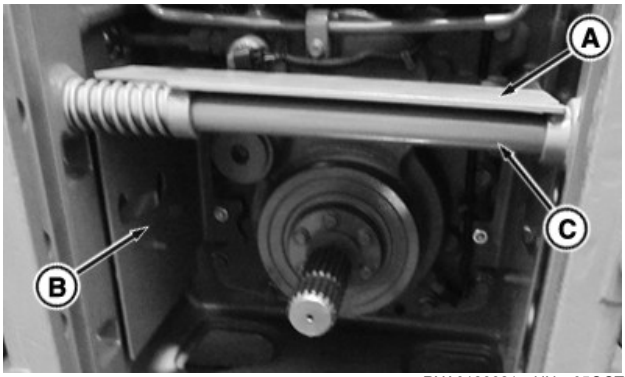
PTO Shield Use

CAUTION: Avoid personal injury. Put PTO shield in correct position at all times. Do not use shield as a step.



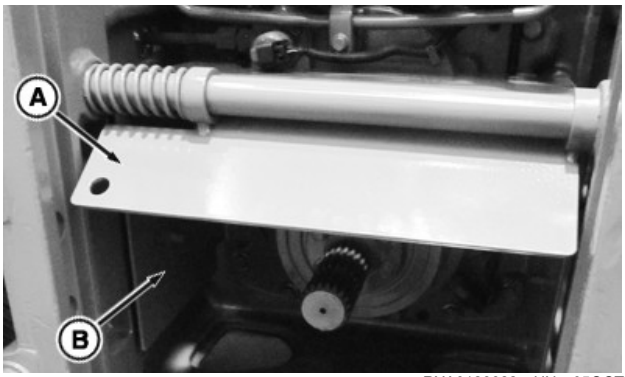
RXA0128620—UN—05OCT12

Pull Shield Up to Locked Position



RXA0128621—UN—05OCT12

PTO Shield Position



RXA0128622—UN—05OCT12

Tilt Front Portion of Shield Down

Move main support (B) into correct position.

To extend shield, lift up upper support (A) and tilt main support down. Slide main support portion of shield forward and pull up to locked position (C).

Lift main and upper supports to raised position to provide clearance while connecting implement driveline to PTO shaft.

To connect an implement with an old-style tunnel shield, cut slot in PTO shield. Cut from edge of the main support to small slot.

GH15097,000045B-19-05JUL17

Use Correct Engine Speed

RXA0152789—UN—13JUL16

A— Tachometer
B— PTO Indicator—Rear
C— PTO Indicator—Front (If Equipped)

- **540 rpm PTO Speed Operation**: Run engine at 1800 engine rpm with 35 mm (1-3/8 in) 6 spline shaft.
- **1000 rpm PTO Speed Operation**: Run engine at 2000 engine rpm with 45 mm (1-3/4 in) 20 spline shaft or 35 mm (1-3/8 in) 21 spline shaft.
- **1000E rpm PTO Speed Operation**: Run engine at 1600 engine rpm with 45 mm (1-3/4 in) 20 spline shaft or 35 mm (1-3/8 in) 21 spline shaft.

DB71512,0000070-19-09AUG17

Operate Rear PTO

CAUTION: Avoid personal injury. Stop engine and allow PTO drive line to stop before adjusting, connecting, or cleaning PTO-driven equipment.

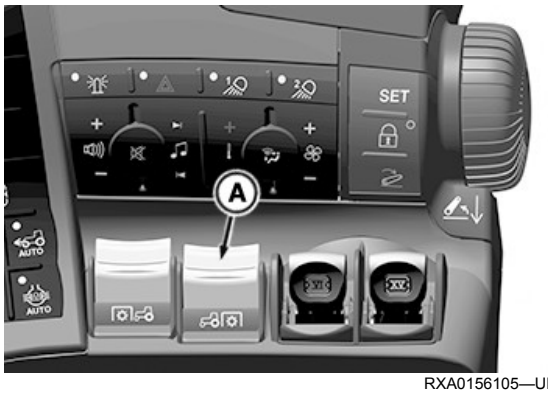
Always disengage PTO when not in use.

PTO can be engaged or disengaged without operating clutch.

Stationary rear PTO operation is:

- Allowed:
  - If wheel speed is less than 0.5 kph (0.3 mph)
- Not allowed:

- If wheel speed is greater than 0.5 kph (0.3 mph), and
- If operator leaves seat for seven seconds, an alarm sounds and a warning appears on the display.



RXA0156105—UN—09DEC16

Push PTO control lever (A) to engage PTO. PTO indicator on corner post monitor will light.

IMPORTANT: If PTO disengages during start up in cold weather operation, wait 5 minutes before reengaging PTO to avoid damage.

Tractor software will NOT allow operator to reengage PTO immediately if engine RPMs drop excessively due to heavy load at PTO start-up. Diagnostic trouble code will display on CommandCenter. There will be a 10-15 second delay before operator can reengage PTO. This delay allows clutch to cool before it is reengaged.

Pull PTO control lever to disengage clutch and PTO brake will engage automatically.

NOTE: If tractor is equipped with eco PTO and PTO is engaged while tractor is in Park, engine idle speed is increased from 900 rpm to 1100 rpm. Normal engine speed range resumes when tractor is shifted out of Park or PTO is disengaged.

If engine is stopped and then restarted while PTO is running, PTO will not operate. Disengage PTO control switch and then engage PTO again.

For tractors equipped with ILS™ suspension automatically levels when tractor is stationary with PTO control lever ON if front axle is at its upper or lower point at an end stop.

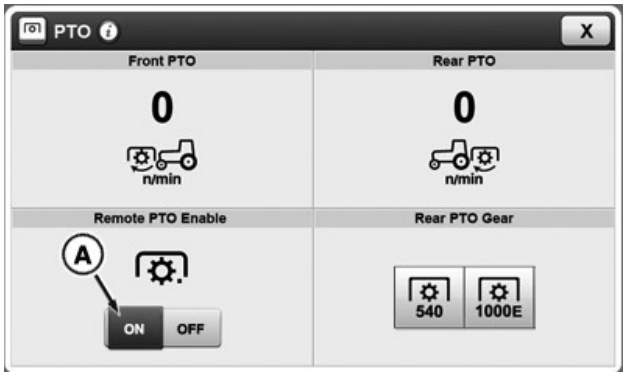
EC82310,0000697-19-27FEB18

Remote Rear PTO Switch

Rear PTO can be operated from outside of cab.

RXA0160860—UN—31AUG17

1. Select **Menu.**
2. Select **Machine Settings tab.**
3. Select **PTO icon.**



RXA0144645—UN—22AUG14

RXA0117159—UN—18MAY11

Left-Hand Rear Fender

4. Select remote PTO enable (A) on CommandCenter™ to enable rear remote PTO button (C).

RXA0156106—UN—09DEC16

ILS is a trademark of Deere & Company

CommandCenter is a trademark of Deere & Company

5. Push rear PTO control lever (B). An audible warning sounds, by one second beeps and hazard warning lights (D) will flash (PTO has not started yet).
6. Press and hold remote rear PTO button . Rear PTO will start slowly. Hazard warning lights will go out.
   - Press and hold switch for at least 4 seconds:
     - Hazard warning lights turn off
     - PTO continues to operate
     - Rear PTO indicator will light on corner post display
   - Release switch within 4 seconds:
     - PTO will slowly stop
     - An audible warning sounds, by one second beeps
     - Hazard warning lights will flash

Shut off rear PTO by pressing remote rear PTO button [audible warning will sound and hazard warning lights will flash] **OR** pull rear PTO control lever inside cab. Return PTO switch function to normal operation by disabling the remote PTO button. If PTO control lever is **ON**, PTO returns to remote state.

NOTE: If rear PTO is switched on in cab, rear PTO may be shut off at remote PTO switch. If rear PTO is switched off in cab, steps 1 through 4 must be repeated if normal operation has been resumed.

GH15097,0000789-19-23AUG18

Use Correct PTO Shaft

IMPORTANT: Use the 35 mm (1-3/8 in) 540 rpm PTO shaft only on implements requiring less than 56 kW (75 PTO horsepower).

Use 35 mm (1-3/8 in) 1000 rpm PTO shaft only on implements requiring less than 112 kW (150 PTO horsepower).

Use 35 mm (1-3/8 in) 540 and 1000 rpm PTO option for light-duty farm use only. Use 45 mm (1-3/4 in) 1000 rpm PTO shaft if heavier loads are expected.

Diameter of standard PTO shaft is 45 mm (1-3/4 in). High power, heavy PTO loads require strength of this large 20 spline shaft. Use this size whenever possible.

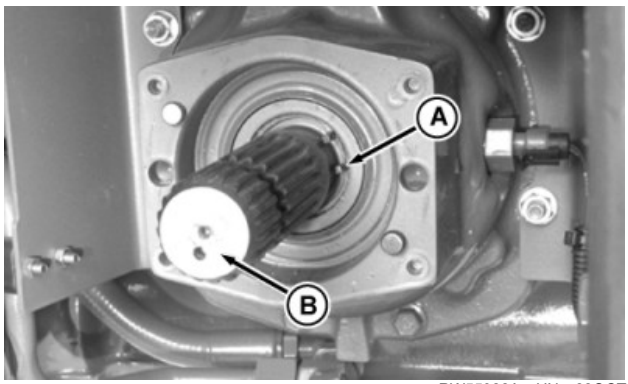
RW55321A—UN—22OCT99

Optional PTO package includes a 45 mm (1-3/4 in), 1000 rpm stub shaft (A) with 20 splines for high power, heavy PTO loads and a 35 mm (1-3/8 in), 1000 rpm shaft (B) with 21 splines and a 35 mm (1-3/8 in), 540 rpm shaft (C) with six splines for light load applications *only*.

GH15097,0000461-19-30JUN17

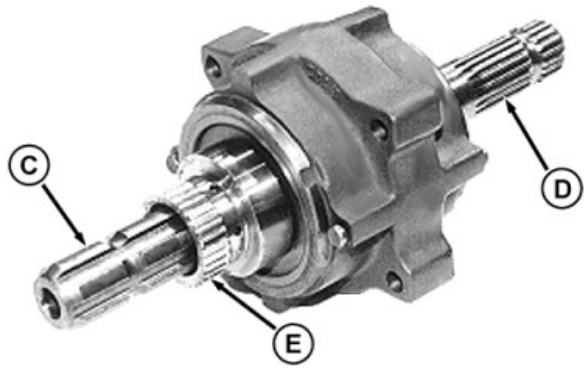
Change 540/1000 RPM PTO Stub Shafts

CAUTION: Avoid injury. Allow PTO shaft sufficient time to cool before changing.



RW55322A—UN—22OCT99

1. Rotate ends of snap ring (A) to align with flat surface of shaft.
2. Remove snap ring.
3. Carefully clean surrounding areas.
4. Remove 45 mm (1 3/4 in) 20 spline, 1000 RPM PTO stub shaft (B) from housing.
5. Prior to storing, clean stub shaft thoroughly. Coat splines with John Deere SD Polyurea grease or other grease as specified in Multipurpose Extreme Pressure (EP) Grease in Other Lubricants section of this Operator's Manual.



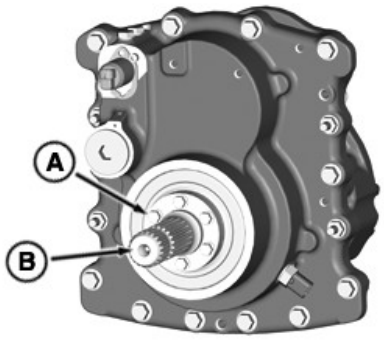
RW55488A—UN—22JUN99

6. Select desired 540 (C) or 1000 (D) RPM shaft end of PTO adapter. Shaft on opposite end of adapter will become drive shaft for assembly.
7. Clean drive shaft thoroughly. Coat splines with John Deere SD Polyurea grease or other grease as specified in Multipurpose Extreme Pressure (EP) Grease in Other Lubricants section of this Operator's Manual.
8. Install splined collar (E) on drive shaft.
9. Insert drive shaft into PTO housing. Rotate PTO shaft back and forth while installing to aid in drive shaft spline alignment. Shaft is correctly engaged when shaft turns with high effort.
10. Tighten four adapter cap screws to 52 N·m (70 lb·ft).

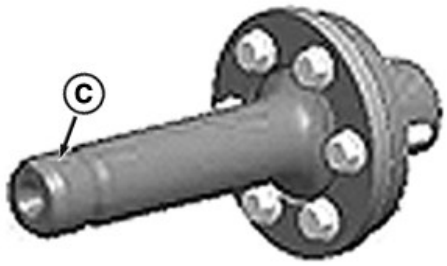
GH15097,0000462-19-08MAY18

Change 1000/1000E RPM PTO Stub Shafts

Rear PTO is factory equipped with one of two optional PTO shafts:



RXA0147840—UN—02APR15



RXA0147839—UN—02APR15

- 35 mm (1-3/8) 1000 RPM 21 spline shaft (C)
- 45 mm (1-3/4) 1000 RPM 20 Spline Shaft (B)

If factory supplied shaft is not appropriate for an implement, the other shaft is available. See your John Deere dealer.

To change shaft:

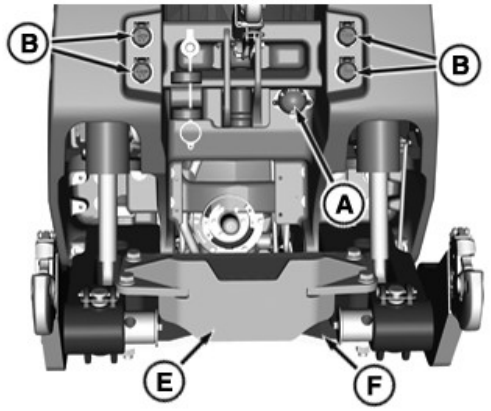
1. Remove six cap screws (A).
2. Remove currently installed shaft.
3. Install desired shaft.
4. Install cap screws and tighten to 40 N·m (30 lb·ft).

GH15097,000091B-19-14NOV17

Front Hitch

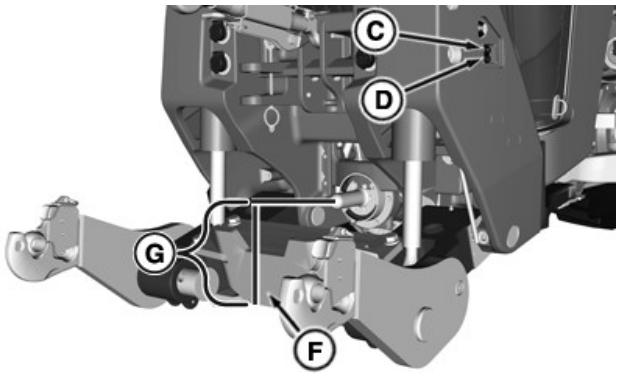
Front Hitch Use

CAUTION: Avoid personal injury and tractor damage. DO NOT use front hitch to lift tractor. Use correct lifting equipment and make sure that load is balanced side-to side and front-to rear.



RXA0132460—UN—25JUN13

Front SCV couplers (B) are connected through two SCVs mounted under tractor in front of front axle and respond to CommandARM™ SCV levers. See Connect Front SCV'S (If Equipped) in Selective Control Valves section of this Operator's Manual.



RXA0132461—UN—25JUN13

Remote raise (C) and lower (D) switches enable front hitch height adjustment without operator being in cab.

Front hitch is equipped with upper locking plate (E) and lower locking plate (F) which are adjustable to meet application requirements. Upper locking plate is used in applications that do not require front PTO and where greater hitch rigidity is desired.

Lower locking plate is used for both PTO and non-PTO implement applications. It provides torsional support to keep lift arms level and allows front hitch to roll or float when required to follow contours. Lower locking plate is factory installed with V pointed up for greater ground clearance. However, it must be inverted to provide front PTO driveline clearance (G) during front PTO operations.

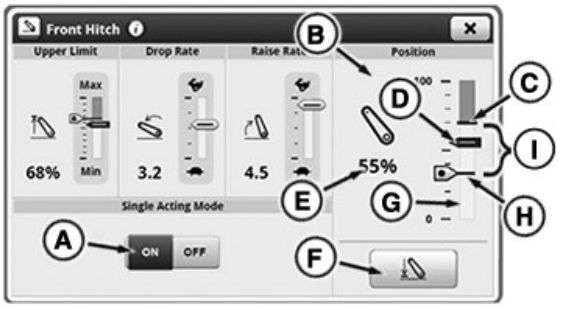
7-Pin Outlet (A) on front hitch mirrors tractor rear seven terminal outlet functions. Seven terminal outlets are used to connect lights, turn signals, and remote electrical equipment on implements. Always use auxiliary light on towed implement when tractor rear signals and other lights are obscured. See 7-Pin Outlet in Lights section of this Operator's Manual.

GH15097,000042F-19-19JUL18

Front Hitch Single Acting Mode, Position, and Lower Set Point

RXA0160861—UN—31AUG17

1. Select Menu.
2. Select Machine Settings tab.
3. Select Front Hitch icon.



RXA0163982—UN—17JUL18

4. Select single acting mode ON (A).

When front hitch single acting mode is ON, no downforce is applied to the implement when lowering and no restrictions apply when raising.

Single acting mode can only be enabled when front hitch is in float or in top 10% of travel range and front hitch control lever is in center position. See Float Operation in Rear Hitch section of this Operator's Manual for more information.

Position module (B) displays current front hitch position (D), lower set point (H), and upper limit (C) for motion range (I). Hitch position indicator is shown as a percentage (E) of hitch position slider gauge (G). When front hitch is in full down position, position percentage is 0%. When hitch is fully up, position percentage is 100%.

RXA0163985—UN—18JUL18

In order to set lower set point, move position indicator to desired position using front hitch lever (J) or joystick, then press lower set point set button (F).

Performing an extend detent operation with front hitch control lever or joystick causes front hitch to move to upper limit position, provided hitch starts from below this point.

Performing a retract detent operation with front hitch control lever or joystick causes front hitch to move to lower set point position, provided front hitch starts above this point.

For more information on using front hitch control lever, see Hitch Control Lever in Rear Hitch section of this Operator's Manual.

NOTE: Exception: If tractor is moving during a retract detent operation, front hitch moves to lower set point from any starting position.

Hitch can be moved above upper limit or below lower set point by using front hitch control lever or joystick in proportional control or remote switches.

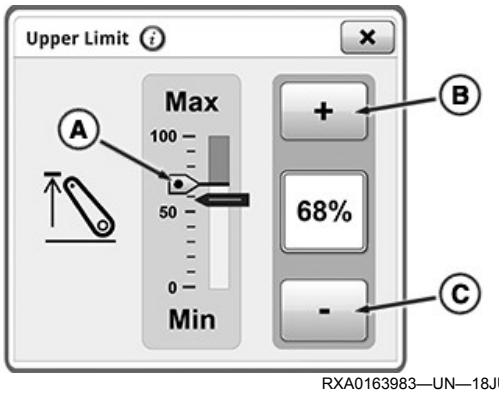
GH15097,000082A-19-23AUG18

Adjust Front Hitch Upper Limit

RXA0160861—UN—31AUG17

1. Select Menu.
2. Select Machine Settings tab.
3. Select front hitch icon.
4. Select Front Hitch Upper Limit module.

NOTE: Changes to upper limit are immediate.



RXA0163983—UN—18JUL18

5. Adjust front hitch upper limit (A) with increase (B) and decrease (C) buttons.

   When upper limit is the same as hitch position, hitch follows upper limit.

KD34109,0000809-19-18JUL18

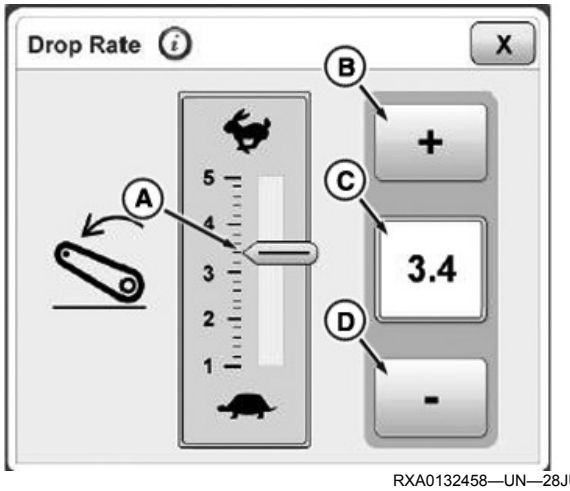
Adjust Front Hitch Drop Rate

IMPORTANT: Excessive drop speed may cause injury or machine damage. Fully lowering implement should take at least 2 seconds.

RXA0160861—UN—31AUG17

1. Select Menu.
2. Select Machine Settings tab.
3. Select front hitch icon.
4. Select Front Hitch Drop Rate module.

NOTE: Changes to rate of drop are immediate.



RXA0132458—UN—28JUN13

5. Change drop rate with increase (B) or decrease (D) button. Relative numerical value for drop rate is

shown in display (C). Drop rate indicator (A) shows rate of relative value of drop rate.

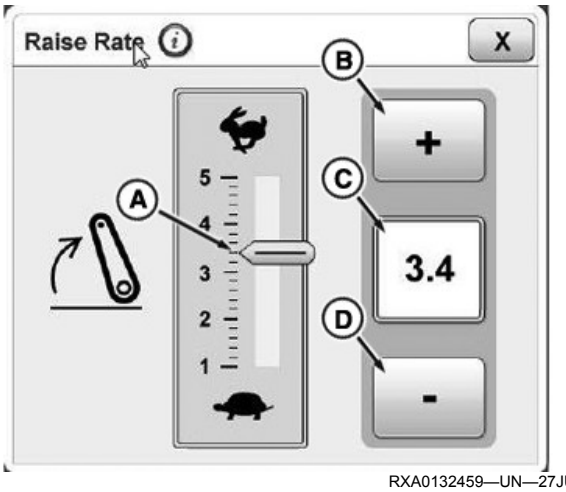
TS36762,00001CF-19-18JUL18

Adjust Front Hitch Raise Rate

RXA0160861—UN—31AUG17

1. Select Menu.
2. Select Machine Settings tab.
3. Select front hitch icon.
4. Select Hitch Raise Rate module.

NOTE: Changes to raise rate are immediate.



RXA0132459—UN—27JUN13

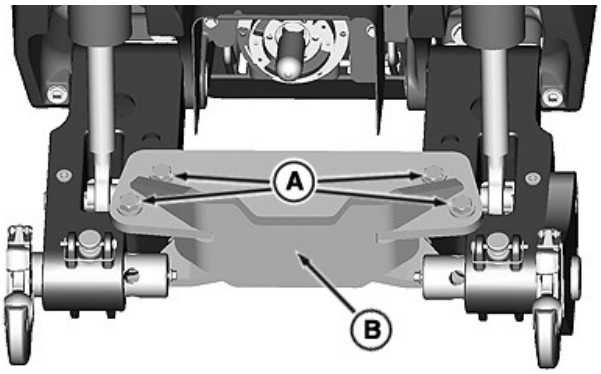
5. Change raise rate with increase (B) or decrease (D) button. Relative numerical value for raise rate is shown in display (C). Raise rate indicator (A) shows rate of relative value of raise rate.

TS36762,00001D0-19-18JUL18

Front Hitch Upper And Lower Locking Plates

Upper Locking Plate

Upper locking plate is used in applications that do not require front PTO, but greater front hitch rigidity is needed.



RXA0113229—UN—24JAN11

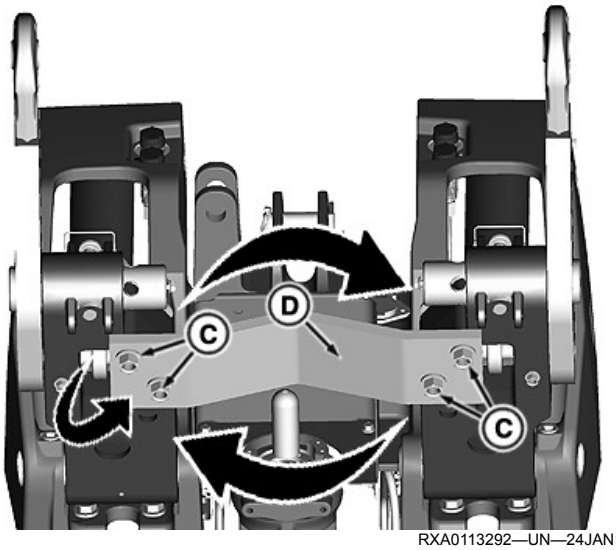
Front Hitch With Front PTO, And Locking Plates in Factory Configuration

1. Remove and retain four locking plate cap screws (A) and upper locking plate (B).
2. Install locking plate cap screws and torque to 245 N·m (180 lb·ft).
3. Reverse procedure to reinstall plate.

Lower Locking Plate

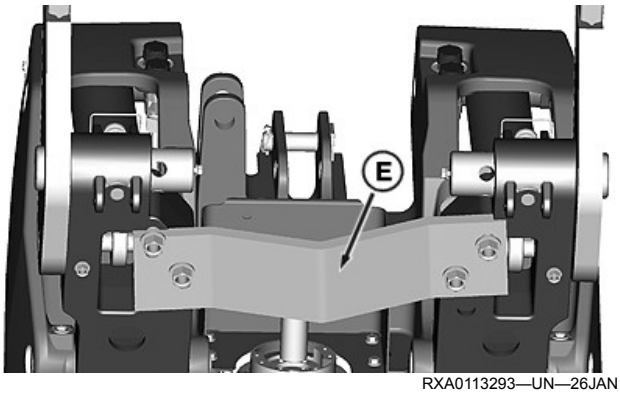
Lower locking plate provides torsional support to keep lift arms level, but also allows front hitch to roll or float as plate flexes. This allows implements to follow contours. Lower locking plate is factory installed with “V” pointed up for greater ground clearance. Plate must be inverted to provide driveline clearance during front PTO operations.

1. Remove lower locking plate cap screws.



RXA0113292—UN—24JAN11

Reposition Lower Locking Plate



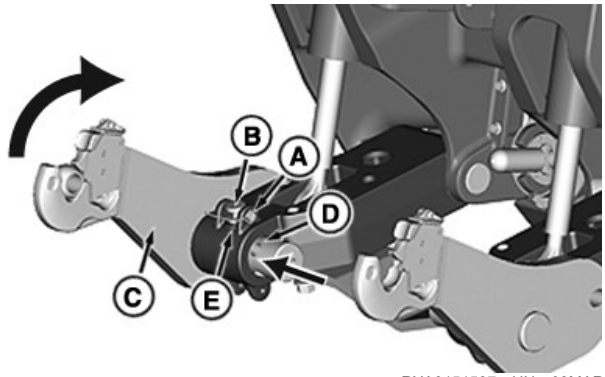
RXA0113293—UN—26JAN11

2. Remove plate (D) and rotate end for end, then flip plate over to align plate holes (C) with holes in front hitch casting. V is now pointed down (E) allowing driveline clearance for front PTO operations.
3. While holding plate against bottom of front hitch, reinstall cap screws.
4. Tighten cap screws to 245 N·m (180 lb·ft).

GH15097,0000430-19-19JUL18

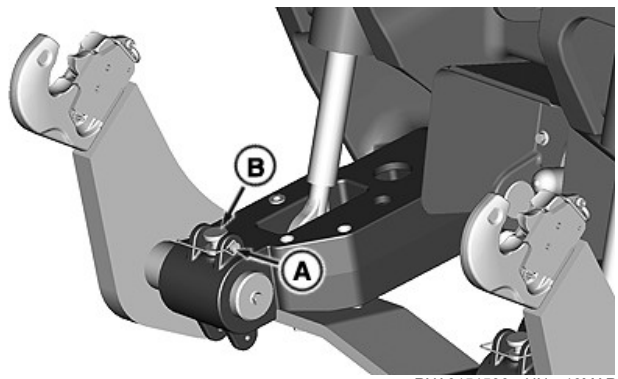
Front Hitch—Stow or Extend Hitch Arms

IMPORTANT: Avoid equipment damage. Stow hitch arms when not in use.



RXA0151587—UN—08MAR16

Front Hitch Arms Extended



RXA0151586—UN—16MAR16

Front Hitch Arms Stowed

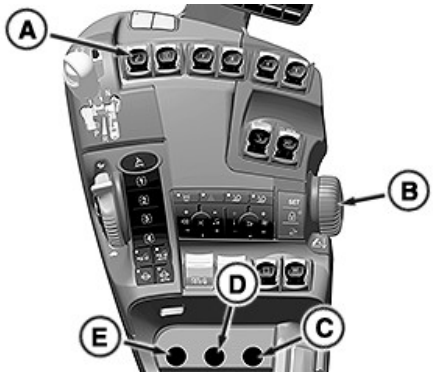
1. Remove retaining pin (A) and pin (B).

CAUTION: Avoid personal injury. Once pins are removed hitch arm is unsupported.

2. Slide arm (C) out and up.
3. Align hitch arm shaft hole in (D) with casting hole (E).
4. Install pin (F) and retaining pin (G). Arm is now stowed.
5. Repeat for opposite hitch arm.
6. Reverse procedure to extend arms.

GH15097,0000431-19-30JUN17

Rear Hitch



RXA0156100—UN—09DEC16

Controls:

Control rear hitch functions with:

- Rear Hitch Control Lever (A)
- Depth Adjust Hitch Dial (B)

Settings:

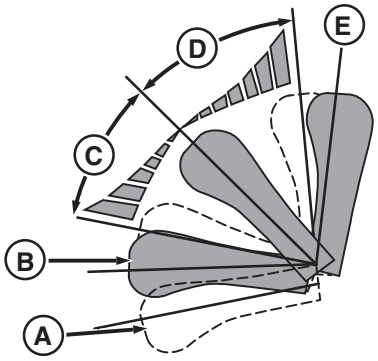
Adjust rear hitch settings with hitch dials (if equipped):

- Drop Rate Hitch Dial (C)
- Upper Limit Hitch Dial (D)
- Load Depth Hitch Dial (E)

Settings may also be adjusted with CommandCenter™ .

TS36762,00001D1-19-19JUL18

Hitch Control Lever



RXA0143179—UN—07JUL14

Lever Positions

Proportional

Moving hitch control lever within proportional regions (C and D), changes raise or lower rate depending on how far lever is moved from center position.

Hitch control lever does not raise above upper limit, but can lower below set point.

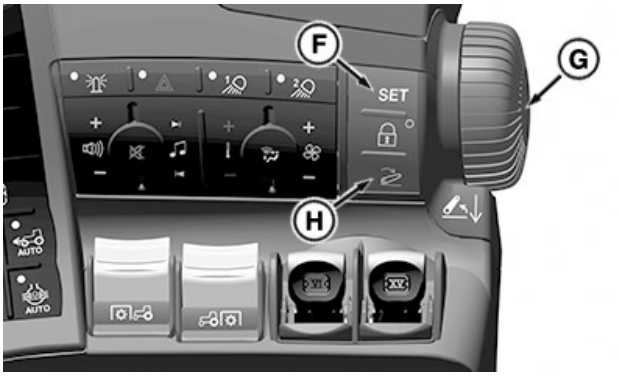
Detents

When the hitch control lever is pulled into detent position, raise (E) and released, hitch raises to upper limit. When pushed into detent position, lower (B) and released, hitch moves to set point.

Float

Float position (A) allows for freedom of motion for hitch and is useful when detaching implement. See Float Operation in this section of this Operator's Manual for proper setup if implement requires hitch to float during field operation.

Rear Hitch Depth Adjust Dial



RXA0156101—UN—09DEC16

Hitch depth adjust dial (G) can also be used to adjust hitch position. Like hitch control lever, it will not raise hitch above upper limit, but can lower hitch below set point.

Setting Depth

Use hitch control lever or depth adjust dial to move hitch to desired position, press set button (F) to store operating depth.

Return to Stored Operating Depth

Press resume button (H) or perform lower detent with control lever.

If hitch is lower than set point, returning to set point is only allowed when tractor is moving.

Resume button does not lower hitch if tractor is stationary with transmission in Park or Neutral.

TS36762,00001D2-19-23JUL18

Lock and Damping

CAUTION: To prevent possible injury and equipment damage, lock hitch before transporting.

Hitch Lock

Before transport, or when hitch-mounted implement is not in use, engage rear hitch lock/damping.

CommandCenter is a trademark of Deere & Company

1. Raise hitch with control lever or hitch depth adjust dial.

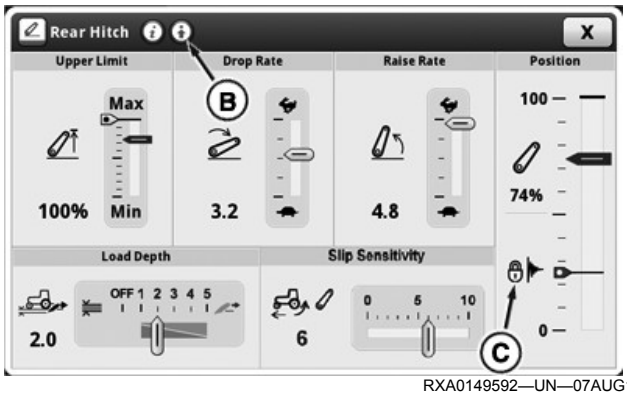
RXA0156102—UN—09DEC16

2. Press lock button (A).

Pressing lock button again unlocks hitch.

If hitch leaks down while tractor is stopped, hitch returns to locked height when tractor begins moving.

Hitch control lever can raise hitch back up to locked position with lever held in detent position.



RXA0149592—UN—07AUG15

When hitch lock indicator (C) is visible, hitch will not respond to hitch depth adjust dial and hitch control lever cannot lower hitch.

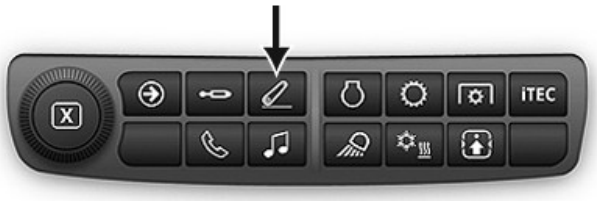
Hitch Damping

Hitch damping detects implement vibration while in transport and allows hitch to move up and down to counteract road noise. Press advanced settings (B) to access hitch lock damping on/off. When hitch lock damping is enabled in advanced settings, lock button turns lock and damping on/off.

TS36762,00001D3-19-19JUL18

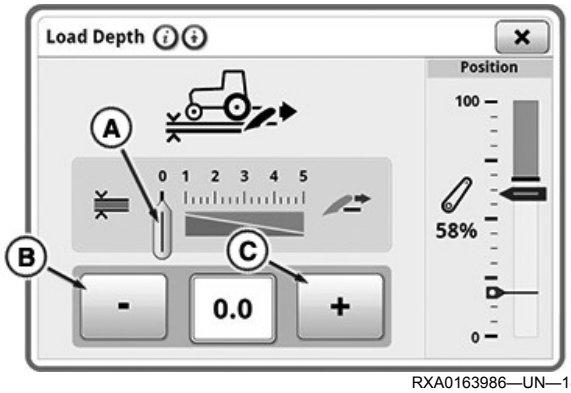
Adjust Load/Depth Control (Draft Response)

Load/depth control allows control of movement of hitch while working. Correct adjustment provides better control of implement depth and operating efficiency.

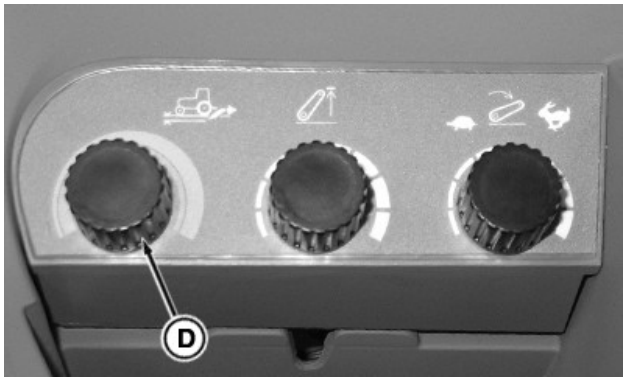


RXA0133710—UN—16JUL13

1. Press rear hitch shortcut button on navigation bar.
2. Select load depth module.



RXA0163986—UN—18JUL18

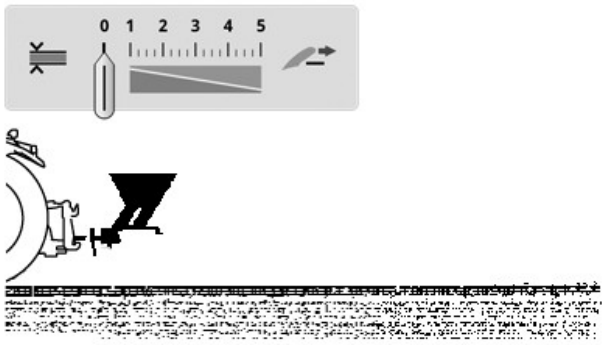


RXA0140227—UN—31MAR14

3. Set load depth value (A) with decrease (B) and increase (C) value buttons or load depth hitch dial (D) (if equipped).
   - For position only control, turn load depth setting to 0, see Position Control Use in this Operator's Manual section.
   - Higher settings are used for draft control, see Draft Control Use in this Operator's Manual section.

TS36762,00001D4-19-25JUL18

Position Control Use



RXA0163992—UN—18JUL18

Hitch Held at Selected Position

Use position control to operate non-ground engaging implements and implements that fully rest on gauge wheels for depth control.

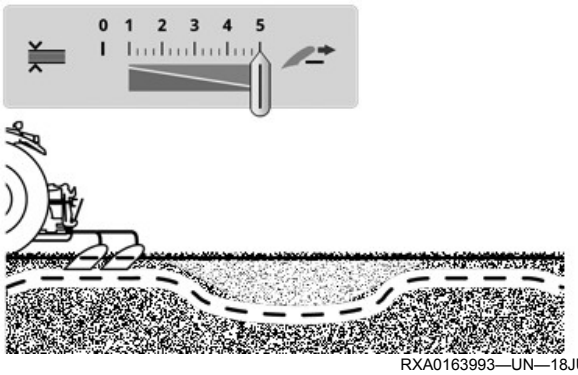
TS36762,00001D5-19-23JUL18

Draft Control Use

Use draft control to help maintain operating depth of non-floating tillage equipment in rolling terrain. Draft control also helps if tractor altitude/pitch and rear wheel sinkage force implement deeper than desired. Higher load depth values respond better to rolling terrain but are more sensitive to soil density variation. Lower values stay more consistent with field soil changes but are less responsive to hills. Ideal setting depends on implement type and field conditions.

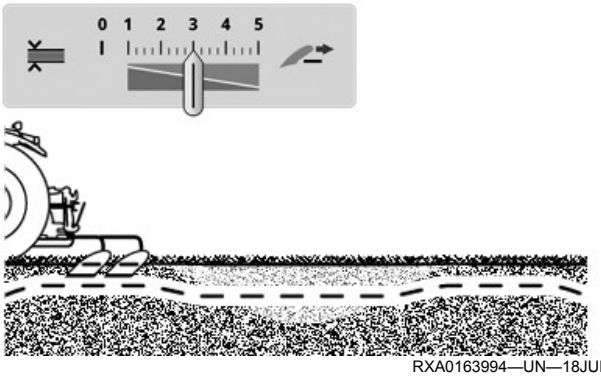
Load depth setting determines range of movement. The higher the value, the larger the range of movement (more draft response). The lower the value, the smaller the range of movement (less draft response). Adjust setting in CommandCenter™ or with load depth hitch dial (if equipped). For more information, see Adjust Load/Depth Control (Draft Response) in this Operator's Manual section.

While in draft control mode, hitch can move above and below setting based on soil type and/or terrain. If setting is causing implement to go lower than desired, set to 1 and increase slip control sensitivity. See Adjust Slip Sensitivity in this Operator's Manual section.



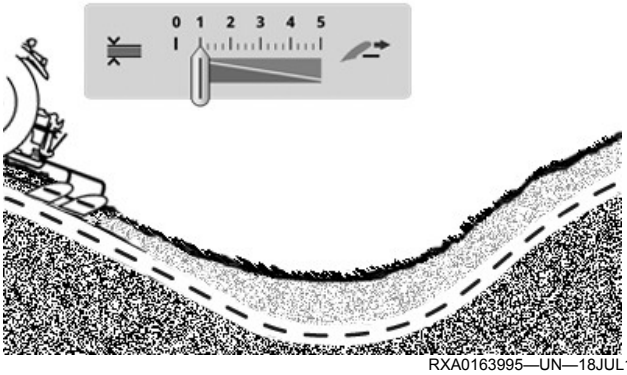
RXA0163993—UN—18JUL18

If Soil Varies, High Value Causes More Depth Variation



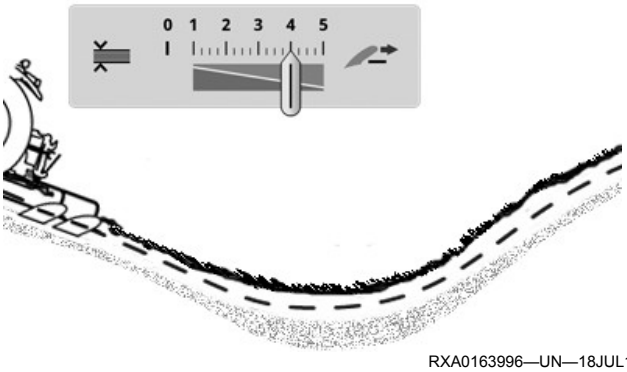
RXA0163994—UN—18JUL18

If Soil Varies, Middle Value Causes Less Depth Variation



RXA0163995—UN—18JUL18

In Rolling Terrain, Low Value Causes More Depth Variation



RXA0163996—UN—18JUL18

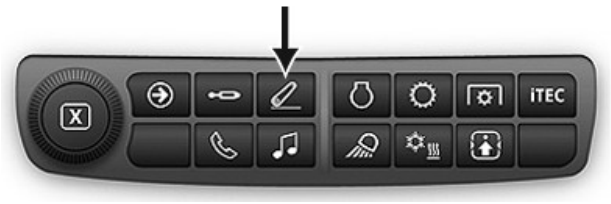
In Rolling Terrain, High Value Causes Less Depth Variation

Control or change operating depth by pressing resume

button or performing lower detent with control lever. For more information, see Hitch Control Lever in this Operator's Manual section.

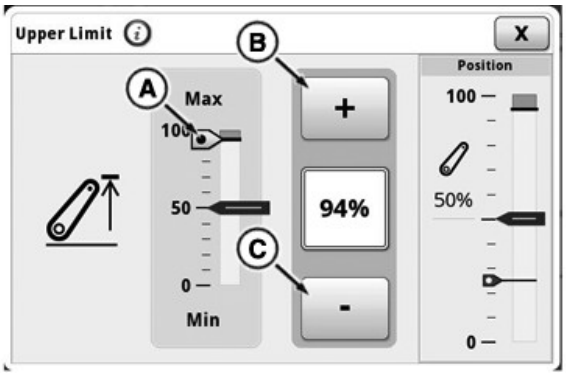
TS36762,00001D6-19-21AUG18

Adjust Rear Hitch Upper Limit

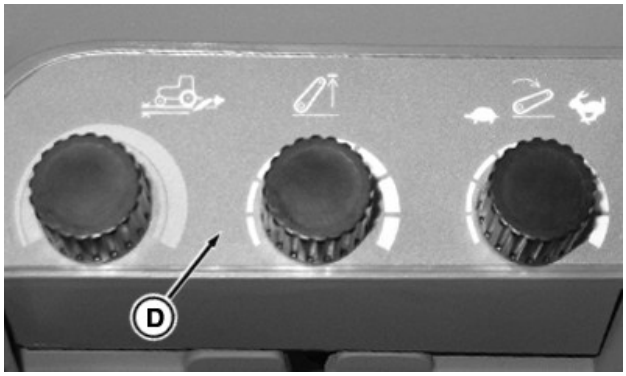


RXA0133710—UN—16JUL13

1. Press rear hitch shortcut button on navigation bar.
2. Select rear hitch upper limit module.



RXA0163987—UN—18JUL18



RXA0143175—UN—01JUL14

3. Adjust rear hitch upper limit (A) with increase (B) and decrease (C) value buttons or rear hitch upper limit dial (D) (if equipped).

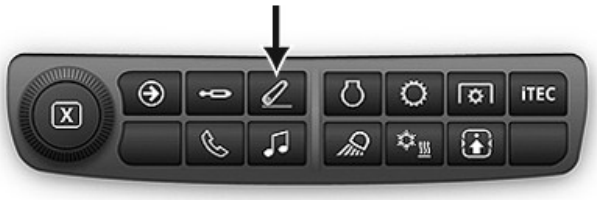
   Changes to upper limit are immediate.

   When the upper limit is the same as the hitch position, hitch follows upper limit.

TS36762,00001D7-19-19JUL18

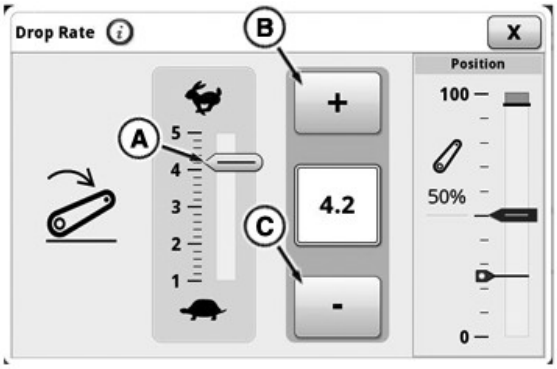
Adjust Rear Hitch Drop Rate

CAUTION: Avoid physical injury or machine damage due to excessive drop speed. Fully lowering implement should take a minimum of 2 seconds.

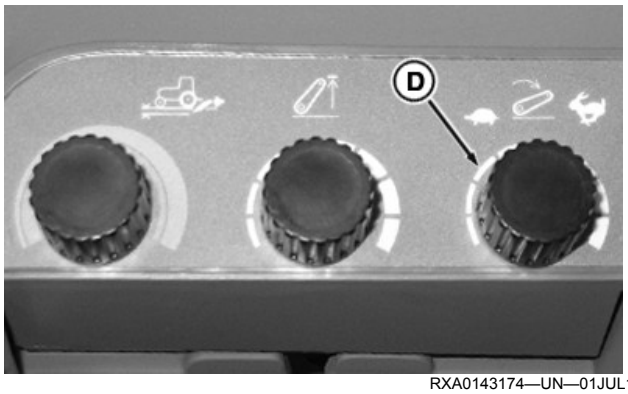


RXA0133710—UN—16JUL13

1. Press rear hitch shortcut button on navigation bar.
2. Select rear hitch drop rate module.



RXA0143171—UN—01JUL14



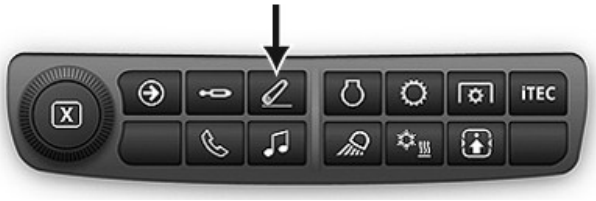
RXA0143174—UN—01JUL14

3. Adjust rear hitch drop rate (A) with increase (B) and decrease (C) value buttons or rear hitch drop rate dial (D) (if equipped).

   Changes to drop rate are immediate.

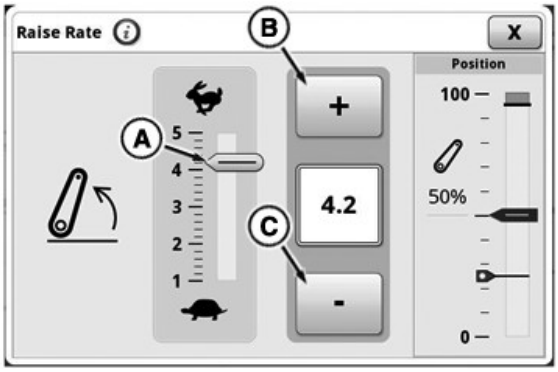
TS36762,00001D8-19-19JUL18

Adjust Rear Hitch Raise Rate



RXA0133710—UN—16JUL13

1. Press rear hitch shortcut button on navigation bar.
2. Select rear hitch raise rate module.



RXA0143170—UN—01JUL14

3. Adjust rear hitch raise rate (A) with increase (B) and decrease (C) value buttons.

   Changes to raise rate are immediate.

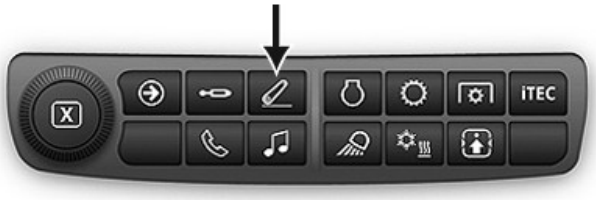
TS36762,00001D9-19-18JUL18

Adjust Slip Sensitivity

NOTE: Hitch slip operates only in tractors equipped with radar, and load depth control set to draft control mode, see Using Draft Control in this section of this Operator's Manual.

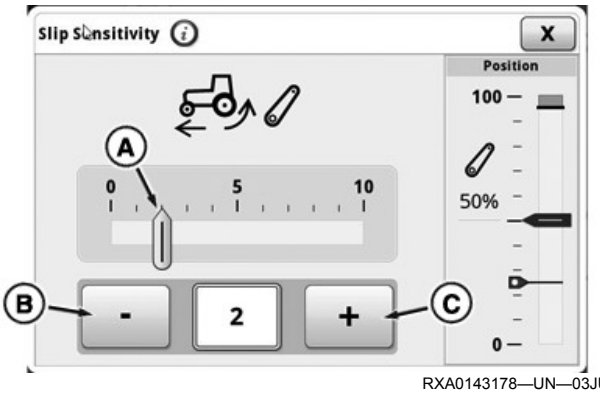
Operate hitch with draft sensing only, or with draft sensing and hitch slip. Hitch slip adjustment is independent from draft response.

Slip Sensitivity detects wheel slip and adjusts hitch accordingly. The lower the setting, the less the hitch reacts to wheel slip. The higher the setting, the more the hitch reacts to wheel slip. Slip Sensitivity setting only adjusts hitch up and takes priority over draft control setting which adjusts hitch down. Appropriate setting depends on implement type, soil conditions, and tractor setup.



RXA0133710—UN—16JUL13

1. Press rear hitch shortcut button on navigation bar.
2. Select rear hitch slip sensitivity module.



RXA0143178—UN—03JUL14

3. Adjust slip sensitivity (A) with decrease (B) and increase (C) buttons.

NOTE: Changes to slip sensitivity are immediate.

Changing rear hitch slip response can affect operation when wheel slip is above 10%.

Rear hitch slip response automatically returns to zero during transport [speed above 20 km/h (12.4 mph)].

TS36762,00001DA-19-21AUG18

Float Operation

Implements that fully rest on depth gauge wheels for depth control require hitch to float following ground contour.

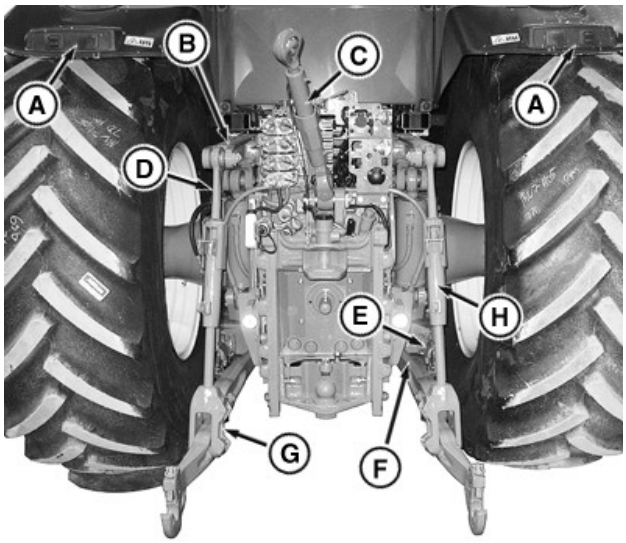
Put hitch control lever in float position. Lift links can be adjusted for lateral float. See Adjust Lateral Float in this Operator's Manual section.

Forced Float

When hitch is commanded to lower set point but is unable to reach it, hitch enters forced float mode. While in this mode, hitch acts as though control lever is in float position. If hitch reaches lower set point while in forced float mode, the hitch returns to mode lever is set to.

TS36762,00001DB-19-18JUL18

Rear Hitch Components



RXA0130889—UN—05AUG13

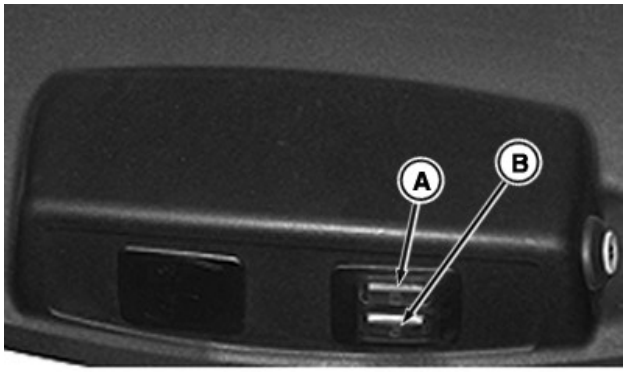
A—Remote Raise/Lower Switches
B—Lift Arm
C—Center Link
D—Lift Cylinder
E—Stabilizer (If Equipped)
F—Sway Block (If Equipped)
G—Draft Link
H—Lift Link

Remote raise/lower switches (A), lift arm (B), lift cylinder (D), stabilizer (E), sway block (F), draft link (G), and lift link (H) have one per side.

GH15097,00007EB-19-30JAN14

Remote Rear Hitch Switches

CAUTION: To prevent injury or damage caused by tractor movement, be sure transmission is in PARK position before using remote raise and lower switches. Stay clear of interference points when using remote raise and lower switches.



RXA0133378—UN—28JUN13

Press and hold remote switches to raise (A) or lower (B) hitch. Hitch moves at slow speed when using remote switches.

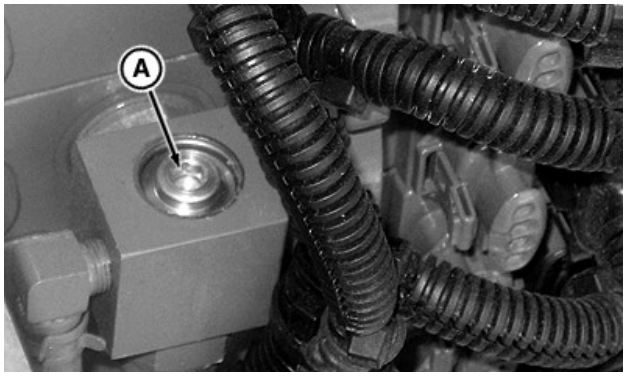
NOTE: Hitch control lever cannot be used simultaneously with remote raise and lower switches.

GH15097,00007EA-19-29JUN17

Hitch Manual Lowering

CAUTION: Avoid personal injury or death. Do not disconnect any hitch sensors, solenoids, or connectors from the hitch control valve when engine is operating or key switch is ON. Unexpected hitch movement may occur. Stay clear of hitch area when starting engine or manually lowering hitch.

Hitch manual lowering is possible when hydraulic pressure and/or electrical power is not available.



RXA0160054—UN—29JUN17

Remove plug to access manual lowering screw (A). Turn screw counterclockwise to lower the hitch.

NOTE: The hitch cannot be raised mechanically. Both hydraulic and electrical power are required to raise the hitch.

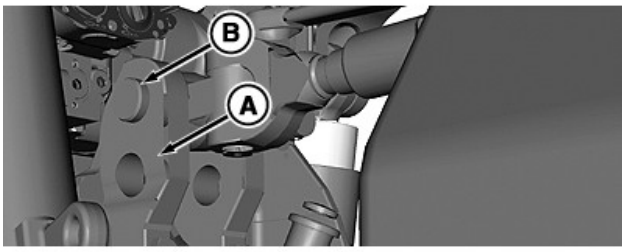
Turn screw clockwise and install plug after hitch has been lowered.

BH38674,0000BE4-19-29JUN17

Correct Center Link Position

IMPORTANT: Excessive power can damage an implement, and an implement too large can damage the tractor.

NOTE: Upper hole offers greater lift capacity. Lower hole offers greater ground clearance.



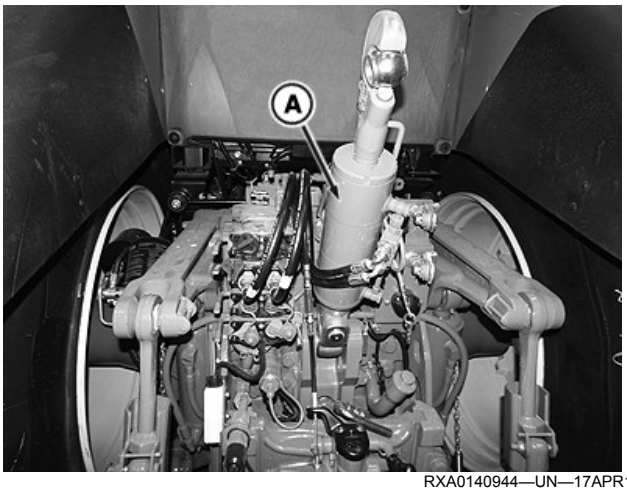
RXA0085781—UN—10JAN06

Attach center link to lower hole (A) for most standard implements. Use upper hole (B) when implements requiring higher lift capacity are used. See implement operator's manual for recommendations.

Refer to Hitch, Drawbar and PTO in Specifications section of this Operator's Manual.

GH15097,0000426-19-29JUN17

Hydraulic Center Link (If Equipped)



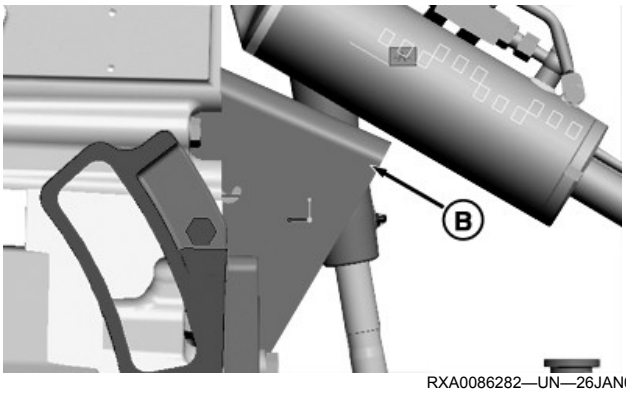
RXA0140944—UN—17APR14

RXA0140945—UN—17APR14

NOTE: Hydraulic center link (A) can be operated remotely when SCV III is used. Rear fender extensions are required to use SCV III remote extend/retract buttons (C).

NOTE: Do not use continuous flow or timed detents with hydraulic center link. Make sure SCV detent time is set to 0.

Length of hydraulic center link can be adjusted from operator's seat using a selected control valves.



RXA0086282—UN—26JAN06

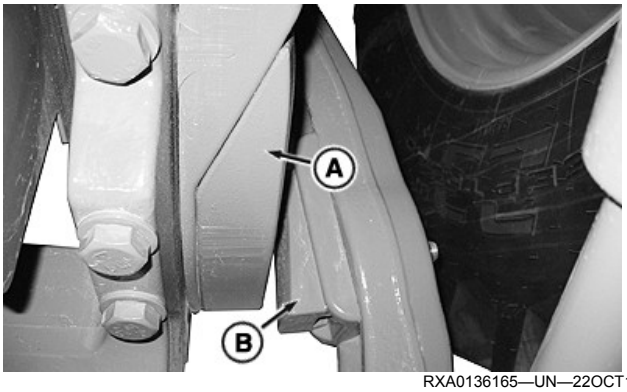
Place PTO shield (B) in down position when using hydraulic center link with lift links extended to maximum length.

IMPORTANT: Make sure locking mechanism is engaged and cord is free to move. Tight cord releases hook locking mechanism. Allow sufficient clearance in working zones. Do not subject center link to excessive loads.

Clean all mobile parts as required and apply commercial grease for smooth operation of parts. Interference of locking system is often caused by dirt accumulation.

GH15097,0000875-19-29JUN17

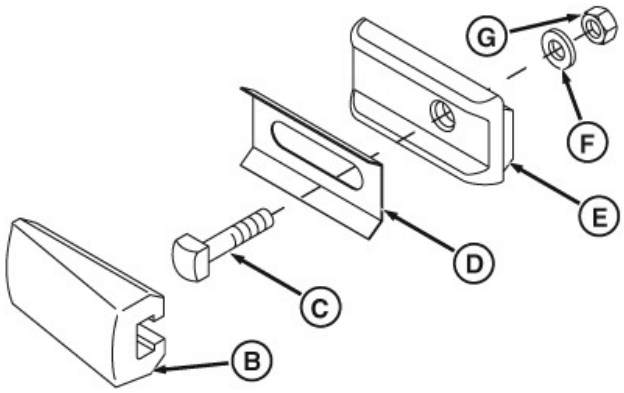
Adjust Sway Blocks



RXA0136165—UN—22OCT13

Sway Blocks in Lower Position

1. Install sway blocks (A) in lower position to minimize side sway of hitch.

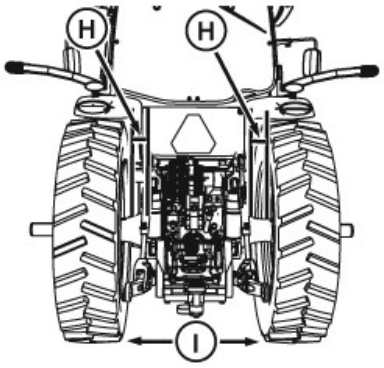


RXA0137725—UN—11DEC13

Install Shim Between Bumper Block and Spacer

A—Sway Blocks
B—Bumper
C—Cap Screw
D—Shim
E—Spacer
F—Washer
G—Nut

2. Adjust bumper (B) by loosening lock nut (G) and sliding forward or rearward as needed to limit the amount of sway.
3. Mount sway blocks in upper position to allow side sway when hitch is lowered. Side sway is prevented when hitch is raised.
4. If hitch sway cannot be removed by adjusting the bumper block, install shims (D) as necessary between bumper block and spacer (E). Shims can be purchased from your John Deere dealer.



RXA0137726—UN—11DEC13

H—Distance Clearance Between Tires And Cab
I—Distance Between Tires

IMPORTANT: Tires must have at least 25 mm (1 in) clearance distance (H) with fenders. To prevent draft link interference, be sure distance between tires (I) is:

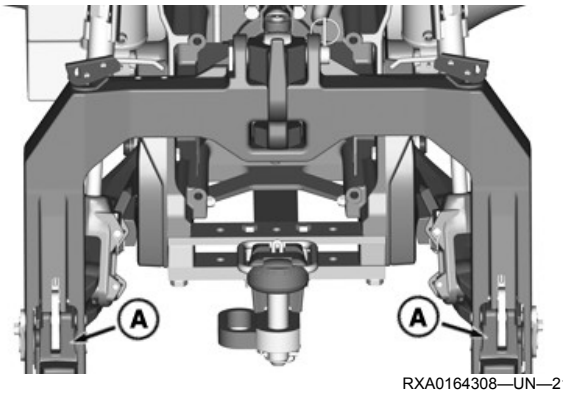
- **Category 3N Hitch—1.09 m (43 in)**
- **Category 3 Hitch—1.17 m (46 in)**
- **Category 4N Hitch—1.17 m (46 in)**

GH15097,0000427-19-29JUN17

Attach Implement to Quick-Hitch

CAUTION: Avoid physical injury or machine damage:

- **Put transmission in PARK position and check full range of hitch for interference, binding, or PTO separation whenever implement is attached.**
- **Make sure implement is correctly attached. Incorrect attachment can allow implement to be pulled over tractor wheel and onto operator station.**
- **Do not stand between tractor and implement.**



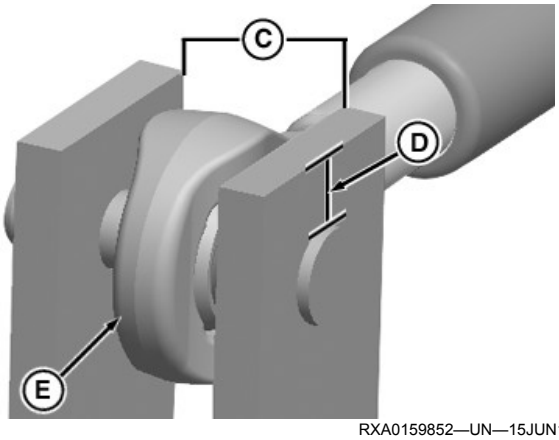
RXA0164308—UN—21AUG18

1. Lower hitch until quick-hitch hooks (A) are lower than implement hitch pins.
2. Back up tractor to implement.
3. Raise hitch enough to engage implement pins in hooks. Verify latch pivots are flush with quick-hitch body when implement is fully attached.
4. Connect hydraulic hoses and electrical connections.

IMPORTANT: Check for implement interference. Drawbar removal may be necessary.

RXA0137422—UN—09DEC13

5. Slowly pull hitch control lever (B) to raise implement. Lower implement to ground and adjust upper height limit control if necessary.



RXA0159852—UN—15JUN17

IMPORTANT: If center link is attached directly to implement, measure upper mast opening (C) and height above pin (D). If upper mast opening is greater than 70 mm (2.8 in) or height above pin is less than 14 mm (0.6 in), use shims to limit/restrict swiveling of yoke (E).

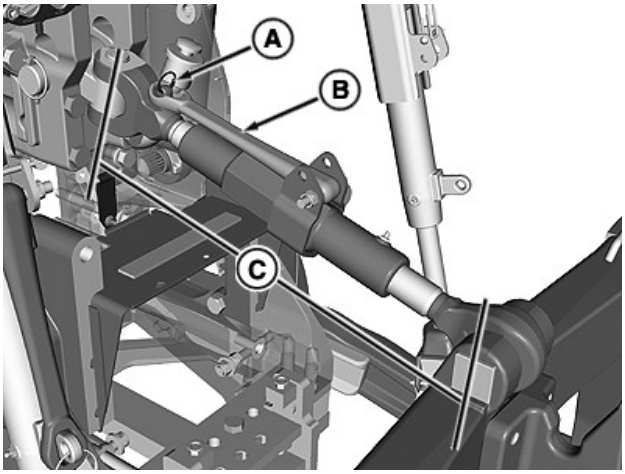
- **If connecting to a category 4N hitch, use a combination of shims on both sides of center link pivot.**

GH15097,0000428-19-21AUG18

Adjust Implement Level

Adjust Center Link

Adjust center link to level implement front-to-rear.



RXA0098642—UN—16JUL08

1. Remove Locking Ring (A).
2. Lift Handle (B).
3. Rotate center portion of center link to desired position.
4. Secure handle with locking ring.
5. Check distance between center of pins which is center link adjustment length (C).

Category 3 Hitch Length Adjustment — Specification

With Quick-Hitch. . . . . 627—790 mm (24.7—31.1 in)

Without Quick-Hitch. . . . . 698—861 mm (27.5—33.9 in)

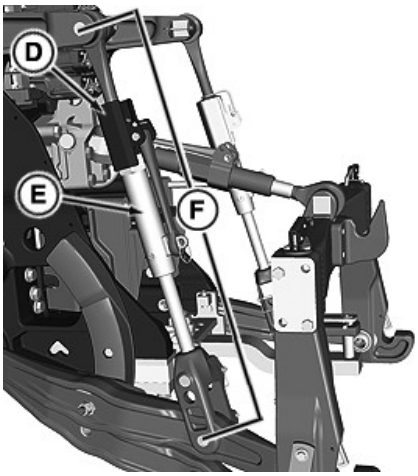
Category 4 Hitch Length Adjustment — Specification

With Quick-Hitch. . . . . 681—814 mm (26.8—32.0 in)

Without Quick-Hitch. . . . . 735—897 mm (28.9—35.3 in)

Adjust Lift Links

Adjust lift links to level implement side-to-side.



RXA0159851—UN—15JUN17

1. Slide collar (D) upward.
2. Rotate center portion (E) of lift link to desired position.
3. Check distance between center of pins which is lift link adjustment length (F).

Category 3 Hitch Length Adjustment (With or Without Quick-Hitch) — Specification

Group 47/48 Tires. . . . . 966—1135 mm (38— 44.7 in)

Group 49 Tires. . . . . 1060—1210 mm (41.75— 47.75 in)

Category 4 Hitch Length Adjustment (With or Without Quick-Hitch) — Specification

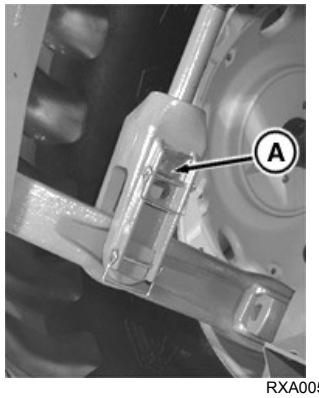
Group 47/48 Tires. . . . . 966—1135 mm (38— 44.7 in)

Group 49 Tires. . . . . 1060—1210 mm (41.75— 47.75 in)

4. Lock out lateral float.
5. Secure collar in position.

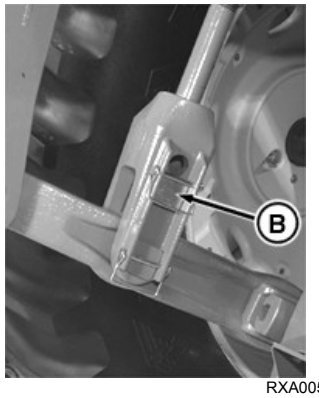
GH15097,0000429-19-13JUL18

Adjust Lateral Float



RXA0052502—UN—18OCT01

Put lateral float pins in upper holes (A) to hold implement rigidly.



RXA0052503—UN—18OCT01

Put lateral float pins in lower holes (B) to allow either draft link to raise slightly as implement follows ground surface.

GH15097,000042A-19-30JUN17

Detach Implement from Quick-Hitch

NOTE: Level Independent-Link Suspension (ILS™) equipped tractors:

1. *Run engine at idle.*
2. *Depress clutch.*
3. *Put transmission shift lever in gear for four seconds.*
4. *Move shift lever to NEUTRAL position.*
5. *Repeat until suspension is level.*

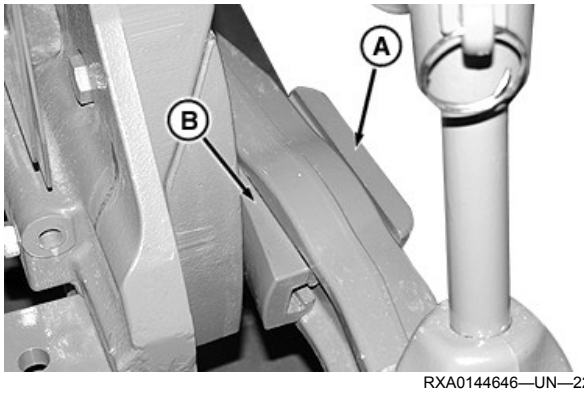
1. Disconnect hydraulic hoses and electrical connections.

RXA0157307—UN—02FEB17

2. Raise both latch levers (A) with implement raised.
3. Lower implement to ground. Continue lowering quick-hitch until hooks clear implement hitch pins.
4. Carefully drive tractor away from implement.

GH15097,000042B-19-13JUL18

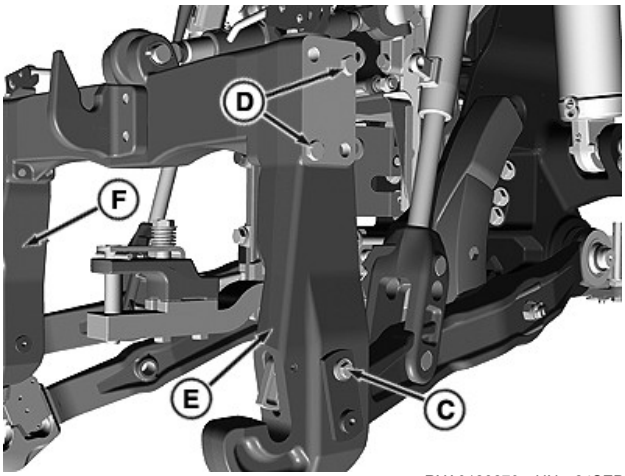
Hitch Conversion—Convertible Quick-Hitch



RXA0144646—UN—22AUG14

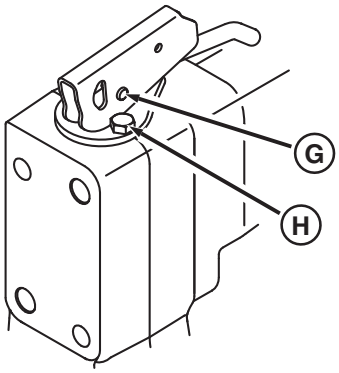
IMPORTANT: If coupler is converted to category 3N, sway block spacer (A) must be mounted on outside of draft link to avoid damaging equipment.

1. Converting to category 3N is necessary for narrow row/tread spacing operations. Quick-hitch is convertible to Category 3 or Category 3N. Use Category 3 whenever possible, especially for heavy loads. Install spacer (A) on outside of draft link for Category 3N.
2. Adjust bumper block (B) to minimize clearance.
3. Tighten nut securely.



RXA0128279—UN—24SEP12

4. Support center of quick-hitch. Remove pin retaining bolts (C) and pins from draft link. Remove side member cap screws (D).
5. Swap quick-hitch side members, left- hand side member (F) to right end and right-hand side member (E) to left. Tighten cap screws to 320 N·m (236 lb·ft).



RXA0128278—UN—24SEP12

6. Disconnect latch levers by removing C-clip and pin (G).
7. Remove cap screw (H) from wear plate and turn tab inward.
8. Install cap screws and tighten securely.
9. Reconnect levers.

BH38674,0000BEB-19-12JUL18

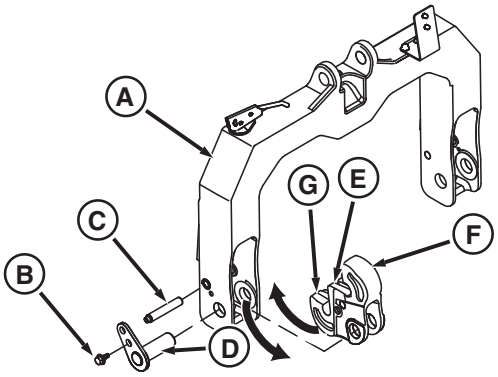
Converting Category 4 Convertible Quick-Hitch Lower Hooks

CAUTION: Use proper lifting device when converting coupler. Failure to do so can result in personal injury.

NOTE: A second person is recommended to align components during conversion.

If category 4 lower hooks are to be used on category 3 implements, bushings are needed over the category 3 pins; these bushings can be purchased through your John Deere dealer.

Lower hooks are not marked for left-hand or right-hand side. Do not move lower hooks from one side to the other.



RXA0085785—UN—10JAN06

1. Support quick-hitch frame (A).
2. Remove cap screw (B).
3. Remove retainer (C), then pin (D).

NOTE: Because lower hook (E) has a category 3 hook (F) on one end and a category 4N hook (G) on the opposite end, it is used for both category 3 and 4N simply by turning it end for end.

4. Remove lower hook by rotating it down and to the rear of the coupler, then sliding it out at the front of the coupler.
5. Install lower hook, with desired end facing out. Using a reverse motion of removal, rotate it up and in.
6. Install pin, retainer and cap screw. Tighten to 100 N·m (74 lb·ft).

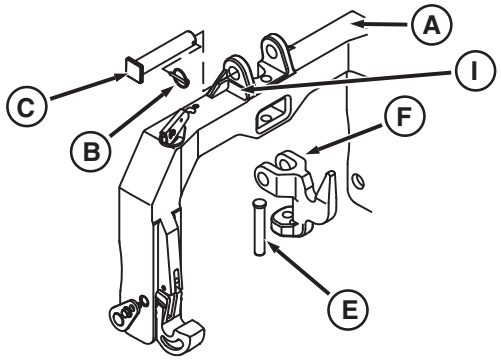
BH38674,0000BEC-19-12JUL18

Converting Category 3/4 Convertible Quick-Hitch Upper Hooks

CAUTION: Use proper lifting device when converting coupler. Failure to do so can result in personal injury.

NOTE: A second person is recommended to align components during conversion.

When full power is used on 8370R or 8400R Tactors with ground engaging implements, use CAT 4 upper hook if implement setup allows. CAT 3 upper hook can be overloaded with high draft loads.

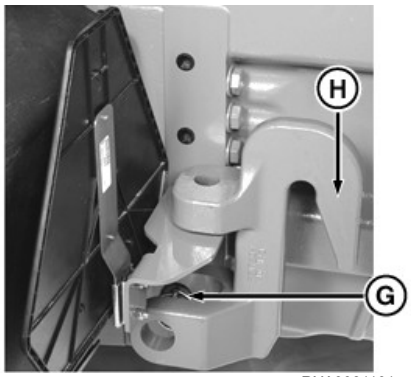


RXA0087383—UN—02MAR06

1. Support quick-hitch frame (A).

RXA0081100—UN—02JUN05

2. Remove quick lock pin (B) and pin (C) to release center link (D).
3. Remove pin (E) and upper hook (F).



RXA0081101—UN—09AUG05

4. Remove pin (G) to remove stored upper hook (H) and replace with upper hook previously removed from quick-hitch.

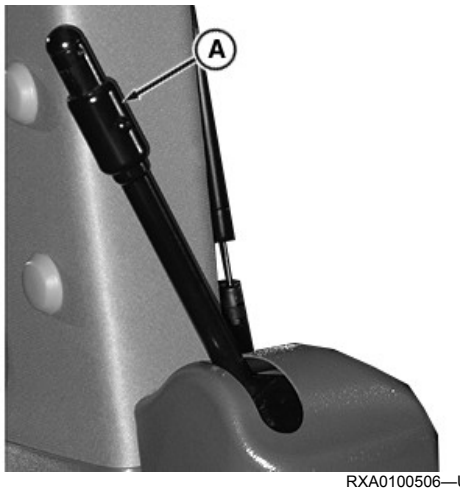
NOTE: Center link pin must be installed left to right. Shoulder (I) prevents quick lock pin installation if center link pin is installed incorrectly.

5. Use reverse sequence of steps to remove upper hook from quick-hitch. Install previously stored upper hook into quick-hitch.

GH15097,00008F4-19-13JUL18

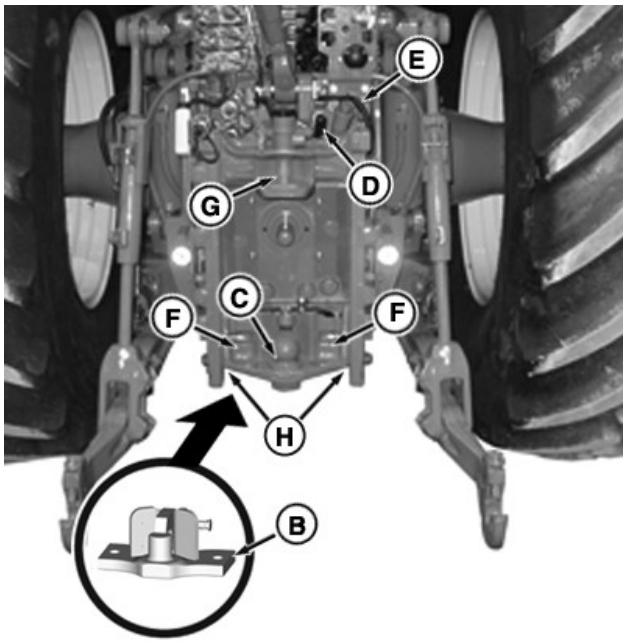
3-in-1 Hitch System

CAUTION: Avoid personal injury. Keep hands and fingers from pickup hitch latching mechanism.



RXA0100506—UN—11FEB09

Pickup hitch pin closes automatically when trailer towing eye enters pickup hitch or can be manually closed using lever (A).



RXA0132256—UN—10MAY13

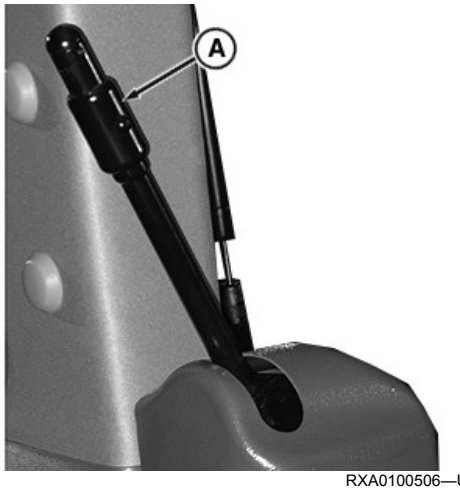
A—Pickup Hitch Control Lever (In Cab)
B—Piton Coupling
C—Ball Coupling
D—Wagon Hitch Release Lever
E—Wagon Hitch Height Adjustment Lever
F—Locking Pins
G—Wagon Hitch
H—Spring Release Pins

Install piton coupling (B) or ball coupling (C) by pulling spring release pins (H) and locking pins (F). Slide either coupling into pickup hitch rails and reinstall locking pins.

IMPORTANT: When using 35 mm (1-3/8 in) PTO or PTO adaptor with 3 in 1 hitch rails, limit steering angles to prevent PTO drive line from rubbing and/or damaging hitch rails.

RW29387,0000652-19-10AUG17

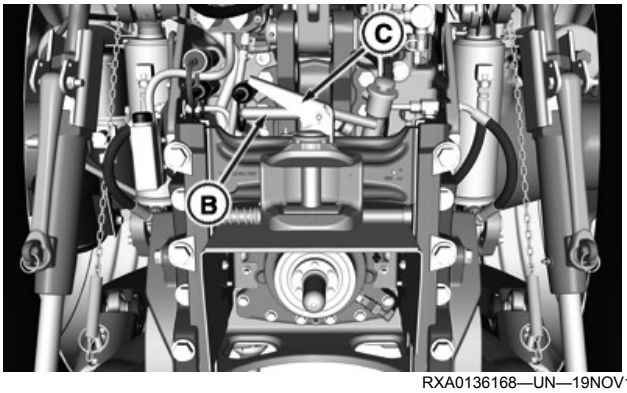
Operating Wagon Hitch



RXA0100506—UN—11FEB09

Wagon hitch can be released from operator's seat using lever (A).

CAUTION: Avoid personal injury. Keep hands and fingers from hitch latching mechanism.



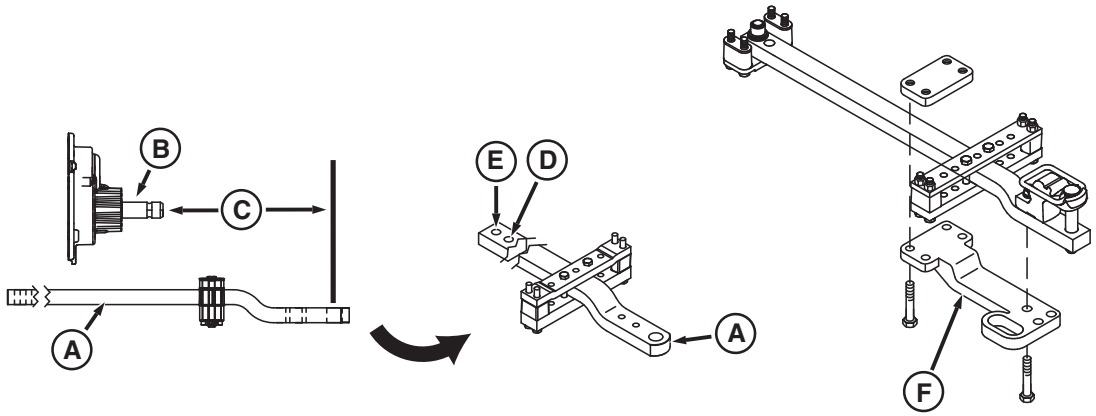
RXA0136168—UN—19NOV13

Wagon hitch closes automatically when trailer towing eye enters hitch or can be manually closed using release lever (B).

Wagon hitch height can be adjusted using height adjustment lever (C).

RW29387,000064F-19-30JUN17

Drawbar Load Limitations



RXA0160053—UN—29JUN17

IMPORTANT: Heavy implements, rough terrain, and speed can place excessive strain on drawbar. Do not exceed maximum static vertical load on drawbar for a given drawbar (A) length/position.

Heavy duty drawbar support must be used when maximum static vertical load exceeds 2245 kg (4950 lb).

NOTE: Special cap screws are used on drawbars. See your John Deere dealer if cap screws must be replaced.

When vertical load exceeds 2245 kg (4950 lb), attach heavy duty support (F) on Category 4 drawbar and tighten special support cap screws to 430 N·m (318 lb·ft).

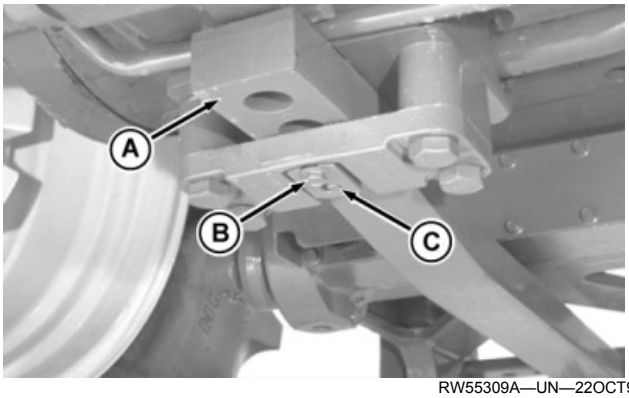
Drawbar Load Limits Based on Drawbar Position, Length, and PTO Type				
Tractor Model and Drawbar Category	**PTO Shaft (B) Diameter mm (in)**	**Distance (C) End of PTO Shaft to Draw Pin Hole mm (in)**	**Drawbar Position**	**Maximum Vertical Drawbar Load kg (lb)**
8245R, 8270R, 8295R, and 8320R with Cat 3 Drawbar[a]	Standard[b] 45 (1-3/4)	508 (20)	Front Hole (E) Long Position	1837 (4050)
	Optional[c] 35 (1-3/8)	350 (14)	Rear Hole (D) Short Position	2700 (6000)
	Optional[d] 35 (1-3/8)	400 (16)	Front Hole (E) Long Position	1837 (4050)
8345R, 8370R, and 8400R with Cat 4 Drawbar[e]	Standard[b] 45 (1-3/4)	508 (20)	Single Hole Drawbar	2245 (4950)
	Optional[c] 35 (1-3/8)	—	—	—
	Optional[d] 35 (1-3/8)	400 (16)	Single Hole Drawbar	2245 (4950)
8245R, 8270R, 8295R, 8320R, 8345R, 8370R, and 8400R with Cat 4 Drawbar[e] and Heavy Duty Drawbar Support	Standard[b] 45 (1-3/4)	508 (20)	Single Hole Drawbar	4990 (11000)
	Optional[c] 35 (1-3/8)	—		
	Optional[d] 35 (1-3/8)	400 (16)	Single Hole Drawbar	4990 (11000)

[a]Category 3 drawbar uses a 38 mm (1.5 in) draw pin.
[b]Standard 45 mm (1-3/4 in) Diameter shaft with 20 splines 1000 rpm
[c]Optional 35 mm (1-3/8 in) Diameter shaft with 6 splines 540 rpm
[d]Optional 35 mm (1-3/8 in) Diameter shaft with 21 splines 1000 rpm
[e]Category 4 drawbar uses a 51 mm (2 in) draw pin.

EC82310,0000412-19-26SEP17

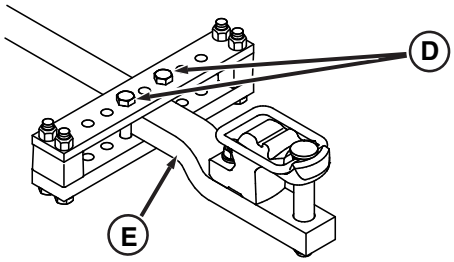
Adjust Drawbar Length, Height, and Side-to-Side

Adjust Drawbar Length



RW55309A—UN—22OCT99

IMPORTANT: For PTO-driven implement, drawbar (A) must be positioned as instructed in Attaching PTO Driven Implement in this section.



RXA0085803—UN—10JAN06

1. Loosen drawbar locking bolts (D).
2. Remove cap screw (B), retaining pin (C), and retaining strap.
3. Slide drawbar to desired position.
4. Install drawbar retaining strap and pin.
5. Install and tighten cap screws to 70 N·m (50 lb·ft).
6. Tighten drawbar locking bolts to 200 N·m (148 lb·ft).

Adjust Drawbar Height

Height of drawbar is adjustable by turning bend (E) up or down. Proceed as in length adjustment. Slide drawbar out and turn over.

IMPORTANT: Clevis assembly must always be on top of drawbar if used.

Heavy duty support cannot be used with drawbar bend positioned upward.

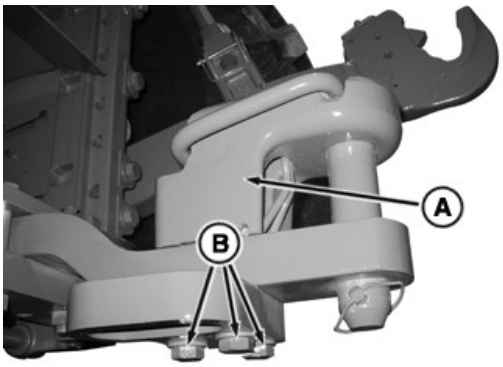
Adjust Drawbar Side-To-Side

1. Remove drawbar locking bolts.
2. Slide drawbar to desired position.
3. Install a locking bolt against each side of drawbar. Tighten bolts to 200 N·m (148 lb·ft).

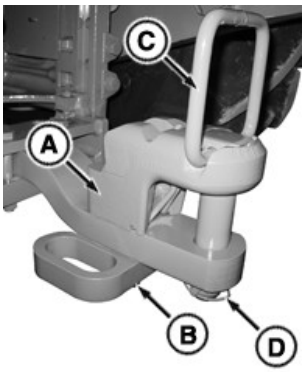
GH15097,0000458-19-29JUN17

Clevis Assembly Installation and Use

IMPORTANT: Depending on application, clevis must be removed.



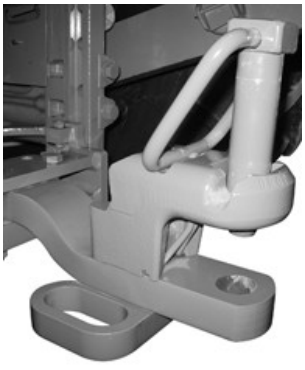
RXA0128619—UN—05OCT12



RXA0128617—UN—05OCT12

NOTE: Clevis assembly (A) must be attached ONLY to top of drawbar.

1. Install clevis assembly and tighten Category 3 cap screws (B) to 750 N·m (553 lb·ft) and Category 4 cap screws (B) 490 N·m (320 lb·ft).



RXA0128618—UN—05OCT12

2. Remove lock pin (D). Lift pin with handle (C) and position in notch of clevis assembly.

3. Attach implement.
4. Insert pin only through drawbar, not through clevis assembly, if towed implement also has a clevis assembly. DO NOT insert pin through all four members.
5. Install locking pin.

GH15097,0000459-19-29JUN17

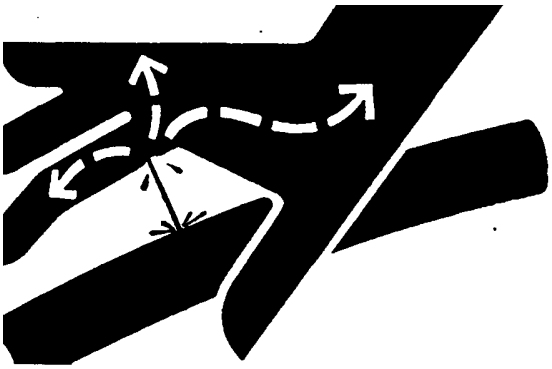
Hydraulics - General Information

Hydraulic System Overview

Hydraulics system provides lubrication, power and control to many tractor subsystems. Transmission, steering, brakes, and hitches are coverd in other sections of this Operator's Manual. The next several sections deal with selective control valves, including adjustment, function, and connections as well as special control systems.

KT81203,000044A-19-22NOV16

Connect Front SCV'S (If Equipped)



X9811—UN—23AUG88

CAUTION: Escaping fluid under pressure can penetrate the skin causing serious injury. Avoid hazard by relieving pressure before disconnecting hydraulic or other lines.

If an accident occurs, see a doctor immediately. Any fluid injected into skin must be surgically removed within a few hours or gangrene can result.

Engage Joystick lock (if equipped) and SCV control lever lock before attaching or detaching hydraulic hoses to prevent unintentional equipment injury and possible personal injury.

IMPORTANT: Hydraulic hoses can fail due to physical damage, kinks, age, and exposure. Check hoses regularly.

Any dirt, dust, or other foreign material can damage hydraulic system. Thoroughly clean hydraulic hoses and SCVs before connecting implement to tractor.

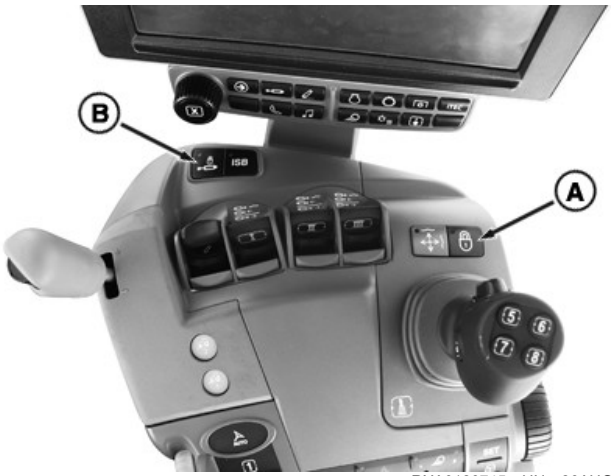
Steam cleaning or using a high pressure washer in the area around SCV connections and electronics may damage equipment. Any pressure washer exceeding 6895 kPa (69 bar) (1000 psi) should be kept a minimum of 200 mm (8 in) away from connections.

NOTE: See Attach Implement and Control System in TouchSet™ Depth Control Section of this Operator's Manual.

Hydraulic couplers at front of tractor (if equipped) are operated by joystick lever. Optional equipment available: Loader or front hitch with hydraulic outlets

Avoid confusion by making sure front hitch SCV hoses and couplers are correctly identified with appropriate SCV number button. Number buttons are available through your John Deere dealer.

1. Lock out SCV controls.



RXA0126745—UN—26AUG13

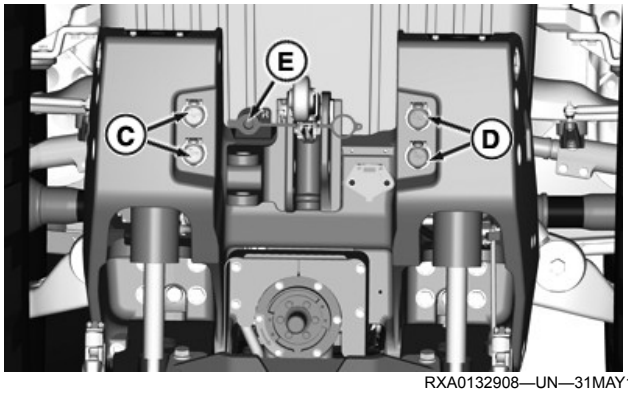
- Joystick Lever— Press Joystick lock (A).
- CommandARM™— Press SCV control lever lock (B).

2. Clean dust cap.

IMPORTANT: Correctly connect remote hydraulic hoses to couplers. If hose connections are reversed, machine will not respond to system controls as expected.

Front SCV Port Assignment
Extend = Top Port
Retract = Bottom Port
Motor Return Port (If Equipped)

3. Remove cap to expose coupler.
4. Push hose firmly into coupler.
   - If equipped with loader, see procedure in loader Operator's Manual to identify correct hose connections.



RXA0132908—UN—31MAY13

SCV Number	Color	Front Function
XIV	Black	Front SCV (D)
XV	Violet	Front SCV (C)

SCV Number	Color	Front Function
Motor Return	Black	Motor Return (E)

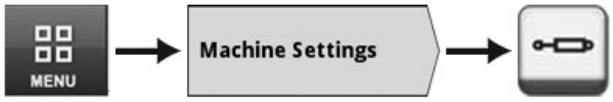
GH15097,0000432-19-14NOV17

Configure SCV Modes

CAUTION: Avoid unwanted movements and possible accidents. Do not operate front loaders in conjunction with Intelligent Total Equipment Control (iTEC™).

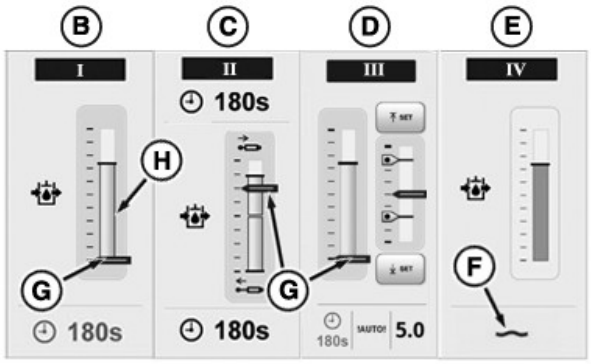
RXA0151873—UN—15APR16

Press SCV shortcut button (A) on Navigation Bar or follow alternative path:



RXA0148320—UN—05JUN15

1. Select **Menu.**
2. Select **Machine Settings tab.**
3. Select **SCV icon.**



RXA0151890—UN—15APR16

4. SCV Main Page appears.

NOTE: Flow indicators (G) on SCV Main Page example are shown for reference only. Flow Indicators will appear while SCV is activated and hydraulic oil is flowing. Flow display (H) appears whenever SCV is activated and hydraulic oil is flowing.

Each SCV can be configured in one of three different operating modes:

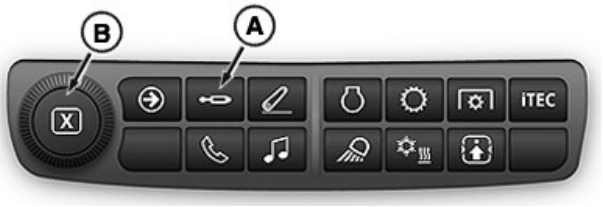
- Standard mode - SCV I (B).
- Independent mode - SCV II (C).
- Feature mode - SCV III (D).

Float symbol (F) appears when an SCV is set to float (SCV IV (E).

TS36762,00001EB-19-04APR18

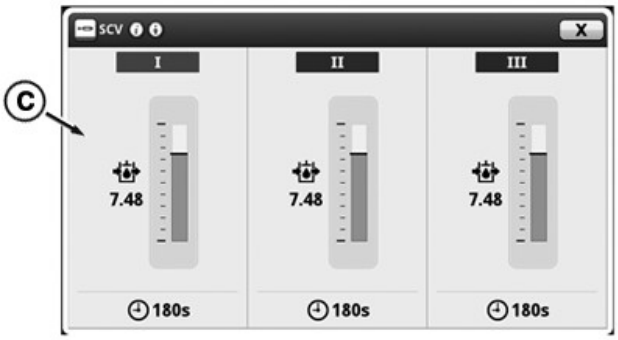
Configure SCV - Standard Mode

In standard mode, an SCV can have one time detent setting and one flow detent setting which apply to both extend and retract.



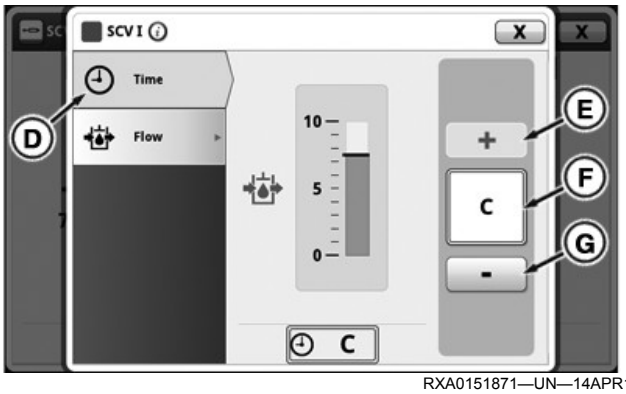
RXA0151869—UN—14APR16

Press **SCV shortcut button on Navigation Bar** (A).



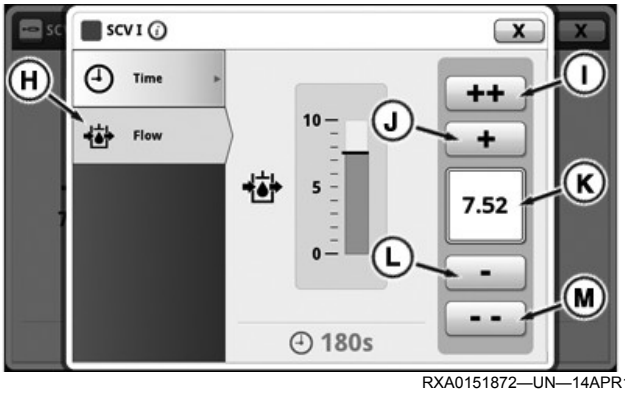
RXA0151870—UN—14APR16

1. Select an individual SCVs (C) to access Standard Mode.



RXA0151871—UN—14APR16

2. Select Time tab (D).
3. Input box (F) displays detent time set. Press increase button (+) (E) to increase time in 1 second increments up to 10 seconds, then in 2 second increments up to 20, then 5 seconds to 30, then by 30 seconds up to C for continuous flow. Pressing button (-) (G) decreases time by same increments. Adjustment dial (B) can also be used.



RXA0151872—UN—14APR16

4. Select Flow tab (H).
5. Input box (K) displays flow rate set. Flow is shown in increments of 0.04 beginning at 0.04 and increasing to 10. Press increase button (+) (J) will increase flow by 0.04 with each press. Press fast increase button (+ +) (I) to increase flow by units of 1.00. Pressing decrease button (-) (L) or fast decrease button (--) (M) reduces flow by same increments. Adjustment dial (B) can also be used to change flow rate.

TS36762,00001EC-19-21NOV16

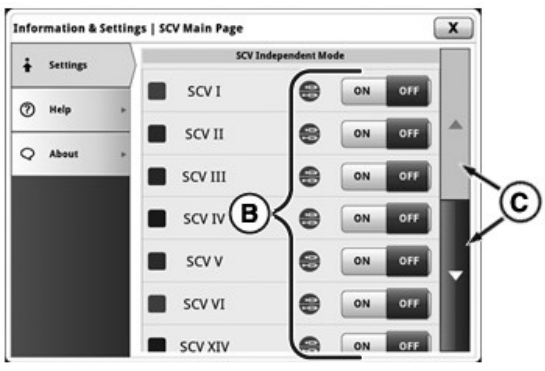
Activate Independent Mode

RXA0151873—UN—15APR16

1. Press **SCV shortcut button on Navigation Bar** (A).

RXA0130326—UN—11JAN13

2. Press **Advanced Settings Icon.**
3. Press **Settings tab.**



RXA0151874—UN—15APR16

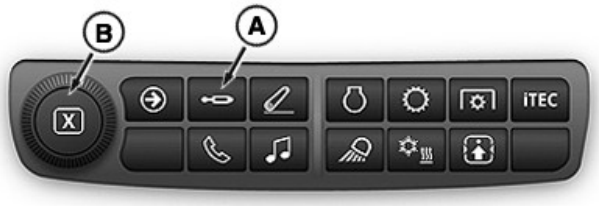
Use toggles (B) to switch Independent Mode on or off for each SCV.

When Independent Mode is off, SCV is in Standard Mode. Access any additional SCVs using scroll bar (C).

TS36762,00001ED-19-21NOV16

Configure SCV - Independent Mode

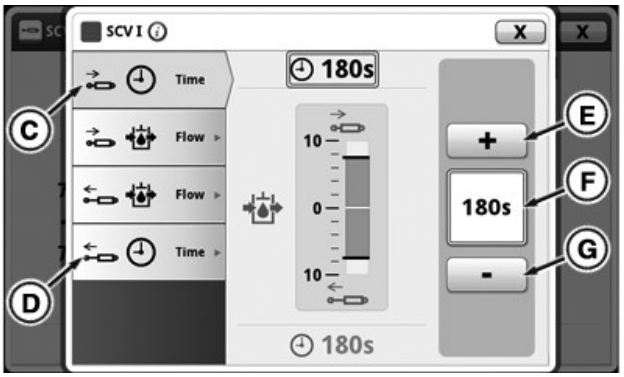
Some implements require different extend and retract times and flow detents to function correctly. SCVs in Independent Mode have two detent flow and two detent time settings, one for extend and one for retract.



RXA0151869—UN—14APR16

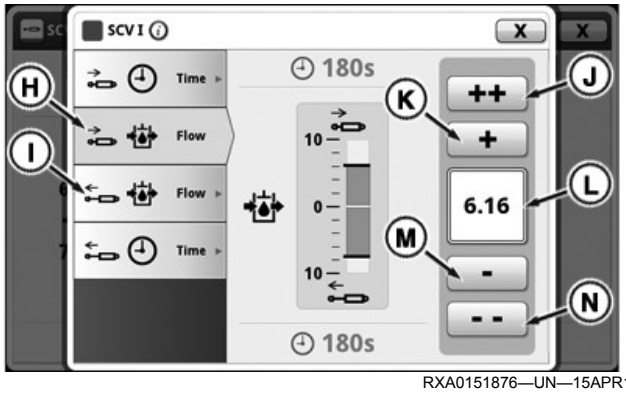
Press **SCV shortcut button on Navigation Bar** (A).

1. Select an SCV that is in Independent Mode.



RXA0151875—UN—15APR16

2. Select Detent Time Retract tab (C) or Detent Time Extend tab (D).
3. Input box (F) displays detent time set. Press increase button (+) (E) to increase time in 1 second increments up to 10 seconds, then in 2 second increments up to 20, then 5 seconds to 30, then by 30 seconds up to C for continuous flow. Pressing button (-) (G) decreases time by same increments. Adjustment dial (B) can also be used to change flow rate.



RXA0151876—UN—15APR16

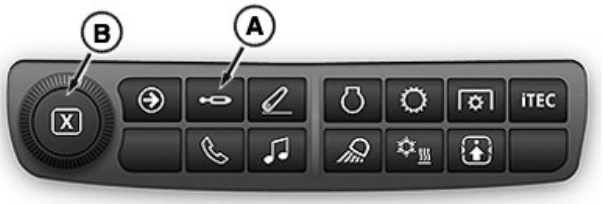
4. Select Detent Flow Retract tab (H) or Detent Flow Extend tab (I).
5. Input box (L) displays flow rate set. Flow is shown in increments of 0.04 beginning at 0.04 and increasing to 10. Press increase button (+) (K) will increase flow by 0.04 with each press. Press fast increase button (+ +) (J) to increase flow by units of 1.00. Pressing decrease button (-) (M) or fast decrease button (--) (N) reduces flow by same increments. Adjustment dial (B) can also be used to change flow rate.

TS36762,00001EE-19-05JUL17

Configure SCV - Feature Mode

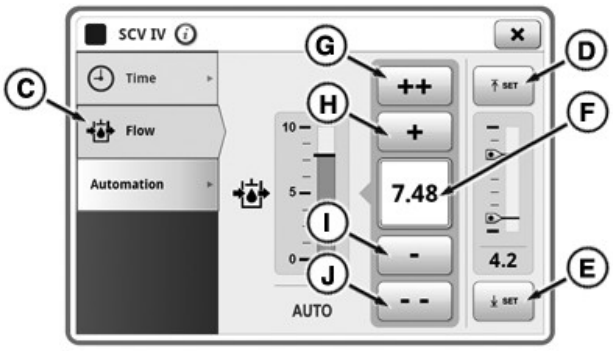
Feature mode requires an optional connector. To use feature mode, connect implement to tractor before turning key switch to ON. When connected through ISOBUS or implement connector, SCVs automatically enter feature mode and page displays with feature options.

1. Connect tractor to implement.



RXA0151869—UN—14APR16

2. Select SCV shortcut button (A) on navigation bar.
3. To adjust feature mode settings, select appropriate SCV.



RXA0151877—UN—15APR16

4. Select detent Flow tab (C).
5. Input box (F) displays flow rate setting. Flow adjustment is from 0.04 to 10. Selecting + (H) increases flow in increments of 0.04 and ++ (G) increases flow in increments of 1.00. Selecting - (I) or -- (J) decreases flow by same increments. Adjustment dial (B) can also be used to change flow rate.

NOTE: The implement controls detent Time.

Only TouchSet™ Depth Control uses upper and lower setpoint buttons (D) and (E). See Set TouchSet™ Depth Controls in TouchSet™ Depth Control section of this Operator's Manual.

TS36762,00001EF-19-13AUG18

Total Rear SCV Flow

1. Check flow setting for each function independently (see implement operator's manual Specifications section to determine correct motor flow settings).

   Following may cause pump to operate at high pressure:

   - Down pressure systems (drills, air seeders, disks) can be considered to be zero flow demand after completion of raise or lower cycle (see Implement Connection examples in Hydraulic Connections section).
   - Auxiliary flow control valves (vacuum flow control) - Open implement flow control valve and adjust tractor flow rate to desired setting (see Implement Connection examples in Hydraulic Connections section).
   - Cylinder functions where line or orifice restrictions control flow - Adjust tractor flow control to point where function speed begins to decrease.
   - Auxiliary control valves (implement stack valves, row guidance) adjust tractor flow control to lowest setting resulting in correct operation.

2. Determine total flow demand by adding flow requirements for each SCV using settings

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determined in Step 1. Include hitch and power beyond flow requirements, if applicable (refer to chart for correct settings).

3. Determine if flow demand exceeds available pump flow (refer to chart for available pump flow):
   - Flow demand is less than available pump flow but has performance concern (see your John Deere dealer).
   - Flow demand exceeds pump flow:
     - Increase engine RPM if possible.
     - Decrease flow setting on noncritical functions.
     - Convert implement open center valves to closed center operation, if equipped.

NOTE: Flow measurements made without steering or hitch being used.

Engine rpm	Approximate SCV Flow L/min (gpm)	
	Standard 85 cm^3 Pump	Standard 85 cm^3 Pump + Optional 35 cm^3 Pump
800	86 (23)	122 (32)
1500	162 (43)	229 (61)
1700	184 (49)	260 (69)
1900	206 (54)	290 (77)
2100	227 (60)	321 (85)

SCV Flow Settings	Approximate SCV Flow Output[a] L/min (gpm)	
	1/2 inch Coupler	3/4 inch Coupler High Flow[b]
0.1[c]	—	—
1.0	1.9 (0.5)[d]	4.3 (1.1) [d]
2.0	6.1 (1.6)	11.3 (3.0)
3.0	13.6 (3.6)	19.4 (5.1)
4.0	20.4 (5.4)	27.6 (7.3)
5.0	28.0 (7.4)	35.2 (9.3)
6.0	40.9 (10.8)	49.9 (12.4)
7.0	62.1 (16.4)	72.0 (19.0)
8.0	81.4 (21.5)	95.3 (25.2)
9.0	107.1 (28.3)	118.6 (31.4)
10.0	132 (35)	153 (40.5)

[a]At 2000 rpm and 454 kg (1000 lb) of load at point of use.
[b]Only available with 3/4 inch coupler option. The 3/4 inch coupler is only available for SCV I
[c]0.1 = Minimum Flow Setting
[d]Observed under no load.

Hitch Cylinder Diameter mm	Front Hitch Flow L/min (gpm)
90/90	61 (16.1)

Hitch Cylinder Diameter mm	Rear Hitch Flow L/min (gpm)
90/100	71 (18.7)
100/100	88 (23.2)
100/115	102 (26.9)
115/115	116 (30.6)

RD47322,000087B-19-05JUL17

Six Position SCV Control Levers

CAUTION: Avoid personal injury, confirm hoses are not reversed. If hoses are reversed, cylinder extends when it should retract.

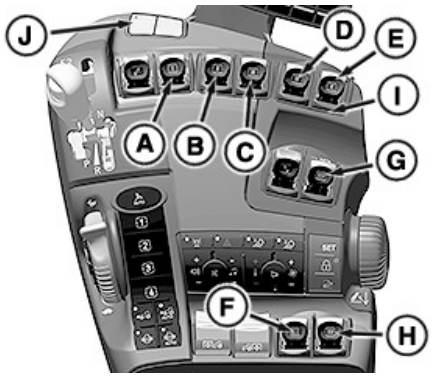
Prevent possible personal injury and unintentional implement movement. Move SCV levers to neutral position and shut off engine before connecting or disconnecting hydraulic hoses and attaching or detaching implements.

NOTE: SCV Control Levers can be reconfigured to control tractor functions and implements.

CommandARM™ configuration may vary depending on options.

SCV lever remains in Neutral and Float positions without being held.

Basic information provided here. See specific control information in this section of this Operator's Manual for details on each lever function.



RXA0156098—UN—09DEC16

- **SCV Control Lever Lock (J):** Locks out control inputs for SCV levers (A-H) and front hitch lever. While lever lock is engaged, SCV and front hitch external switches will still function
- **SCV lever cover (I):** Push forward when SCV is not in use.

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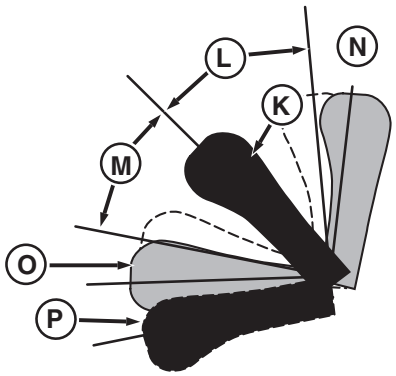


RXA0134902—UN—05AUG13

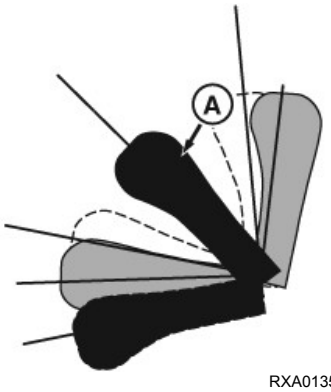
- **Neutral (K):** SCV flow is stopped.
- **Extend (L):** Operator controlled variable flow to extend cylinder.
- **Retract (M):** Operator controlled variable flow to retract cylinder.
- **Extend Detent Position (N):** Timed flow to extend cylinder, based on time and flow detent settings.
- **Retract Detent Position (O):** Timed flow to retract cylinder, based on time and flow detent settings.

NOTE: To relieve hydraulic pressure in implement cylinder, move SCV lever to float position (P), while engine is running.

- **Float (P):** SCV opens to allow free flow of oil from head to rod end of implement hydraulic cylinder.

TS36762,00001F5-19-06JUL17

SCV Control Lever—Neutral Position



RXA0135070—UN—20AUG13

Neutral position (A) allows flow to continue until timed detent expires. If no timed detent is commanded, then flow is turned off.

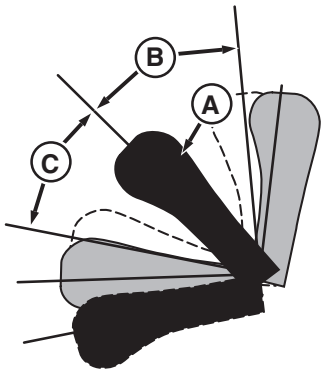
Levers in extend or retract positions automatically return to neutral when released. Float position remains detented.

NOTE: SCV control lever should be in neutral position at tractor startup.

At tractor startup, lever positions are ignored until lever is cycled to neutral.

RD47322,000087D-19-23JUN17

SCV Control Lever—Extend and Retract Position



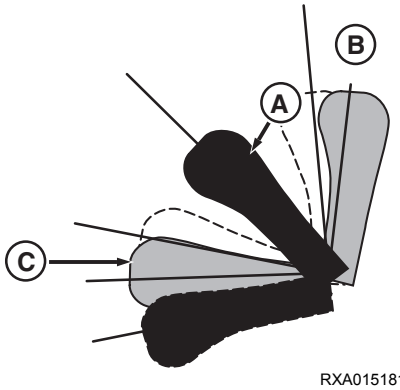
RXA0151813—UN—13APR16

Pull SCV lever (A) rearward (B) to extend. Push lever forward (C) to retract. Oil flows to extend or retract cylinder at a rate that varies depending on how far lever is moved. Slowest oil flow is when lever is closest to neutral position.

When lever is released it returns to neutral and flow is stopped. Maximum desired flow can be set with CommandCenter™, see Configure SCV - Standard Mode and Configure SCV - Independent Mode in this Operator's Manual section. Time detent settings are not active in extend or retract flow positions.

TS36762,00001F4-19-10APR18

SCV Control Lever—Extend Detent and Retract Detent Position



RXA0151814—UN—13APR16

Move SCV control lever (A) rearward into extend detent (B) or forward into retract detent (C) to "click" detent position and release.

Lever returns to Neutral position, but flow continues at flow detent setting rate until detent time setting has

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elapsed, see Configure SCV - Standard Mode and Configure SCV - Independent Mode in this Operator's Manual section.

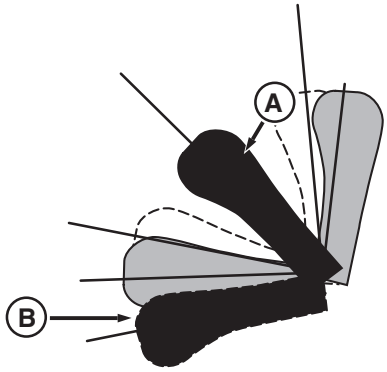
Flow timing begins when the lever returns to neutral after being in the extend or retract detent position for less than 0.8 seconds.

Adjust flow time setting so cylinder is fully extended when time has elapsed.

Cancel detent by moving SCV lever slightly forward or rearward from neutral into extend or retract position for more than 0.8 seconds.

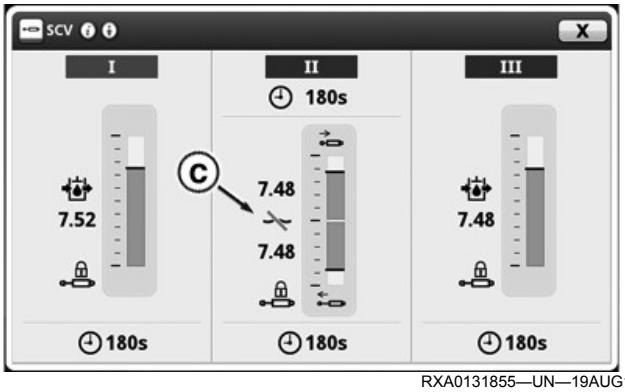
TS36762,00001F3-19-04APR18

SCV Control Lever—Float Position



RXA0151815—UN—13APR16

Push SCV control lever (A) all the way forward (B) to lock the lever in float position. Lever and SCV remain in float position until lever is manually returned to neutral. Cylinder is free to extend or retract, letting implement follow ground contour. Set maximum desired flow rate with CommandCenter™, see Configure SCV – Standard Mode or Configure SCV – Independent Mode in this Operator's Manual section. Time detent setting is not active in float positions



RXA0131855—UN—19AUG13

If lever is in float position at engine start up, float function will be disabled (C) until lever is cycled to neutral.

Cycle cylinder fully in both directions after being used in the float position to ensure cylinder is filled with oil.

TS36762,00001F6-19-04APR18

Operator Presence Sensor

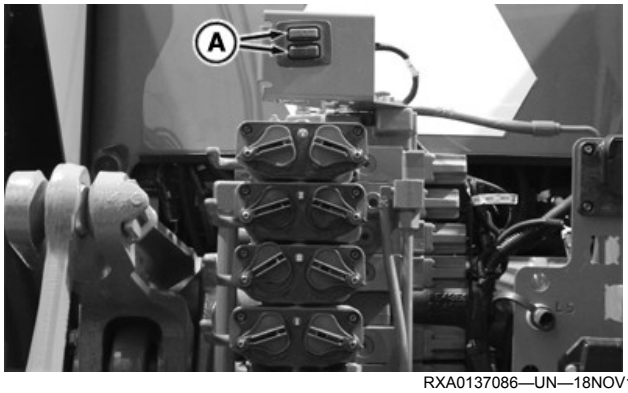
CAUTION: SCV does not disengage when operator leaves seat.

An audible warning sounds if operator leaves the seat with transmission in NEUTRAL, PTO engaged, or SCV operating in continuous or detent flow position. After 5 seconds, the audible warning stops.

TS36762,00001F7-19-21NOV16

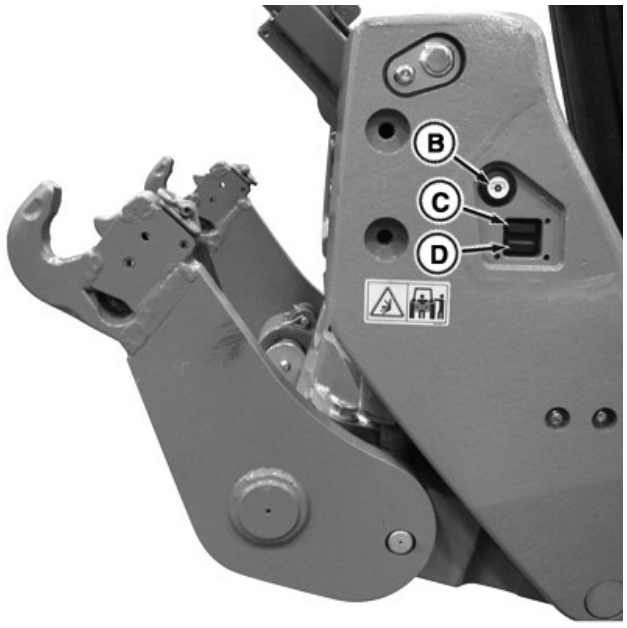
Hitch, SCV and PTO External Switches

CAUTION: To prevent injury or damage caused by tractor movement, be sure transmission is in PARK position before using external raise/lower switches. Stay clear of interference points when using external raise/lower switches.



RXA0137086—UN—18NOV13

Tractors without fender extensions have rear hitch external switches (A) mounted on valve stack.

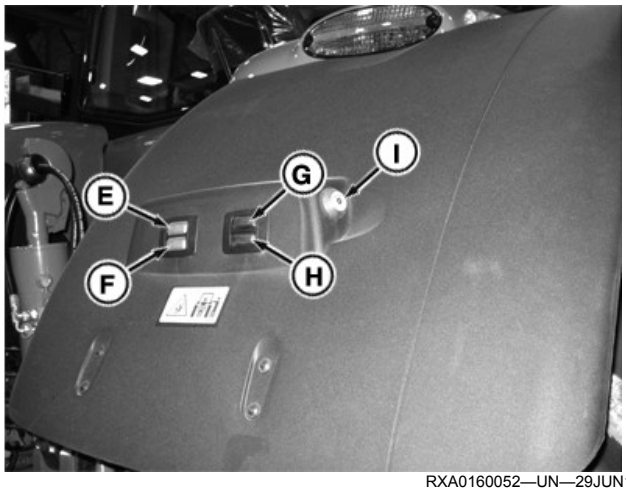


RXA0137087—UN—18NOV13

Front hitch and front PTO equipped tractors may also be equipped with front mounted external switches. Tractors

equipped with front hitch may have external raise (C) and lower switches (D). Tractors with front PTO may have external front PTO switch (B).

Fender Extension Switches (If Equipped)



RXA0160052—UN—29JUN17

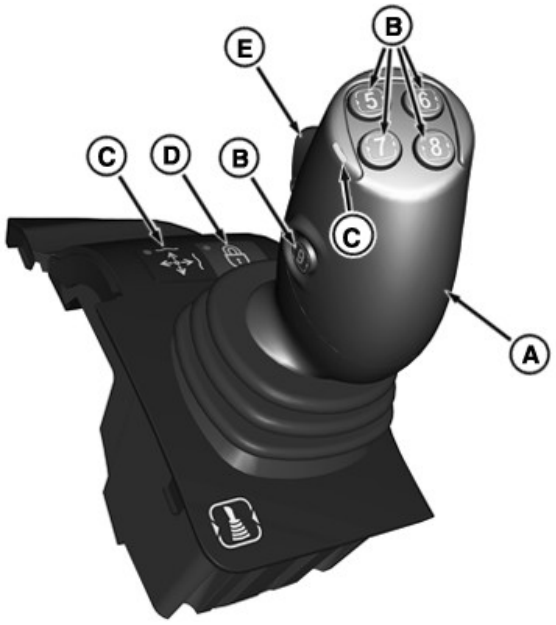
Tractors with optional fender extensions may have optional raise (G) and lower switches (H) on rear fenders. SCV III extend (E) and retract (F) switches are available for hydraulic center link. External rear PTO switch (I) is also available.

KT81203,00000E3-19-21AUG17

Operate SCVs With CommandARM™ Joystick (If Equipped)

RXA0133735—UN—17JUL13

- The Control Setup Icon appears around Controls that may be setup to control other functions. Review the Controls Setup page to verify the function of each control.



RXA0133920—UN—11NOV13

- The axes of the joystick (A) operates combinations of programmed front or rear SCV functions.
- Tractors equipped with e23™ transmission can select gear upshift (button 5) (B) and downshift (button 7) (B) for their joystick buttons on top of the lever.
- Joystick activation indicator light (C) is illuminated when joystick is active.
- Joystick lock (D) locks out electro-hydraulic functions for SCV assigned to Joystick.
- Rocker switch (E) operates combinations of programmed SCV functions.
- The operator can assign an SCV to a joystick axis but still be able to switch between an SCV control lever and the joystick control lever.
- The joystick overrides the SCV control lever of the SCV assigned to its axes when the joystick is enabled.
- Move joystick to the right twice in brief succession beyond the point of resistance and hold it there. This activates the bucket shake function. (Only when joystick loader mode setting is ON.)
- Push the joystick all the way forward and engage in detent to activate the float position. The joystick lever remains in the detent until it is pulled back. (Detent does not function in loader mode.)
- In Loader mode, time detents for SCVs assigned to the joystick axes cannot be adjusted, **only flow detents can be adjusted for those SCVs.**

KT81203,000093D-19-18MAY17

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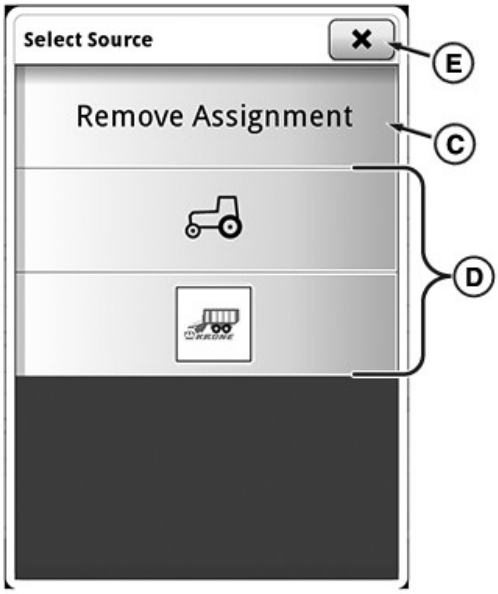
CommandARM™ Joystick (If Equipped) - Custom Setup

RXA0133715—UN—16JUL13

1. Press **Controls Setup Shortcut Button on Navigation Bar**.

RXA0156213—UN—16DEC16

2. Select Joystick (A).
3. Select desired reconfigurable assignment (B)

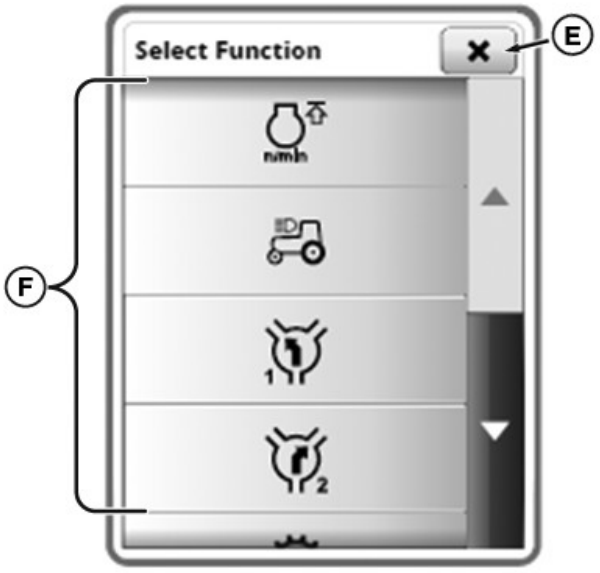


RXA0156214—UN—16DEC16

4. Select Source (D).

   To remove assignment, select Remove Assignment button (C).

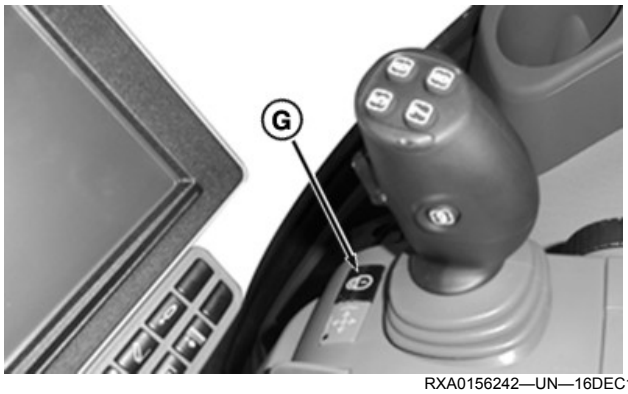
   To cancel assignment process, selecting close button (E).



RXA0156215—UN—16DEC16

5. Select Function (F).

   To cancel assignment process, selecting close button (E).



RXA0156242—UN—16DEC16

6. Unlock Joystick with Joystick Unlock/Lock button (G).

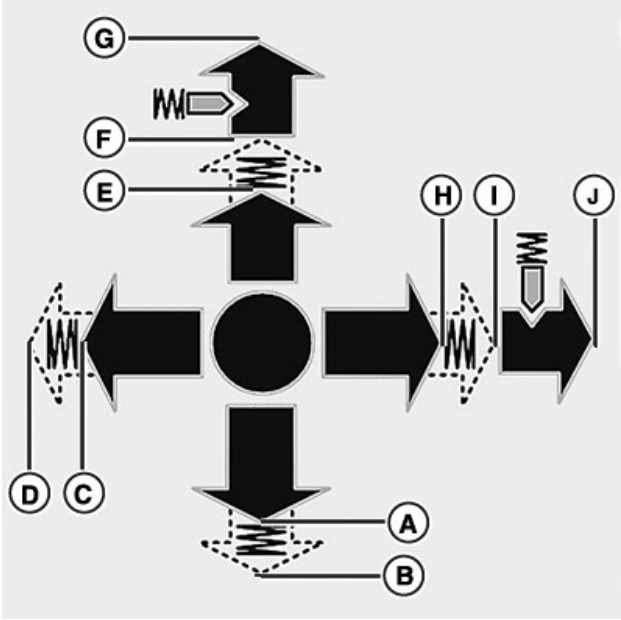
   Default assignments will activate automatically.

RXA0156241—UN—16DEC16

7. Select custom button (H) button to activate manually set assignments.

TS36762,00002A3-19-24JAN17

CommandARM™ Joystick (If Equipped) - Layout and Joystick Lever Functions



RXA0155031—UN—18OCT16

RXA0155032—UN—18OCT16

NOTE: The description of the joystick movements are made with the assumption that the hoses are connected so that extend is pulling the joystick back, retract is pushing the joystick forward. Moving the joystick to the left is extend and retract is to the right.

A Pull joystick back to extend.

B Pull joystick back **beyond** the point of detectable resistance to extend detent.

C Move joystick to the left to extend.

D Move joystick to the left **beyond** the point of detectable resistance to extend detent.

E Push joystick forward to retract.

F Push joystick forward **beyond** the point of detectable resistance to retract detent.

G Push joystick all the way forward and engage in detent to activate the float position.

H Move joystick to the right to retract.

I Move joystick to the right **beyond** the point of detectable resistance to retract detent.
Move the multi-function lever to the right twice in brief succession beyond the point of resistance and hold it there. This activates the bucket shake function.

J Move joystick all the way to the right and engage in detent to activate the float position.

K Move rocker switch up **beyond** the point of detectable resistance for extend detent.

L Move rocker switch down **beyond** the point of detectable resistance for retract detent.

Operator can set any SCV on any axis or rocker switch of the joystick.

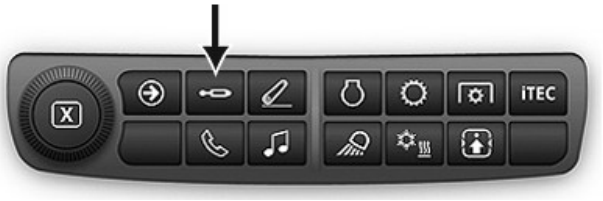
NOTE: Some functions shown may not be available depending upon what options the tractor is equipped with.

TS36762,00002A5-19-23NOV16

SCV and Joystick Flow Response Setting

SCV and Joystick response can be set to three different response curves: Linear, Progressive and Combination.

- **Linear** means that the flow rate of the SCV corresponds to the distance traveled by the SCV control lever/joystick lever.
- **Progressive** means that initially the flow rate of the SCV is less than that traveled by the SCV control lever/joystick lever (giving a more sensitive start to the movement).
- **Combination** is an intermediate stage between the two settings described above.

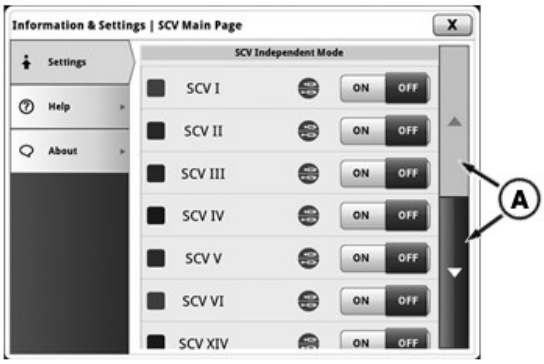


RXA0133709—UN—16JUL13

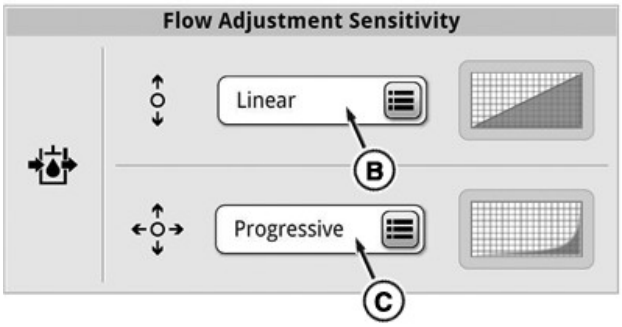
1. Press **SCV Shortcut Button on Navigation Bar.**

RXA0130326—UN—11JAN13

2. Press **Advanced Settings Icon.**
3. Press **Settings Tab.**

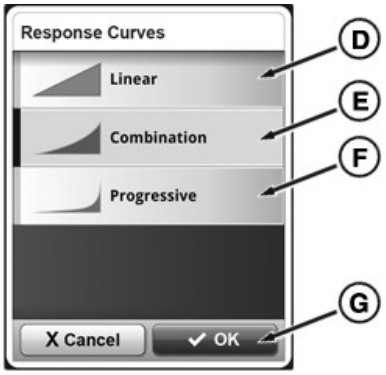


RXA0137874—UN—18DEC13



RXA0137875—UN—18DEC13

4. Using scroll bar (A), scroll down to flow adjustment sensitivity and press either SCV control lever (B) or joystick response (C) to adjust SCV response or joystick response.

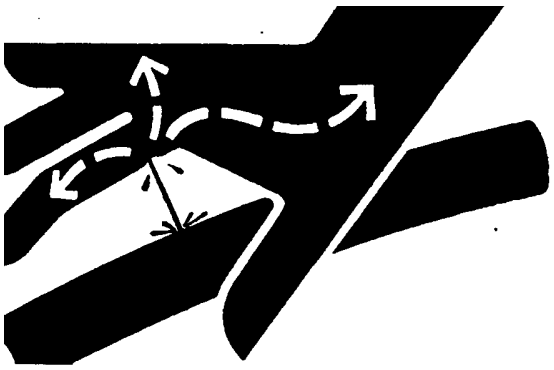


RXA0137876—UN—18DEC13

5. Then choose either Linear (D), Combination (E) or Progressive (F), then confirm using the OK button (G).

TS36762,00002A1-19-23NOV16

Connecting Hydraulic Hoses—Rear of Tractor



X9811—UN—23AUG88

CAUTION: Escaping fluid under pressure can penetrate the skin causing serious injury. Avoid the hazard by relieving pressure before disconnecting hydraulic or other lines.

If an accident occurs, see a doctor immediately. Any fluid injected into the skin must be surgically removed within a few hours or gangrene can result.

Hydraulic hoses can fail due to physical damage, kinks, age, and exposure. Check hoses regularly.

Prevent possible personal injury and unintentional implement movement. Move SCV levers to neutral position and shut off engine before connecting or disconnecting hydraulic hoses and attaching or detaching implements.

IMPORTANT: Dirt, dust, or other foreign material can damage hydraulic system. Thoroughly clean hydraulic hoses and SCVs before connecting implement to tractor.

Steam cleaning or using a high pressure washer in the area around the SCV connections and electronics can damage equipment. Any pressure washer exceeding 6895 kPa (69 bar) (1000 psi) should be kept a minimum of 200 mm (8 in) away from connections.

NOTE: See Attaching Implement and Control System in TouchSet™ Depth Control Section of this Operator's Manual.

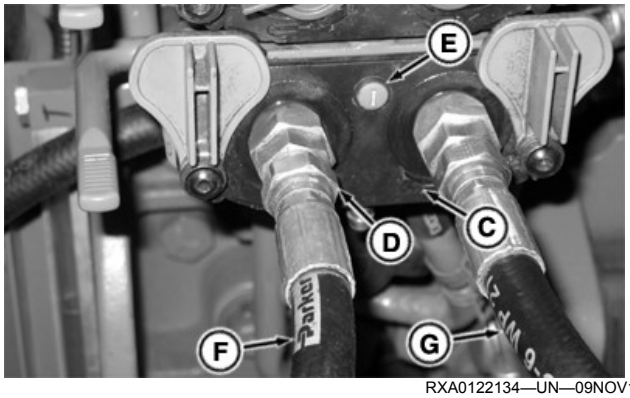
Connect Hydraulic Hoses

NOTE: Correctly connect remote hydraulic hoses to couplers. If hose connections are reversed, machine does not respond to system controls as expected. See Connect or Disconnect Hydraulic Hoses - Mid-Mount or Front SCVs in this section of this Operator's Manual.

RXA0155041—UN—18OCT16

1. Lock out SCV controls on:
   - Joystick, press joystick lock (A).
   - CommandARM™, press SCV control lever lock (B).
2. Clean dust covers. Rotate dust covers up to expose couplers.

NOTE: Remote cylinder receptacles are designated I through VI (E) with I being the bottom receptacle.



RXA0122134—UN—09NOV11

3. Check if symbols on coupler identification plate (C) or (D), indicating cylinder movement, match cylinder travel direction.
4. When using SCV with single-acting cylinders, plug hose into extend side of coupler (F). When connecting double-acting cylinders, extend side is left side and retract is right side (G).
5. Push hoses firmly into couplers.

Rear SCV
Extend= Left Port
Retract= Right Port

NOTE: SCVs are color coded for easier identification. Color coded hose identification kits are available from your John Deere dealer.

TouchSet is a trademark of Deere & Company

CommandARM is a trademark of Deere & Company

SCV Numbers And Corresponding Colors	
SCV Number	**Color**
I	Green
II	Blue
III	Brown
IV	Black
V	Violet
VI	Gray

RD47322,0000619-19-14NOV17

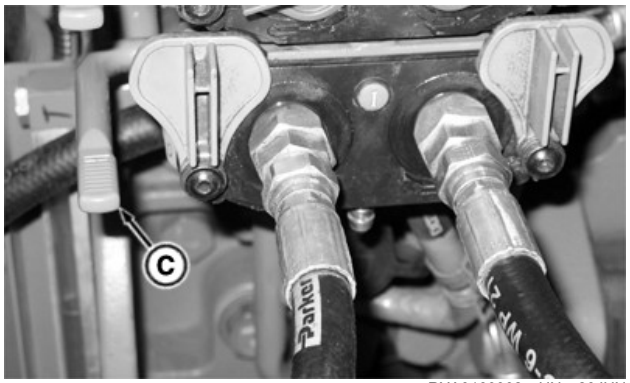
Disconnect Rear Hydraulic Hoses

CAUTION: Prevent possible personal injury and unintentional implement movement. Move SCV levers to neutral position and shut off engine before connecting or disconnecting hydraulic hoses and attaching or detaching implements.

1. Lower implement to ground before disconnecting hydraulic hoses.
2. Relieve hydraulic pressure in hoses by moving SCV control lever or joystick (If Equipped) to float position for a few seconds while engine is running.
3. Lock out SCV controls. On:

RXA0155042—UN—18OCT16

- Joystick, press joystick lock (A).
- CommandARM™, press SCV control lever lock (B).



RXA0160002—UN—26JUN17

Couplers with Release Levers

IMPORTANT: Forcing or jerking SCV hoses when disconnecting can damage hose ends and SCV couplers. If hoses cannot be removed easily, relieve pressure in hydraulic system by moving SCV lever to float position for a few seconds with engine running and using release lever (C) to extract hoses.

4. Push SCV hose release lever down slightly to relieve any pressure buildup of trapped oil before removing hoses.
5. Pull hoses straight out from couplers.
6. Clean coupler area before closing dust cover.
7. Rotate dust covers down to cover couplers.

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Hydraulic Component Identification

IMPORTANT: On 8R Wheel Series Tractors, the top SCV and the hitch valve return oil is sent back to sump. The SCV's below the hitch valve are directed back to charge pump. For implements requiring less back pressure use the SCV's above the hitch valve.

NOTE: Connecting hydraulic motors to the uppermost SCV can result in reduced tractor hydraulic performance and higher oil temperature causing excessive wear to the charge pump.

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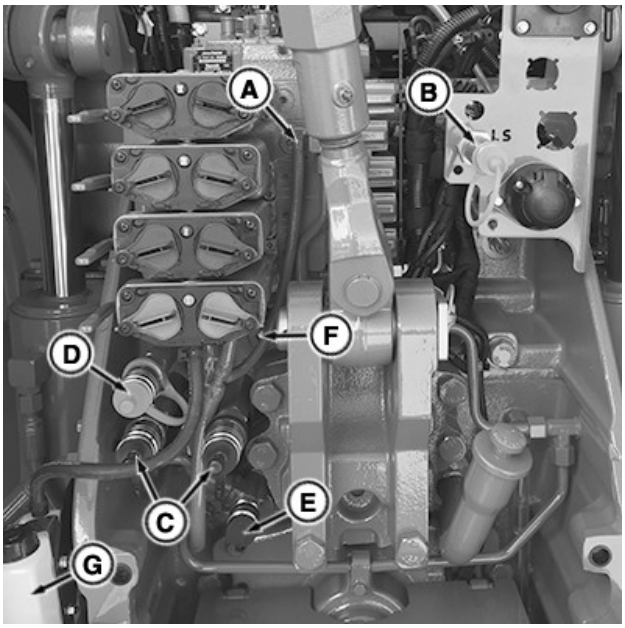

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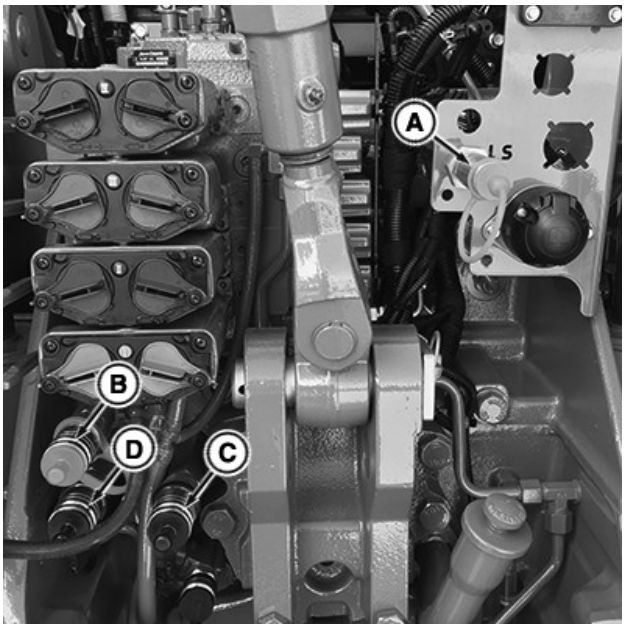
Rear Hydraulic Component Identification

A— Rear Hitch Valve
B— Power Beyond Load-Sense Coupler (Optional)
C— Return Ports
D— Pressure Port (Primary)
E— Motor Case Drain (To Sump)
F— Pressure Port (Limited Access)
G— SCV Drain Collection Bottle

RD47322,000060A-19-27JUN17



RXA0160032—UN—27JUN17

IMPORTANT: Motors without over-running check valves should be connected to motor return coupler (C, D) to prevent return line pressurization when SCV is returned to neutral.

Connect hoses to load sense coupler (A), pressure coupler (B), and return coupler (C or D).

RD47322,000060D-19-27JUN17

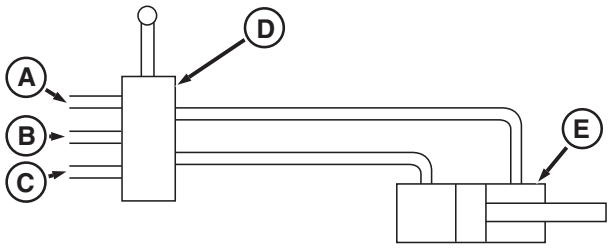
Using Load-Sensing Hydraulic System—*Power-Beyond*

Power beyond is used as a pressure/flow source for auxiliary functions equipped with independent flow control valves. Use power beyond when:

- Tractor SCV control is not needed
- When Implement control valve generates an external load sense signal to communicate flow demand to the pump.
- No other SCV outlet is available

Power beyond functions require a load sense signal to regulate pump pressure, therefore, a load sense hydraulic line is needed. Certain equipment can require modification. Special hydraulic couplers are available from your John Deere dealer.

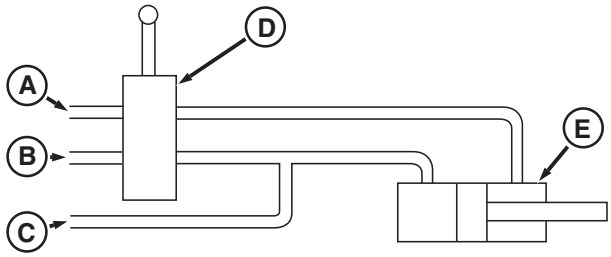
Examples Using Load-Sensing Hydraulic System—Power-Beyond



RXA0138783—UN—28JAN14

***Example 1* —Control valves with a load-sense provide a load-sense signal to hydraulic system and can be operated manually or by solenoids.**

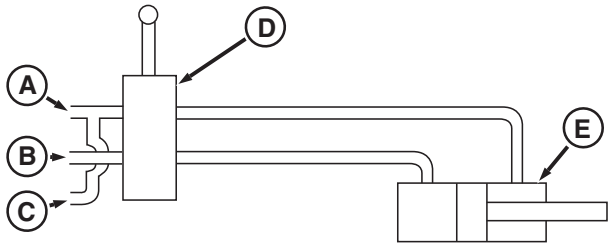
NOTE: Example 1 is the preferred practice.



RXA0138782—UN—28JAN14

***Example 2* —Control valve directs oil into extend or retract circuits. Connect load-sense line to circuit requiring pressure. An example is a wagon lift cylinder with load supported by mechanical stops in full down position. Load-sense signals pump when increased pressure is needed. Pressure remains low when load is supported by mechanical stops.**

IMPORTANT: Circuit allows cylinder "leak-down" through load-sense line (C). If leakage is not acceptable for operation, use Example 3.

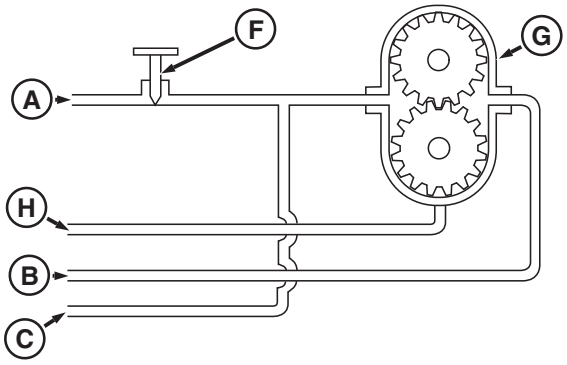


RXA0138269—UN—17JAN14

***Example 3*—Control valve directs oil into extend or retract circuits, either requiring high pressure. Connect load-sense line to pressure line before control valve.**

IMPORTANT: System will maintain a maximum pressure of 20000 kPa (200 bar) (2900 psi) as long as power-beyond hoses are connected.

An example is a folding implement, where pressure is needed to extend or retract cylinders.



RXA0138270—UN—17JAN14

A— Pressure Line
B— Return Line
C— Load-Sense Line
D— Control Valve
E— Cylinder
F— Pressure-Compensated Flow Valve
G— Hydraulic Motor
H— Motor Case Drain (Sump Line)

***Example 4*—Pressure-compensated flow control valve is used to regulate hydraulic motor speed. Connect load-sense line to pressure line after control valve.**

NOTE: Motor speed can fluctuate when other functions cause system pressure change. Minimize fluctuations by installing a pressure-compensated flow control valve.

NOTE: For Ag high flow, it is recommended that the hydraulic motor be connected to the top SCVs (85 cc high flow pump).

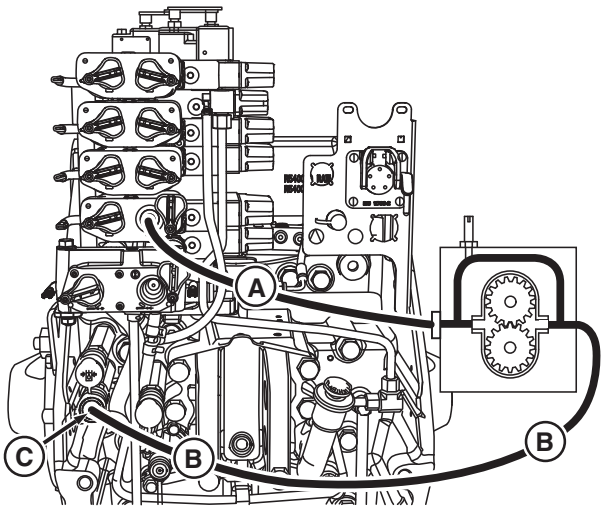
High flow scraper hydraulics is not recommended for motor application.

RD47322,00002D5-19-20FEB18

Using Hydraulic Spray Pumps

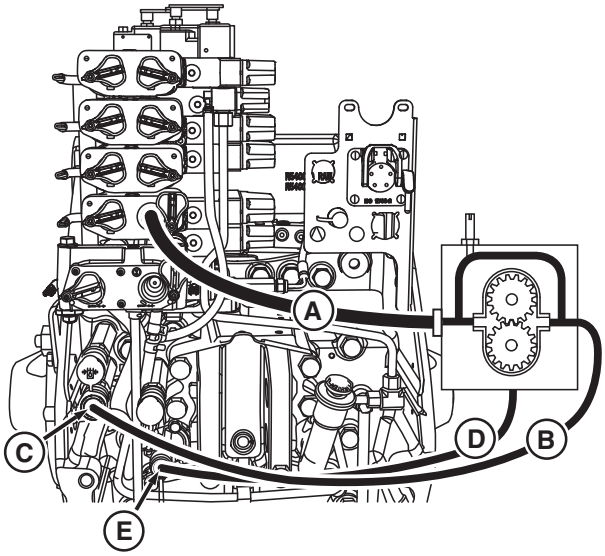
1. Follow spray pump manufacturers recommendations for pump model selection, setup and operation.

NOTE: Select the smallest displacement motor recommended for multiple hydraulic function operation. The smaller displacement will lower total hydraulic flow demand and improve overall system performance.



RXA0159777—UN—14JUN17

Spray Pump



RXA0159778—UN—14JUN17

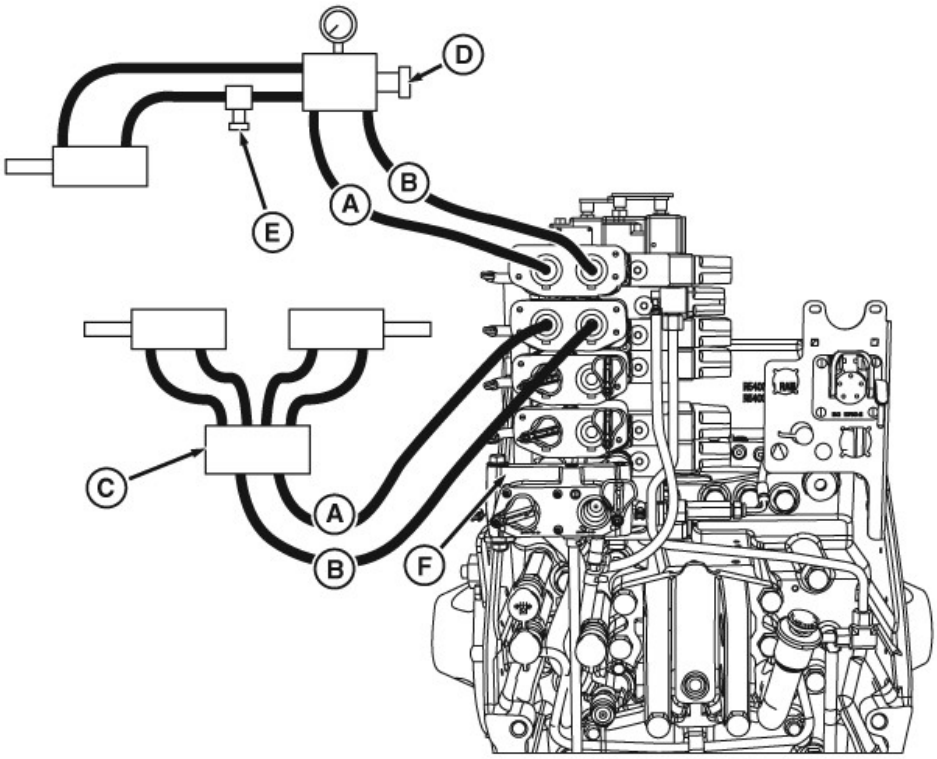
Spray Pump with Drain Directly to Sump (Zero Back Pressure)

2. Connect motor pressure line (A) to retract port of SCV (right-hand side).
3. Connect return line (B) to power beyond return coupler (C).
4. Some hydraulic motors have a separate case drain line for internal leakage. The case drain line (D) must be routed to the hitch frame drain port (E) to direct oil to sump (zero back pressure).
5. Activate SCV by moving lever forward to retract detent position and adjust hydraulic flow rate per pump manufacturers guidelines.
6. Shut off spray pump by moving SCV control lever to float position (full forward and down). Stopping spray pump by moving SCV to neutral position will cause high pressure oil to be trapped between SCV and pump. This may cause damage to spray pump seals. This also applies to other motors using the SCV pressure and return couplers.

IMPORTANT: Some motors are not equipped with over-speed protection. Extended operation above recommended speed can cause failure.

RD47322,0000831-19-04APR18

Implement Connection, Example 1—Pressure Control Valve Applications (Grain Drills or Air Seeders with Constant Down-Pressure System)



RXA0129057—UN—23OCT12

A— Extend Coupler Line
B— Retract Coupler Line
C— Selector Valve
D— Pressure Control Valve
E— Implement Transport Lock Valve
F— High Flow 3/4” Hydraulic Coupler (Optional)

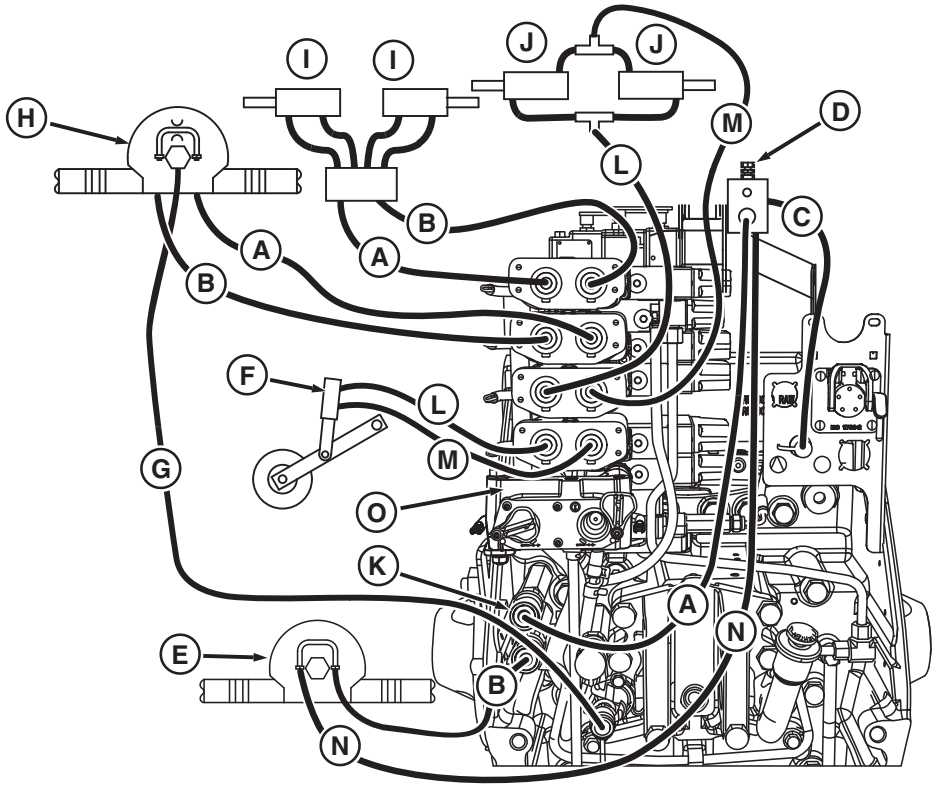
NOTE: Connecting hydraulic motors to the uppermost SCV can result in reduced tractor hydraulic performance and higher oil temperature causing excessive wear to the charge pump.

RD47322,0000832-19-27JAN15

For implements using active down force set flow control to continuous and move lever to retract detent position.

This will cause hydraulic pump to operate at maximum pressure which may cause overheating of hydraulic oil if operating hydraulic motors on other SCV's at same time outside air temperature is high. To avoid this problem, keep the number of motors to a minimum when active down force is being used.

Implement Connection, Example 2—Motor Application Using Motor Case Drain



RXA0129047—UN—08MAY13

A— Pressure Line
B— Return Line
C— Load Sense Line
D— Control Valve
E— Vacuum Motor
F— Raise/Lower Cylinder
G— Motor Seal Drain Line
H— Second Motor
I— Marker
J— Fold
K— Power Beyond Return Port
L— Extend Coupler Line
M— Retract Coupler Line
N— Controlled Flow Line
O— High Flow 3/4" Hydraulic Coupler (Optional)

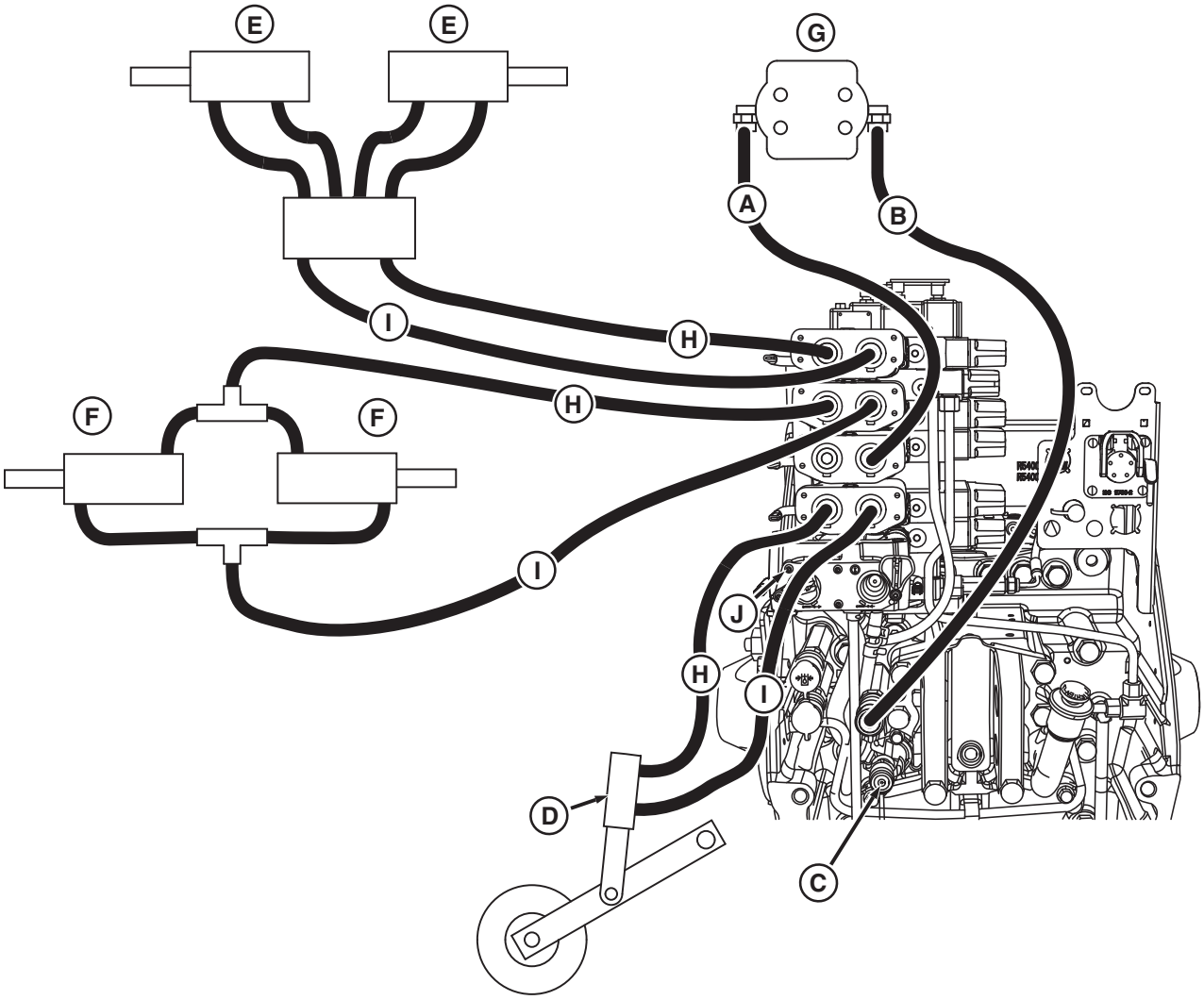
In this application, vacuum motor (E) is being operated from power beyond which requires a load sense connection (C) to signal hydraulic pump for operation.

The second motor (H) is equipped with motor case drain line (G). Pressure oil comes from the retract port on the SCV and return oil is routed to the extend port. When motor return oil is routed to an SCV, a special return hose tip with check valve is required to prevent high pressure oil from moving back toward the motor and possibly damaging the seals. When the motor is shut off, the SCV lever is moved to float position to allow motor to coast to a stop. Moving lever to neutral will cause motor to stop abruptly and may damage seals.

NOTE: Connecting hydraulic motors to the uppermost SCV can result in reduced tractor hydraulic performance and higher oil temperature causing excessive wear to the charge pump.

RD47322,0000833-19-27JAN15

Implement Connection, Example 3—Motor Application Using SCV Retract and Auxiliary Motor Return



RXA0129048—UN—08MAY13

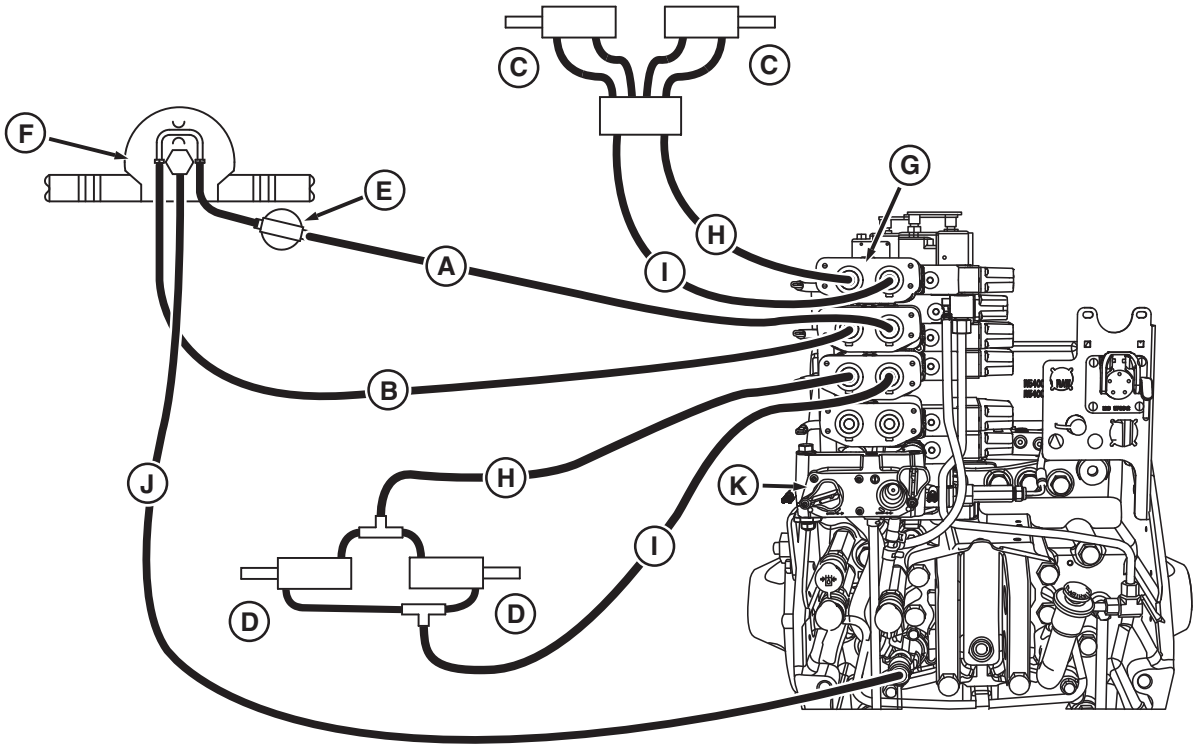
A— Pressure Line
B— Return Line
C— Motor Case Drain (To Sump)
D— Raise/Lower cylinder
E— Markers
F— Fold
G— Hydraulic Motor
H— Extend Coupler Line
I— Retract Coupler Line
J— 3/4” Hydraulic Coupler (Optional)

In this application motor (G) receives pressure oil from the retract port on SCV. Return oil is routed to power beyond return port. When the motor is shut off, the SCV lever is moved to float position to allow motor to coast to a stop. Moving lever to neutral can cause motor to stop abruptly and may damage seals. Since return oil is routed to power beyond return port, no special hose tip is required.

NOTE: Connecting hydraulic motors to the uppermost SCV can result in reduced tractor hydraulic performance and higher oil temperature causing excessive wear to the charge pump.

RD47322,0000834-19-27JAN15

Implement Connection, Example 4—Planter with Vacuum Motor and Return Line to SCV Using Motor Return Tip



RXA0129051—UN—08MAY13

A— Pressure Line
B— Return Line
C— Marker
D— Fold
E— Flow Control Valve (Wide Open)
F— Vacuum Motor
G— Special Return Hose Tip
H— Extend Coupler Line
I— Retract Coupler Line
J— Case Drain Line - (For motor returns equipped with case drain only)
K— 3/4” Hydraulic Coupler (Optional)

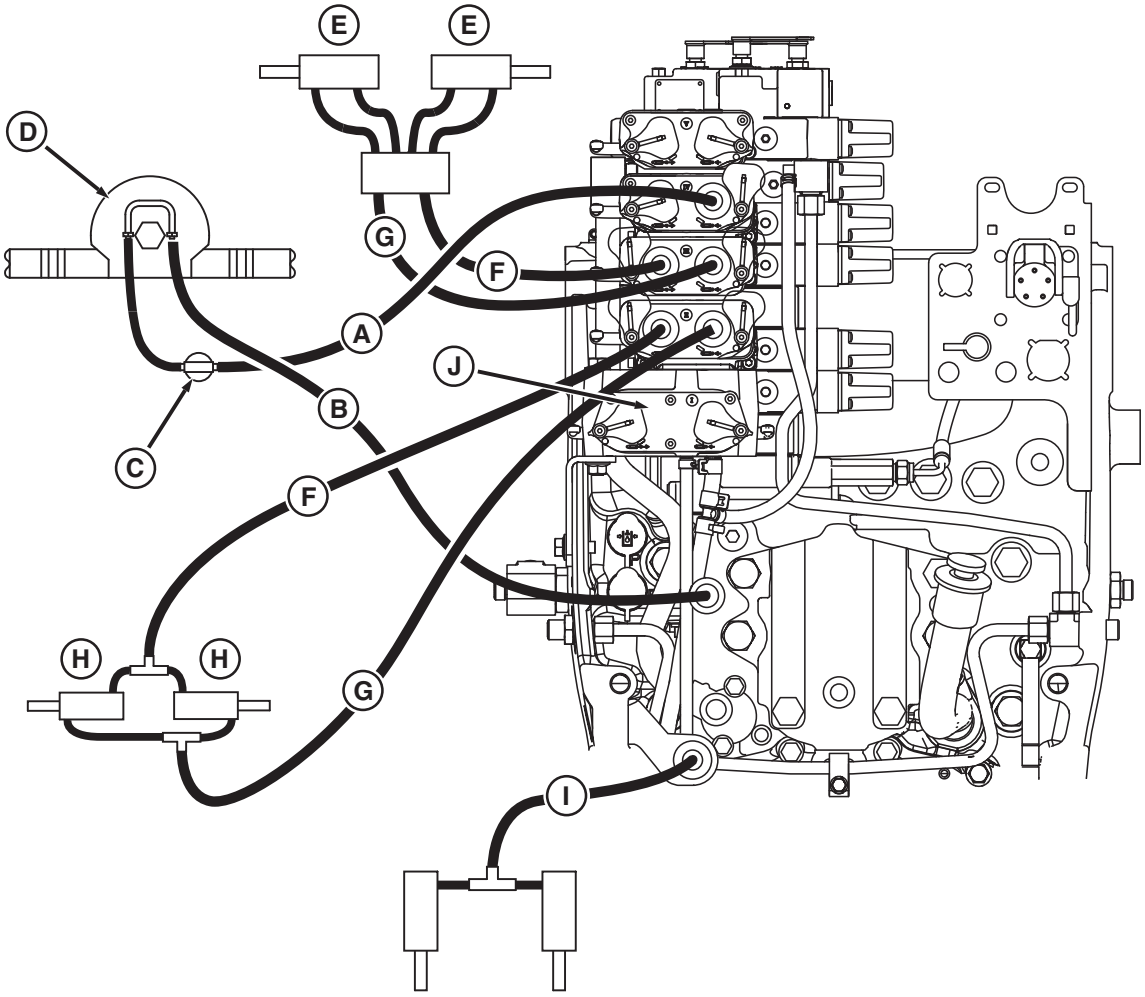
In this application vacuum motor (F), similar to a planter blower, receives pressure oil from the retract port on SCV. Since return oil is routed to an SCV, a special return hose tip (G) with check valve is required to prevent high pressure oil from moving back toward the motor and possibly damaging the seals. When motor is shut off, the SCV lever is moved to float position to allow motor to coast to a stop. Moving lever to neutral will cause motor to stop abruptly and may damage seals.

Flow control valve (E) should be wide open and flow controlled by SCV setup panel. If flow is controlled by flow control valve, it will cause hydraulic pump to operate at maximum pressure which may cause overheating of hydraulic oil if operating at same time outside air temperature is high.

NOTE: Connecting hydraulic motors to the uppermost SCV can result in reduced tractor hydraulic performance and higher oil temperature causing excessive wear to the charge pump.

RD47322,0000835-19-27JAN15

Implement Connection, Example 5—Planter with Vacuum Motor, Return Line to Motor Return and Lift Assist



RXA0129153—UN—12NOV12

A— Pressure Line
B— Return Line
C— Flow Control Valve (Wide Open)
D— Vacuum Motor
E— Fold
F— Extend Coupler Line
G— Retract Coupler Line
H— Markers
I— Lift Assist
J— High Flow 3/4” Hydraulic Couplers (Optional)

In this application vacuum motor (D) receives pressure oil from the SCV retract port. Return oil is routed to power beyond return port. If return hose is equipped with special return hose tip, it can be connected directly to SCV #3 extend port. When the motor is shut off, the SCV lever is moved to float position to allow motor to coast to a stop. Moving lever to neutral will cause motor to stop abruptly and may damage seals.

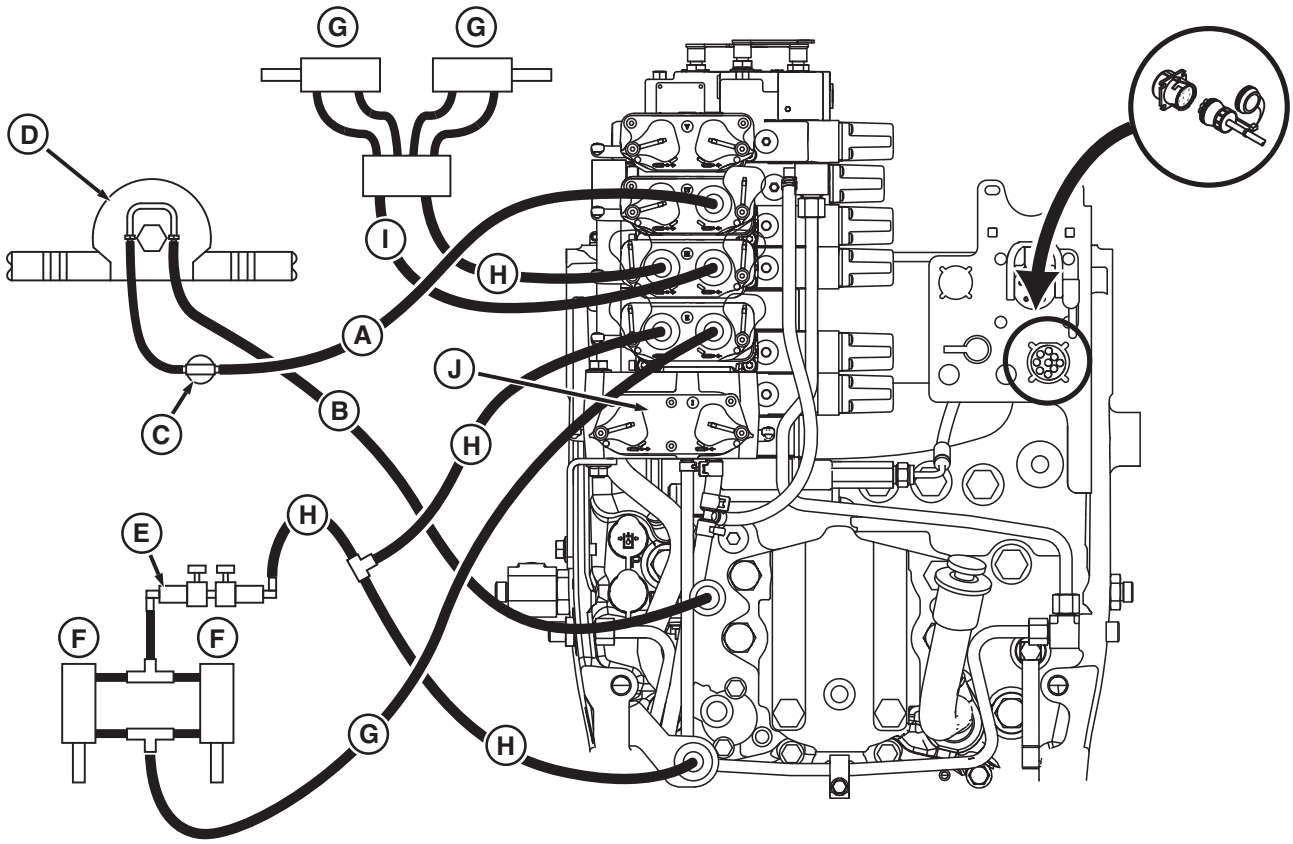
Control valve (C) is wide open and flow is controlled by tractor control panel. If valve is used to control oil flow, pump will operate at maximum pressure which may cause overheating of hydraulic oil if operating at same time outside air temperature is high.

Lift assist cylinder oil is connected to auxiliary hitch valve port which is controlled by hitch command lever settings in the cab.

NOTE: Connecting hydraulic motors to the uppermost SCV can result in reduced tractor hydraulic performance and higher oil temperature causing excessive wear to the charge pump.

RD47322,0000836-19-27JAN15

Implement Connection, Example 6—Planter with Vacuum Motor and Return Line to Motor Return



RXA0129162—UN—12NOV12

A— Pressure Line
B— Return Line
C— Flow Control Valve (Wide Open)
D— Vacuum Motor
E— Control Valve
F— Lift Assist
G— Markers
H— Extend Coupler Line
I— Retract Coupler Line
J— 3/4" Hydraulic Coupler (Optional)

In this application vacuum motor (D) receives pressure oil from the retract port of SCV. Return oil is routed to power beyond return port. If return hose is equipped with special planter return hose tip, it can be connected directly to SCV #3 extend port. When the motor is shut off, the SCV lever is moved to float position to allow motor to coast to a stop. Moving lever to neutral will cause motor to stop abruptly and may damage seals.

Control valve (C) is wide open and flow is controlled by tractor control panel. If valve is used to control oil flow, pump will operate at maximum pressure which may cause overheating of hydraulic oil if operating at same time outside air temperature is high.

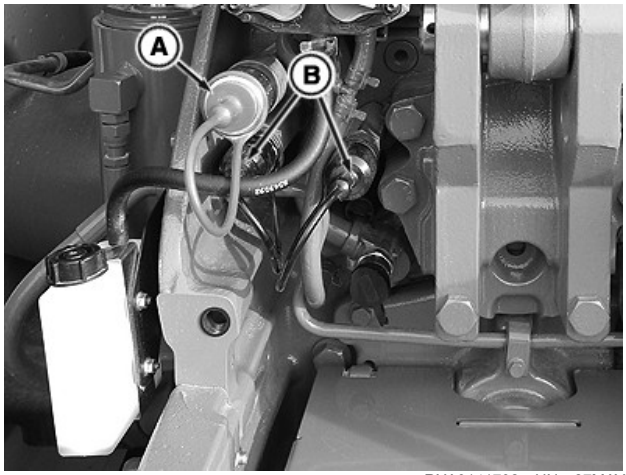
In this configuration, SCV #1 is being used to control both the hitch valve and lift assist. The special 9-pin harness contains a loop circuit that disables tractor hitch control unit when it is connected to 9-pin connector that is wired into tractor main electrical harness.

NOTE: Connecting hydraulic motors to the uppermost SCV can result in reduced tractor hydraulic performance and higher oil temperature causing excessive wear to the charge pump.

RD47322,0000837-19-27JAN15

Using Hydraulic Motor Return

Hydraulic motor return kit provides a convenient port to access the tractor low pressure return circuit.



RXA0141702—UN—27MAY14

NOTE: Pressure port coupler (A) is used for supply lines only. Do not attempt to attach with return line.

Remove return port plug and install hydraulic motor return coupler (B). Connect return hose to coupler, making sure hose end and coupler are clean.

Using the motor return coupler will prevent:

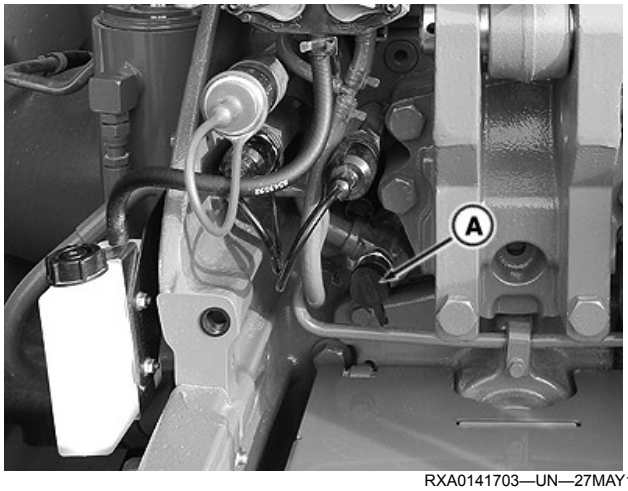
- Inadvertent reverse operation.
- Pressurization of auxiliary function return line.
- Potential flow checking of the return-side SCV coupling.

NOTE: Motors without overrunning check valves should be connected to the motor return coupler to prevent return line pressurization when SCV is returned to neutral.

Combining of return flows through a single coupler may result in excessive return line pressure. Use the multiple return couplers if additional return circuit connections are required.

RD47322,0000838-19-04APR18

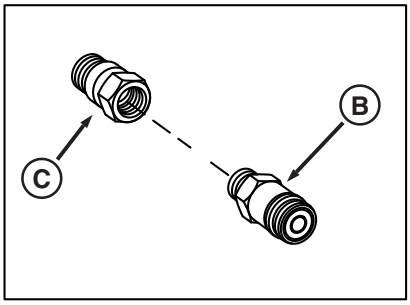
Using Hydraulic Motor Case Drain



RXA0141703—UN—27MAY14

Remove motor case drain plug (A) and install a hydraulic sump coupler available from your John Deere dealer. Connect motor case or seal drain hose to coupler, making sure hose end and coupler are clean.

This allows oil to drain directly to reservoir (differential case) from hydraulic motor, by-passing remote coupler, SCV, and filter.



RXA0159779—UN—14JUN17

NOTE: Couplers may vary depending on equipment. Early seeding equipment uses a standard coupler. Newer seeding equipment may require a flush face coupler (B) and adapter (C).

RD47322,0000839-19-26JUN17

Using Implements Requiring Large Volumes of Oil

IMPORTANT: Removing too much oil can result in malfunction when raising hitch or using extend function of SCVs.

Do not add oil to hydraulic system with engine running.

If more oil capacity is needed for large one-way

cylinders, an optional field installed auxiliary reservoir is available. See your John Deere dealer.

To determine if sufficient oil is available for implement being used:

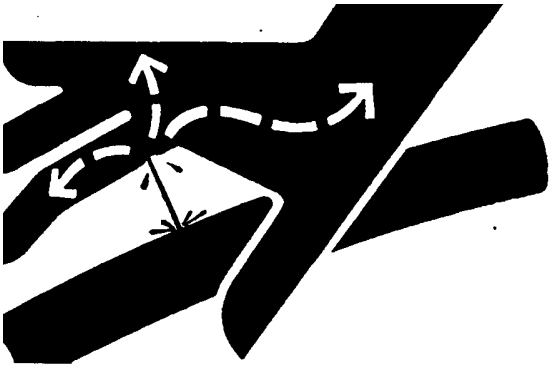
- Cycle all implement cylinders after starting tractor.
- Check transmission-hydraulic oil levels see Transmission-Hydraulic Oil Level in Service - Check section of this Operator's Manual.
- Add oil if necessary.
- Lower implement to return oil to reservoir.
- Recheck oil level when implement is removed.
- Drain excess oil if necessary.

TS36762,00001FF-19-04APR18

Attaching Implement and Control System

IMPORTANT: Hydraulic Option Connector Reset Procedure:

1. **With the Ignition key in the STOP (off) position, disconnect hydraulic option connector harness from tractor.**
2. **Start tractor, wait until display comes up, stop tractor.**
3. **Connect hydraulic option connector harness to tractor.**
4. **Start tractor, optional hydraulic function should now be available.**



X9811—UN—23AUG88

CAUTION: Escaping fluid under pressure can penetrate skin causing serious injury. Avoid hazard by relieving pressure before disconnecting hydraulic or other lines.

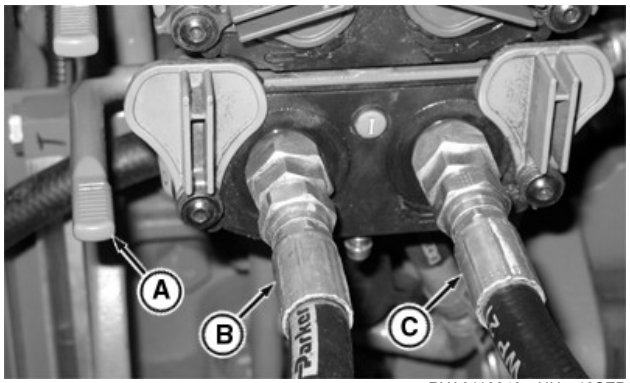
If an accident occurs, see a doctor immediately. Any fluid injected into skin must be surgically removed within a few hours or gangrene can result.

IMPORTANT: Hydraulic hoses can fail due to physical damage, kinks, age, and exposure. Check hoses regularly.

Any dirt, dust, or other foreign material can damage hydraulic system. Thoroughly clean hydraulic hoses and SCVs before connecting implement to tractor.

Steam cleaning or using a high pressure washer in the area around the SCV connections and electronics can damage equipment. Any pressure washer exceeding 6895 kPa (69 bar) (1000 psi) should be kept a minimum of 200 mm (8 in) away from connections.

NOTE: Hose identification kits are available from your John Deere dealer.



RXA0110340—UN—13SEP10

1. Identify extend (B) and retract hose (C).
2. If using drawn implement, back tractor into position and attach implement to drawbar. Be sure that hitch pin is locked into position.

CAUTION: Prevent possible personal injury. Shut off engine, move SCV lever to neutral position and lock out SCV controls before attaching implements to prevent implement movement.

IMPORTANT: Always shut off engine before connecting/disconnecting implement position sensor. Connect/disconnect with engine running can cause system faults. Shut off engine and restart to restore correct function.

3. Shut off engine.

IMPORTANT: Be sure to correctly connect remote hydraulic hoses to couplers. If hose connections are reversed, implement will not respond to system controls as expected.

SCV		
Location	Action	
	Left Port	Right Port
Rear	Extend	Retract

NOTE: Coupler Lever (A) is used only to disconnect hoses from couplers.

Connect implement hydraulic hoses. Push hose tips into couplers to connect implement hoses, see Hydraulic Connections section of this Operator's Manual.

RXA0155869—UN—18NOV16

Install implement position connector to tractor wiring harness connector (D).

TS36762,0000202-19-04APR18

Reset Implement Connector

If implement is not responding to commands or Diagnostic Trouble Code (DTC) is present implement may require reset, to reset implement:

1. Shut off tractor and allow system to fully shut down.
2. Disconnect implement harness from implement connector.
3. Start tractor and allow operating system to fully load.
4. Shut off tractor and allow operating system to fully shut down.
5. Connect implement harness to implement connector.
6. Start tractor and allow operating system to fully load, if implement fails to respond, see your John Deere dealer.

DB71512,0000002-19-26JUN17

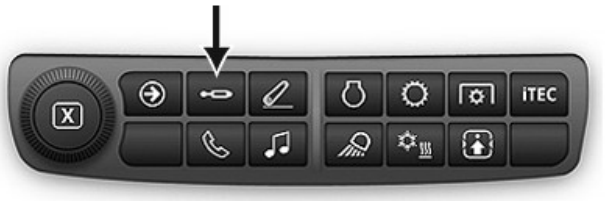
Set TouchSet™ Depth Controls

CAUTION: Avoid personal injury or death. Do not attempt to install depth control sensors on implements not intended for this system. See implement Operator's Manual.

Moving implement control unit, sensor, connectors, or linkages, when engine is running, can cause unexpected movement. Stay clear of implement when starting engine.

SCV I is used to control raising, lowering, and setting of implement depth electronically without leaving cab.

1. Connect implement to tractor using SCV I.



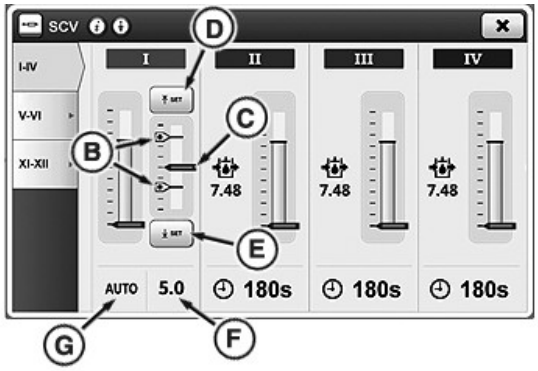
RXA0133709—UN—16JUL13

2. Press SCV shortcut button on navigation bar or follow alternative path.

RXA0127933—UN—04SEP12

3. Select Menu.
4. Select SCV icon.

NOTE: When using TouchSet™, SCV must be set for feature mode. See Configure SCV - Feature Mode in Selective Control Valves section of this Operator's Manual.



RXA0131879—UN—10APR13

Upper and lower set points are stored using upper set button (D) and lower set button (E). Indicators (B) display set point positions and indicator (C) displays current position of implement.

RXA0156097—UN—09DEC16

SCV I lever (A) adjustments with TouchSet™ in AUTO (G):

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- Extend or retract detent commands implement to move to upper or lower set point.
- Moving lever into extend or retract region and quickly returning it to center position adjusts implement up or down by fixed amount. Each bump moves implement from previous position.

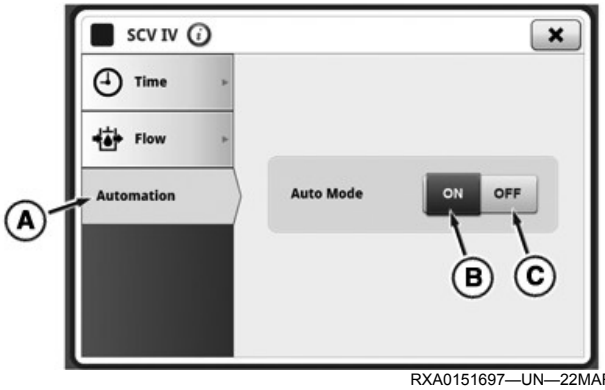
5. Using SCV I lever, lower implement to desired depth while watching implement and CommandCenter™ Implement Position (F).
6. When implement is at desired depth, press button (E).
7. Using SCV I lever, raise implement to desired height while watching implement and CommandCenter™ Implement Range.
8. When implement is at desired height, press button (D).

TS36762,0000203-19-14AUG18

Use TouchSet™ Depth Controls

Activate TouchSet™ Automation Mode

During field use, activate automation mode.



RXA0151697—UN—22MAR16

1. Press Automation tab (A).
2. Select ON button (B). While Automation is on:
   - Briefly hold SCV lever in extend detent or retract detent position to move implement to established lower or upper setpoint.
   - Tap SCV lever into extend or retract position adjusts implement position up or down by a fixed amount.

Select OFF button (C) at any time to end Automation mode.

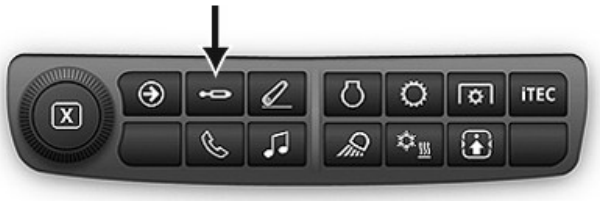
DB71512,0000001-19-26JUN17

Laser Scraper—for Scrapers Equipped with Scraper Control Unit

NOTE: Used primarily in areas requiring automated laser guidance system for scraper applications.

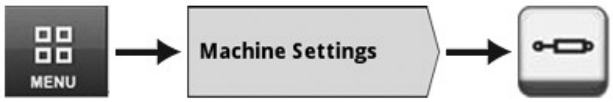
SCVs I and III are used to control raising, lowering, and setting of implement depth electronically without leaving cab.

1. Connect tractor to implement using SCV I and/or III.



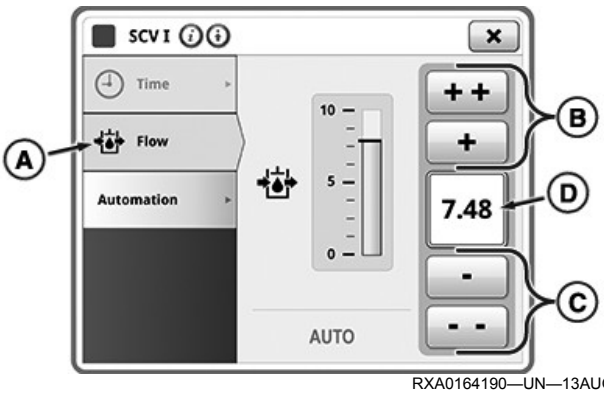
RXA0133709—UN—16JUL13

2. Press SCV shortcut button on navigation bar.



RXA0148320—UN—05JUN15

3. Select Menu button.
4. Select Machine Settings tab.
5. Select SCV button.
6. Select connected SCV.



RXA0164190—UN—13AUG18

7. Select Flow tab (A).

RXA0164194—UN—13AUG18

8. To increase flow setting, select + or ++ (B). To decrease flow setting, select - or - - (C). Turning dial (E) also adjusts flow setting. Adjustment value displays in input box (D). Implement controls Time in feature mode and tab is grayed out.

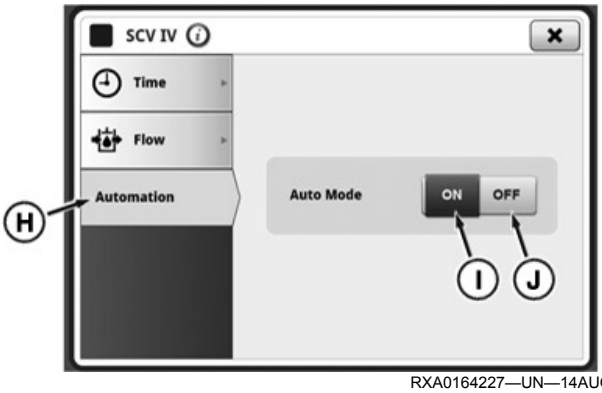
CAUTION: Avoid personal injury or death. Moving scraper control unit, connectors, or linkages, when engine is running, may cause unexpected movement. Stay clear of implement when starting engine.

SCV Levers

RXA0164195—UN—13AUG18

Control SCVs and activate automatic scraper control system using corresponding SCV control levers I (F) and III (G).

Automation



RXA0164227—UN—14AUG18

Automation tab (H) allows enabling/disabling of AUTO Mode (feature mode). When disabled, SCV changes to

standard mode. For information on standard mode adjustments, see Configure SCV - Standard Mode in Selective Control Valves section of this Operator's Manual.

Select ON (I) to enable or OFF (J) to disable AUTO Mode.

TS36762,0000206-19-14AUG18

Service Tires Safely

RXA0103438—UN—11JUN09

Explosive separation of a tire and rim parts can cause serious injury or death.

Do not attempt to mount a tire unless you have the proper equipment and experience to perform the job.

Always maintain the correct tire pressure. Do not inflate the tires above the recommended pressure. Never weld or heat a wheel and tire assembly. The heat can cause an increase in air pressure resulting in a tire explosion. Welding can structurally weaken or deform the wheel.

When inflating tires, use a clip-on chuck and extension hose long enough to allow you to stand to one side and NOT in front of or over the tire assembly. Use a safety cage if available.

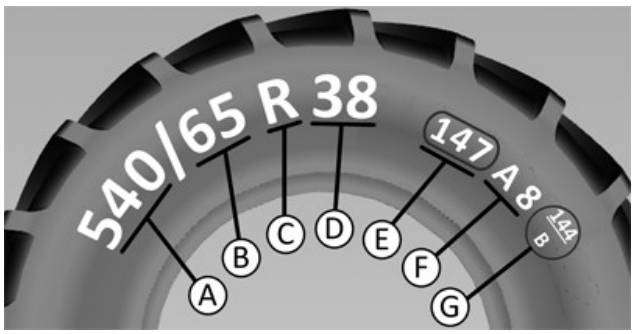
Check wheels for low pressure, cuts, bubbles, damaged rims, or missing lug bolts and nuts.

Wheels and tires are heavy. When handling wheels and tires use a safe lifting device or get an assistant to help lift, install, or remove.

DX,WW,RIMS-19-28FEB17

Determine Tire Load Capacity

⚠ CAUTION: Never exceed tire load capacity or permissible axle loads.



LX299192—UN—18NOV16

Example of Manufacturers' Information on Tire Sidewall

A—Tire Width: Width in millimeters
B—Aspect Ratio: Ratio of tire height to tire width
C—Type: "R" = radial; "—" = cross-ply (example: 18.4-38)
D—Rim Diameter: Diameter in inches
E—Load Index (LI): Maximum permissible load capacity per tire, in relation to speed index (F)
F—Speed Index: Maximum permissible ground speed at which (E) applies
G—LI/Speed Index: Tire load capacity at alternative permitted ground speed

Tire load capacity at a specific ground speed:

Load capacity (LI) (E) at maximum permissible ground speed (F) is found on tire sidewall. Information listed as (G) indicate the tire is approved for alternative ground speed and maximum permissible load capacity.

Speed Index (G)	Maximum Permissible Ground Speed km/h (mph)
A6	30 (19)
A8	40 (25)
B	50 (30)
D	65 (40)

Example: a tire sidewall indicating 540/65R38 147A8 (144/B) allows two load and speed index options.

540/65R38 147A8 (144/B)		
Maximum	Tire Load and Speed Index	
	Option 1	Option 2
	147A8	144/B
Load Capacity Per Tire kg (lb)	3075 (6780)	2800 (6175)
Permissible Ground Speed km/h (mph)	40 (25)	50 (30)

EC82310,0000400-19-09OCT17

Change Tire Size

IMPORTANT: Before changing size of tire, see Select Tire Combinations in Wheels and Tires - General Information section of this Operator's Manual.

See your John Deere dealer to recalibrate for tire size.

Perform wheel slip calibration (see Calibrations in CommandCenter™ section of this Operator's Manual).

RW29387,0000629-19-27APR17

Select Tire Combinations

IMPORTANT: Mismatched front and rear tire combinations may cause poor performance, excessive power train wear, and other problems. Never:

- **Mix worn and new tires**

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- **Mix bias and radial tires**
- **Mix tires of different diameters**
- **Use R2 tires in combination with R1 or R1W tires**
- **Convert Group 47/48 tires to Group 49 tires**
- **Convert Group 49 tires to Group 47/48 tires**

If unable to replace tires with same size as original equipment, see your John Deere dealer or tire supplier for guidance.

Tire Group Size

Tires are grouped by their Rolling Circumference Index (RCI). Rolling circumference is the distance tread travels in one revolution. Tires within a group, regardless of rim size, are same or nearly same diameter. The rim size is of no consequence.

Required Front/Rear Tire Group Combinations

Front axle type directly affects front and rear tire combinations.

			Rear Axle							
			1300		1500			ILS™		
			47	48	47	48	49	47	48	49
Front Axle	1300	42	-5	—	—	—	—	—	—	—
		43	—	-5	—	—	—	—	—	—
	1500	42	—	—	-5	—	—	—	—	—
		43	—	—	—	-5	—	—	—	—
		44	—	—	—	—	-5	—	—	—
	ILS™	42	—	—	—	—	—	-5	—	—
		43	—	—	—	—	—	—	-5	-6
		44	—	—	—	—	—	—	—	-5

- 1300 and 1500 MFWD front axles require front tires be five group sizes smaller than rear tires.

RXA0160245—UN—19JUL17

- ILS™ front axles require front tires be five or six group sizes smaller than rear tires. The number “5” or “6” in the sixth position (A) of the serial number found on the right-hand side of the front axle indicates required tire size difference.

ILS is a trademark of Deere & Company

Recommended Row and Section Width

Front Tires

Width		RCI Group Size		
Row[a] mm (in)	Section	42	43	44
508 (20)	320	320/85R38	320/80R42 IF320/85R42	—
559 (22)	380	380/85R34	380/80R38 IF380/80R38	—
762 (30)	420	420/90R30	420/85R34 IF420/85R34 VF420/ 85R34	420/85R38
	480	480/70R30	480/70R34 IF480/70R34	—
813 (32)	540	—	540/65R34	—
	600	600/65R28	600/70R30 IF600/70R30	600/65R34
864 (34)	620	—	—	620/75R30 IF620/75R30
	650	—	—	650/60R34 IF650/60R34

[a] *Minimum recommended*

Rear Tires

Width		RCI Group Size		
Row[a] mm (in)	Section	47	48	49
508 (20)	320	320/90R54[b]	320/105R54	—
559 (22)	380	380/90R50	380/90R54	—
762 (30)	480	480/80R46	480/80R50 IF480/80R50 VF480/ 80R50	480/95R50 IF480/95R50
813 (32)	520	520/85R42	520/85R46	—
864 (34)	620	620/70R42	620/70R46	—
	650	650/65R42	650/85R38 IF650/85R38	—
914 (36)	710	710/70R38	710/70R42 IF710/70R42	710/75R42 IF710/75R42
1016 (40)	800	—	800/70R38 IF800/70R38	—
—	900	—	—	IF900/60R42

[a] *Minimum recommended*
[b] *Approved in dual configuration only.*

GH15097,00008EA-19-13AUG18

Tire Load Index

IMPORTANT: Tire load capacity may exceed allowable axle loading. Tractor should be ballasted according to engine power and weight split guidelines. See Performance Ballasting Section in this Operator's Manual for more information.

Tire industry uses a number called "load index" to define load rating of a tire. This chart lists, for a given load index, maximum amount of weight that can be supported by each tire at manufacturer's maximum rated pressure.

Load carrying capacity per tire is reduced for tractors equipped with duals and triple.

Load Index	Maximum Load per Tire[a]			Load Index	Maximum Load per Tire[a]		
	Singles kg (lb)	Duals kg (lb)	Triples kg (lb)		Singles kg (lb)	Duals kg (lb)	Triples kg (lb)
137	2300 (5071)	2024 (4462)	1886 (4158)	164	5000 (11023)	4400 (9700)	4100 (9039)
138	2360 (5203)	2077 (4579)	1935 (4266)	165	5150 (11354)	4532 (9991)	4223 (9310)
139	2430 (5357)	2138 (4714)	1993 (4393)	166	5300 (11684)	4664 (10282)	4346 (9581)
140	2500 (5512)	2200 (4850)	2050 (4519)	167	5450 (12015)	4796 (10573)	4469 (9852)
141	2575 (5677)	2266 (4996)	2112 (4655)	168	5600 (12346)	4928 (10864)	4592 (10124)
142	2650 (5842)	2332 (5141)	2173 (4791)	169	5800 (12787)	5104 (11252)	4756 (10485)
143	2725 (6008)	2398 (5287)	2235 (4926)	170	6000 (13228)	5280 (11640)	4920 (10847)
144	2800 (6173)	2464 (5432)	2296 (5062)	171	6150 (13558)	5412 (11931)	5043 (11118)
145	2900 (6393)	2552 (5626)	2378 (5243)	172	6300 (13889)	5544 (12222)	5166 (11389)
146	3000 (6614)	2640 (5820)	2460 (5423)	173	6500 (14330)	5720 (12610)	5330 (11751)
147	3075 (6779)	2706 (5966)	2522 (5559)	174	6700 (14771)	5896 (12998)	5494 (12112)
148	3150 (6945)	2772 (6111)	2583 (5695)	175	6900 (15212)	6072 (13386)	5658 (12474)
149	3250 (7165)	2860 (6305)	2665 (5875)	176	7100 (15653)	6248 (13774)	5822 (12835)
150	3350 (7385)	2948 (6499)	2747 (6056)	177	7300 (16094)	6424 (14162)	5986 (13197)
151	3450 (7606)	3036 (6693)	2829 (6237)	178	7500 (16535)	6600 (14550)	6150 (13558)
152	3550 (7826)	3124 (6887)	2911 (6418)	179	7750 (17086)	6820 (15036)	6355 (14010)
153	3650 (8047)	3212 (7081)	2993 (6598)	180	8000 (17637)	7040 (15521)	6560 (14462)
154	3750 (8267)	3300 (7275)	3075 (6779)	181	8250 (18188)	7260 (16005)	6765 (14914)
155	3875 (8543)	3410 (7518)	3178 (7005)	182	8500 (18739)	7480 (16490)	6970 (15366)
156	4000 (8818)	3520 (7760)	3280 (7231)	183	8750 (19290)	7700 (16975)	7175 (15818)
157	4125 (9094)	3630 (8003)	3383 (7457)	184	9000 (19841)	7920 (17460)	7380 (16270)
158	4250 (9370)	3740 (8245)	3485 (7683)	185	9250 (20393)	8140 (17945)	7585 (16722)
159	4375 (9645)	3850 (8488)	3588 (7909)	186	9500 (20944)	8360 (18430)	7790 (17174)
160	4500 (9921)	3960 (8730)	3690 (8135)	187	9750 (21495)	8580 (18915)	7995 (17626)
161	4625 (10196)	4070 (8973)	3793 (8361)	188	10000 (22046)	8800 (19400)	8200 (18078)
162	4750 (10472)	4180 (9215)	3895 (8587)	189	10300 (22707)	9064 (19982)	8446 (18620)
163	4875 (10748)	4290 (9458)	3998 (8813)	190	10600 (23369)	9328 (20565)	8692 (19162)

[a] *At manufacturer's maximum rated pressure.*

RW29387,00003E7-19-26MAY17

Tire Sidewall Information

Displayed on tire sidewalls is information useful in selecting and working with tires.

RXA0149658—UN—13AUG15

A—Tire section width –Width in millimeters.
B—Aspect ratio – Ratio of height to tire section width.
C—Construction type –R = Radial, B = Bias.
D—Rim diameter –Diameter in inches (not total tire height or group size).
E—Load index –Numerical code indicates tire load-carrying capacity. Higher load index number designates higher load capacity. See Tire Load Index chart in this Operator's Manual section.
F—Speed rating –Maximum speed tire is designed to travel.

Additional information that may be displayed on sidewall.

- **Tread pattern -** Indicates tread design and tire usage. Designs offered are all lug- or bar-type tires and are separated into one of three specifications: R1, R1W, or R2.
- **Direction of rotation -** Icon (usually an arrow or group of arrows) indicating tire rotation direction.
- **Manufacturer name -** Name of tire manufacturer.
- **Max load and pressure information -** Maximum load a tire is permitted to carry under specified pressure and operating conditions. See Recommended Pressures charts in Wheels, Tires, and Treads section of this Operator's Manual.
- **Safety warnings -** Important information provided by tire manufacturer.

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Tire Inflation Pressure Guidelines

IMPORTANT: Never exceed maximum tire inflation pressure stated on tire.

Check tire inflation pressure while tires are cool, using an accurate dial or stick-type gauge having 10 kPa (0.1 bar) (1 psi) graduations.

NOTE: Use a special air-water gauge and measure with valve stem at bottom if tires contain liquid ballast.

Correctly inflated radial tires show deflection of sidewall. This is normal and does not harm tire.

Inflation pressures less than 80 kPa (0.8 bar) (12 psi) must be monitored frequently because of the increased risk of low-pressure air leaks.

NOTE: Bead slip can be experienced in high-traction conditions, with single tire usage. Increasing inflation pressure helps but reduces traction.

Maximum tire pressure is specified on tire sidewall.

Determine correct tire pressure

Integral implements transfer significant weight to axles, always include this weight when determining correct inflation pressures. Determine correct tire pressure by weighing tractor using following procedure:

Rear-mounted Implement: Front axle should be weighed with implement lowered. Rear axle should be weighed with implement raised.

Front-mounted Implement: Front axle should be weighed with implement raised. Rear axle should be weighed with implement lowered.

Front- and Rear-mounted Implement: Weigh tractor with both front and rear implement raised.

Set tire inflation pressures according to weight measured. *Ballasting and tire inflation pressure may need to be adjusted when operating conditions change.* Use following tire inflation charts. For tires not found in charts refer to manufacturers recommended inflation pressures.

Managing Tire Inflation Pressures

IMPORTANT: Never exceed maximum tire inflation pressure stated on tire.

Tractors operating with a loader should increase front tire pressures 30 kPa (0.3 bar) (4 psi) above values listed to compensate for weight transfer.

Tractors operating on steep side slopes or furrow plowing should increase rear tire pressures 30 kPa (0.3 bar) (4 psi) above values listed for base pressures 80 kPa (0.8 bar) (12 psi) and above to compensate for lateral weight transfer. For base pressures below 80 kPa (0.8 bar) (12 psi), pressure should be increased by 30%.

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Recommended Pressures—Group 42

Group	42							
Size	320/85R38		380/85R34			420/90R30		
Load Index	143		137	145	146	142	145	147
Speed Rating	A8 / B		A8 / B	A8 / B	A8 / B	A8	A8	A8 / B
	Single	Dual	Dual	Single	Dual	Single	Single	Single
Axle Load kg (lb)	kPa (bar)(psi)	kPa (bar)(psi)	kPa (bar)(psi)	kPa (bar)(psi)	kPa (bar)(psi)	kPa (bar)(psi)	kPa (bar)(psi)	kPa (bar)(psi)
3855 (8500)	179 (1.8)(26)	90 (0.9)(13)	62 (0.6)(9)	138 (1.38)(20)	83 (0.8)(12)	110 (1.10)(16)	110 (1.10)(16)	110 (1.1)(16)
4080 (9000)	200 (2.0)(29)	97 (1.0)(14)	62 (0.6)(9)	138 (1.38)(20)	83 (0.8)(12)	110 (1.10)(16)	117 (1.2)(17)	110 (1.1)(16)
4310 (9500)	234 (2.3)(34)	97 (1.0)(14)	62 (0.6)(9)	152 (1.52)(22)	83 (0.8)(12)	120 (1.20)(17)	117 (1.2)(17)	117 (1.2)(17)
4540 (10000)	262 (2.6)(38)	103 (1.0)(15)	69 (0.7)(10)	159 (1.59)(23)	83 (0.8)(12)	130 (1.30)(19)	131 (1.3)(19)	131 (1.3)(19)
4760 (10500)	290 (2.9)(42)	103 (1.0)(15)	76 (0.8)(11)	179 (1.79)(26)	83 (0.8)(12)	145 (1.45)(21)	138 (1.4)(20)	138 (1.4)(20)
4990 (11000)	310 (3.1)(45)	110 (1.1)(16)	83 (0.8)(12)	200 (2.00)(29)	83 (0.8)(12)	150 (1.50)(22)	145 (1.45)(21)	152 (1.5)(22)
5220 (11500)	331 (3.3)(48)	117 (1.2)(17)	90 (0.9)(13)	234 (2.34)(34)	83 (0.8)(12)	160 (1.60)(23)	159 (1.6)(23)	159 (1.6)(23)
5440 (12000)	359 (3.6)(52)	117 (1.2)(17)	97 (1.0)(14)	255 (2.55)(37)	83 (0.8)(12)	—	172 (1.7)(25)	172 (1.7)(25)
5670 (12500)	—	131 (1.3)(19)	103 (1.0)(15)	276 (2.76)(40)	83 (0.8)(12)	—	193 (1.9)(28)	193 (1.9)(28)
5900 (13000)	—	138 (1.4)(20)	110 (1.1)(16)	—	83 (0.8)(12)	—	—	214 (2.1)(31)
6120 (13500)	—	145 (1.4)(21)	110 (1.1)(16)	—	97 (1.0)(14)	—	—	241 (2.4)(35)
6350 (14000)	—	159 (1.6)(23)	117 (1.2)(17)	—	103 (1.0)(15)	—	—	—
6580 (14500)	—	165 (1.7)(24)	124 (1.2)(18)	—	110 (1.1)(16)	—	—	—
6800 (15000)	—	179 (1.8)(26)	131 (1.3)(19)	—	117 (1.2)(17)	—	—	—
7030 (15500)	—	193 (1.9)(28)	138 (1.4)(20)	—	117 (1.2)(17)	—	—	—
7260 (16000)	—	207 (2.1)(30)	145 (1.4)(21)	—	131 (1.3)(19)	—	—	—
7480 (16500)	—	228 (2.3)(33)	145 (1.4)(21)	—	138 (1.4)(20)	—	—	—
7950 (17000)	—	248 (2.5)(36)	152 (1.5)(22)	—	145 (1.4)(21)	—	—	—
8170 (17500)	—	262 (2.6)(38)	159 (1.6)(23)	—	159 (1.6)(23)	—	—	—
8400 (18000)	—	276 (2.8)(40)	—	—	165 (1.7)(24)	—	—	—
8391 (18500)	—	290 (2.9)(42)	—	—	179 (1.8)(26)	—	—	—
8618 (19000)	—	303 (3.0)(44)	—	—	186 (1.9)(27)	—	—	—
8845 (19500)	—	310 (3.1)(45)	—	—	200 (2.0)(29)	—	—	—
9071 (20000)	—	324 (3.2)(47)	—	—	207 (2.1)(30)	—	—	—
9298 (20500)	—	338 (3.38)(49)	—	—	214 (2.1)(31)	—	—	—

Group	42							
Size	320/85R38		380/85R34			420/90R30		
Load Index	143		137	145	146	142	145	147
Speed Rating	A8 / B		A8 / B	A8 / B	A8 / B	A8	A8	A8 / B
	Single	Dual	Dual	Single	Dual	Single	Single	Single
Axle Load kg (lb)	kPa (bar)(psi)	kPa (bar)(psi)	kPa (bar)(psi)	kPa (bar)(psi)	kPa (bar)(psi)	kPa (bar)(psi)	kPa (bar)(psi)	kPa (bar)(psi)
9525 (21000)	—	359 (3.6)(52)	—	—	221 (2.2)(32)	—	—	—
9977 (22000)	—	—	—	—	228 (2.3)(33)	—	—	—
10430 (23000)	—	—	—	—	241 (2.4)(35)	—	—	—

Group	42					
Size	480/70R30		600/65R28			
Load Index	152		147	154		157
Speed Rating	A8 / B	D	A8	A8 / B	D	A8
	Single	Single	Single	Single	Single	Single
Axle Load kg (lb)	kPa (bar)(psi)	kPa (bar)(psi)	kPa (bar)(psi)	kPa (bar)(psi)	kPa (bar)(psi)	kPa (bar)(psi)
3855 (8500)	117 (1.2)(17)	97 (1.0)(14)	103 (1.0)(15)	76 (0.7)(11)	69 (0.7)(10)	103 (1.0)(15)
4080 (9000)	117 (1.2)(17)	103 (1.0)(15)	80 (0.80)(12)	83 (0.8)(12)	76 (0.7)(11)	103 (1.0)(15)
4310 (9500)	124 (1.2)(18)	117 (1.2)(17)	90 (0.90)(13)	90 (0.9)(13)	90 (0.9)(13)	103 (1.0)(15)
4540 (10000)	131 (1.3)(19)	124 (1.2)(18)	95 (0.95)(14)	103 (1.0)(15)	97 (1.0)(14)	103 (1.0)(15)
4760 (10500)	145 (1.4)(21)	131 (1.3)(19)	110 (1.10)(16)	110 (1.1)(16)	103 (1.0)(15)	103 (1.0)(15)
4990 (11000)	152 (1.5)(22)	145 (1.4)(21)	110 (1.10)(16)	110 (1.1)(16)	110 (1.10)(16)	103 (1.0)(15)
5220 (11500)	165 (1.7)(24)	152 (1.5)(22)	120 (1.20)(17)	117 (1.2)(17)	110 (1.1)(16)	110 (1.1)(16)
5440 (12000)	179 (1.8)(26)	165 (1.7)(24)	125 (1.25)(18)	124 (1.2)(18)	117 (1.2)(17)	110 (1.1)(16)
5670 (12500)	193 (1.9)(28)	179 (1.8)(26)	140 (1.40)(20)	138 (1.3)(20)	124 (1.2)(18)	117 (1.2)(17)
5900 (13000)	214 (2.1)(31)	193 (1.9)(28)	145 (1.45)(21)	145 (1.4)(21)	131 (1.3)(19)	124 (1.2)(18)
6120 (13500)	241 (2.4)(35)	214 (2.1)(31)	160 (1.60)(23)	159 (1.6)(23)	145 (1.4)(21)	131 (1.3)(19)
6350 (14000)	255 (2.5)(37)	234 (2.3)(34)	—	165 (1.7)(24)	152 (1.5)(22)	145 (1.4)(21)
6580 (14500)	276 (2.8)(40)	255 (2.5)(37)	—	179 (1.8)(26)	159 (1.6)(23)	152 (1.5)(22)
6800 (15000)	296 (3.0)(43)	269 (2.7)(39)	—	186 (1.9)(27)	172 (1.7)(25)	159 (1.6)(23)
7030 (15500)	310 (3.1)(45)	290 (2.9)(42)	—	200 (2.0)(29)	186 (1.9)(27)	172 (1.7)(25)
7256 (16000)	—	303 (3.0)(44)	—	221 (2.2)(32)	207 (2.1)(30)	186 (1.9)(27)

Group	42					
Size	480/70R30		600/65R28			
Load Index	152		147	154		157
Speed Rating	A8 / B	D	A8	A8 / B	D	A8
	Single	Single	Single	Single	Single	Single
Axle Load kg (lb)	kPa (bar)(psi)	kPa (bar)(psi)	kPa (bar)(psi)	kPa (bar)(psi)	kPa (bar)(psi)	kPa (bar)(psi)
7483 (16500)	—	—	—	241 (2.4)(35)	221 (2.2)(32)	200 (2.0)(29)
7710 (17000)	—	—	—	—	234 (2.3)(34)	214 (2.1)(31)
7936 (17500)	—	—	—	—	—	228 (2.3)(33)
8163 (18000)	—	—	—	—	—	241 (2.4)(35)

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Recommended Pressures—Group 43

Group	43									
Size	320/80R42		IF320/80R42		380/80R38		IF380/80R38		420/85R34	
Load Index	141		149		142		149		147	
Speed Rating	A8		A8		A8		A8		A8 / B	
	Single	Dual	Single	Dual	Single	Dual	Single	Dual	Single	Dual
Axle Load kg (lb)	kPa (bar)(psi)	kPa (bar)(psi)	kPa (bar)(psi)	kPa (bar)(psi)	kPa (bar)(psi)	kPa (bar)(psi)	kPa (bar)(psi)	kPa (bar)(psi)	kPa (bar)(psi)	kPa (bar)(psi)
3855 (8500)	200 (2.0)(29)	83 (0.8)(12)	140 (1.4)(20)	60 (0.6)(9)	140 (1.4)(20)	55 (0.6)(8)	110 (1.1)(16)	50 (0.5)(7)	103 (1.0)(15)	62 (0.6)(9)
4080 (9000)	200 (2.0)(29)	83 (0.8)(12)	140 (1.4)(20)	60 (0.6)(9)	140 (1.4)(20)	55 (0.6)(8)	110 (1.1)(16)	50 (0.5)(7)	110 (1.1)(16)	62 (0.6)(9)
4310 (9500)	230 (2.30)(34)	90 (0.9)(13)	150 (1.5)(22)	60 (0.6)(9)	150 (1.5)(22)	60 (0.6)(9)	120 (1.2)(17)	55 (0.6)(8)	117 (1.2)(17)	62 (0.6)(9)
4540 (10000)	260 (2.6)(38)	97 (1.0)(14)	165 (1.7)24	70 (0.7)(10)	160 (1.6)(23)	70 (0.7)(10)	125 (1.3)(18)	55 (0.6)(8)	131 (1.3)(19)	62 (0.6)(9)
4760 (10500)	275 (2.8)(40)	103 (1.0)(15)	185 (1.9)(27)	76 (0.8)(11)	180 (1.8)(26)	70 (0.7)(10)	130 (1.3)(19)	55 (0.6)(8)	138 (1.4)(20)	62 (0.6)(9)
4990 (11000)	300 (3.0)(44)	110 (1.1)(16)	200 (2.0)(29)	85 (0.9)(12)	200 (2.0)(29)	80 (0.8)(12)	140 (1.4)(20)	60 (0.6)(9)	152 (1.5)(22)	62 (0.6)(9)
5220 (11500)	—	117 (1.2)(17)	234 (2.3)(34)	90 (0.9)(13)	230 (2.30)(34)	90 (0.9)(13)	150 (1.5)(22)	60 (0.6)(9)	159 (1.6)(23)	69 (0.7)(10)
5440 (12000)	—	117 (1.2)(17)	255 (2.6)(37)	95 (1.0)(14)	—	90 (0.9)(13)	160 (1.6)(23)	70 (0.7)(10)	179 (1.8)(26)	69 (0.7)(10)
5670 (12500)	—	131 (1.3)(19)	276 (2.8)(40)	105 (1.1)(15)	—	105 (1.1)(15)	175 (1.8)(25)	70 (0.7)(10)	200 (2.0)(29)	76 (0.8)(11)
5900 (13000)	—	138 (1.4)(20)	290 (2.9)(42)	110 (1.1)(16)	—	110 (1.1)(16)	185 (1.9)(27)	85 (0.9)(12)	221 (2.2)(32)	83 (0.8)(12)
6120 (13500)	—	145 (1.5)(21)	310 (3.1)(45)	110 (1.1)(16)	—	110 (1.1)(16)	214 (2.1)(31)	85 (0.9)(12)	241 (2.4)(35)	90 (0.9)(13)
6350 (14000)	—	152 (1.5)(22)	324 (3.2)(47)	120 (1.2)(17)	—	120 (1.2)(17)	241 (2.4)(35)	90 (0.9)(13)	—	90 (0.9)(13)
6580 (14500)	—	159 (1.6)(23)	—	125 (1.3)(18)	—	120 (1.2)(17)	—	95 (1.0)(14)	—	97 (1.0)(14)

Group	43									
Size	320/80R42		IF320/80R42		380/80R38		IF380/80R38		420/85R34	
Load Index	141		149		142		149		147	
Speed Rating	A8		A8		A8		A8		A8 / B	
	Single	Dual	Single	Dual	Single	Dual	Single	Dual	Single	Dual
Axle Load kg (lb)	kPa (bar)(psi)	kPa (bar)(psi)	kPa (bar)(psi)	kPa (bar)(psi)	kPa (bar)(psi)	kPa (bar)(psi)	kPa (bar)(psi)	kPa (bar)(psi)	kPa (bar)(psi)	kPa (bar)(psi)
6800 (15000)	—	165 (1.7)(24)	—	125 (1.3)(18)	—	125 (1.3)(18)	—	105 (1.1)(15)	—	103 (1.0)(15)
7030 (15500)	—	179 (1.8)(26)	—	130 (1.3)(19)	—	130 (1.3)(19)	—	105 (1.1)(15)	—	110 (1.1)(16)
7260 (16000)	—	200 (2.0)(29)	—	140 (1.4)(20)	—	145 (1.5)(21)	—	110 (1.1)(16)	—	117 (1.2)(17)
7480 (16500)	—	228 (2.3)(33)	—	145 (1.5)(21)	—	145 (1.5)(21)	—	110 (1.1)(16)	—	117 (1.2)(17)
7950 (17000)	—	248 (2.5)(36)	—	150 (1.5)(22)	—	150 (1.5)(22)	—	120 (1.2)(17)	—	124 (1.2)(18)
8170 (17500)	—	255 (2.6)(37)	—	165 (1.7)24	—	160 (1.6)(23)	—	125 (1.3)(18)	—	131 (1.3)(19)
8400 (18000)	—	269 (2.7)(39)	—	175 (1.8)(25)	—	165 (1.7)(24)	—	125 (1.3)(18)	—	138 (1.4)(20)
8630 (18500)	—	276 (2.8)(40)	—	185 (1.9)(27)	—	170 (1.7)(25)	—	130 (1.3)(19)	—	138 (1.4)(20)
8640 (19000)	—	290 (2.9)(42)	—	190 (1.9)(28)	—	185 (1.9)(27)	—	138 (1.4)(20)	—	145 (1.4)(21)
8865 (19500)	—	303 (3.0)(44)	—	205 (2.1)(30)	—	210 (2.1)(30)	—	145 (1.5)(21)	—	152 (1.5)(22)
9090 (20000)	—	317 (3.2)(46)	—	220 (2.2)(32)	—	225 (2.3)(33)	—	145 (1.5)(21)	—	159 (1.6)(23)
9530 (21000)	—	—	—	255 (2.6)(37)	—	—	—	159 (1.6)(23)	—	179 (1.8)(26)
9990 (22000)	—	—	—	275 (2.8)(40)	—	—	—	175 (1.8)(25)	—	200 (2.0)(29)
10440 (23000)	—	—	—	295 (3.0)(43)	—	—	—	190 (1.9)(28)	—	221 (2.2)(32)
10900 (24000)	—	—	—	310 (3.1)(45)	—	—	—	215 (2.2)(33)	—	—
11338 (25000)	—	—	—	338 (3.4)(49)	—	—	—	241 (2.4)(35)	—	—

Group	43									
Size	IF420/85R34		VF420/85R34		480/70R34					
Load Index	152		154		143		146		155	
Speed Rating	A8		A8		A8 / B / D		A8 / B / D		A8 / B	
	Single	Dual	Single	Dual	Single	Dual	Single	Dual	Single	Dual
Axle Load kg (lb)	kPa (bar)(psi)	kPa (bar)(psi)	kPa (bar)(psi)	kPa (bar)(psi)	kPa (bar)(psi)	kPa (bar)(psi)	kPa (bar)(psi)	kPa (bar)(psi)	kPa (bar)(psi)	kPa (bar)(psi)
3855 (8500)	76 (0.8)(12)	41 (0.4)(6)	83 (0.8)(12)	41 (0.4)(6)	97 (1.0)(14)	83 (0.8)(12)	110 (1.1)(16)	40 (0.4)(6)	110 (1.1)(16)	41 (0.4)(6)
4080 (9000)	83 (0.8)(12)	41 (0.4)(6)	83 (0.8)(12)	41 (0.4)(6)	103 (1.0)(15)	83 (0.8)(12)	110 (1.1)(16)	40 (0.4)(6)	110 (1.1)(16)	41 (0.4)(6)
4310 (9500)	97 (1.0)(14)	48 (0.5)(7)	83 (0.8)(12)	41 (0.4)(6)	110 (1.1)(16)	83 (0.8)(12)	120 (1.2)(17)	40 (0.4)(6)	120 (1.2)(17)	41 (0.4)(6)

Group	43									
Size	IF420/85R34		VF420/85R34		480/70R34					
Load Index	152		154		143		146		155	
Speed Rating	A8		A8		A8 / B / D		A8 / B / D		A8 / B	
	Single	Dual	Single	Dual	Single	Dual	Single	Dual	Single	Dual
Axle Load kg (lb)	kPa (bar)(psi)	kPa (bar)(psi)	kPa (bar)(psi)	kPa (bar)(psi)	kPa (bar)(psi)	kPa (bar)(psi)	kPa (bar)(psi)	kPa (bar)(psi)	kPa (bar)(psi)	kPa (bar)(psi)
4540 (10000)	103 (1.0)(15)	48 (0.5)(7)	83 (0.8)(12)	41 (0.4)(6)	117 (1.2)(17)	83 (0.8)(12)	125 (1.3)(18)	48 (0.5)(7)	125 (1.3)(18)	48 (0.5)(7)
4760 (10500)	110 (1.1)(16)	48 (0.5)(7)	83 (0.8)(12)	41 (0.4)(6)	124 (1.2)(18)	83 (0.8)(12)	130 (1.3)(19)	55 (0.6)(8)	130 (1.3)(19)	55 (0.6)(8)
4990 (11000)	117 (1.2)(17)	55 (0.6)(8)	90 (0.9)(13)	41 (0.4)(6)	138 (1.4)(20)	83 (0.8)(12)	140 (1.4)(20)	55 (0.6)(8)	140 (1.4)(20)	62 (0.6)(9)
5220 (11500)	117 (1.2)(17)	55 (0.6)(8)	97 (1.0)(14)	41 (0.4)(6)	152 (1.5)(22)	83 (0.8)(12)	150 (1.5)(22)	60 (0.6)(9)	150 (1.5)(22)	62 (0.6)(9)
5440 (12000)	124 (1.2)(18)	55 (0.6)(8)	103 (1.0)(15)	41 (0.4)(6)	—	83 (0.8)(12)	160 (1.6)(23)	70 (0.7)(10)	160 (1.6)(23)	69 (0.7)(10)
5670 (12500)	138 (1.4)(20)	62 (0.6)(9)	110 (1.1)(16)	41 (0.4)(6)	—	83 (0.8)(12)	170 (1.7)(25)	75 (0.8)(11)	170 (1.7)(25)	76 (0.8)(11)
5900 (13000)	145 (1.5)(21)	62 (0.6)(9)	117 (1.2)(17)	41 (0.4)(6)	—	83 (0.8)(12)	190 (1.9)(28)	80 (0.8)(12)	190 (1.9)(28)	83 (0.8)(12)
6120 (13500)	152 (1.5)(22)	62 (0.6)(9)	124 (1.2)(18)	48 (0.5)(7)	—	83 (0.8)(12)	—	80 (0.8)(12)	215 (2.2)(31)	83 (0.8)(12)
6350 (14000)	165 (1.7)(24)	69 (0.7)(10)	131 (1.3)(19)	48 (0.5)(7)	—	83 (0.8)(12)	—	90 (0.9)(13)	225 (2.3)(33)	90 (0.9)(13)
6580 (14500)	172 (1.7)(25)	76 (0.8)(11)	138 (1.4)(20)	55 (0.6)(8)	—	90 (0.9)(13)	—	95 (1.0)(14)	255 (2.6)(37)	97 (1.0)(14)
6800 (15000)	186 (1.9)(27)	76 (0.8)(11)	145 (1.5)(21)	55 (0.6)(8)	—	97 (1.0)(14)	—	103 (1.0)(15)	270 (2.7)(39)	103 (1.0)(15)
7030 (15500)	200 (2.0)(29)	83 (0.8)(12)	152 (1.5)(22)	62 (0.6)(9)	—	97 (1.0)(14)	—	103 (1.0)(15)	280 (2.8)(41)	110 (1.1)(16)
7260 (16000)	—	90 (0.9)(13)	159 (1.6)(23)	62 (0.6)(9)	—	103 (1.0)(15)	—	110 (1.1)(16)	300 (3.0)(44)	110 (1.1)(16)
7480 (16500)	—	90 (0.9)(13)	—	69 (0.7)(10)	—	110 (1.1)(16)	—	120 (1.2)(17)	310 (3.1)(45)	117 (1.2)(17)
7950 (17000)	—	97 (1.0)(14)	—	69 (0.7)(10)	—	110 (1.1)(16)	—	120 (1.2)(17)	320 (3.2)(46)	117 (1.2)(17)
8170 (17500)	—	103 (1.0)(15)	—	76 (0.8)(11)	—	117 (1.2)(17)	—	125 (1.3)(18)	—	124 (1.2)(18)
8400 (18000)	—	110 (1.1)(16)	—	83 (0.8)(12)	—	117 (1.2)(17)	—	125 (1.3)(18)	—	124 (1.2)(18)
8630 (18500)	—	110 (1.1)(16)	—	83 (0.8)(12)	—	124 (1.2)(18)	—	130 (1.3)(19)	—	131 (1.3)(19)
8640 (19000)	—	110 (1.1)(16)	—	90 (0.9)(13)	—	131 (1.3)(19)	—	140 (1.4)(20)	—	138 (1.4)(20)
8865 (19500)	—	117 (1.2)(17)	—	90 (0.9)(13)	—	138 (1.4)(20)	—	145 (1.5)(21)	—	145 (1.5)(21)
9090 (20000)	—	117 (1.2)(17)	—	97 (1.0)(14)	—	145 (1.4)(21)	—	145 (1.5)(21)	—	152 (1.5)(22)
9530 (21000)	—	124 (1.2)(18)	—	103 (1.0)(15)	—	159 (1.6)(23)	—	160 (1.6)(23)	—	159 (1.6)(23)
9990 (22000)	—	138 (1.4)(20)	—	110 (1.1)(16)	—	—	—	170 (1.7)(25)	—	172 (1.7)(25)
10440 (23000)	—	145 (1.5)(21)	—	117 (1.2)(17)	—	—	—	190 (1.9)(28)	—	200 (2.0)(29)
10900 (24000)	—	159 (1.6)(23)	—	124 (1.2)(18)	—	—	—	—	—	221 (2.2)(32)
11338 (25000)	—	172 (1.7)(25)	—	131 (1.3)(19)	—	—	—	—	—	241 (2.4)(35)

Group	43									
Size	**IF420/85R34**		**VF420/85R34**		**480/70R34**					
Load Index	**152**		**154**		**143**		**146**		**155**	
Speed Rating	**A8**		**A8**		**A8 / B / D**		**A8 / B / D**		**A8 / B**	
	Single	**Dual**	**Single**	**Dual**	**Single**	**Dual**	**Single**	**Dual**	**Single**	**Dual**
Axle Load kg (lb)	**kPa (bar)(psi)**	**kPa (bar)(psi)**	**kPa (bar)(psi)**	**kPa (bar)(psi)**	**kPa (bar)(psi)**	**kPa (bar)(psi)**	**kPa (bar)(psi)**	**kPa (bar)(psi)**	**kPa (bar)(psi)**	**kPa (bar)(psi)**
11791 (26000)	—	179 (1.8)(26)	—	138 (1.4)(20)	—	—	—	—	—	262 (2.6)(38)
12245 (27000)	—	193 (1.9)(28)	—	145 (1.5)(21)	—	—	—	—	—	276 (2.8)(40)
12698 (28000)	—	—	—	152 (1.5)(22)	—	—	—	—	—	290 (2.9)(42)
13152 (29000)	—	—	—	159 (1.6)(23)	—	—	—	—	—	303 (3.0)(44)
13605 (30000)	—	—	—	—	—	—	—	—	—	317 (3.2)(46)

Group	43				
Size	**540/65R34**			**600/70R30**	**IF600/70R30**
Load Index	**145**	**148**	**152**	**152**	**159**
Speed Rating	**D**	**A8**	**D**	**A8 / B / D**	**A8 / B / D**
	Single	**Single**	**Single**	**Single**	**Single**
Axle Load kg (lb)	**kPa (bar)(psi)**	**kPa (bar)(psi)**	**kPa (bar)(psi)**	**kPa (bar)(psi)**	**kPa (bar)(psi)**
4080 (9000)	80 (0.8)(12)	80 (0.8)(12)	90 (0.9)(13)	70 (0.7)(10)	83 (0.8)(12)
4310 (9500)	95 (1.0)(14)	90 (0.9)(13)	105 (1.1)(15)	75 (0.8)(11)	83 (0.8)(12)
4540 (10000)	105 (1.1)(15)	95 (1.0)(14)	110 (1.1)(16)	80 (0.8)(12)	83 (0.8)(12)
4760 (10500)	110 (1.1)(16)	105 (1.1)(15)	120 (1.2)(17)	90 (0.9)(13)	83 (0.8)(12)
4990 (11000)	110 (1.1)(16)	110 (1.1)(16)	120 (1.2)(17)	95 (1.0)(14)	83 (0.8)(12)
5220 (11500)	120 (1.2)(17)	120 (1.2)(17)	130 (1.3)(19)	105 (1.1)(15)	83 (0.8)(12)
5440 (12000)	130 (1.3)(19)	120 (1.2)(17)	140 (1.4)(20)	110 (1.1)(16)	83 (0.8)(12)
5670 (12500)	140 (1.4)(20)	130 (1.3)(19)	150 (1.5)(22)	120 (1.2)(17)	90 (0.9)(13)
5900 (13000)	150 (1.5)(22)	140 (1.4)(20)	165 (1.7)(24)	120 (1.2)(17)	97 (1.0)(14)
6120 (13500)	160 (1.6)(23)	150 (1.5)(22)	180 (1.8)(26)	125 (1.3)(18)	97 (1.0)(14)
6350 (14000)	—	160 (1.6)(23)	190 (1.9)(28)	130 (1.3)(19)	103 (1.0)(15)
6580 (14500)	—	—	215 (2.2)(31)	140 (1.4)(20)	110 (1.1)(16)
6800 (15000)	—	—	225 (2.3)(33)	145 (1.5)(21)	110 (1.1)(16)
7030 (15500)	—	—	240 (2.4)(35)	160 (1.6)(23)	117 (1.2)(17)

Group	43				
Size	**540/65R34**			**600/70R30**	**IF600/70R30**
Load Index	**145**	**148**	**152**	**152**	**159**
Speed Rating	**D**	**A8**	**D**	**A8 / B / D**	**A8 / B / D**
	Single	**Single**	**Single**	**Single**	**Single**
Axle Load kg (lb)	**kPa (bar)(psi)**	**kPa (bar)(psi)**	**kPa (bar)(psi)**	**kPa (bar)(psi)**	**kPa (bar)(psi)**
7260 (16000)	—	—	—	—	124 (1.2)(18)
7480 (16500)	—	—	—	—	131 (1.3)(19)
7950 (17000)	—	—	—	—	138 (1.4)(20)
8170 (17500)	—	—	—	—	138 (1.4)(20)
8400 (18000)	—	—	—	—	145 (1.4)(21)
8630 (18500)	—	—	—	—	152 (1.5)(22)
8640 (19000)	—	—	—	—	159 (1.6)(23)

GH15097,000047D-19-16AUG18

Recommended Pressures—Group 44

Group	44						
Size	**420/85R38**	**600/65R34**	**620/75R30**	**IF620/75R30**	**650/60R34**	**IF650/60R34**	
Load Index	**149**	**157**	**163**	**164**	**159**	**159**	**165**
Speed Rating	**A8 / B**	**D**	**A8 / B / D**	**D**	**D**	**D**	**D**
	Single	**Single**	**Single**	**Single**	**Single**	**Single**	**Single**
Axle Load kg (lb)	**kPa (bar)(psi)**	**kPa (bar)(psi)**	**kPa (bar)(psi)**	**kPa (bar)(psi)**	**kPa (bar)(psi)**	**kPa (bar)(psi)**	**kPa (bar)(psi)**
4080 (9000)	103 (1.0)(15)	62 (0.6)(9)	105 (1.05)(15)	55 (0.6)(8)	62 (0.6)(9)	83 (0.8)(12)	83 (0.8)(12)
4310 (9500)	110 (1.1)(16)	69 (0.7)(10)	105 (1.05)(15)	60 (0.6)(9)	69 (0.7)(10)	83 (0.8)(12)	83 (0.8)(12)
4540 (10000)	117 (1.2)(17)	76 (0.8)(11)	105 (1.05)(15)	70 (0.7)(10)	76 (0.8)(11)	83 (0.8)(12)	83 (0.8)(12)
4760 (10500)	124 (1.2)(18)	83 (0.8)(12)	105 (1.05)(15)	75 (0.8)(11)	83 (0.8)(12)	83 (0.8)(12)	83 (0.8)(12)
4990 (11000)	138 (1.4)(20)	90 (0.9)(13)	105 (1.05)(15)	75 (0.8)(11)	90 (0.9)(13)	83 (0.8)(12)	83 (0.8)(12)
5220 (11500)	145 (1.4)(21)	97 (1.0)(14)	105 (1.05)(15)	80 (0.8)(12)	97 (1.0)(14)	83 (0.8)(12)	83 (0.8)(12)
5440 (12000)	159 (1.6)(23)	103 (1.0)(15)	105 (1.05)(15)	90 (0.9)(13)	103 (1.0)(15)	83 (0.8)(12)	83 (0.8)(12)
5670 (12500)	165 (1.7)(24)	110 (1.1)(16)	105 (1.05)(15)	95 (1.0)(14)	110 (1.1)(16)	90 (0.9)(13)	83 (0.8)(12)
5900 (13000)	179 (1.8)(26)	117 (1.2)(17)	105 (1.05)(15)	105 (1.1)(15)	117 (1.2)(17)	90 (0.9)(13)	97 (1.0)(14)
6120 (13500)	200 (2.0)(29)	124 (1.2)(18)	105 (1.05)(15)	110 (1.1)(16)	124 (1.2)(18)	97 (1.0)(14)	103 (1.0)(15)

Group	44						
Size	**420/85R38**	**600/65R34**	**620/75R30**	**IF620/75R30**	**650/60R34**	**IF650/60R34**	
Load Index	**149**	**157**	**163**	**164**	**159**	**159**	**165**
Speed Rating	**A8 / B**	**D**	**A8 / B / D**	**D**	**D**	**D**	**D**
	Single	**Single**	**Single**	**Single**	**Single**	**Single**	**Single**
Axle Load kg (lb)	**kPa (bar)(psi)**	**kPa (bar)(psi)**	**kPa (bar)(psi)**	**kPa (bar)(psi)**	**kPa (bar)(psi)**	**kPa (bar)(psi)**	**kPa (bar)(psi)**
6350 (14000)	228 (2.3)(33)	131 (1.3)(19)	110 (1.1)(16)	110 (1.1)(16)	131 (1.3)(19)	103 (1.0)(15)	110 (1.1)(16)
6580 (14500)	—	138 (1.4)(20)	120 (1.2)(17)	120 (1.2)(17)	138 (1.4)(20)	110 (1.1)(16)	117 (1.2)(17)
6800 (15000)	—	145 (1.5)(21)	125 (1.25)(18)	125 (1.3)(18)	145 (1.5)(21)	117 (1.2)(17)	124 (1.2)(18)
7030 (15500)	—	159 (1.6)(23)	130 (1.3)(19)	130 (1.3)(19)	152 (1.5)(22)	117 (1.2)(17)	131 (1.3)(19)
7260 (16000)	—	165 (1.7)(24)	140 (1.4)(20)	140 (1.4)(20)	159 (1.6)(23)	124 (1.2)(18)	138 (1.4)(20)
7480 (16500)	—	179 (1.8)(26)	145 (1.45)(21)	140 (1.4)(20)	165 (1.7)(24)	131 (1.3)(19)	145 (1.5)(21)
7950 (17000)	—	193 (1.9)(28)	160 (1.6)(23)	145 (1.5)(21)	179 (1.8)(26)	138 (1.4)(20)	152 (1.5)(22)
8170 (17500)	—	200 (2.0)(29)	175 (1.75)(25)	150 (1.5)(22)	186 (1.9)(27)	145 (1.5)(21)	165 (1.7)(24)
8400 (18000)	—	214 (2.1)(31)	185 (1.85)(27)	160 (1.6)(23)	193 (1.9)(28)	152 (1.5)(22)	172 (1.7)(25)
8630 (18500)	—	228 (2.3)(33)	190 (1.9)(28)	165 (1.7)(24)	207 (2.1)(30)	152 (1.5)(22)	179 (1.8)(26)
8640 (19000)	—	241 (2.4)(35)	200 (2.0)(29)	180 (1.8)(26)	221 (2.2)(32)	159 (1.6)(23)	186 (1.9)(27)
8865 (19500)	—	—	215 (2.15)(31)	190 (1.9)(28)	234 (2.3)(34)	—	193 (1.9)(28)
9090 (20000)	—	—	230 (2.3)(33)	210 (2.1)(30)	—	—	200 (2.0)(29)
9310 (20500)	—	—	234 (2.3)(34)	217 (2.2)(31)	—	—	214 (2.1)(31)
9530 (21000)	—	—	240 (2.4)(35)	220 (2.2)(32)	—	—	234 (2.3)(34)
9752 (21500)	—	—	—	240 (2.4)(35)	—	—	—

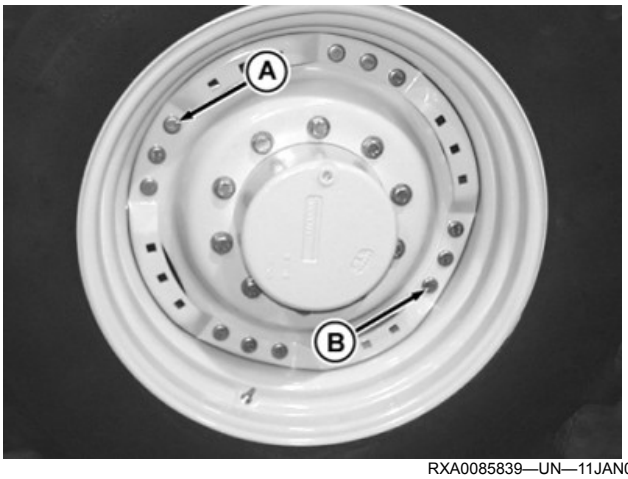
GH15097,0000481-19-16AUG18

Adjust and Tighten - Front Wheel Bolts

CAUTION: Avoid personal injury and equipment damage. Completely follow torque sequence and procedure. Never operate tractor with loose wheel bolts. Wheel bolts are critical and require retightening.

NOTE: Both inner and outer bolt patterns of disk have one tight-fit hole and one slot-fit hole 180° from each other, for improved wheel centering.

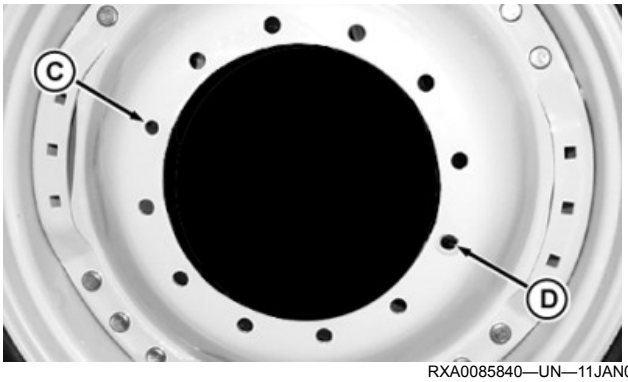
Wheel Disk-to-Rim



RXA0085839—UN—11JAN06

1. Install and hand-tighten bolt in tight-fit hole (A).
2. Install and hand-tighten bolt in slot-fit hole (B).
3. Install and hand-tighten remaining wheel disk-to-rim bolts.
4. Tighten all bolts to 310 N·m (230 lb·ft) using a star-shaped pattern.
5. Drive tractor 100 m (100 yd) and tighten bolts.
6. Tighten again at 3 hours, 10 hours, and daily for first week of operation and every 500 hours thereafter.

Wheel Disk-to-Hub (Eight-Position and Two-Position Wheels)



RXA0085840—UN—11JAN06

1. Install and hand-tighten cap screw in tight-fit hole (C).
2. Install and hand-tighten cap screw in slot-fit hole (D).
3. Install and hand tighten remaining wheel disk-to-hub cap screws.
4. Tighten all cap screws to 610 N·m (450 lb·ft) using a star-shaped pattern.
5. Drive tractor 100 m (100 yd) and tighten bolts.
6. Tighten again at 3 hours, 10 hours, and daily for first week of operation and every 500 hours thereafter.

GH15097,0000487-19-27SEP17

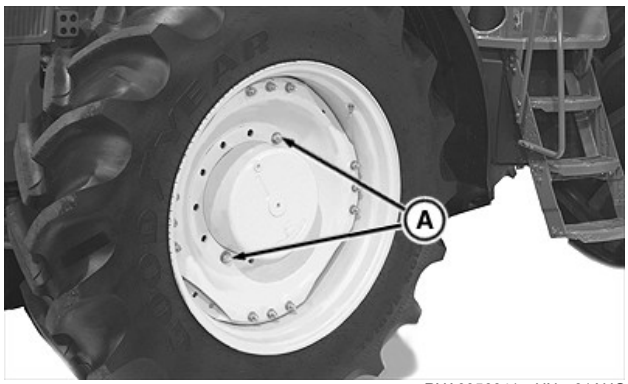
Install 425 mm Dual Extensions (8245R, 8270R, 8295R, and 8320R only)

CAUTION: Avoid personal injury. Failure to follow torquing sequence and procedure will result in damage to equipment and may result in personal injury.

IMPORTANT: Avoid damage to wheels and wheel hardware:

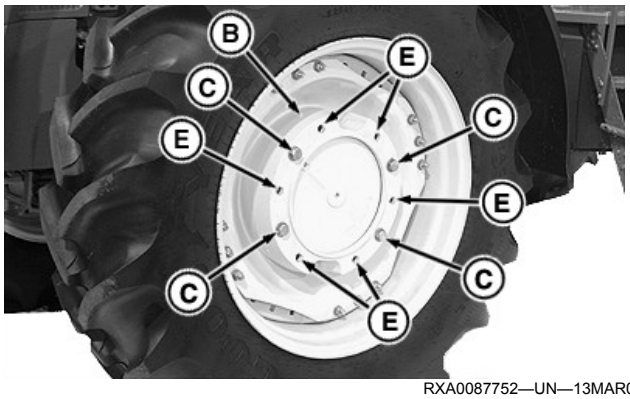
- **Never install front duals on 1300 MFWD axle.**
- **For 425 mm bolt circle, do not reinstall extension hardware into drive wheel hub upon removal of extension, but replace with standard non-extension hardware. Longer extension hardware may effect drive wheel hub or 1500 drive u-joint.**
- **For 500 mm bolt circle, removal of extension does not affect drive wheel hub extension hardware. Reinstall extension hardware back into drive wheel hub extension upon extension removal. Hardware does not effect drive wheel hub or 1500 drive u-joint.**

1. ILS™ tractors, lift front wheel assembly by using a jack under the lower support arm of the front suspension.



RXA0056641—UN—31AUG01

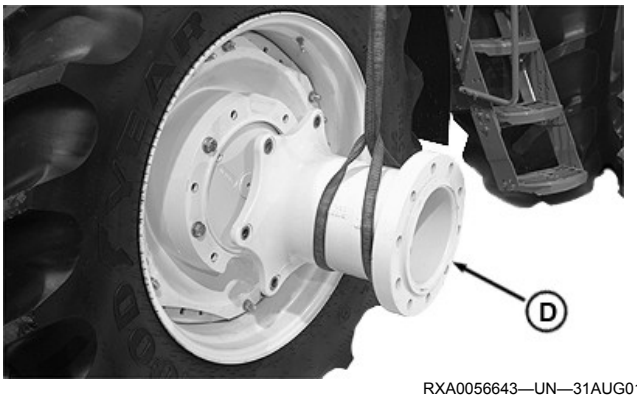
2. Remove and retain ten bolts leaving two remaining bolts (A) 180° apart.



RXA0087752—UN—13MAR06

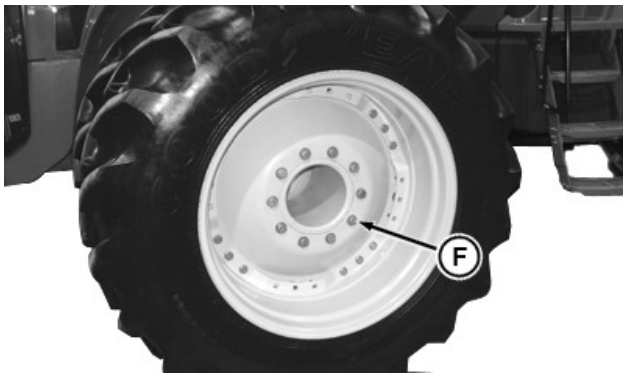
ILS is a trademark of Deere & Company

3. 1500 MFWD axle, install two washers on each of all ten bolts (C and E - 20 washers total).
4. Install spacer (B) and bolts (C).



RXA0056643—UN—31AUG01

5. Install dual hub (D) using correct lifting equipment.

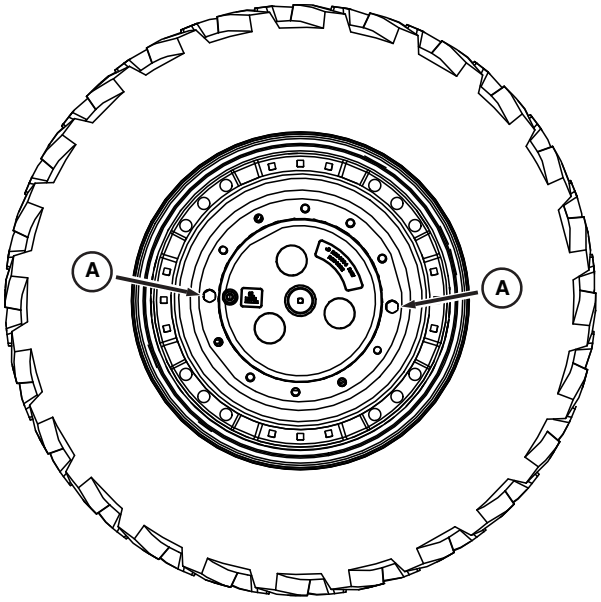


RXA0087788—UN—13MAR06

6. Install front dual wheel assembly using ten previously removed bolts (F).
7. Tighten all bolts to 610 N·m (450 lb·ft) using a star-shaped pattern.
8. Drive tractor 100 meters (110 yd) and retighten bolts.
9. Tighten again at 3 hours, 10 hours, and daily for the first week of operation.

GH15097,0000488-19-14FEB18

Install 500 mm Dual Extensions - ILS™ (8345R, 8370R, and 8400R Only)

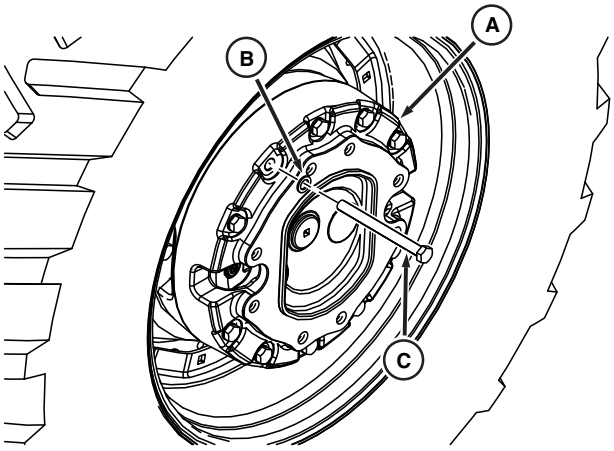


RXA0139642—UN—07MAR14

1. Remove all wheel mounting cap screws and washers from wheel, except cap screws (A). Retain cap screws and washers for mounting dual wheel.

RXA0141768—UN—28MAY14

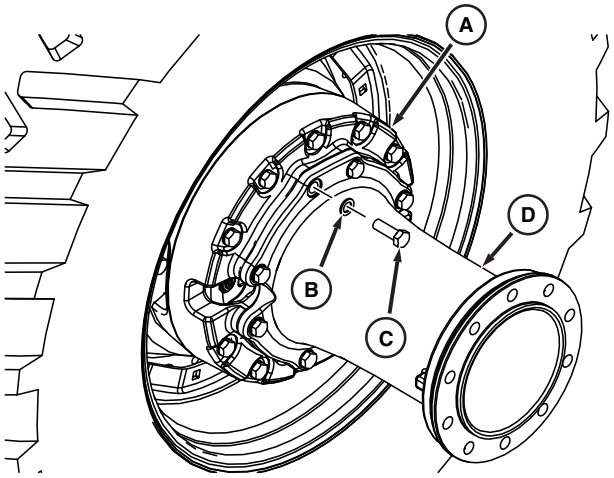
2. Install inner and outer extensions with cut outs exposing hub oil plug (AA).



RXA0139643—UN—07MAR14

CAUTION: Inner extension is heavy. Use proper hoist when installing or removing inner extension.

3. Install inner extension (A) using ten M20 x 220 cap screws (C) and ten M21 x 34 x 3 washers (B). Tighten to 610 N·m (450 lb·ft).



RXA0139644—UN—07MAR14

CAUTION: Outer extension is heavy. Use proper hoist when installing or removing outer extension.

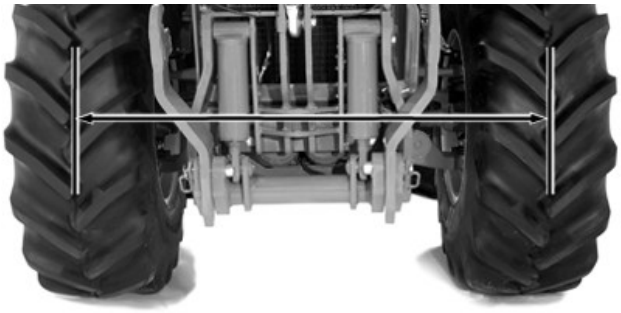
4. Install outer extension (D) using eight M20 x 60 socket head cap screws (C) and eight M21 x 34 x 3 washers (B). Tighten to 610 N·m (450 lb·ft).
5. Install outer dual wheel using retained cap screws and washers. Tighten to 610 N·m (450 lb·ft).
6. Drive tractor 100 meters (110 yd) and retighten bolts.
7. Tighten again at 3 hours, 10 hours and daily. for the first week of operation and then every 250 hours.

EC82310,0000413-19-02AUG17

Toe-In Check

NOTE: For Independent Link Suspension tractors in addition to the front wheels being straight, Independent Link Suspension axle must be level.

1. Make sure tires are in the straight forward position by driving tractor in a straight line for at least 15.24 m (50 ft).
2. Verify that equal lengths of the steering cylinder are showing on either side of tractor.



RXA0056533—UN—29AUG01

3. Measure distance between center line of tires at the hub level in front of axle. Mark the point that is measured.
4. Drive forward until front tires are rotated 180°.

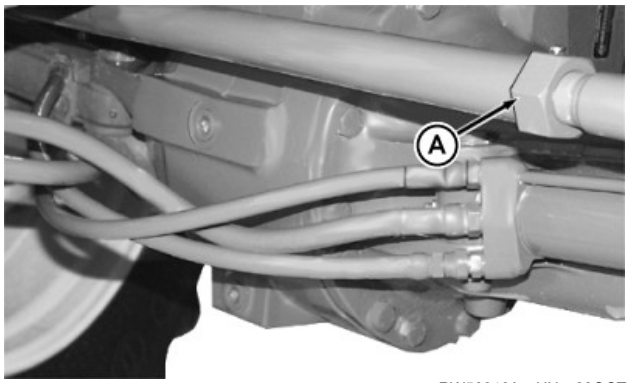
NOTE: When measuring rear of tire, make sure both front and rear measurements are from same point on tire. If front measurement of tire was from center line, then rear measurement of tire must be taken from tire center line. When performing rear measurement the transmission will be in the way. Make measurement from tire to loader bracket on each side of tractor, then add the width of transmission 512 mm (20.2 in).

5. Repeat step 3 at rear of tire at same point.
6. Determine the difference between front and rear measurements. The difference may be in either direction (toe-in or toe-out), but should be less than 3 mm (1/8 in).

GH15097,0000489-19-20JUL17

Toe-In Adjustment - 1300 MFWD

1. Check to make sure axle is centered.

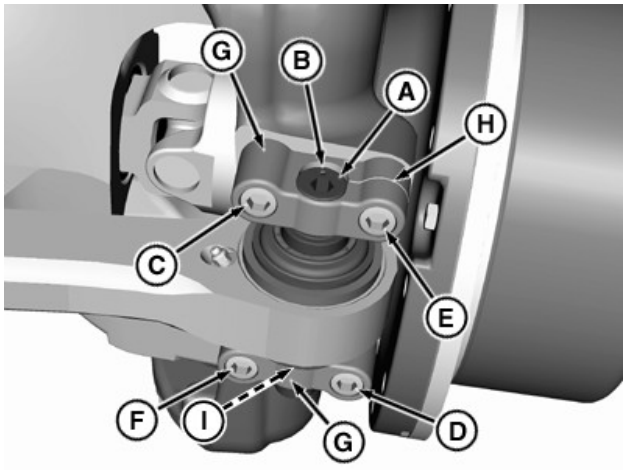


RW56646A—UN—22OCT99

2. Loosen jam nuts (A) on both ends of the tie rod tube.
3. Rotate tube to lengthen or shorten tie rod to obtain toe-in or toe-out of less than 3 mm (1/8 in). Each 1/4 turn equals approximately 1.5 mm (1/16 in) change.
4. Tighten jam nuts (A) on both ends of tie rod tube to 200 N·m (150 lb·ft).

GH15097,000048A-19-20JUL17

Toe-In Adjustment - 1500 MFWD



RXA0087842—UN—16MAR06

1. Loosen cap screws (E and F) on the split end (H) of the clamp (G).
2. Turn adjustment screw (A) a maximum of 90° to adjust toe-in up to 2 mm (3/32 in). Total toe-in adjustment is 8 mm (3/16 in) as set screw turns left and right.
3. Adjust toe-in.
4. Measure wheels as specified in Toe-In Check to verify toe-in of less than 3 mm (1/8 in).
5. Align timing marks (B).
6. Tighten cap screws to 310 N·m (230 lb·ft).

NOTE: If all four cap screws are loosened, tie rod may drop down allowing lower boot (I) to rub on the lower clamp. To avoid premature wear on lower boot, tie rod must be centered between the upper and lower clamps. Cap screws on the solid end of the clamp must be tightened before cap screws on the split end of the clamp. If all four screws are loosened use a crisscross method to tighten cap screws:

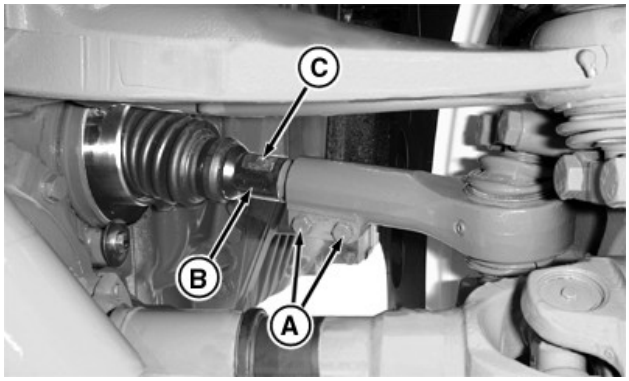
- *Tighten upper (C) and lower (D) clamp solid end cap screws.*
- *Tighten upper (E) and lower (F) clamp split end (H) cap screws.*

GH15097,000048B-19-20JUL17

Toe-In Adjustment - ILS™

CAUTION: Avoid personal injury. For tractors equipped with front hitch, avoid possible personal injury and equipment damage. Never use the front hitch to lift the tractor. Use correct lifting equipment.

1. Check to make sure axle is centered.



RXA0056534—UN—18OCT01

2. Loosen clamp bolts (A) on both tie rods.
3. Rotate inboard pin (B) using the wrench flats (C) to obtain toe-in or toe-out of less than 3 mm (1/8 in). One full revolution of both pins changes toe-in approximately 2.5 mm (3/32 in).
4. Tighten clamp bolts (A) on both tie rods to 125 N·m (90 lb·ft).

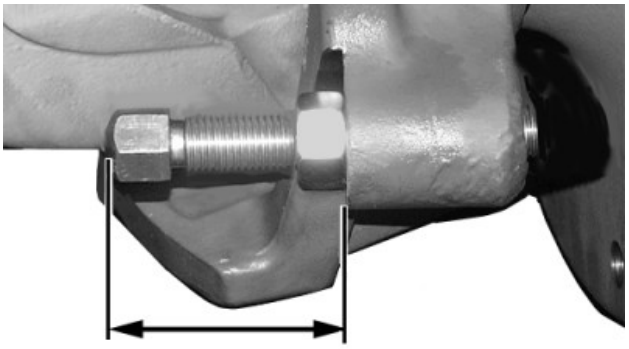
GH15097,000048C-19-20JUL17

Steering Stop, Fender, and Tread Settings

Steering Stop Settings - MFWD

IMPORTANT: Avoid damage to fenders. Adjust fenders before setting steering stop positions.

1. Select correct steering stop position for tire size and tread setting. See Front Tire, Fender, and Steering Stop Settings chart in this section.



RW56647—UN—06OCT98

2. Set steering stops to correct position.

1300 MFWD STEERING STOP POSITIONS		
Position	**Turn Angle**	**Bolt Length mm (in)**
0	52°	43.6 (1.72)
1	47°	56.6 (2.23)
2	42°	69.6 (2.74)
3	37°	82.6 (3.25)

1500 MFWD STEERING STOP POSITIONS		
Position	Turn Angle	Bolt Length mm (in)
0	48°	42.5 (1.67)
1	44°	56.6 (2.22)
2	39°	75.0 (2.95)
3	35°	89.3 (3.51)
4	32°	100 (3.94)

3. Tighten steering stop retaining bolts to 250 N·m (185 lb·ft).
4. Turn wheel fully to the right. Impact knuckle housing to steering stop five times. Repeat for left side.
5. Retighten steering stop retaining bolts to 250 N·m (185 lb·ft).

IMPORTANT: Settings allow 25 mm (1 in) minimum clearance at maximum turn and full oscillation. Fenders may deflect against side frame during turn. Clearance and interference must be checked under full oscillation and full turn.

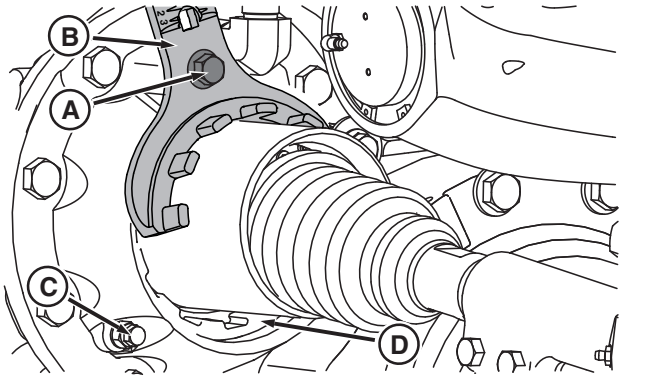
6. Verify clearance by turning steering wheel fully to the left and then to the right.

GH15097,000048D-19-20JUL17

Steering Stop Settings - ILS™

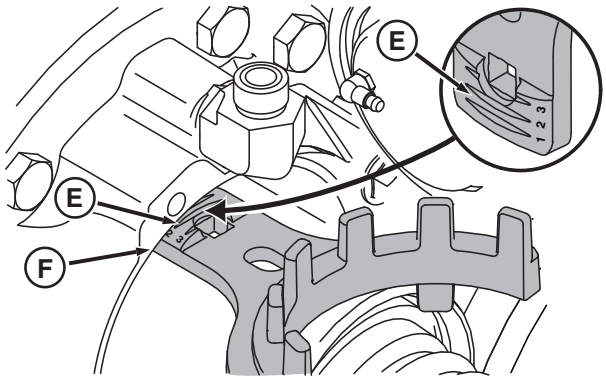
CAUTION: For tractors equipped with front hitch, avoid possible personal injury and equipment damage. DO NOT use the front hitch to lift the tractor. Use correct lifting equipment.

1. Determine correct steering stop position for tire size and tread setting.



RXA0085841—UN—11JAN06

2. Remove cap screw (A) and wrench (B) on axle housing.
3. Loosen bleed screw (C).
4. Loosen jam nut.



RXA0085842—UN—11JAN06

NOTE: To check a steering stop position of zero, insert wrench as shown in right-hand illustration, the wrench will be flush with outer flange (F).

5. Check current rod guide (D) position using steering stop position marks (E) on wrench.

ILS™ STEERING STOP POSITIONS	
Position	**Turn Angle**
0	48°
1	43°

ILS™ STEERING STOP POSITIONS	
Position	**Turn Angle**
2	39°
3	35°

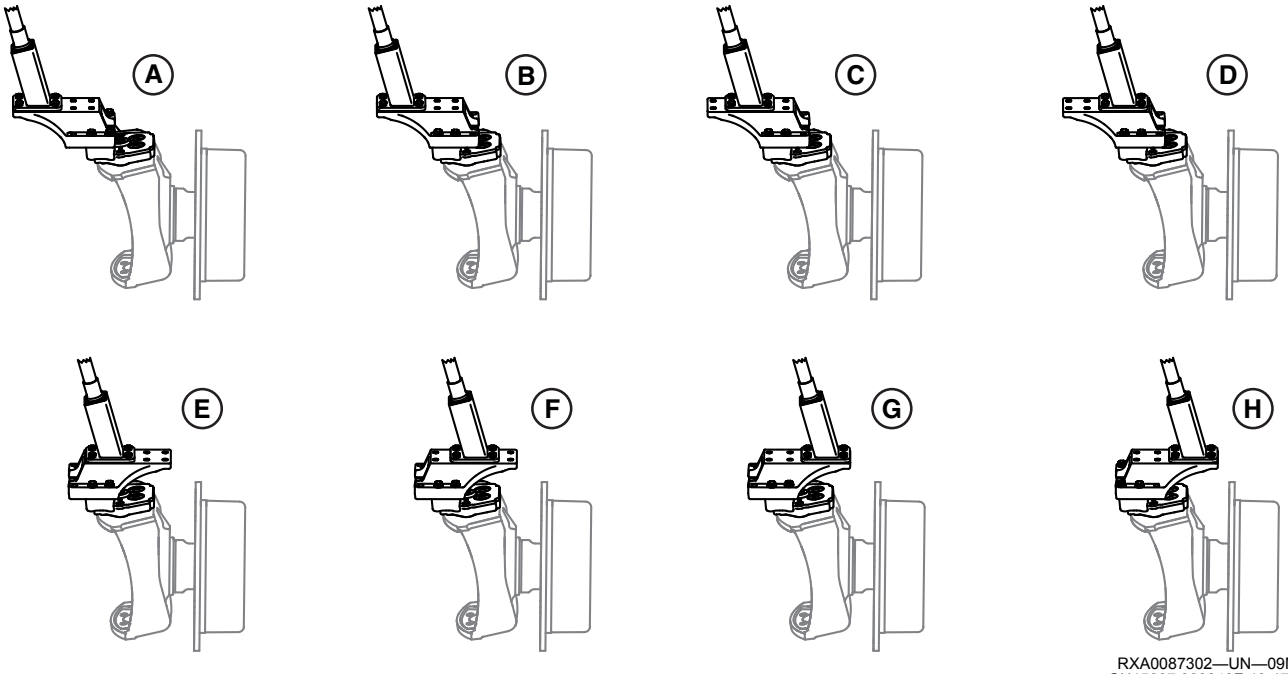
6. Turn rod guide (D) using wrench (B) to adjust distance and to obtain the correct steering position.
7. Adjust guide minimally to reinstall wrench and retaining cap screw (A). Torque to 125 N·m (90 lb·ft).
8. Tighten bleed screw (C) to 40 N·m (30 lb·ft).
9. Tighten jam nut to 15 N·m (12 lb·ft).
10. Repeat procedure on opposite side of axle housing.

IMPORTANT: Settings allow 25 mm (1 in) minimum clearance at maximum turn and full oscillation. Fenders may deflect against side frame during turn. Clearance and interference must be checked under full oscillation and full turn.

11. Verify clearance by turning fully left then fully right.

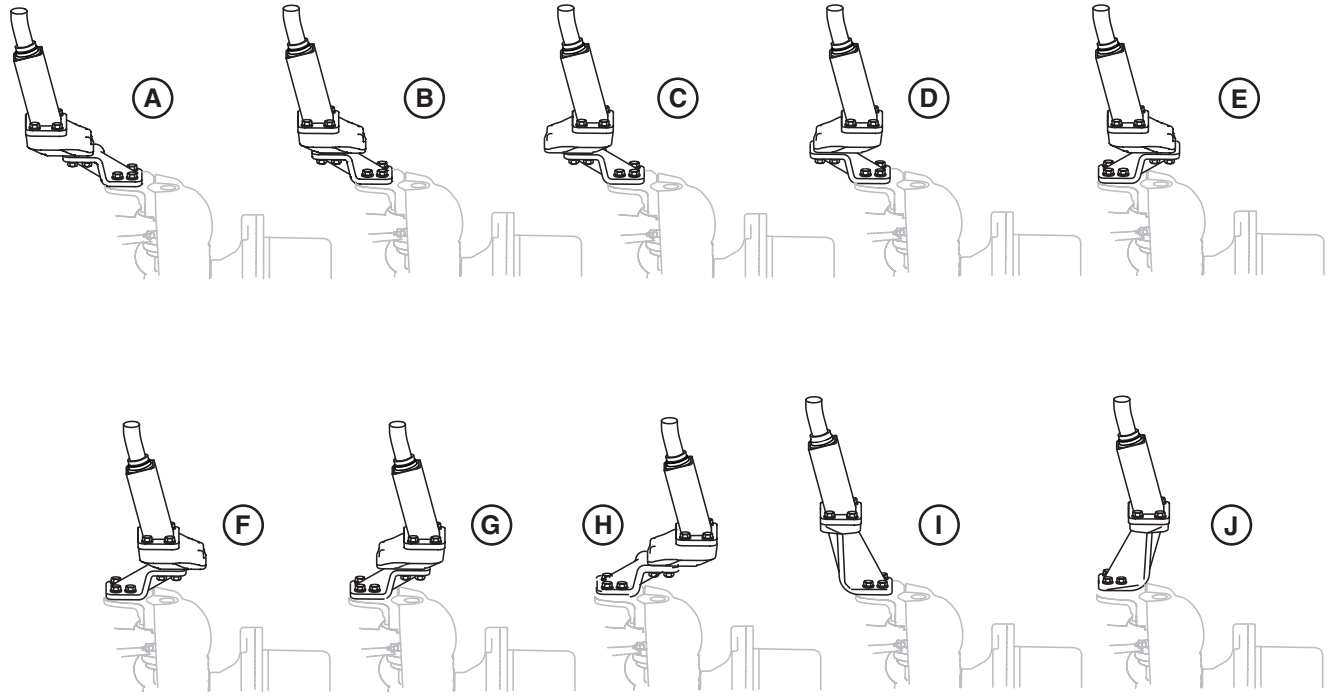
GH15097,000048E-19-01JUN17

Fender Settings - 1300 MFWD



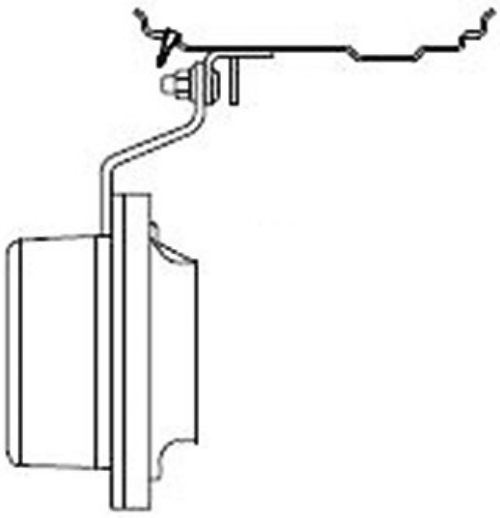
RXA0087302—UN—09MAR06
GH15097,000048F-19-17JUN16

Fender Settings - 1500 MFWD and ILS™



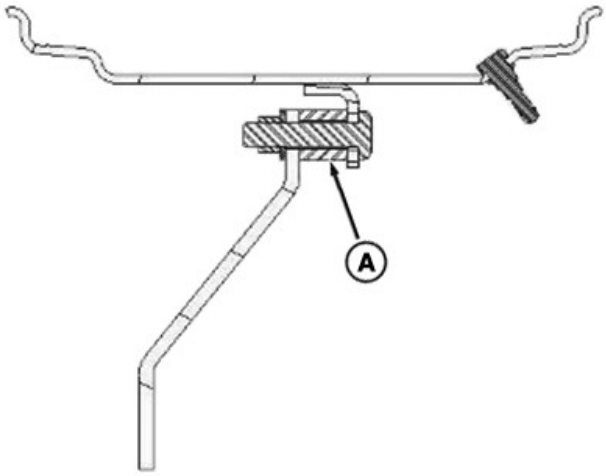
RXA0062365—UN—04SEP02
GH15097,0000490-19-17JUN16

Determine Rim Type



RXA0160411—UN—08AUG17

8-Position Rim



RXA0160412—UN—08AUG17

16-Position Rim

8-position rim and 16-position rim with spacer (A) uses M16 hardware at the disk to rim flange joint. Torque specification for M16 hardware is 300 N·m (225 lb·ft).

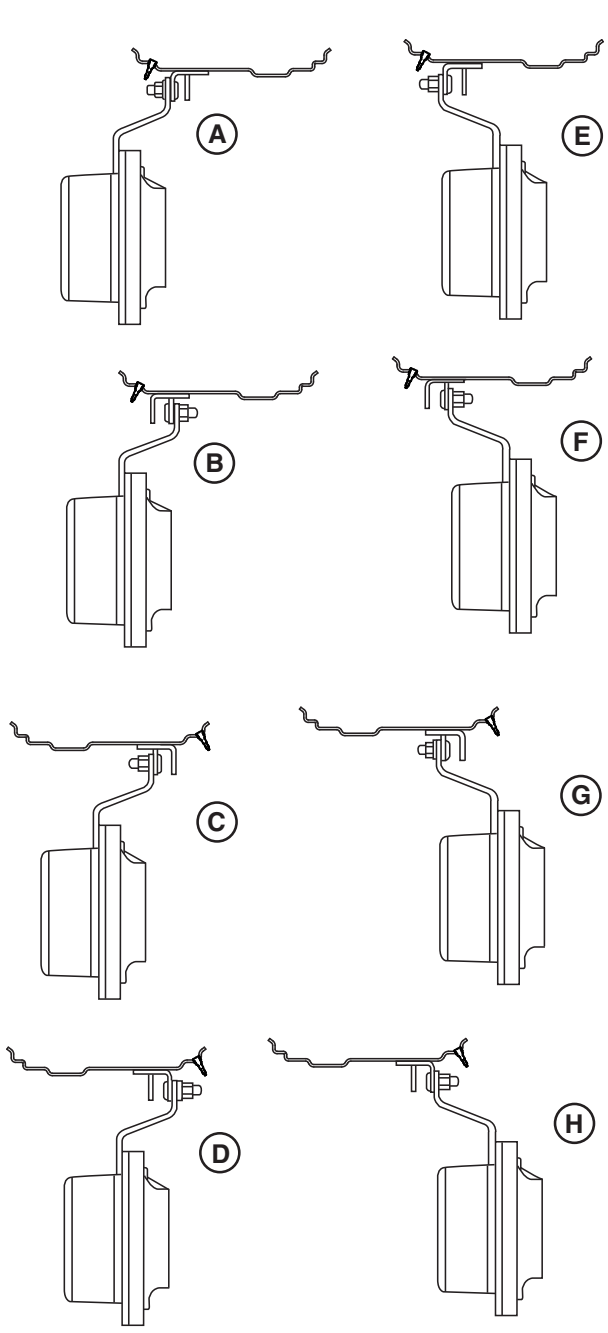
GH15097,0000491-19-11AUG17

Wheel Settings—8-Position

CAUTION: Avoid personal injury. Failure to follow torquing sequence and procedure will result in damage to equipment and may result in personal injury.

480 mm (18.9 in) Tire Widths and Smaller

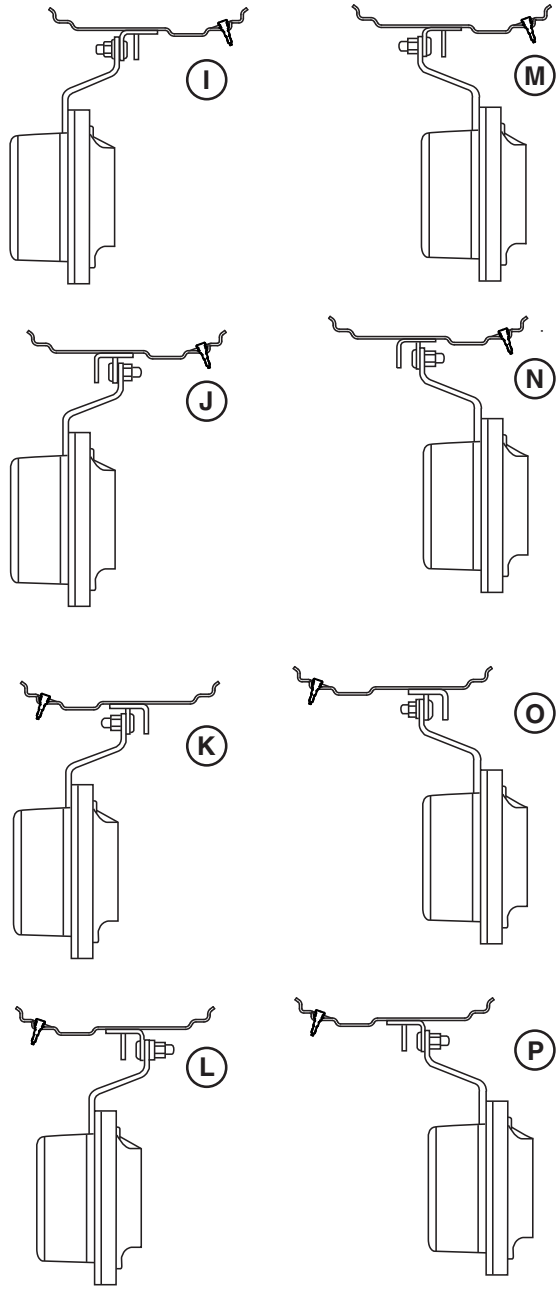
NOTE: A through H are used for all tires 480 mm (18.9 in) section width or smaller tires. Tread settings are measured at bottom center line of tire.



RXA0062856—UN—01OCT02

1. Use diagram to adjust rim and disk for desired tread setting.
2. Tighten disk-to-rim bolts to 310 N·m (230 lb·ft) using a star shaped pattern.
3. Tighten disk-to-hub nuts to 600 N·m (450 lb·ft) using a star shaped pattern.
4. Tighten bolts at 3 hours, 10 hours, and daily for the first week of operation.
5. Adjust fenders and steering stops as required using the tables and diagrams on the following pages.

Eight Position Wheel Settings-Continued



RXA0062368—UN—01OCT02

CAUTION: Avoid personal injury. Failure to follow torquing sequence and procedure will result in damage to equipment and may result in personal injury.

540mm (20.8 in) Tire Widths and Larger

NOTE: I through P are used for 540 mm (20.8 in) section width or larger tires. Tread settings are measured at bottom center line of tire.

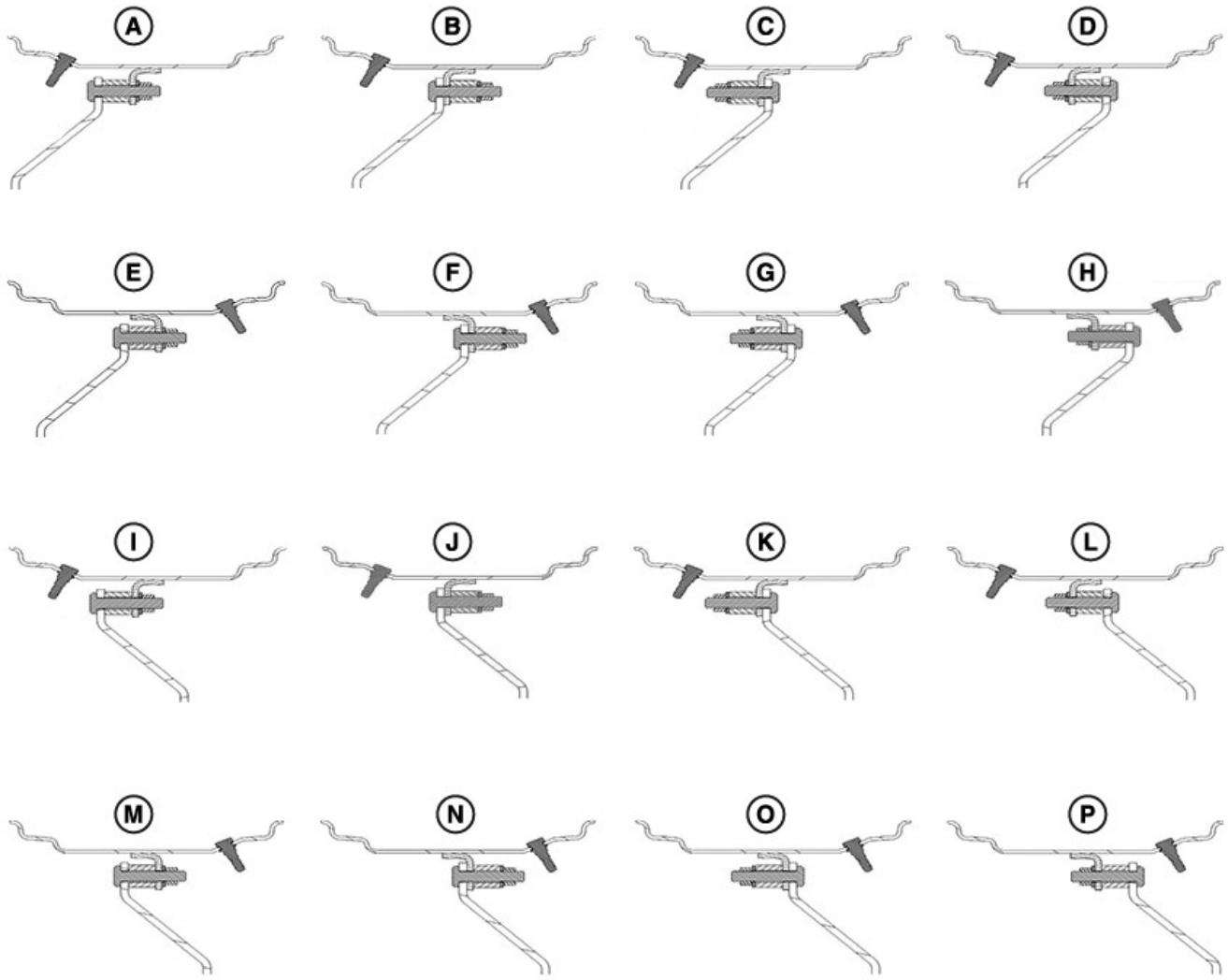
1. Use diagram to adjust rim and disk for desired tread setting.
2. Tighten disk-to-rim bolts to 310 N·m (230 lb·ft) using a star-shaped pattern.
3. Tighten disk-to-hub nuts to 600 N·m (450 lb·ft) using a star-shaped pattern.
4. Tighten bolts after 3 hours, 10 hours, and daily for the first week of operation.
5. Adjust fenders and steering stops as required using the tables and diagrams on the following pages.

GH15097,0000492-19-08AUG17

Wheel Setting—16-Position

380/80R38 Tires Only

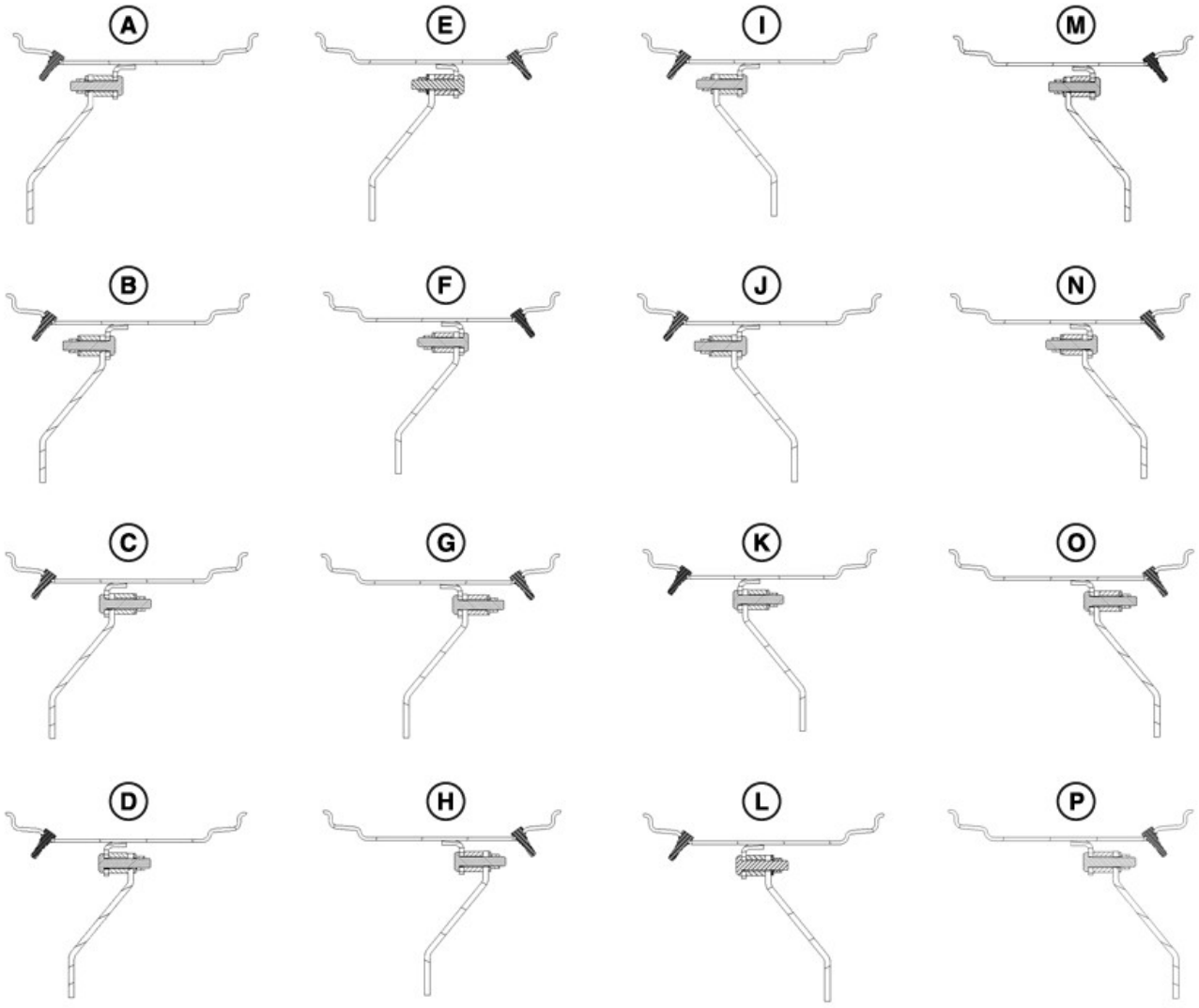
16-position steel wheel as viewed from behind left tire.



RXA0164282—UN—27AUG18

420/85R34 and 480/70R38 Tires Only

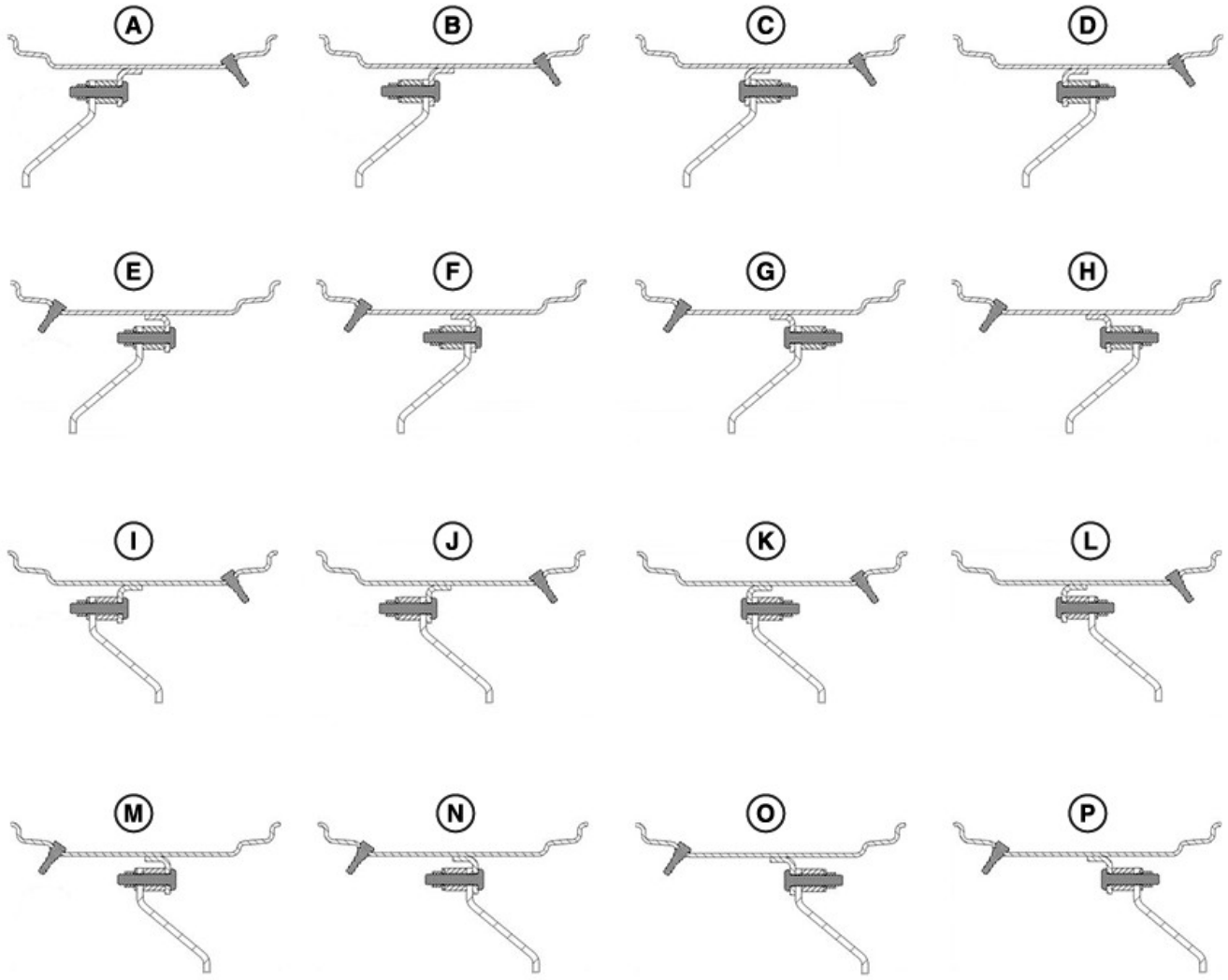
16-position steel wheel as viewed from behind left tire.



RXA0160413—UN—08AUG17

600/70R30 Tires Only

16-position steel wheel as viewed from behind left tire.



RXA0164283—UN—27AUG18
KT81203,000050D-19-16AUG18

Tire, Steering Stop, and Fender Settings Table Explanation

IMPORTANT: Avoid fender and tire damage. Always adjust fenders before setting steering stop.

Never use 620 and 710 mm wide fenders with front dual tire combinations.

To calculate Mean Tread Spacing see Determine Mean Tread Spacing in this section of this Operator's Manual.

Table data defined as:

Description	Example 1	Example 2
	8L1Cw 5625 (221)	**16A1A$_a$ 5680 (224)**
Wheel rim type	8[a]	16[b]
Wheel setting[c]	L	A
Steering stop setting[d]	1	1
Fender setting[e]	C	A
Wide fender setting	w	[a] or other footnote

Description	Example 1	Example 2
	8L1Cw 5625 (221)	16A1A[a] 5680 (224)
Turning diameter in mm (in)	5625 (221)	5680 (224)

[a] 8-position rim setting. See Eight Position Wheel Settings in this section of this Operator's Manual.
[b] 16-position rim setting. See Sixteen Position Wheel Settings in this section of this Operator's Manual.
[c] See 8- or 16-position Wheel Settings in this section of this Operator's Manual.
[d] See 1500 MFWD Steering Stop Settings or ILS™ Steering Stop Settings in this section of this Operator's Manual.
[e] See Fender Settings - 1500 MFWD and ILS™ in this section of this Operator's Manual.

EC82310,0000088-19-15JUN17

Tire, Steering Stop, and Fender Settings - 1300 MFWD

Front Tire, Fender, and Steering Stop Settings - 1300 MFWD mm (in)							
Tread Spacing	**524-1882 (60-74.1)**						
Tire Size	**1524 (60)**	**1626 (64)**	**1676 (66)**	**1727 (68)**	**1780 (70)**	**1829 (72)**	**1882 (74.1)**
320/80R42	8A3A 6350 (250)	8B3B 6450 (254)	—	8C2C 5950 (234)	—	8D1D 5575 (219)	—
320/85R38 (R1W)	8A1A 5325 (210)	8B0B 5025 (198)	—	8C0C 5125 (202)	—	8D0D 5200 (205)	—
380/80R38	8A3A 16A3A 6350 (250)	8B2B 16C2B 5875 (231)	—	8C1C 16F1C 5500 (217)	—	8D1D 16H1D 5575 (219)	—
380/85R34	8A2A 5775 (227)	8B1B 5400 (213)	—	8C0C 5125 (202)	—	8D0D 5200 (205)	—
420/85R34	8A3A 16A3A 6350 (250)	8B3B 16C3B 6450 (254)	—	8C2C 16F2C 5950 (234)	—	8D1D 16H1D 5575 (219)	—
420/90R30	8A2A 5775 (227)	8B1B 5400 (213)	—	8C0C 5125 (202)	—	8D0D 5200 (205)	—
480/70R30	8A2A 5775 (227)	8B1B 5400 (213)	—	8C0C 5125 (202)	—	8D0D 5200 (205)	—
480/70R34	—	8B3B 16C2B 6450 (254)	—	8C2C 16F2C 5950 (234)	—	8D1D 16H1D 5575 (219)	—
540/65R34	—	—	8B2Aw 5900 (232)	—	8C1Bw 5550 (219)	—	8D0Cw 5250 (207)
600/65R28	—	—	—	—	8K1Bw 5550 (219)	—	8L0Cw 5250 (207)
600/70R30	—	—	—	—	8K3Bw 16F3Bw 6000 (236)	—	8L2Cw 16H2Cw 5625 (221)

Front Tire, Steering Stop, and Fender Settings - 1300 MFWD - Continued mm (in)							
Tread Spacing	**1930-2235 (76-88)**						
Tire Size	**1930 (76)**	**1979 (78)**	**2032 (80)**	**2080 (82)**	**2134 (84)**	**2182 (86)**	**2235 (88)**
320/80R42	8E0E 5275 (208)	—	8F0F 5366 (211)	—	8G0G 5450 (215)	—	8H0H 5525 (218)
320/85R38 (R1W)	8E0E 5275 (208)	—	8F0F 5366 (211)	—	8G0G 5450 (215)	—	8H0H 5525 (218)
380/80R38	8E0E 16I0E 5275 (208)	—	8F0F 16K0F 5366 (211)	—	8G0G 16N0G 5450 (215)	—	8H0H 16P0H 5525 (218)
380/85R34	8E0E 5275 (208)	—	8F0F 5366 (211)	—	8G0G 5450 (215)	—	8H0H 5525 (218)
420/85R34	8E0E 16I0E 5275 (208)	—	8F0F 16K0F 5366 (211)	—	8G0G 16N0G 5450 (215)	—	8H0H 16P0H 5525 (218)

Front Tire, Steering Stop, and Fender Settings - 1300 MFWD - Continued mm (in)							
Tread Spacing	**1930-2235 (76-88)**						
Tire Size	**1930 (76)**	**1979 (78)**	**2032 (80)**	**2080 (82)**	**2134 (84)**	**2182 (86)**	**2235 (88)**
420/90R30	8E0E 5275 (208)	—	8F0F 5366 (211)	—	8G0G 5450 (215)	—	8H0H 5525 (218)
480/70R30	8E0E 5275 (208)	—	8F0F 5366 (211)	—	8G0G 5450 (215)	—	8H0H 5525 (218)
480/70R34	8E0E 16I0E 5275 (208)	—	8F0F 16K0F 5366 (211)	—	8G0G 16N0G 5450 (215)	—	8H0H 16P0H 5525 (218)
540/65R34	—	8F0Dw 5325 (210)	—	8G0Ew 5400 (213)	—	8H0Fw 5750 (226)	—
600/65R28	—	8N0Dw 5325 (210)	—	8O0Ew 5400 (213)	—	8P0Fw 5750 (226)	—
600/70R30	—	8N1Dw 16K1Dw 5700 (224)	—	8O1Ew 16N0Ew 5400 (213)	—	8P1Fw 16P0Fw 5750 (226)	—

GH15097,0000495-19-13AUG18

Tire, Steering Stop, and Fender Settings - 1500 MFWD with Single Front Tires

Front Tire, Fender, and Steering Stop Settings - 1500 MFWD mm (in)							
Tread Spacing	**1524-1882 (60-74.1)**						
Size	**1524 (60)**	**1626 (64)**	**1676 (66)**	**1727 (68)**	**1780 (70)**	**1829 (72)**	**1882 (74.1)**
320/80R42	8A3A 6575 (259)	8B2B 6150 (242)	—	8C1C 5725 (225)	—	8D1D 5800 (228)	—
320/85R38	8A3A 6624 (261)	8B1B 5674 (223)	—	8C0C 5414 (213)	—	8D0D 5499 (217)	—
380/80R38	8A3A 16A3A 6575 (259)	8B2B 16C2B 6150 (242)	—	8C1C 16F1C 5725 (225)	—	8D1D 16H1D 5800 (228)	—
380/85R34	8A4A 7094 (279)	8B2B 6183 (243)	—	8C1C 5759 (227)	—	8D0D 5499 (227)	—
420/85R34	—	8B3B 16C3B 6650 (262)	—	8C2C 16F2C 6225 (245)	—	8D1D 16H1D 5800 (228)	—
420/85R38	—	—	—	—	—	—	—
480/70R34	—	8B3B 16C3B 6650 (262)	—	8C2C 16F2C 6225 (245)	—	8D2D 16H1D 6325 (249)	—
540/65R34	—	—	8B3Aw 6700 (264)	—	8C2Bw 6275 (247)	—	8D1Cw 5850 (230)
540/75R34	—	—	—	—	—	—	—
600/70R30	—	—	—	—	—	—	8M3Cw 16H3Cw 6900 (272)
600/65R34	—	—	—	—	—	—	—
620/75R30	—	—	—	—	—	—	—
650/60R34	—	—	—	—	—	—	—

Front Tire, Fender, and Steering Stop Settings - 1500 MFWD mm (in)							
Tread Spacing	**1930-2235 (86-88)**						
Size	**1930 (76)**	**1979 (78)**	**2032 (80)**	**2080 (82)**	**2134 (84)**	**2182 (86)**	**2235 (88)**
320/80R42	8E1E 5900 (232)	—	8F1F 5975 (235)	—	8G0G 5725 (225)	—	8H0H 5800 (228)
320/85R38	8E0E 5583 (220)	—	8F0F 5669 (223)	—	8G0G 5755 (227)	—	8H0H 5841 (230)
380/80R38	8E1E 16I1E 5900 (232)	—	8F1F 16K1F 5975 (235)	—	8M1G 16N1G 5725 (225)	—	8H0H 16P0H 5800 (228)
380/85R34	8E0E 5583 (220)	—	8F0F 5669 (223)	—	8G0G 5755 (227)	—	8H0H 5841 (230)
420/85R34	8E1E 16I1E 5900 (232)	—	8F0F 16K0F 5625 (221)	—	8G0G 16N0G 5725 (225)	—	8H0H 16P0H 5800 (228)
420/85R38	—	—	—	—	8G3Jw 7150 (281)	—	8H2Jw 6700 (264)
480/70R34	8E1E 16I1E 5900 (232)	—	8F0F 16K0F 5625 (221)	—	8G0G 16N0G 5725 (225)	—	8H0H 16P0H 5800 (228)
540/65R34	—	8F0Dw 5575 (219)	—	8G0Ew 5675 (223)	—	8H0Fw 5750 (226)	—
540/75R34	—	—	—	8G3Iw 7075 (279)	—	8H2Jw 6650 (262)	—
600/70R30	—	8N1Dw 16K1Dw 5925 (233)	—	8O1Ew 16N1Ew 6025 (237)	—	8P1F 16P1Fw 6100 (240)	—
600/65R34	—	—	—	8O3I 7075 (279)	—	8P2J 6655 (262)	—
620/75R30	—	—	—	—	—	8P3Jw 7175 (282)	—
650/60R34	—	—	—	8O2Iw 6550 (258)	—	8P1Jw 6100 (240)	—

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Tire, Steering Stop, and Fender Settings - ILS™ with Single Front Tires

Front Tire, Steering Stop, and Fender Settings - ILS™ with Single Front Tires mm (in)							
Tread Spacing	**1524-1882 (60-74.1)**						
Size	**1524 (60)**	**1626 (64)**	**1676 (66)**	**1727 (68)**	**1780 (70)**	**1829 (72)**	**1882 (74.1)**
320/85R38	8A2A 6050 (238)	8B1B 5725 (225)	—	8C0C 5375 (212)	—	8D0D 5450 (215)	—
320/80R42	8A3A 6575 (259)	8B1B 5725 (225)	—	8C1C 5800 (228)	—	8D1D 5900 (232)	—
380/80R38	8A3A 16A3A 6575 (259)	8B2B 16C2B 6125 (241)	—	8C1C 16F1C 5800 (228)	—	8D1D 16H1D 5900 (232)	—
380/85R34	8A3A 6575 (259)	8B2B 6125 (241)	—	8C0C 5375 (212)	—	8D0D 5450 (215)	—
420/85R34	8A3A 16A3A 6575 (259)	8B3B 16C3B 6650 (262)	—	8C1C 16F1C 5800 (228)	—	8D1D 16H1D 5900 (232)	—
420/85R38	—	—	—	—	—	—	—
480/70R34	—	—	—	—	—	8D1D 16H1D 5900 (232)	—
540/65R34	—	—	8B3Aw 6700 (264)	—	8C2Bw 6275 (247)	—	8D1Cw 5925 (233)

Front Tire, Steering Stop, and Fender Settings - ILS™ with Single Front Tires mm (in)							
Tread Spacing	**1524-1882 (60-74.1)**						
Size	**1524 (60)**	**1626 (64)**	**1676 (66)**	**1727 (68)**	**1780 (70)**	**1829 (72)**	**1882 (74.1)**
540/75R34	—	—	—	—	—	—	—
600/65R28	—	—	—	—	8K2Bw 6275 (247)	—	8L1Cw 5925 (233)
600/65R34	—	—	—	—	—	—	—
600/70R30	—	—	—	—	8K3Bw 16F3Bw 6800 (268)	—	8L2Cw 16H3Cw 6350 (250)
620/75R30	—	—	—	—	—	—	—

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Front Tire, Steering Stop, and Fender Settings - ILS™ with Single Front Tires - Continued mm (in)							
Tread Spacing	**1930-2235 (76-88)**						
Size	**1930 (76)**	**1979 (78)**	**2032 (80)**	**2080 (82)**	**2134 (84)**	**2182 (86)**	**2235 (88)**
320/85R38	8E0E 5550 (219)	—	8F0F 5625 (221)	—	8G0G 5725 (225)	—	8H0H 5800 (228)
320/80R42	8E1E 5975 (235)	—	8F1F 6075 (239)	—	8G0G 5725 (225)	—	8H0H 5800 (228)
380/80R38	8E1E 16I1E 5975 (235)	—	8F1F 16K1F 6075 (239)	—	8G1G 16N1G 6150 (242)	—	8H0H 16P0H 5800 (228)
380/85R34	8E0E 5550 (219)	—	8F0F 5625 (221)	—	8G0G 5725 (225)	—	8H0H 5800 (228)
420/85R34	8E1E 16I1E 5975 (235)	—	8F1F 16K1F 6075 (239)	—	8G1G 16N1G 6150 (242)	—	8H0H 16P0H 5800 (228)
420/85R38	—	—	—	—	8G3Jw 7150 (281)	—	8H2Jw 6700 (264)
480/70R34	8E1E 16I1E 5975 (235)	—	8F0F 16K0F 5625 (221)	—	8G0G 16N0G 5725 (225)	—	8H0H 16P0H 5800 (228)
540/65R34	—	8F0Dw 5575 (219)	—	8G0Ew 5675 (223)	—	8H0Fw 5750 (226)	—
540/75R34	—	8F3Iw 6975 (275)	—	8G3Iw 7075 (279)	—	8H2Jw 6625 (261)	—
600/65R28	—	8N0Dw 5575 (219)	—	8O0Ew 5675 (223)	—	8P0Fw 5750 (226)	—
600/65R34	—	—	—	8O3Iw 7075 (279)	—	8P2Jw 6625 (261)	—
600/70R30	—	8N1Dw 16K1Dw 6025 (237)	—	8O1Ew 16N1Ew 6100 (240)	—	8P1Fw 16P1Fw 6200 (244)	—
620/75R30	—	—	—	8O3Iw 7075 (279)	—	8P2Jw 6625 (261)	—
650/60R34	—	—	—	8N2Iw 6550 (258)	—	8P1Jw 6200 (244)	—

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Front Tire, Steering Stop, and Fender Settings - ILS™ with Single Front Tires and Front Hitch mm (in)							
Tread Spacing	**1524-1882 (60-74.1)**						
Size	**1524 (60)**	**1626 (64)**	**1676 (66)**	**1727 (68)**	**1780 (70)**	**1829 (72)**	**1882 (74.1)**
320/85R38	8A3A 6575 (259)	8B1B 5725 (225)	—	8C0C 5375 (212)	—	8D0D 5450 (215)	—
320/80R42	—	8B3B 6650 (262)	—	8C1C 5800 (228)	—	8D1D 5900 (232)	—
380/80R38	—	8B3B	—	8C2C	—	8D1D	—

Front Tire, Steering Stop, and Fender Settings - ILS™ with Single Front Tires and Front Hitch mm (in)							
Tread Spacing	**1524-1882 (60-74.1)**						
Size	**1524 (60)**	**1626 (64)**	**1676 (66)**	**1727 (68)**	**1780 (70)**	**1829 (72)**	**1882 (74.1)**
		16C3B 6650 (262)		16F2C 6225 (245)		16H1D 5900 (232)	
380/85R34	—	8B2B 6125 (241)	—	8C0C 5375 (212)	—	8D0D 5450 (215)	—
420/85R34	—	—	—	8C2C 16F2C 6225 (245)	—	8D1D 16H1D 5900 (232)	—
420/85R38	—	—	—	—	—	—	—
480/70R34	—	—	—	—	—	8D2D 16H2D 6325 (249)	—
540/65R34	—	—	—	—	8C3Bw 6800 (268)	—	8D1Cw 5925 (233)
540/75R34	—	—	—	—	—	—	—
600/65R28	—	—	—	—	8K2Bw 6275 (247)	—	8L1Cw 5925 (233)
600/65R34	—	—	—	—	—	—	—
600/70R30	—	—	—	—	—	—	8L3Cw 16H3Cw 6900 (272)
620/75R30	—	—	—	—	—	—	—

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Front Tire, Steering Stop, and Fender Settings - ILS™ with Single Front Tires and Front Hitch - Continued mm (in)							
Tread Spacing	**1930-2235 (76-88)**						
Size	**1930 (76)**	**1979 (78)**	**2032 (80)**	**2080 (82)**	**2134 (84)**	**2182 (86)**	**2235 (88)**
320/85R38	8E0E 5550 (219)	—	8F0F 5625 (221)	—	8G0G 5725 (225)	—	8H0H 5800 (228)
320/80R42	8E1E 5975 (235)	—	8F1F 6075 (239)	—	8G0G 5725 (225)	—	8H0H 5800 (228)
380/80R38	8E1E 16I1E 5975 (235)	—	8F1F 16K1F 6075 (239)	—	8G1G 16N1G 6150 (242)	—	8H0H 16P0H 5800 (228)
380/85R34	8E0E 5550 (219)	—	8F0F 5625 (221)	—	8G0G 5725 (225)	—	8H0H 5800 (228)
420/85R34	8E1E 16I1E 5975 (235)	—	8F1F 16K1F 6075 (239)	—	8G1G 16N1G 6150 (242)	—	8H0H 16P0H 5800 (228)
420/85R38	—	—	—	—	8G3Jw 7150 (281)	—	8H2Jw 6700 (264)
480/70R34	8E1E 16I1E 5975 (235)	—	8F0F 16K0F 5625 (221)	—	8G0G 16N0G 5725 (225)	—	8H0H 16P0H 5800 (228)
540/65R34	—	8F0Dw 5575 (219)	—	8G0Ew 5675 (223)	—	8H0Fw 5750 (226)	—
540/75R34	—	8F3Iw 6975 (275)	—	8G3Iw 7075 (279)	—	8H2Jw 6625 (261)	—
600/65R28	—	8N0Dw 5575 (219)	—	8O0Ew 5675 (223)	—	8P0Fw 5750 (226)	—
600/65R34	—	—	—	8O3Iw 7075 (279)	—	8P2Jw 6625 (261)	—
600/70R30	—	8N1Dw 16K1Dw 6025 (237)	—	8O1Ew 16N1Ew 6100 (240)	—	8P1Fw 16P1Fw 6200 (244)	—
620/75R30	—	—	—	8O3Iw 7075 (279)	—	8P2Jw 6625 (261)	—

Front Tire, Steering Stop, and Fender Settings - ILS™ with Single Front Tires and Front Hitch - Continued mm (in)							
Tread Spacing	**1930-2235 (76-88)**						
Size	**1930 (76)**	**1979 (78)**	**2032 (80)**	**2080 (82)**	**2134 (84)**	**2182 (86)**	**2235 (88)**
650/60R34	—	—	—	8N2Iw 6550 (258)	—	8P1Jw 6200 (244)	—

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Determine Mean Tread Spacing

IMPORTANT: Avoid equipment damage. Never exceed 10800 kg (23800 lb) maximum static front axle weight without liquid ballast or duals.

Maximum single wheel tread spacing is 2235 mm (88 in). Maximum dual outer setting is 3657 mm (144 in). Some wheel settings exceed 2794 mm (110 in) mean tread spacing. These settings are allowed, but at reduced axle loads as shown in following table.

To determine mean tread spacing add inner and outer tire tread spacing (center to center) together and divide the result by two. Use the result to find allowable static axle weight.

Mean Tread Spacing mm (in)	Allowable Static Axle Weight kg (lb)
2794 (110)	10800 (23800)
2845 (112)	10390 (22900)
2895 (114)	10020 (22090)
2946 (116)	9670 (21320)

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Tire, Steering Stop, and Fender Settings - 1500 MFWD and Dual Front Tires

IMPORTANT: Avoid fender and tire damage. Always adjust fenders before setting steering stop. Never use 620 and 710 mm wide fenders with front dual tire combinations.

For table explanation see Tire, Steering Stop, and Fender Settings Table Explanation in this section of this Operator's Manual.

Spacing mm (in)	Row	508 (20)		558.8 (22)		762 (30)	
	Tire	Inner 2032 (80)	Dual 3048 (120)	Inner 2235.2 (88)	Dual 3352.8 (132)	Inner 1524 (60)[a]	Dual 3048 (120)
	Mean Tread	2540 (100)		2794 (110)		2286 (90)	
Tire Size	320/85R38	8F0F	8B0F	8H2H	8E2H	8A3A	8B3A
	380/80R38	8F2F 16K2F	8B2F 16C2F	8H3H 16P3H	8E3H 16I3H	8A3B 16A3B	8B3A 16C3A
	380/85R34	8F2F	8B2F	8H2H	8E2H	8A4A	8B4A
	420/85R34	8F3F 16K2F	8B3F 16C2F	8H3H 16P3H	8E3H 16I3H	—	—
	480/70R34	8F3F 16K2F	8B3F 16C2F	8H3H 16P3H	8E3H 16I3H	—	—

[a] *To achieve a 1676 mm (66 in) row spacing setting, use 1625 mm (64 in) row spacing and order one 25.4 mm (1 in) spacer set per side through your John Deere dealer.*

Spacing mm (in)	Row	812 (32)		914.4 (36)		1016 (40)[a]	
	Tire	Inner 1625.6 (64)	Dual 3251.2 (128)	Inner 1828.8 (72)	Dual 3657 (144)	Inner 2032 (80)	Dual 3657 (144)[b]
	Mean Tread	2439 (96)		2743 (108)		2845 (112)	
Tire Size	320/85R38	8B2B	8D2B	8D3D	8H3D	8F3F	8H3F
	380/80R38	8B3B 16C3B	8D3B 16H3B	8D3D 16H3D	8H3D 16P3D	8F3F 16K3F	8H3F 16P3F
	380/85R34	8B2B	8D2B	8D3D	8H3D	8F3F	8H3F
	420/85R34	8B3B 16C3B	8D3B 16H3B	8D3D 16H3D	8H3D 16P3D	8F3F 16K3F	8H3F 16P3F

Spacing mm (in)	Row	812 (32)		914.4 (36)		1016 (40)[a]	
	Tire	Inner 1625.6 (64)	Dual 3251.2 (128)	Inner 1828.8 (72)	Dual 3657 (144)	Inner 2032 (80)	Dual 3657 (144)[b]
	Mean Tread	2439 (96)		2743 (108)		2845 (112)	
	480/70R34	8B3B 16C3B	8D3B 16H3B	8D3D 16H3D	8H3D 16P3D	8F3F 16K3F	8H3F 16P3F

[a] *Front duals for flotation not for row cultivation.*
[b] *Tire not in row.*

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Tire, Steering Stop, and Fender Settings - ILS™ and Dual Front Tires

ILS™ with Dual Front Tires

IMPORTANT: Avoid fender and tire damage. Always adjust fenders before setting steering stop. Never use 620 and 710 mm wide fenders with front dual tire combinations.

For table explanation see Tire, Steering Stop, and Fender Settings Table Explanation in this section of this Operator's Manual.

Spacing mm (in)	Row	508 (20)		558.8 (22)		762 (30)	
	Tire	Inner 2032 (80)	Dual 3048 (120)	Inner 2235.2 (88)	Dual 3352.8 (132)	Inner 1524 (60)	Dual 3048 (120)
	Mean Tread	2540 (100)		2794 (110)		2286 (90)	
Tire Size	320/85R38	8F0F	8B0F	8H1H	8E1H	8A2A	8B2A
	380/85R34	8F0F	8B0F	8H2H	8E2H	8A3A	8B3A
	380/80R38	8F1F 16K2F	8B1F 16C2F	8H2H 16P3H	8E2H 16I3H	8A3A 16A3B	8B3A 16C3A
	420/85R34	—	—	—	—	8A3A[a] 16A3B	8B3A 16C3A
	480/70R34	—	—	—	—	—	—

[a] *Must be equipped with (480 mm) narrow fenders. Wider fenders contact inner sidewall of dual.*

Spacing mm (in)	Row	812 (32)		914.4 (36)[a]		1016 (40)[b]	
	Tire	Inner 1625.6 (64)[c]	Dual 3251.2 (128)	Inner 1828.8 (72)	Dual 3657 (144)	Inner 2032 (80)	Dual 3657 (144)[d]
	Mean Tread	2439 (96)		2743 (108)		2845 (112)	
Tire Size	320/85R38	8B1B	8D1B	8D3D	8H3D	8F3F	8H3F
	380/85R34	8B2B	8D2B	8D3D	8H3D	8F3F	8H3F
	380/80R38	8B2B 16C3B	8D2B 16H3B	8D3D 16H3D	8H3D 16P3D	8F3F 16K3F	8H3F 16P3F
	420/85R34	8B3B 16C3B	8D3B 16H3B	8D3D 16H3D	8H3D 16P3D	8F3F 16K3F	8H3F 16P3F
	480/70R34	8B3A 16C3B	8D3A 16H3B	8D3C 16H3D	8H3C 16P3D	8F3F 16K3F	8H3F 16P3F

[a] *Front duals for flotation.*
[b] *Front duals for flotation. Not for row cultivation.*
[c] *To achieve a 1676 mm (66 in) row spacing setting, use 1625 mm (64 in) row spacing and order one 25.4 mm (1 in) spacer set per side through your John Deere™ dealer.*
[d] *Tire not in row.*

ILS™ with Dual Front Tires and Front Hitch

IMPORTANT: Avoid fender and tire damage. Always adjust fenders before setting steering stop. Never use 620 and 710 mm wide fenders with front dual tire combinations.

For table explanation see Tire, Steering Stop, and Fender Settings Table Explanation in this section of this Operator's Manual.

Spacing mm (in)	Row	508 (20)		558.8 (22)		762 (30)	
	Tire	Inner 2032 (80)	Dual 3048 (120)	Inner 2235.2 (88)	Dual 3352.8 (132)	Inner 1524 (60)	Dual 3048 (120)
	Mean Tread	2540 (100)		2794 (110)		2286 (90)	
Tire Size	320/85R38	8F0F	8B0F	8H1H	8E1H	8A2A	8B2A
	380/85R34	8F0F	8B0F	8H2H	8E2H	8A2A	8B2A
	380/80R38	8F1F 16K1F	8B1F 16C1F	8H2H 16P2H	8E2H 16I2H	8A3A	8B3A
	420/85R34	—	—	—	—	8A3A[a]	8B3A
	480/70R34	—	—	—	—	—	—

[a] *Must be equipped with (480 mm) narrow fenders. Wider fenders contact inner sidewall of dual.*

Spacing mm (in)	Row	812 (32)		914.4 (36)[a]		1016 (40)[b]	
	Tire	Inner 1625.6 (64)[c]	Dual 3251.2 (128)	Inner 1828.8 (72)	Dual 3657 (144)	Inner 2032 (80)	Dual 3657 (144)[d]
	Mean Tread	2439 (96)		2743 (108)		2845 (112)	
Tire Size	320/85R38	8B1B	8D1B	8D3D	8H3D	8F3F	8H3F
	380/85R34	8B2B	8D2B	8D3D	8H3D	8F3F	8H3F
	380/80R38	8B2B 16C2B	8D2B 16H2B	8D3D 16H3D	8H3D 16P3D	8F3F 16K3F	8H3F 16P3F
	420/85R34	8B3B	8D3B	8D3D 16H3D	8H3D 16P3D	8F3F 16K3F	8H3F 16P3F
	480/70R34	8B3A	8D3A	8D3C 16H3C	8H3C 16P3C	8F3F 16K3F	8H3F 16P3F

[a] *Front duals for flotation.*
[b] *Front duals for flotation. Not for row cultivation.*
[c] *To achieve a 1676 mm (66 in) row spacing setting, use 1625 mm (64 in) row spacing and order one 25.4 mm (1 in) spacer set per side through your John Deere™ dealer.*
[d] *Tire not in row.*

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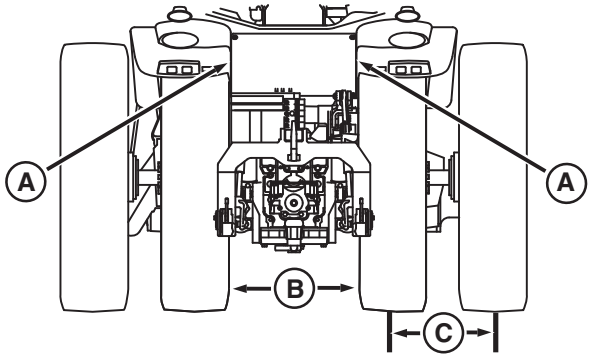
Rear Wheels and Tires

Rear Wheel, Tire, and Tread Guidelines



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CAUTION: Avoid personal injury and tractor instability. Never operate with single tires having tread width less than 1520 mm (60 in). Turning while operating at transport speeds with narrow tread widths can cause tractor instability. Increase tread width to improve stability.

IMPORTANT: Do not exceed 2800 mm (110 in) between single tires for pulling heavy loads.

Tires must have at least 25 mm (1 in) clearance between inner wheels and fenders (A). Distance between inside walls of drive wheels (B) must be at least 1015 mm (40 in) with tires equal distances from center of tractor .

With sway blocks in upper position (sway allowed), minimum distance between tires must be 1090 mm (43 in) to prevent interference.

Reverse wheels on axles to provide a wider range of settings by changing rim position. Maintain correct direction of tire rotation by moving each wheel to opposite side of tractor.

Check for adequate clearance between implement and rear tires.

Do not mix radial and bias-ply tires on same axle.

Radial-ply tires do not require special rims.

Drive and dual tires mounted on same axle should all be inflated to same pressure.

On tractors with duals, wheels with an 814 mm bolt circle pattern are used on the inside, and wheels with a 335 mm bolt circle pattern are used on the outside.

Over inflating a radial tire reduces machine performance. Using correct inflation pressures results in optimum tractive performance.

Recommended Minimum Spacing for Dual Tires (C) mm (in)	
Tread setting is measured between center of tires	
Tire Section	**Minimum Spacing**
320 (12.4)	334 (17.1)
380 (14.9)	507 (20.0)
420 (16.9)	552 (21.7)
480 (18.4)	626 (24.6)
520 (20.8)	670 (26.4)
620 (24.5)	801 (31.5)
650 (25.5)	825 (32.5)
710 (28.0)	890 (35.0)
800 (30.5)	1008 (39.7)

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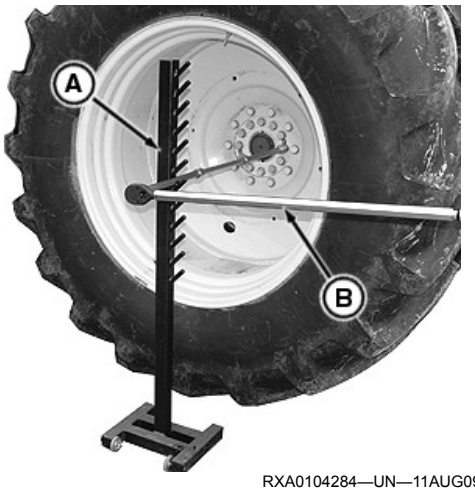
Use Wheel Tightening Stand



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Wheel tightening stand (A) may be used to support the torque wrench (B) when tightening cap screws at different heights.

See your John Deere dealer to order or information on how to build your own.

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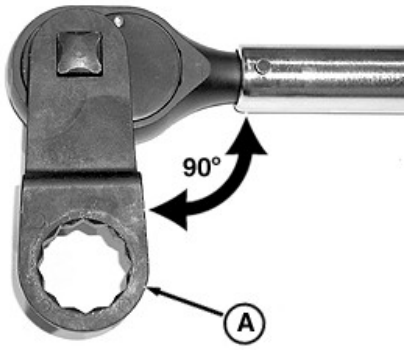
Use Wheel Torque Wrench Adapter



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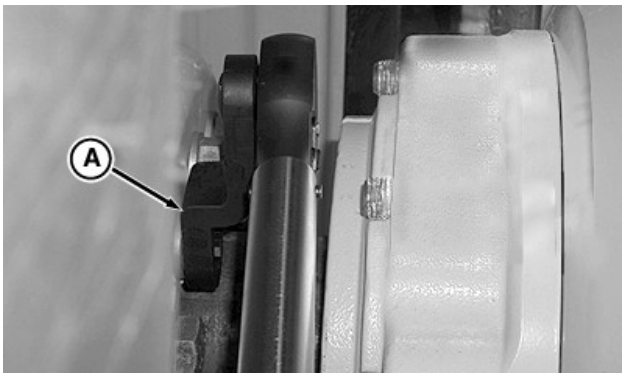

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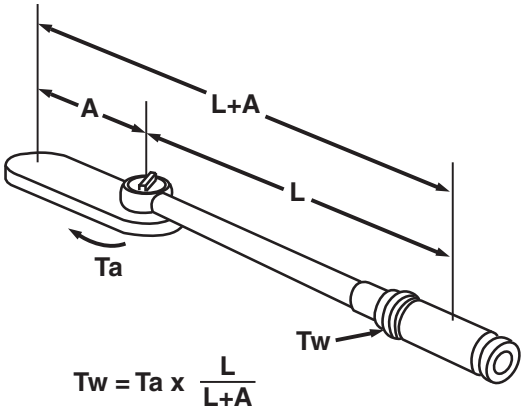
Install JDG679 Torque Wrench Adapter (A) [32 mm (3/4 in) drive] to allow easy access to sleeve bolts on inner cast wheels with outside duals in place. Purchase from your John Deere dealer.

Install adapter at 90° angle from torque wrench shaft to assure correct cap screw torque specification of 610 N·m (450 lb·ft).



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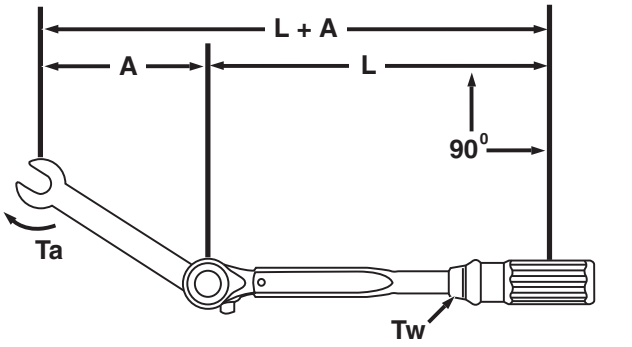

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Tw —Torque setting on torque wrench
Ta —Torque actually being applied to bolt
L —Length from point of force (center of the wrench handle) to center of head of torque wrench
A —Application distance from center of torque wrench head to center of adapter [95 mm (3.75 in)]

When unable to use adapter at 90° angle from torque wrench shaft, use formula to calculate correct torque wrench setting (Tw) to obtain desired final torque on bolts. Example: Torque wrench length = 0.91 m (36 in), wrench adapter = 0.1 m (4 in), Value Tw for torque wrench setting is 549 N·m (405 lb·ft).

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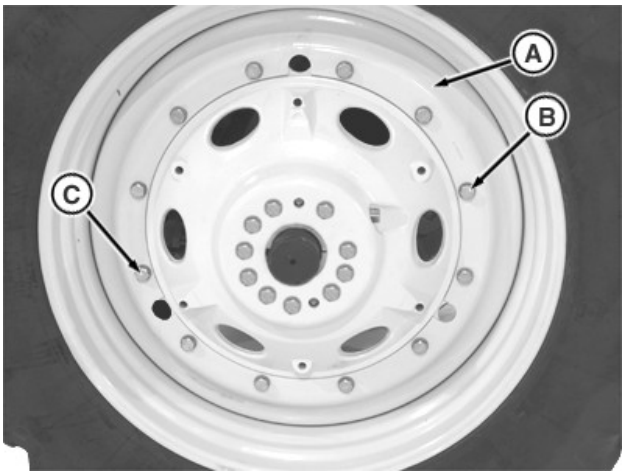
Install Wheel to Cast Hub

CAUTION: Avoid equipment damage and the possibility of personal injury. Failure to follow torquing sequence and procedure will result in equipment damage and may result in personal injury.

IMPORTANT: Carefully follow procedure for retightening wheel bolts. Failure to do so could lead to wheel hub damage.



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Heavy Duty Cast 10-Bolt Hub

NOTE: Wheel rim (A) has one tight-fit hole smaller than other holes. One slot-fit hole is 180° from tight fit hole, for improved wheel centering.

1. Install and hand-tighten bolt in the tight-fit hole (B).
2. Install and hand-tighten bolt in slot-fit hole (C).
3. Install and hand-tighten remaining bolts.
4. Tighten all bolts to 610 N·m (450 lb·ft) using a star-shaped pattern.
5. Drive tractor 100 meters (100 yd) and retighten bolts.
6. Tighten again at 3 hours, 10 hours, and daily for first week of operation and every 250 hours thereafter.

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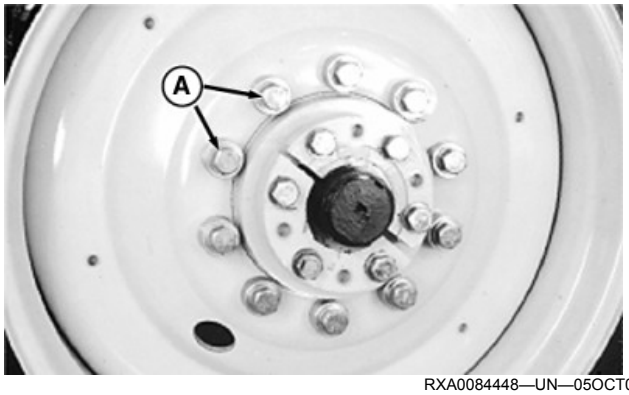
Install Dual Wheel to Hub

CAUTION: Avoid equipment damage and the possibility of personal injury. Failure to follow torquing sequence and procedure will result in equipment damage and may result in personal injury.

IMPORTANT: Carefully follow procedure for tightening wheel bolts. Failure to do so could result in equipment damage.

NOTE: Check hole sizes on duals, wheel rim may have one tight-fit hole smaller than other holes. One slot-fit hole is 180° from tight fit hole, for improved wheel centering.



RXA0084448—UN—05OCT05

Mini Cast Drive Hub with Pinion

1. Install and hand tighten bolts (A).
2. Tighten all bolts to 610 N·m (450 lb·ft) using a star-shaped pattern.
3. Drive tractor 100 meters (100 yd) and retighten bolts.
4. Tighten again at 3 hours, 10 hours, and daily for first week of operation and every 250 hours thereafter.

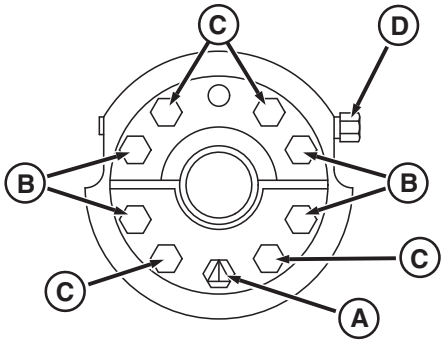
GH15097,00004A7-19-01JUN17

Adjust and Tighten — Inner Drive Wheels with Standard Hubs

CAUTION: Avoid personal injury. Never run the engine with transmission in gear and rear wheels off the ground. MFWD wheels could pull rear wheels off support. MFWD must be disengaged and transmission in NEUTRAL to rotate axle.

Avoid equipment damage and the possibility of personal injury. Failure to follow torquing sequence and procedure will result in equipment damage and may result in personal injury.

1. Raise tractor on level ground and turn wheels so rack on axle is on top.



RXA0151803—UN—07APR16

2. Loosen lower hub center cap screw (A) against retaining nut and loosen outer hub sleeve cap screws (B).

NOTE: Strike end of axle with a heavy hammer and use penetrating oil if sleeves are difficult to break loose.

3. Tighten inner jack cap screws (C) on upper and lower hub sleeves as necessary to loosen sleeves.

NOTE: Observe tread width limitations when adjusting rear wheels.

4. Turn adjusting cap screw (D) to slide wheel to desired position.
5. Loosen the jack cap screws (C) all the way against stop.
6. Tighten hub sleeve cap screws (B) to 200 N·m (150 lb·ft) beginning with center cap screw in lower sleeve, then tighten remaining cap screws in diagonal method.

7. Tighten cap screws to 410 N·m (300 lb·ft) using same sequence.
8. Drive tractor a minimum of 100 meters (100 yd) and tighten cap screws to 610 N·m (450 lb·ft).

IMPORTANT: Some sleeve cap screws may loosen as sleeve is tightened. Repeat star shaped torquing pattern until ALL sleeve cap screws maintain proper torque. Failure to follow procedure could result in damage to equipment and may result in personal injury.

9. Retighten cap screws after working 3 hours, 10 hours, and daily during first week of operation and every 250 hours thereafter.

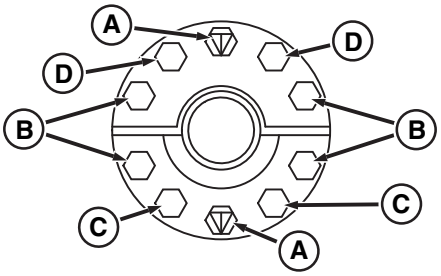
GH15097,00004A8-19-07AUG17

Adjust and Tighten — Dual Wheels with Standard Hubs

CAUTION: Avoid personal injury. Never run engine with transmission in gear and rear wheels off ground. MFWD wheels could pull rear wheels off support. Disconnect MFWD and put transmission in NEUTRAL to rotate axle. Never operate tractor with a loose rim, wheel, or hub.

Failure to follow torquing sequence and procedure will result in damage to equipment and may result in personal injury. Wheel bolts are critical and require repeated torquing.

1. Raise tractor on level ground and turn wheel so rack on axle is on top.

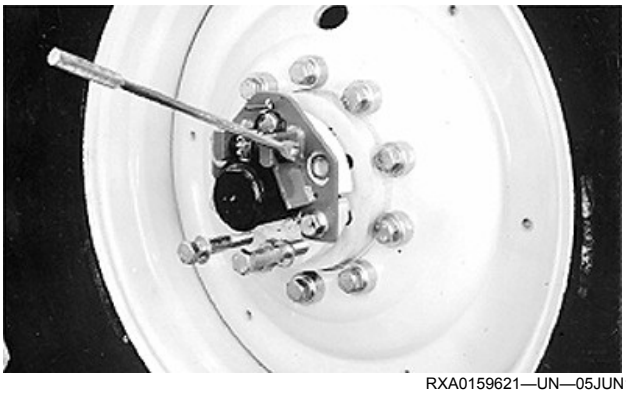


RXA0159620—UN—08JUN17

2. Loosen hub center bolts (A) against retaining nuts.
3. Remove outer hub sleeve bolts (B), upper jack bolts (D) and lower jack bolts (C).

NOTE: Strike end of axle with a heavy hammer and use penetrating oil if sleeves are difficult to break loose.

4. Install outer hub sleeve bolts into upper and lower jack screw holes and tighten to loosen sleeves.



RXA0159621—UN—05JUN17

JDG667A Wheel Adjusting Tool

5. Remove screws from upper jack screw holes and install JDG667A Wheel Adjusting tool, available from your John Deere dealer, into holes with two outer sleeve bolts.
6. Move wheel to desired position by ratcheting handle of wheel adjusting tool.
7. Remove adjusting tool and bolts from lower jack screw holes.
8. Install all bolts to original holes before tightening outer hub bolts.

IMPORTANT: Keep face of hub sleeves even to prevent hub breakage or bolt loosening.

9. Beginning with center bolt (A) in lower sleeve and using a star-shaped pattern, tighten sleeve bolts to initial torque of 200 N·m (150 lb·ft).
10. Repeat previous step with an intermediate torque of 410 N·m (300 lb·ft).
11. Drive tractor a minimum of 100 meters (110 yd).
12. Repeat step 9 with a final torque of 610 N·m (450 lb·ft).
13. Retighten bolts after working 3 hours, 10 hours, and daily during the first week of operation and every 250 hours thereafter.

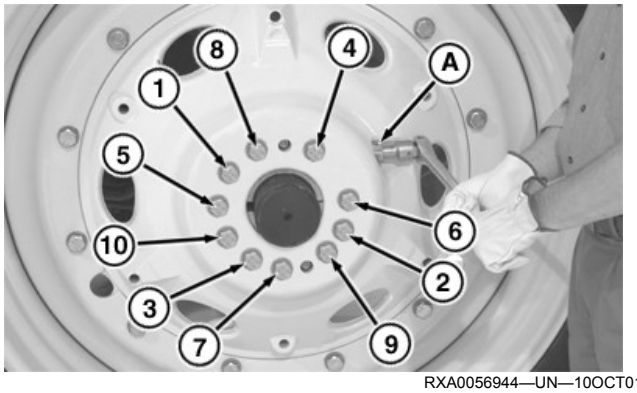
GH15097,00004A9-19-07AUG17

Adjust and Tighten — 10-Bolt Heavy-Duty Hubs

CAUTION: Avoid personal injury. Never run the engine with transmission in gear and rear wheels off the ground. MFWD wheels could pull rear wheels off support. Disengage MFWD and put transmission in NEUTRAL to rotate axle. Never operate tractor with a loose rim, wheel, or hub.

Avoid equipment damage and the possibility of personal injury. Failure to follow torquing sequence and procedure will result in equipment damage and may result in personal injury.

1. Raise tractor on level ground with rack upward on the axle.



RXA0056944—UN—10OCT01

2. Loosen (without removing) sleeve cap screws (1—10) enough to move wheel.

IMPORTANT: Do not loosen or remove the two socket head cap screws. Doing so could result in wheel jamming or damage.

3. Turn pinion gear (A) to move wheel to desired position.
4. Tighten sleeve cap screws (1—10) in numerical order to 400 N·m (300 lb·ft). Make sure wheel is perpendicular to axle.
5. Tighten sleeve cap screws (1—10) in numerical order to 610 N·m (450 lb·ft).
6. Drive tractor a minimum of 100 meters (100 yd) and tighten cap screws in numerical order to 610 N·m (450 lb·ft).

CAUTION: Some sleeve cap screws may loosen as sleeve is tightened. Repeat numerical torquing pattern until ALL sleeve cap screws maintain proper torque. Failure to follow procedure could result in damage to equipment and may result in personal injury.

7. Retighten cap screws after working 3 hours, 10 hours, and daily during first week of operation and every 250 hours thereafter.

GH15097,00004AA-19-07AUG17

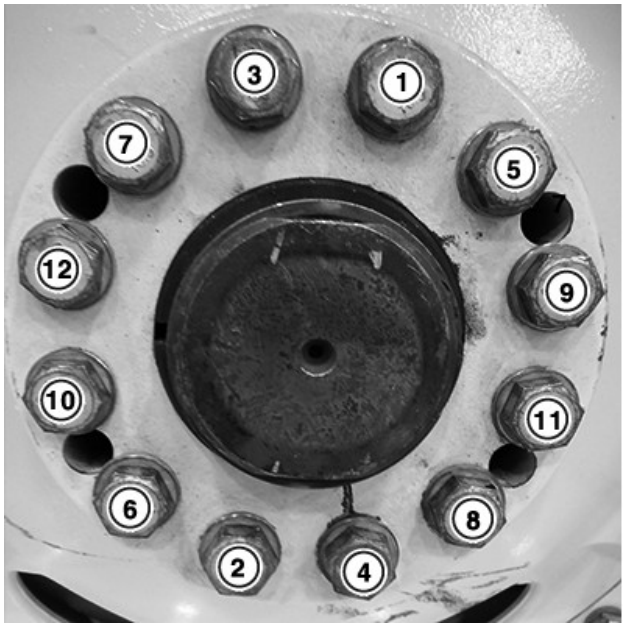
Adjust and Tighten — 12-Bolt Heavy-Duty Hubs

CAUTION: Avoid personal injury and equipment damage:

- **Never run engine with transmission in gear when adjusting wheels. Wheels on the ground could pull supported wheels off jackstands.**
- **Use a hoist, wheel dolly or proper lifting equipment to safely slide and adjust wheels on axles.**
- **Clean paint, grease, film, rust or debris from axle shafts, cap screws, and threads prior to positioning and installing wheel sleeves and cast wheel. Never apply lubricant to cap screws, threads, wheel, or axle.**
- **Follow procedure exactly. Failure to follow procedure and torque sequence will result in damage to wheel sleeves and may result in personal injury. Never operate tractor with a loose rim, wheel or hub.**

NOTE: Adjusting tool is not compatible with this wheel design.

1. Raise the tractor on level ground and support tractor with jackstands.



RXA0153251—UN—17AUG16

2. Loosen, but do not remove, sleeve bolts (1—12), just enough to move wheel.

IMPORTANT: Do not loosen or remove the two jack screws on inner side of wheel unless completely removing wheel. Jack screws help stabilize wheel on axle.

3. Move wheel to desired position.
4. Tighten sleeve bolts (1—12) with a crisscross torque sequence, as shown, until bolts maintain initial torque of 400 N·m (300 lb·ft). Make sure wheel is perpendicular to axle.

5. Tighten sleeve bolts again, with a crisscross torque sequence, as shown, until bolts maintain final torque of 610 N·m (450 lb·ft).

IMPORTANT: Some sleeve bolts may loosen as sleeve is tightened. Repeat torque pattern until all sleeve bolts maintain the proper torque. Failure to follow procedure could result in damage to equipment and may result in personal injury.

6. Drive tractor unloaded in a large figure-8 pattern a minimum of four times and tighten bolts again, with a crisscross sequence, as shown, until bolts maintain final torque of 610 N·m (450 lb-ft).

IMPORTANT: Keep wheel sleeve cap screws tightened to specification. If tractor is operated with loose wheel sleeves or under-torqued cap screws it may be necessary to replace sleeves and cast wheels.

7. Torque bolts after 3 hours, 10 hours, and daily during first week of operation and every 250 hours thereafter.

EC82310,0000045-19-07AUG17

Minimum Tread Setting With Air Trailer Brakes And Inner Wheel Weights

IMPORTANT: Avoid equipment damage. Follow guidelines for minimum tread settings based on wheel weight options and wheel type.

NOTE: Restrictions apply only to tractors equipped with optional air trailer brakes.

		Minimum Tread Setting With Air Trailer Brakes And Inner Wheel Weight Options mm (in)						
Wheel Type		Cast				Steel		Flange
Dish Position		In[a]	In[b]	Out[a]	Out[b]	In	Out	—
Inner Wheel Weight Option kg (lb)	205 (452)	1829 (72)	1880 (74)	2134 (84)	2184 (86)	—	—	—
	72 (159) + 205 (452)	1829 (72)	1981 (78)	2134 (84)	—	2083 (82)	—	—
	205 (452) + 205 (452)	2032 (80)	2134 (84)	—	—	—	—	—
	72 (159) + 205 (452) + 205 (452)	—	—	—	—	—	—	—
	625 (1378)	1880 (74)	2134 (84)	2184 (86)	—	—	—	—

[a]*Section width less than 800 (31.5)*
[b]*Section width equal to 800 (31.5)*

GH15097,000085A-19-15AUG16

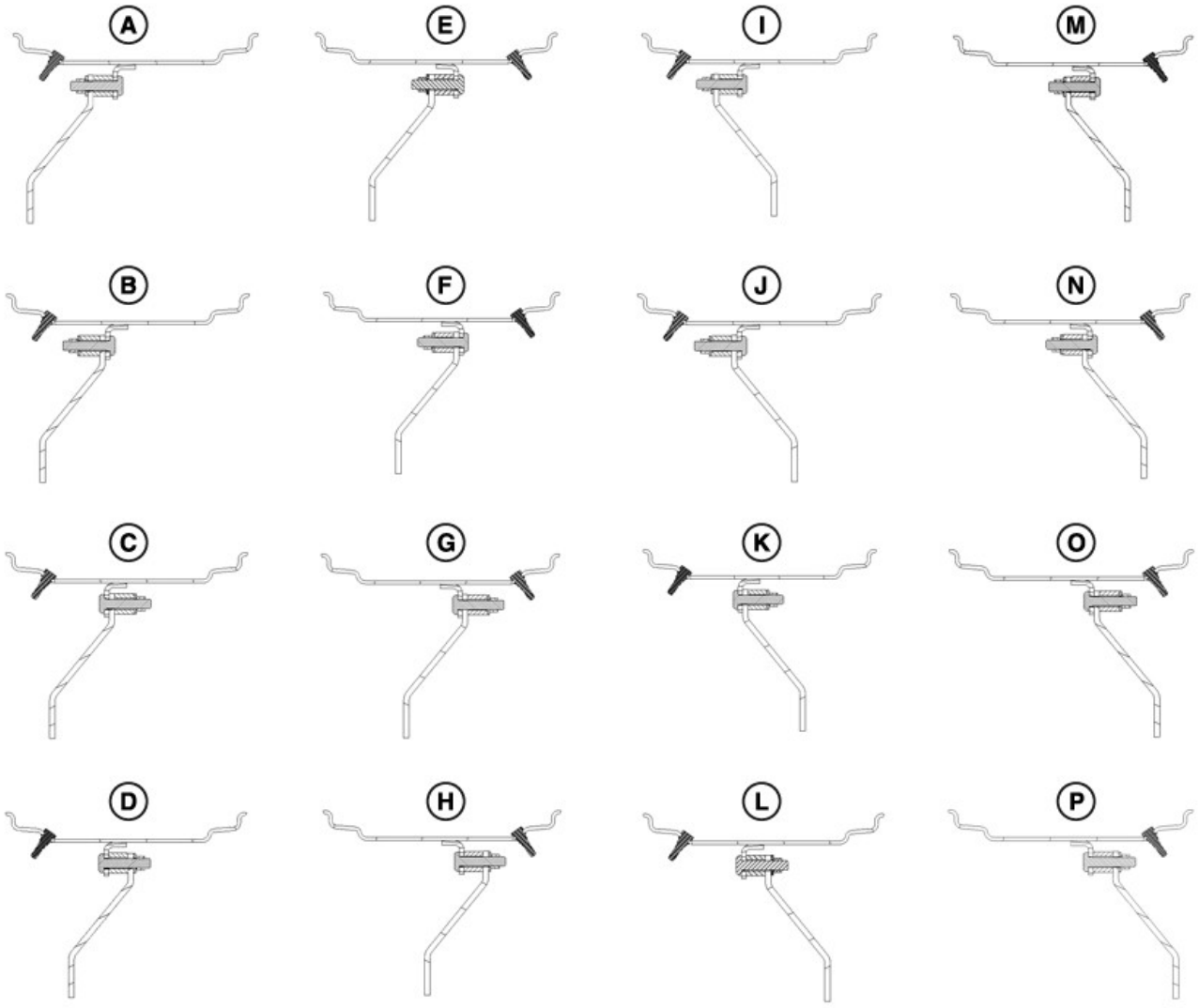
Tread Settings - Single Wheel

Tire Size	Rim Position	Rack & Pinion Axle mm (in)		Double Flat Axles mm (in)		
		3012 (118.5)		2550 (100.4) and 3012 (118.5)	2550 (100.4)	3012 (118.5)
		Minimum	Maximum	Minimum	Maximum	Maximum
520	In	1566 (61.6)	2396 (94.3)	1554 (61.2)	1884 (74.2)	2358 (92.8)
	Out	1807 (71.1)	2701 (106.3)	1808 (71.2)	2189 (86.2)	2663 (104.8)
620	In	1683 (66.3)	2396 (94.3)	1682 (66.3)	1884 (74.2)	2358 (92.8)
	Out	1807 (71.1)	2701 (106.3)	1808 (71.2)	2189 (86.2)	2663 (104.8)
650	In	1684 (66.3)	2396 (94.3)	1684 (66.3)	1884 (74.2)	2358 (92.8)
	Out	1807 (71.1)	2701 (106.3)	1809 (71.2)	2189 (86.2)	2663 (104.8)
710	In	1761 (69.3)	2396 (94.3)	1761 (69.3)	1884 (78.2)	2358 (92.8)
	Out	1807 (71.1)	2701 (106.3)	1817 (71.6)	2189 (86.2)	2663 (104.8)
800	In	1869 (73.6)	2548 (100.3)	1869 (73.6)	2036 (80.2)	2510 (98.8)
	Out	—	—	—	—	—
900	In	1887 (74.3)	2549 (100.3)	1887 (74.3)	2037 (80.2)	2511 (98.8)
	Out	—	—	—	—	—

GH15097,00004AC-19-23FEB18

Wheel Settings - 16-Position

CAUTION: Avoid personal injury. Failure to follow torquing sequence and procedure will result in damage to equipment and may result in personal injury.



RXA0160413—UN—08AUG17
EC82310,00000D1-19-08AUG17

Tread Settings - Dual Wheel

Wheel and Rim Settings

Rack & Pinion Axle - 3015 mm (118.5 in)

Tire Size	Single (Inner) Tire mm (in)					Dual (Outer) Tire mm (in)		
	Dish Position	Minimum	Maximum With 15 Inch Extension	Maximum With Duals		Rim Position	Minimum With Duals	Maximum With Duals
				With Duals	And 15 Inch Extension			
320	In	1524 (60.0)	1774 (69.8)	1896 (74.6)	1978 (77.9)	D	2290 (90.2)	2662 (104.8)
	Out	1810 (71.3)	2078 (81.8)		2282 (89.8)		2952 (116.2)[a]	
							2576 (101.4)	
	In	1524 (60.0)	1774 (69.8)	1978 (77.9)		G	2462 (96.9)	2915 (114.8)
	Out	1810 (71.3)	2078 (81.8)	2150 (84.6)	2282 (89.8)		2576 (101.4)	
	In	1524 (60.0)	1774 (69.8)	1978 (77.9)		L	2614 (102.9)	3068 (102.8)
	Out	1810 (71.3)	2078 (81.8)	2282 (89.8)			2596 (102.2)	
	In	1524 (60.0)	1774 (69.8)	1978 (77.9)		O	2868 (112.9)	3322 (130.8)
	Out	1810 (71.3)	2078 (81.8)	2282 (89.8)			2850 (112.2)	
	In	1524 (60.0)	1774 (69.8)	1978 (77.9)		P	2920 (115.0)	3372 (132.8)
	Out	1810 (71.3)	2078 (81.8)	2282 (89.8)			2900 (114.2)	

[a] *With 15 inch extension*

Tire Size	Single (Inner) Tire mm (in)					Dual (Outer) Tire mm (in)		
	Dish Position	Minimum	Maximum With 15 Inch Extension	Maximum With Duals		Rim Position	Minimum With Duals	Maximum With Duals
				With Duals	And 15 Inch Extension			
380	In	1524 (60.0)	1770 (69.7)	1974 (77.7)		G	2414 (95.0)	2915 (114.8)
	Out	1806 (71.1)	2074 (81.7)	2026 79.8	2278 (89.7)		2698 (106.2)	
	In	1524 (60.0)	1770 (69.7)	1974 (77.7)		L	2618 (103.1)	3068 (120.8)
	Out	1806 (71.1)	2074 (81.7)	2178 (85.7)	2278 (89.7)		2698 (106.2)	
	In	1524 (60.0)	1770 (69.7)	1974 (77.7)		O	2872 (113.1)	3322 (130.8)
	Out	1806 (71.1)	2074 (81.7)	2278 (89.7)			2850 (112.2)	
	In	1524 (60.0)	1770 (69.7)	1974 (77.7)		P	2922 (115)	3372 (132.8)
	Out	1806 (71.1)	2074 (81.7)	2278 (89.7)			2900 (114.2)	

Tire Size	Single (Inner) Tire mm (in)				Dual (Outer) Tire mm (in)				
	Rim Position - In				Rim Position - Out				
	Minimum	Maximum	Maximum		Spacing Between Duals	Minimum With Duals		Maximum With Duals	
			With Duals	And 15 Inch Extension		Duals Only	And 15 Inch Extension	Duals Only	And 15 Inch Extension
480/80R50	1524 (60.0)	2396 (94.3)	2000 (78.7)	2056 (80.9)	626 (24.6)	2776 (109.3)	3482 (137.1)	3252 (128.0)	4014 (158.0)
520/85R46	1566 (61.7)	2396 (94.3)	2014 (79.3)	2056 (80.9)	670 (26.4)	3030 (119.3)	3624 (142.7)	3354 (132.0)	4116 (162.0)
620/70R46	1682 (66.2)	2396 (94.3)	1882 (74.1)	2056 (80.9)	801 (31.5)	3284 (129.3)	3274 (128.9)	3484 (137.2)	4246 (167.2)
620/70R42	1682 (66.2)	2396 (94.3)	1924 (75.7)	2056 (80.9)	801 (31.5)	3284 (129.3)	3914 (154.1)	3536 (139.2)	4296 (169.1)
650/85R38	1684 (66.3)	2396 (94.3)	1886 (74.3)	2056 (80.9)	825 (32.5)	3334 (131.3)	3926 (154.6)	3536 (139.2)	4298 (169.2)
710/70R42	1760 (69.3)	2396 (94.3)	1822 (71.7)	2056 (80.9)	890 (35.0)	3540 (139.4)	4068 (160.2)	3602 (141.8)	4364 (171.8)
710/70R38	—	2702 (106.4)	—	2362 (93.0)	890 (35.0)	—	3696 (145.5)	—	4298 (169.2)
800/70R38	—	2548 (100.3)	—	2208 (86.9)	1008 (39.7)	—	3900 (153.5)	—	4240 (166.9)

Minimum, Maximum, and Average Tread Settings - Rack & Pinion Axle - 3015 mm (118.5 in)

Tire Size	Single (Inner) Tire mm (in)				Dual (Outer) Tire mm (in)	
	Rim Position - In				Rim Position - Out	
	Tread Setting				Tread Setting	
	Standard		Average		Standard	
	Minimum	Maximum	Minimum	Maximum	Minimum	Maximum
480/80R50	1524 (60.0)	2000 (78.7)	2150 (84.7)	2626 (103.4)	2776 (109.3)	3252 (128.0)
520/85R46	1566 (61.7)	2014 (79.3)	2298 (90.5)	2684 (105.7)	3030 (119.3)	3354 (132.0)
650/85R38	1684 (66.3)	1886 (74.3)	2509 (98.8)	2711 (106.7)	3334 (131.3)	3536 (139.2)

Double Flat Axle - 3015 mm (118.5 in)

Tire Size	Single (Inner) Tire mm (in)				Dual (Outer)Tire mm (in)				
	Rim Position - In				Rim Position - Out				
	Minimum	Maximum	Maximum		Spacing Between Duals	Minimum With Duals		Maximum With Duals	
			With Duals	And 15 Inch Extension		Duals Only	And 15 Inch Extension	Duals Only	And 15 Inch Extension
480/80R50	1524 (60.0)	2358 (92.8)	1884 (74.2)		626 (24.6)	2888 (113.7)	3650 (143.7)	3248 (127.9)	4010 (157.9)
520/85R46	1544 (60.8)	2358 (92.8)	1884 (74.2)		670 (26.4)	2904 (114.3)	3792 (149.3)	3350 (131.9)	4112 (161.9)
620/70R46	1682 (66.2)	2358 (92.8)	1880 (74.0)	1884 (74.2)	801 (31.5)	3284 (129.3)	4040 (159.1)	3480 (137.0)	4242 (167.0)
620/70R42	1682 (66.2)	2358 (92.8)	1924 (75.7)	1884 (74.2)	801 (31.5)	3320 (130.7)	4082 (160.7)	3522 (138.7)	4284 (168.7)
650/85R38	1684 (66.3)	2358 (92.8)	1882 (74.1)	1884 (74.2)	825 (32.5)	3334 (131.3)	4094 (161.2)	3532 (139.1)	4294 (169.1)
710/70R42	1760 (69.3)	2358 (92.8)	1818 (71.6)	1884 (74.2)	890 (35.0)	3540 (139.4)	4236 (166.8)	3598 (141.7)	4360 (171.7)
710/70R38	—	2702 (106.4)	—	2362 (93.0)	890 (35.0)	—	3912 (154.0)	—	4294 (169.1)
800/70R38	—	2510 (98.8)	—	2036 (80.2)	1008 (39.7)	—	4068 (160.2)	—	4236 (166.8)

Row Spacing

Tire Size		320 (12) or 380 (14) [All measurements shown as mm (in).]							
Row Spacing		508 (20)	558 (22)	762 (30)	812 (32)	863 (34)	914 (36)	965 (38)	1016 (40)
Wheel Spacing	Drive	2032 (80)	2235 (88)	1524 (60)	1625 (64)	1727 (68)	1828 (72)	1930 (76)	2032 (80)
	Dual[a]	3048 (120)	3352 (132)	3048 (120)	3251 (128)	3454 (136)	3657 (144)	3860 (152)	4064 (160)
Long Axle Extension	Double Flat	—							
	Rack & Pinion	N/R[b]				127 (5)	254 (10)		381 (15)

[a] *Minimum dual spacing (center-line to center-line) 626 (24)*
[b] *No extension required*

Tire Size		480 (18) [All measurements shown as mm (in).]							
Row Spacing		508 (20)	558 (22)	762 (30)	812 (32)	863 (34)	914 (36)	965 (38)	1016 (40)
Wheel Spacing	Drive	—		1524 (60)	1625 (64)	1727 (68)	1828 (72)	1930 (76)	2032 (80)
	Dual[a]	—		3048 (120)	3251 (128)	3454 (136)	3657 (144)	3860 (152)	4064 (160)
Long Axle Extension	Double Flat	—		N/R[b]		127 (5)	254 (10)[c]	254 (10)	381 (15)[c]
	Rack & Pinion	—		N/R[b]		127 (5)	254 (10)		381 (15)

[a] *Minimum dual spacing (center-line to center-line) 626 (24)*
[b] *No extension required*
[c] *With drive wheel dish out*

Tire Size		520 (20) [All measurements shown as mm (in).]							
Row Spacing		508 (20)	558 (22)	762 (30)	812 (32)	863 (34)	914 (36)	965 (38)	1016 (40)
Wheel Spacing	Drive	—			1625 (64)	1727 (68)	1828 (72)	1930 (76)	2032 (80)
	Dual[a]	—			3251 (128)	3454 (136)	3657 (144)	3860 (152)	4064 (160)

Tire Size		520 (20) [All measurements shown as mm (in).]							
Row Spacing		508 (20)	558 (22)	762 (30)	812 (32)	863 (34)	914 (36)	965 (38)	1016 (40)
Long Axle Extension	Double Flat	—		N/R[b]		127 (5)	254 (10)	—	
	Rack & Pinion	—		N/R[b]		127 (5)	254 (10)	330 (13)	381 (15)

[a]*Minimum dual spacing (center-line to center-line) 670 (26)*
[b]*No extension required*

Tire Size		620 (24) [All measurements shown as mm (in).]							
Row Spacing		508 (20)	558 (22)	762 (30)	812 (32)	863 (34)	914 (36)	965 (38)	1016 (40)
Wheel Spacing	Drive	—				1727 (68)	1828 (72)	1930 (76)	2032 (80)
	Dual[a]	—				3454 (136)	3657 (144)	3860 (152)	4064 (160)
Long Axle Extension	Double Flat	—				N/R[b]	127 (5)	254 (10)	330 (13)
	Rack & Pinion	—				N/R[b]	127 (5)	254 (10)	330 (13)

[a]*Minimum dual spacing (center-line to center-line) 801 (31)*
[b]*No extension required*

Tire Size		650 (25) [All measurements shown as mm (in).]							
Row Spacing		508 (20)	558 (22)	762 (30)	812 (32)	863 (34)	914 (36)	965 (38)	1016 (40)
Wheel Spacing	Drive	—				1727 (68)	1828 (72)	1930 (76)	2032 (80)
	Dual[a]	—				3454 (136)	3657 (144)	3860 (152)	4064 (160)
Long Axle Extension	Double Flat	—				N/R[b]	127 (5)[c]	254 (10)[c]	
	Rack & Pinion	—				N/R[b]	127 (5)	254 (10)[c]	254 (10)

[a]*Minimum dual spacing (center-line to center-line) 825 (32)*
[b]*No extension required*
[c]*With drive wheel dish out*

Tire Size		710 (27) [All measurements shown as mm (in).]							
Row Spacing		508 (20)	558 (22)	762 (30)	812 (32)	863 (34)	914 (36)	965 (38)	1016 (40)
Wheel Spacing	Drive	—					1828 (72)	1930 (76)	2032 (80)
	Dual[a]	—					3657 (144)	3860 (152)	4064 (160)
Long Axle Extension	Double Flat	—					127 (5)[b]		254 (10)[b]
	Rack & Pinion	—					127 (5)	127 (5)[b]	254 (10)

[a]*Minimum dual spacing (center-line to center-line) 890 (35)*
[b]*With drive wheel dish out*

Tire Size		800 (31) [All measurements shown as mm (in).]							
Row Spacing		508 (20)	558 (22)	762 (30)	812 (32)	863 (34)	914 (36)	965 (38)	1016 (40)
Wheel Spacing	Drive	—							2032 (80)
	Dual[a]	—							4064 (160)
Long Axle Extension	Double Flat	—							
	Rack & Pinion	—							330 (13)

[a]*Minimum dual spacing (center-line to center-line) 1008 (39)*

GH15097,00004AD-19-26SEP17

Tread Settings - Triple Wheel

Wheel And Rim Settings

320 Tires - Rack and Pinion Axle mm (in)										
Single				Dual				Triple		
Dish Position	Minimum	Maximum	Maximum[a]	Rim Position	Minimum	Maximum	Maximum[a]	Rim Position	Minimum	Maximum
In	1524 (60)	—	1704 (67.1)	E	2290 (90.2)	—	2468 (97.2)	F	3452 (135.9)	3632 (143)
Out		—				—			—	
In	1524 (60)	—	1734 (68.3)	F	3210 (126.4)	—	2520 (99.2)	F	3422 (134.7)	3632 (143)
Out		—				—			—	
In	1524 (60)	—	1734 (68.3)	L	2512 (98.9)	—	2722 (107.2)	F	3422 (134.7)	3632 (143)
Out	1818 (71.6)	—	1906 (75)		2582 (101.6)	—	2722 (107.2)		3544 (139.5)	3632 (143)
In	1524 (60)	—	1726 (67.9)	M	2666 (105)	—	2866 (112.8)	F	3430 (135)	3632 (143)
Out	1818 (71.6)	—	1956 (77)		2654 (104.5)	—	2866 (112.8)		3492 (137.5)	3632 (143)
In	1524 (60)	—	1704 (67.1)	E	2290 (90.2)	2306 (90.8)	2468 (97.2)	L	3056 (120.3)	3072 (120.9)
Out		—				—			—	
In	1524 (60)	—	1734 (68.3)	K	2460 (96.8)	—	2670 (105.1)	L	3624 (142.7)	3834 (150.9)
Out	1818 (71.6)	—	1906 (75)		2582 (101.6)	—	2670 (105.1)		3746 (147.5)	3834 (150.9)
In	1524 (60)	—	1734 (68.3)	M	2666 (105)	—	2876 (113.2)	L	3624 (142.7)	3834 (150.9)
Out	1818 (71.6)	—	2040 (80.3)		2654 (104)	—	2876 (113.2)		3612 (142.2)	3834 (150.9)
In	1524 (60)	—	1734 (68.3)	P	2816 (110.9)	—	3026 (119.1)	L	3624 (142.7)	3834 (150.9)
Out	1818 (71.6)	—	2040 (80.3)		2804 (110.4)	—	3026 (119.1)		3612 (142.2)	3834 (150.9)
In	1524 (60)	1704 (67.1)		E	2290 (90.2)	2468 (97.2)		N	3096 (121.9)	3276 (129)
Out		—				—			—	
In	1524 (60)	1726 (67.9)	1736 (68.3)	F	2310 (90.9)	2512 (98.9)	2520 (99.2)	N	3046 (119.9)	3276 (129)
Out		—				—			—	
In	1524 (60)		1736 (68.3)	L	2512 (98.9)		2722 (107.2)	N	3276 (129)	
Out	1818 (71.6)	—	1956 (77)		2582 (101.6)	—	2722 (107.2)		3900 (153.5)	4038 (159)
In	1524(60)	—	1736 (68.3)	N	2716 (106.9)	—	2926 (115.2)	N	3828 (150.7)	4038 (159)
Out	1818 (71.6)	—	2040 (80.3)		2704 (106.4)	—	2626 (103.4)		3816 (150.2)	4038 (159)
In	1524 (60)	—	1736 (68.3)	P	2816 (110.9)	—	3026 (119.1)	N	3828 (150.7)	4038 (159)
Out	1818 (71.6)	—	2040 (80.3)		2804 (110.4)	—	3026 (119.1)		3816 (150.2)	4038 (159)
In	1524 (60)	1704 (67.1)		E	2290 (90.2)	2468 (97.2)		P	3198 (125.9)	3376 (132.9)
Out		—				—			—	
In	1524 (60)	1734 (68.3)		F	2310 (90.9)	2520 (99.2)		P	3166 (124.6)	3376 (132.9)
Out		—				—			—	
In	1524 (60)	1624 (63.9)	1734 (68.3)	L	2512 (98.9)	2610 (102.8)	2722 (107.2)	P	3276 (129)	3376 (132.9)
Out	1818 (71.6)	1846 (72.7)	1956 (77)	N	2582 (101.6)	2610 (102.8)	2722 (107.2)		3348 (131.8)	3376 (132.9)

320 Tires - Rack and Pinion Axle mm (in)										
Single				Dual				Triple		
Dish Position	Minimum	Maximum	Maximum[a]	Rim Position	Minimum	Maximum	Maximum[a]	Rim Position	Minimum	Maximum
In	1524 (60)	—	1734 (68.3)	N	2716 (106.9)	—	2926 (115.2)	P	3928 (154.6)	4138 (162.9)
Out	1818 (71.6)	—	2040 (80.3)		2704 (106.45)	—	2626 (103.4)		3916 (154.2)	4138 (162.9)
In	1524 (60)	—	1734 (68.3)	P	2816 (110.9)	—	3026 (119.1)	P	3928 (154.6)[a]	4138 (162.9)[a]
Out	1818(71.6)	—	2040 (80.3)		2804 (110.4)	—	3026 (119.1)		3916 (154.2)[a]	4138 (162.9)[a]

[a]with 381 mm (15 in) extension

380 Tires - Rack and Pinion Axle mm (in)										
Single				Dual				Triple		
Dish Position	Minimum	Maximum	Maximum[a]	Rim Position	Minimum	Maximum	Maximum[a]	Rim Position	Minimum	Maximum
In	1524 (60)	—	1534 (60.4)	Out	3338 (131.4)	—	3348 (131.8)	Out	4450 (175.2)	4460 (175.6)
Out	2012 (79.2)	—	2234 (87.9)		3126 (123.1)	—	3348 (131.8)		4238 (166.8)	4460 (175.6)

[a]with 15 in extension

480 Tires - Rack and Pinion Axle mm (in)										
Single				Dual				Triple		
Dish Position	Minimum	Maximum	Maximum[a]	Rim Position	Minimum	Maximum	Maximum[a]	Rim Position	Minimum[a]	Maximum[a]
In	1524 (60)	—	1732 (68.2)	Out	2824 (111.2)	—	3032 (119.4)	Out	4240 (166.9)	4546 (179)
Out	1814 (71.4)	—	1932 (76.1)		2912 (114.6)	—	3032 (119.4)		4428 (174.3)	4546 (179)

[a]with 10 in and 15 in extension

480 Tires - Double Flat Axle mm (in)										
Single				Dual				Triple		
Dish Position	Minimum	Maximum	Maximum[a]	Rim Position	Minimum	Maximum	Maximum[a]	Rim Position	Minimum[a]	Maximum[a]
In	1524 (60)	—	1891 (74.4)	Out	2881 (113.4)	—	3248 (127.9)	Out	4424 (174.2)	4791 (188.6)

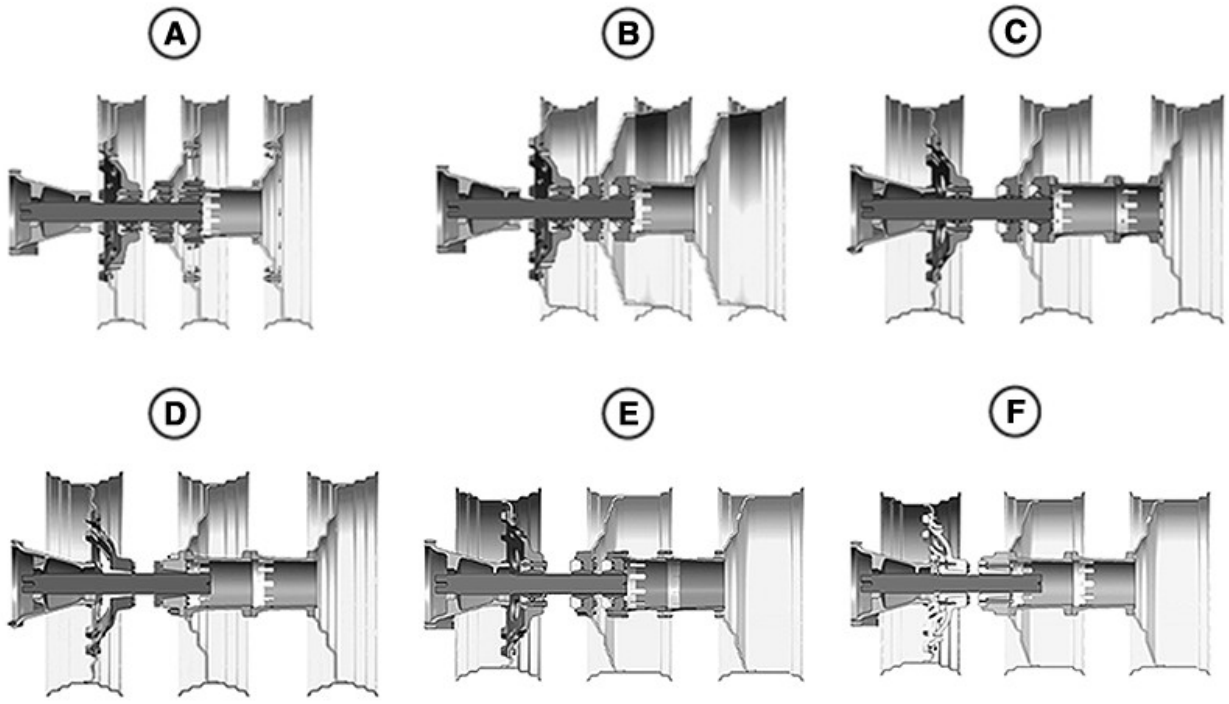
[a]with two 15 in extensions

520 Tires - Rack and Pinion Axle mm (in)										
Single				Dual				Triple		
Dish Position	Minimum	Maximum	Maximum[a]	Rim Position	Minimum	Maximum	Maximum[a]	Rim Position	Minimum[a]	Maximum[a]
In	1524 (60)	—	1732 (68.2)	Out	2832 (111.5)	—	3028 (119.2)	Out	4014 (158)	4140 (163)
Out	—			—				—		

[a]with 13 in and 15 in extension

520 Tires - Double Flat mm (in)										
Single				Dual				Triple		
Dish Position	Minimum	Maximum	Maximum[a]	Rim Position	Minimum	Maximum	Maximum[a]	Rim Position	Minimum[a]	Maximum[a]
In	1524 (60)	—	1930 (76)	Out	2994 (117.9)	—	3400 (133.9)	Out	4537 (178.6)	4943 (194.6)
Out	—			—				—		

[a] *with two 15 in extensions*



RXA0153454—UN—19AUG16

Row Spacing

Rack and Pinion Axle

320 Tires - Row Spacing 508 mm (20 in) - [A]								
Operation Type	Wheel Spacing mm (in)			Rim Position			Extension mm (in)	
	Drive	Dual	Triple	Drive	Dual	Triple	Dual	Triple
Normal[a]	2032 (80)	3048 (120)	4064 (160)	Out	Position P[b]	Position N[b]	—	381 (15)
Offset[c]	1524 (60)	2540 (100)	3556 (140)	In	Position L[b]	Position P[b]	—	381 (15)

[a] *Hitch between crop rows*
[b] *See 16-Position Wheel Settings*
[c] *Hitch over crop rows*

380/90R50 Tires - Row Spacing 559 mm (22 in) - [B]								
Operation Type	Wheel Spacing mm (in)			Rim Position			Extension mm (in)	
	Drive	Dual	Triple	Drive	Dual	Triple	Dual	Triple
Normal[a]	2235 (88)	3353 (132)	4470 (176)	Out	Out	Out	—	381 (15)

[a] *Hitch between crop rows*

480 Tires - Row Spacing 762 mm (30 in) - [C]								
Operation Type	Wheel Spacing mm (in)			Rim Position			Extension mm (in)	
	Drive	Dual	Triple	Drive	Dual	Triple	Dual	Triple
Normal[a]	1524 (60)	3048 (120)	4572 (180)	In	Out	Out	—	381 (15) and 254 (10)

[a]*Hitch between crop rows*

520 Tires - Row Spacing 762 mm (30 in) - [E]								
Operation Type	Wheel Spacing mm (in)			Rim Position			Extension mm (in)	
	Drive	Dual	Triple	Drive	Dual	Triple	Dual	Triple
Normal[a]	1524 (60)	3048 (120)	4572 (180)	In	Out	Out	—	330 (13) and 254 (10)

[a]*Hitch between crop rows*

Double-Flat Axle

480 Tires - Row Spacing 762 mm (30 in) - [D]								
Operation Type	Wheel Spacing mm (in)			Rim Position			Extension mm (in)	
	Drive	Dual	Triple	Drive	Dual	Triple	Dual	Triple
Normal[a]	1524 (60)	3048 (120)	4591 (180.8)	In	Out	Out	—	381 (15) and 381 (15)

[a]*Hitch between crop rows*

520 Tires - Row Spacing 762 mm (30 in) - [F]								
Operation Type	Wheel Spacing mm (in)			Rim Position			Extension mm (in)	
	Drive	Dual	Triple	Drive	Dual	Triple	Dual	Triple
Normal[a]	1524 (60)	3048 (120)	4591 (180.8)	In	Out	Out	—	381 (15) and 381 (15)

[a]*Hitch between crop rows*

GH15097,00004B2-19-19AUG16

Recommended Pressures—Group 47

Group	47										
Size	320/90R54		380/90R50		480/80R46			520/85R42			
Load Index	149		151		158			157		162	
Speed Rating	A8 / B		A8 / B		A8 / B		A8	A8		A8 / B	
	Dual	Triple	Dual	Triple	Single[a]	Dual[b]	Triple	Single	Dual	Single	Dual
Axle Load kg (lb)	kPa (bar)(psi)	kPa (bar)(psi)	kPa (bar)(psi)	kPa (bar)(psi)	kPa (bar)(psi)	kPa (bar)(psi)	kPa (bar)(psi)	kPa (bar)(psi)	kPa (bar)(psi)	kPa (bar)(psi)	kPa (bar)(psi)
4540 (10000)	69 (0.7)(10)	41 (0.4)(6)	41 (0.4)(6)	41 (0.4)(6)	90[a] (0.90)(13)	40[b] (0.40)(6)	40 (0.40)(6)	69 (0.7)(10)	41 (0.4)(6)	103 (1.0)(15)	103 (1.0)(15)
4760 (10500)	69 (0.7)(10)	41 (0.4)(6)	48 (0.5)(7)	41 (0.4)(6)	95[a] (0.95)(14)	40[b] (0.40)(6)	40 (0.40)(6)	76 (0.8)(11)	41 (0.4)(6)	103 (1.0)(15)	103 (1.0)(15)
4990 (11000)	76 (0.8)(11)	41 (0.4)(6)	55 (0.6)(8)	41 (0.4)(6)	105[a] (1.05)(15)	40[b] (0.40)(6)	40 (0.40)(6)	83 (0.8)(12)	41 (0.4)(6)	103 (1.0)(15)	103 (1.0)(15)
5220 (11500)	83 (0.8)(12)	41 (0.4)(6)	55 (0.6)(8)	41 (0.4)(6)	110 (1.10)(16)	40[b] (0.40)(6)	40 (0.40)(6)	90 (0.9)(13)	41 (0.4)(6)	103 (1.0)(15)	103 (1.0)(15)
5440 (12000)	90 (0.9)(13)	48 (0.5)(7)	62 (0.6)(9)	41 (0.4)(6)	120 (1.20)(17)	40[b] (0.40)(6)	40 (0.40)(6)	97 (1.0)(14)	41 (0.4)(6)	103 (1.0)(15)	103 (1.0)(15)
5670 (12500)	97 (1.0)(14)	55 (0.6)(8)	69 (0.7)(10)	41 (0.4)(6)	130 (1.30)(19)	40[b] (0.40)(6)	40 (0.40)(6)	97 (1.0)(14)	41 (0.4)(6)	103 (1.0)(15)	103 (1.0)(15)

Group	47										
Size	320/90R54		380/90R50		480/80R46			520/85R42			
Load Index	149		151		158			157		162	
Speed Rating	A8 / B		A8 / B		A8 / B		A8	A8		A8 / B	
	Dual	Triple	Dual	Triple	Single[a]	Dual[b]	Triple	Single	Dual	Single	Dual
Axle Load kg (lb)	kPa (bar)(psi)	kPa (bar)(psi)	kPa (bar)(psi)	kPa (bar)(psi)	kPa (bar)(psi)	kPa (bar)(psi)	kPa (bar)(psi)	kPa (bar)(psi)	kPa (bar)(psi)	kPa (bar)(psi)	kPa (bar)(psi)
5900 (13000)	103 (1.0)(15)	55 (0.6)(8)	69 (0.7)(10)	41 (0.4)(6)	145 (1.45)(21)	50[b] (0.50)(7)	40 (0.40)(6)	103 (1.0)(15)	41 (0.4)(6)	103 (1.0)(15)	103 (1.0)(15)
6120 (13500)	110 (1.1)(16)	62 (0.6)(9)	76 (0.8)(11)	41 (0.4)(6)	150 (1.50)(22)	50[b] (0.50)(7)	40 (0.40)(6)	110 (1.1)(16)	41 (0.4)(6)	103 (1.0)(15)	103 (1.0)(15)
6350 (14000)	110 (1.1)(16)	69 (0.7)(10)	83 (0.8)(12)	41 (0.4)(6)	160 (1.60)(23)	55[b] (0.55)(8)	40 (0.40)(6)	110 (1.1)(16)	41 (0.4)(6)	103 (1.0)(15)	103 (1.0)(15)
6580 (14500)	117 (1.2)(17)	69 (0.7)(10)	90 (0.9)(13)	48 (0.5)(7)	165 (1.65)(24)	55[b] (0.55)(8)	40 (0.40)(6)	117 (1.2)(17)	48 (0.5)(7)	103 (1.0)(15)	103 (1.0)(15)
6800 (15000)	117 (1.2)(17)	76 (0.8)(11)	90 (0.9)(13)	48 (0.5)(7)	175 (1.75)(25)	60[b] (0.60)(9)	40 (0.40)(6)	124 (1.2)(18)	48 (0.5)(7)	110 (1.1)(16)	103 (1.0)(15)
7030 (15500)	124 (1.2)(18)	83 (0.8)(12)	97 (1.0)(14)	55 (0.6)(8)	180 (1.80)(26)	70[b] (0.70)(10)	40 (0.40)(6)	131 (1.3)(19)	55 (0.6)(8)	117 (1.2)(17)	103 (1.0)(15)
7260 (16000)	131 (1.3)(19)	83 (0.8)(12)	103 (1.0)(15)	55 (0.6)(8)	190 (1.90)(28)	70[b] (0.70)(10)	40 (0.40)(6)	138 (1.4)(20)	55 (0.6)(8)	124 (1.2)(18)	103 (1.0)(15)
7480 (16500)	145 (1.4)(21)	90 (0.9)(13)	110 (1.1)(16)	62 (0.6)(9)	200 (2.00)(29)	75[b] (0.75)(11)	40 (0.40)(6)	138 (1.4)(20)	62 (0.6)(9)	131 (1.3)(19)	103 (1.0)(15)
7720 (17000)	145 (1.4)(21)	97 (1.0)(14)	110 (1.1)(16)	62 (0.6)(9)	215 (2.15)(31)	75[b] (0.75)(11)	40 (0.40)(6)	145 (1.4)(21)	62 (0.6)(9)	145 (1.4)(21)	103 (1.0)(15)
7950 (17500)	152 (1.5)(22)	97 (1.0)(14)	117 (1.2)(17)	69 (0.7)(10)	220 (2.20)(32)	80[b] (0.80)(12)	40 (0.40)(6)	152 (1.5)(22)	69 (0.7)(10)	152 (1.5)(22)	103 (1.0)(15)
8170 (18000)	159 (1.6)(23)	103 (1.0)(15)	117 (1.2)(17)	69 (0.7)(10)	235 (2.35)(34)	90[b] (0.90)(13)	50 (0.50)(7)	159 (1.6)(23)	69 (0.7)(10)	165 (1.7)(24)	103 (1.0)(15)
8400 (18500)	165 (1.7)(24)	110 (1.1)(16)	124 (1.2)(18)	76 (0.8)(11)	240 (2.40)(35)	90[b] (0.90)(13)	50 (0.50)(7)	—	76 (0.8)(11)	172 (1.7)(25)	103 (1.0)(15)
8630 (19000)	172 (1.7)(25)	110 (1.1)(16)	124 (1.2)(18)	76 (0.8)(11)	—	95[b] (0.95)(14)	50 (0.50)(7)	—	76 (0.8)(11)	186 (1.9)(27)	103 (1.0)(15)
8850 (19500)	186 (1.9)(27)	110 (1.1)(16)	131 (1.3)(19)	83 (0.8)(12)	—	105[b] (1.05)(15)	55 (0.55)(8)	—	83 (0.8)(12)	193 (1.9)(28)	103 (1.0)(15)
9080 (20000)	207 (2.1)(30)	117 (1.2)(17)	138 (1.4)(20)	83 (0.8)(12)	—	105[b] (1.05)(15)	55 (0.55)(8)	—	90 (0.9)(13)	207 (2.1)(30)	103 (1.0)(15)
9530 (21000)	241 (2.4)(35)	117 (1.2)(17)	145 (1.4)(21)	90 (0.9)(13)	—	110[b] (1.10)(16)	60 (0.60)(9)	—	90 (0.90)(13)	—	103 (1.0)(15)
9990 (22000)	262 (2.6)(38)	131 (1.3)(19)	159 (1.6)(23)	97 (1.0)(14)	—	120 (1.20)(17)	70 (0.70)(10)	—	97 (1.0)(14)	—	103 (1.0)(15)
10440 (23000)	283 (2.8)(41)	138 (1.4)(20)	172 (1.7)(25)	103 (1.0)(15)	—	125 (1.25)(18)	70 (0.70)(10)	—	103 (1.0)(15)	—	103 (1.0)(15)
10900 (24000)	296 (3.0)(43)	152 (1.5)(22)	186 (1.9)(27)	110 (1.1)(16)	—	130 (1.30)(19)	75 (0.75)(11)	—	110 (1.10)(16)	—	103 (1.0)(15)
11350 (25000)	317 (3.2)(46)	159 (1.6)(23)	214 (2.1)(31)	117 (1.2)(17)	—	140 (1.40)(20)	80 (0.80)(12)	—	117 (1.2)(17)	—	103 (1.0)(15)
11800 (26000)	—	165 (1.7)(24)	234 (2.3)(34)	124 (1.2)(18)	—	145 (1.45)(21)	90 (0.90)(13)	—	117 (1.2)(17)	—	110 (1.1)(16)
12260 (27000)	—	179 (1.8)(26)	—	131 (1.3)(19)	—	145 (1.45)(21)	95 (0.95)(14)	—	124 (1.2)(18)	—	117 (1.2)(17)
12710 (28000)	—	207 (2.1)(30)	—	138 (1.4)(20)	—	165 (1.65)(24)	110 (1.10)(16)	—	131 (1.3)(19)	—	124 (1.2)(18)
13170 (29000)	—	234 (2.3)(34)	—	145 (1.4)(21)	—	180 (1.80)(26)	110 (1.10)(16)	—	138 (1.4)(20)	—	131 (1.3)(19)
13605 (30000)	—	248 (2.5)(36)	—	152 (1.5)(22)	—	200 (2.00)(29)	120 (1.20)(17)	—	145 (1.4)(21)	—	145 (1.4)(21)
14060 (31000)	—	269 (2.7)(39)	—	159 (1.6)(23)	—	215 (2.15)(31)	120 (1.20)(17)	—	152 (1.5)(22)	—	152 (1.5)(22)

Group	47										
Size	320/90R54		380/90R50		480/80R46			520/85R42			
Load Index	149		151		158			157		162	
Speed Rating	A8 / B		A8 / B		A8 / B		A8	A8		A8 / B	
	Dual	Triple	Dual	Triple	Single[a]	Dual[b]	Triple	Single	Dual	Single	Dual
Axle Load kg (lb)	kPa (bar)(psi)	kPa (bar)(psi)	kPa (bar)(psi)	kPa (bar)(psi)	kPa (bar)(psi)	kPa (bar)(psi)	kPa (bar)(psi)	kPa (bar)(psi)	kPa (bar)(psi)	kPa (bar)(psi)	kPa (bar)(psi)
14510 (32000)	—	283 (2.8)(41)	—	165 (1.7)(24)	—	220 (2.20)(32)	125 (1.25)(18)	—	159 (1.6)(23)	—	165 (1.7)(24)
14970 (33000)	—	290 (2.9)(42)	—	179 (1.8)(26)	—	235 (2.35)(35)	130 (1.30)(19)	—	—	—	179 (1.8)(26)
15420 (34000)	—	303 (3.0)(44)	—	200 (2.0)(29)	—	—	140 (1.40)(20)	—	—	—	193 (1.9)(28)
15875 (35000)	—	317 (3.2)(46)	—	214 (2.1)(31)	—	—	140 (1.40)(20)	—	—	—	200 (2.0)(29)
16330 (36000)	—	—	—	228 (2.3)(33)	—	—	145 (1.45)(21)	—	—	—	228 (2.3)(33)
16783 (37000)	—	—	—	241 (2.4)(35)	—	—	150 (1.50)(22)	—	—	—	—
17236 (38000)	—	—	—	—	—	—	160 (1.60)(23)	—	—	—	—
17690 (39000)	—	—	—	—	—	—	165 (1.65)(24)	—	—	—	—
18143 (40000)	—	—	—	—	—	—	180 (1.80)(26)	—	—	—	—

[a]*For Mitas single tire option, recommended pressure is 103 kPa (1.0 bar) (15 psi) up to axle load of 4989 kg (11000 lb).*
[b]*For Mitas dual tire option, recommended pressure is 103 kPa (1.0 bar) (15 psi) up to axle load of 9297 kg (20500 lb).*

Group	47								
Size	620/70R42				650/65R42	710/70R38			
Load Index	160		166		158	166		171	
Speed Rating	A8		A8 / B		D	A8 / B		A8 / B / D	
	Single	Dual	Single	Dual	Single	Single	Dual	Single	Dual
Axle Load kg (lb)	kPa (bar)(psi)	kPa (bar)(psi)	kPa (bar)(psi)	kPa (bar)(psi)	kPa (bar)(psi)	kPa (bar)(psi)	kPa (bar)(psi)	kPa (bar)(psi)	kPa (bar)(psi)
4540 (10000)	65 (0.65)(9)	40 (0.40)(6)	40 (0.40)(6)	40 (0.40)(6)	55 (0.55)(8)	41 (0.4)(6)	41 (0.4)(6)	62 (0.6)(9)	41 (0.4)(6)
4760 (10500)	65 (0.65)(9)	40 (0.40)(6)	40 (0.40)(6)	40 (0.40)(6)	60 (0.60)(9)	41 (0.4)(6)	41 (0.4)(6)	62 (0.6)(9)	41 (0.4)(6)
4990 (11000)	65 (0.65)(9)	40 (0.40)(6)	50 (0.50)(7)	40 (0.40)(6)	70 (0.70)(10)	48 (0.5)(7)	41 (0.4)(6)	62 (0.6)(9)	41 (0.4)(6)
5220 (11500)	70 (0.70)(10)	40 (0.40)(6)	50 (0.50)(7)	40 (0.40)(6)	70 (0.70)(10)	55 (0.6)(8)	41 (0.4)(6)	62 (0.6)(9)	41 (0.4)(6)
5440 (12000)	75 (0.75)(11)	40 (0.40)(6)	55 (0.55)(8)	40 (0.40)(6)	80 (0.80)(12)	55 (0.6)(8)	41 (0.4)(6)	62 (0.6)(9)	41 (0.4)(6)
5670 (12500)	75 (0.75)(11)	40 (0.40)(6)	65 (0.65)(9)	40 (0.40)(6)	90 (0.90)(13)	62 (0.6)(9)	41 (0.4)(6)	62 (0.6)(9)	41 (0.4)(6)
5900 (13000)	85 (0.85)(12)	40 (0.40)(6)	70 (0.70)(10)	40 (0.40)(6)	95 (0.95)(14)	69 (0.7)(10)	41 (0.4)(6)	62 (0.6)(9)	41 (0.4)(6)
6120 (13500)	90 (0.90)(13)	40 (0.40)(6)	70 (0.70)(10)	40 (0.40)(6)	95 (0.95)(14)	76 (0.8)(11)	41 (0.4)(6)	62 (0.6)(9)	41 (0.4)(6)
6350 (14000)	95 (0.95)(14)	40 (0.40)(6)	75 (0.75)(11)	40 (0.40)(6)	105 (1.05)(15)	76 (0.8)(11)	41 (0.4)(6)	69 (0.7)(10)	41 (0.4)(6)
6580 (14500)	95 (0.95)(14)	40 (0.40)(6)	85 (0.85)(12)	40 (0.40)(6)	110 (1.10)(16)	83 (0.8)(12)	41 (0.4)(6)	76 (0.8)(11)	41 (0.4)(6)

Group	47								
Size	620/70R42				650/65R42	710/70R38			
Load Index	160		166		158	166		171	
Speed Rating	A8		A8 / B		D	A8 / B		A8 / B / D	
	Single	Dual	Single	Dual	Single	Single	Dual	Single	Dual
Axle Load kg (lb)	kPa (bar)(psi)	kPa (bar)(psi)	kPa (bar)(psi)	kPa (bar)(psi)	kPa (bar)(psi)	kPa (bar)(psi)	kPa (bar)(psi)	kPa (bar)(psi)	kPa (bar)(psi)
6800 (15000)	105 (1.05)(15)	40 (0.40)(6)	90 (0.90)(13)	40 (0.40)(6)	110 (1.10)(16)	90 (0.9)(13)	41 (0.4)(6)	83 (0.8)(12)	41 (0.4)(6)
7030 (15500)	110 (1.10)(16)	40 (0.40)(6)	95 (0.95)(14)	40 (0.40)(6)	120 (1.20)(17)	90 (0.9)(13)	41 (0.4)(6)	83 (0.8)(12)	41 (0.4)(6)
7260 (16000)	110 (1.10)(16)	40 (0.40)(6)	105 (1.05)(15)	40 (0.40)(6)	120 (1.20)(17)	97 (1.0)(14)	41 (0.4)(6)	90 (0.9)(13)	41 (0.4)(6)
7480 (16500)	120 (1.20)(17)	50 (0.50)(7)	110 (1.10)(16)	40 (0.40)(6)	125 (1.25)(18)	103 (1.0)(15)	41 (0.4)(6)	90 (0.9)(13)	41 (0.4)(6)
7720 (17000)	125 (1.25)(18)	50 (0.50)(7)	110 (1.10)(16)	40 (0.40)(6)	130 (1.30)(19)	103 (1.0)(15)	41 (0.4)(6)	97 (1.0)(14)	41 (0.4)(6)
7950 (17500)	125 (1.25)(18)	55 (0.55)(8)	120 (1.20)(17)	40 (0.40)(6)	140 (1.40)(20)	110 (1.1)(16)	41 (0.4)(6)	97 (1.0)(14)	41 (0.4)(6)
8170 (18000)	130 (1.30)(19)	55 (0.55)(8)	120 (1.20)(17)	40 (0.40)(6)	150 (1.50)(22)	110 (1.1)(16)	41 (0.4)(6)	103 (1.0)(15)	41 (0.4)(6)
8400 (18500)	130 (1.30)(19)	60 (0.60)(9)	125 (1.25)(18)	50 (0.50)(7)	160 (1.60)(23)	117 (1.2)(17)	41 (0.4)(6)	110 (1.1)(16)	41 (0.4)(6)
8630 (19000)	140 (1.40)(20)	70 (0.70)(10)	130 (1.30)(19)	50 (0.50)(7)	—	117 (1.2)(17)	48 (0.5)(7)	110 (1.1)(16)	41 (0.4)(6)
8850 (19500)	160 (1.60)(23)	70 (0.70)(10)	130 (1.30)(19)	50 (0.50)(7)	—	124 (1.2)(18)	48 (0.5)(7)	117 (1.2)(17)	41 (0.4)(6)
9080 (20000)	—	70 (0.70)(10)	140 (1.40)(20)	50 (0.50)(7)	—	124 (1.2)(18)	48 (0.5)(7)	117 (1.2)(17)	41 (0.4)(6)
9530 (21000)	—	75 (0.75)(11)	145 (1.45)(21)	50 (0.50)(7)	—	138 (1.4)(20)	55 (0.6)(8)	131 (1.3)(19)	48 (0.5)(7)
9990 (22000)	—	80 (0.80)(12)	150 (1.50)(22)	55 (0.55)(8)	—	145 (1.4)(21)	62 (0.6)(9)	138 (1.4)(20)	55 (0.6)(8)
10440 (23000)	—	90 (0.90)(13)	160 (1.60)(23)	55 (0.55)(8)	—	159 (1.6)(23)	69 (0.7)(10)	145 (1.4)(21)	62 (0.6)(9)
10900 (24000)	—	95 (0.95)(14)	165 (1.65)(24)	55 (0.55)(8)	—	—	76 (0.8)(11)	159 (1.6)(23)	69 (0.7)(10)
11350 (25000)	—	105 (1.05)(15)	180 (1.80)(26)	55 (0.55)(8)	—	—	83 (0.8)(12)	172 (1.7)(25)	69 (0.7)(10)
11800 (26000)	—	110 (1.10)(16)	200 (2.00)(29)	65 (0.65)(9)	—	—	83 (0.8)(12)	193 (1.9)(28)	76 (0.8)(11)
12260 (27000)	—	120 (1.20)(17)	235 (2.35)(34)	70 (0.70)(10)	—	—	90 (0.9)(13)	214 (2.1)(31)	83 (0.8)(12)
12710 (28000)	—	120 (1.20)(17)	—	75 (0.75)(11)	—	—	97 (1.0)(14)	234 (2.3)(34)	90 (0.9)(13)
13170 (29000)	—	125 (1.25)(18)	—	85 (0.85)(12)	—	—	103 (1.0)(15)	—	90 (0.9)(13)
13605 (30000)	—	130 (1.30)(19)	—	95 (0.95)(14)	—	—	103 (1.0)(15)	—	97 (1.0)(14)
14060 (31000)	—	140 (1.40)(20)	—	105 (1.05)(15)	—	—	110 (1.1)(16)	—	103 (1.0)(15)
14510 (32000)	—	140 (1.40)(20)	—	110 (1.10)(16)	—	—	110 (1.1)(16)	—	103 (1.0)(15)
14970 (33000)	—	150 (1.50)(22)	—	110 (1.10)(16)	—	—	117 (1.2)(17)	—	110 (1.1)(16)
15420 (34000)	—	160 (1.60)(23)	—	120 (1.20)(17)	—	—	124 (1.2)(18)	—	117 (1.2)(17)
15875 (35000)	—	—	—	125 (1.25)(18)	—	—	124 (1.2)(18)	—	117 (1.2)(17)

Group	47								
Size	620/70R42				650/65R42	710/70R38			
Load Index	160		166		158	166		171	
Speed Rating	A8		A8 / B		D	A8 / B		A8 / B / D	
	Single	Dual	Single	Dual	Single	Single	Dual	Single	Dual
Axle Load kg (lb)	kPa (bar)(psi)	kPa (bar)(psi)	kPa (bar)(psi)	kPa (bar)(psi)	kPa (bar)(psi)	kPa (bar)(psi)	kPa (bar)(psi)	kPa (bar)(psi)	kPa (bar)(psi)
16330 (36000)	—	—	—	130 (1.30)(19)	—	—	131 (1.3)(19)	—	124 (1.2)(18)
16783 (37000)	—	—	—	140 (1.40)(20)	—	—	138 (1.4)(20)	—	131 (1.3)(19)
17236 (38000)	—	—	—	145 (1.45)(21)	—	—	145 (1.4)(21)	—	131 (1.3)(19)
17690 (39000)	—	—	—	150 (1.50)(22)	—	—	152 (1.5)(22)	—	138 (1.4)(20)
18143 (40000)	—	—	—	160 (1.60)(23)	—	—	152 (1.5)(22)	—	145 (1.4)(21)
18594 (41000)	—	—	—	—	—	—	159 (1.6)(23)	—	152 (1.5)(22)
19047 (42000)	—	—	—	—	—	—	—	—	159 (1.6)(23)
19501 (43000)	—	—	—	—	—	—	—	—	159 (1.6)(23)
19954 (44000)	—	—	—	—	—	—	—	—	172 (1.7)(25)
20408 (45000)	—	—	—	—	—	—	—	—	186 (1.9)(27)
20861 (46000)	—	—	—	—	—	—	—	—	193 (1.9)(28)
21315 (47000)	—	—	—	—	—	—	—	—	207 (2.1)(30)
21768 (48000)	—	—	—	—	—	—	—	—	221 (2.2)(32)
22222 (49000)	—	—	—	—	—	—	—	—	234 (2.3)(34)
22675 (50000)	—	—	—	—	—	—	—	—	241 (2.4)(35)

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Recommended Pressures—Group 48

Group	48									
Size	320/105R54			380/90R54	480/80R50			IF480/80R50		VF480/ 80R50
Load Index	163			152	159			166		166
Speed Rating	A8			A8	A8	A8 / B	A8	A8		B
	Single	Dual	Triple	Dual	Single[a]	Dual[b]	Triple[c]	Single	Dual	Dual
Axle Load kg (lb)	kPa (bar)(psi)	kPa (bar)(psi)	kPa (bar)(psi)	kPa (bar)(psi)	kPa (bar)(psi)	kPa (bar)(psi)	kPa (bar)(psi)	kPa (bar)(psi)	kPa (bar)(psi)	kPa (bar)(psi)
4082 (9000)	110 (1.1)(16)	41 (0.4)(6)	41 (0.4)(6)	40 (0.40)(6)	62[a] (0.6)(9)	62[b] (0.6)(9)	62[c] (0.6)(9)	55 (0.6)(8)	41 (0.4)(6)	41 (0.4)(6)
4308 (9500)	117 (1.2)(17)	48 (0.5)(7)	41 (0.4)(6)	40 (0.40)(6)	69[a] (0.7)(10)	62[b] (0.6)(9)	62[c] (0.6)(9)	55 (0.6)(8)	41 (0.4)(6)	41 (0.4)(6)

Group	48									
Size	**320/105R54**			**380/90R54**	**480/80R50**			**IF480/80R50**		**VF480/ 80R50**
Load Index	**163**			**152**	**159**			**166**		**166**
Speed Rating	**A8**			**A8**	**A8**	**A8 / B**	**A8**	**A8**		**B**
	Single	**Dual**	**Triple**	**Dual**	**Single[a]**	**Dual[b]**	**Triple[c]**	**Single**	**Dual**	**Dual**
Axle Load kg (lb)	**kPa (bar)(psi)**	**kPa (bar)(psi)**	**kPa (bar)(psi)**	**kPa (bar)(psi)**	**kPa (bar)(psi)**	**kPa (bar)(psi)**	**kPa (bar)(psi)**	**kPa (bar)(psi)**	**kPa (bar)(psi)**	**kPa (bar)(psi)**
4540 (10000)	131 (1.3)(19)	48 (0.5)(7)	41 (0.4)(6)	40 (0.40)(6)	83[a] (0.8)(12)	62[b] (0.6)(9)	62[c] (0.6)(9)	62 (0.6)(9)	41 (0.4)(6)	41 (0.4)(6)
4760 (10500)	138 (1.4)(20)	55 (0.6)(8)	41 (0.4)(6)	40 (0.40)(6)	90[a] (0.9)(13)	62[b] (0.6)(9)	62[c] (0.6)(9)	62 (0.6)(9)	41 (0.4)(6)	41 (0.4)(6)
4990 (11000)	145 (1.4)(21)	62 (0.6)(9)	41 (0.4)(6)	50 (0.50)(7)	97[a] (1.0)(14)	62[b] (0.6)(9)	62[c] (0.6)(9)	69 (0.7)(10)	41 (0.4)(6)	41 (0.4)(6)
5220 (11500)	159 (1.6)(23)	69 (0.7)(10)	41 (0.4)(6)	50 (0.50)(7)	103[a] (1.0)(15)	62[b] (0.6)(9)	62[c] (0.6)(9)	76 (0.8)(11)	41 (0.4)(6)	41 (0.4)(6)
5440 (12000)	172 (1.7)(25)	76 (0.8)(11)	41 (0.4)(6)	55 (0.55)(8)	103[a] (1.0)(15)	62[b] (0.6)(9)	62[c] (0.6)(9)	76 (0.8)(11)	41 (0.4)(6)	41 (0.4)(6)
5670 (12500)	193 (1.9)(28)	76 (0.8)(11)	41 (0.4)(6)	60 (0.60)(9)	110 (1.1)(16)	62[b] (0.6)(9)	62[c] (0.6)(9)	83 (0.8)(12)	41 (0.4)(6)	41 (0.4)(6)
5900 (13000)	214 (2.1)(31)	83 (0.8)(12)	41 (0.4)(6)	70 (0.70)(10)	117 (1.2)(17)	62[b] (0.6)(9)	62[c] (0.6)(9)	90 (0.9)(13)	41 (0.4)(6)	41 (0.4)(6)
6120 (13500)	228 (2.3)(33)	90 (0.9)(13)	48 (0.5)(7)	70 (0.70)(10)	117 (1.2)(17)	62[b] (0.6)(9)	62[c] (0.6)(9)	97 (1.0)(14)	48 (0.5)(7)	41 (0.4)(6)
6350 (14000)	248 (2.5)(36)	97 (1.0)(14)	48 (0.5)(7)	75 (0.75)(11)	124 (1.2)(18)	62[b] (0.6)(9)	62[c] (0.6)(9)	103 (1.0)(15)	48 (0.5)(7)	41 (0.4)(6)
6580 (14500)	262 (2.6)(38)	103 (1.0)(15)	55 (0.55)(8)	75 (0.75)(11)	131 (1.3)(19)	62[b] (0.6)(9)	62[c] (0.6)(9)	110 (1.1)(16)	48 (0.5)(7)	41 (0.4)(6)
6800 (15000)	283 (2.8)(41)	103 (1.0)(15)	62 (0.6)(9)	80 (0.80)(12)	138 (1.4)(20)	62[b] (0.6)(9)	62[c] (0.6)(9)	110 (1.1)(16)	48 (0.5)(7)	41 (0.4)(6)
7030 (15500)	296 (3.0)(43)	110 (1.1)(16)	62 (0.6)(9)	90 (0.90)(13)	145 (1.4)(21)	62[b] (0.6)(9)	62[c] (0.6)(9)	117 (1.2)(17)	55 (0.6)(8)	41 (0.4)(6)
7260 (16000)	317 (3.2)(46)	110 (1.1)(16)	69 (0.70)(10)	90 (0.90)(13)	152 (1.5)(22)	69[b] (0.7)(10)	62[c] (0.6)(9)	117 (1.2)(17)	55 (0.6)(8)	41 (0.4)(6)
7480 (16500)	338 (3.4)(49)	117 (1.2)(17)	69 (0.70)(10)	95 (0.95)(14)	159 (1.6)(23)	69[b] (0.7)(10)	62[c] (0.6)(9)	124 (1.2)(18)	55 (0.6)(8)	48 (0.5)(7)
7720 (17000)	359 (3.6)(52)	124 (1.2)(18)	76 (0.70)(11)	105 (1.05)(15)	179 (1.8)(26)	76[b] (0.8)(11)	62[c] (0.6)(9)	131 (1.3)(19)	62 (0.6)(9)	48 (0.5)(7)
7950 (17500)	379 (3.8)(55)	124 (1.2)(18)	76 (0.70)(11)	110 (1.10)(16)	193 (1.9)(28)	76[b] (0.8)(11)	62[c] (0.6)(9)	131 (1.3)(19)	62 (0.6)(9)	55 (0.6)(8)
8170 (18000)	393 (3.9)(57)	131 (1.3)(19)	83 (0.80)(12)	110 (1.10)(16)	200 (2.0)(29)	83[b] (0.8)(12)	62[c] (0.6)(9)	138 (1.4)(20)	62 (0.6)(9)	55 (0.6)(8)
8400 (18500)	414 (4.1)(60)	138 (1.4)(20)	90 (0.90)(13)	120 (1.20)(17)	214 (2.1)(31)	90[b] (0.9)(13)	62[c] (0.6)(9)	145 (1.4)(21)	62 (0.6)(9)	62 (0.6)(9)
8630 (19000)	421 (4.2)(61)	145 (1.4)(21)	90 (0.90)(13)	120 (1.20)(17)	234 (2.3)(34)	90[b] (0.9)(13)	62[c] (0.6)(9)	152 (1.5)(22)	69 (0.7)(10)	62 (0.6)(9)
8850 (19500)	434 (4.3)(63)	152 (1.5)(22)	97 (1.0)(14)	125 (1.25)(18)	—	97[b] (1.0)(14)	62[c] (0.6)(9)	159 (1.6)(23)	69 (0.7)(10)	69 (0.7)(10)
9080 (20000)	448 (4.5)(65)	159 (1.6)(23)	97 (1.0)(14)	125 (1.25)(18)	—	97[b] (1.0)(14)	62[c] (0.6)(9)	165 (1.7)(24)	69 (0.7)(10)	69 (0.7)(10)
9530 (21000)	476 (4.8)(69)	172 (1.7)(25)	103 (1.0)(15)	140 (1.40)(20)	—	103[b] (1.0)(15)	62[c] (0.6)(9)	179 (1.8)(26)	76 (0.8)(11)	76 (0.8)(11)
9990 (22000)	—	193 (1.9)(28)	110 (1.1)(16)	150 (1.50)(22)	—	110 (1.1)(16)	62[c] (0.6)(9)	214 (2.1)(31)	83 (0.8)(12)	83 (0.8)(12)
10440 (23000)	—	214 (2.1)(31)	117 (1.2)(17)	160 (1.60)(23)	—	117 (1.2)(17)	69[c] (0.7)(10)	234 (2.3)(34)	90 (0.9)(13)	90 (0.9)(13)
10900 (24000)	—	234 (2.3)(34)	124 (1.2)(18)	170 (1.70)(25)	—	124 (1.2)(18)	76[c] (0.8)(11)	—	97 (1.0)(14)	97 (1.0)(14)
11350 (25000)	—	255 (2.5)(37)	131 (1.3)(19)	185 (1.85)(27)	—	131 (1.3)(19)	83[c] (0.8)(12)	—	103 (1.0)(15)	103 (1.0)(15)

Group	48									
Size	**320/105R54**			**380/90R54**	**480/80R50**			**IF480/80R50**		**VF480/ 80R50**
Load Index	**163**			**152**	**159**			**166**		**166**
Speed Rating	**A8**			**A8**	**A8**	**A8 / B**	**A8**	**A8**		**B**
	Single	**Dual**	**Triple**	**Dual**	**Single[a]**	**Dual[b]**	**Triple[c]**	**Single**	**Dual**	**Dual**
Axle Load kg (lb)	**kPa (bar)(psi)**	**kPa (bar)(psi)**	**kPa (bar)(psi)**	**kPa (bar)(psi)**	**kPa (bar)(psi)**	**kPa (bar)(psi)**	**kPa (bar)(psi)**	**kPa (bar)(psi)**	**kPa (bar)(psi)**	**kPa (bar)(psi)**
11800 (26000)	—	276 (2.8)(40)	138 (1.4)(20)	200 (2.00)(29)	—	138 (1.4)(20)	90[c] (0.9)(13)	—	110 (1.1)(16)	110 (1.1)(16)
12260 (27000)	—	290 (2.9)(42)	145 (1.5)(21)	225 (2.25)(33)	—	145 (1.4)(21)	97[c] (1.0)(14)	—	117 (1.2)(17)	110 (1.1)(16)
12710 (28000)	—	310 (3.1)(45)	159 (1.6)(23)	—	—	152 (1.5)(22)	97[c] (1.0)(14)	—	117 (1.2)(17)	117 (1.2)(17)
13170 (29000)	—	338 (3.4)(49)	165 (1.7)(24)	—	—	159 (1.6)(23)	103[c] (1.0)(15)	—	124 (1.2)(18)	117 (1.2)(17)
13605 (30000)	—	359 (3.6)(52)	179 (1.8)(26)	—	—	179 (1.8)(26)	110 (1.1)(16)	—	131 (1.3)(19)	131 (1.3)(19)
14060 (31000)	—	379 (3.8)(55)	193 (1.9)(28)	—	—	193 (1.9)(28)	110 (1.1)(16)	—	138 (1.4)(20)	138 (1.4)(20)
14510 (32000)	—	400 (4.0)(58)	214 (2.1)(31)	—	—	207 (2.1)(30)	117 (1.2)(17)	—	138 (1.4)(20)	138 (1.4)(20)
14970 (33000)	—	421 (4.2)(61)	228 (2.3)(33)	—	—	228 (2.3)(33)	117 (1.2)(17)	—	152 (1.5)(22)	145 (1.4)(21)
15420 (34000)	—	434 (4.3)(63)	241 (2.4)(35)	—	—	—	124 (1.2)(18)	—	159 (1.6)(23)	152 (1.5)(22)
15875 (35000)	—	448 (4.5)(65)	255 (2.55)(37)	—	—	—	131 (1.3)(19)	—	165 (1.7)(24)	159 (1.6)(23)
16330 (36000)	—	462 (4.6)(67)	269 (2.7)(39)	—	—	—	138 (1.4)(20)	—	172 (1.7)(25)	159 (1.6)(23)
16783 (37000)	—	476 (4.8)(69)	283 (2.8)(41)	—	—	—	138 (1.4)(20)	—	186 (1.9)(27)	—
17236 (38000)	—	—	296 (3.0)(43)	—	—	—	145 (1.4)(21)	—	207 (2.1)(30)	—
17690 (39000)	—	—	310 (3.10)(45)	—	—	—	152 (1.5)(22)	—	221 (2.2)(32)	—
18143 (40000)	—	—	324 (3.24)(47)	—	—	—	159 (1.6)(23)	—	228 (2.3)(33)	—
18594 (41000)	—	—	345 (3.45)(50)	—	—	—	165 (1.7)(24)	—	241 (2.4)(35)	—
19048 (42000)	—	—	359 (3.59)(52)	—	—	—	179 (1.8)(26)	—	—	—
19501 (43000)	—	—	379 (3.79)(55)	—	—	—	193 (1.9)(28)	—	—	—
19955 (44000)	—	—	393 (3.93)(57)	—	—	—	200 (2.0)(29)	—	—	—
20408 (45000)	—	—	407 (4.07)(59)	—	—	—	207 (2.1)(30)	—	—	—
20862 (46000)	—	—	414 (4.14)(60)	—	—	—	221 (2.2)(32)	—	—	—
21315 (47000)	—	—	427 (4.27)(62)	—	—	—	234 (2.3)(34)	—	—	—
21769 (48000)	—	—	434 (4.34)(63)	—	—	—	—	—	—	—
22222 (49000)	—	—	448 (4.48)(65)	—	—	—	—	—	—	—
22676 (50000)	—	—	455 (4.55)(66)	—	—	—	—	—	—	—
23129 (51000)	—	—	469 (4.69)(68)	—	—	—	—	—	—	—

Group	48									
Size	**320/105R54**			**380/90R54**	**480/80R50**			**IF480/80R50**		**VF480/ 80R50**
Load Index	**163**			**152**	**159**			**166**		**166**
Speed Rating	**A8**			**A8**	**A8**	**A8 / B**	**A8**	**A8**		**B**
	Single	**Dual**	**Triple**	**Dual**	**Single[a]**	**Dual[b]**	**Triple[c]**	**Single**	**Dual**	**Dual**
Axle Load kg (lb)	**kPa (bar)(psi)**	**kPa (bar)(psi)**	**kPa (bar)(psi)**	**kPa (bar)(psi)**	**kPa (bar)(psi)**	**kPa (bar)(psi)**	**kPa (bar)(psi)**	**kPa (bar)(psi)**	**kPa (bar)(psi)**	**kPa (bar)(psi)**
23583 (52000)	—	—	483 (4.83)(70)	—	—	—	—	—	—	—

[a]*For Mitas single tire option, recommended pressure is 103 kPa (1.0 bar) (15 psi) up to axle load of 5442 kg (12000 lb).*
[b]*For Mitas dual tire option, recommended pressure is 103 kPa (1.0 bar) (15 psi) up to axle load of 9524 kg (21000 lb).*
[c]*For Mitas triple tire option, recommended pressure is 103 kPa (1.0 bar) (15 psi) up to axle load of 13152 kg (29000 lb).*

Group	48							
Size	**520/85R46**		**620/70R46**		**650/85R38**		**IF650/85R38**	
Load Index	**158**		**167**		**173**		**179**	
Speed Rating	**A8 / B / D**		**A8 / B**		**A8 / B**		**A8 / B**	**A8**
	Single[a]	**Dual[b]**	**Single**	**Dual**	**Single**	**Dual**	**Single**	**Dual**
Axle Load kg (lb)	**kPa (bar)(psi)**	**kPa (bar)(psi)**	**kPa (bar)(psi)**	**kPa (bar)(psi)**	**kPa (bar)(psi)**	**kPa (bar)(psi)**	**kPa (bar)(psi)**	**kPa (bar)(psi)**
4540 (10000)	62[a] (0.6)(9)	41[b] (0.4)(6)	48 (0.5)(7)	41 (0.4)(6)	55 (0.55)(8)	40 (0.40)(6)	80 (0.80)(12)	40 (0.40)(6)
4760 (10500)	69[a] (0.7)(10)	41[b] (0.4)(6)	55 (0.6)(8)	41 (0.4)(6)	55 (0.55)(8)	40 (0.40)(6)	80 (0.80)(12)	40 (0.40)(6)
4990 (11000)	76[a] (0.8)(11)	41[b] (0.4)(6)	62 (0.6)(9)	41 (0.4)(6)	55 (0.55)(8)	50 (0.50)(7)	80 (0.80)(12)	40 (0.40)(6)
5220 (11500)	83[a] (0.8)(12)	41[b] (0.4)(6)	69 (0.7)(10)	41 (0.4)(6)	55 (0.55)(8)	50 (0.50)(7)	80 (0.80)(12)	40 (0.40)(6)
5440 (12000)	83[a] (0.8)(12)	41[b] (0.4)(6)	76 (0.8)(11)	41 (0.4)(6)	55 (0.55)(8)	55 (0.55)(8)	80 (0.80)(12)	40 (0.40)(6)
5670 (12500)	90[a] (0.9)(13)	41[b] (0.4)(6)	76 (0.8)(11)	41 (0.4)(6)	55 (0.55)(8)	55 (0.55)(8)	80 (0.80)(12)	40 (0.40)(6)
5900 (13000)	97[a] (1.0)(14)	41[b] (0.4)(6)	83 (0.8)(12)	41 (0.4)(6)	60 (0.60)(9)	65 (0.65)(9)	80 (0.80)(12)	40 (0.40)(6)
6120 (13500)	103[a] (1.0)(15)	41[b] (0.4)(6)	90 (0.9)(13)	41 (0.4)(6)	70 (0.70)(10)	65 (0.65)(9)	80 (0.80)(12)	40 (0.40)(6)
6350 (14000)	110[a] (1.1)(16)	41[b] (0.4)(6)	97 (1.0)(14)	41 (0.4)(6)	70 (0.70)(10)	70 (0.70)(10)	80 (0.80)(12)	40 (0.40)(6)
6580 (14500)	117[a] (1.2)(17)	41[b] (0.4)(6)	97 (1.0)(14)	41 (0.4)(6)	75 (0.75)(11)	70 (0.70)(10)	80 (0.80)(12)	40 (0.40)(6)
6800 (15000)	117[a] (1.2)(17)	41[b] (0.4)(6)	103 (1.0)(15)	41 (0.4)(6)	75 (0.75)(11)	75 (0.75)(11)	80 (0.80)(12)	40 (0.40)(6)
7030 (15500)	124 (1.2)(18)	48[b] (0.5)(7)	110 (1.1)(16)	41 (0.4)(6)	80 (0.80)(12)	75 (0.75)(11)	80 (0.80)(12)	40 (0.40)(6)
7260 (16000)	131 (1.3)(19)	48[b] (0.5)(7)	110 (1.1)(16)	41 (0.4)(6)	90 (0.90)(13)	85 (0.85)(12)	80 (0.80)(12)	40 (0.40)(6)
7480 (16500)	138 (1.4)(20)	55[b] (0.6)(8)	117 (1.2)(17)	48 (0.5)(7)	95 (0.95)(14)	85 (0.85)(12)	80 (0.80)(12)	40 (0.40)(6)
7720 (17000)	138 (1.4)(20)	62[b] (0.6)(9)	117 (1.2)(17)	48 (0.5)(7)	105 (1.05)(15)	90 (0.90)(13)	80 (0.80)(12)	40 (0.40)(6)
7950 (17500)	145 (1.4)(21)	62[b] (0.6)(9)	124 (1.2)(18)	48 (0.5)(7)	105 (1.05)(15)	90 (0.90)(13)	80 (0.80)(12)	40 (0.40)(6)
8170 (18000)	152 (1.5)(22)	69[b] (0.7)(10)	131 (1.3)(19)	55 (0.6)(8)	110 (1.10)(16)	95 (0.95)(14)	80 (0.80)(12)	40 (0.40)(6)
8400 (18500)	159 (1.6)(23)	69[b] (0.7)(10)	138 (1.4)(20)	55 (0.6)(8)	110 (1.10)(16)	95 (0.95)(14)	80 (0.80)(12)	40 (0.40)(6)

Group	48							
Size	520/85R46		620/70R46		650/85R38		IF650/85R38	
Load Index	158		167		173		179	
Speed Rating	A8 / B / D		A8 / B		A8 / B		A8 / B	A8
	Single[a]	Dual[b]	Single	Dual	Single	Dual	Single	Dual
Axle Load kg (lb)	kPa (bar)(psi)	kPa (bar)(psi)	kPa (bar)(psi)	kPa (bar)(psi)	kPa (bar)(psi)	kPa (bar)(psi)	kPa (bar)(psi)	kPa (bar)(psi)
8630 (19000)	—	76[b] (0.8)(11)	145 (1.4)(21)	62 (0.6)(9)	120 (1.20)(17)	105 (1.05)(15)	80 (0.80)(12)	40 (0.40)(6)
8850 (19500)	—	76[b] (0.8)(11)	152 (1.5)(22)	62 (0.6)(9)	120 (1.20)(17)	110 (1.10)(16)	90 (0.90)(13)	40 (0.40)(6)
9080 (20000)	—	76[b] (0.8)(11)	152 (1.5)(22)	69 (0.7)(10)	125 (1.25)(18)	120 (1.20)(17)	95 (0.95)(14)	40 (0.40)(6)
9530 (21000)	—	83[b] (0.8)(12)	159 (1.6)(23)	69 (0.7)(10)	130 (1.30)(19)	125 (1.25)(18)	105 (1.05)(15)	40 (0.40)(6)
9990 (22000)	—	90[b] (0.9)(13)	179 (1.8)(26)	76 (0.8)(11)	140 (1.40)(20)	140 (1.40)(20)	110 (1.10)(16)	40 (0.40)(6)
10440 (23000)	—	103[b] (1.0)(15)	207 (2.1)(30)	83 (0.8)(12)	150 (1.50)(22)	150 (1.50)(22)	120 (1.20)(17)	40 (0.40)(6)
10900 (24000)	—	110[b] (1.1)(16)	241 (2.4)(35)	90 (0.9)(13)	160 (1.60)(23)	160 (1.60)(23)	120 (1.20)(17)	50 (0.50)(7)
11350 (25000)	—	110 (1.1)(16)	—	97 (1.0)(14)	170 (1.70)(25)	165 (1.65)(24)	130 (1.30)(19)	50 (0.50)(7)
11800 (26000)	—	117 (1.2)(17)	—	103 (1.0)(15)	190 (1.90)(28)	180 (1.80)(26)	140 (1.40)(20)	55 (0.55)(8)
12260 (27000)	—	124 (1.2)(18)	—	110 (1.1)(16)	215 (2.15)(31)	190 (1.90)(28)	145 (1.45)(21)	55 (0.55)(8)
12710 (28000)	—	131 (1.3)(19)	—	110 (1.1)(16)	225 (2.25)(33)	200 (2.00)(29)	152 (1.50)(22)	60 (0.60)(9)
13170 (29000)	—	138 (1.4)(20)	—	117 (1.2)(17)	—	215 (2.15)(31)	159 (1.60)(23)	70 (0.70)(10)
13608 (30000)	—	138 (1.4)(20)	—	117 (1.2)(17)	—	220 (2.20)(32)	165 (1.70)(24)	70 (0.70)(10)
14061 (31000)	—	145 (1.4)(21)	—	124 (1.2)(18)	—	235 (2.35)(34)	179 (1.80)(26)	75 (0.75)(11)
14515 (32000)	—	159 (1.6)(23)	—	138 (1.4)(20)	—	240 (2.40)(35)	200 (2.00)(29)	80 (0.80)(12)
14969 (33000)	—	—	—	145 (1.4)(21)	—	—	221 (2.20)(32)	80 (0.80)(12)
15422 (34000)	—	—	—	145 (1.4)(21)	—	—	241 (2.40)(35)	90 (0.90)(13)
15876 (35000)	—	—	—	152 (1.5)(22)	—	—	—	90 (0.90)(13)
16329 (36000)	—	—	—	159 (1.6)(23)	—	—	—	—
16783 (37000)	—	—	—	165 (1.7)(24)	—	—	—	—
17237 (38000)	—	—	—	172 (1.7)(25)	—	—	—	—
17690 (39000)	—	—	—	186 (1.9)(27)	—	—	—	—
18144 (40000)	—	—	—	200 (2.0)(29)	—	—	—	—
18597 (41000)	—	—	—	221 (2.2)(32)	—	—	—	—
19051 (42000)	—	—	—	241 (2.4)(35)	—	—	—	—

[a]For Mitas single tire option, recommended pressure is 103 kPa (1.0 bar) (15 psi) up to axle load of 6804 kg (15000 lb).
[b]For Mitas dual tire option, recommended pressure is 83 kPa (0.8 bar) (12 psi) up to axle load of 10900 kg (24000 lb).

Group	48									
Size	710/70R42				IF710/70R42		800/70R38		IF800/70R38	
Load Index	168		173		179		173		179	
Speed Rating	A8 / B		A8 / B / D		A8 / B / D		A8		A8 /B	
	Single	Dual	Single	Dual	Single	Dual	Single	Dual	Single	Dual
Axle Load kg (lb)	kPa (bar)(psi)	kPa (bar)(psi)	kPa (bar)(psi)	kPa (bar)(psi)	kPa (bar)(psi)	kPa (bar)(psi)	kPa (bar)(psi)	kPa (bar)(psi)	kPa (bar)(psi)	kPa (bar)(psi)
4540 (10000)	41 (0.4)(6)	41 (0.4)(6)	83 (0.8)(12)	62 (0.6)(9)	83 (0.8)(12)	41 (0.4)(6)	55 (0.55)(8)	40 (0.40)(6)	80 (0.80)(12)	40 (0.40)(6)
4760 (10500)	41 (0.4)(6)	41 (0.4)(6)	83 (0.8)(12)	62 (0.6)(9)	83 (0.8)(12)	41 (0.4)(6)	55 (0.55)(8)	40 (0.40)(6)	80 (0.80)(12)	40 (0.40)(6)
4990 (11000)	41 (0.4)(6)	41 (0.4)(6)	83 (0.8)(12)	62 (0.6)(9)	83 (0.8)(12)	41 (0.4)(6)	55 (0.55)(8)	40 (0.40)(6)	80 (0.80)(12)	40 (0.40)(6)
5220 (11500)	48 (0.5)(7)	41 (0.4)(6)	83 (0.8)(12)	62 (0.6)(9)	83 (0.8)(12)	41 (0.4)(6)	55 (0.55)(8)	40 (0.40)(6)	80 (0.80)(12)	40 (0.40)(6)
5440 (12000)	55 (0.6)(8)	41 (0.4)(6)	83 (0.8)(12)	62 (0.6)(9)	83 (0.8)(12)	41 (0.4)(6)	55 (0.55)(8)	40 (0.40)(6)	80 (0.80)(12)	40 (0.40)(6)
5670 (12500)	62 (0.6)(9)	41 (0.4)(6)	83 (0.8)(12)	62 (0.6)(9)	83 (0.8)(12)	41 (0.4)(6)	55 (0.55)(8)	40 (0.40)(6)	80 (0.80)(12)	40 (0.40)(6)
5900 (13000)	62 (0.6)(9)	41 (0.4)(6)	83 (0.8)(12)	62 (0.6)(9)	83 (0.8)(12)	41 (0.4)(6)	55 (0.55)(8)	40 (0.40)(6)	80 (0.80)(12)	40 (0.40)(6)
6120 (13500)	69 (0.7)(10)	41 (0.4)(6)	83 (0.8)(12)	62 (0.6)(9)	83 (0.8)(12)	41 (0.4)(6)	55 (0.55)(8)	40 (0.40)(6)	80 (0.80)(12)	40 (0.40)(6)
6350 (14000)	69 (0.7)(10)	41 (0.4)(6)	83 (0.8)(12)	62 (0.6)(9)	83 (0.8)(12)	41 (0.4)(6)	55 (0.55)(8)	40 (0.40)(6)	80 (0.80)(12)	40 (0.40)(6)
6580 (14500)	76 (0.8)(11)	41 (0.4)(6)	83 (0.8)(12)	62 (0.6)(9)	83 (0.8)(12)	41 (0.4)(6)	55 (0.55)(8)	40 (0.40)(6)	80 (0.80)(12)	40 (0.40)(6)
6800 (15000)	83 (0.8)(12)	41 (0.4)(6)	83 (0.8)(12)	62 (0.6)(9)	83 (0.8)(12)	41 (0.4)(6)	60 (0.60)(9)	40 (0.40)(6)	80 (0.80)(12)	40 (0.40)(6)
7030 (15500)	83 (0.8)(12)	41 (0.4)(6)	83 (0.8)(12)	62 (0.6)(9)	83 (0.8)(12)	41 (0.4)(6)	60 (0.60)(9)	40 (0.40)(6)	80 (0.80)(12)	40 (0.40)(6)
7260 (16000)	90 (0.9)(13)	41 (0.4)(6)	90 (0.9)(13)	62 (0.6)(9)	83 (0.8)(12)	41 (0.4)(6)	70 (0.70)(10)	40 (0.40)(6)	80 (0.80)(12)	40 (0.40)(6)
7480 (16500)	97 (1.0)(14)	41 (0.4)(6)	97 (1.0)(14)	62 (0.6)(9)	83 (0.8)(12)	41 (0.4)(6)	70 (0.70)(10)	40 (0.40)(6)	80 (0.80)(12)	40 (0.40)(6)
7720 (17000)	103 (1.0)(15)	41 (0.4)(6)	103 (1.0)(15)	62 (0.6)(9)	83 (0.8)(12)	41 (0.4)(6)	75 (0.75)(11)	40 (0.40)(6)	80 (0.80)(12)	40 (0.40)(6)
7950 (17500)	103 (1.0)(15)	41 (0.4)(6)	103 (1.0)(15)	62 (0.6)(9)	83 (0.8)(12)	41 (0.4)(6)	80 (0.80)(12)	40 (0.40)(6)	80 (0.80)(12)	40 (0.40)(6)
8170 (18000)	110 (1.1)(16)	41 (0.4)(6)	110 (1.1)(16)	62 (0.6)(9)	83 (0.8)(12)	41 (0.4)(6)	80 (0.80)(12)	40 (0.40)(6)	80 (0.80)(12)	40 (0.40)(6)
8400 (18500)	110 (1.1)(16)	41 (0.4)(6)	110 (1.1)(16)	62 (0.6)(9)	90 (0.9)(13)	41 (0.4)(6)	90 (0.90)(13)	40 (0.40)(6)	80 (0.80)(12)	40 (0.40)(6)
8630 (19000)	117 (1.2)(17)	41 (0.4)(6)	117 (1.2)(17)	62 (0.6)(9)	90 (0.9)(13)	41 (0.4)(6)	90 (0.90)(13)	40 (0.40)(6)	80 (0.80)(12)	40 (0.40)(6)
8850 (19500)	117 (1.2)(17)	48 (0.5)(7)	117 (1.2)(17)	62 (0.6)(9)	90 (0.9)(13)	48 (0.5)(7)	95 (0.95)(14)	40 (0.40)(6)	90 (0.90)(13)	40 (0.40)(6)
9080 (20000)	124 (1.2)(18)	48 (0.5)(7)	124 (1.2)(18)	62 (0.6)(9)	97 (1.0)(14)	48 (0.5)(7)	105 (1.05)(15)	40 (0.40)(6)	95 (0.95)(14)	40 (0.40)(6)
9530 (21000)	131 (1.3)(19)	55 (0.6)(8)	131 (1.3)(19)	62 (0.6)(9)	103 (1.0)(15)	48 (0.5)(7)	110 (1.10)(16)	40 (0.40)(6)	105 (1.05)(15)	40 (0.40)(6)
9990 (22000)	138 (1.4)(20)	62 (0.6)(9)	138 (1.4)(20)	62 (0.6)(9)	110 (1.1)(16)	48 (0.5)(7)	120 (1.20)(17)	40 (0.40)(6)	110 (1.10)(16)	40 (0.40)(6)
10440 (23000)	152 (1.5)(22)	62 (0.6)(9)	152 (1.5)(22)	62 (0.6)(9)	117 (1.2)(17)	55 (0.6)(8)	120 (1.20)(17)	50 (0.50)(7)	120 (1.20)(17)	40 (0.40)(6)
10900 (24000)	159 (1.6)(23)	69 (0.7)(10)	159 (1.6)(23)	69 (0.7)(10)	124 (1.2)(18)	55 (0.6)(8)	125 (1.25)(18)	50 (0.50)(7)	120 (1.20)(17)	40 (0.40)(6)
11350 (25000)	—	76 (0.8)(11)	172 (1.7)(25)	76 (0.8)(11)	131 (1.3)(19)	55 (0.6)(8)	140 (1.40)(20)	50 (0.50)(7)	130 (1.30)(19)	40 (0.40)(6)

Group	48									
Size	710/70R42				IF710/70R42		800/70R38		IF800/70R38	
Load Index	168		173		179		173		179	
Speed Rating	A8 / B		A8 / B / D		A8 / B / D		A8		A8 /B	
	Single	Dual	Single	Dual	Single	Dual	Single	Dual	Single	Dual
Axle Load kg (lb)	kPa (bar)(psi)	kPa (bar)(psi)	kPa (bar)(psi)	kPa (bar)(psi)	kPa (bar)(psi)	kPa (bar)(psi)	kPa (bar)(psi)	kPa (bar)(psi)	kPa (bar)(psi)	kPa (bar)(psi)
11800 (26000)	—	76 (0.8)(11)	186 (1.9)(27)	76 (0.8)(11)	138 (1.4)(20)	62 (0.6)(9)	145 (1.45)(21)	60 (0.60)(9)	140 (1.40)(20)	40 (0.40)(6)
12260 (27000)	—	83 (0.8)(12)	200 (2.0)(29)	83 (0.8)(12)	145 (1.4)(21)	62 (0.6)(9)	150 (1.50)(22)	70 (0.70)(10)	145 (1.45)(21)	50 (0.50)(7)
12710 (28000)	—	90 (0.9)(13)	228 (2.3)(33)	90 (0.9)(13)	152 (1.5)(22)	69 (0.7)(10)	160 (1.60)(23)	70 (0.70)(10)	152 (1.52)(22)	50 (0.50)(7)
13170 (29000)	—	97 (1.0)(14)	—	97 (1.0)(14)	159 (1.6)(23)	69 (0.7)(10)	—	70 (0.70)(10)	159 (1.59)(23)	50 (0.50)(7)
13608 (30000)	—	103 (1.0)(15)	—	103 (1.0)(15)	172 (1.7)(25)	76 (0.8)(11)	—	75 (0.75)(11)	165 (1.65)(24)	55 (0.55)(8)
14061 (31000)	—	110 (1.1)(16)	—	110 (1.1)(16)	193 (1.9)(28)	83 (0.8)(12)	—	80 (0.80)(12)	179 (1.79)(26)	55 (0.55)(8)
14515 (32000)	—	110 (1.1)(16)	—	110 (1.1)(16)	207 (2.1)(30)	83 (0.8)(12)	—	80 (0.80)(12)	200 (2.00)(29)	60 (0.60)(9)
14969 (33000)	—	117 (1.2)(17)	—	117 (1.2)(17)	228 (2.3)(33)	90 (0.9)(13)	—	90 (0.90)(13)	221 (2.20)(32)	70 (0.70)(10)
15422 (34000)	—	117 (1.2)(17)	—	117 (1.2)(17)	241 (2.4)(35)	90 (0.9)(13)	—	95 (0.95)(14)	241 (2.40)(35)	70 (0.70)(10)
15876 (35000)	—	124 (1.2)(18)	—	124 (1.2)(18)	—	97 (1.0)(14)	—	105 (1.05)(15)	—	75 (0.75)(11)
16329 (36000)	—	124 (1.2)(18)	—	124 (1.2)(18)	—	97 (1.0)(14)	—	110 (1.10)(16)	—	—
16783 (37000)	—	131 (1.3)(19)	—	131 (1.3)(19)	—	103 (1.0)(15)	—	110 (1.10)(16)	—	—
17237 (38000)	—	138 (1.4)(20)	—	138 (1.4)(20)	—	110 (1.1)(16)	—	110 (1.10)(16)	—	—
17690 (39000)	—	145 (1.4)(21)	—	145 (1.4)(21)	—	110 (1.1)(16)	—	120 (1.20)(17)	—	—
18144 (40000)	—	145 (1.4)(21)	—	145 (1.4)(21)	—	117 (1.2)(17)	—	120 (1.20)(17)	—	—
18597 (41000)	—	152 (1.5)(22)	—	152 (1.5)(22)	—	117 (1.2)(17)	—	—	—	—
19051 (42000)	—	159 (1.6)(23)	—	159 (1.6)(23)	—	117 (1.2)(17)	—	—	—	—
19504 (43000)	—	159 (1.6)(23)	—	159 (1.6)(23)	—	124 (1.2)(18)	—	—	—	—
19958 (44000)	—	—	—	172 (1.7)(25)	—	131 (1.3)(19)	—	—	—	—
20412 (45000)	—	—	—	179 (1.8)(26)	—	131 (1.3)(19)	—	—	—	—
20865 (46000)	—	—	—	193 (1.9)(28)	—	138 (1.4)(20)	—	—	—	—
21319 (47000)	—	—	—	200 (2.0)(29)	—	145 (1.4)(21)	—	—	—	—
21772 (48000)	—	—	—	207 (2.1)(30)	—	145 (1.4)(21)	—	—	—	—
22226 (49000)	—	—	—	221 (2.2)(32)	—	152 (1.5)(22)	—	—	—	—
22680 (50000)	—	—	—	241 (2.4)(35)	—	152 (1.5)(22)	—	—	—	—
23133 (51000)	—	—	—	—	—	159 (1.6)(23)	—	—	—	—

Group	48									
Size	710/70R42				IF710/70R42		800/70R38		IF800/70R38	
Load Index	168		173		179		173		179	
Speed Rating	A8 / B		A8 / B / D		A8 / B / D		A8		A8 /B	
	Single	Dual	Single	Dual	Single	Dual	Single	Dual	Single	Dual
Axle Load kg (lb)	kPa (bar)(psi)	kPa (bar)(psi)	kPa (bar)(psi)	kPa (bar)(psi)	kPa (bar)(psi)	kPa (bar)(psi)	kPa (bar)(psi)	kPa (bar)(psi)	kPa (bar)(psi)	kPa (bar)(psi)
23587 (52000)	—	—	—	—	—	165 (1.7)(24)	—	—	—	—
24040 (53000)	—	—	—	—	—	172 (1.7)(25)	—	—	—	—
24494 (54000)	—	—	—	—	—	186 (1.9)(27)	—	—	—	—
24948 (55000)	—	—	—	—	—	193 (1.9)(28)	—	—	—	—
25401 (56000)	—	—	—	—	—	207 (2.1)(30)	—	—	—	—
25855 (57000)	—	—	—	—	—	214 (2.1)(31)	—	—	—	—
26308 (58000)	—	—	—	—	—	228 (2.3)(33)	—	—	—	—
26762 (59000)	—	—	—	—	—	234 (2.3)(34)	—	—	—	—
27216 (60000)	—	—	—	—	—	241 (2.4)(35)	—	—	—	—

GH15097,00004A2-19-27AUG18

Recommended Pressures—Group 49

Group	49							
Size	480/95R50	IF480/95R50	710/75R42		IF710/75R42		IF900/60R42	
Load Index	164	165	175		176		180	186
Speed Rating	A8 / B	B	D		D		D	
	Dual	Dual	Single	Dual	Single	Dual	Single	
Axle Load kg (lb)	kPa (bar)(psi)	kPa (bar)(psi)	kPa (bar)(psi)	kPa (bar)(psi)	kPa (bar)(psi)	kPa (bar)(psi)	kPa (bar)(psi)	kPa (bar)(psi)
4536 (10000)	40 (0.4)(6)	40 (0.4)(6)	83 (0.8)(12)	83 (0.8)(12)	83 (0.8)(12)	41 (0.4)(6)	83 (0.8)(12)	83 (0.8)(12)
4763 (10500)	40 (0.4)(6)	40 (0.4)(6)	83 (0.8)(12)	83 (0.8)(12)	83 (0.8)(12)	41 (0.4)(6)	83 (0.8)(12)	83 (0.8)(12)
4990 (11000)	40 (0.4)(6)	40 (0.4)(6)	83 (0.8)(12)	83 (0.8)(12)	83 (0.8)(12)	41 (0.4)(6)	83 (0.8)(12)	83 (0.8)(12)
5216 (11500)	40 (0.4)(6)	40 (0.4)(6)	83 (0.8)(12)	83 (0.8)(12)	83 (0.8)(12)	41 (0.4)(6)	83 (0.8)(12)	83 (0.8)(12)
5443 (12000)	40 (0.4)(6)	40 (0.4)(6)	83 (0.8)(12)	83 (0.8)(12)	83 (0.8)(12)	41 (0.4)(6)	83 (0.8)(12)	83 (0.8)(12)
5670 (12500)	40 (0.4)(6)	40 (0.4)(6)	83 (0.8)(12)	83 (0.8)(12)	83 (0.8)(12)	41 (0.4)(6)	83 (0.8)(12)	83 (0.8)(12)
5897 (13000)	40 (0.4)(6)	40 (0.4)(6)	83 (0.8)(12)	83 (0.8)(12)	83 (0.8)(12)	41 (0.4)(6)	83 (0.8)(12)	83 (0.8)(12)
6123 (13500)	40 (0.4)(6)	40 (0.4)(6)	83 (0.8)(12)	83 (0.8)(12)	83 (0.8)(12)	41 (0.4)(6)	83 (0.8)(12)	83 (0.8)(12)

Group	49							
Size	480/95R50	IF480/95R50	710/75R42		IF710/75R42		IF900/60R42	
Load Index	164	165	175		176		180	186
Speed Rating	A8 / B	B	D		D		D	
	Dual	Dual	Single	Dual	Single	Dual	Single	
Axle Load kg (lb)	kPa (bar)(psi)	kPa (bar)(psi)	kPa (bar)(psi)	kPa (bar)(psi)	kPa (bar)(psi)	kPa (bar)(psi)	kPa (bar)(psi)	kPa (bar)(psi)
6350 (14000)	40 (0.4)(6)	40 (0.4)(6)	83 (0.8)(12)	83 (0.8)(12)	83 (0.8)(12)	41 (0.4)(6)	83 (0.8)(12)	83 (0.8)(12)
6577 (14500)	40 (0.4)(6)	40 (0.4)(6)	83 (0.8)(12)	83 (0.8)(12)	83 (0.8)(12)	41 (0.4)(6)	83 (0.8)(12)	83 (0.8)(12)
6804 (15000)	40 (0.4)(6)	40 (0.4)(6)	83 (0.8)(12)	83 (0.8)(12)	83 (0.8)(12)	41 (0.4)(6)	83 (0.8)(12)	83 (0.8)(12)
7031 (15500)	40 (0.4)(6)	40 (0.4)(6)	83 (0.8)(12)	83 (0.8)(12)	83 (0.8)(12)	41 (0.4)(6)	83 (0.8)(12)	83 (0.8)(12)
7257 (16000)	50 (0.5)(7)	50 (0.5)(7)	83 (0.8)(12)	83 (0.8)(12)	83 (0.8)(12)	41 (0.4)(6)	83 (0.8)(12)	83 (0.8)(12)
7484 (16500)	55 (0.6)(8)	50 (0.5)(7)	83 (0.8)(12)	83 (0.8)(12)	83 (0.8)(12)	41 (0.4)(6)	83 (0.8)(12)	83 (0.8)(12)
7711 (17000)	55 (0.6)(8)	50 (0.5)(7)	83 (0.8)(12)	83 (0.8)(12)	83 (0.8)(12)	41 (0.4)(6)	83 (0.8)(12)	83 (0.8)(12)
7938 (17500)	65 (0.7)(9)	50 (0.5)(7)	90 (0.8)(13)	83 (0.8)(12)	83 (0.8)(12)	41 (0.4)(6)	83 (0.8)(12)	83 (0.8)(12)
8165 (18000)	65 (0.7)(9)	55 (0.6)(8)	90 (0.8)(13)	83 (0.8)(12)	83 (0.8)(12)	41 (0.4)(6)	83 (0.8)(12)	83 (0.8)(12)
8391 (18500)	70 (0.7)(10)	55 (0.6)(8)	97 (1.0)(14)	83 (0.8)(12)	83 (0.8)(12)	41 (0.4)(6)	83 (0.8)(12)	83 (0.8)(12)
8618 (19000)	70 (0.7)(10)	55 (0.6)(8)	97 (1.0)(14)	83 (0.8)(12)	83 (0.8)(12)	41 (0.4)(6)	83 (0.8)(12)	83 (0.8)(12)
8845 (19500)	75 (0.8)(11)	55 (0.6)(8)	97 (1.0)(14)	83 (0.8)(12)	83 (0.8)(12)	41 (0.4)(6)	83 (0.8)(12)	83 (0.8)(12)
9072 (20000)	75 (0.8)(11)	60 (0.6)(9)	103 (1.0)(15)	83 (0.8)(12)	83 (0.8)(12)	41 (0.4)(6)	83 (0.8)(12)	83 (0.8)(12)
9525 (21000)	85 (0.9)(12)	60 (0.6)(9)	110 (1.1)(16)	83 (0.8)(12)	97 (1.0)(14)	48 (0.5)(7)	83 (0.8)(12)	83 (0.8)(12)
9979 (22000)	90 (0.9)(13)	70 (0.7)(10)	117 (1.2)(17)	83 (0.8)(12)	103 (1.0)(15)	48 (0.5)(7)	83 (0.8)(12)	83 (0.8)(12)
10433 (23000)	95 (1.0)(14)	70 (0.7)(10)	124 (1.2)(18)	83 (0.8)(12)	110 (1.1)(16)	48 (0.5)(7)	90 (0.8)(13)	90 (0.9)(13)
10886 (24000)	105 (1.1)(15)	75 (0.8)(11)	131 (1.3)(19)	83 (0.8)(12)	110 (1.1)(16)	55 (0.6)(8)	97 (1.0)(14)	97 (1.0)(14)
11340 (25000)	110 (1.1)(16)	80 (0.8)(12)	145 (1.4)(21)	83 (0.8)(12)	117 (1.2)(17)	55 (0.6)(8)	103 (1.0)(15)	103 (1.0)(15)
11793 (26000)	110 (1.1)(16)	90 (0.9)(13)	152 (1.5)(22)	83 (0.8)(12)	124 (1.2)(18)	62 (0.6)(9)	110 (1.1)(16)	110 (1.1)(16)
12247 (27000)	120 (1.2)(17)	95 (1.0)(14)	159 (1.6)(23)	83 (0.8)(12)	131 (1.3)(19)	62 (0.6)(9)	110 (1.1)(16)	110 (1.1)(16)
12701 (28000)	125 (1.3)(18)	105 (1.1)(15)	172 (1.7)(25)	83 (0.8)(12)	138 (1.4)(20)	62 (0.6)(9)	117 (1.2)(17)	117 (1.2)(17)
13154 (29000)	130 (1.3)(19)	105 (1.1)(15)	186 (1.9)(27)	83 (0.8)(12)	145 (1.5)(21)	62 (0.6)(9)	124 (1.2)(18)	124 (1.2)(18)
13608 (30000)	140 (1.4)(20)	110 (1.1)(16)	207 (2.1)(30)	83 (0.8)(12)	152 (1.5)(22)	69 (0.7)(10)	131 (1.3)(19)	131 (1.3)(19)
14061 (31000)	145 (1.5)(21)	120 (1.2)(17)	221 (2.2)(32)	90 (0.9)(13)	159 (1.6)(23)	69 (0.7)(10)	138 (1.4)(20)	138 (1.4)(20)
14515 (32000)	150 (1.5)(22)	120 (1.2)(17)	241 (2.4)(35)	90 (0.9)(13)	—	76 (0.8)(11)	145 (1.5)(21)	145 (1.4)(21)
14969 (33000)	160 (1.6)(23)	125 (1.3)(18)	—	97 (1.0)(14)	—	76 (0.8)(11)	152 (1.5)(22)	152 (1.5)(22)

Group	49							
Size	**480/95R50**	**IF480/95R50**	**710/75R42**		**IF710/75R42**		**IF900/60R42**	
Load Index	**164**	**165**	**175**		**176**		**180**	**186**
Speed Rating	**A8 / B**	**B**	**D**		**D**		**D**	
	Dual	**Dual**	**Single**	**Dual**	**Single**	**Dual**	**Single**	
Axle Load kg (lb)	**kPa (bar)(psi)**	**kPa (bar)(psi)**	**kPa (bar)(psi)**	**kPa (bar)(psi)**	**kPa (bar)(psi)**	**kPa (bar)(psi)**	**kPa (bar)(psi)**	**kPa (bar)(psi)**
15422 (34000)	165 (1.7)(24)	130 (1.3)(19)	—	97 (1.0)(14)	—	83 (0.8)(12)	159 (1.6)(23)	159 (1.6)(23)
15876 (35000)	185 (1.9)(27)	140 (1.4)(20)	—	103 (1.0)(15)	—	90 (0.9)(13)	159 (1.6)(23)	159 (1.6)(23)
16329 (36000)	195 (2.0)(28)	140 (1.4)(20)	—	103 (1.0)(15)	—	90 (0.9)(13)	—	172 (1.7)(25)
16783 (37000)	210 (2.1)(30)	145 (1.5)(21)	—	110 (1.1)(16)	—	97 (1.0)(14)	—	186 (1.9)(27)
17237 (38000)	230 (2.3)(33)	152 (1.5)(22)	—	117 (1.2)(17)	—	97 (1.0)(14)	—	200 (2.0)(29)
17690 (39000)	—	159 (1.6)(23)	—	117 (1.2)(17)	—	103 (1.0)(15)	—	207 (2.1)(30)
18144 (40000)	—	159 (1.6)(23)	—	124 (1.2)(18)	—	103 (1.0)(15)	—	221 (2.2)(32)
18597 (41000)	—	—	—	131 (1.3)(19)	—	103 (1.0)(15)	—	234 (2.3)(34)
19051 (42000)	—	—	—	131 (1.3)(19)	—	110 (1.1)(16)	—	—
19504 (43000)	—	—	—	138 (1.4)(20)	—	117 (1.2)(17)	—	—
19958 (44000)	—	—	—	145 (1.5)(21)	—	117 (1.2)(17)	—	—
20412 (45000)	—	—	—	145 (1.5)(21)	—	117 (1.2)(17)	—	—
20865 (46000)	—	—	—	152 (1.5)(22)	—	124 (1.2)(18)	—	—
21319 (47000)	—	—	—	159 (1.6)(23)	—	131 (1.3)(19)	—	—
21772 (48000)	—	—	—	159 (1.6)(23)	—	131 (1.3)(19)	—	—
22226 (49000)	—	—	—	172 (1.7)(25)	—	138 (1.4)(20)	—	—
22680 (50000)	—	—	—	179 (1.8)(26)	—	138 (1.4)(20)	—	—
23133 (51000)	—	—	—	186 (1.9)(27)	—	145 (1.5)(21)	—	—
23587 (52000)	—	—	—	200 (2.0)(29)	—	152 (1.5)(22)	—	—
24040 (53000)	—	—	—	207 (2.1)(30)	—	152 (1.5)(22)	—	—
24490 (54000)	—	—	—	214 (2.1)(31)	—	159 (1.6)(23)	—	—
24943 (55000)	—	—	—	228 (2.3)(33)	—	159 (1.6)(23)	—	—
25397 (56000)	—	—	—	241 (2.4)(35)	—	—	—	—

RW29387,00003E6-19-12FEB18

Avoid Contact with Agricultural Chemicals

TS220—UN—15APR13

TS272—UN—23AUG88

This enclosed cab does not protect against inhaling vapor, aerosol or dust. If pesticide use instructions require respiratory protection, wear an appropriate respirator inside the cab.

Before leaving the cab, wear personal protective equipment as required by the pesticide use instructions. When re-entering the cab, remove protective equipment and store either outside the cab in a closed box or some other type of sealable container or inside the cab in a pesticide resistant container, such as a plastic bag.

Clean your shoes or boots to remove soil or other contaminated particles prior to entering the cab.

DX,CABS-19-25MAR09

Clean Vehicle of Hazardous Pesticides

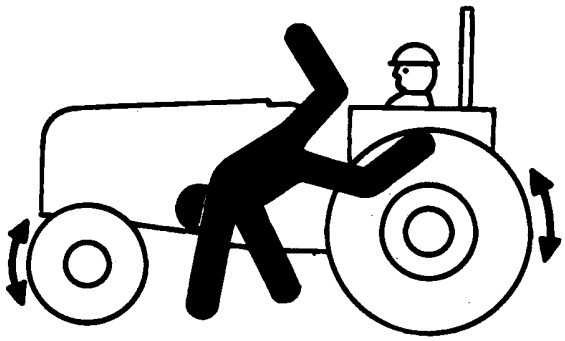
CAUTION: During application of hazardous pesticides, pesticide residue can build up on the inside or outside of the vehicle. Clean vehicle according to use instructions of hazardous pesticides.

When exposed to hazardous pesticides, clean exterior and interior of vehicle daily to keep free of the accumulation of visible dirt and contamination.

1. Sweep or vacuum the floor of cab.
2. Clean headliners and inside cowlings of cab.
3. Wash entire exterior of vehicle.
4. Dispose of any wash water with hazardous concentrations of active or non-active ingredients according to published regulations or directives.

DX,CABS2-19-24JUL01

Keep Riders Off Machine



TS290—UN—23AUG88

Only allow the operator on the machine. Keep riders off.

Riders on machine are subject to injury such as being struck by foreign objects and being thrown off of the machine. Riders also obstruct the operator's view resulting in the machine being operated in an unsafe manner.

DX,RIDER-19-03MAR93

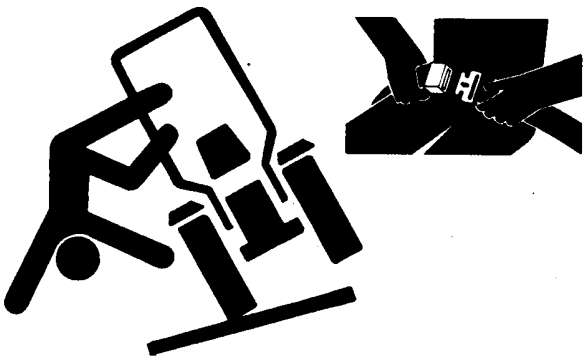
Keep Operator Station Window and Door Closed

CAUTION: Avoid undue exposure to noise and debris. Keep window and door closed during machine operation.

Properly close and latch door and rear window to prevent noise and debris from entering operator station.

RW29387,000004F-19-24FEB15

Use Seat Belts



TS205—UN—23AUG88

RXA0129149—UN—30OCT12

CAUTION: Minimize chance of possible injury from accident. Use seat belts (A) when operating tractor.

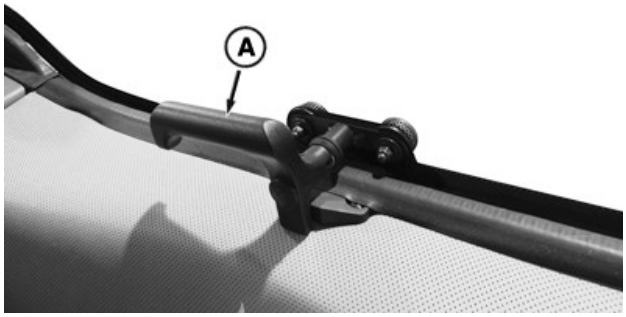
Instructional seat is provided only for training operators or diagnosing machine problems. Keep all other riders off tractor and equipment. Always wear seat belt.

Inspect seat belts and mounting hardware annually, see Seat Belts in Service - Check section of this Operator's Manual.

TS36762,0000235-19-06SEP17

Use Emergency Exit

Removable rear cab window provides large exit path if cab door is blocked in emergency situation.



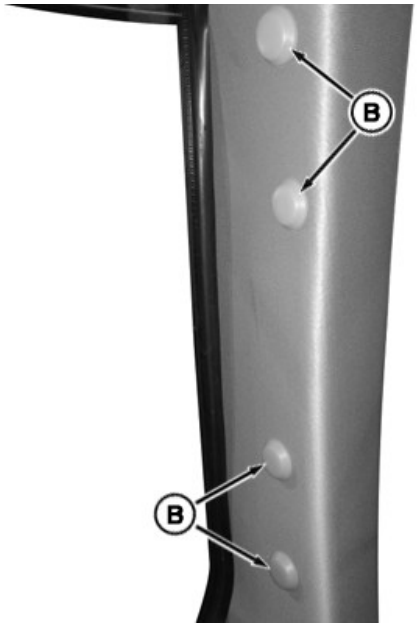
RXA0148319—UN—04JUN15

To open window, lift lever (A) and push out glass.

KT81203,000057F-19-27JUN17

Monitor Bracket Mounts

RXA0147009—UN—10MAR15

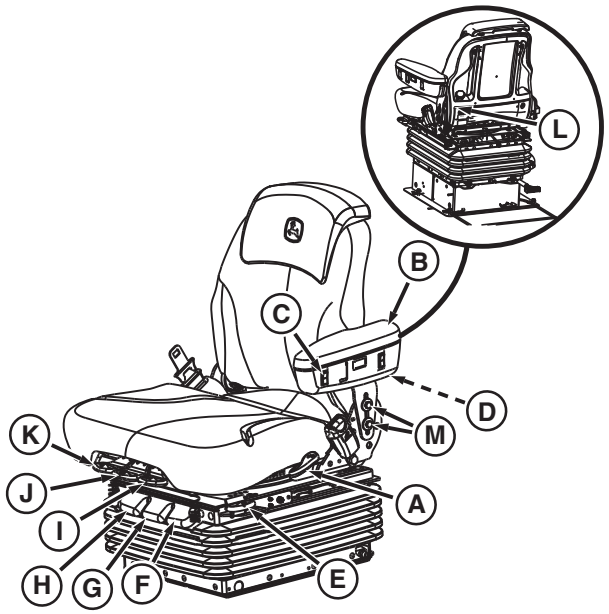


RXA0147010—UN—10MAR15

Front corner post mounting points (A) and rear corner post mounting points (B) are used to connect implement monitors to cab using M10 cap screws. See your John Deere dealer for brackets that utilize these mounting points.

TS36762,0000237-19-01SEP17

Adjust ComfortCommand™ Seat



RXA0151480—UN—17FEB16

A—Backrest Tilt Handle - Allows seat back to tilt.

B—Flip Up Armrest - Can be flipped up out of the way.

C—Height Adjustment Switch - Turn key to “ON”. Press lower portion of switch to lower seat or press upper portion of switch to raise seat.

D—Armrest Tilt Adjustment Knob - Turn knob to adjust armrest angle.

E—Fore/Aft Seat Adjustment Handle - Lift up on handle, move seat forward or backward, press handle back down to lock into place.

F—Fore/Aft Isolation Handle - Adjust lever to back setting, lock into place with locking lever. Seat will absorb shock impacts while tractor is in motion. Seat won’t move farther than 25 mm (1 in) in any direction.

G—Lateral Isolation Handle - Allows side to side movement of seat. Push down on handle to unlock lateral seat suspension. Pull up on handle to lock seat in position (seat must be centered).

H—Adjustment Damper Handle - Air suspension seat only. Controls amount of bounce operator feels while driving. Can be adjusted firmer to reduce amount of bounce.

I—Cushion Height Adjustment - Pull to adjust height of cushion up or down.

J—Seat Swivel Handle - Lift on handle to allow seat to swivel. Push down on handle to lock seat in position.

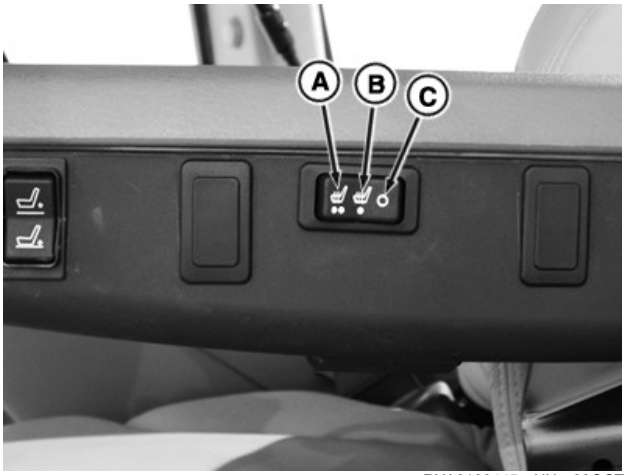
K—Fore/Aft Cushion Adjustment - Pull to adjust cushion forwards or backwards.

L—Lumbar Adjustment Knob - Turn knob clockwise to add support to lower back. Turn counterclockwise to lessen resistance to lower back.

M—Arm Rest Adjustment Cap Screws - Loosen cap screws to slide arm rest up or down. Retighten cap screws.

TS36762,0000238-19-21NOV16

Adjust Heated Leather Seat



RXA0136445—UN—30OCT13

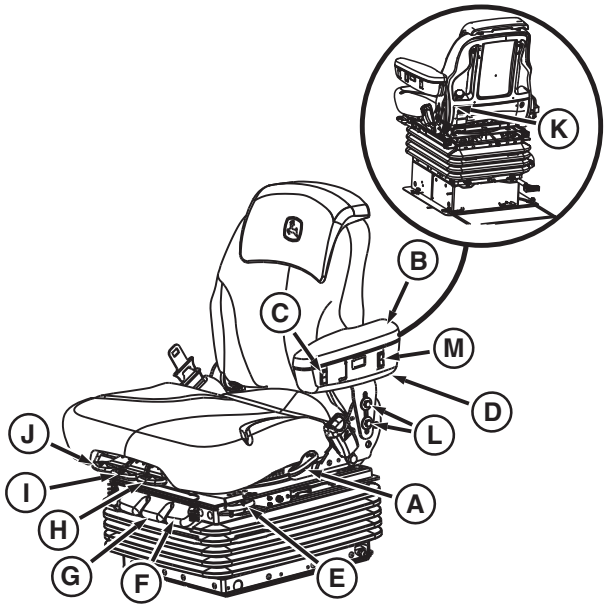
Heated seat provides increased comfort during cold days. Heat is controlled by left armrest switch. Three settings are available: Off (C), High (A), and Low (B). When tractor is shut off, seat also turns off, or after one hour of use heater automatically turns off.

TS36762,0000239-19-05JUL17

Adjust ActiveSeat™

Ride Zone Protection (RZP) - ActiveSeat™ has built-in buffer at high and low end of vertical seat travel, resulting in smoother ride. Adjust seat to operator height and weight prior to operating tractor to receive maximum benefit from RZP system. Seat automatically adjusts back into protected zone when operator adjusts seat height position at or near vertical seat travel limits.

ActiveSeat is a trademark of Deere & Company



RXA0144154—UN—30SEP15

A—Back Tilt Handle - Allows seat back to tilt.

B—Flip Up Armrest - Can be flipped up out of the way.

C—Height Adjustment Switch - Turn key to “ON”. Press lower portion of switch to lower seat or press upper portion of switch to raise seat.

D—Armrest Tilt Adjustment Knob - Turn knob to adjust armrest angle.

E—Fore/Aft Seat Adjustment Handle - Lift up handle, move seat forward or backward, press handle back down to lock into place.

F—Fore/Aft Isolation Handle - Adjust lever to back setting, lock into place with locking lever. Seat will absorb shock impacts while tractor is in motion. Seat won’t move farther that 25 mm in any direction.

G—Lateral Isolation Handle - Push down on handle to unlock lateral seat suspension. Pull up on handle to lock seat in position.

H—Cushion Height Adjustment - Pull to adjust height of cushion up or down.

I—Seat Swivel Handle - Lift on handle to allow seat to swivel. Push down on handle to lock seat in position.

J—Fore/Aft Cushion Adjustment - Pull to adjust cushion forwards or backwards.

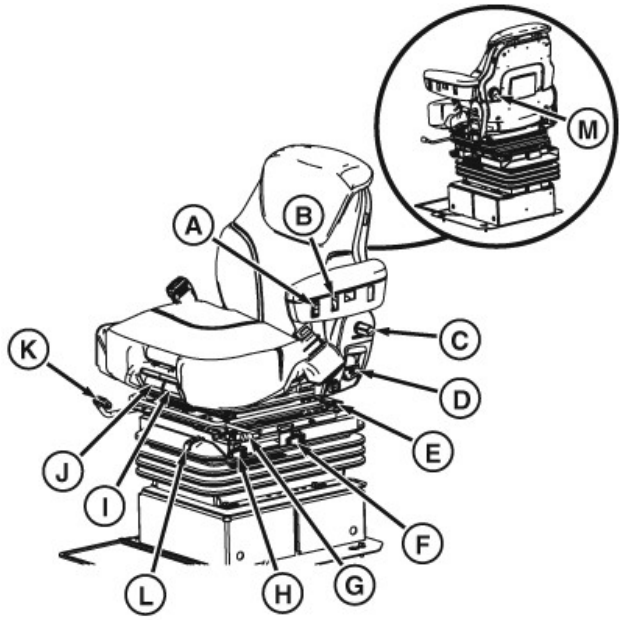
K—Lumbar Adjustment Knob - Turn clockwise to add support to lower back. Turn counterclockwise to lessen resistance to lower back.

L—Armrest Adjustment Cap Screws - Loosen cap screws to slide arm rest up or down. Retighten cap screws.

M—Firmness Adjustment - Provides three different levels of seat suspension performance. Press upper (+) portion of switch for the firmest ride or lower (-) portion for the softest ride.

TS36762,000023A-19-21NOV16

Adjust ComfortCommand™ Seat with Cab Suspension



RXA0131464—UN—09SEP13

A— Height Adjustment Switch - Turn key switch to ON. Press lower portion of switch to lower seat or press upper portion of switch to raise seat.

B—Heat/Vent Level Control Switch - Press to adjust level of heat or ventilation.

C—LH Armrest Tilt Adjustment Knob - Turn knob to adjust armrest angle.

D—Seat Back Recliner Adjustment Handle - Pull up to adjust back of seat.

E—Lateral Attenuation Lever - Pull lever up to move seat from side to side. Lock lever into position when at desired location.

F—Ride Firmness Control - Pull lever to one of four positions to adjust damping of seat. Seat absorbs some movement from shock impacts while driving.

G—Fore/Aft Attenuation - Adjust seat to control amount of fore/aft movement from tractor. Seat absorbs some movement from shock impacts while driving.

H—Seat Swivel Handle - Lift on handle to allow seat to swivel. Push down on handle to lock seat in position.

I—Cushion Height Adjustment - Pull to adjust height of cushion up or down.

J—Fore/Aft Cushion Adjustment - Pull to adjust cushion forwards or backwards.

K—Fore/Aft Adjustment Lever - Lift up on handle,

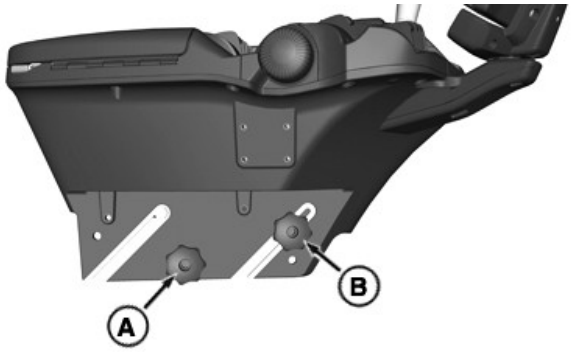
move seat forward or backward, press handle back down to lock into place.

L—Seat Adjustment Indicator - Gauge shows when seat is adjusted to operator's weight and height. Green marking will be visible when adjusted.

M—Lumbar Adjustment Knob - Turn knob clockwise to add support to lower back. Turn counterclockwise to lessen resistance to lower back.

TS36762,000023B-19-16AUG18

Adjust CommandARM™ Position



RXA0137805—UN—08JAN14

1. Turn CommandARM™ Height Adjustment Knob (A) and CommandArm™ Tilt and Height Adjustment Knob (B).

NOTE: Loosen both CommandARM™ Adjustment Knobs (A and B) to adjust height of CommandARM™.

2. By turning both knobs, CommandARM™ can slide at an angle to desired position.
3. Once proper position is attained, turn CommandARM™ Height Adjustment Knob to original position to lock.
4. Turn CommandARM™ Tilt Adjustment Knob (B) to adjust the angle of CommandARM™.
5. Once proper angle is attained, turn CommandARM™ Tilt Adjustment Knob to original position to lock.

TS36762,000023C-19-21NOV16

Operator Presence Sensor (If Equipped)

CAUTION: Neither PTO nor SCV automatically disengage when system senses operator is out of seat.

Audible warning sounds if operator leaves seat with transmission in NEUTRAL position, PTO engaged or SCV left in detent flow position. After 5 seconds, audible warning sound will stop.

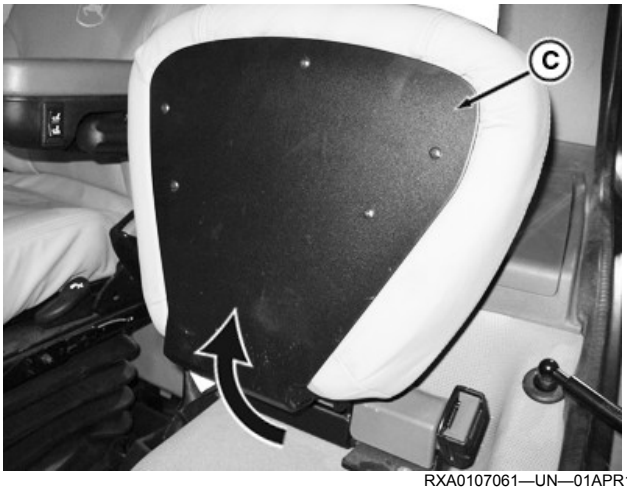
TS36762,000023D-19-25APR18

Use Instructional Seat

RXA0107055—UN—01APR10

CAUTION: Instructional seat is provided only for training operators or diagnosing machine problems. Keep all other riders off tractor and equipment. Always wear seat belt (A).

RXA0107057—UN—03JUN10



RXA0107061—UN—01APR10

Instructional seat back tilts forward to be used as writing

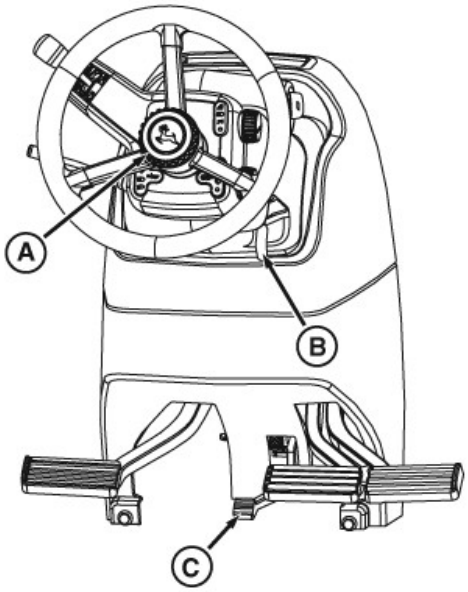
CommandARM is a trademark of Deere & Company

surface (B). Seat flips up (C) to allow easier entrance and egress.

KT81203,000058D-19-06SEP17

Adjust Steering Wheel and Column

Steering wheel can be adjusted in or out, up or down to provide comfortable driving position. For improved entry or egress, entire steering column can be pivoted up, then returned to previously set position with single control.



RXA0126757—UN—10OCT12

Telescope: Rotate steering wheel telescope release knob (A) counterclockwise. Extend or retract steering wheel to desired position. Rotate knob clockwise to lock.

Memory: Push down on steering column tilt release lever (C). Fully raise steering column. Release lever to latch column at top of travel.

Push down on steering column tilt release lever, latch releases. Lower steering column to previous tilt setting.

Tilt: Pull up on steering wheel tilt release lever (B) and move steering wheel to desired position. Release lever to lock.

TS36762,000023F-19-06JUL17

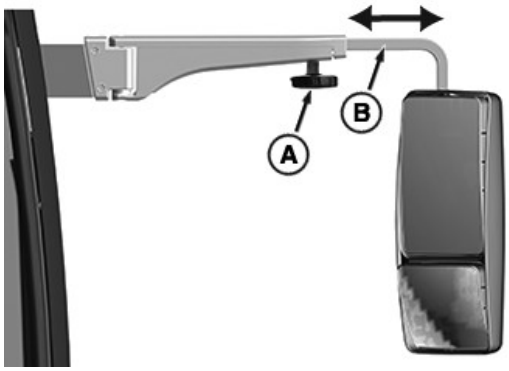
Operate Horn

RXA0126178—UN—29OCT12

Push in on end of turn signal lever (A) to sound horn.

TS36762,0000240-19-21NOV16

Manual Mirror



RXA0156208—UN—15DEC16

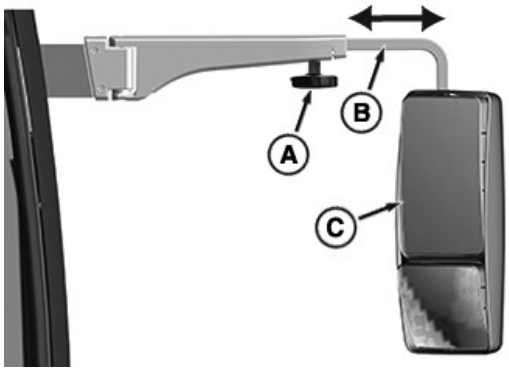
Right-Hand Manual Mirror

Loosen mirror arm locking knob (A) and slide mirror arm (B) to desired position. Securely tighten locking knob when adjustment is complete. Push on mirror to move surface into desired position.

After adjustment, use soft cloth to wipe any smudges off mirror face.

TS36762,0000241-19-26JUN17

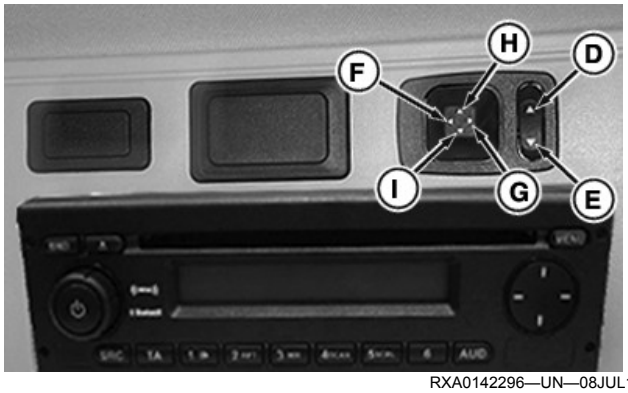
Electric Mirror



RXA0156209—UN—15DEC16

Right-Hand Electric Rear-view Mirror

1. Loosen mirror arm adjustment knob (A).
2. Slide mirror arm (B) to desired position.
3. Tighten mirror arm adjustment knob.

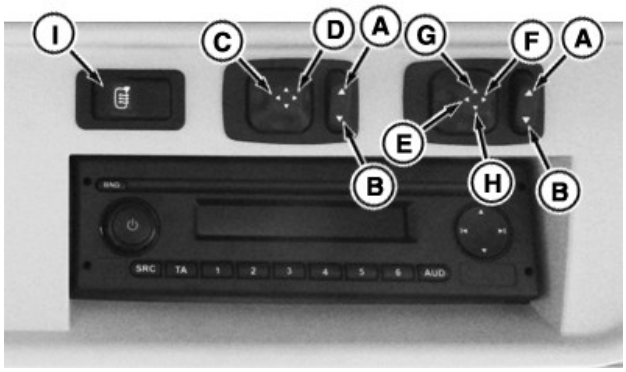


RXA0142296—UN—08JUL14

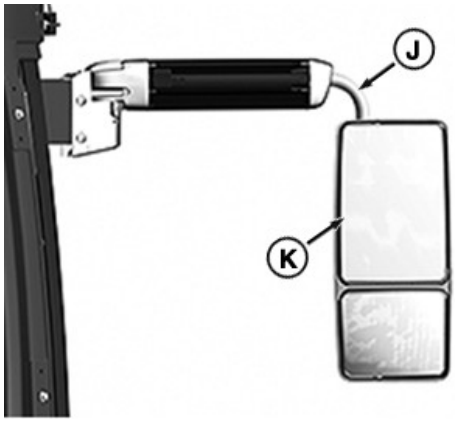
4. Select right (D) or left (E) mirror.
5. Push adjustment switch to angle mirror (C) left (F) or right (G).
6. Push adjustment switch to tilt mirror up (H) or down (I).

TS36762,0000242-19-26JUN17

Telescoping Heated Electric Mirror



RXA0142300—UN—09JUN14



RXA0156210—UN—15DEC16

Right-Hand Telescoping Electric Rear-view Mirror

1. Select right (A) or left (B) mirror (K).
2. Push adjustment switch to extend (C) or retract (D) telescoping arm (J).
3. Push adjustment switch to tilt mirror up (G) or down (H).

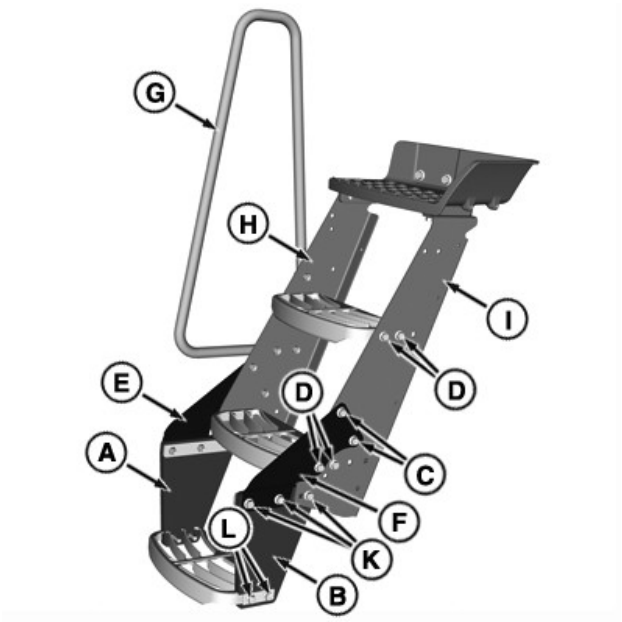
4. Push adjustment switch to angle mirror left (E) or right (F).

Press heating switch (I) to turn mirror heating on or off. When heat is on, switch is illuminated. Heating will continue until it is switched off or key switch is turned OFF. If heating switch is not manually turned off, mirror heating will restart when key switch is turned to accessory or ON position.

TS36762,0000243-19-04APR18

Position Left-hand Steps

NOTE: Step assembly can be adjusted to either wide or narrow position. For wide positioned steps, use round holes in upper and lower side panels. For narrow steps, use square holes in upper and lower side panels.

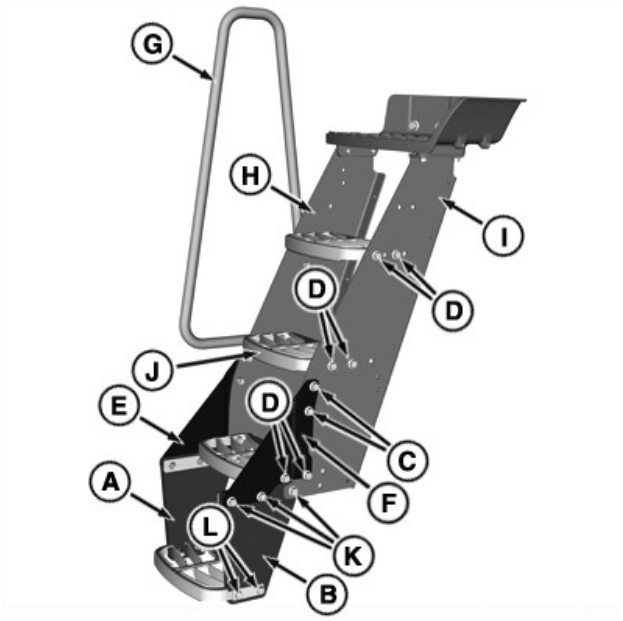


RXA0131506—UN—10SEP13

Wide Steps and Hand Rails—Tractors Equipped With Group 47/48 Tires

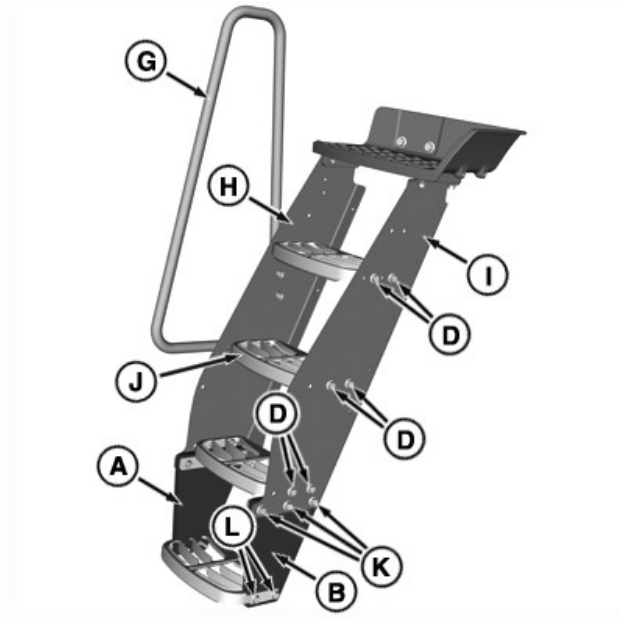
RXA0131470—UN—10SEP13

Narrow Steps and Hand Rails—Tractors Equipped With Group 47/48 Tires



RXA0131508—UN—10SEP13

Wide Steps and Hand Rails—Tractors Equipped With Group 49 Tires



RXA0131507—UN—10SEP13

Narrow Steps and Hand Rails—Tractors Equipped With Group 49 Tires

Remove steps by removing bolts (D, L).

Remove lower side panels 1 and 2 (A, B) by removing bolts (K) on both sides of step assembly.

To switch from wide position to narrow position, side brackets (E, F) need to be removed, and the lower side panels (A, B) need to be shifted into narrow position as shown.

To switch from narrow position to wide position, attach side brackets 1 and 2 (E, F) to lower and upper side panels (A, B, H, I). Side brackets must be ordered

through a dealer for tractors shipped from factory with narrow steps (refer to figure on previous page).

Use bolts (D, L) to adjust individual steps to match step assembly width.

NOTE: Upper side panels (H, I) do not have to be removed to change step positions.

On tractors equipped with Group 49 tires, positioning bolts for middle step (J) are also used to hold handrail (G) in place.

After correctly positioning steps and handrail, tighten cap screws to specified torque.

Part	Part Number
Group 48 Side Bracket 1 (E)	R542430
Group 48 Side Bracket 2 (F)	R542429
Group 49 Side Bracket 1 (E)	R543230
Group 49 Side Bracket 2 (F)	R542654

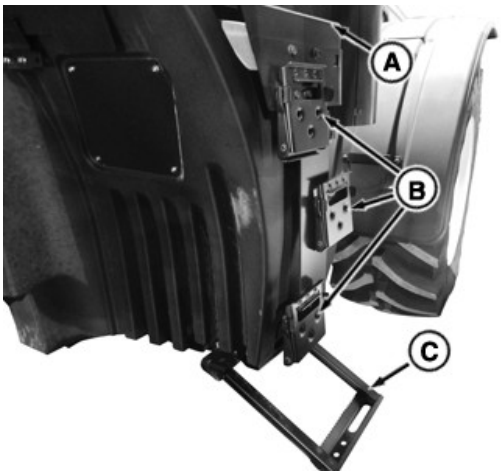
Torque — Specification

Bracket and Step Bolts (C, D). . . . . 55 N·m (41 lb·ft)
Carriage Bolts (K). . . . . 15 N·m (11 lb·ft)
Cap Screws (L). . . . . 37 N·m (27 lb·ft)

TS36762,0000244-19-09NOV17

Right-Hand Service Steps

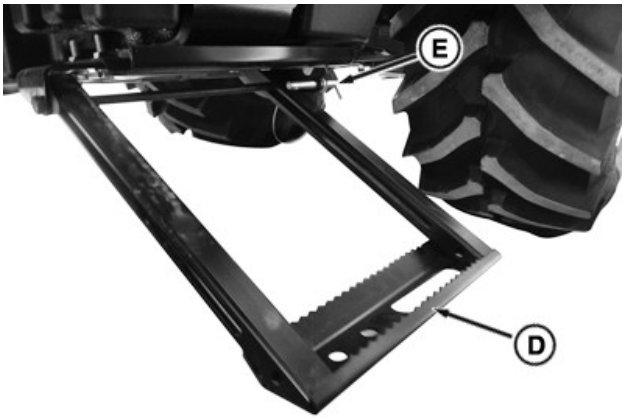
CAUTION: Exhaust and muffler may be very hot. Do not use right side steps to access front step.



RXA0137122—UN—11DEC13

Fixed upper step (A) above right fuel tank allows access to right side of cab for service. Three pivoting middle steps (B) and one bottom extendable step (C) provide access to upper step.

Three middle steps pivot into position. Pull down on step to position. When done using step, lift up, step will latch into place. Bottom step slides under fuel tank when not in use.



RXA0137123—UN—11DEC13

CAUTION: To avoid injury, use handhold slot (D) on lowest right-hand step to lower and raise step.

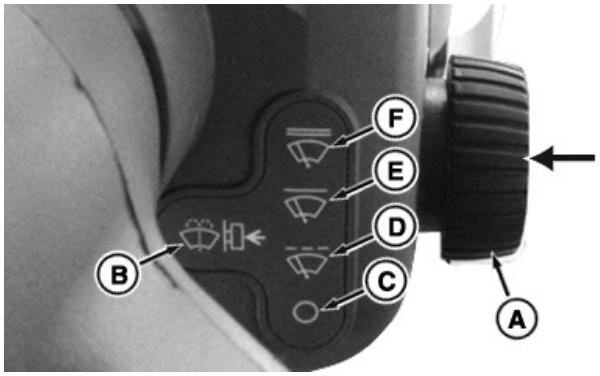
To extend bottom step, pull lock pin (E) forward until completely removed from step support. Grasp step using handhold slot and pull outward and down until completely extended. Fully insert lock pin in step support to secure bottom step when in stored position.

Retract and securely store all middle and lower steps when not in use. Use handholds to move steps.

DB71512,0000049-19-28JUN17

Wiper Washer

Operate Front Wiper and Washer



RXA0142299—UN—09JUN14

Wiper/washer knob (A) has four positions:

- OFF (C)
- Intermittent Operation (D)
- Slow Speed (E)
- Fast Speed (F)

Push knob in towards steering column to operate front washer (B).

NOTE: Front washer reservoir also supplies rear and right-hand wipers and washers (if equipped)

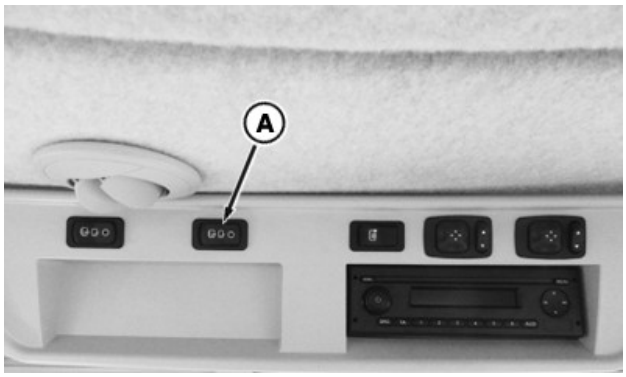
RXA0141893—UN—02JUN14

RXA0135725—UN—25SEP13

Washer reservoir (H) is behind battery compartment cover (G). Fill reservoir with a washer fluid. In cold climates fill with non-freezing windshield washer fluid.

LT63082,0000164-19-28JUN17

Operate Rear Wiper and Washer



RXA0142297—UN—09JUN14

Switch (A) has three positions:

Right—OFF position.

Center—ON position. Rear wiper is activated.

Left—Rear window washer ON when switch is held. Release switch to turn OFF rear window washer.

TS36762,0000247-19-22NOV16

Operate Right-Hand Wiper and Washer

RXA0142353—UN—09JUN14

Switch (A) has three positions:

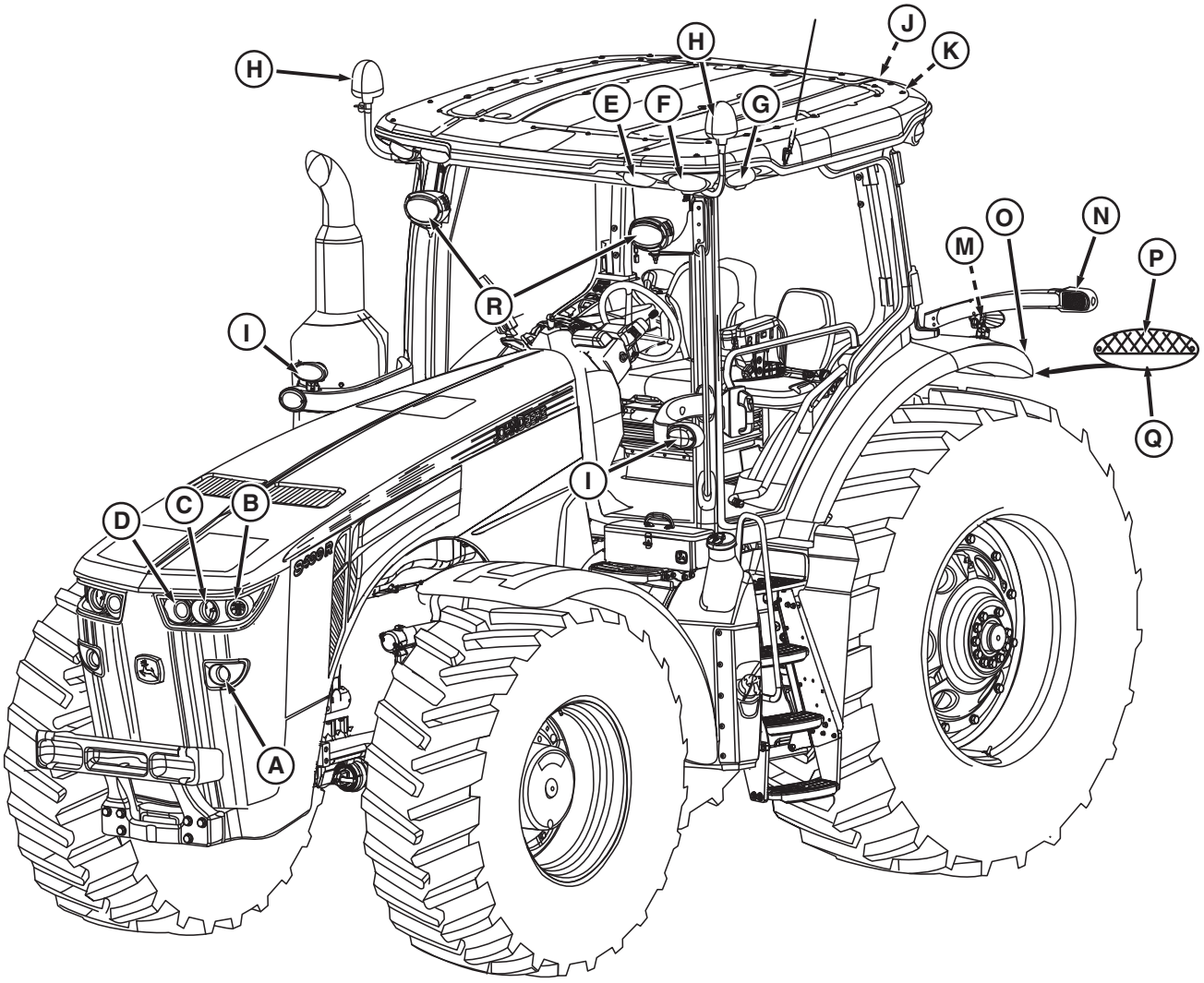
Right—OFF position.

Center—ON position. Right-hand wiper is activated.

Left—Right-hand window washer ON when switch is held. Release switch to turn OFF right-hand window washer.

TS36762,0000248-19-22NOV16

Light Identification



RXA0159585—UN—12JUN17

A—Road Lights (Low Beam)
B—Outer Hood Lights
C—Road Lights (High Beam)
D—Inner Hood Lights (If Equipped)
E—Front Inner Roof Light
F—Front Outer Roof Indicator Lights (Amber)
G—Front Side Roof Light
H—Rotary Beacon Lights (If Equipped)
I—Belt Line Light
J—Rear Inner Roof Light
K—Rear Outer Roof Indicator Lights (Amber)
L—Rear Side Roof Light
M—Rear Fender Light
N—Extremity Indicator Lights
O—Rear Fender Tail/Brake/Indicator Lights
P—Amber Lens
Q—Red Lens
R—Loader/Road Lights (Low and High Beam)

All lights are same for left and right side of tractor.

White lights are any exterior tractor lights that do not have colored lenses/bulbs.

Lights are configured on CommandCenter™ light page. See Configurable Lights in this section of this Operator's Manual.

LT63082,0000147-19-14AUG17

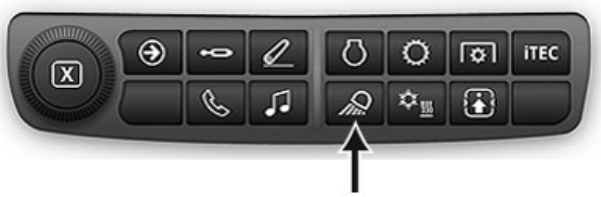
CommandCenter is a trademark of Deere & Company

Configurable Lights

CAUTION: Avoid injury or death caused by a collision with another vehicle. Follow local laws and regulations for equipment lighting and marking. Comply with all traffic regulations.

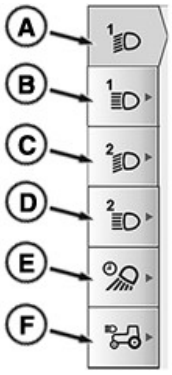
Dim road lights to low-beam for oncoming vehicles. Avoid using worklights on public roadways or highways which could temporarily blind or confuse other drivers.

Promptly replace or repair damaged or lost lighting devices. See your John Deere dealer.



RXA0133717—UN—16JUL13

To access Lights page, press **Lights Shortcut Button on Navigation Bar.**



RXA0137115—UN—05DEC13

A—Field 1 Low Beam
B—Field 1 High Beam
C—Field 2 Low Beam
D—Field 2 High Beam
E—Exit Lighting
F—Hood/Belt Line Light (If Equipped)

When page is displayed, operator can select left side tabs (A-F).

NOTE: Page temporarily shows when selector knob transitions from OFF position to road lights or field lights position.

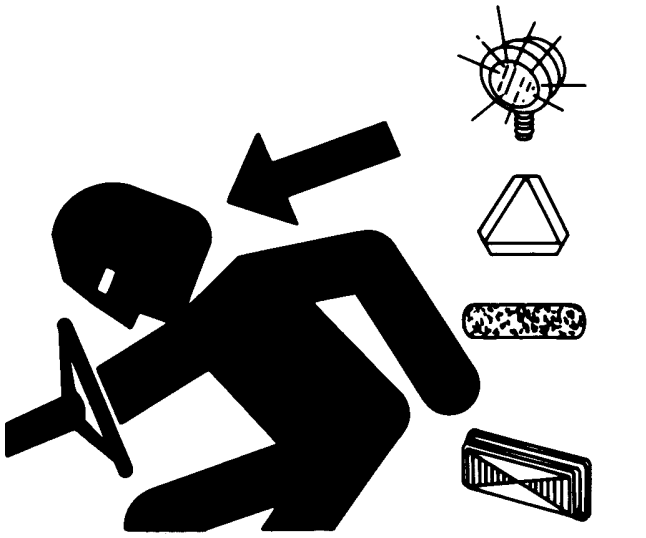
RXA0137114—UN—05DEC13

Light configuration buttons:

G—Linked Lights: Lights linked or paired together that can be unlinked.
H—Unlinked Lights: Unlinked light pair that can be linked.
I—Paired Lights: Light pair that is always linked.
J—Exit Light Time-out: Allows operator to select how long selected lights remain ON after light selector knob is turned to OFF position.
K—Link/Unlink: Press toggle to link and unlink lights on all pages.
L—Hood/Loader Road Light Toggle: Press to toggle road lights between hood and loader lights position. Feature is only available when light knob is in road mode and tractor is equipped with hood/beltline lights.
M—Implement Lights: Press to activate implement lights. Implement light button only available if there are no fender work lights. If there are fender work lights, implement lights are controlled by fender work lights button.
N—Light with Fault: Exclamation point indicates that light is in error. (for example: light bulb is burnt out).

TS36762,000024A-19-25APR18

Steering Column Light Controls

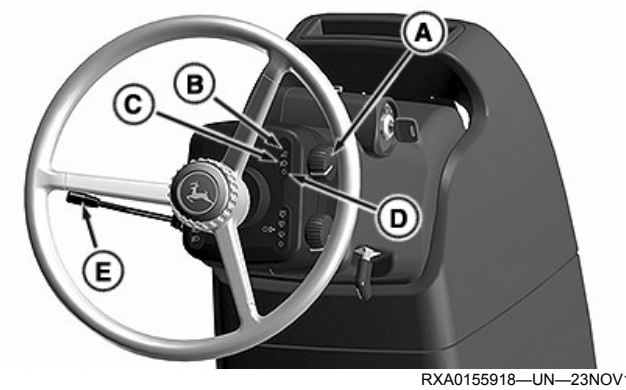


TS951—UN—12APR90

CAUTION: Avoid injury or death caused by collision with another vehicle. Follow local laws and regulations for equipment lighting and marking. Comply with all traffic regulations.

Use headlights and turn signals day and night. Dim road lights to low-beam for oncoming vehicles. Avoid using field lights on public roadways or highways which could temporarily blind or confuse other drivers. Frequently check for traffic from rear, especially in turns. Keep lighting and marking visible, clean and in good working order. Promptly replace or repair damaged or lost lighting devices. See your John Deere dealer.

Light Selector Knob



RXA0155918—UN—23NOV16

Control lights using light selector knob (A) on steering column. Display indicates selected lighting mode:

- Field Lights Position (B).
- Road Lights Position (C).
- OFF Position (D).

Turn Signal

Pull lever (E) up for right turn or down for left turn. Return lever to center position after completing turn.

A short audible chirping sound is heard when turn signal is activated.

High-Low Beam

Push lever (E) forward to activate high beam headlights; high beam indicator comes on. Dim lights to low beam for oncoming vehicles. Return lever to center position to operate low beam. Pull lever rearward and release to momentarily activate high beams.

KT81203,0000493-19-04APR18

Exit Lights

Exit light programming allows selection of lighting options when light selector knob is turned to off position. Options are:

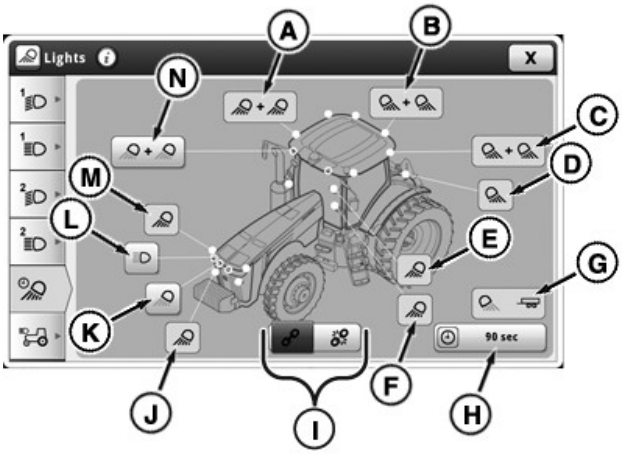
- Road exit lighting is low beam road lights only.
- Field exit lighting is all lights selected on exit lighting page.
- Exit light timeout is amount of time that selected light option remains on after light selector knob and key switch are switched off.

Maintain light switch in either field or road position for a minimum of 10 seconds to choose exit lighting preference. After programming, the order in which light selector and key switch are switched off do not matter.

To program exit lighting options:

RXA0147935—UN—13APR15

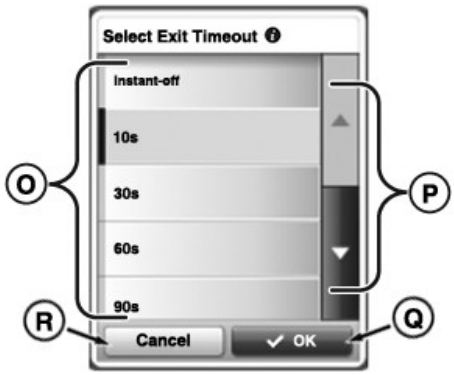
1. Select **Menu.**
2. Select **Machine Settings tab.**
3. Select **Lighting icon.**
4. Select **Exit Lighting tab.**



RXA0143009—UN—25JUN14

A—Front Side Roof Lights Button
B—Rear Inner Roof Lights Button
C—Rear Side Roof Lights Button
D—Rear Fender Lights Button
E—Loader/Road Light Button
F—Belt Line Lights Button (If Equipped)
G—Implement Lights Button
H—Exit Light Timeout Button
I—Link/Unlink Toggle
J—Low Beam Road Light Button
K—Inner Hood Lights Button
L—High Beam Road Lights Button
M—Outer Hood Lights Button
N—Front Inner Roof Lights Button

5. Select desired lights and deselect unwanted lights.
6. Use Link/Unlink Toggle (I) if operator wishes to select a set (linked) or only select the right or left light in a set (unlinked) where applicable. Lights D-F and J-M are always linked and both left and right lights are always selected.
7. Select Exit Light Timeout button (H).



RXA0137119—UN—05DEC13

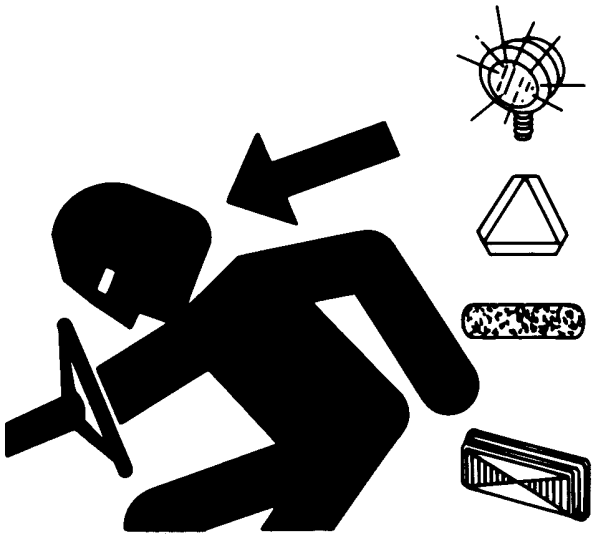
O—Time Selection Interval List
P—Scroll Bar
Q—OK Button
R—Cancel Button

8. When options appear, select desired time intervals (O) before lights automatically turn off.
9. Select OK button (Q).

NOTE: Not all possible lights for programmable exit lighting are shown. Lights available vary based on tractor configuration.

SV81855,0000103-19-28JUN17

Safety Lights and Devices



TS951—UN—12APR90

CAUTION: Avoid injury or death caused by collision with another vehicle, always operate flashing lights when traveling on highway or public roads, except where prohibited by law.

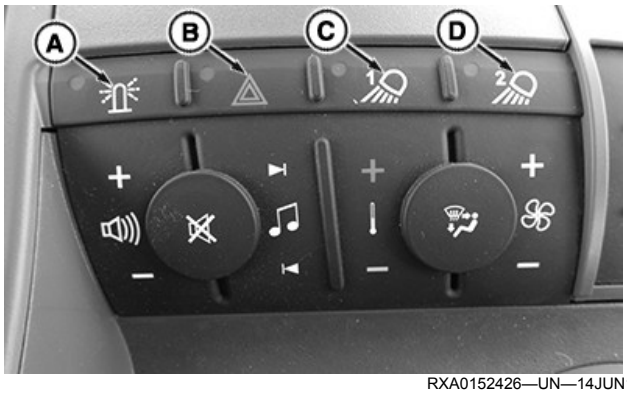
Always use road lights and transport warning lights when operating tractor on road or highway day or night. Extremity Transport Lights alert other vehicles of your extended width. Use flashing warning lights and turn signals day and night. Follow local laws and regulations for equipment lighting and marking.

While operating tractor on public roadways or highways, day or night:

- Turn on flashing warning lights, except where prohibited by law.
- Turn on headlights by selecting the Road Lights Position of the Light Selector Knob..
- Dim headlights for oncoming vehicles.
- Frequently check for traffic approaching from rear.
- Always use turn signals when turning.
- DO NOT use the Field Lights. Extremely bright lights may blind or confuse other drivers.
- Make sure Slow Moving Vehicle (SMV) emblem is installed and visible.
- Make sure all lighting and marking devices are functional and clean.
- Comply with all traffic regulations.
- Promptly replace or repair damaged or lost lighting devices. Implement lighting kit is available from your John Deere dealer.

DB71512,000013E-19-01SEP17

CommandARM™ Light Buttons



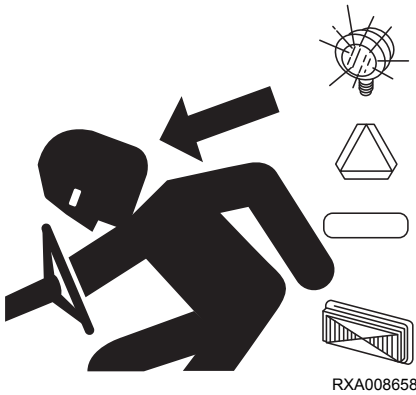
RXA0152426—UN—14JUN16

NOTE: Field Lights must be adjusted using the Generation 4 CommandCenter™ display.

Control beacon lights (A), hazard lights (B), and field lights (C or D) from the CommandARM™ rather than from display screens. When lights are on, an appropriate indicator is illuminated.

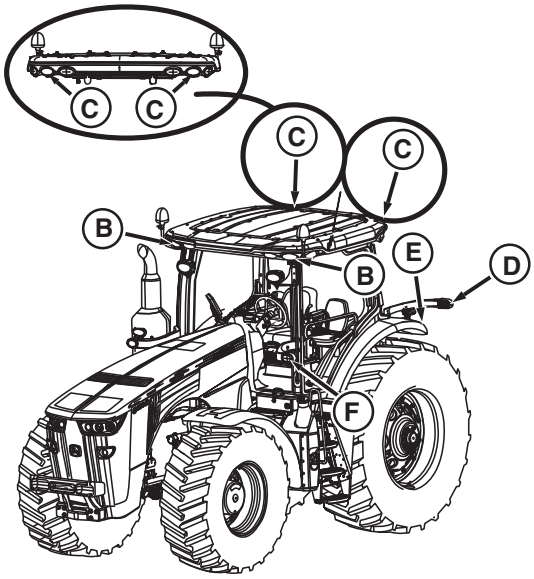
TS36762,000024F-19-22NOV16

Hazard Lights and Extremity Warning Lights



RXA0086584—UN—09FEB06

CommandCenter is a trademark of Deere & Company
CommandARM is a trademark of Deere & Company



RXA0159606—UN—12JUN17

B—Front Outer Roof Indicator Lights
C—Rear Outer Roof Indicator Lights
D—Extremity Warning Lights
E—Rear Fender Indicator Lights
F—Beltline Indicator Lights

CAUTION: Avoid injury or death caused by collision with another vehicle. Follow local laws and regulations for equipment lighting and marking. Comply with all traffic regulations.

Extremity Warning Lights (D) are needed when tractor width exceeds 3.7 m (12 ft). Extremity Warning Lights alert other vehicles of your extended width. Always use road lights, extremity warning lights, and turn signals when operating tractor on road or highway at night or during the day.

Hazard Lights

RXA0156107—UN—09DEC16

Push Hazard Light button (A) to activate flashing amber hazard lights (B, C, D, E and F).

NOTE: Depending on region and installed equipment lights (B, C, D, E and F) may not all be available as indicator lights when Hazard Light button is activated.

Extremity Warning Lights

IMPORTANT: To avoid equipment damage, extremity warning lights may be retracted when parking tractor in storage building.

Extremity Warning Lights operate with Hazard Light button “ON”.

Adjust Extremity Warning Lights no more than 400 mm (16 in) from widest point of tractor.

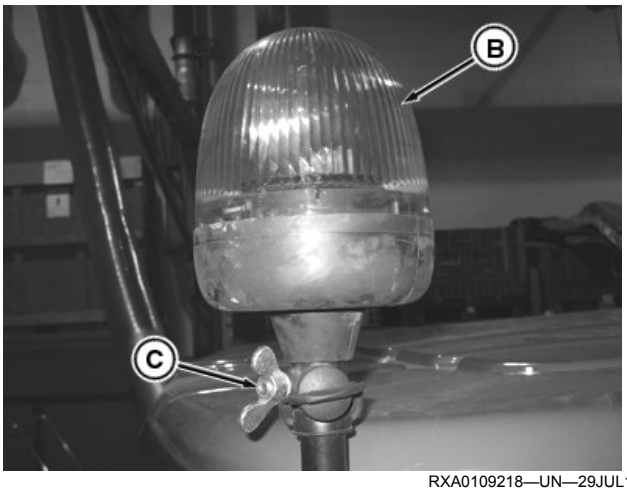
LT63082,0000144-19-28JUN17

Rotary Beacon Light

NOTE: If Rotary Beacon light is not installed and Rotary Beacon switch is activated, a Rotary Beacon Diagnostic Trouble Code (DTC) will be generated.

RXA0156108—UN—09DEC16

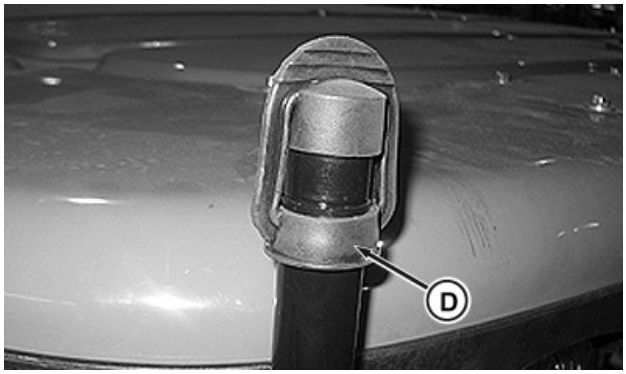
Push Rotary Beacon switch (A) to activate Rotary Beacon light.



RXA0109218—UN—29JUL10

When not used for extended periods of time, remove and safely store Rotary Beacon light (B):

1. Loosen nut (C) and remove light assembly.



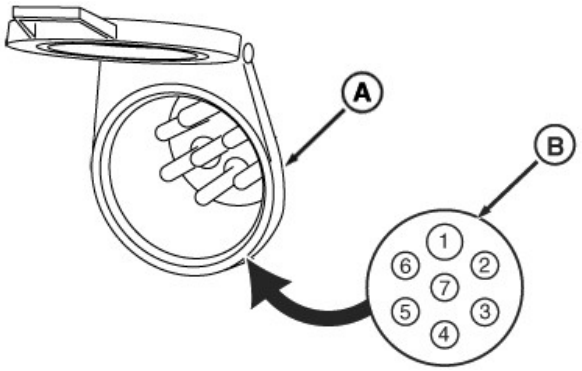
RXA0100494—UN—11FEB09

2. Install rubber protective cap (D) on connector.

TS36762,0000251-19-12DEC16

7-Pin Outlet

CAUTION: Avoid accidents. Always use auxiliary light on towed implement when tractor rear signals and other lights are obscured.



RXA0126196—UN—05JUN12

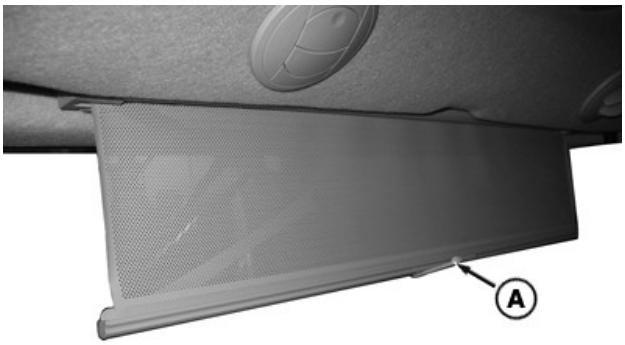
Rear-mounted 7-pin outlet (A) is used to connect lights, turn signals and other remote trailer or implement electrical equipment to tractor electrical system. Chart and image identify connector pin numbers and circuits associated with them. Matching 7-pin plug is available through your John Deere dealer.

Terminal Numbers (B)	Function	
	Rear Connection	Front Connection
1	Ground	
2	Flood (Implement Lights)	
3	Left Turn Signal	
4	Brake Lights	Not Used
5	Right Turn Signal	
6	Tail Light	
7	Accessory	Not Used

Contact your John Deere dealer for information regarding methods to connect tractor light switch with 7-pin connector accessory wires.

KT81203,000058F-19-28JUN17

Pull-Down Sunshade

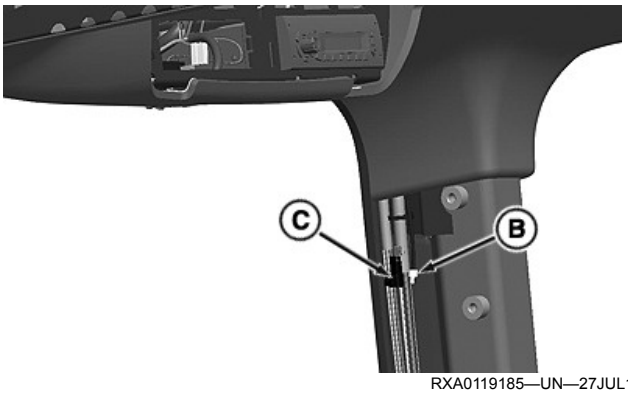


RXA0133298—UN—25JUN13

Pull-down sunshade (A) reduces glare when operating in bright sunlight. The pull-down sunshade allows operator flexibility in amount of window coverage.

TS36762,0000253-19-05SEP17

Install Business Band or Citizens Band (CB) Radio and Antenna



RXA0119185—UN—27JUL11

Antenna Coaxial Cable And Business Band Radio Power/ Ground Plug Coiled Behind Right Rear Corner Post Cover

B—Antenna Coaxial Cable
C—Business Band Radio Power/Ground Cable

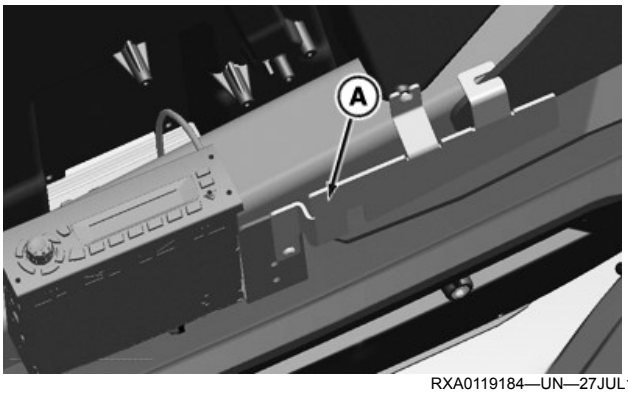
CAUTION: Never mount business band radio antenna to rear of cab. Never route antenna cable (B) near harness for electrical system controllers or operator controls. Failure to follow these precautions could expose operator to radio frequency energy levels higher than recommended by American National Standards Institute (ANSI) and/or could cause undesirable performance of electronically controlled systems.

Avoid personal injury. Disconnect battery ground cable before any electrical repair.

IMPORTANT: Prevent damage to tractor emissions system. Battery disconnect switch with indicator light: Tractor is equipped with an engine which uses a Selective Catalytic Reduction (SCR) system. Light is illuminated during Diesel Exhaust Fluid (DEF) purge from system. Do not turn disconnect switch off until light goes out.

Battery disconnect switch without indicator light: Engine not equipped with SCR system. No waiting period is required before turning off switch.

See Battery Disconnect Switch in Engine Operation section of this Operator's Manual.



RXA0119184—UN—27JUL11

Business Band Radio Bracket—Headliner Removed To Show Location

NOTE: Only tractors equipped with Business Band Radio Mounting and Wiring Option from factory have business band bracket (A) behind headliner and antenna cables behind right rear corner post cover. See your John Deere dealer for Business Band Radio and Antenna Installation Instructions.

Custom Installation

Custom CB or Business Band radio installation requires special tools and skills to tune antenna for lowest possible VSWR (Voltage Standing Wave Ratio). Qualified professional should be employed or consulted before attempting installation. Contact your John Deere dealer for recommendations. Following specifications are useful to installer.

Specifications for Factory Installed Radio Installation Kit

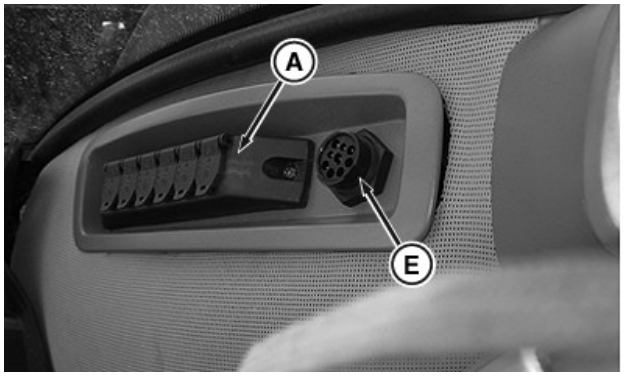
- Roof Antenna Mount: NMO type.
- Cable Specifications: Cable length is 3.6 m (11.8 ft) from antenna mount to PL-259 radio connector. RG-58/U cable has 50 ohms intrinsic impedance.
- Roof Ground Plane: Grounded large antenna counterpoise foil under green cab roof allows installation of either 1/4 or 1/2 wave antenna.
- CB Antenna: Normal CB antenna can be attached to factory installed NMO antenna mount through use of

an appropriate adapter. Special CB antenna already equipped with NMO base may alternatively be used.

TS36762,0000254-19-21AUG18

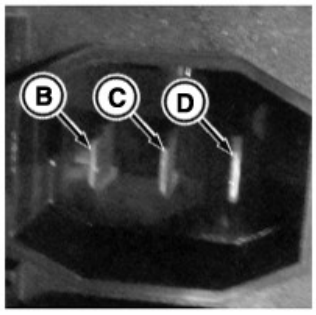
Auxiliary Power Strip Use

IMPORTANT: Power strip is not surge suppressor. Electrical equipment with program memory requires protection from damage of electrical surges and spikes.



RXA0099078—UN—25FEB09

A—Auxiliary Power Strip
E—Diagnostic Connector (DEALER USE ONLY)



RXA0131998—UN—06MAY13

B—Battery (Unswitched)
C—Ground
D—Battery (Switched)

Power strip (A) provides six 12 volt grounded power outlets for use connecting auxiliary equipment. This power is 30 amp switched and 30 amp unswitched. Outlets are protected by a 30 amp fuse.

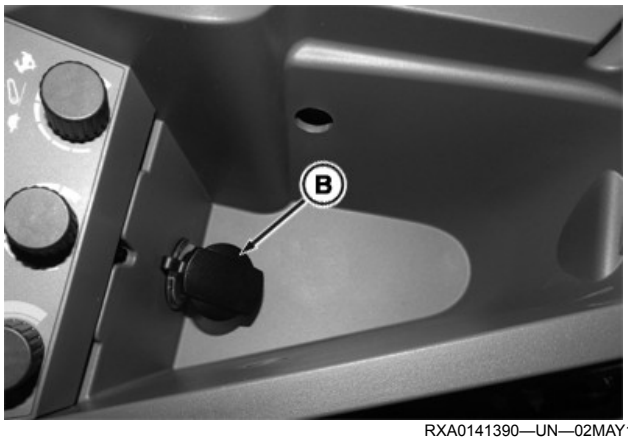
Various adapters are available from your John Deere dealer.

Adapters plug directly into power strip. To change to switched power on adapter, remove small tab at end of slot on plug and rotate plug 180°.

TS36762,0000255-19-29NOV16

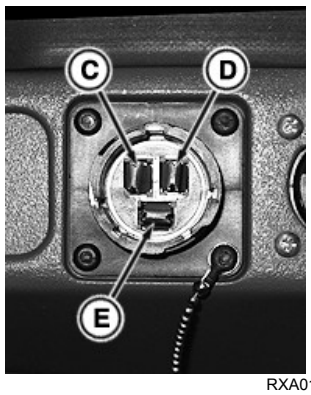
Accessory Electrical Outlet Use

RXA0159796—UN—13JUN17



RXA0141390—UN—02MAY14

12 volt accessory outlets (A) located on right-hand console or outlet (B) in storage box are used when connecting auxiliary equipment.



RXA0141391—UN—02MAY14

Pin (D) provides battery power (hot), pin (C) provides (key) switched power and pin (E) provides ground. For additional information on connections, see appropriate auxiliary equipment installation instructions or your John Deere dealer.

KD34109,00006AD-19-06SEP17

Connect Compatible Electronic Equipment

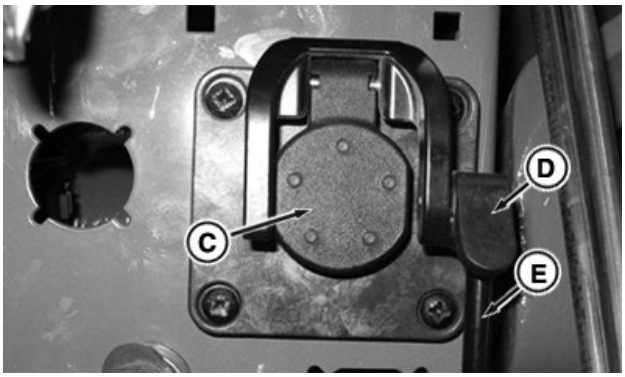
RXA0134922—UN—06SEP13

RXA0147008—UN—10MAR15

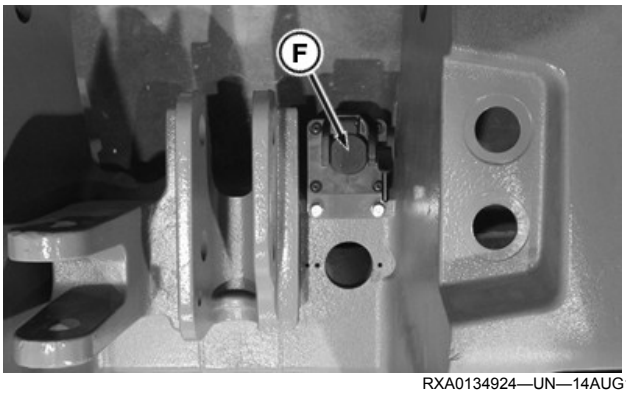
Tractor is ISOBUS ready and offer connections for implements conforming to both ISO 11786 and 11783 (G) standards. ISO 11786 connector (A) provides radar or GPS speed signal., see Configure Tractor for GPS or Radar in this Operator's Manual section.

GreenStar™ corner post connector (B) allows any GreenStar™ display connection. See your John Deere dealer for compatible adapter harnesses.

IMPORTANT: Use ISO 11783 connector only with ISO 11783 compliant components. Other uses could damage tractor electronic components.



RXA0134921—UN—07MAR14



RXA0134924—UN—14AUG13

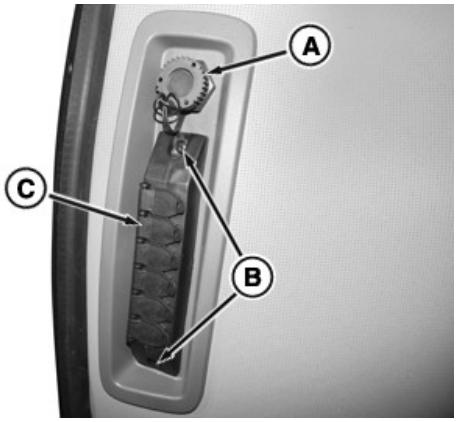
ISOBUS ready preparation includes ISO 11783 connector, on right-hand console, and implement connector (F or C) on tractor front (if equipped) or rear, facilitating tractor/implement communications.

Lift handle (E) to open cover and connect implement harness. Lift the release (D) when disconnecting implement harness from connector (C) on rear of tractor.

TS36762,0000256-19-04APR18

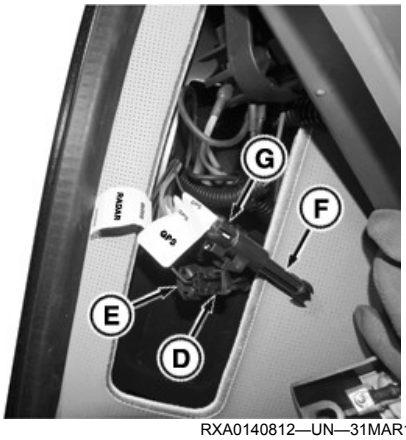
Configure Tractor for GPS or Radar

Tractor comes from factory configured to use radar as ground speed input. To reconfigure tractor to use GPS as the true ground speed input:



RXA0140811—UN—31MAR14

1. Remove diagnostic connector cap (A) and retaining nut.
2. Remove retaining screws (B) and remove auxiliary power strip (C) (if equipped) with cover plate.
3. Inside right-hand console locate one wire lead marked radar and one marked GPS.



RXA0140812—UN—31MAR14

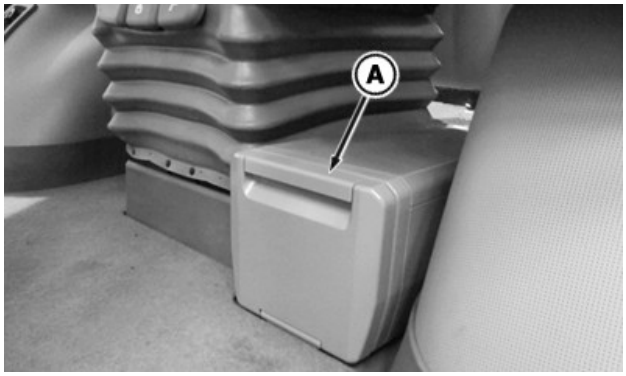
RXA0140813—UN—31MAR14

4. On tractors equipped with radar, disconnect tractor harness connector (D) from radar connector (E). Then, proceed to step 6.
5. On tractors not equipped with radar, locate wire lead marked GPS and proceed to step 6.
6. Remove dust cap (F) from GPS connector (G).
7. Attach GPS connector to tractor harness connector.
8. Install (or leave installed) dust cap on radar connector.
9. Reinstall auxiliary power strip with cover plate.
10. Reinstall diagnostic connector through cover, install cap tether and tighten nut.
11. Reinstall power strip cover retaining screws and attach diagnostic connector cap.

To connect from GPS to radar input, disconnect GPS connector and reconnect radar connector. To perform radar calibration, see Maintenance & Calibrations in CommandCenter™ section of this Operator's Manual.

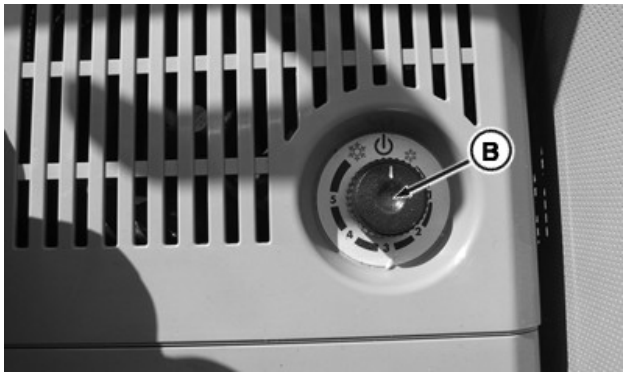
TS36762,0000257-19-04APR18

Refrigerator or Storage Space



RXA0134926—UN—15AUG13

Refrigerator (A) only works when key switch is in RUN or accessory position.



RXA0134923—UN—14AUG13

Adjust refrigerator temperature with control knob (B). Settings are from off to 5, with 5 being the coldest temperature possible.

If refrigerator is not installed, a covered storage space is available.

TS36762,0000258-19-22NOV16

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Climate Controls

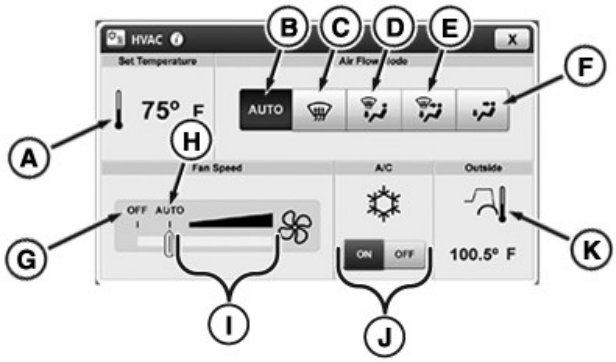
For more information, see CommandARM™ Climate, Radio and Lighting Controls in CommandARM™ Controls section of the Operator's Manual.

KT81203,0000515-19-30JAN17

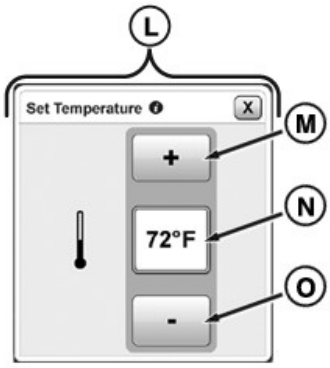
HVAC Settings—Generation 4 CommandCenter™

RXA0133716—UN—16JUL13

To access the main page, use HVAC Shortcut Button on Navigation Bar:



RXA0133683—UN—19JUL13



RXA0133684—UN—19JUL13

A—Set Temperature Module: Select to access Set Temperature page (L).
B—Auto Air Flow Toggle: Select for air flow to be automatically adjusted.
C—Defrost Toggle: Select to activate defrost.
D—Defrost and Floor Toggle: Select to activate defrost and floor vents.
E—Defrost, Floor, and Cab Toggle: Select to activate defrost, floor, and cab vents.
F—Cab and Floor Toggle: Select to activate floor and cab vents.

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G—Fan OFF: Move slide bar to OFF position to turn fan off.
H—Fan AUTO: Adjust slide bar to AUTO position to have fan speed automatically adjust to maintain set temperature.
I—Fan Increment Bar: Use to adjust fan speed. As slide moves right, fan speed increases. As slide moves left, fan speed decreases.

IMPORTANT: If system is not cooling properly, turn air conditioning switch off to avoid possible compressor damage.

J—A/C Toggle: Use to turn A/C ON or OFF.
K—Outside Temperature Module: Displays the temperature outside of the cab.
L—Set Temperature Page: Page used to adjust cab temperature.
M—Increase Button: Select to increase temperature in cab.
N—Display Temperature Box: Displays the temperature setting.
O—Decrease Button: Select to decrease temperature in cab.

KT81203,0000517-19-25APR18

Performance Ballasting

General Ballasting Information

Basic Ballasting Definitions

Ballast is mass added to tractor chassis and/or wheels to:

- Increase TOTAL WEIGHT
- Influence WEIGHT DISTRIBUTION between front axle and rear axle (static balance).

Static means that front and rear axle loads are determined when tractor is parked. Static weight distribution between front and rear axles is sometimes called WEIGHT SPLIT. It is usually expressed as percentages of total tractor static weight supported by front axle and by rear axle. For example, if front axle supports 40% of total static tractor weight, the tractor has a 40/60 weight split. Percentage of weight supported by front axle is always stated first in this formula.

Major Considerations

NOTE: Radial-ply and bias-ply tires use same ballasting procedures.

Factors Determining Amount of Ballast

- Soil surface—loose or firm
- Implement type—integral/semi-integral or towed
- Travel speed—slow or fast
- Tractor power output—partial or full load
- Tires—small or large
- Front axle type—MFWD or Independent Link Suspension ILS™

Too Little Ballast	Too Much Ballast
Excessive wheel spin	Soil compaction
Power transfer loss	Power loss
Tire wear	Increased load
Fuel waste	Fuel waste
Lower productivity	Lower productivity

- A tractor PROPERLY ballasted for a given type of implement (towed, integral, or semi-integral) has both correct TOTAL WEIGHT and STATIC BALANCE for that type of implement.
- Pulling a lighter load at a higher speed is more economical and more efficient than pulling heavier loads at a lower speed.
- When changing from one implement or attachment to another it may be necessary to reconfigure ballast on tractor.
- Correct ballast allows most efficient use of tractor available power. Ballast will not make up for an implement which is too big for tractor. Adding ballast will not improve performance, if engine speed falls below rated speed and/or wheel slip is not in recommended range.

Ballasting Is Required To:

1. Ensure that front axle carries sufficient weight for steering security and stability. Sufficient front axle weight is important for stability with field draft loads as well as transport in field and on road.
2. Ensure proper steering response when using AutoTrac™.
3. Provide sufficient traction to efficiently pull high draft loads.
4. Provide proper fore/aft balance to minimize occurrence of power hop in MFWD and ILS™ tractors.
5. Ensure that rear axle carries sufficient weight for traction, braking, and stability when an implement is attached to front of tractor.

Ballast Limitations

IMPORTANT: Tractor weight exceeding heavy ballast limits should be avoided and may void the warranty due to ”overload” conditions.

Ballast should be limited by lowest of either tire capacity or tractor capacity. Carrying capacity of each tire should not be exceeded. If a greater amount of weight is needed, larger tires should be considered.

GH15097,0000463-19-26OCT15

General Guidelines for Tractor Weight Based on PTO Power

IMPORTANT: Never exceed maximum tractor weight (including tractor carry-weight) of:

- **20000 kg (44000 lb), or**
- **17962 kg (39600 lb) for speeds greater than 40 km/h (24.9 mph)**

To extend drive-train life never operate tractor with continuous full-power loads below 6.4 km/h (4.0 mph). With any transmission, ground speed can drop briefly in hard-pull situations, but must recover to higher levels during normal operations.

NOTE: Use radar to monitor slip. Checking wheel slip is manually possible, but only shows slip in area of field where check is performed.

The correct tractor weight to efficiently deliver power through wheels to ground for draft applications depends

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on travel speed. Consult table for recommended weight based on expected travel speed.

Wheel slip normally ranges 8-12 percent for optimum power delivery efficiency at these field speeds. Wheel slip can briefly rise above this range when tractor encounters a higher draft area in the field, but cannot remain there continuously. Add more weight to drive wheels if slip is excessive. If there is less than minimum slip percent, ballast must be removed, unless needed for stability.

Recommended Travel Speeds			
Implement Draft	**Model**	**Ground Speed km/h (mph)**	**PTO Power kg/PTO kW (lb/ PTO hp)**
Light	All	8.7 (5.4) and faster	73 (120)
Medium		7.2 - 8.7 (4.5 - 5.4)	79 (130)
Heavy	All (Except 8370R and 8400R)	7.2 (4.5) and slower	88 (145)
	8370R and 8400R (Only)		85 (141)

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General Weight Split Guidelines

CAUTION: Do not exceed front tire carrying capacities when using high percentages of front weight. See Tire Load Index in this section of Wheels and Tires - General Information Operator's Manual.

IMPORTANT: The weight split varies depending on the application. Increase weight on front to insure stability and steering security when using heavy drawbar load or hitch-mounted implements.

Weight split requirements are based on type of implement or attachment being used. A primary consideration is to maintain sufficient weight on front and rear axles to provide stability and steering security under both field and transport conditions. Other factors as indicated in following tables must also be considered.

Implement Type	Front Axle Type	
	MFWD	**ILS™**
Light[a]	No more than 35% of total tractor weight on front axle. This is required for power hop control.[b]	40% - 55% total tractor weight on front axle. Best tractive performance is attained in lower end of range, but there is only a modest reduction in performance at higher values.
Medium[c]		Up to a maximum 55% of total tractor weight on front axle to insure steering security and stability with implements placing a high vertical load on drawbar or are connected to high hitch point. It can be practical to have a lower front percentage with heavy trailers, but steering security and stability must still be insured.
Heavy[d]		Up to approximately 55% of total tractor weight on front axle.

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[a]Implements placing small vertical loads on tractor drawbar such as drawn planters, air seeders, and PTO-operated equipment.
[b]See Power Hop Control section in this Operator's Manual for details.
[c]Implements placing higher vertical loads on drawbar such as disks, chisel plows and field cultivators.
[d]Implements placing large vertical loads on hitch or drawbar such as rippers or hitch mounted planters.

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Ballast Options

Ballast is available in several forms and is utilized differently:

- Front suitcase or block weights. Front-mounted weight effectively adds greater weight to front axle and reduce weight to rear axle due to leveraging.
- Rear wheel weights. Rear-mounted weight increases traction on rear axle. It can be used to counterbalance the effect of adding additional front axle weight.
- Liquid-filled tires can be used as ballast, however, should be avoided. See Liquid Ballast Use in this section of this Operator's Manual.

Standard Front Weight Support

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Standard front weight support weighs 173 kg (381 lb).

Front Suitcase Weights

Front suitcase weights are mounted in one of two ways:

- Standard front weight support
- Front hitch/PTO-ready option with standard front weight support

Quik-Tatch™ weights weigh 43 kg (95 lb) each. Up to 22 weights can be installed. These combinations are limited by front axle option.

Front suitcase weights and standard front weight support are not compatible with a front hitch or a front loader and must be removed before front hitch is installed.

Large Block Weights

Large block weights are installed only on standard (non-ground-engaging) hitch option.

Rear Wheel Weights

Rear wheel weights must be installed with appropriate starter weights. Certain configurations are not available. See Rear Wheel Weight Use in this section of this Operator's Manual.

Ballast			Axle Weight Adjustment kg (lb)			
Location	Type	Weight kg (lb)	MFWD		ILS™	
			Front	Rear	Front	Rear
Front	Standard Weight Support	173 (381)	+251 (+553)	-78 (-172)	+254 (+561)	-81 (-179)
	Suitcase	43 (95)	+67 (+148)	-24 (-53)	+68 (+150)	-25 (-55)
	Hitch	50 (110)	—	—	+85 (+1085)	-35 (-76)
	PTO		+225 (+496)	-38 (-84)		
	Large Block Weights	900 (1984)	+1296 (+2857)	-396 (-873)		
		1150 (2535)	+1656 (+3651)	-506 (-1116)		
		1500 (3307)	+2190 (+4828)	-690 (-1521)		
		1800 (3968)	+2628 (+5794)	-828 (-1825)		
Rear	Wheel Weights	70 (154)	—	+70 (+154)	—	+70 (+154)
		625 (1378)	—	+625 (+1378)	—	+625 (+1378)
		900 (1984)	—	+900 (+1984)	—	+900 (+1984)
		72 (159)	—	+72 (+159)	—	+72 (+159)
		205 (452)	—	+205 (+452)	—	+205 (+452)

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Ballast Suggestions for Specific Types of Implements

Recommendations are offered as starting points when ballasting for operations with several common types of implements. Some deviations are needed for specific circumstances.

Light Implements-Drawn planters, air seeders, and PTO operated equipment that place small vertical loads on tractor drawbar.

1300 MFWD		8245R	8270R	8295R	8320R	8345R	8370R	8400R
Quik-Tatch™ Weights		—	None (support only)		8	—		
Rear Wheel Weights kg (lb)	Inside	—		1 pair 625 (1378)		—		
	Outside	—			1 pair 205 (452) 1 pair 72 (159)	—		

Quik-Tatch is a trademark of Deere & Company

1500 MFWD		8245R	8270R	8295R	8320R	8345R	8370R	8400R
Quik-Tatch™ Weights		—			None (Support Only)	4	8	
Rear Wheel Weights kg (lb)	**Inside**	—		1 pair 205 (452)	1 pair 625 (1378)			
	Outside	—		1 pair 205 (452) 1 pair 72 (159)				

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ILS™		8245R	8270R	8295R	8320R	8345R	8370R	8400R
Quik-Tatch™ Weights		—		None (support only)	4		8	
Rear Wheel Weights kg (lb)	**Inside**	—		1 pair 205 (452)	1 pair 625 (1378)			
	Outside	—		1 pair 72 (159)		1 pair 205 (452) 1 pair 72 (159)	2 pairs 205 (452) 1 pair 72 (159)	

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Medium Implements-Implements that place higher vertical loads on drawbar such as disks, chisel plows, and field cultivators.

1300 MFWD		8245R	8270R	8295R	8320R	8345R	8370R	8400R
Quik-Tatch™ Weights		None (support only)		4	16	—		
Rear Wheel Weights kg (lb)	**Inside**	—	1 pair 205 (452)	1 pair 625 (1378)		—		
	Outside	—		1 pair 205 (452) 1 pair 72 (159)	3 pairs 205 (452) 1 pair 72 (159)	—		

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1500 MFWD		8245R	8270R	8295R	8320R	8345R	8370R	8400R
Quik-Tatch™ Weights		—		None (support only)	8			
Rear Wheel Weights kg (lb)	**Inside**	—	1 pair 205 (452)	1 pair 625 (1378)				
	Outside	—		1 pair 205 (452) 1 pair 72 (159)	3 pairs 205 (452) 1 pair 72 (159)			

Quik-Tatch is a trademark of Deere & Company

ILS™		8245R	8270R	8295R	8320R	8345R	8370R	8400R
Quik-Tatch™ Weights		—	None (support only)	4	8		16	
Rear Wheel Weights kg (lb)	**Inside**	—		1 pair 625 (1378)				
	Outside	—		1 pair 72 (159)	2 pairs 205 (452) 1 pair 72 (159)	3 pairs 205 (452) 1 pair 72 (159)		

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Quik-Tatch is a trademark of Deere & Company

Heavy Implements-Implements that place large vertical loads on hitch or drawbar such as rippers or hitch mounted planters.

1300 MFWD		8245R	8270R	8295R	8320R	8345R	8370R	8400R
Quik-Tatch™ Weights		None (support only)	4	16		—		
Rear Wheel Weights kg (lb)	**Inside**	1 pair 205 (452)	1 pair 625 (1378)			—		
	Outside	1 pair 72 (159)		3 pairs 205 (452) 1 pair 72 (159)		—		

Quik-Tatch is a trademark of Deere & Company

1500 MFWD		8245R	8270R	8295R	8320R	8345R	8370R	8400R
Quik-Tatch™ Weights		—		4	8			
Rear Wheel Weights kg (lb)	**Inside**	1 pair 205 (452)	1 pair 625 (1378)					
	Outside	1 pair 72 (159)		2 pairs 205 (452) 1 pair 72 (159)	3 pairs 205 (452) 1 pair 72 (159)			

Quik-Tatch is a trademark of Deere & Company

ILS™		8245R	8270R	8295R	8320R	8345R	8370R	8400R
Quik-Tatch™ Weights		None (support only)	4	8	16			
Rear Wheel Weights kg (lb)	**Inside**	—	1 pair 625 (1378)					
	Outside	—		2 pairs 205 (452) 1 pair 72 (159)	3 pairs 205 (452) 1 pair 72 (159)			

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Quik-Tatch is a trademark of Deere & Company

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Calculate Tractor Ballast Package

CAUTION: Avoid physical injury or equipment damage due to improper ballast or tire pressure. Never:

- **Operate tractor if ballast package causes instability or unsafe conditions.**
- **Exceed maximum axle load capacity.**
- **Exceed maximum rated tire pressure imprinted on tire sidewall.**

Tractor efficiency and service life are increased when:

- tractor is correctly ballasted for work task,
- weight is split appropriately between the front and rear of the tractor, and
- tires are inflated correctly.

Examples show correct method of integrating data from tables and information from this Operator's Manual section to determine best possible working ballast for individual tractors and operations.

Example 1

Step 1: Tractor Configuration

1A—Show tractor options.

Model	8270R
Axle	ILS™
Transmission	PST
Fuel Fill	Full
PTO hp	270

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1B—Show tire options.

Axle	Front	Rear
Tires	420/90R30 147 A8/B - Singles	480/80R46 158 A8/B - Duals

1C—List ballast options.

Axle		Front	Rear
Ballast Weights	Weight Support	Yes	—
	Quik-Tatch™	—	
	Wheel kg (lb)	—	—

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Step 2: Calculate Total Tractor Weight

Find and show:

- Unballasted tractor weight. See Unballasted Tractor Weight in this section of this Operator's manual.
- Ballast weights. See Ballast Options in this section of this Operator's Manual.
- Add or subtract front and rear axle weights to find adjusted tractor weight for each axle.
- Add front and rear adjusted tractor weights to calculate total tractor weight.

Axle		Front kg (lb)	Rear kg (lb)
Unballasted Tractor Weight		5412 (11931)	7030 (15499)
Ballast Weights	Weight Support	254 (561)	-81 (-179)
	Quik-Tatch™	—	—
	Wheel	—	—
Tractor Weight	Adjusted	5666 (12492)[a]	6949 (15319)[a]
	Total	12615 (27811)	

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[a]Weigh axle for actual load.

Step 3: Results

3A—Calculate weight split.
- Front axle: divide front axle weight by total tractor weight to find weight split, then multiply result by 100.
- Rear axle: Subtract front axle result from 100.

Ideal weight split is 40% front to 60% rear. See General Weight Split Guidelines in this section of this Operator's Manual.

Axle	Front	Rear
Weight Split %	45	55

3B—Calculate power to weight ratio.
- Divide total tractor weight by PTO hp to find weight to power ratio. PTO hp is listed in Step 1A.

PTO Power kg/kW (lb/hp)	47 (103)

3C—Find recommended implement draft and travel speed.
- Find recommended implement draft and travel speed with PTO power to weight ratio as calculated in Step 3B. See General Guidelines for Tractor Weight Based on PTO Power in this section of this Operator's Manual.

Recommended	Implement Draft	Medium
	Travel Speed km/h (mph)	8.7—7.2 (5.4—4.5)

3D—Determine recommended tire inflation pressures.
- For implements that place light load on drawbar (such as planter or air seeder) use front and rear tire sizes and axle weights to find required inflation pressures. See Recommended Pressure charts in Front and Rear Wheels, Tires, and Treads sections of this Operator's Manual.
- For implements that generate high weight transfer add approximately 50 kPa (0.5 bar, 7 psi) to rear tires, but never exceed maximum rated pressure as imprinted on sidewall. With aid of an assistant, visually check tire deflection when tractor is pulling hard in field to confirm that tires are not under-inflated with these pressures.
- For trailers, tankers, or any heavy implement, rear inflation pressures must be increased substantially to support extra weight at transport speeds. Exact amount depends on load. It is typically more than double the base amount. With implement raised, weigh rear axle of loaded tractor on a platform scale, then find the required inflation pressures. Never exceed tire rating for maximum load or inflation pressure.

Example 2

Step 1: Tractor Configuration

1A—Show tractor options.

Model	8295R
Axle	MFWD
Transmission	PST
Fuel Fill	Full
PTO hp	295

1B—Show tire options.

Axle	Front	Rear
Tires	420/90R30 147 A8/B - Singles	480/80R46 158 A8/B - Duals

1C—List ballast options.

Axle		Front	Rear
Ballast Weights	Weight Support	Yes	—
	Quik-Tatch™	4	
	Wheel kg (lb)	—	72 (159) 1 pair,

Axle		Front	Rear
			and 625 (1378) 1 pair

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Step 2: Calculate Total Tractor Weight

Find and show:

- Unballasted tractor weight. See Unballasted Tractor Weight in this section of this Operator's manual.
- Ballast weights. See Ballast Options in this section of this Operator's Manual.
- Add or subtract front and rear axle weights to find adjusted tractor weight for each axle.
- Add front and rear adjusted tractor weights to calculate total tractor weight.

Axle		Front kg (lb)	Rear kg (lb)
Unballasted Tractor Weight		5062 (11160)	6991 (15412)
Ballast Weights	Weight Support	251 (553)	-78 (-172)
	Quik-Tatch™	310 (683)	-110 (-243)
	Wheel	—	1394 (3073)
Tractor Weight	Adjusted	5623 (12396)[a]	8197 (18071)[a]
	Total	13820 (30468)	

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[a]*Weigh axle for actual load.*

Step 3: Results

3A—Calculate weight split.
- Front axle: divide front axle weight by total tractor weight to find weight split, then multiply result by 100.
- Rear axle: Subtract front axle result from 100.

Ideal weight split is 40% front to 60% rear. See General Weight Split Guidelines in this section of this Operator's Manual.

Axle	Front	Rear
Weight Split %	41	59

3B—Calculate power to weight ratio.
- Divide total tractor weight by PTO hp to find weight to power ratio. PTO hp is listed in Step 1A.

PTO Power kg/kW (lb/hp)	47 (103)

3C—Find recommended implement draft and travel speed.
- Find recommended implement draft and travel speed with PTO power to weight ratio as calculated in Step 3B. See General Guidelines for Tractor Weight Based on PTO Power in this section of this Operator's Manual.

Recommended	Implement Draft	Medium
	Travel Speed km/h (mph)	8.7—7.2 (5.4—4.5)

3D—Determine recommended tire inflation pressures.
- For implements that place light load on drawbar (such as planter or air seeder) use front and rear tire sizes and axle weights to find required inflation pressures. See Recommended Pressure charts in Front and Rear Wheels, Tires, and Treads sections of this Operator's Manual.
- For implements that generate high weight transfer add approximately 50 kPa (0.5 bar, 7 psi) to rear tires, but never exceed maximum rated pressure as imprinted on sidewall. With aid of an assistant, visually check tire deflection when tractor is pulling hard in field to confirm that tires are not under-inflated with these pressures.
- For trailers, tankers, or any heavy implement, rear inflation pressures must be increased substantially to support extra weight at transport speeds. Exact amount depends on load. It is typically more than double the base amount. With implement raised, weigh rear axle of loaded tractor on a platform scale, then find the required inflation pressures. Never exceed tire rating for maximum load or inflation pressure.

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Tire Sidewall Information

Displayed on tire sidewalls is information useful in selecting and working with tires.

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A—Tire section width –Width in millimeters.
B—Aspect ratio – Ratio of height to tire section width.
C—Construction type –R = Radial, B = Bias.
D—Rim diameter –Diameter in inches (not total tire height or group size).
E—Load index –Numerical code indicates tire load-carrying capacity. Higher load index number designates higher load capacity. See Tire Load Index chart in this Operator's Manual section.

F—Speed rating –Maximum speed tire is designed to travel.

Additional information that may be displayed on sidewall.

- **Tread pattern -** Indicates tread design and tire usage. Designs offered are all lug- or bar-type tires and are separated into one of three specifications: R1, R1W, or R2.
- **Direction of rotation -** Icon (usually an arrow or group of arrows) indicating tire rotation direction.
- **Manufacturer name -** Name of tire manufacturer.
- **Max load and pressure information -** Maximum load a tire is permitted to carry under specified pressure and operating conditions. See Recommended Pressures charts in Wheels, Tires, and Treads section of this Operator's Manual.
- **Safety warnings -** Important information provided by tire manufacturer.

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Unballasted Tractor Weight Chart

Unballasted weights are calculated by averaging and are computed based on 8295R tractor with Category 3 drawbar and hitch with quick-hitch, four SCVs, IVT™/ AutoPowr™ transmission and single 420/90R30 Group 42 front tires. Base tractor weight assumes a full fuel tank, full hydraulic and coolant systems, full engine oil, and no fluid in tires. Weight difference between IVT™/ AutoPowr™ and 16-speed PST transmissions are relatively insignificant. 1300 MFWD axle is only available on 8245R-8295R tractors. Front and rear weight splits are shown as percentages. If more accurate weights are needed, see your John Deere dealer.

Group 47

320/90R54	Front Axle	1300 MFWD			1500 MFWD			ILS™		
	Rear Tires	Singles	Duals	Triples	Singles	Duals	Triples	Singles	Duals	Triples
Weight kg (lb)	Front	—	4402 (9704)	4398 (9696)	—	4947 (10905)	4954 (10922)	—	5258 (11592)	5258 (11590)
	Rear	—	6884 (15178)	7818 (17236)	—	6859 (15122)	7782 (17156)	—	6858 (15118)	7788 (17170)
	Total	—	11286 (24882)	12216 (26932)	—	11806 (26027)	12736 (28078)	—	12116 (26710)	13046 (28760)
Weight Split (%)		—	39 / 61	36 / 64	—	42 / 58	39 / 61	—	43 / 57	40 / 60

380/90R50	Front Axle	1300 MFWD			1500 MFWD			ILS™		
	Rear Tires	Singles	Duals	Triples	Singles	Duals	Triples	Singles	Duals	Triples
Weight kg (lb)	Front	—	4424 (9754)	4436 (9780)	—	4981 (10982)	4993 (11007)	—	5281 (11643)	5297 (11677)
	Rear	—	6777 (14939)	7685 (16942)	—	6739 (14857)	7647 (16860)	—	6749 (14878)	7653 (16873)
	Total	—	11201 (24693)	12121 (26722)	—	11720 (25839)	12640 (27867)	—	12030 (26521)	12950 (28550)
Weight Split (%)		—	40 / 60	37 / 63	—	43 / 57	40 / 60	—	44 / 56	41 / 59

480/80R46	Front Axle	1300 MFWD			1500 MFWD			ILS™		
	Rear Tires	Singles	Duals	Triples	Singles	Duals	Triples	Singles	Duals	Triples
Weight kg (lb)	Front	4513 (9949)	4498 (9917)	4494 (9907)	5073 (11183)	5062 (11160)	5057 (11148)	5423 (11955)	5412 (11932)	5409 (11924)
	Rear	6155 (13570)	7035 (15510)	7919 (17460)	6100 (13449)	6991 (15412)	7876 (17364)	6139 (13535)	7030 (15498)	7913 (17446)
	Total	10668 (23519)	11533 (25427)	12413 (27367)	11173 (24632)	12053 (26572)	12933 (28512)	11562 (25490)	12442 (27430)	13322 (29370)
Weight Split (%)		42 / 58	39 / 61	36 / 64	45 / 55	42 / 58	39 / 61	47 / 53	43 / 57	41 / 59

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520/85R42	Front Axle	1300 MFWD			1500 MFWD			ILS™		
	Rear Tires	Singles	Duals	Triples	Singles	Duals	Triples	Singles	Duals	Triples
Weight kg (lb)	Front	4551 (10034)	4539 (10008)	—	5114 (11274)	5108 (11260)	—	5465 (12048)	5447 (12008)	—
	Rear	6183 (13631)	7160 (15785)	—	6125 (13503)	7111 (15678)	—	6163 (13587)	7161 (15788)	—
	Total	10734 (23665)	11699 (25793)	—	11239 (24777)	12219 (26938)	—	11325 (24967)	12608 (27796)	—
Weight Split (%)		42 / 53	39 / 61	—	45 / 55	42 / 58	—	47 / 53	43 / 57	—

620/70R42	Front Axle	1300 MFWD			1500 MFWD			ILS™		
	Rear Tires	Singles	Duals	Triples	Singles	Duals	Triples	Singles	Duals	Triples
Weight kg (lb)	Front	4576 (10089)	4568 (10071)	—	5131 (11311)	5130 (11309)	—	5483 (12087)	5470 (12059)	—
	Rear	6346 (13990)	7485 (16502)	—	6296 (13881)	7443 (16409)	—	6333 (13963)	7492 (16517)	—
	Total	10922 (24079)	12053 (26573)	—	11427 (25192)	12573 (27718)	—	11816 (26050)	12962 (28576)	—
Weight Split (%)		42 / 58	38 / 62	—	45 / 55	41 / 59	—	46 / 54	42 / 58	—

650/65R42	Front Axle	1300 MFWD			1500 MFWD			ILS™		
	Rear Tires	Singles	Duals	Triples	Singles	Duals	Triples	Singles	Duals	Triples
Weight kg (lb)	Front	4511 (9945)	—	—	5079 (11198)	—	—	5430 (11970)	—	—
	Rear	6358 (14018)	—	—	6310 (13910)	—	—	6348 (13996)	—	—
	Total	10869 (23963)	—	—	11389 (25108)	—	—	11778 (25966)	—	—
Weight Split (%)		41 / 59	—	—	45 / 55	—	—	46 / 54	—	—

710/70R38	Front Axle	1300 MFWD			1500 MFWD			ILS™		
	Rear Tires	Singles	Duals	Triples	Singles	Duals	Triples	Singles	Duals	Triples
Weight kg (lb)	Front	4593 (10126)	4593 (10126)	—	5146 (11345)	5144 (11341)	—	5501 (12128)	5498 (12121)	—
	Rear	6369 (14042)	7526 (16592)	—	6315 (13922)	7495 (16523)	—	6355 (14010)	7530 (16601)	—
	Total	10962 (24168)	12119 (26718)	—	11461 (25267)	12639 (27864)	—	11856 (26138)	13028 (28722)	—
Weight Split (%)		42 / 58	38 / 62	—	45 / 55	41 / 59	—	46 / 54	42 / 58	—

Group 48

320/ 105R54	Front Axle	1300 MFWD			1500 MFWD			ILS™		
	Rear Tires	Singles	Duals	Triples	Singles	Duals	Triples	Singles	Duals	Triples
Weight kg (lb)	Front	4605 (10152)	4646 (10244)	4682 (10322)	5177 (11414)	5209 (11484)	5246 (11565)	5531 (12194)	5564 (12267)	5605 (12357)
	Rear	6204 (13678)	7207 (15888)	8215 (18112)	6152 (13562)	7164 (15793)	8171 (18014)	6187 (13640)	7198 (15868)	8201 (18080)
	Total	10809 (23830)	11853 (26132)	12897 (28434)	11329 (24976)	12373 (27277)	13417 (29579)	11718 (25834)	12762 (28135)	13806 (30437)
Weight Split (%)		43 / 57	39 / 61	36 / 64	46 / 54	42 / 58	40 / 60	47 / 53	44 / 56	41 / 59

380/90R54	Front Axle	1300 MFWD			1500 MFWD			ILS™		
	Rear Tires	Singles	Duals	Triples	Singles	Duals	Triples	Singles	Duals	Triples
Weight kg (lb)	Front	—	4554 (10041)	—	—	5110 (11265)	—	—	5462 (12041)	—
	Rear	—	7035 (15509)	—	—	6999 (15430)	—	—	7036 (15512)	—
	Total	—	11589 (25550)	—	—	12109 (26695)	—	—	12498 (27553)	—
Weight Split (%)		—	39 / 61	—	—	42 / 58	—	—	44 / 56	—

380/90R54	Front Axle	1300 MFWD			1500 MFWD			ILS™		
	Rear Tires	Singles	Duals	Triples	Singles	Duals	Triples	Singles	Duals	Triples
Weight kg (lb)	Front	—	4554 (10041)	—	—	5110 (11265)	—	—	5462 (12041)	—
	Rear	—	7035 (15509)	—	—	6999 (15430)	—	—	7036 (15512)	—
	Total	—	11589 (25550)	—	—	12109 (26695)	—	—	12498 (27553)	—
Weight Split (%)		—	39 / 61	—	—	42 / 58	—	—	44 / 56	—

480/80R50	Front Axle	1300 MFWD			1500 MFWD			ILS™		
	Rear Tires	Singles	Duals	Triples	Singles	Duals	Triples	Singles	Duals	Triples
Weight kg (lb)	Front	4504 (9929)	4500 (9922)	4500 (9922)	5071 (11179)	5066 (11170)	5052 (11138)	5421 (11951)	5417 (11942)	5405 (11915)
	Rear	6245 (13769)	7159 (15782)	8069 (11790)	6198 (13664)	7113 (15680)	8037 (17718)	6237 (13750)	7151 (15766)	8073 (17799)
	Total	10749 (23698)	11659 (25704)	12569 (27711)	11269 (24843)	12179 (26850)	13089 (28856)	11658 (25701)	12568 (27708)	13478 (29714)
Weight Split (%)		42 / 58	39 / 61	36 / 64	45 / 55	42 / 58	39 / 61	46 / 54	43 / 57	40 / 60

520/85R46	Front Axle	1300 MFWD			1500 MFWD			ILS™		
	Rear Tires	Singles	Duals	Triples	Singles	Duals	Triples	Singles	Duals	Triples
Weight kg (lb)	Front	4540 (10009)	4538 (10004)	—	5109 (11264)	5096 (11235)	—	5461 (12039)	5448 (12010)	—
	Rear	6269 (13821)	7341 (16185)	—	6220 (13712)	7303 (16100)	—	6257 (13795)	7340 (16183)	—
	Total	10809 (23830)	11879 (26189)	—	11329 (24976)	12399 (27335)	—	11718 (25834)	12788 (28193)	—
Weight Split (%)		42 / 58	38 / 62	—	45 / 55	41 / 59	—	47 / 53	43 / 57	—

620/70R46	Front Axle	1300 MFWD			1500 MFWD			ILS™		
	Rear Tires	Singles	Duals	Triples	Singles	Duals	Triples	Singles	Duals	Triples
Weight kg (lb)	Front	4565 (10064)	4560 (10053)	—	5136 (11324)	5120 (11288)	—	5477 (12074)	5473 (12066)	—
	Rear	6304 (13899)	7439 (16401)	—	6253 (13784)	7399 (16311)	—	6301 (13892)	7435 (16391)	—
	Total	10869 (23963)	11999 (26454)	—	11389 (25108)	12519 (27599)	—	11778 (25966)	12908 (28457)	—
Weight Split (%)		42 / 58	38 / 62	—	45 / 55	42 / 59	—	46 / 54	42 / 58	—

650/85R38	Front Axle	1300 MFWD			1500 MFWD			ILS™		
	Rear Tires	Singles	Duals	Triples	Singles	Duals	Triples	Singles	Duals	Triples
Weight kg (lb)	Front	4563 (10060)	4567 (10069)	—	5136 (11322)	5118 (11282)	—	5476 (12072)	5471 (12061)	—
	Rear	6406 (14123)	7612 (16782)	—	6353 (14006)	7581 (16714)	—	6402 (14114)	7617 (16793)	—
	Total	10969 (24183)	12179 (26851)	—	11489 (25328)	12699 (27996)	—	11878 (26186)	13088 (28854)	—
Weight Split (%)		42 / 58	37 / 63	—	45 / 55	40 / 60	—	46 / 54	42 / 58	—

710/70R42	Front Axle	1300 MFWD			1500 MFWD			ILS™		
	Rear Tires	Singles	Duals	Triples	Singles	Duals	Triples	Singles	Duals	Triples
Weight kg (lb)	Front	4585 (10109)	4592 (10123)	—	5148 (11350)	5146 (11344)	—	5501 (12127)	5487 (12097)	—
	Rear	6464 (14251)	7785 (17164)	—	6421 (14155)	7751 (17088)	—	6457 (14236)	7799 (17194)	—
	Total	11049 (24360)	12377 (27287)	—	11569 (25505)	12897 (28432)	—	11958 (26363)	13286 (29291)	—
Weight Split (%)		41 / 59	37 / 63	—	44 / 56	40 / 60	—	46 / 54	41 / 59	—

800/70R38	Front Axle	1300 MFWD			1500 MFWD			ILS™		
	Rear Tires	Singles	Duals	Triples	Singles	Duals	Triples	Singles	Duals	Triples
Weight kg (lb)	Front	4595 (10130)	4582 (10103)	—	5148 (11348)	5152 (11358)	—	5500 (12125)	5494 (12112)	—
	Rear	6584 (14516)	8007 (17652)	—	6551 (14443)	7957 (17542)	—	6588 (14524)	8004 (17646)	—
	Total	11179 (24646)	12589 (27755)	—	11699 (25791)	13109 (28900)	—	12088 (26649)	13498 (29758)	—
Weight Split (%)		41 / 59	36 / 64	—	44 / 56	39 / 61	—	45 / 55	41 / 59	—

Group 49

480/95R50	Front Axle	1300 MFWD			1500 MFWD			ILS™		
	Rear Tires	Singles	Duals	Triples	Singles	Duals	Triples	Singles	Duals	Triples
Weight kg (lb)	Front	—	4616 (10176)	—	—	5191 (11444)	—	—	5546 (12227)	—
	Rear	—	7373 (16256)	—	—	7318 (16133)	—	—	7352 (16208)	—
	Total	—	11989 (26432)	—	—	12509 (27577)	—	—	12898 (28435)	—
Weight Split (%)		—	39 / 61	—	—	41 / 59	—	—	43 / 57	—

710/75R42	Front Axle	1300 MFWD			1500 MFWD			ILS™		
	Rear Tires	Singles	Duals	Triples	Singles	Duals	Triples	Singles	Duals	Triples
Weight kg (lb)	Front	4608 (10160)	4633 (10214)	—	5173 (11405)	5190 (11442)	—	5526 (12184)	5533 (12198)	—
	Rear	6523 (14380)	7888 (17391)	—	6478 (14281)	7851 (17308)	—	6514 (14360)	7897 (17410)	—
	Total	11131 (24540)	12521 (27605)	—	11651 (25686)	13041 (28750)	—	12040 (26544)	13430 (29608)	—
Weight Split (%)		41 / 59	37	—	44 / 56	40 / 60	—	46 / 54	41 / 59	—

IF900/ 60R42	Front Axle	1300 MFWD			1500 MFWD			ILS™		
	Rear Tires	Singles	Duals	Triples	Singles	Duals	Triples	Singles	Duals	Triples
Weight kg (lb)	Front	4674 (10303)	—	—	5232 (11535)	—	—	5587 (12318)	—	—
	Rear	6725 (14827)	—	—	6686 (14740)	—	—	6720 (14815)	—	—
	Total	11399 (25130)	—	—	11918 (26275)	—	—	12307 (27133)	—	—
Weight Split (%)		41 / 59	—	—	44 / 56	—	—	45 / 55	—	—

RX32825,0000132-19-13JUL18

Worksheet to Calculate Ballast Changes

NOTE: Complete this entire worksheet before adding or changing any ballast or air pressures.

IMPORTANT: Ballast must not exceed weight required to result in recommended percent slip at 6.6 km/h (4.1 mph) MINIMUM.

	Front	Rear	Total
1. Determine desired weight split for your operation.	_____ %	_____ %	
2. Record desired weight of tractor (See Ballasting Guide).			_____
3. Percent of Weight Split from Step No. 1 multiplied by Step No. 2 (Desired Weight) results in Total Front Weight. For Rear Weight, subtract front weight from Total Weight.	_____	_____	_____
4. Weight of tractor as determined from the Unballasted Tractor Weight Chart or weight from scale.	_____	_____	_____
5. Ballast needed (subtract tractor weight in Step No. 4 from desired weight in Step No. 3.)	_____	_____	_____
6. Add ballast.	_____	_____	
7. Add ballast from Step No. 6 to weights from Step No. 4.	_____	_____	
8. Set tire pressure for operating conditions using weights from Step No. 7. (See appropriate inflation pressure table).	_____	_____	_____

NOTE: You are now ready to test for wheel slippage. See Measure Wheel Slip-Manually in this section of this Operator's Manual.

GH15097,000046E-19-20JUN17

Controlling Power Hop-MFWD Tractors

CAUTION: Avoid physical injury and equipment damage. Never exceed maximum rated tire pressure imprinted on tire sidewall.

Power hop is a condition where tractor exhibits severe bounce and/or pitch motions at field working speeds when pulling a towed implement. It can occur when pulling medium to high draft loads in loose, dry soil on top of a firm base and/or when climbing hills. As a result, tractor cannot maintain pull due to either loss of traction, rough ride or both. Make adjustments only after assuring guidelines for optimum performance with towed implements have been followed. Guidelines:

- Front axle weight split is within guidelines for front axle type (MFWD, ILS™) and implement load (light, medium, or heavy)

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- If liquid ballast is used in rear tires, it does not exceed 40% (4 o'clock valve stem position)
- Front and rear inflation pressures set correctly based on static loads. See Front and Rear Wheels, Tires, and Treads sections in this Operator's Manual..

If power hop occurs, perform procedure. Make adjustment described in step, the drive tractor. If power hop still occurs, move to next step. When a step eliminates power hop, begin normal operation.

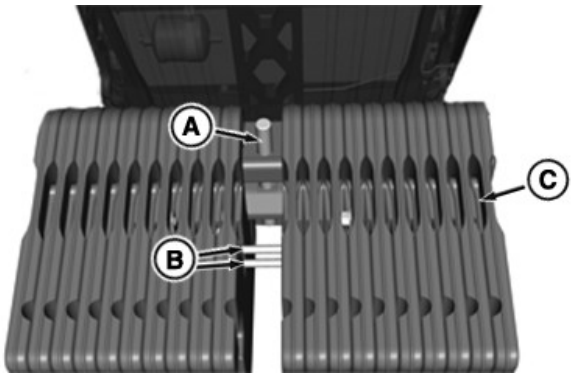
CAUTION: Avoid physical injury and equipment damage. Never exceed maximum rated tire pressure imprinted on tire sidewall.

1. Increase front inflation pressures by 20.7 kPa (0.2 bar) (3 psi).
2. Increase front inflation pressures in increments of 20.7 kPa 0.2 bar (3 psi). Repeat this step as needed but never exceed maximum rated tire pressure as imprinted on tire sidewall.
3. If maximum rated tire pressure is reached, remove all front ballast weights
4. Install 75% liquid in front tires. Re-inflate front tires to maximum pressure rating for tires.

RX32825,0000548-19-08MAY17

Using Quik-Tatch™ Weights

Quik-Tatch™ weights come in groups of 16 and 22. No more than 22 Quik-Tatch™ weights can be installed on tractors.



RXA0164320—UN—21AUG18

1. Install Quik-Tatch™ weights, balanced on each side of center (A). First two weights must be installed as a pair.
2. Run retaining bolts (B) through holes and secure with a nut to hold six weights or fewer in position. Tighten bolts to 230 N·m (170 lb·ft).
3. Insert retainers between weights, one with threaded hole upward (C) and other with threaded hole downward when eight or more weights are installed. Tighten bolts to 230 N·m (170 lb·ft).

GH15097,0000470-19-22AUG18

Rear Wheel Weight Use

CAUTION: Avoid injury when installing weights as they are extremely heavy. Use appropriate lifting devices for installation or have the job performed by your John Deere dealer

IMPORTANT: Avoid damage to tractor and wheel components. Maintain a 25 mm (1 in) minimum clearance between inside wheel weights and tractor components.

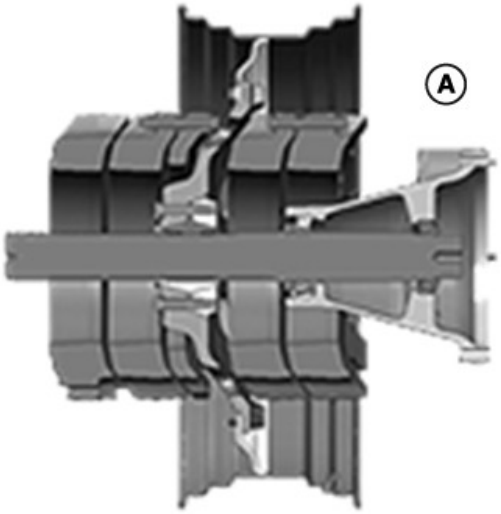
Not all tread settings are possible when adding wheel weights. When using 1524 mm (60 in) tread setting, maximum of two 205 kg (452 lb) or one 625 kg (1378 lb) weight can be installed on inside of wheel.[1]

Wheel Weight Types

Wheel Weight kg (lb)	Wheel Weight Type and Wheel Weight Location			
	Cast		Steel	
	Inner		Inner	Outer Dual
	Inside	Outside	Outside[a]	Outside
625 (1378)	Yes	—	—	—
70 (154)[b]	—	—	Yes[c]	Yes[d]
900 (1984)	—	—	Yes[cefg]	Yes[def]
72 (159)[h]	Yes	Yes[c]	Yes[c]	Yes[d]
205 (452)	Yes	Yes[ci]	Yes[ci]	Yes[di]

[a]Flanged axle
[b]Starter weight for the 900 kg (1984 lb) weight.
[c]Not compatible with duals.
[d]Not compatible with triples.
[e]Must be mounted to 70 kg (154 lb) starter weight.
[f]Requires 42-, 46-, or 50-inch diameter rim. Not compatible with other rim sizes.
[g]Requires rear tire with load rating greater than 151.
[h]Starter weight for the 205 kg (452 lb) weight.
[i]Must be mounted to 72 kg (159 lb) starter weight.

[1] 1524 mm (60 in) tread setting not compatible with air trailer brakes or high-capacity take-out oil reservoir.



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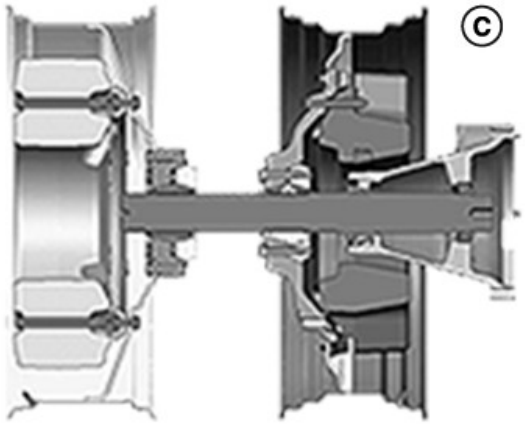

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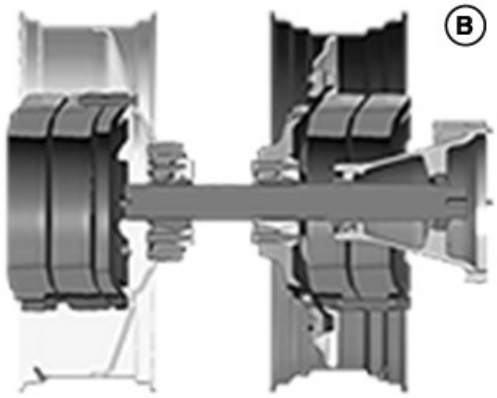

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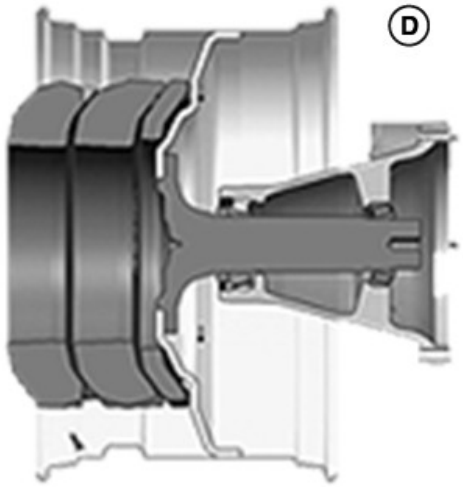


RXA0159888—UN—19JUN17

A—Single Cast Wheel
B—Cast Inner Wheel and Steel Outer Wheel
C—Cast Inner Wheel with 625 kg (1378 lb) Weight, and Steel Outer Wheel with 900 kg (1984 lb) Weight
D—Steel Wheel on Flanged Axle

CAUTION: Avoid injury when installing weights as they are extremely heavy. Use appropriate lifting devices for installation or have the job performed by your John Deere dealer

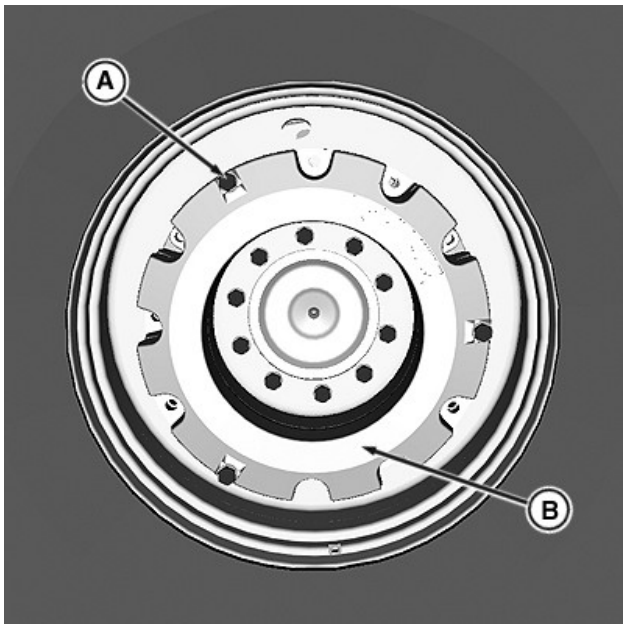
RXA0080173—UN—08APR05

1. Install weights (A) on wheel. For additional weights, install bolts in previous weight. Rotate alternate weight to align bolts with weight holes.
2. Tighten bolts to 310 N·m (230 lb·ft) for M16 and 610 N·m (450 lb·ft) for M20.
3. Drive tractor 100 meters (100 yd) and retighten bolts.
4. Tighten again at 3 hours, 10 hours, and daily for first week of operation or until bolts do not move when tightened.

GH15097,0000471-19-14NOV17

Install Wheel Weights-Flanged Axles

IMPORTANT: Avoid equipment damage. Never use 625 kg (1378 lb) wheel weights on flanged axles.



RXA0113869—UN—09FEB11

A 72 kg (159 lb) starter weight must be attached to wheel disk using three cap screws (A) before 205 kg (452 lb) weights (B) can be attached. Tighten to 610 N·m (450 lb·ft).

One 205 kg (452 lb) weight can be attached to inside of rim.

Two 205 kg (452 lb) weights can be attached to outside of rim.

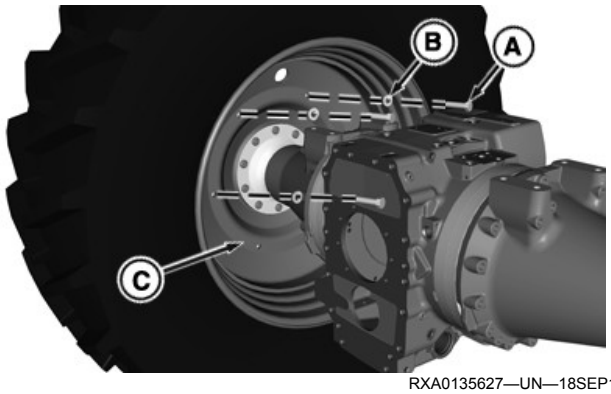
GH15097,00007C7-19-14NOV17

Install Outer Wheel Weights-70 kg (154 lb) and 900 kg (1984 lb)

NOTE: The 900 kg (1984 lb) and 70 kg (154 lb) rear wheel weights can be installed on tractors equipped with a double flat axle and ductile iron cast rims. The installation requires the 625 kg (1378 lb) inner wheel weight to also be installed.

Wheel assembly is intended for outside of steel drive wheel or outside steel dual wheel.

Weights can be installed on wheel while on tractor or remove wheel and lay on flat surface.

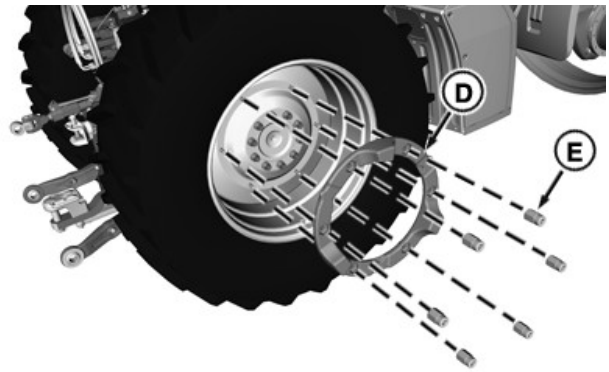


RXA0135627—UN—18SEP13

Inside View

1. Insert M20 x 70 cap screws (A) through washers (B) on inside of wheel (C).

CAUTION: Starter wheel weight is heavy 70 kg (155 lb). Use proper hoist when installing or removing weight.

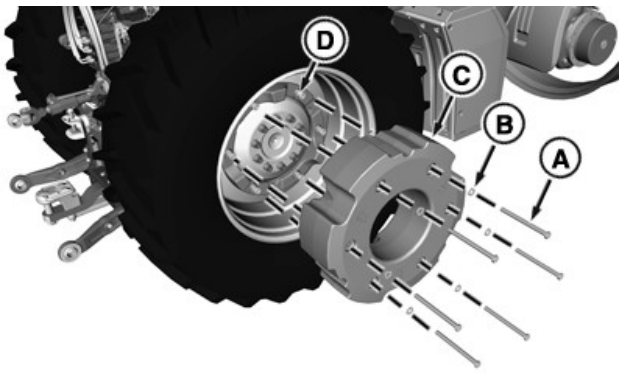


RXA0134904—UN—06AUG13

Outside View

2. Attach starter weight (D) to wheel using six cap screws and six nuts (E) with hex end facing starter weight. Tighten cap screws to 610 N·m (450 lb·ft).

CAUTION: Outer wheel weight is heavy 900 kg (1985 lb). Use proper hoist when installing or removing weight.



RXA0134905—UN—08AUG13

Outside View

3. Insert M20 x 260 cap screws (A) through washers (B) and outer weight (C) engaged with nut (D). Tighten cap screws to 610 N·m (450 lb-ft).
4. Repeat steps 1-3 for wheel on opposite side of tractor.

IMPORTANT: Drive tractor 100 meters (110 yd) and retighten bolts. Retighten bolts after working 3 hours, 10 hours, and daily for the first week of operation or until bolts do not move when retorqued.

GH15097,0000841-19-28AUG18

Liquid Ballast Use

CAUTION: Installing liquid ballast requires special equipment and training. See your John Deere dealer or a tire service store.

IMPORTANT: Never fill any tire to more than 90 percent. More solution could damage tires. Alcohol as liquid ballast is not recommended. Fill all rear tires on each axle to the same level and a maximum of 40%.

Water or calcium chloride solution can be used to provide economical ballast. Used properly, it will not damage tires, tubes, or rims. However, liquid ballast is not recommended as it causes: a stiffening effect resulting in harsh ride; difficulty in handling; spills if flats occur; and greater susceptibility to power hop when used in rear tires. Up to 75 percent fill can be used in MFWD front tires for weight or to provide stiffness to assist in power hop control. *Do this as a last alternative.*

Freezing points of calcium chloride and water mixture	
Mixture	**Freezing Point**
420 g/L (3.5 lb/gal)	-45 °C (-50 °F)
600 g/L (5.0 lb/gal)	-50 °C (-60 °F)

Tire Size	Front Tire: Calcium Chloride Mixture Ratio[a] kg (lb)			
	40% Fill		75% Fill	
	420 g/L (3.5/gal)	600 g/L (5.0/gal)	420 g/L (3.5/gal)	600 g/L (5.0/gal)
320/85R38	92 (203)	97 (214)	172 (379)	181 (399)
320/80R42 IF320/80R42	94 (207)	100 (220)	188 (414)	200 (440)
380/85R34	129 (284)	139 (307)	258 (568)	278 (614)
380/80R38 IF380/80R38	138 (304)	148 (326)	258 (569)	278 (613)
420/90R30	178 (392)	190 (419)	334 (735)	357 (787)
420/85R34 IF420/85R34 VF420/85R34	175 (386)	187 (413)	328 (723)	351 (774)
480/70R30	182 (400)	194 (427)	340 (750)	363 (800)
480/70R34	203 (448)	216 (476)	381 (840)	405 (893)
540/65R34	226 (498)	239 (527)	156 (344)	169 (373)
540/75R34	264 (582)	281 (619)	529 (1166)	563 (1241)
600/65R28	231 (509)	246 (543)	433 (954)	462 (1019)
600/70R30 IF600/70R30	307 (677)	326 (719)	575 (1268)	611 (1347)
600/65R34	281 (620)	300 (661)	563 (1241)	600 (1322)
620/75R30 IF620/75R30	332 (732)	354 (780)	665 (1466)	708 (1560)
650/60R34 IF650/60R34	270 (594)	288 (635)	540 (1189)	576 (1270)

[a]*Ballast amount for single tire*

Tire Size	Rear Tire: Calcium Chloride Mixture Ratio[a] kg (lb)	
	40% Fill	
	420 g/L (3.5 lb/gal)	600 g/L (5.0/gal)
320/90R54	138 (305)	258 (569)
320/105R54	157 (345)	167 (367)
380/90R50	195 (430)	206 (455)
380/90R54	194 (426)	205 (453)
480/80R46	274 (604)	293 (646)
480/80R50 IF480/80R50 VF480/80R50	288 (634)	308 (678)
480/95R50 IF480/95R50	361 (796)	384 (847)
520/85R42	349 (770)	371 (818)
520/85R46	375 (827)	400 (882)
620/70R42	411 (905)	439 (967)
620/70R46	421 (929)	451 (995)
650/85R38 IF650/85R38	561 (1237)	597 (1316)
650/65R42	401 (884)	429 (947)
710/70R38	495 (1092)	526 (1159)
710/70R42 IF710/70R42	558 (1231)	597 (1316)
710/75R42 IF710/75R42	580 (1279)	618 (1362)
800/70R38 IF800/70R38	650 (1433)	694 (1529)
IF900/60R42	705 (1552)	752 (1657)

[a]*Ballast amount for single tire*

GH15097,0000472-19-12OCT17

Implement and Tractor Codes

CAUTION: Avoid personal injury and equipment damage. Never transport implement without adequate front ballast as loss of steering control may result.

Do not overload tires and axles. Maintain required tire pressures and do not exceed axle limitations.

Use a scale to check static weight. Static weight with implement raised should be at least:

- **Fully-mounted implement - 50% of tractor weight on front axle with implement fully lowered;**
- **Semi-mounted implement - 60% of tractor weight on front axle with implement fully lowered.**

Tractor code must be greater than or equal to implement code.

Implement and tractor codes assist in the calculation of the required number of Quik-Tatch™ weights when using fully-mounted or semi-mounted implements. Tractor codes do not apply to tractors with front hitch or track tractors.

Fully-Mounted Implement

Calculations below based on tractor equipped with 420/85R34 front tires, 480/80R50 rear tires, and Category 3 hitch.

To calculate tractor code:

1. Find the implement code in the implement's Operator's Manual.
2. Locate the corresponding implement code on the chart below.
3. Add to the implement code relevant adjustments found at bottom of chart.
4. Final number is the tractor code required to operate the implement. Locate the resulting number in the implement code column on the chart below. Choose axle configuration to determine required quantity of Quick-Tatch™ weights.

To calculate implement codes for John Deere™ implements without implement codes or for non-John Deere™ implements:

1. Estimate implement center of gravity (find or estimate fore-and-aft balance point)
2. Measure distance from implement hitch point to center of gravity. Record the distance (inches). Add 37 to this figure.
3. Determine the implement weight (fully loaded). Record the weight (pounds).
4. Multiply Step 2 (distance) by Step 3 (weight). Divide result by 1000.
5. Final number is the implement code. Use this number to calculate tractor code.

<table>
<tr><th colspan="8">Fully-Mounted Implements</th></tr>
<tr><th rowspan="2">Implement Code</th><th colspan="3">Quik-Tatch™ Weights Required</th><th rowspan="2">Implement Code</th><th colspan="3">Quik-Tatch™ Weights Required</th></tr>
<tr><th>1300 MFWD</th><th>1500 MFWD</th><th>ILS™</th><th>1300 MFWD</th><th>1500 MFWD</th><th>ILS™</th></tr>
<tr><td>0-455</td><td rowspan="2">0[a]</td><td rowspan="6">0[a]</td><td rowspan="10">0[a]</td><td>591-605</td><td>18</td><td>10</td><td>4</td></tr>
<tr><td>456-470</td><td>606-620</td><td>20</td><td>12</td><td>6</td></tr>
<tr><td>471-485</td><td>2</td><td>621-635</td><td rowspan="9">22</td><td>14</td><td>8</td></tr>
<tr><td>486-500</td><td>4</td><td>636-650</td><td>16</td><td>10</td></tr>
<tr><td>501-515</td><td>6</td><td>651-665</td><td>18</td><td>12</td></tr>
<tr><td>516-530</td><td>8</td><td>666-680</td><td>20</td><td>14</td></tr>
<tr><td>531-545</td><td>10</td><td>2</td><td>681-695</td><td rowspan="4">22</td><td>16</td></tr>
<tr><td>546-560</td><td>12</td><td>4</td><td>696-710</td><td>18</td></tr>
<tr><td>561-575</td><td>14</td><td>6</td><td>711-725</td><td>20</td></tr>
<tr><td>576-590</td><td>16</td><td>8</td><td>2</td><td>726-740</td><td>22</td></tr>
<tr><td colspan="8"></td></tr>
<tr><td rowspan="5">Adjustments:
Add to implement code if:</td><td colspan="4">fluid is added to front inner tires (singles only):</td><td>70</td><td>70</td><td>70</td></tr>
<tr><td colspan="4">no fluid is added to front dual tires:</td><td>—</td><td>85</td><td>85</td></tr>
<tr><td colspan="4">fluid is added to front outer dual tires:</td><td>—</td><td>70</td><td>70</td></tr>
<tr><td colspan="4">quick-hitch is removed:</td><td>30</td><td>30</td><td>30</td></tr>
<tr><td colspan="8"></td></tr>
<tr><td colspan="7">Maximum tractor code</td><td>735</td><td>950</td><td>995</td></tr>
</table>

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[a]*Front weight support only*

Quik-Tatch is a trademark of Deere & Company

John Deere is a trademark of Deere & Company

Approximate Implement Code For A Given Implement Weight

See chart below for:

- John Deere™ implement Operator's Manual without implement code
- Non-John Deere™ implement

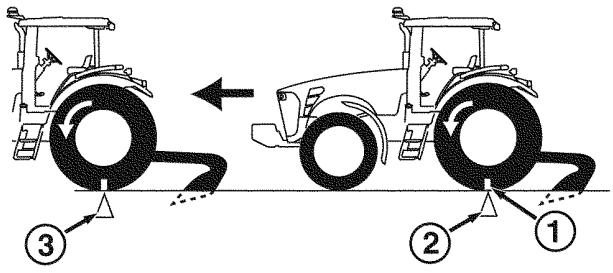
Refer to implement Operator's Manual for implement weight.

Approximate Implement Code For A Given Implement Weight					
Weight kg (lb)		Implement Code (Approximate)	Weight kg (lb)		Implement Code (Approximate)
Implement	Added to Rear Axle by Mounted Implement (Approximate)		Implement	Added to Rear Axle by Mounted Implement (Approximate)	
907 (2000)	1474 (3250)	120	3856 (8500)	6282 (13850)	520
1133 (2500)	1837 (4050)	155	4082 (9000)	6645 (14650)	520
1361 (3000)	2223 (4900)	185	4309 (9500)	7008 (15450)	580
1588 (3500)	2585 (5700)	215	4536 (10000)	7371 (16250)	610
1814 (4000)	2948 (6500)	245	4763 (10500)	7756 (17100)	640
2041 (4500)	3311 (7300)	275	4990 (11000)	8119 (17900)	670
2268 (5000)	3697 (8150)	305	5216 (11500)	8482 (18700)	700
2495 (5500)	4060 (8950)	335	5443 (12000)	8868 (19550)	730
2722 (6000)	4423 (9750)	365	5670 (12500)	9231 (20350)	765
2948 (6500)	4808 (10600)	395	5897 (13000)	9593 (21150)	795
3175 (7000)	5171 (11400)	425	6123 (13500)	9956 (21950)	825
3402 (7500)	5534 (12200)	460	6350 (14000)	10342 (22800)	855
3629 (8000)	5897 (13000)	490			

RX32825,0000549-19-13JUL18

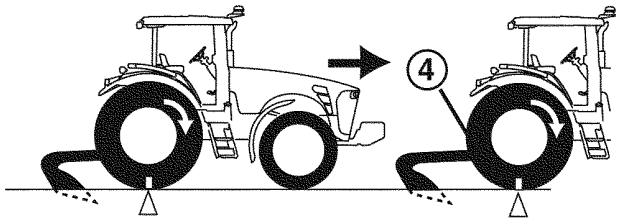
Measure Wheel Slip-Manually

NOTE: Tractors equipped with optional radar unit can automatically determine percentage of wheel slip. Radar must be calibrated correctly. (See CommandCenter™ section in this Operator's Manual).



RXA0117187—UN—13MAY11

1. Mark a rear tire.
2. Mark a starting point on ground with tractor moving and implement lowered in ground.
3. Follow tractor and mark ground again where marked tire completes ten full revolutions.



RXA0117188—UN—13MAY11

4. Repeat procedure with implement raised at same working speed. Count revolutions between same two marks.
5. Use second count and chart to determine slippage.

NOTE: 8—12% is ideal for tractors with MFWD engaged.

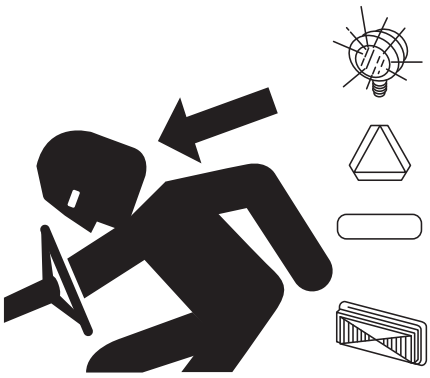
6. Adjust ballast or load to give correct slippage.

NOTE: Available horsepower is greatly reduced when wheel slip drops below minimum percent.

Wheel Slippage Chart		
Wheel Revolutions (Step 4)	**% Slip**	**Action**
10	0	Remove Ballast
9-1/2	5	
9	10	Correct Ballast
8-1/2	15	Add Ballast
8	20	
7-1/2	25	
7	30	

GH15097,0000475-19-20JUL17

Drive Tractor on Roads



RXA0086597—UN—09FEB06

CAUTION: Avoid personal injury or death from losing control of tractor. When driving tractor on roads:

- **Wear seat belts.**
- **Latch brake pedals together.**
- **If equipped, use foot throttle instead of speed control lever.**
- **Reduce speed when driving on icy, wet, or graveled surfaces.**
- **Ballast tractor correctly (see Performance Ballasting section in this Operator's Manual).**
- **Prevent wheels from locking and skidding on tractors equipped with IVT™/AutoPowr™ transmission. (See Downhill Operation In Slippery Conditions, in IVT™/AutoPowr™ Transmission section in this Operator's Manual).**
- **Avoid holes, ditches, sharp turns, hill sides, and obstructions which may cause tractor to roll over.**
- **Frequently check for traffic from the rear, especially in turns, and use turn signal lights.**
- **Always operate flashing lights when traveling on a highway or public roads, except where prohibited by law.**

Lights—Use headlights and turn signals day and night. Follow local regulations for equipment lighting and marking. Keep lighting and marking visible and in good working order. Replace or repair lighting and marking that has been damaged or lost. An implement safety lighting kit is available from your John Deere dealer.

IMPORTANT: Damage to brakes could result if brake pedals are not locked together during transport when using AutoClutch.

Brakes—Tap brake pedal to ensure differential lock is NOT engaged. **Latch brake pedals together before driving on a road**. Avoid hard application of brakes.

MFWD—Disengage MFWD when transporting tractor. When driving on roads, engage AUTO or BRAKE ASSIST position of MFWD switch to provide four wheel braking.

Remote Cylinders—Position control levers appropriately to eliminate possibility of lowering an implement during transport by inadvertently bumping control lever(s). (See procedure in Selective Control Valves section in this Operator's Manual.)

Front or Rear Hitch—Position hitch control lever appropriately to eliminate possibility of lowering an implement during transport by inadvertently bumping raise/lower lever. (See procedure in Front and Rear Hitch sections in this Operator's Manual.)

TS36762,000026C-19-05SEP17

Transport with Ballast

CAUTION: Avoid possible injury or equipment damage when transporting heavy rear-mounted implements.

- **Drive slowly over rough ground, regardless of how much ballast is used.**
- **Add weight to front end if needed to maintain stability and steering control. Heavy pulling and heavy rear-mounted implements tend to lift front wheels.**

Use implement code in implement operator's manual to determine the minimum number of front weights required.

TS36762,000026D-19-22NOV16

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Tow Loads

CAUTION: Avoid possible injury from losing control while towing a load. Stopping distance increases with speed and weight of towed loads, and on slopes.

Tractor wheels may lock and skid on slippery downhill slopes on tractors equipped with IVT™/AutoPowr™ transmission. See Downhill Operation In Slippery Conditions, in IVT™/ AutoPowr™ Transmission section of this Operator's Manual.

Never transport at speeds exceeding implement's maximum transport speed. Before transporting a towed implement, refer to implement operator's manual and implement decals to determine maximum transport speed. This tractor is capable of operating at transport speeds exceeding maximum allowable transport speed for most towed implements. Use implement code in implement operator's manual to determine minimum number of front weights required. Failure to adhere to implement's maximum transport speed or to have correct ballast can result in:

- **Loss of control of tractor/implement combination**
- **Reduced or no ability to stop during braking**
- **Implement tire failure**
- **Damage to implement structure or components**

When towing equipment without brakes:

- **Do not transport at speeds greater than 32 km/h (20 mph).**
- **Towed device must weigh less than 1.5 times ballasted tractor weight.**

When towing equipment with brakes:

- **If manufacturer does not specify a maximum transport speed, do not transport at speeds above 40 km/h (24.8 mph).**
- **When transporting at speeds up to 40 km/h (24.8 mph) the fully loaded implement must weigh less than 4.5 times tractor weight.**
- **When transporting at speeds between 40 km/ h (24.8 mph) to 50 km/h (31 mph), fully loaded implement must weigh less than 3 times the tractor weight.**

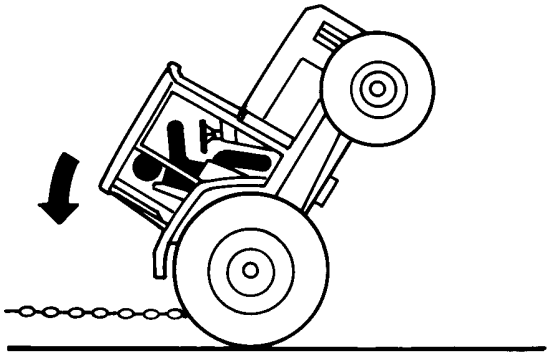
Tractor must be heavy and powerful enough with adequate braking power for towed load. Add ballast to tractor or lighten implement load.

Drive slowly enough to maintain safe control. Be alert for skids. Shift to a lower gear for hillsides, rough ground, and sharp turns, especially when transporting heavy equipment.

Never operate with transmission in neutral position or with clutch disengaged.

TS36762,000026E-19-14DEC16

Freeing a Mired Machine



TS1645—UN—15SEP95

TS263—UN—23AUG88

Attempting to free a mired machine can involve safety hazards such as the mired tractor tipping rearward, the towing tractor overturning, and the tow chain or tow bar (a cable is not recommended) failing and recoiling from its stretched condition.

Back your tractor out if it gets mired down in mud. Unhitch any towed implements. Dig mud from behind the rear wheels. Place boards behind the wheels to provide a solid base and try to back out slowly. If necessary, dig mud from the front of all wheels and drive slowly ahead.

If necessary to tow with another unit, use a tow bar or a long chain (a cable is not recommended). Inspect the chain for flaws. Make sure all parts of towing devices are of adequate size and strong enough to handle the load.

Always hitch to the drawbar of the towing unit. Do not hitch to the front pushbar attachment point. Before moving, clear the area of people. Apply power smoothly

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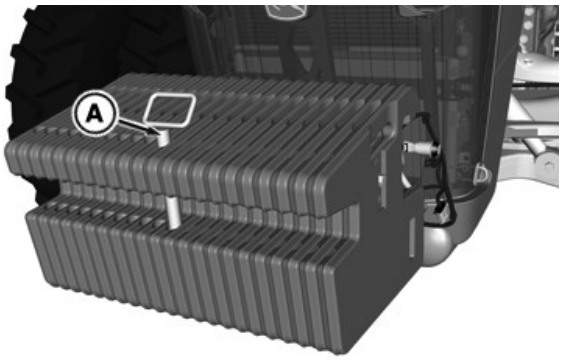
to take up the slack: a sudden pull could snap any towing device causing it to whip or recoil dangerously.

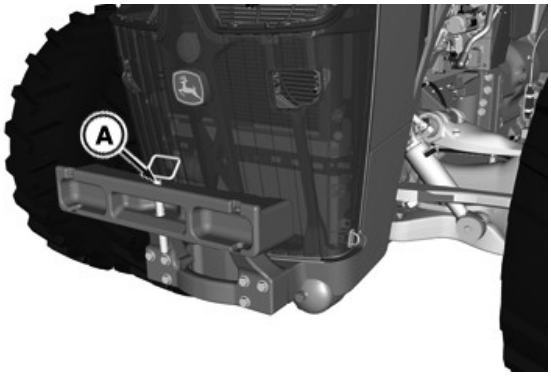
DX,MIRED-19-07JUL99

Tow Points



RXA0143598—UN—21JUL14

Tow Point-With Front Weights



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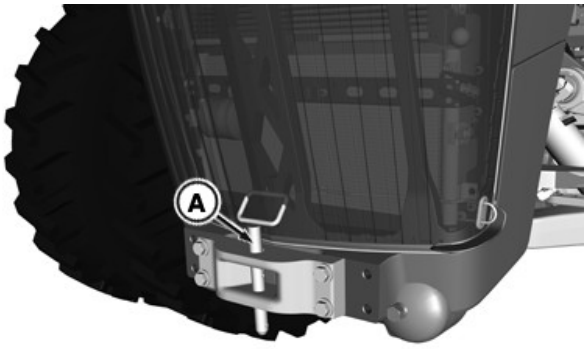
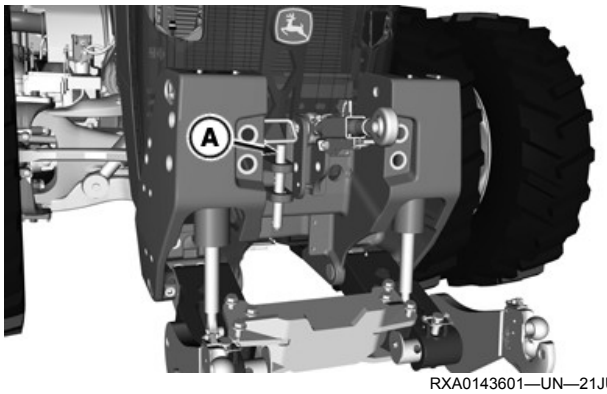
Tow Point-Front Weight Support



RXA0143600—UN—21JUL14

Tow Point-No Weights



RXA0143601—UN—21JUL14

Tow Point-Front Hitch

A—Pin

CAUTION: The methods of hitching shown here may be used for maneuvering and towing on hard-surfaced roads only. Before the tractor is towed by tow points, remove any trailers or mounted implements.

Never use a tow-rope; always use an approved towbar.

Tow points are integrated into front end of tractor to allow tractor to be maneuvered and towed on hard-surfaced roads.

SV81855,00002CB-19-13OCT14

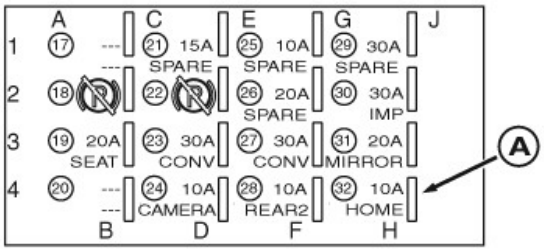
Tow Mode

NOTE: If tractor must be moved immediately, pulling tractor a short distance while tractor is in PARK will not damage brake system.

Before tractor can be towed, park brake must be released, if possible.

Activating backup mode allows tractor to be operated at a maximum of 8 km/h (5 mph) in forward position and 3 km/h (1.8 mph) in reverse.

If tractor loses electrical power, park brake can re-engage. If tractor has no electrical power, a 100 Amp electrical source must be connected, see Use Battery Booster Or Charger in Engine Operation Section of this Operator's Manual.



RXA0155566—UN—09NOV16

NOTE: Removing # 32 fuse (A) diverts hydraulic oil through backup pump which supplies hydraulic oil to brakes and steering. Tractor can safely be moved short distances at lower speeds.

Fold seat backrest down to allow easier access and allow cab lighting to shine on load center when fuses are being inspected, replaced, or removed.

1. Remove fuse # 32 (A) and retain.
2. Turn key switch to RUN position.

NOTE: When tractor is placed in neutral, operator will hear backup pump start. As long as tractor is in Neutral any movement of brake pedals or steering wheel will engage backup pump to supply hydraulic oil as needed.

3. Place tractor in Neutral.

NOTE: When tractor is in park, P is displayed on corner post display. When placed in Neutral, corner post display will show "N", tractor is ready to tow.

4. Verify transmission is in Neutral by looking at corner post display.

NOTE: If after placing tractor in Neutral, corner post display still displays "P", contact your John Deere dealer for assistance.

5. Steering and braking are supplied by backup pump.
6. When destination is reached, put transmission shift lever in PARK position.
7. Turn key switch to OFF position.
8. Replace removed fuse # 32 to original location.

TS36762,0000273-19-04APR18

Towing Tractor

CAUTION: Avoid personal injury or death. Disconnect MFWD or ILS™ (Independent Link Suspension) drive shaft(s) if towing tractor with front wheels on a carrier. Loss of electrical power or transmission/hydraulic system pressure will engage MFWD and pull tractor off carrier, even with switch in DISENGAGED position.

If you have ACS™ and hydraulic oil temperature is less than -10° C (14° F), backup pump will not turn on. Tractor will not have brakes or steering. If tractor still must be moved, contact your John Deere dealer for assistance.

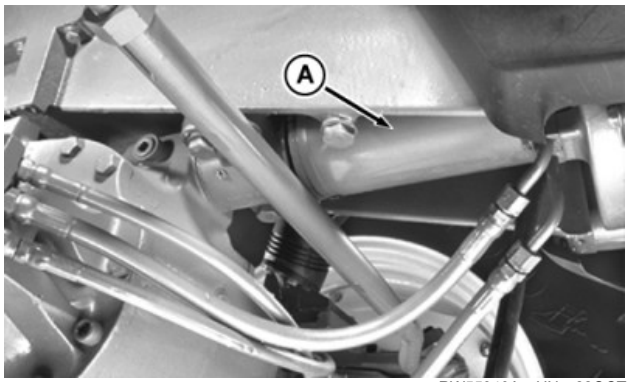
IMPORTANT: Avoid transmission and drive train component damage:

- **Never attempt to start tractor by towing. Engine will not start.**
- **If possible, operate engine above 1250 rpm to provide lubrication, power steering and power brakes.**
- **Do not tow a tractor faster than 8 km/h (5 mph). Do not exceed 3 km/h (2 mph) for first 10 minutes in below freezing temperatures.**
- **Check transmission/hydraulic oil level. Add 4 L (1 gal.) for each 152 mm (6 in.) front wheels are raised off ground. Do not raise wheels more than 305 mm (12 in.). Drain excess oil after transporting.**

Towing Tractor with Front Wheels on a Carrier

IMPORTANT: Check transmission/hydraulic oil level. Add 4 L (1 gal.) for each 152 mm (6 in.) front wheels are raised off ground. Do not raise wheels more than 305 mm (12 in.). Drain excess oil after transporting.

MFWD AXLE:



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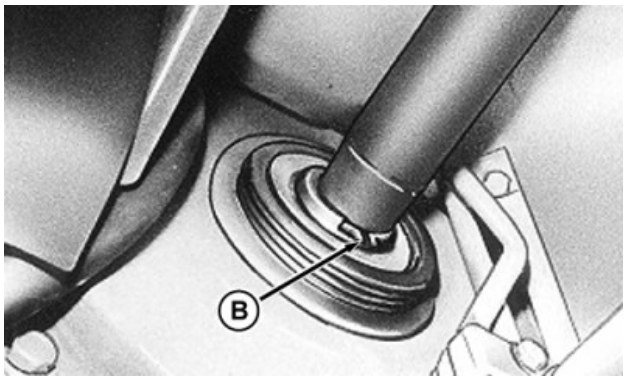
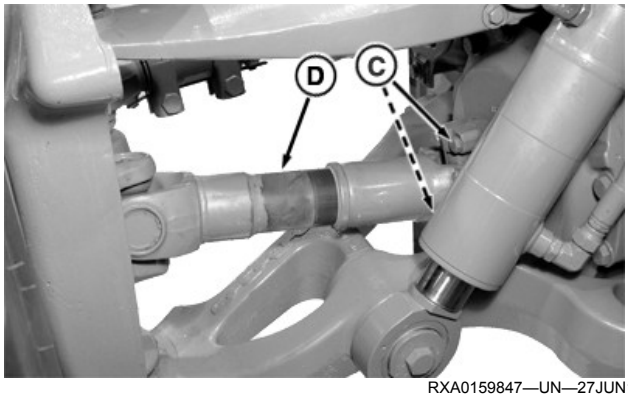


RW55350A—UN—22OCT99

- Remove drive shaft shield (A). Spread snap ring (B) and slide shaft forward from clutch.
- Install cap plug in clutch housing to protect from dirt.

INDEPENDENT LINK SUSPENSION:



RXA0159847—UN—27JUN17

- Remove top and bottom cap screws (C) from each side of drive shaft yoke.
- Collapse each drive shaft (D) to minimum length.
- Suspend each drive shaft using a sling.

Momentarily depress brake pedals to make sure differential lock is not engaged.

GH15097,00004BD-19-27JUN17

Transporting on Flat-Bed Carrier

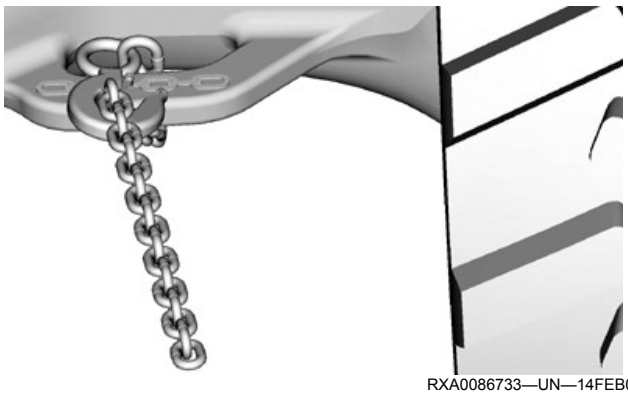
CAUTION: To avoid accident or injury, securely chain the tractor to carrier. Attach chain ONLY to tractor components indicated. DRIVE CAREFULLY.

IMPORTANT: A disabled tractor should be hauled on a flat-bed carrier.

Engage PARK position.

NOTE: If park brake has been disengaged, engage park brake. See Tow Tractor in this section of this Operator's Manual.

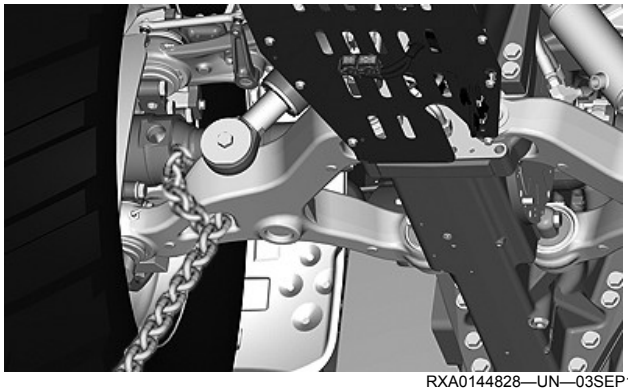
MFWD Axle:



RXA0086733—UN—14FEB06

Attach chain to tie down loops on each side of the axle and secure to carrier.

ILS™ (Independent Link Suspension) Axle:



RXA0144828—UN—03SEP14

IMPORTANT: Attach chain to lower support arm only. Attaching chain at any other point could cause component damage.

NOTE: Suspension does NOT have to be collapsed for transporting tractor.

Attach chain to outer lower support arm on each side of axle and secure to carrier.

SV81855,0000013-19-27JUN17

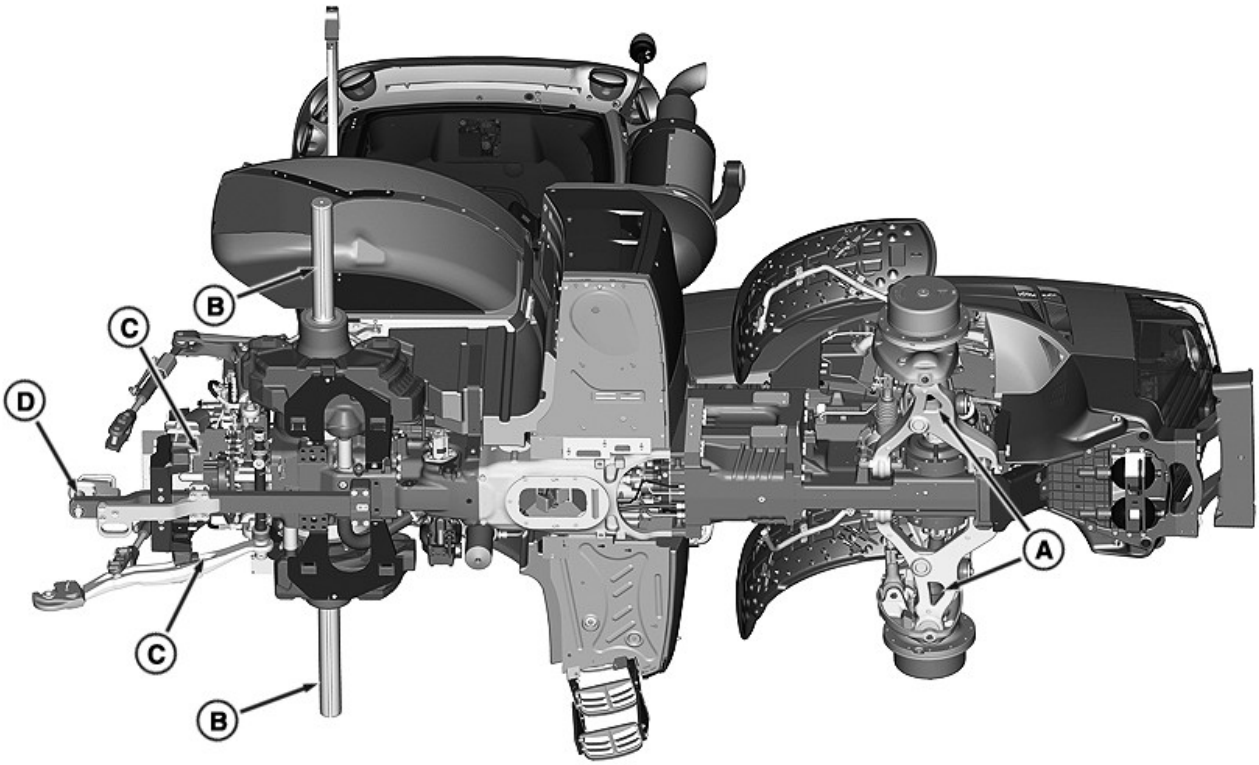
Tie Down on Transport Carrier

Suspended Axles

CAUTION: Avoid accident or injury, use tie down devices to secure tractor to carrier. Drive carefully.

IMPORTANT: Avoid tractor damage. Haul disabled tractor on a flat-bed carrier whenever possible.

Transport Regulations vary - contact your local transportation officials for your local transportation requirements.



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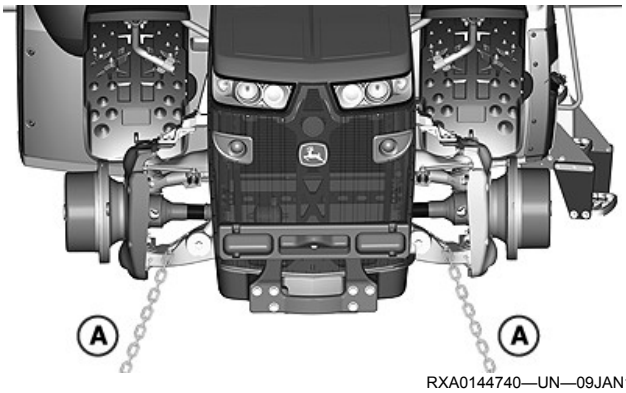

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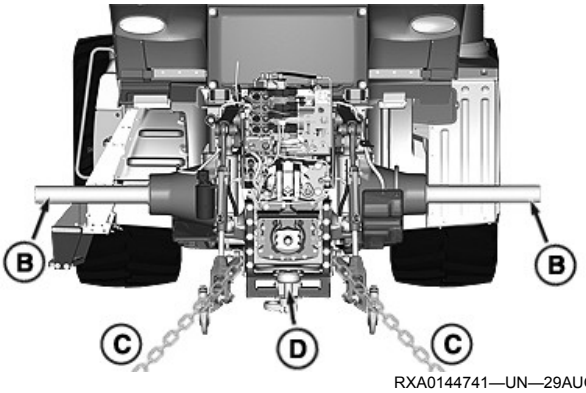

RXA0144741—UN—29AUG14

Attach tie down devices to ILS™ lower control arms (A), rear axles (B), hitch casting (C) and drawbar pin (D) as required per local regulations.

Non-Suspended Axles

CAUTION: Avoid accident or injury, use tie down devices to secure tractor to carrier. Drive carefully.

IMPORTANT: Avoid tractor damage. Haul disabled tractor on a flat-bed carrier whenever possible.

Transport Regulations vary - contact your local transportation officials for your local transportation requirements.

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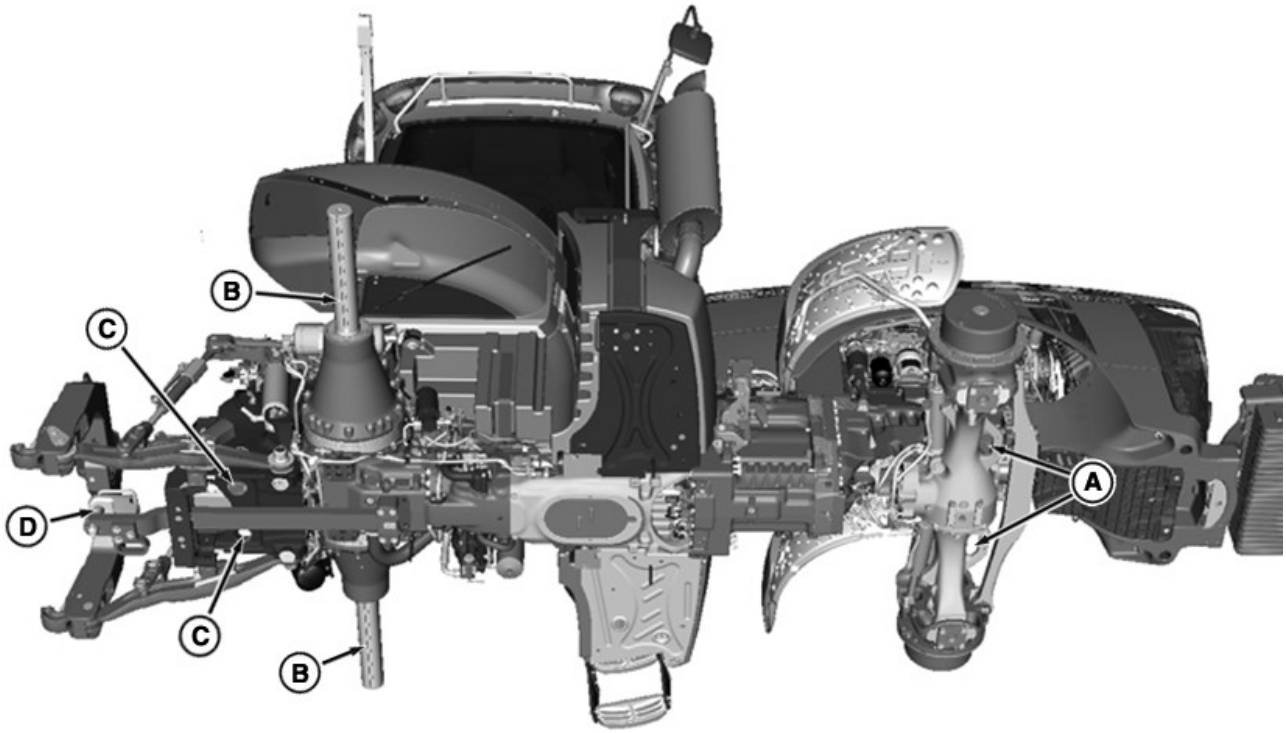

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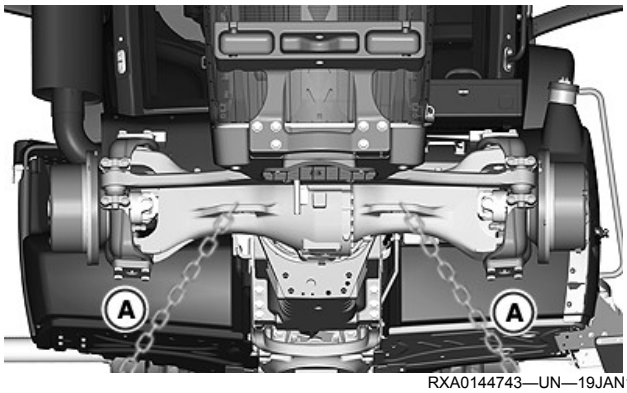

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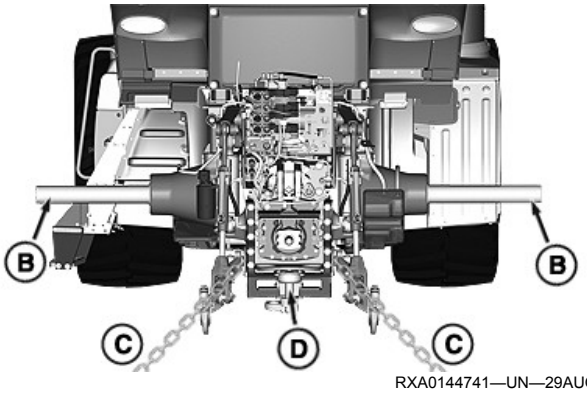


RXA0144741—UN—29AUG14

Attach tie down devices to front axle loops (A), rear axles (B), hitch casting (C) and drawbar pin (D) as required per local regulations.

EC82310,0000415-19-07AUG17

Determine Tractor Engine Type

IMPORTANT: To determine tractor engine type, see Engine Serial Number in Identification Numbers section of this Operator's Manual.

Correct engine oil specification and oil change interval is determined by a number of factors. One important consideration is type of engine aftertreatment installed. To determine engine type, see Engine Serial Number in Identification Numbers section of this Operator's Manual.

RX32825,0001798-19-14DEC16

Minimizing the Effect of Cold Weather on Diesel Engines

John Deere diesel engines are designed to operate effectively in cold weather.

However, for effective starting and cold-weather operation, a little extra care is necessary. The following information outlines steps that can minimize the effect that cold weather may have on starting and operation of your engine. See your John Deere dealer for additional information and local availability of cold-weather aids.

Use Winter Grade Fuel

When temperatures fall below 0°C (32°F), winter grade fuel (No. 1-D in North America) is best suited for cold-weather operation. Winter grade fuel has a lower cloud point and a lower pour point.

Cloud point is the temperature at which wax begins to form in the fuel. This wax causes fuel filters to plug. **Pour point** is the lowest temperature at which movement of the fuel is observed.

NOTE: On average, winter grade diesel fuel has a lower Btu (heat content) rating. Using winter grade fuel may reduce power and fuel efficiency, but should not cause any other engine performance effects. Check the grade of fuel being used before troubleshooting for low-power complaints in cold-weather operation.

Air Intake Heater

An air intake heater is an available option for some engines to aid cold weather starting.

Ether

An ether port on the intake is available to aid cold weather starting.

CAUTION: Ether is highly flammable. Do not use ether when starting an engine equipped with glow plugs or an air intake heater.

Coolant Heater

An engine block heater (coolant heater) is an available option to aid cold weather starting.

Seasonal Viscosity Oil and Proper Coolant Concentration

Use seasonal grade viscosity engine oil based on the expected air temperature range between oil changes and a proper concentration of low silicate antifreeze as recommended. (See DIESEL ENGINE OIL and ENGINE COOLANT requirements in this section.)

Diesel Fuel Cold Flow Additive

Use John Deere Fuel-Protect Diesel Fuel Conditioner (winter formula), which contains anti-gel chemistry, or equivalent fuel conditioner to treat non-winter grade fuel (No. 2-D in North America) during the cold-weather season. This generally extends operability to about 10°C (18°F) below the fuel cloud point. For operability at even lower temperatures, use winter grade fuel.

IMPORTANT: Treat fuel when outside temperature drops below 0°C (32°F). For best results, use with untreated fuel. Follow all recommended instructions on label.

Biodiesel

When operating with biodiesel blends, wax formation can occur at warmer temperatures. Begin using John Deere Fuel-Protect Diesel Fuel Conditioner (winter formula) or equivalent at 5°C (41°F) to treat biodiesel fuels during the cold-weather season. Use B5 or lower blends at temperatures below 0°C (32°F). Use only winter grade petroleum diesel fuel at temperatures below -10°C (14°F).

Winterfronts

Use of fabric, cardboard, or solid winterfronts is not recommended with any John Deere engine. Their use can result in excessive engine coolant, oil, and charge air temperatures. This can lead to reduced engine life, loss of power and poor fuel economy. Winterfronts may also put abnormal stress on fan and fan drive components potentially causing premature failures.

If winterfronts are used, they should never totally close off the grill frontal area. Approximately 25% area in the center of the grill should remain open at all times. At no time should the air blockage device be applied directly to the radiator core.

Radiator Shutters

If equipped with a thermostatically controlled radiator shutter system, this system should be regulated in such a way that the shutters are completely open by the time the coolant reaches 93°C (200°F) to prevent excessive intake manifold temperatures. Manually controlled systems are not recommended.

If air-to-air aftercooling is used, the shutters must be

completely open by the time the intake manifold air temperature reaches the maximum allowable temperature out of the charge air cooler.

For more information, see your John Deere dealer.

DX,FUEL10-19-13JAN18

Oil Filters

Filtration of oils is critically important for proper operation and lubrication. John Deere brand oil filters have been designed and produced specifically for John Deere applications.

John Deere filters adhere to engineering specifications for quality of the filter media, filter efficiency rating, strength of the bond between the filter media and the element end cap, fatigue life of the canister (if applicable), and pressure capability of the filter seal. Non-John Deere branded oil filters might not meet these key John Deere specifications.

Always change oil filters regularly as specified in this manual.

DX,FILT1-19-11APR11

Diesel Fuel

Consult your local fuel distributor for properties of the diesel fuel available in your area.

In general, diesel fuels are blended to satisfy the low temperature requirements of the geographical area in which they are marketed.

Diesel fuels specified to EN 590 or ASTM D975 are recommended. Renewable diesel fuel produced by hydrotreating animal fats and vegetable oils is basically identical to petroleum diesel fuel. Renewable diesel that meets EN 590, ASTM D975, or EN 15940 is acceptable for use at all percentage mixture levels.

Required Fuel Properties

In all cases, the fuel shall meet the following properties:

Cetane number of 40 minimum. Cetane number greater than 47 is preferred, especially for temperatures below –20 °C (–4 °F) or elevations above 1675 m (5500 ft.).

Cloud Point should be below the expected lowest ambient temperature or **Cold Filter Plugging Point** (CFPP) should be a maximum 10°C (18°F) below the fuel cloud point.

Fuel lubricity should pass a maximum scar diameter of 0.52 mm as measured by ASTM D6079 or ISO 12156-1. A maximum scar diameter of 0.45 mm is preferred.

Diesel fuel quality and sulfur content must comply with all existing emissions regulations for the area in which the engine operates. DO NOT use diesel fuel with sulfur content greater than 10 000 mg/kg (10 000 ppm).

E-Diesel fuel

DO NOT use E-Diesel (Diesel fuel and ethanol blend). Use of E-Diesel fuel in any John Deere machine may void the machine warranty.

CAUTION: Avoid severe injury or death due to the fire and explosion risk from using E-Diesel fuel.

Sulfur content for Interim Tier 4, Final Tier 4, Stage III B, Stage IV Engines, and Stage V engines

- Use ONLY ultra low sulfur diesel (ULSD) fuel with a maximum of 15 mg/kg (15 ppm) sulfur content.

Sulfur Content for Tier 3 and Stage III A Engines

- Use of diesel fuel with sulfur content less than 1000 mg/kg (1000 ppm) is RECOMMENDED.
- Use of diesel fuel with sulfur content 1000—2000 mg/kg (1000—2000 ppm) REDUCES the oil and filter change interval.
- BEFORE using diesel fuel with sulfur content greater than 2000 mg/kg (2000 ppm), contact your John Deere dealer.

Sulfur Content for Tier 2 and Stage II Engines

- Use of diesel fuel with sulfur content less than 2000 mg/kg (2000 ppm) is RECOMMENDED.
- Use of diesel fuel with sulfur content 2000—5000 mg/kg (2000—5000 ppm) REDUCES the oil and filter change interval.[1]
- BEFORE using diesel fuel with sulfur content greater than 5000 mg/kg (5000 ppm), contact your John Deere dealer.

Sulfur Content for Other Engines

- Use of diesel fuel with sulfur content less than 5000 mg/kg (5000 ppm) is RECOMMENDED.
- Use of diesel fuel with sulfur content greater than 5000 mg/kg (5000 ppm) REDUCES the oil and filter change interval.

IMPORTANT: Do not mix used diesel engine oil or any other type of lubricating oil with diesel fuel.

Improper fuel additive usage may cause damage on fuel injection equipment of diesel engines.

DX,FUEL1-19-13JAN18

Supplemental Diesel Fuel Additives

Diesel fuel can be the source of performance or other operational problems for many reasons. Some causes include poor lubricity, contaminants, low cetane number, and a variety of properties that cause fuel system deposits. These and others are referenced in other sections of this Operator's Manual.

To optimize engine performance and reliability, closely follow recommendations on fuel quality, storage, and handling, which are found elsewhere in this Operator's Manual.

To further aid in maintaining performance and reliability of the engine's fuel system, John Deere has developed a family of fuel additive products for most global markets. The primary products include Fuel-Protect Diesel Fuel Conditioner (full feature conditioner in winter and summer formulas) and Fuel-Protect Keep Clean (fuel injector deposit removal and prevention). Availability of these and other products varies by market. See your local John Deere dealer for availability and additional information about fuel additives that might be right for your needs.

DX,FUEL13-19-07FEB14

Biodiesel Fuel

Biodiesel fuel is comprised of monoalkyl esters of long

[1] *See DX,ENOIL12,OEM, DX,ENOIL12,T2,STD, or DX,ENOIL12,T2,EXT for more information on Engine Oil and Filter Service Intervals.*

chain fatty acids derived from vegetable oils or animal fats. Biodiesel blends are biodiesel mixed with petroleum diesel fuel on a volume basis.

Before using fuel containing biodiesel, review the Biodiesel Use Requirements and Recommendations in this Operator's Manual.

Environmental laws and regulations can encourage or prohibit the use of biofuels. Operators should consult with appropriate governmental authorities prior to using biofuels.

John Deere Stage V Engines Operating in the European Union

Where the engine is to be operated within the Union on diesel or non-road gas-oil, a fuel with a FAME content not greater than 8% volume/volume (B8) shall be used.

John Deere Engines with Exhaust Filter Except Stage V Engines Operating in the European Union

Biodiesel blends up to B20 can be used ONLY if the biodiesel (100% biodiesel or B100) meets ASTM D6751, EN 14214, or equivalent specification. Expect a 2% reduction in power and a 3% reduction in fuel economy when using B20.

Biodiesel concentrations above B20 can harm the engine's emission control systems and should not be used. Risks include, but are not limited to, more frequent stationary regeneration, soot accumulation, and increased intervals for ash removal.

John Deere Fuel conditioners or equivalent, which contain detergent and dispersant additives, are required when using biodiesel blends from B10 to B20, and are recommended when using lower biodiesel blends.

John Deere Engines Without Exhaust Filter

Biodiesel blends up to B20 can be used ONLY if the biodiesel (100% biodiesel or B100) meets ASTM D6751, EN 14214, or equivalent specification. Expect a 2% reduction in power and a 3% reduction in fuel economy when using B20.

These John Deere engines can operate on biodiesel blends above B20 (up to 100% biodiesel). Operate at levels above B20 ONLY if the biodiesel is permitted by law and meets the EN 14214 specification (primarily available in Europe). Engines operating on biodiesel blends above B20 might not fully comply with or be permitted by all applicable emissions regulations. Expect up to a 12% reduction in power and an 18% reduction in fuel economy when using 100% biodiesel.

John Deere fuel conditioners or equivalent, which contain detergent and dispersant additives, are required when using biodiesel blends from B10 to B100, and are recommended when using lower biodiesel blends.

Biodiesel Use Requirements and Recommendations

The petroleum diesel portion of all biodiesel blends must meet the requirements of ASTM D975 (US) or EN 590 (EU) commercial standard.

Biodiesel users in the U.S. are strongly encouraged to purchase biodiesel blends from a BQ-9000 Certified Marketer and sourced from a BQ-9000 Accredited Producer (as certified by the National biodiesel Board). Certified Marketers and Accredited Producers can be found at the following website: http://www.bq9000.org.

Biodiesel contains residual ash. Ash levels exceeding the maximums allowed in either ASTM D6751 or EN14214 can result in more rapid ash loading and require more frequent cleaning of the Exhaust Filter (if present).

The fuel filter can require more frequent replacement when using biodiesel fuel, particularly if switching from diesel. Check engine oil level daily prior to starting engine. A rising oil level can indicate fuel dilution of the engine oil. Biodiesel blends up to B20 must be used within 90 days of the date of biodiesel manufacture. Biodiesel blends above B20 must be used within 45 days from the date of biodiesel manufacture.

When using biodiesel blends up to B20, the following must be considered:

- Cold-weather flow degradation
- Stability and storage issues (moisture absorption, microbial growth)
- Possible filter restriction and plugging (usually a problem when first switching to biodiesel on used engines)
- Possible fuel leakage through seals and hoses (primarily an issue with older engines)
- Possible reduction of service life of engine components

Request a certificate of analysis from your fuel distributor to ensure that the fuel is compliant with the specifications provided in this Operator's Manual.

Consult your John Deere dealer for John Deere fuel products to improve storage and performance with biodiesel fuels.

The following must also be considered if using biodiesel blends above B20:

- Possible coking or blocked injector nozzles, resulting in power loss and engine misfire if John Deere fuel additives and conditioners or equivalent containing detergent/dispersants are not used
- Possible crankcase oil dilution (requiring more frequent oil changes)
- Possible lacquering or seizure of internal components
- Possible formation of sludge and sediments
- Possible thermal oxidation of fuel at elevated temperatures
- Possible compatibility issues with other materials

(including copper, lead, zinc, tin, brass, and bronze) used in fuel handling, distribution, and storage equipment
- Possible reduction in water separator efficiency
- Possible damage to paint if exposed to biodiesel
- Possible corrosion of fuel injection equipment
- Possible elastomeric seal and gasket material degradation (primarily an issue with older engines)
- Possible high acid levels within fuel system
- Because biodiesel blends above B20 contain more ash, using blends above B20 can result in more rapid ash loading and require more frequent cleaning of the Exhaust Filter (if present)

IMPORTANT: Raw pressed vegetable oils are NOT acceptable for use as fuel in any concentration in John Deere engines. Their use could cause engine failure.

DX,FUEL7-19-13JAN18

Lubricity of Diesel Fuel

Most diesel fuels manufactured in the United States, Canada, and the European Union have adequate lubricity to ensure proper operation and durability of fuel injection system components. However, diesel fuels manufactured in some areas of the world may lack the necessary lubricity.

IMPORTANT: Make sure the diesel fuel used in your machine demonstrates good lubricity characteristics.

Fuel lubricity should pass a maximum scar diameter of 0.52 mm as measured by ASTM D6079 or ISO 12156-1. A maximum scar diameter of 0.45 mm is preferred.

If fuel of low or unknown lubricity is used, add John Deere Fuel-Protect Diesel Fuel Conditioner (or equivalent) at the specified concentration.

Lubricity of BioDiesel Fuel

Fuel lubricity can improve significantly with BioDiesel blends up to B20 (20% BioDiesel). Further increase in lubricity is limited for BioDiesel blends greater than B20.

DX,FUEL5-19-07FEB14

Handling and Storing Diesel Fuel

CAUTION: Reduce the risk of fire. Handle fuel carefully. DO NOT fill the fuel tank when engine is running. DO NOT smoke while you fill the fuel tank or service the fuel system.

Fill the fuel tank at the end of each day's operation to prevent water condensation and freezing during cold weather.

Keep all storage tanks as full as practical to minimize condensation.

Ensure that all fuel tank caps and covers are installed properly to prevent moisture from entering. Monitor water content of the fuel regularly.

When using biodiesel fuel, the fuel filter may require more frequent replacement due to premature plugging.

Check engine oil level daily prior to starting engine. A rising oil level may indicate fuel dilution of the engine oil.

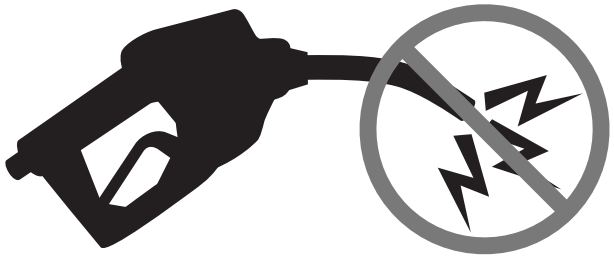
IMPORTANT: The fuel tank is vented through the filler cap. If a new filler cap is required, always replace it with an original vented cap.

When fuel is stored for an extended period or if there is a slow turnover of fuel, add a fuel conditioner to stabilize the fuel. Keeping the free water drained and treating the bulk fuel storage tank quarterly with a maintenance dose of a biocide will prevent microbial growth. Contact your fuel supplier or John Deere dealer for recommendations.

DX,FUEL4-19-13JAN18

Avoid Static Electricity Risk When Refueling

RG22142—UN—17MAR14



RG21992—UN—21AUG13

The removal of sulfur and other compounds in Ultra-Low

Sulfur Diesel (ULSD) fuel decreases its conductivity and increases its ability to store a static charge.

Refineries may have treated the fuel with a static dissipating additive. However, there are many factors that can reduce the effectiveness of the additive over time.

Static charges can build up in ULSD fuel while it is flowing through fuel delivery systems. Static electricity discharge when combustible vapors are present could result in a fire or explosion.

Therefore, it is important to ensure that the entire system used to refuel your machine (fuel supply tank, transfer pump, transfer hose, nozzle, and others) is properly grounded and bonded. Consult with your fuel or fuel system supplier to ensure that the delivery system is in compliance with fueling standards for proper grounding and bonding practices.

DX,FUEL,STATIC,ELEC-19-12JUL13

Fill Fuel Tank

TS202—UN—23AUG88

CAUTION: Handle fuel with care: It is highly flammable. Do not refuel the machine while smoking or when near open flame or sparks.

Always stop engine before refueling machine. Fill fuel tank outdoors.

Prevent fires by keeping machine clean of accumulated trash, grease, and debris. Always clean up spilled fuel.

IMPORTANT: To confirm which engine your tractor is equipped with, see Engine Serial Number in Identification Numbers section of this Operator's Manual.

IMPORTANT: To prevent damage to tractor fuel injection system and other components, never put Diesel Exhaust Fluid (DEF) into fuel tank or fuel system.

RXA0151072—UN—25FEB16

IMPORTANT: For machines with Final Tier 4/Stage V engine, use only ultra low sulfur fuel as specified on decal (A). For other machines, see Diesel Fuel in this section of this Operator's Manual.

IMPORTANT: For machines with Final Tier 4/Stage V engine, best practice is to refill DEF tank each fuel tank is refilled to assure sufficient DEF is always available. See Refilling Diesel Exhaust Fluid (DEF) Tank in Diesel Exhaust Fluid (DEF) section of this Operator's Manual.

Watch fuel level. Low fuel indicator on corner post fuel display will flash when approximately 39 L (10 gal.) of fuel remains. Regardless of fuel level, fill fuel tank at end of each day to prevent condensation in tank. Condensation can be produced when trapped moist air cools. Use fuel as specified for machine's engine.

To open fuel tank cap (B), lift latch lever and turn 90° counterclockwise, then lift fuel cap from filler neck. Replace and securely latch cap after fueling is complete.

RX32825,0000424-19-16JUL18

Testing Diesel Fuel

A fuel analysis program can help to monitor the quality of diesel fuel. The fuel analysis can provide critical data such as calculated cetane index, fuel type, sulfur content, water content, appearance, suitability for cold weather operations, bacteria, cloud point, acid number, particulate contamination, and whether the fuel meets ASTM D975 or equivalent specification.

Contact your John Deere dealer for more information on diesel fuel analysis.

DX,FUEL6-19-13JAN18

Fuel Filters

The importance of fuel filtration cannot be overemphasized with modern fuel systems. The combination of increasingly restrictive emission regulations and more efficient engines requires fuel

system to operate at much higher pressures. Higher pressures can only be achieved using fuel injection components with very close tolerances. These close manufacturing tolerances have significantly reduced capacities for debris and water.

John Deere brand fuel filters have been designed and produced specifically for John Deere engines.

To protect the engine from debris and water, always change engine fuel filters as specified in this manual.

DX,FILT2-19-14APR11

Diesel Exhaust Fluid (DEF)

Diesel Exhaust Fluid (DEF) — Use in Selective Catalytic Reduction (SCR) Equipped Engines

In order to maintain the emissions performance of the engine, it is essential to use and refill DEF in accordance with the specification.

Diesel exhaust fluid (DEF) is a high purity liquid that is injected into the exhaust system of engines equipped with selective catalytic reduction (SCR) systems. Maintaining the purity of DEF is important to avoid malfunctions in the SCR system. Engines requiring DEF shall use a product that meets the requirements for aqueous urea solution 32 (AUS 32) according to ISO 22241-1.

The use of John Deere Diesel Exhaust Fluid is recommended. John Deere Diesel Exhaust Fluid is available at your John Deere dealer in a variety of package sizes to suit your operational needs.

If John Deere Diesel Exhaust Fluid is not available, use DEF that is certified by the American Petroleum Institute (API) Diesel Exhaust Fluid Certification Program or by the AdBlue™ Diesel Exhaust Fluid Certification Program. Look for the API certification symbol or the AdBlue™ name on the container.

RG30211—UN—08MAR18

In some cases, DEF is referred to by one or more of these names:

- Urea
- Aqueous Urea Solution 32
- AUS 32
- AdBlue™
- NOx Reduction Agent
- Catalyst Solution

DX,DEF-19-13JAN18

Storing Diesel Exhaust Fluid (DEF)

CAUTION: Avoid contact with eyes. In case of contact, immediately flush eyes with large amounts of water for a minimum of 15 minutes. Reference the Materials Safety Data Sheet (MSDS) for additional information.

Do not ingest DEF. In the event DEF is ingested, contact a physician immediately. Reference the Materials Safety Data Sheet (MSDS) for additional information.

IMPORTANT: It is unlawful to tamper with or remove any component of the aftertreatment system. Do not use DEF that does not meet the required specifications or operate the engine with no DEF.

Never attempt to create DEF by mixing agricultural grade urea with water. Agricultural grade urea does not meet the necessary specifications and can damage the aftertreatment system.

Do not add any chemicals or additives to DEF in an effort to prevent freezing. Any chemicals or additives added to DEF can damage the aftertreatment system.

Never add water or any other fluid in place of, or in addition to DEF. Operating with a modified DEF or using an unapproved DEF can damage the aftertreatment system.

The following storage information is provided for reference and is to be used as a guideline only.

It is preferred to store DEF out of extreme ambient temperatures. DEF freezes at –11 °C (12 °F). Exposure to temperatures greater than 30 °C (86 °F) can degrade DEF over time.

Dedicated DEF storage containers must be sealed between uses to prevent evaporation and contamination. Containers made of polyethylene, polypropylene, or stainless steel are recommended to transport and store DEF.

Ideal conditions for storage of DEF are:

- Store at temperatures between –5 °C and 30 °C (23 ° F and 86 °F)
- Store in dedicated containers sealed to avoid contamination and evaporation

Under these conditions, DEF is expected to remain useable for a minimum of 18 months. Storing DEF at higher temperatures can reduce its useful life by approximately 6 months for every 5 °C (9 °F) temperature above 30 °C (86 °F).

If unsure how long or under what conditions DEF has been stored, test DEF. See Testing Diesel Exhaust Fluid (DEF).

Long-term storage in the DEF tank (over 12 months) is not recommended. If long-term storage is necessary, test DEF prior to operating engine. See Testing Diesel Exhaust Fluid (DEF).

AdBlue is a trademark of VDA, the German Association of the Automotive Industry.

It is recommended to purchase DEF in quantities that will be consumed within 12 months.

DX,DEF,STORE-19-13JUN13

Refilling Diesel Exhaust Fluid (DEF) Tank

TS1731—UN—23AUG13

CAUTION: Avoid contact with eyes. In case of contact, immediately flush eyes with large amounts of water for a minimum of 15 minutes. Reference the Materials Safety Data Sheet (MSDS) for additional information.

Do not ingest DEF. In the event DEF is ingested, contact a physician immediately. Reference the Materials Safety Data Sheet (MSDS) for additional information.

IMPORTANT: Use only distilled water to rinse components that are used to deliver DEF. Tap water can contaminate DEF. If distilled water is not available, rinse with clean tap water, then thoroughly rinse with ample amounts of DEF.

If DEF is spilled or contacts any surface other than the storage tank, immediately clean the surface with clear water. DEF is corrosive to painted and unpainted metallic surfaces and can distort some plastic and rubber components.

If DEF is filled into engine fuel tank or other fluid compartment, do not operate engine until system is properly purged of DEF. Contact your John Deere dealer immediately to determine how to clean and purge the system.

Reasonable care should be taken when refilling the DEF tank. Ensure that the DEF tank cap area is free of debris before removing the cap. Seal containers of DEF between use to prevent contamination and evaporation.

Avoid splashing DEF and do not allow DEF to come into contact with skin, eyes, or mouth.

DEF is not harmful to handle, but DEF can be corrosive to materials such as steel, iron, zinc, nickel, copper, aluminum, and magnesium. Use suitable containers to transport and store DEF. Containers made of polyethylene, polypropylene, or stainless steel are recommended.

Avoid prolonged contact with skin. In case of accidental contact, wash skin immediately with soap and water.

Keep anything used to store or dispense DEF clean of dirt and dust. Wash and rinse containers or funnels thoroughly with distilled water to remove contaminants.

If an unapproved fluid, such as diesel fuel or coolant is added to the DEF tank, contact your John Deere dealer immediately to determine how to clean and purge the system.

If water has been added to the DEF tank, a tank cleaning is necessary. See Cleaning DEF Tank in this manual. After refilling the tank, check the DEF concentration. See Testing Diesel Exhaust Fluid (DEF).

The operator must maintain appropriate DEF levels at all times. Check the DEF level daily and refill the tank as needed. A typical engine with EGR will consume approximately 40:1 Fuel:DEF and without EGR 15:1 Fuel:DEF (by volume). The filling port is identified by a blue colored cap embossed with the DEF symbol, shown.

DX,DEF,REFILL-19-13JAN18

Fill DEF Tank - FT4/Stage V Engine

CAUTION: DEF contains urea. Do not get the substance in eyes. In case of contact, immediately flush eyes with large amounts of water for a minimum of 15 minutes. Do not take internally. In event DEF is ingested, contact a physician immediately. Reference Materials Safety Data Sheet (MSDS) for additional information.

IMPORTANT: To determine tractor engine type, see Engine Serial Number in Identification Numbers section of this Operator's Manual.

IMPORTANT: Never put DEF in diesel fuel tank, or diesel fuel in DEF tank.

RXA0153164—UN—04AUG16

To avoid drastic changes in tractor performance, always keep DEF level above topmost red mark on corner post display (A). Monitor DEF level on cornerpost display and refill as necessary. Refill DEF tank every time tractor is refueled, see Diesel Exhaust Fluid (DEF) — Use in Selective Catalytic Reduction (SCR) Equipped Engines in this Operator's Manual section.

IMPORTANT: If DEF is spilled or contacts any surface other than the storage tank, immediately clean the surface with clear water. DEF is corrosive to painted and unpainted metallic surfaces and may distort some plastic and rubber components.

To fill DEF tank:

1. Before using containers, funnels, etc. to dispense DEF, wash and rinse items thoroughly with distilled water to remove contaminants.

RXA0142157—UN—06JUN14

2. Wipe DEF tank filler cap (B), area around cap and filler neck to reduce chance of contaminating DEF.
3. Lift DEF tank cap latch lever and turn cap 90° counterclockwise.
4. Lift cap from filler neck.

IMPORTANT: Avoid overfilling DEF tank.

Completely filling DEF tank at lower temperatures can cause a blockage in filler neck. If temperatures are expected to reach below -11°C (12°F), do not fill DEF tank more than half way according to DEF level display on corner post. Observe temperature guidelines to assure ability to refill tank.

5. Using funnel, carefully fill DEF tank. DO NOT over fill DEF tank. Best final fill level is determined by ambient air temperature guide:
   - Ambient air temperature at or above -11°C (12°F): Completely fill tank.
   - Ambient air temperature below -11°C (12°F): Keep fill tank level below the filler neck. Although main portion of DEF tank is heated to keep DEF from freezing, filler neck is not heated. Fluid in neck may freeze, preventing refill DEF tank until fluid melts.
6. Replace and securely latch DEF tank cap. Cap can be locked with a padlock.
7. Carefully clean any spills, using clean (preferably distilled) water.

If an unapproved fluid, such as diesel fuel, or engine coolant is added to vehicle DEF tank, see Diesel Exhaust Fluid (DEF) Tank in Service - Clean section of this Operator's Manual.

DB71512,0000071-19-19JUL18

Testing Diesel Exhaust Fluid (DEF)

IMPORTANT: Using DEF with the correct concentration is critical to engine and aftertreatment system performance. Extended storage and other conditions can adversely alter the DEF concentration.

If DEF quality is questionable, draw a sample out of the DEF tank or storage tank into a clear container. DEF must be crystal clear with a light ammonia smell. If DEF appears cloudy, has a colored tint, or has a profound ammonia smell, it is likely not within specification. DEF in this condition should not be used. Drain tank, flush with distilled water and refill with new or good DEF. After refilling the tank, check the DEF concentration.

If the DEF passes the visual and smell test, check the DEF concentration with a handheld refractometer calibrated to measure DEF.

DEF concentration should be checked when the engine has been stored for extended periods, or if there is suspicion the engine or packaged DEF fluid has been contaminated with water.

Two approved tools are available through your John Deere dealer:

- JDG11594 Digital DEF Refractometer—A digital tool providing an easy to read concentration measurement
- JDG11684 DEF Refractometer—Low-cost alternative tool providing an analog reading

Follow instructions included with either tool to obtain the measurement.

The correct DEF concentration is 31.8—33.2% urea. If the DEF concentration is not within specification, drain the DEF tank, flush with distilled water and fill with new or good DEF. If packaged DEF is not within specification, dispose of DEF packages and replace with new or good DEF.

DX,DEF,TEST-19-13JUN13

Disposal of Diesel Exhaust Fluid (DEF)

Although there is little issue with minor spillage of DEF on the ground, large amounts of DEF should be contained. If large spills occur, contact local environmental authorities for assistance with clean-up.

If a substantial quantity of DEF is not within specification, contact the DEF supplier for assistance with disposal. Do not dump substantial quantities of DEF onto the ground or send DEF to wastewater treatment facilities.

DX,DEF,DISPOSE-19-13JUN13

Diesel Engine Oil Service Interval for Operation at High Altitude

To avoid excessive oil degradation and potential engine damage, reduce oil and filter service intervals to 50% of the original recommended values when operating engines at altitudes above **1675 m (5500 ft)**.

Oil analysis may allow longer service intervals.

Use only approved oil types.

Example of Original Hours	Corresponding High Altitude Hours
125	60
150	75
175	85
200	100
250	125
275	135
300	150
350	175
375	185
400	200
500	250

DX,ENOIL,SERV,HIALT-19-11NOV14

John Deere Break-In Plus™ Engine Oil — Interim Tier 4, Final Tier 4, Stage IIIB, Stage IV, and Stage V

New engines are filled at the factory with John Deere Break-In Plus™ Engine Oil. During the break-in period, add John Deere Break-In Plus™ Engine Oil, as needed to maintain the specified oil level.

Operate the engine under various conditions, particularly heavy loads with minimal idling, to help seat engine components properly.

During the initial operation of a new or rebuilt engine, change the oil and filter between a minimum of 100 hours and maximum equal to the interval specified for John Deere Plus-50™ II oil.

After engine overhaul, fill the engine with John Deere Break-In Plus™ Engine Oil.

If John Deere Break-In Plus™ Engine Oil is not available, use an SAE 10W-30 viscosity grade diesel engine oil meeting one of the following:

- API Service Category CK-4
- API Service Category CJ-4
- ACEA Oil Sequence E9
- ACEA Oil Sequence E6

If one of these oils is used during the initial operation of a new or rebuilt engine, change the oil and filter between a minimum of 100 hours and a maximum of 250 hours.

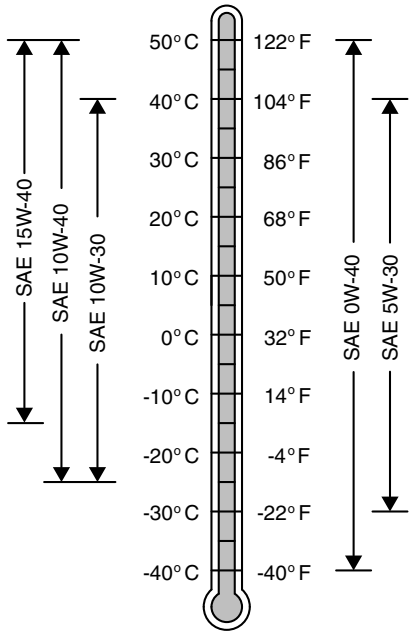
IMPORTANT: Do not use any other engine oils during the initial break-in of a new or rebuilt engine.

John Deere Break-In Plus™ Engine Oil can be used for all John Deere diesel engines at all emission certification levels.

After the break-in period, use John Deere Plus-50™ II or other diesel engine oil as recommended in this manual.

DX,ENOIL16-19-13JAN18

Diesel Engine Oil — Interim Tier 4, Final Tier 4, Stage IIIB, Stage IV, and Stage V



TS1691—UN—18JUL07

Oil Viscosities for Air Temperature Ranges

Failure to follow applicable oil standards and drain intervals can result in severe engine damage that might not be covered under warranty. Warranties, including the emissions warranty, are not conditioned on the use of John Deere oils, parts, or service.

Use oil viscosity based on the expected air temperature range during the period between oil changes.

John Deere Plus-50™ II is the recommended engine oil.

Extended service intervals may apply when John Deere Plus-50™ II engine oil is used. Refer to the engine oil drain interval table and consult your John Deere dealer for more information.

If John Deere Plus-50™ II engine oil is not available,

Break-In Plus is a trademark of Deere & Company

Plus-50 is a trademark of Deere & Company.

engine oil meeting one or more of the following may be used:

- API Service Category CK-4
- API Service Category CJ-4
- ACEA Oil Sequence E9
- ACEA Oil Sequence E6

DO NOT use engine oil containing more than 1.0% sulfated ash, 0.12% phosphorus, or 0.4% sulfur.

Multi-viscosity diesel engine oils are preferred.

Diesel fuel quality and fuel sulfur content must comply with all existing emissions regulations for the area in which the engine operates.

IMPORTANT: Use only ultra low sulfur diesel (ULSD) fuel with a maximum sulfur content of 15 mg/kg (15 ppm).

DX,ENOIL14-19-14JAN18

Engine Oil and Filter Service Intervals — Interim Tier 4, Final Tier 4, Stage IIIB, Stage IV, and Stage V Engines

Failure to follow applicable oil standards and drain intervals can result in severe engine damage that might not be covered under warranty. Warranties, including the emissions warranty, are not conditioned on the use of John Deere oils, parts, or service.

Recommended oil and filter service intervals are based on a combination of oil pan capacity, type of engine oil and filter used, and sulfur content of the diesel fuel. Actual service intervals also depend on operation and maintenance practices.

Approved Oil Types:

- John Deere Plus-50™ II
- “Other Oils” include API CK-4, API CJ-4, ACEA E9, and ACEA E6

Use oil analysis to evaluate the condition of the oil and to aid in selection of the proper oil and filter service interval. Contact your John Deere dealer or other qualified service provider for more information on engine oil analysis.

Change the oil and oil filter at least once every 12 months even if the hours of operation are fewer than the otherwise recommended service interval.

Diesel fuel sulfur content affects engine oil and filter service intervals. Higher fuel sulfur levels reduce oil and filter service intervals.

Use of diesel fuel with sulfur content less than 15 mg/kg (15 ppm) is REQUIRED.

Engine operation at high altitude decreases oil change intervals. See Diesel Engine Oil Service Interval for Operation at High Altitude for additional information.

NOTE: The 500 hour extended oil and filter change interval is only allowed if all of the following conditions are met:

- *Use of diesel fuel with sulfur content less than 15 mg/kg (15 ppm)*
- *Use of John Deere Plus-50™ II oil*
- *Use of an approved John Deere oil filter*

Engine Oil and Filter Service Intervals	
John Deere Plus-50™ II	500 hours
Other Oils	250 hours
Oil analysis may extend the service interval of “Other Oils” to a maximum not to exceed the interval of Plus-50™ II oils. Oil analysis means taking a series of oil samples at 50-hour increments beyond the normal service interval until either the data indicates the end of useful oil life or the maximum service interval of John Deere Plus-50 II oils is reached.	

IMPORTANT: To avoid engine damage:

- **Reduce oil and filter service intervals by 50% when using biodiesel blends greater than B20. Oil analysis may allow longer service intervals.**
- **Use only approved oil types.**

DX,ENOIL15,IT4,120toMAX-19-13JAN18

Plus-50 is a trademark of Deere & Company

Diesel Engine Coolant (engine with wet sleeve cylinder liners)

Failure to follow applicable coolant standards and drain intervals can result in severe engine damage that may not be covered under warranty. Warranties, including the emissions warranty, are not conditioned on the use of John Deere coolants, parts or service.

Preferred Coolants

Failure to follow applicable coolant standards and drain intervals can result in severe engine damage that may not be covered under warranty. Warranties, including the emissions warranty, are not conditioned on the use of John Deere coolants, parts, or service.

The following pre-mix engine coolants are preferred:

- **John Deere COOL-GARD™II**
- **John Deere COOL-GARD II PG**

COOL-GARD II pre-mix coolant is available in several concentrations with different freeze protection limits as shown in the following table.

COOL-GARD II Pre-Mix	Freeze Protection Limit
COOL-GARD II 20/80	-9°C (16°F)
COOL-GARD II 30/70	-16°C (3°F)
COOL-GARD II 50/50	-37°C (-34°F)
COOL-GARD II 55/45	-45°C (-49°F)
COOL-GARD II PG 60/40	-49°C (-56°F)
COOL-GARD II 60/40	-52°C (-62°F)

Not all COOL-GARD II pre-mix products are available in all countries.

Use COOL-GARD II PG when a non-toxic coolant formulation is required.

Additional Recommended Coolants

The following engine coolant is also recommended:

- John Deere COOL-GARD II Concentrate in a 40—60% mixture of concentrate with quality water.

IMPORTANT: When mixing coolant concentrate with water, do not use less than 40% or greater than 60% concentration of coolant. Less than 40% gives inadequate additives for corrosion protection. Greater than 60% can result in coolant gelation and cooling system problems.

Other Coolants

Other ethylene glycol or propylene glycol base coolants may be used if they meet the following specification:

- Pre-mix coolant meeting ASTM D6210 requirements
- Are nitrite-free
- Coolant concentrate meeting ASTM D6210 requirements in a 40—60% mixture of concentrate with quality water

If coolant meeting one of these specifications is unavailable, use a coolant concentrate or pre-mix coolant that has a minimum of the following chemical and physical properties:

- Provides cylinder liner cavitation protection according to either the John Deere Cavitation Test Method or a fleet study run at or above 60% load capacity
- Is formulated with a nitrite-free additive package
- Protects the cooling system metals (cast iron, aluminum alloys, and copper alloys such as brass) from corrosion

Water Quality

Water quality is important to the performance of the cooling system. Deionized or demineralized water is recommended for mixing with ethylene glycol and propylene glycol base engine coolant concentrate.

Coolant Drain Intervals

Drain and flush the cooling system and refill with fresh coolant at the indicated interval, which varies with the coolant used.

When COOL-GARD II or COOL-GARD II PG is used, the drain interval is 6 years or 6000 hours of operation.

If a coolant other than COOL-GARD II or COOL-GARD II PG is used, reduce the drain interval to 2 years or 2000 hours of operation.[1]

IMPORTANT: Do not use cooling system sealing additives or antifreeze that contains sealing additives.

Do not mix ethylene glycol and propylene glycol base coolants.

Do not use coolants that contain nitrites.

DX,COOL3-19-13JAN18

John Deere COOL-GARD™ II Coolant Extender

Some coolant additives gradually deplete during engine operation. For COOL-GARD™ II pre-mix and COOL-GARD II Concentrate, replenish coolant additives between drain intervals by adding COOL-GARD II Coolant Extender.

COOL-GARD is a trademark of Deere & Company

COOL-GARD is a trademark of Deere & Company

[1] *Coolant analysis may extend the service interval of other "Coolants" to a maximum not to exceed the interval of Cool-Gard II coolants. Coolant analysis means taking a series of coolant samples at 1000 hour increments beyond the normal service interval until either the data indicate the end of useful coolant life or the maximum service interval of Cool-Gard II is reached.*

COOL-GARD II Coolant Extender should not be added unless indicated by COOL-GARD II Test Strips. These test strips provide a simple, effective method to check the freeze point, additive levels, and pH of your engine coolant.

Test the coolant solution at intervals of 12 months and whenever excessive coolant is lost through leaks or overheating.

IMPORTANT: Do not use COOL-GARD II Test Strips with COOL-GARD II PG.

COOL-GARD II Coolant Extender is a chemically matched additive system for use with all COOL-GARD II coolants. COOL-GARD II Coolant Extender is not intended for use with nitrite-containing coolants.

IMPORTANT: Do not add a supplemental coolant additive when the cooling system is drained and refilled with any of the following:

- **John Deere COOL-GARD II**
- **John Deere COOL-GARD II PG**

The use of non-recommended supplemental coolant additives can result in additive drop-out, gelation of the coolant, or corrosion of cooling system components.

Add the recommended concentration of COOL-GARD II Coolant Extender. DO NOT add more than the recommended amount.

DX,COOL16-19-15MAY13

Operating in Warm Temperature Climates

John Deere engines are designed to operate using recommended engine coolants.

Always use a recommended engine coolant, even when operating in geographical areas where freeze protection is not required.

IMPORTANT: Water may be used as coolant *in emergency situations only.*

Foaming, hot surface aluminum and iron corrosion, scaling, and cavitation occur when water is used as the coolant, even when coolant conditioners are added.

Drain cooling system and refill with recommended engine coolant as soon as possible.

DX,COOL6-19-15MAY13

Water Quality for Mixing with Coolant Concentrate

Engine coolants are a combination of three chemical components: ethylene glycol (EG) or propylene glycol (PG) antifreeze, inhibiting coolant additives, and quality water.

Water quality is important to the performance of the cooling system. Deionized or demineralized water is recommended for mixing with ethylene glycol and propylene glycol base engine coolant concentrate.

All water used in the cooling system should meet the following minimum specifications for quality:

Chlorides	<40 mg/L
Sulfates	<100 mg/L
Total solids	<340 mg/L
Total dissolved I hardness	<170 mg/L
pH	5.5—9.0

IMPORTANT: Do not use bottled drinking water because it often contains higher concentrations of total dissolved solids.

Freeze Protection

The relative concentrations of glycol and water in the engine coolant determine its freeze protection limit.

Ethylene Glycol	Freeze Protection Limit
40%	-24°C (-12°F)
50%	-37°C (-34°F)
60%	-52°C (-62°F)
Propylene Glycol	**Freeze Protection Limit**
40%	-21°C (-6°F)
50%	-33°C (-27°F)
60%	-49°C (-56°F)

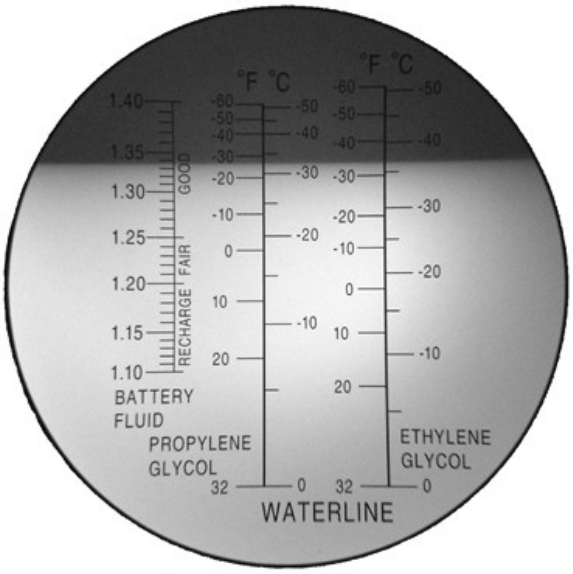
DO NOT use a coolant-water mixture greater than 60% ethylene glycol or 60% propylene glycol.

DX,COOL19-19-13JAN18

Testing Coolant Freeze Point

TS1732—UN—04SEP13

SERVICEGARD™ Part Number 75240



TS1733—UN—04SEP13

Image with a Drop of 50/50 Coolant Placed on the Refractometer Window

The use of a handheld coolant refractometer is the quickest, easiest, and most accurate method to determine coolant freeze point. This method is more accurate than a test strip or a float-type hydrometer which can produce poor results.

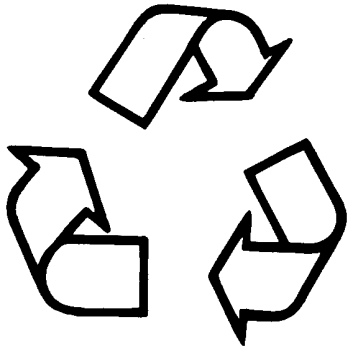
A coolant refractometer is available through your John Deere dealer under the SERVICEGARD™ tool program. Part number 75240 provides an economical solution to accurate freeze point determination in the field.

To use this tool:

1. Allow cooling system to cool to ambient temperatures.
2. Open radiator cap to expose coolant.
3. With the included dropper, collect a small coolant sample.
4. Open the lid of the refractometer, place one drop of coolant on the window and close the lid.
5. Look through the eyepiece and focus as necessary.
6. Record the listed freeze point for the type of coolant (ethylene glycol coolant or propylene glycol) being tested.

DX,COOL,TEST-19-13JUN13

Disposing of Coolant



TS1133—UN—15APR13

Recycle Waste

Improperly disposing of engine coolant can threaten the environment and ecology.

Use leakproof containers when draining fluids. Do not use food or beverage containers that may mislead someone into drinking from them.

Do not pour waste onto the ground, down a drain, or into any water source.

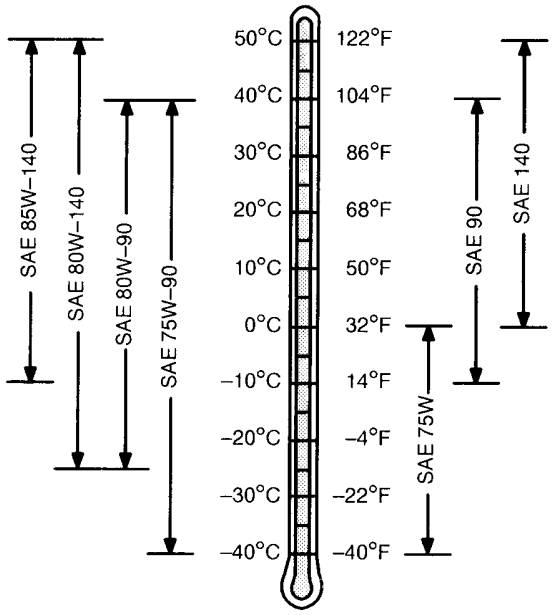
Inquire on the proper way to recycle or dispose of waste from your local environmental or recycling center, or from your John Deere engine distributor or servicing dealer.

RG,RG34710,7543-19-26APR18

SERVICEGARD is a trademark of Deere & Company

Other Lubricants

Gear Oil



TS1653—UN—14MAR96

Oil Viscosities for Air Temperature Ranges

Use oil viscosity based on the expected air temperature range during the period between oil changes.

The following oils are preferred:

- John Deere GL-5 Gear Lubricant
- John Deere EXTREME-GARD™

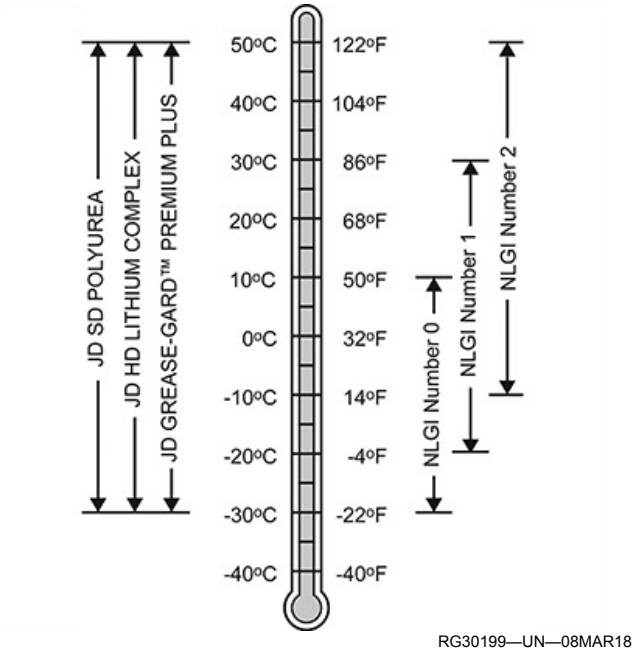
Other oils may be used if they meet the following:

- API Service Category GL-5

DX,GEOIL-19-14APR11

Multipurpose Extreme Pressure (EP) Grease

IMPORTANT: For automated lubrication systems different ambient air temperatures need to be considered.



RG30199—UN—08MAR18

Greases for Air Temperature Ranges

Use grease based on NLGI consistency numbers and the expected air temperature range during the service interval.

John Deere SD Polyurea Grease is preferred.

The following greases are also recommended:

- John Deere HD Lithium Complex Grease
- John Deere Grease-Gard™ Premium Plus

Other greases may be used if they meet the following:

- NLGI Performance Classification GC-LB
- ISO-L-X-BDHB 2 or DIN KP 2 N-10 Lithium Complex, Non-Synthetic Base Oil (100 to 220 mm2/s @ 40°C)

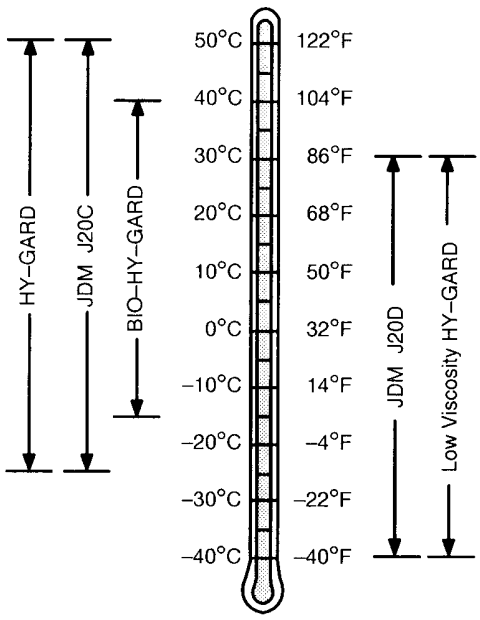
IMPORTANT: Some types of thickeners, base oils, and additives used in greases are not compatible with others. Mixing greases should be avoided. Consult your grease supplier before mixing different types of grease.

DX,GREA1-19-13JAN18

EXTREME-GARD is a trademark of Deere & Company

Grease-Gard is a trademark of Deere & Company

MFWD Axle Housing Oil



TS1651—UN—14MAR96

Use oil viscosity based on the expected air temperature range during the period between oil changes.

The following oils are preferred:

- John Deere Hy-Gard™
- John Deere Low Viscosity Hy-Gard™.

Other oils may be used if they meet one of the following:

- John Deere Standard JDM J20C
- John Deere Standard JDM J20D

Use the following oil when a biodegradable fluid is required:

John Deere Bio Hy-Gard™[1]

RX32825,000042F-19-12OCT17

Corn Head Grease

John Deere Corn Head Grease is recommended.

You may also use SAE Multipurpose Grease with Extreme Pressure (EP) Performance and meeting NLGI Consistency Number 0.

DX,CORN-19-11APR11

Hy-Gard is a trademark of Deere & Company
Bio Hy-Gard is a trademark of Deere & Company

[1] *Bio Hy-Gard meets or exceeds the minimum biodegradability of 80% within 21 days according to CEC-L-33-T-82 test method. Bio Hy-Gard should not be mixed with mineral oils because this reduces the biodegradability and makes proper oil recycling impossible.*

Lubricant Storage

Your equipment can operate at top efficiency only when clean lubricants are used.

Use clean containers to handle all lubricants.

Store lubricants and containers in an area protected from dust, moisture, and other contamination. Store containers on their side to avoid water and dirt accumulation.

Make certain that all containers are properly marked to identify their contents.

Properly dispose of all old containers and any residual lubricant they may contain.

DX,LUBST-19-11APR11

Alternative and Synthetic Lubricants

Conditions in certain geographical areas may require lubricant recommendations different from those printed in this manual.

Some John Deere brand coolants and lubricants may not be available in your location.

Consult your John Deere dealer to obtain information and recommendations.

Synthetic lubricants may be used if they meet the performance requirements as shown in this manual.

The temperature limits and service intervals shown in this manual apply to John Deere branded fluids or fluids that have been tested and/or approved for use in John Deere equipment.

Re-refined base stock products may be used if the finished lubricant meets the performance requirements.

DX,ALTER-19-13JAN18

Mixing of Lubricants

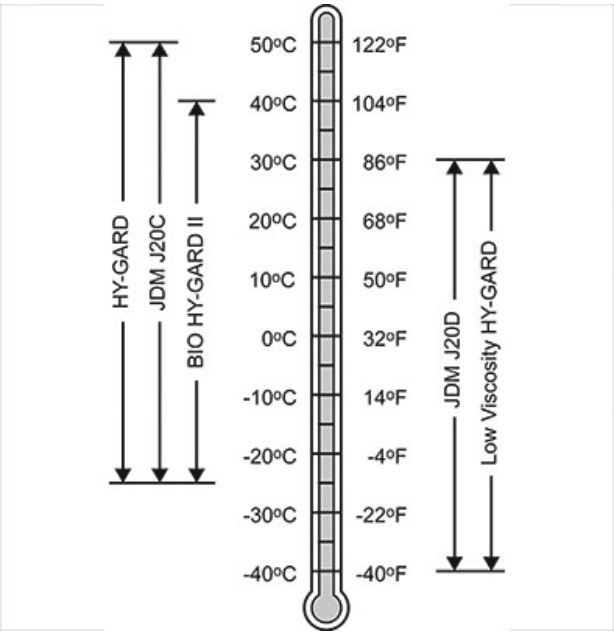
In general, avoid mixing different brands or types of oil. Oil manufacturers blend additives in their oils to meet certain specifications and performance requirements.

Mixing different oils can interfere with the proper functioning of these additives and degrade lubricant performance.

Consult your John Deere dealer to obtain specific information and recommendations.

DX,LUBMIX-19-18MAR96

Transmission and Hydraulic Oil



RG30204—UN—08MAR18

Oils for Air Temperature Ranges

Use oil viscosity based on the expected air temperature range during the period between oil changes.

The following oils are preferred:

- John Deere Hy-Gard™
- John Deere Low Viscosity Hy-Gard™

Other oils may be used if they meet one of the following:

- John Deere Standard JDM J20C
- John Deere Standard JDM J20D

Use John Deere Bio Hy-Gard™ II oil when a biodegradable fluid is required.[2]

DX,ANTI-19-01JAN18

Powershift Transmission Recalibration

Your tractor's transmission is factory filled with John DeereHy-Gard™ oil.

When changing transmission-hydraulic oil from one viscosity to another, Powershift control unit must be recalibrated in order to maintain smooth shifting characteristics. See your John Deere Dealer.

RX32825,0000436-19-15JUN17

Hy-Gard is a trademark of Deere & Company
Bio Hy-Gard is a trademark of Deere & Company

[2] *Bio Hy-Gard II meets or exceeds the minimum biodegradability of 80% within 21 days according to CEC-L-33-T-82 test method. Bio Hy-Gard II should not be mixed with mineral oils, because this reduces the biodegradability and makes proper oil recycling impossible.*

Do Not Modify Fuel System

IMPORTANT: Increasing horsepower, or altering any aspect of fuel and air delivery on emissions certified engines beyond factory rating, will cause emission levels beyond what is approved by United States Environmental Protection Agency (EPA) or equivalent agency. Violations of regulations may result in substantial fines to persons or companies committing such violations.

Tractor warranty is void if power level is changed from factory specifications.

Do not attempt to service injection pump or fuel injectors. Special training and special tools are required. See your John Deere dealer.

RX32825,000175E-19-01AUG17

Do Not Open High-Pressure Fuel System

TS1343—UN—18MAR92

High-pressure fluid remaining in fuel lines can cause serious injury. Do not disconnect or attempt repair of fuel lines, sensors, or any other components between the high-pressure fuel pump and nozzles on engines with High Pressure Common Rail (HPCR) fuel system.

Only technicians familiar with this type of system can perform repairs. (See your John Deere dealer.)

DX,WW,HPCR1-19-07JAN03

Bleed Fuel System

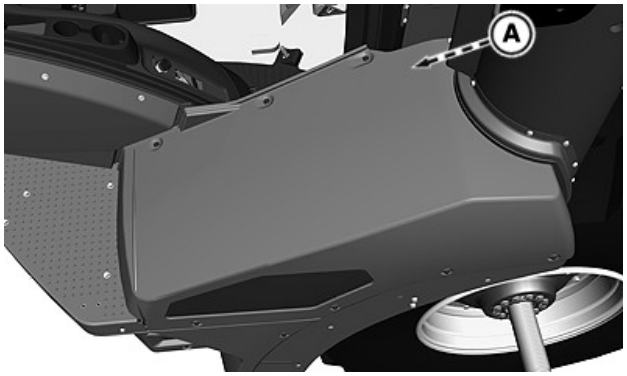
If Diagnostic Trouble Code (DTC) indicates fuel system problem, and fuel system and filters are found to be correct - or if (even without a DTC present) tractor does not run correctly or fails to start, fuel injection system may need to be bled of air.

Turn key switch to run position. Electric fuel pump will start and bleed air from fuel system. Allow pump to run for 30 seconds to 1 minute before attempting an engine restart. If problem persists, see your John Deere dealer.

SV81855,00001F2-19-21JUL17

Diesel Particulate Filter Service

IMPORTANT: Using incorrect or unapproved aftertreatment components can cause damage to vehicle's aftertreatment system and reduce ability of aftertreatment system to function correctly. Never interchange aftertreatment components between Interim Tier 4/Stage III B and vehicles equipped with other aftertreatment systems.



RXA0142544—UN—17JUN14

DPF Filter At Base Of Exhaust Pipe

Exhaust Filter includes Diesel Oxidation Catalyst (DOC) and Diesel Particulate Filter (DPF) (A). DPF is designed to retain residual ash, which is a noncombustible result of additives used in crankcase lubrication oils and the fuel. DPF provides many hours of maintenance free operation. At some point DPF will require professional service to remove accumulated ash. The exact number of hours of operation before service is required will vary depending upon engine's power category, duty cycle and operating conditions, engine oil ash content, and fuel quality. Adhering to John Deere's recommended oil and fuel specifications will maximize the hours of operation before professional DPF service is required.

As engine owner, you are responsible for performing the required maintenance described in your Operator's Manual. During normal equipment operation DPF maintenance requirements will depend on rate at which ash accumulates in it. As ash levels rise in DPF capacity for soot storage is reduced and the back pressure of the exhaust system will rise more frequently. The dash lamp indicator or diagnostic gauge will indicate when the DPF needs servicing.

Removal of DPF ash must be done by removing DPF from machine and placing it into specialized equipment. Do not remove ash by using water or other chemicals. Removing ash by these methods may damage the material securing the DPF in its canister, resulting in the loosening of the DPF element in the canister and subjecting it to damage from vibration.

Failure to follow approved ash removal methods may violate U.S. federal, state and local hazardous waste laws, along with damage to DPF resulting in potential denial of the emissions warranty. It is strongly

recommended you take the DPF to an authorized John Deere service location or other qualified service provider for servicing.

CAUTION: Avoid fire or injury. Disable exhaust filter cleaning in conditions where it may be unsafe for elevated exhaust temperatures.

Disable automatic exhaust filter cleaning only when necessary.

SV81855,0000165-19-08AUG17

Service Sections Overview

CAUTION: Avoid personal injury. After completing any service procedure, reinstall any shields or covers that have been removed and close and securely latch hood.

IMPORTANT: This publication is not a detailed service manual. Procedures shown cover routine maintenance and service. For more detailed service information, purchase a Technical Manual through your John Deere dealer.

IMPORTANT: Recommended service intervals are for average conditions. Service more often if tractor is operated under adverse conditions.

Service sections provide information on service processes and procedures.

Fuel, Lubrication, and Coolants Sections: Information on approved fluids for operation and service. Also included are guides to selection of correct service intervals for such procedures as engine oil refill.

Break-In Service: Perform listed services during first 100 hours of operation.

Engine Oil and Filter Change: Acceptable engine oils based on emissions configuration of tractor engine. Indicate which oil was used for refill and complete data block at each service.

Annual Service: Services listed are performed annually or at some multiple of years. Complete service and data block.

As Required Service: Complete records for services and repairs that are performed at other than regular service intervals.

Daily or 10 Hour and 50 Hour Services: Perform these services every day or every 10 hours and every 50 hours. Forms do not include check boxes. All services listed for these intervals are included on hourly service interval charts.

Hourly Interval Services: Charts are provided based on standard service intervals. Tasks on charts match organization of service procedure sections (example: Service – Clean). Individual service procedures are grouped within these sections (example: Dual Beam Radar Sensor).

When listed operating hours have elapsed, stop tractor as soon as practical and complete all listed services. Check off services as completed.

Engine hour meter can be used to signal time to perform these services. Meter operates whenever engine is running and shows actual accumulated hours of engine operation. Engine hour meter is factory set to 250 hours, but can be reset to any desired elapsed time, see Service Intervals in CommandCenter™ section of this Operator's Manual.

Master charts are provided for service interval of up to 6000 hours. An additional set of charts allow recording services beyond 6000 hours.

Service Procedure Sections: Various scheduled and unscheduled service procedures are organized by procedure type within six sections. Appropriate Service sections and task names are referenced in Service Record Charts (example: Change: Engine Oil and Filter). Electrical section includes all service information for lighting, fuses, and relays.

Troubleshooting Sections: Procedural troubleshooting is provided, as well as information on dealing with Diagnostic Trouble Codes (DTCs) that may display on the CommandCenter™ .

RX32825,0001756-19-11APR18

Service Tasks Performed As Required

IMPORTANT: Perform service tasks when instruments or tractor function indicates they are required, even if at a time other than specified in Service Interval charts.

Occasionally, operating conditions may require a scheduled service to be performed sooner than indicated on Service Interval charts (for example, air filters). When such a task is performed, record its completion in an As Required Service chart.

RX32825,00017C6-19-04JAN17

Identify Tractor Engine Emissions Status

IMPORTANT: To determine tractor engine type, see Engine Serial Number in Identification Number Section of this Operator's Manual.

Some service procedures differ depending upon emissions equipment with which tractor engine is equipped.

RX32825,0001764-19-14DEC16

CommandCenter is a trademark of Deere & Company

Open Hood

CAUTION: Avoid injury. Close and latch hood securely before starting engine.

RXA0141758—UN—30MAY14

Pull hood release (A) and raise hood.

KT81203,0000846-19-14JUN17

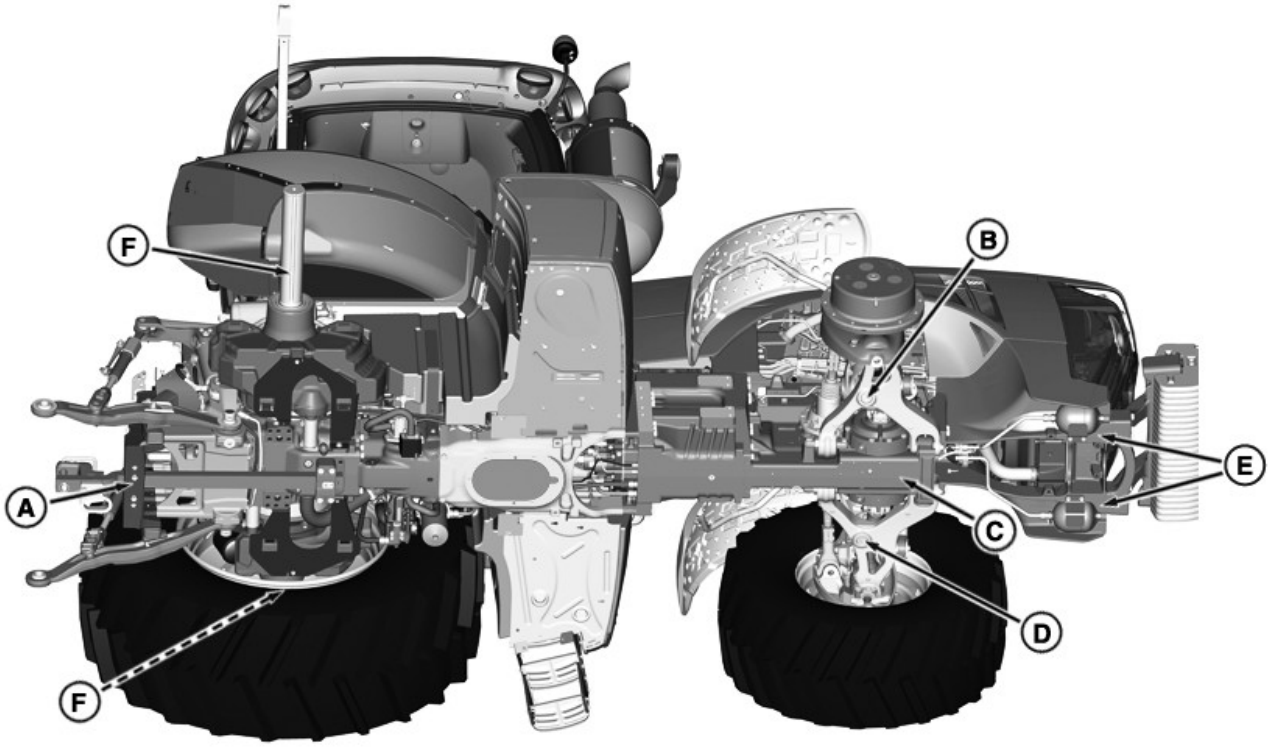
Jack Up Tractor - Lifting Points and Support Stand Placement

CAUTION: Use approved lifting equipment only.

Jack up tractor on firm, level ground only. Before doing any further work on tractor, secure it using suitable support stands.

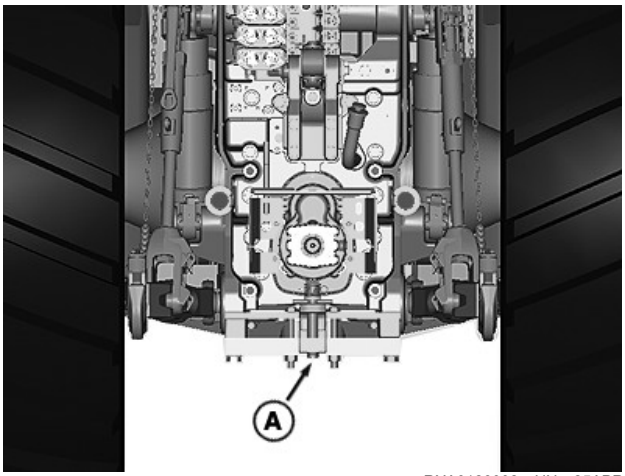
Special John Deere tools shown can be used for this purpose. Support stands are available from your John Deere dealer.

Recommended lifting points for jacking up tractor. Use appropriate and suitable lifting device.



RXA0162682—UN—29MAR18

Underside View, Lift Points/Support Stand Placement



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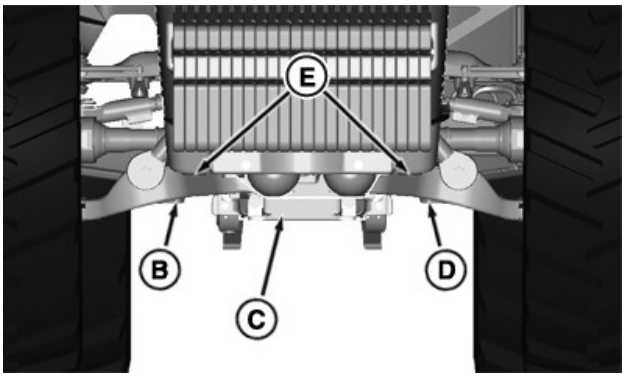


RXA0162685—UN—29MAR18

Jack up the Front End of Tractor

A— Raise rear of tractor (example: to remove rear wheel)

B— Raise right-hand end of front axle and jackstand placement (example: to remove right-hand front wheel)

C— Raise center of axle (Use wooden wedges to prevent axle from pivoting)

D— Raise left-hand end of front axle and jackstand placement (example: to remove left-hand front wheel)

CAUTION: Never attempt to lift tractor using front weights or front weight support.

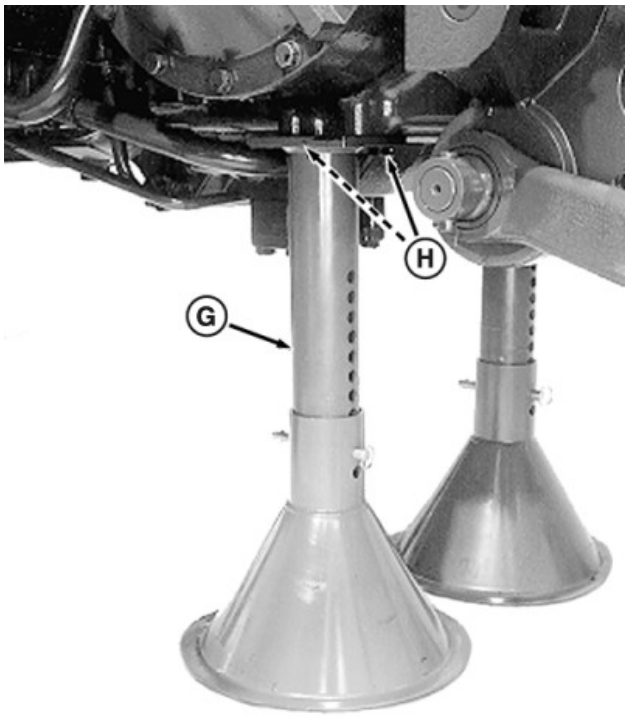
E— Raise front end of tractor under front frame

F— Rear axle support stand placement

1. Disconnect battery ground cable. See Service Batteries and Connectors in Service - Electrical section of this Operator's Manual.

CAUTION: Avoid personal injury. Always use appropriate equipment to install, change, or uninstall weights. If appropriate equipment is not available, have job performed by your John Deere dealer.

2. Remove front weights or front hitch.



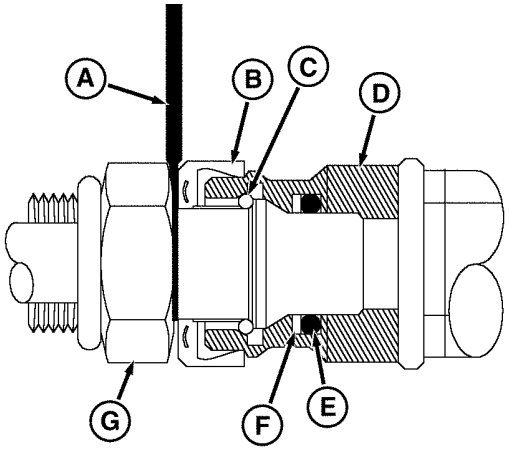
RXA0162376—UN—01MAR18

3. Raise front or rear of tractor and install JT07211 Support Stand (G) using M20 x 40 mm (10.9 grade) cap screws (H) on both sides of tractor.

EC82310,000041C-19-29MAR18

Service and Connect STC® (Snap-to-Connect) Fittings

CAUTION: Do not disconnect STC® (Snap-to-Connect) fitting when under pressure. Failure to relieve pressure before disconnecting fitting may result in personal injury, damage to equipment or both.



RXA0080095—UN—31MAR05

STC® fittings are used on steel lines, hose connections and come in a variety of sizes. JDG1885 STC® tool (A)

STC is a trademark of Eaton Corporation

is designed as a spacer to move release ring (B) inward which releases retaining ring (C). Purchase tool from your John Deere dealer.

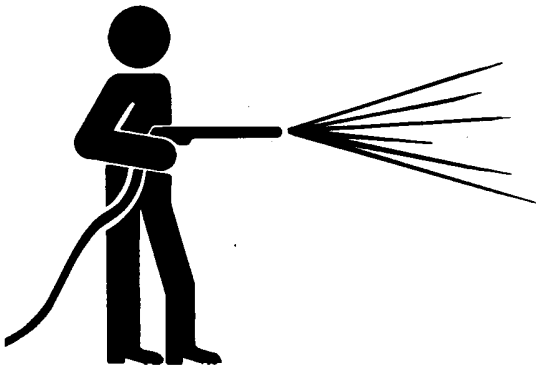
IMPORTANT: Do not use tool to pry fittings apart. Prying with tool may damage fitting and tool.

NOTE: If retaining ring, backup ring (F) or O-ring (E) are damaged, see your John Deere dealer for replacement kit and replace all three parts.

1. Insert correct STC® tool between release ring and fitting.
2. Remove hose or line from connector.
3. Before connecting STC® fitting, check mating surfaces for nicks, scratches or flat spots.
4. Check O-ring, backup ring and retaining ring for wear or damage.
5. Check that female end (D) and male end (G) are clean and free of contaminates.
6. Place release ring on male end fitting.
7. Push fitting halves together until a definite snap and solid stop is felt.
8. Pull back on hose to make sure that fitting halves are locked together.

RX32825,000175C-19-16JUN17

High-Pressure Washer Use

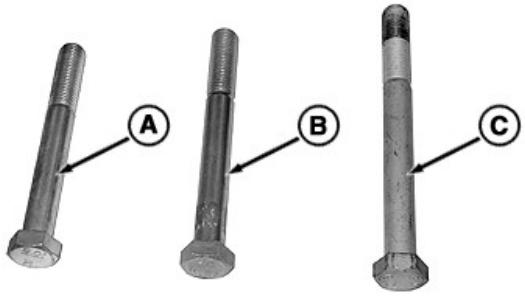


T6642EJ—UN—18OCT88

IMPORTANT: Avoid damage to components. Never aim pressurized water spray directly at electronic/electrical components or connectors, bearings and hydraulic seals, fuel injection pumps, exhaust outlet, tank fill openings, or other sensitive parts and components. Reduce pressure and spray at a 45 to 90 degree angle.

RX32825,000175D-19-01NOV16

Identify Zinc-Flake Coated Fasteners



RXA0073812—UN—03MAR04

Standard cap screws (A) are of a reflective silver color.

Zinc Plated cap screws (B) are of a reflective bright silver or gold color.

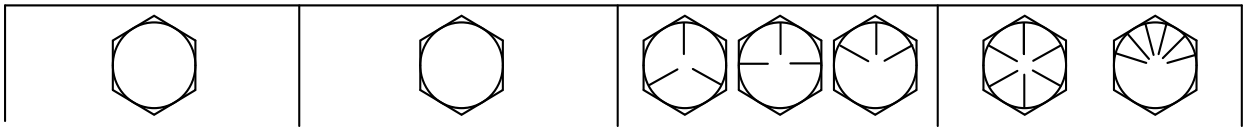
Zinc-Flake Coated cap screws (C) are of a dull silver or gold color.

NOTE: Zinc-Flake Coated fasteners are tightened to lubricated specifications, unless otherwise noted. See Torque Value Charts in this Operator's Manual section.

RX32825,0001761-19-08NOV17

STC is a trademark of Eaton Corporation

Unified Inch Bolt and Screw Torque Values



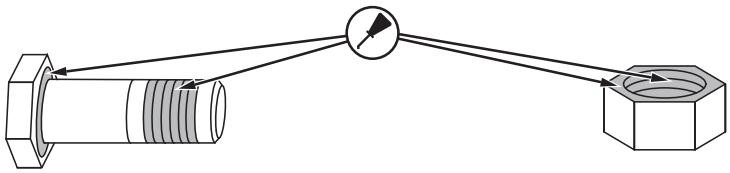
TS1671—UN—01MAY03

Bolt or Screw Size	SAE Grade 1[a]				SAE Grade 2[b]				SAE Grade 5, 5.1 or 5.2				SAE Grade 8 or 8.2			
	Hex Head[c]		Flange Head[d]		Hex Head[c]		Flange Head[d]		Hex Head[c]		Flange Head[d]		Hex Head[c]		Flange Head[d]	
	N·m	lb·in	N·m	lb·in	N·m	lb·in	N·m	lb·in	N·m	lb·in	N·m	lb·in	N·m	lb·in	N·m	lb·in
1/4	3.1	27.3	3.2	28.4	5.1	45.5	5.3	47.3	7.9	70.2	8.3	73.1	11.2	99.2	11.6	103
													N·m	lb·ft	N·m	lb·ft
5/16	6.1	54.1	6.5	57.7	10.2	90.2	10.9	96.2	15.7	139	16.8	149	22.2	16.4	23.7	17.5
									N·m	lb·ft	N·m	lb·ft				
3/8	10.5	93.6	11.5	102	17.6	156	19.2	170	27.3	20.1	29.7	21.9	38.5	28.4	41.9	30.9
					N·m	lb·ft	N·m	lb·ft								
7/16	16.7	148	18.4	163	27.8	20.5	30.6	22.6	43	31.7	47.3	34.9	60.6	44.7	66.8	49.3
	N·m	lb·ft	N·m	lb·ft												
1/2	25.9	19.1	28.2	20.8	43.1	31.8	47	34.7	66.6	49.1	72.8	53.7	94	69.3	103	75.8
9/16	36.7	27.1	40.5	29.9	61.1	45.1	67.5	49.8	94.6	69.8	104	77	134	98.5	148	109
5/8	51	37.6	55.9	41.2	85	62.7	93.1	68.7	131	96.9	144	106	186	137	203	150
3/4	89.5	66	98	72.3	149	110	164	121	230	170	252	186	325	240	357	263
7/8	144	106	157	116	144	106	157	116	370	273	405	299	522	385	572	422
1	216	159	236	174	216	159	236	174	556	410	609	449	785	579	860	634
1-1/8	305	225	335	247	305	225	335	247	685	505	751	554	1110	819	1218	898
1-1/4	427	315	469	346	427	315	469	346	957	706	1051	775	1552	1145	1703	1256
1-3/8	564	416	618	456	564	416	618	456	1264	932	1386	1022	2050	1512	2248	1658
1-1/2	743	548	815	601	743	548	815	601	1665	1228	1826	1347	2699	1991	2962	2185

The nominal torque values listed are for general use only with the assumed wrenching accuracy of 20%, such as a manual torque wrench.
DO NOT use these values if a different torque value or tightening procedure is given for a specific application.
For lock nuts, for stainless steel fasteners, or for nuts on U-bolts, see the tightening instructions for the specific application.

Replace fasteners with the same or higher property class. If higher property class fasteners are used, tighten these to the strength of the original.

- Make sure that fastener threads are clean.
- Apply a thin coat of Hy-Gard™ or equivalent oil under the head and on the threads of the fastener, as shown in the following image.
- Be conservative with the amount of oil to reduce the potential for hydraulic lockup in blind holes due to excessive oil.
- Properly start thread engagement.

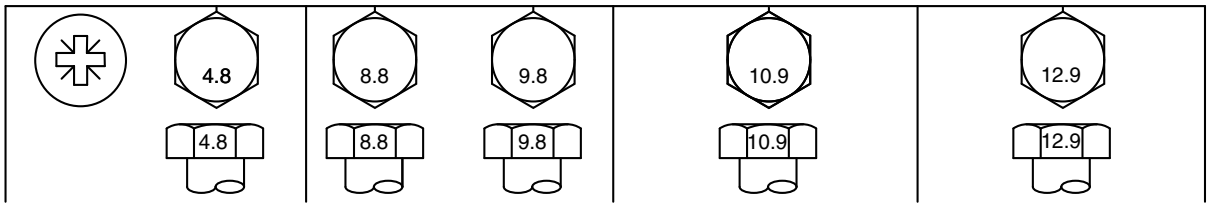


TS1741—UN—22MAY18

[a]Grade 1 applies for hex cap screws over 6 in (152 mm) long, and for all other types of bolts and screws of any length.
[b]Grade 2 applies for hex cap screws (not hex bolts) up to 6 in (152 mm) long.
[c]Hex head column values are valid for ISO 4014 and ISO 4017 hex head, ISO 4162 hex socket head, and ISO 4032 hex nuts.
[d]Hex flange column values are valid for ASME B18.2.3.9M, ISO 4161, or EN 1665 hex flange products.

DX,TORQ1-19-30MAY18

Metric Bolt and Screw Torque Values



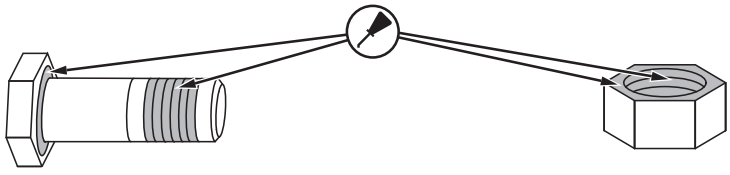
TS1742—UN—31MAY18

Bolt or Screw Size	Class 4.8				Class 8.8 or 9.8				Class 10.9				Class 12.9			
	Hex Head[a]		Flange Head[b]		Hex Head[a]		Flange Head[b]		Hex Head[a]		Flange Head[b]		Hex Head[a]		Flange Head[b]	
	N·m	lb·in	N·m	lb·in	N·m	lb·in	N·m	lb·in	N·m	lb·in	N·m	lb·in	N·m	lb·in	N·m	lb·in
M6	3.6	31.9	3.9	34.5	6.7	59.3	7.3	64.6	9.8	86.7	10.8	95.6	11.5	102	12.6	112
									N·m	lb·ft	N·m	lb·ft	N·m	lb·ft	N·m	lb·ft
M8	8.6	76.1	9.4	83.2	16.2	143	17.6	156	23.8	17.6	25.9	19.1	27.8	20.5	30.3	22.3
			N·m	lb·ft	N·m	lb·ft	N·m	lb·ft								
M10	16.9	150	18.4	13.6	31.9	23.5	34.7	25.6	46.8	34.5	51	37.6	55	40.6	60	44.3
	N·m	lb·ft														
M12	—	—	—	—	55	40.6	61	45	81	59.7	89	65.6	95	70.1	105	77.4
M14	—	—	—	—	87	64.2	96	70.8	128	94.4	141	104	150	111	165	122
M16	—	—	—	—	135	99.6	149	110	198	146	219	162	232	171	257	190
M18	—	—	—	—	193	142	214	158	275	203	304	224	322	245	356	263
M20	—	—	—	—	272	201	301	222	387	285	428	316	453	334	501	370
M22	—	—	—	—	365	263	405	299	520	384	576	425	608	448	674	497
M24	—	—	—	—	468	345	518	382	666	491	738	544	780	575	864	637
M27	—	—	—	—	683	504	758	559	973	718	1080	797	1139	840	1263	932
M30	—	—	—	—	932	687	1029	759	1327	979	1466	1081	1553	1145	1715	1265
M33	—	—	—	—	1258	928	1398	1031	1788	1319	1986	1465	2092	1543	2324	1714
M36	—	—	—	—	1617	1193	1789	1319	2303	1699	2548	1879	2695	1988	2982	2199

The nominal torque values listed are for general use only with the assumed wrenching accuracy of 20%, such as a manual torque wrench.
DO NOT use these values if a different torque value or tightening procedure is given for a specific application.
For lock nuts, for stainless steel fasteners, or for nuts on U-bolts, see the tightening instructions for the specific application.

Replace fasteners with the same or higher property class. If higher property class fasteners are used, tighten these to the strength of the original.

- Make sure that fastener threads are clean.
- Apply a thin coat of Hy-Gard™ or equivalent oil under the head and on the threads of the fastener, as shown in the following image.
- Be conservative with the amount of oil to reduce the potential for hydraulic lockup in blind holes due to excessive oil.
- Properly start thread engagement.



TS1741—UN—22MAY18

[a]Hex head column values are valid for ISO 4014 and ISO 4017 hex head, ISO 4162 hex socket head, and ISO 4032 hex nuts.
[b]Hex flange column values are valid for ASME B18.2.3.9M, ISO 4161, or EN 1665 hex flange products.

DX,TORQ2-19-30MAY18

Break-In Service (100 Hours or Less)

Perform Break-In Checks

IMPORTANT: Initial break-in service interval of a new or rebuilt wet sleeve engine with John Deere Break-In Plus™ oil must last at least 100 hours to assure surface mating of rings and liners has had an opportunity to occur. 100 hour minimum interval applies to all new or rebuilt engines. Maximum service interval is the same as service interval recommended for your engine in Engine Oil and Filter Service Intervals of Fuel, Lubricants and Coolant section of this Operator Manual. To confirm which engine your tractor is equipped with, see Engine Serial Number in Identification Number section of this Operator's Manual.

If engine oil must be added prior to first normal oil change, use John Deere Break-In Plus™ engine oil.

For subsequent oil changes, see Engine Oil and Filter Service Intervals for your engine located in Engine Oil Section of this Operator's Manual.

General Break-In

Engine is ready for normal operation. During first 100 hours of operation:

- Operate engine at heavy loads without reaching sustained maximum load
- Avoid idling engine longer than 5 minutes. If engine will idle longer than 5 minutes, stop engine
- Closely observe coolant temperature during operation
- Check engine air intake system hoses and clamps. See appropriate Air Intake System topic in Service - Check section of this Operator's Manual.
- Check for fluid leaks
- Tighten wheel, wheel weight and axle bolts after 3 HOURS, after 10 HOURS and DAILY for first week of operation. See appropriate topic in Service - Tighten section of this Operator's Manual

.

Daily or 10 Hour Service

Perform normal daily or 10 hour services. See 10 Hour or Daily chart in Service - Record Charts section of this Operator's Manual.

For first 100 hours of tractor operation, perform these additional services daily or every 10 hours:

- Drain water separator. See Water Separator in Service - Check section of this Operator's Manual.
- Check coolant level. See Coolant Level in Service - Check section of this Operator's Manual.
- Lubricate rear and front (if equipped) hitch components. See Front Hitch and Rear Hitch in Service - Lubricate section of this Operator's Manual.
- Inspect tires for cuts or punctures. See Tires in Service - Check section of this Operator's Manual.

After service is performed, reset appropriate service interval hours display to zero. See Service Intervals in CommandCenter™ section of this Operator's Manual.

RX32825,0000747-19-07SEP17

Break-In Plus is a trademark of Deere & Company

CommandCenter is a trademark of Deere & Company

Service - Record Charts

Engine Oil and Filter Change

IMPORTANT: Engine oil change intervals can vary depending upon operating conditions. Use only oil approved for your engine emissions type. See Engine Oil section in this Operator's Manual. Record completed service in chart.

Date	Hours of Operation	Engine Oil Used	Signature	Dealer's Stamp

Date	Hours of Operation	Engine Oil Used	Signature	Dealer's Stamp

RX32825,000177D-19-13SEP17

As Required Service

IMPORTANT: Some service tasks do not have scheduled requirements. Occasionally, normally scheduled services must be performed outside of their scheduled interval. Completion of these services is necessary when tractor performance or instruments indicate that they are required. See appropriate Service section for information. Record completed service in chart.

Date	Service Completed	Signature	Dealer's Stamp

Date	Service Completed	Signature	Dealer's Stamp

Date	Service Completed	Signature	Dealer's Stamp

RX32825,0001747-19-12SEP17

Annual Service

IMPORTANT: Not all of these services must be performed each year. Perform services based on number of years of tractor operation completed, regardless of accumulated hours of operation. Record completed service in chart.

Check:

• Seat belts[a] • Engine coolant freeze point[a]	• Cab suspension accumulator charge pressure (If Equipped with Hydraulic Cab Suspension)[ab] • ILS™ upper and lower rod and head end accumulator charge pressure[cb]	• Vari-Cool™ fan drive and belt—Final Tier 4/ Stage V engine[d]

ILS is a trademark of Deere & Company
Vari-Cool is a trademark of Deere & Company
[a]*Check annually or every 1000 operating hours, whichever occurs first.*
[b]*See your John Deere dealer.*
[c]*Check annually or every 1500 operating hours, whichever occurs first.*
[d]*Check annually or every 500 operating hours, whichever occurs first.*

Change:

• Engine oil and filter[ab] • Cab recirculation and fresh air filters[c] • Engine primary and secondary air filters[c]	• Engine coolant[d] • Trailer air brake air dryer filter[e] • In-Line DEF Filter (If Equipped)[f]	• DEF tank vent filter—Final Tier 4/Stage V engine[g] • DEF dosing unit filter—Final Tier 4/Stage V engine[h]

[a]*Service in accordance with information in appropriate Diesel Oil and Filter Service Intervals topic in Engine Oil section of this Operator's Manual. Record oil used in Service - Record Charts - Engine Oil and Filter.*
[b]*Change at least once per year.*
[c]*Change annually or every 1000 operating hours, whichever occurs first.*
[d]*INITIAL change interval is 6 years or 6000 operating hours, provided cooling system is topped off using only John Deere Cool-Gard™ II and premix. SCHEDULED interval (2 years or 2000 operating hours) can be extended up to 6 years and 6000 operating hours, depending upon coolant being used. See Drain Intervals for Diesel Engine Coolant in Engine Coolant section of this Operator's Manual.*
[e]*Change every 2 years or 1500 operating hours, whichever occurs first.*
[f]*Service every 3 years.*
[g]*Change after first year or first 1500 operating hours, whichever occurs first. After initial service, change every 3 years or 4500 operating hours, whichever occurs first.*
[h]*Change every 4500 operating hours or 3 years, whichever occurs first.*

Electrical:

• Service batteries and connectors[a]		

[a]*Service annually.*

Year	Date	Signature	Dealer's Stamp
1			
2			
3			
4			
5			
6			
7			
8			
9			

RX32825,00017B6-19-28AUG18

10 Hour or Daily Service

IMPORTANT: Perform these services every 10 hours or daily, whichever occurs first.

Check:

• Engine oil level	• Transmission-hydraulic oil level	

Lubricate:

• MFWD axle king pins, tie rod ends, axle pivot fittings, and steering cylinders[a]	• ILS™ king pins, tie rod ends, pivot fittings, and suspension cylinders[b]	• MFWD axle outboard U-joint[c] • ILS™ axle inboard U-joint[c] • ILS™ axle internal tie rod ball joints[b]

ILS is a trademark of Deere & Company
[a]*Normal lubrication is every 500 operating hours. If used in extremely wet conditions, lubricate daily or every 10 operating hours.*
[b]*Normal lubrication is every 250 operating hours. If used in extremely wet conditions, lubricate daily or every 10 operating hours.*
[c]*Normal lubrication is not necessary. If used in extremely wet conditions, lubricate daily or every 10 operating hours.*

RX32825,00017B7-19-06FEB18

50 Hour Service

IMPORTANT: Perform these services every 50 hours.

Check:

• Engine oil level	• Transmission-hydraulic oil level	• Tires

Lubricate:

• MFWD axle king pins, tie rod ends, axle pivot fittings, and steering cylinders[a] • ILS™ king pins, tie rod ends, pivot fittings, and suspension cylinders[b]	• Rear hitch[c] • Front hitch[c]	• MFWD axle outboard U-joint[d] • ILS™ axle inboard U-joint[d] • ILS™ axle internal tie rod ball joints[b]

ILS is a trademark of Deere & Company
[a]Normal lubrication is every 500 operating hours. If used in extremely wet conditions, lubricate daily or every 10 operating hours.
[b]Normal lubrication is every 250 operating hours. If used in extremely wet conditions, lubricate daily or every 10 operating hours.
[c]Normal lubrication is every 250 operating hours. If used daily, lubricate every 50 operating hours.
[d]Normal lubrication is not necessary. If used in extremely wet conditions, lubricate daily or every 10 operating hours.

RX32825,00017B8-19-06FEB18

250 Hour Service

Check:

☐ Engine oil level ☐ Transmission-hydraulic oil level	☐ Tires ☐ NEUTRAL start system	☐ Transmission PARK system

Lubricate:

☐ MFWD axle king pins, tie rod ends, axle pivot fittings, and steering cylinders[a] ☐ ILS™ king pins, tie rod ends, pivot fittings, and suspension cylinders[b]	☐ MFWD axle outboard U-joint[c] ☐ ILS™ axle inboard U-joint[c] ☐ ILS™ axle internal tie rod ball joints[b]	☐ Front hitch[d] ☐ Deluxe stabilizers ☐ Wagon hitch ☐ Rear hitch[d]

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[a]Normal lubrication is every 500 operating hours. If used in extremely wet conditions, lubricate daily or every 10 operating hours.
[b]Normal lubrication is every 250 operating hours. If used in extremely wet conditions, lubricate daily or every 10 operating hours.
[c]Normal lubrication is not necessary. If used in extremely wet conditions, lubricate daily or every 10 operating hours.
[d]Normal lubrication is every 250 operating hours. If used daily, lubricate every 50 operating hours.

Service Completed Date: _____ Signature: _____ Dealer Stamp:

Comments:

KD34109,0000568-19-24JUL18

500 Hour Service

Clean:

☐ Dual beam radar sensor	☐ Optional fuel water separator and filter element	☐ ILS™axle internal tie rod ball joint boots[a]

ILS is a trademark of Deere & Company
[a]If used regularly in extremely wet conditions, clean boots every 500 hours.

Check:

☐ Engine oil level ☐ Transmission-hydraulic oil level ☐ Tires	☐ NEUTRAL start system ☐ Transmission PARK system	☐ Engine air intake system ☐ Vari-Cool™ fan drive and belt—Final Tier 4/ Stage V engine[a]

Vari-Cool is a trademark of Deere & Company
[a]Check annually or every 500 operating hours, whichever occurs first.

Tighten:

☐ Wheel and wheel weight bolts		

Change:

☐ Engine oil and filter[ab]	☐ Fuel filters[c]	☐ Transmission-hydraulic oil filter

[a]Service in accordance with information in appropriate Diesel Oil and Filter Service Intervals topic in Engine Oil section of this Operator's Manual. Record oil used in Service - Record Charts - Engine Oil and Filter.
[b]Change at least once per year.
[c]Change every 500 operating hours or as indicated, whichever occurs first.

Lubricate:

☐ MFWD axle king pins, tie rod ends, axle pivot fittings, and steering cylinders[a] ☐ ILS™ king pins, tie rod ends, pivot fittings, and suspension cylinders[b] ☐ MFWD axle outboard U-joint[c] ☐ ILS™ axle inboard U-joint[c]	☐ ILS™ axle internal tie rod ball joints[b] ☐ Rear hitch[d] ☐ Front hitch[d] ☐ Deluxe stabilizers	☐ Wagon hitch ☐ Cab suspension system (If Equipped with Hydraulic Cab Suspension) ☐ Front PTO driveshaft

ILS is a trademark of Deere & Company
[a]Normal lubrication is every 500 operating hours. If used in extremely wet conditions, lubricate daily or every 10 operating hours.
[b]Normal lubrication is every 250 operating hours. If used in extremely wet conditions, lubricate daily or every 10 operating hours.
[c]Normal lubrication is not necessary. If used in extremely wet conditions, lubricate daily or every 10 operating hours.
[d]Normal lubrication is every 250 operating hours. If used daily, lubricate every 50 operating hours.

Service Completed Date: _____ Signature: _____ Dealer Stamp:

Comments:

KD34109,0000569-19-28AUG18

750 Hour Service

Check:

☐ Engine oil level ☐ Transmission-hydraulic oil level	☐ Tires ☐ NEUTRAL start system	☐ Transmission PARK system

Lubricate:

☐ MFWD axle king pins, tie rod ends, axle pivot fittings, and steering cylinders[a] ☐ ILS™ king pins, tie rod ends, pivot fittings, and suspension cylinders[b] ☐ MFWD axle outboard U-joint[c]	☐ ILS™ axle inboard U-joint[c] ☐ ILS™ axle internal tie rod ball joints[b] ☐ Wagon hitch	☐ Front hitch[d] ☐ Deluxe stabilizers ☐ Rear hitch[d]

ILS is a trademark of Deere & Company
[a]Normal lubrication is every 500 operating hours. If used in extremely wet conditions, lubricate daily or every 10 operating hours.
[b]Normal lubrication is every 250 operating hours. If used in extremely wet conditions, lubricate daily or every 10 operating hours.
[c]Normal lubrication is not necessary. If used in extremely wet conditions, lubricate daily or every 10 operating hours.
[d]Normal lubrication is every 250 operating hours. If used daily, lubricate every 50 operating hours.

Service Completed Date: _____ Signature: _____ Dealer Stamp:

Comments:

KD34109,000056A-19-23JUL18

1000 Hour Service

Clean:

☐ Dual beam radar sensor	☐ Optional fuel water separator and filter element	☐ MFWD axle breather[a] ☐ ILS™ axle internal tie rod ball joint boots[b]

ILS is a trademark of Deere & Company
[a]Clean every 1000 operating hours or annually, whichever occurs first.
[b]If used regularly in extremely wet conditions, clean boots every 500 hours.

Check:

☐ Engine oil level ☐ Transmission-hydraulic oil level ☐ Tires	☐ NEUTRAL start system ☐ Hydraulic Cab Suspension Components or Mechanical Cab Suspension Components ☐ Transmission PARK system	☐ Engine air intake system ☐ Engine coolant freeze point[a] ☐ Cab suspension accumulator charge pressure (If Equipped with Hydraulic Cab Suspension)[ab] ☐ Vari-Cool™ fan drive and belt—Final Tier 4/ Stage V engine[c]

Vari-Cool is a trademark of Deere & Company
[a]Check annually or every 1000 operating hours, whichever occurs first.
[b]See your John Deere dealer.
[c]Check annually or every 500 operating hours, whichever occurs first.

Tighten:

☐ Wheel and wheel weight bolts		

Change:

☐ Engine oil and filter[ab] ☐ Fuel filters[c]	☐ Cab recirculation and fresh air filters[d]	☐ Engine primary and secondary air filters[d]

[a]Service in accordance with information in appropriate Diesel Oil and Filter Service Intervals topic in Engine Oil section of this Operator's Manual. Record oil used in Service - Record Charts - Engine Oil and Filter.
[b]Change at least once per year.
[c]Change every 500 operating hours or as indicated, whichever occurs first.
[d]Change annually or every 1000 operating hours, whichever occurs first.

Lubricate:

☐ MFWD axle king pins, tie rod ends, axle pivot fittings, and steering cylinders[a] ☐ ILS™ king pins, tie rod ends, pivot fittings, and suspension cylinders[b] ☐ MFWD axle outboard U-joint[c] ☐ ILS™ axle inboard U-joint[c]	☐ ILS™ axle internal tie rod ball joints[b] ☐ Rear hitch[d] ☐ Front hitch[d] ☐ Deluxe stabilizers	☐ Wagon hitch ☐ Cab suspension system (If Equipped with Hydraulic Cab Suspension) ☐ Front PTO driveshaft ☐ Vari-Cool™fan drive—Final Tier 4/Stage V engine[e]

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Vari-Cool is a trademark of Deere & Company
[a]Normal lubrication is every 500 operating hours. If used in extremely wet conditions, lubricate daily or every 10 operating hours.
[b]Normal lubrication is every 250 operating hours. If used in extremely wet conditions, lubricate daily or every 10 operating hours.
[c]Normal lubrication is not necessary. If used in extremely wet conditions, lubricate daily or every 10 operating hours.
[d]Normal lubrication is every 250 operating hours. If used daily, lubricate every 50 operating hours.
[e]Lubricate annually or every 500 operating hours, whichever occurs first. No service if grease fitting is not present.

Service Completed Date: _____ Signature: _____ Dealer Stamp:

Comments:

KD34109,000056B-19-21AUG18

1250 Hour Service

Check:

☐ Engine oil level ☐ Transmission-hydraulic oil level	☐ Tires ☐ NEUTRAL start system	☐ Transmission PARK system

Lubricate:

☐ MFWD axle king pins, tie rod ends, axle pivot fittings, and steering cylinders[a] ☐ ILS™ king pins, tie rod ends, pivot fittings, and suspension cylinders[b] ☐ MFWD axle outboard U-joint[c]	☐ ILS™ axle inboard U-joint[c] ☐ ILS™ axle internal tie rod ball joints[b] ☐ Wagon hitch	☐ Front hitch[d] ☐ Deluxe stabilizers ☐ Rear hitch[d]

ILS is a trademark of Deere & Company
[a]Normal lubrication is every 500 operating hours. If used in extremely wet conditions, lubricate daily or every 10 operating hours.
[b]Normal lubrication is every 250 operating hours. If used in extremely wet conditions, lubricate daily or every 10 operating hours.
[c]Normal lubrication is not necessary. If used in extremely wet conditions, lubricate daily or every 10 operating hours.
[d]Normal lubrication is every 250 operating hours. If used daily, lubricate every 50 operating hours.

Service Completed Date: _____ Signature: _____ Dealer Stamp:

Comments:

KD34109,000056C-19-23JUL18

1500 Hour Service

Clean:

☐ Dual beam radar sensor	☐ Optional fuel water separator and filter element	☐ Hydraulic oil suction screen ☐ ILS™ axle internal tie rod ball joint boots[a]

ILS is a trademark of Deere & Company
[a]If used regularly in extremely wet conditions, clean boots every 500 hours.

Check:

☐ Engine oil level ☐ Transmission-hydraulic oil level ☐ Tires	☐ NEUTRAL start system ☐ Transmission PARK system ☐ Engine air intake system	☐ ILS™ upper and lower rod and head end accumulator charge pressure[ab] ☐ Vari-Cool™ fan drive and belt—Final Tier 4/ Stage V engine[c] ☐ Auxiliary drive belt and drive belt tensioner

ILS is a trademark of Deere & Company
Vari-Cool is a trademark of Deere & Company
[a]Check annually or every 1500 operating hours, whichever occurs first.
[b]See your John Deere dealer.
[c]Check annually or every 500 operating hours, whichever occurs first.

Tighten:

☐ Wheel and wheel weight bolts		

Change:

☐ Engine oil and filter[ab] ☐ Fuel filters[c] ☐ MFWD axle housing oil ☐ MFWD or ILS™ wheel hub oil	☐ Transmission-hydraulic oil and filters[d] ☐ Fuel tank vent filter ☐ SCV pilot valve filter	☐ DEF tank vent filter—Final Tier 4/Stage V engine[e] ☐ Trailer air brake air dryer filter[f] ☐ Differential oil

ILS is a trademark of Deere & Company
[a]Service in accordance with information in appropriate Diesel Oil and Filter Service Intervals topic in Engine Oil section of this Operator's Manual. Record oil used in Service - Record Charts - Engine Oil and Filter.
[b]Change at least once per year.
[c]Change every 500 operating hours or as indicated, whichever occurs first.
[d]Completion of this service requires performance of tasks specific to each transmission type. See appropriate content in Service - Change section of this Operator's Manual.
[e]Change after first year or first 1500 operating hours, whichever occurs first. After initial service, change every 3 years or 4500 operating hours, whichever occurs first.
[f]Change every 2 years or 1500 operating hours, whichever occurs first.

Lubricate:

☐ MFWD axle king pins, tie rod ends, axle pivot fittings, and steering cylinders[a] ☐ ILS™ king pins, tie rod ends, pivot fittings, and suspension cylinders[b] ☐ MFWD axle outboard U-joint[c] ☐ ILS™ axle inboard U-joint[c]	☐ ILS™ axle internal tie rod ball joints[b] ☐ Rear hitch[d] ☐ Front hitch[d] ☐ Deluxe stabilizers ☐ Wagon hitch	☐ Vari-Cool™ fan drive—Final Tier 4/Stage V engine[e] ☐ Draft link support shaft bushing ☐ Front PTO driveshaft ☐ Cab suspension system (If Equipped with Hydraulic Cab Suspension)

ILS is a trademark of Deere & Company
Vari-Cool is a trademark of Deere & Company
[a]Normal lubrication is every 500 operating hours. If used in extremely wet conditions, lubricate daily or every 10 operating hours.
[b]Normal lubrication is every 250 operating hours. If used in extremely wet conditions, lubricate daily or every 10 operating hours.
[c]Normal lubrication is not necessary. If used in extremely wet conditions, lubricate daily or every 10 operating hours.
[d]Normal lubrication is every 250 operating hours. If used daily, lubricate every 50 operating hours.
[e]Lubricate annually or every 500 operating hours, whichever occurs first. No service if grease fitting is not present.

Service Completed Date: _____ Signature: _____ Dealer Stamp:

Comments:

KD34109,000056D-19-24JUL18

1750 Hour Service

Check:

☐ Engine oil level ☐ Transmission-hydraulic oil level	☐ Tires ☐ NEUTRAL start system	☐ Transmission PARK system

Lubricate:

☐ MFWD axle king pins, tie rod ends, axle pivot fittings, and steering cylinders[a] ☐ ILS™ king pins, tie rod ends, pivot fittings, and suspension cylinders[b] ☐ ILS™ axle internal tie rod ball joints[b]	☐ MFWD axle outboard U-joint[c] ☐ ILS™ axle inboard U-joint[c] ☐ Wagon hitch	☐ Front hitch[d] ☐ Deluxe stabilizers ☐ Rear hitch[d]

ILS is a trademark of Deere & Company
[a]Normal lubrication is every 500 operating hours. If used in extremely wet conditions, lubricate daily or every 10 operating hours.
[b]Normal lubrication is every 250 operating hours. If used in extremely wet conditions, lubricate daily or every 10 operating hours.
[c]Normal lubrication is not necessary. If used in extremely wet conditions, lubricate daily or every 10 operating hours.
[d]Normal lubrication is every 250 operating hours. If used daily, lubricate every 50 operating hours.

Service Completed Date: _____ Signature: _____ Dealer Stamp:

Comments:

KD34109,000056E-19-23JUL18

2000 Hour Service

Clean:

☐ Dual beam radar sensor	☐ Optional fuel water separator and filter element	☐ MFWD axle breather[a] ☐ ILS™ axle internal tie rod ball joint boots[b]

ILS is a trademark of Deere & Company
[a]Clean every 1000 operating hours or annually, whichever occurs first.
[b]If used regularly in extremely wet conditions, clean boots every 500 hours.

Check:

☐ Engine oil level ☐ Transmission-hydraulic oil level ☐ Tires	☐ NEUTRAL start system ☐ Hydraulic Cab Suspension Components or Mechanical Cab Suspension Components ☐ Transmission PARK system	☐ Engine air intake system ☐ Engine coolant freeze point[a] ☐ Cab suspension accumulator charge pressure (If Equipped with Hydraulic Cab Suspension)[ab] ☐ Vari-Cool™ fan drive and belt—Final Tier 4/ Stage V engine[c]

Vari-Cool is a trademark of Deere & Company
[a]Check annually or every 1000 operating hours, whichever occurs first.
[b]See your John Deere dealer.
[c]Check annually or every 500 operating hours, whichever occurs first.

Tighten:

☐ Wheel and wheel weight bolts		

Change:

☐ Engine oil and filter[ab] ☐ Fuel filters[c]	☐ Cab recirculation and fresh air filters[d]	☐ Engine primary and secondary air filters[d]

[a]Service in accordance with information in appropriate Diesel Oil and Filter Service Intervals topic in Engine Oil section of this Operator's Manual. Record oil used in Service - Record Charts - Engine Oil and Filter.
[b]Change at least once per year.
[c]Change every 500 operating hours or as indicated, whichever occurs first.
[d]Change annually or every 1000 operating hours, whichever occurs first.

Lubricate:

☐ MFWD axle king pins, tie rod ends, axle pivot fittings, and steering cylinders[a] ☐ ILS™ king pins, tie rod ends, pivot fittings, and suspension cylinders[b] ☐ MFWD axle outboard U-joint[c] ☐ ILS™ axle inboard U-joint[c]	☐ ILS™ axle internal tie rod ball joints[b] ☐ Rear hitch[d] ☐ Front hitch[d] ☐ Deluxe stabilizers	☐ Wagon hitch ☐ Cab suspension system (If Equipped with Hydraulic Cab Suspension) ☐ Front PTO driveshaft ☐ Vari-Cool™fan drive—Final Tier 4/Stage V engine[e]

ILS is a trademark of Deere & Company
Vari-Cool is a trademark of Deere & Company
[a]Normal lubrication is every 500 operating hours. If used in extremely wet conditions, lubricate daily or every 10 operating hours.
[b]Normal lubrication is every 250 operating hours. If used in extremely wet conditions, lubricate daily or every 10 operating hours.
[c]Normal lubrication is not necessary. If used in extremely wet conditions, lubricate daily or every 10 operating hours.
[d]Normal lubrication is every 250 operating hours. If used daily, lubricate every 50 operating hours.
[e]Lubricate annually or every 500 operating hours, whichever occurs first. No service if grease fitting is not present.

Service Completed Date: _____ Signature: _____ Dealer Stamp:

Comments:

KD34109,000056F-19-21AUG18

2250 Hour Service

Check:

☐ Engine oil level ☐ Transmission-hydraulic oil level	☐ Tires ☐ NEUTRAL start system	☐ Transmission PARK system

Lubricate:

☐ MFWD axle king pins, tie rod ends, axle pivot fittings, and steering cylinders[a] ☐ ILS™ king pins, tie rod ends, pivot fittings, and suspension cylinders[b] ☐ ILS™ axle internal tie rod ball joints[b]	☐ MFWD axle outboard U-joint[c] ☐ ILS™ axle inboard U-joint[c] ☐ Wagon hitch	☐ Front hitch[d] ☐ Deluxe stabilizers ☐ Rear hitch[d]

ILS is a trademark of Deere & Company
[a]Normal lubrication is every 500 operating hours. If used in extremely wet conditions, lubricate daily or every 10 operating hours.
[b]Normal lubrication is every 250 operating hours. If used in extremely wet conditions, lubricate daily or every 10 operating hours.
[c]Normal lubrication is not necessary. If used in extremely wet conditions, lubricate daily or every 10 operating hours.
[d]Normal lubrication is every 250 operating hours. If used daily, lubricate every 50 operating hours.

Service Completed Date: _____ Signature: _____ Dealer Stamp:

Comments:

KD34109,0000570-19-23JUL18

2500 Hour Service

Clean:

☐ Dual beam radar sensor	☐ Optional fuel water separator and filter element	☐ ILS™axle internal tie rod ball joint boots[a]

ILS is a trademark of Deere & Company
[a]If used regularly in extremely wet conditions, clean boots every 500 hours.

Check:

☐ Engine oil level ☐ Transmission-hydraulic oil level ☐ Tires	☐ NEUTRAL start system ☐ Transmission PARK system	☐ Engine air intake system ☐ Vari-Cool™ fan drive and belt—Final Tier 4/ Stage V engine[a]

Vari-Cool is a trademark of Deere & Company
[a]Check annually or every 500 operating hours, whichever occurs first.

Tighten:

☐ Wheel and wheel weight bolts		

Change:

☐ Engine oil and filter[ab]	☐ Fuel filters[c]	☐ Transmission-hydraulic oil filter

[a]Service in accordance with information in appropriate Diesel Oil and Filter Service Intervals topic in Engine Oil section of this Operator's Manual. Record oil used in Service - Record Charts - Engine Oil and Filter.
[b]Change at least once per year.
[c]Change every 500 operating hours or as indicated, whichever occurs first.

Lubricate:

☐ MFWD axle king pins, tie rod ends, axle pivot fittings, and steering cylinders[a] ☐ ILS™ king pins, tie rod ends, pivot fittings, and suspension cylinders[b] ☐ MFWD axle outboard U-joint[c] ☐ ILS™ axle inboard U-joint[c]	☐ ILS™ axle internal tie rod ball joints[b] ☐ Rear hitch[d] ☐ Front hitch[d] ☐ Deluxe stabilizers	☐ Wagon hitch ☐ Cab suspension system (If Equipped with Hydraulic Cab Suspension) ☐ Front PTO driveshaft ☐ Vari-Cool™fan drive—Final Tier 4/Stage V engine[e]

ILS is a trademark of Deere & Company
Vari-Cool is a trademark of Deere & Company
[a]Normal lubrication is every 500 operating hours. If used in extremely wet conditions, lubricate daily or every 10 operating hours.
[b]Normal lubrication is every 250 operating hours. If used in extremely wet conditions, lubricate daily or every 10 operating hours.
[c]Normal lubrication is not necessary. If used in extremely wet conditions, lubricate daily or every 10 operating hours.
[d]Normal lubrication is every 250 operating hours. If used daily, lubricate every 50 operating hours.
[e]Lubricate annually or every 500 operating hours, whichever occurs first. No service if grease fitting is not present.

Service Completed Date: _____ Signature: _____ Dealer Stamp:

Comments:

KD34109,0000571-19-17JUL18

2750 Hour Service

Check:

☐ Engine oil level ☐ Transmission-hydraulic oil level	☐ Tires ☐ NEUTRAL start system	☐ Transmission PARK system

Lubricate:

☐ MFWD axle king pins, tie rod ends, axle pivot fittings, and steering cylinders[a] ☐ ILS™ king pins, tie rod ends, pivot fittings, and suspension cylinders[b] ☐ MFWD axle outboard U-joint[c]	☐ ILS™ axle inboard U-joint[c] ☐ ILS™ axle internal tie rod ball joints[b] ☐ Wagon hitch	☐ Front hitch[d] ☐ Deluxe stabilizers ☐ Rear hitch[d]

ILS is a trademark of Deere & Company
[a]Normal lubrication is every 500 operating hours. If used in extremely wet conditions, lubricate daily or every 10 operating hours.
[b]Normal lubrication is every 250 operating hours. If used in extremely wet conditions, lubricate daily or every 10 operating hours.
[c]Normal lubrication is not necessary. If used in extremely wet conditions, lubricate daily or every 10 operating hours.
[d]Normal lubrication is every 250 operating hours. If used daily, lubricate every 50 operating hours.

Service Completed Date: _____ Signature: _____ Dealer Stamp:

Comments:

KD34109,0000572-19-23JUL18

3000 Hour Service

Clean:

☐ Dual beam radar sensor ☐ Optional fuel water separator and filter element	☐ MFWD axle breather[a]	☐ Hydraulic oil suction screen ☐ ILS™ axle internal tie rod ball joint boots[b]

ILS is a trademark of Deere & Company
[a]Clean every 1000 operating hours or annually, whichever occurs first.
[b]If used regularly in extremely wet conditions, clean boots every 500 hours.

Check:

☐ Engine oil level ☐ Transmission-hydraulic oil level ☐ Tires ☐ NEUTRAL start system	☐ Hydraulic Cab Suspension Components or Mechanical Cab Suspension Components ☐ Transmission PARK system ☐ Engine air intake system ☐ ILS™ upper and lower rod and head end accumulator charge pressure[ab]	☐ Vari-Cool™ fan drive and belt—Final Tier 4/Stage V engine[c] ☐ Engine coolant freeze point[d] ☐ Auxiliary drive belt and drive belt tensioner ☐ Cab suspension accumulator charge pressure (If Equipped with Hydraulic Cab Suspension)[db] ☐ Engine valve clearance—Final Tier 4/Stage V engine[b]

ILS is a trademark of Deere & Company
Vari-Cool is a trademark of Deere & Company
[a]Check annually or every 1500 operating hours, whichever occurs first.
[b]See your John Deere dealer.
[c]Check annually or every 500 operating hours, whichever occurs first.
[d]Check annually or every 1000 operating hours, whichever occurs first.

Tighten:

☐ Wheel and wheel weight bolts		

Change:

☐ Engine oil and filter[ab] ☐ Fuel filters[c] ☐ Cab recirculation and fresh air filters[d] ☐ Engine primary and secondary air filters[d]	☐ MFWD axle housing oil ☐ MFWD or ILS™ wheel hub oil ☐ Transmission-hydraulic oil and filters[e] ☐ Fuel tank vent filter ☐ Vari-Cool™ Fan Drive bushings, seals, and wear pads—Final Tier 4/Stage V engine[fg]	☐ SCV pilot valve filter ☐ DEF tank vent filter—Final Tier 4/Stage V engine[h] ☐ Trailer air brake air dryer filter[i] ☐ Differential oil ☐ In-Line DEF Filter (If Equipped)

ILS is a trademark of Deere & Company
[a]Service in accordance with information in appropriate Diesel Oil and Filter Service Intervals topic in Engine Oil section of this Operator's Manual. Record oil used in Service - Record Charts - Engine Oil and Filter.
[b]Change at least once per year.
[c]Change every 500 operating hours or as indicated, whichever occurs first.
[d]Change annually or every 1000 operating hours, whichever occurs first.
[e]Completion of this service requires performance of tasks specific to each transmission type. See appropriate content in Service - Change section of this Operator's Manual.
[f]9.0 L engine.
[g]In extreme conditions. Change every 4500 hours in normal conditions.
[h]Change after first year or first 1500 operating hours, whichever occurs first. After initial service, change every 3 years or 4500 operating hours, whichever occurs first.
[i]Change every 2 years or 1500 operating hours, whichever occurs first.

Lubricate:

☐ MFWD axle king pins, tie rod ends, axle pivot fittings, and steering cylinders[a] ☐ ILS™ king pins, tie rod ends, pivot fittings, and suspension cylinders[b] ☐ MFWD axle outboard U-joint[c] ☐ ILS™ axle inboard U-joint[c]	☐ ILS™ axle internal tie rod ball joints[b] ☐ Rear hitch[d] ☐ Front hitch[d] ☐ Deluxe stabilizers ☐ Wagon hitch	☐ Front PTO driveshaft ☐ Vari-Cool™fan drive—Final Tier 4/Stage V engine[e] ☐ Draft link support shaft bushing ☐ Cab suspension system (If Equipped with Hydraulic Cab Suspension)

ILS is a trademark of Deere & Company
Vari-Cool is a trademark of Deere & Company
[a]Normal lubrication is every 500 operating hours. If used in extremely wet conditions, lubricate daily or every 10 operating hours.
[b]Normal lubrication is every 250 operating hours. If used in extremely wet conditions, lubricate daily or every 10 operating hours.
[c]Normal lubrication is not necessary. If used in extremely wet conditions, lubricate daily or every 10 operating hours.
[d]Normal lubrication is every 250 operating hours. If used daily, lubricate every 50 operating hours.
[e]Lubricate annually or every 500 operating hours, whichever occurs first. No service if grease fitting is not present.

Service Completed Date: _____ Signature: _____ Dealer Stamp:

Comments:

KD34109,0000573-19-28AUG18

3250 Hour Service

Check:

☐ Engine oil level ☐ Transmission-hydraulic oil level	☐ Tires ☐ NEUTRAL start system	☐ Transmission PARK system

Lubricate:

☐ MFWD axle king pins, tie rod ends, axle pivot fittings, and steering cylinders[a] ☐ ILS™ king pins, tie rod ends, pivot fittings, and suspension cylinders[b] ☐ MFWD axle outboard U-joint[c]	☐ ILS™ axle inboard U-joint[c] ☐ ILS™ axle internal tie rod ball joints[b] ☐ Wagon hitch	☐ Front hitch[d] ☐ Deluxe stabilizers ☐ Rear hitch[d]

ILS is a trademark of Deere & Company
[a]Normal lubrication is every 500 operating hours. If used in extremely wet conditions, lubricate daily or every 10 operating hours.
[b]Normal lubrication is every 250 operating hours. If used in extremely wet conditions, lubricate daily or every 10 operating hours.
[c]Normal lubrication is not necessary. If used in extremely wet conditions, lubricate daily or every 10 operating hours.
[d]Normal lubrication is every 250 operating hours. If used daily, lubricate every 50 operating hours.

Service Completed Date: _____ Signature: _____ Dealer Stamp:

Comments:

KD34109,0000574-19-23JUL18

3500 Hour Service

Clean:

☐ Dual beam radar sensor	☐ Optional fuel water separator and filter element	☐ ILS™ axle internal tie rod ball joint boots[a]

ILS is a trademark of Deere & Company
[a]If used regularly in extremely wet conditions, clean boots every 500 hours.

Check:

☐ Engine oil level ☐ Transmission-hydraulic oil level ☐ Tires	☐ NEUTRAL start system ☐ Transmission PARK system	☐ Engine air intake system ☐ Vari-Cool™ fan drive and belt—Final Tier 4/ Stage V engine[a]

Vari-Cool is a trademark of Deere & Company
[a]Check annually or every 500 operating hours, whichever occurs first.

Tighten:

☐ Wheel and wheel weight bolts		

Change:

☐ Engine oil and filter[ab]	☐ Fuel filters[c]	☐ Transmission-hydraulic oil filter

[a]Service in accordance with information in appropriate Diesel Oil and Filter Service Intervals topic in Engine Oil section of this Operator's Manual. Record oil used in Service - Record Charts - Engine Oil and Filter.
[b]Change at least once per year.
[c]Change every 500 operating hours or as indicated, whichever occurs first.

Lubricate:

☐ MFWD axle king pins, tie rod ends, axle pivot fittings, and steering cylinders[a] ☐ ILS™ king pins, tie rod ends, pivot fittings, and suspension cylinders[b] ☐ MFWD axle outboard U-joint[c] ☐ ILS™ axle inboard U-joint[c]	☐ ILS™ axle internal tie rod ball joints[b] ☐ Rear hitch[d] ☐ Front hitch[d] ☐ Deluxe stabilizers	☐ Wagon hitch ☐ Cab suspension (If Equipped with Hydraulic Cab Suspension) ☐ Front PTO driveshaft ☐ Vari-Cool™ fan drive—Final Tier 4/Stage V engine[e]

ILS is a trademark of Deere & Company
Vari-Cool is a trademark of Deere & Company
[a]Normal lubrication is every 500 operating hours. If used in extremely wet conditions, lubricate daily or every 10 operating hours.
[b]Normal lubrication is every 250 operating hours. If used in extremely wet conditions, lubricate daily or every 10 operating hours.
[c]Normal lubrication is not necessary. If used in extremely wet conditions, lubricate daily or every 10 operating hours.
[d]Normal lubrication is every 250 operating hours. If used daily, lubricate every 50 operating hours.
[e]Lubricate annually or every 500 operating hours, whichever occurs first. No service if grease fitting is not present.

Service Completed Date: _____ Signature: _____ Dealer Stamp:

Comments:

KD34109,0000575-19-17JUL18

3750 Hour Service

Check:

☐ Engine oil level	☐ Tires	☐ Transmission PARK system
☐ Transmission-hydraulic oil level	☐ NEUTRAL start system	

Lubricate:

☐ MFWD axle king pins, tie rod ends, axle pivot fittings, and steering cylinders[a]	☐ ILS™ axle inboard U-joint[c]	☐ Front hitch[d]
☐ ILS™ king pins, tie rod ends, pivot fittings, and suspension cylinders[b]	☐ ILS™ axle internal tie rod ball joints[b]	☐ Deluxe stabilizers
☐ MFWD axle outboard U-joint[c]	☐ Wagon hitch	☐ Rear hitch[d]

ILS is a trademark of Deere & Company
[a]Normal lubrication is every 500 operating hours. If used in extremely wet conditions, lubricate daily or every 10 operating hours.
[b]Normal lubrication is every 250 operating hours. If used in extremely wet conditions, lubricate daily or every 10 operating hours.
[c]Normal lubrication is not necessary. If used in extremely wet conditions, lubricate daily or every 10 operating hours.
[d]Normal lubrication is every 250 operating hours. If used daily, lubricate every 50 operating hours.

Service Completed Date: _____ Signature: _____ Dealer Stamp:

Comments:

KD34109,0000576-19-23JUL18

4000 Hour Service

Clean:

☐ Dual beam radar sensor	☐ Optional fuel water separator and filter element	☐ MFWD axle breather[a]
		☐ ILS™ axle internal tie rod ball joints[b]

ILS is a trademark of Deere & Company
[a]Clean every 1000 operating hours or annually, whichever occurs first.
[b]If used regularly in extremely wet conditions, clean boots every 500 hours.

Check:

☐ Engine oil level	☐ NEUTRAL start system	☐ Engine coolant freeze point[a]
☐ Transmission-hydraulic oil level	☐ Transmission PARK system	☐ Cab suspension accumulator charge pressure (If Equipped with Hydraulic Cab Suspension)[ab]
☐ Tires	☐ Engine air intake system	☐ Vari-Cool™ fan drive and belt—Final Tier 4/ Stage V engine[c]

Vari-Cool is a trademark of Deere & Company
[a]Check annually or every 1000 operating hours, whichever occurs first.
[b]See your John Deere dealer.
[c]Check annually or every 500 operating hours, whichever occurs first.

Tighten:

☐ Wheel and wheel weight bolts		

Change:

☐ Engine oil and filter[ab] ☐ Fuel filters[c]	☐ Cab recirculation and fresh air filters[d]	☐ Engine primary and secondary air filters[d]

[a]Service in accordance with information in appropriate Diesel Oil and Filter Service Intervals topic in Engine Oil section of this Operator's Manual. Record oil used in Service - Record Charts - Engine Oil and Filter.
[b]Change at least once per year.
[c]Change every 500 operating hours or as indicated, whichever occurs first.
[d]Change annually or every 1000 operating hours, whichever occurs first.

Lubricate:

☐ MFWD axle king pins, tie rod ends, axle pivot fittings, and steering cylinders[a] ☐ ILS™ king pins, tie rod ends, pivot fittings, and suspension cylinders[b] ☐ MFWD axle outboard U-joint[c] ☐ ILS™ axle inboard U-joint[c]	☐ ILS™ axle internal tie rod ball joints[b] ☐ Rear hitch[d] ☐ Front hitch[d] ☐ Deluxe stabilizers	☐ Wagon hitch ☐ Cab suspension system (If Equipped with Hydraulic Cab Suspension) ☐ Front PTO driveshaft ☐ Vari-Cool™fan drive—Final Tier 4/Stage V engine[e]

ILS is a trademark of Deere & Company
Vari-Cool is a trademark of Deere & Company
[a]Normal lubrication is every 500 operating hours. If used in extremely wet conditions, lubricate daily or every 10 operating hours.
[b]Normal lubrication is every 250 operating hours. If used in extremely wet conditions, lubricate daily or every 10 operating hours.
[c]Normal lubrication is not necessary. If used in extremely wet conditions, lubricate daily or every 10 operating hours.
[d]Normal lubrication is every 250 operating hours. If used daily, lubricate every 50 operating hours.
[e]Lubricate annually or every 500 operating hours, whichever occurs first. No service if grease fitting is not present.

Service Completed Date: _____ Signature: _____ Dealer Stamp:

Comments:

KD34109,0000577-19-21AUG18

4250 Hour Service

Check:

☐ Engine oil level ☐ Transmission-hydraulic oil level	☐ Tires ☐ NEUTRAL start system	☐ Transmission PARK system

Lubricate:

☐ MFWD axle king pins, tie rod ends, axle pivot fittings, and steering cylinders[a] ☐ ILS™ king pins, tie rod ends, pivot fittings, and suspension cylinders[b] ☐ MFWD axle outboard U-joint[c]	☐ ILS™ axle inboard U-joint[c] ☐ ILS™ axle internal tie rod ball joints[b] ☐ Wagon hitch	☐ Front hitch[d] ☐ Deluxe stabilizers ☐ Rear hitch[d]

ILS is a trademark of Deere & Company
[a]Normal lubrication is every 500 operating hours. If used in extremely wet conditions, lubricate daily or every 10 operating hours.
[b]Normal lubrication is every 250 operating hours. If used in extremely wet conditions, lubricate daily or every 10 operating hours.
[c]Normal lubrication is not necessary. If used in extremely wet conditions, lubricate daily or every 10 operating hours.
[d]Normal lubrication is every 250 operating hours. If used daily, lubricate every 50 operating hours.

Service Completed Date: _____ Signature: _____ Dealer Stamp:

Comments:

KD34109,0000578-19-23JUL18

4500 Hour Service

Clean:

☐ Dual beam radar sensor	☐ Optional fuel water separator and filter element	☐ Hydraulic oil suction screen ☐ ILS™ axle internal tie rod ball joint boots[a]

ILS is a trademark of Deere & Company
[a]If used regularly in extremely wet conditions, clean boots every 500 hours.

Check:

☐ Engine oil level ☐ Transmission-hydraulic oil level ☐ Tires	☐ NEUTRAL start system ☐ Hydraulic Cab Suspension Components or Mechanical Cab Suspension Components ☐ Transmission PARK system	☐ Engine air intake system ☐ ILS™ upper and lower rod and head end accumulator charge pressure[ab] ☐ Vari-Cool™ fan drive and belt—Final Tier 4/ Stage V engine[c] ☐ Auxiliary drive belt and drive belt tensioner

ILS is a trademark of Deere & Company
Vari-Cool is a trademark of Deere & Company
[a]Check annually or every 1500 operating hours, whichever occurs first.
[b]See your John Deere dealer.
[c]Check annually or every 500 operating hours, whichever occurs first.

Tighten:

☐ Wheel and wheel weight bolts		

Change:

☐ Engine oil and filter[ab] ☐ Fuel filters[c] ☐ MFWD axle housing oil ☐ MFWD or ILS™ wheel hub oil ☐ Transmission-hydraulic oil and filters[d]	☐ Fuel tank vent filter ☐ SCV pilot valve filter ☐ DEF tank vent filter—Final Tier 4/Stage V engine[e] ☐ Trailer air brake air dryer filter[f] ☐ DEF dosing unit filter—Final Tier 4/Stage V engine[g]	☐ Vari-Cool™ fan drive bushings, seals, and wear pads—Final Tier 4/Stage V engine[hi] ☐ Differential oil ☐ Engine crankshaft damper ☐ Transmission torsional damper[j]

ILS is a trademark of Deere & Company
Vari-Cool is a trademark of Deere & Company
[a]Service in accordance with information in appropriate Diesel Oil and Filter Service Intervals topic in Engine Oil section of this Operator's Manual. Record oil used in Service - Record Charts - Engine Oil and Filter.
[b]Change at least once per year.
[c]Change every 500 operating hours or as indicated, whichever occurs first.
[d]Completion of this service requires performance of tasks specific to each transmission type. See appropriate content in Service - Change section of this Operator's Manual.
[e]Change after first year or first 1500 operating hours, whichever occurs first. After initial service, change every 3 years or 4500 operating hours, whichever occurs first.
[f]Change every 2 years or 1500 operating hours, whichever occurs first.
[g]Change every 4500 operating hours or 3 years, whichever occurs first.
[h]9.0 L engine.
[i]In normal conditions. Change every 3000 hours in extreme conditions.
[j]Service not required on 8370R equipped with e23 transmission or 8400R.

Lubricate:

☐ MFWD axle king pins, tie rod ends, axle pivot fittings, and steering cylinders[a] ☐ ILS™ king pins, tie rod ends, pivot fittings, and suspension cylinders[b] ☐ MFWD axle outboard U-joint[c] ☐ ILS™ axle inboard U-joint[c]	☐ ILS™ axle internal tie rod ball joints[b] ☐ Rear hitch[d] ☐ Front hitch[d] ☐ Deluxe stabilizers ☐ Wagon hitch	☐ Vari-Cool™fan drive—Final Tier 4/Stage V engine[e] ☐ Draft link support shaft bushing ☐ Front PTO driveshaft ☐ Cab suspension system (If Equipped with Hydraulic Cab Suspension)

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[a]Normal lubrication is every 500 operating hours. If used in extremely wet conditions, lubricate daily or every 10 operating hours.
[b]Normal lubrication is every 250 operating hours. If used in extremely wet conditions, lubricate daily or every 10 operating hours.
[c]Normal lubrication is not necessary. If used in extremely wet conditions, lubricate daily or every 10 operating hours.
[d]Normal lubrication is every 250 operating hours. If used daily, lubricate every 50 operating hours.
[e]Lubricate annually or every 500 operating hours, whichever occurs first. If no grease fitting is present see your John Deere Dealer.

Service Completed Date: _____ Signature: _____ Dealer Stamp:

Comments:

KD34109,0000579-19-28AUG18

4750 Hour Service

Check:

☐ Engine oil level ☐ Transmission-hydraulic oil level	☐ Tires ☐ NEUTRAL start system	☐ Transmission PARK system

Lubricate:

☐ MFWD axle king pins, tie rod ends, axle pivot fittings, and steering cylinders[a] ☐ ILS™ king pins, tie rod ends, pivot fittings, and suspension cylinders[b] ☐ MFWD axle outboard U-joint[c]	☐ ILS™ axle inboard U-joint[c] ☐ ILS™ axle internal tie rod ball joints[b] ☐ Wagon hitch	☐ Front hitch[d] ☐ Deluxe stabilizers ☐ Rear hitch[d]

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[b]Normal lubrication is every 250 operating hours. If used in extremely wet conditions, lubricate daily or every 10 operating hours.
[c]Normal lubrication is not necessary. If used in extremely wet conditions, lubricate daily or every 10 operating hours.
[d]Normal lubrication is every 250 operating hours. If used daily, lubricate every 50 operating hours.

Service Completed Date: _____ Signature: _____ Dealer Stamp:

Comments:

KD34109,000057A-19-23JUL18

5000 Hour Service

Clean:

☐ Dual beam radar sensor	☐ Optional fuel water separator and filter element	☐ MFWD axle breather[a] ☐ ILS™axle internal tie rod ball joint boots[b]

ILS is a trademark of Deere & Company
[a]Clean every 1000 operating hours or annually, whichever occurs first.
[b]If used regularly in extremely wet conditions, clean boots every 500 hours.

Check:

☐ Engine oil level ☐ Transmission-hydraulic oil level ☐ Tires	☐ NEUTRAL start system ☐ Transmission PARK system ☐ Engine air intake system	☐ Engine coolant freeze point[a] ☐ Cab suspension accumulator charge pressure (If Equipped with Hydraulic Cab Suspension)[ab] ☐ Vari-Cool™ fan drive and belt—Final Tier 4/ Stage V engine[c]

Vari-Cool is a trademark of Deere & Company
[a]Check annually or every 1000 operating hours, whichever occurs first.
[b]See your John Deere dealer.
[c]Check annually or every 500 operating hours, whichever occurs first.

Tighten:

☐ Wheel and wheel weight bolts		

Change:

☐ Engine oil and filter[ab] ☐ Fuel filters[c]	☐ Cab recirculation and fresh air filters[d]	☐ Engine primary and secondary air filters[d]

[a]Service in accordance with information in appropriate Diesel Oil and Filter Service Intervals topic in Engine Oil section of this Operator's Manual. Record oil used in Service - Record Charts - Engine Oil and Filter.
[b]Change at least once per year.
[c]Change every 500 operating hours or as indicated, whichever occurs first.
[d]Change annually or every 1000 operating hours, whichever occurs first.

Lubricate:

☐ MFWD axle king pins, tie rod ends, axle pivot fittings, and steering cylinders[a] ☐ ILS™ king pins, tie rod ends, pivot fittings, and suspension cylinders[b] ☐ MFWD axle outboard U-joint[c] ☐ ILS™ axle inboard U-joint[c]	☐ ILS™ axle internal tie rod ball joints[b] ☐ Rear hitch[d] ☐ Front hitch[d] ☐ Deluxe stabilizers	☐ Wagon hitch ☐ Cab suspension system (If Equipped with Hydraulic Cab Suspension) ☐ Front PTO driveshaft ☐ Vari-Cool™fan drive—Final Tier 4/Stage V engine[e]

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[b]Normal lubrication is every 250 operating hours. If used in extremely wet conditions, lubricate daily or every 10 operating hours.
[c]Normal lubrication is not necessary. If used in extremely wet conditions, lubricate daily or every 10 operating hours.
[d]Normal lubrication is every 250 operating hours. If used daily, lubricate every 50 operating hours.
[e]Lubricate annually or every 500 operating hours, whichever occurs first. No service if grease fitting is not present.

Service Completed Date: _____ Signature: _____ Dealer Stamp:

Comments:

KD34109,000057B-19-21AUG18

5250 Hour Service

Check:

☐ Engine oil level ☐ Transmission-hydraulic oil level	☐ Tires ☐ NEUTRAL start system	☐ Transmission PARK system

Lubricate:

☐ MFWD axle king pins, tie rod ends, axle pivot fittings, and steering cylinders[a] ☐ ILS™ king pins, tie rod ends, pivot fittings, and suspension cylinders[b] ☐ MFWD axle outboard U-joint[c]	☐ ILS™ axle inboard U-joint[c] ☐ ILS™ axle internal tie rod ball joints[b] ☐ Wagon hitch	☐ Front hitch[d] ☐ Deluxe stabilizers ☐ Rear hitch[d]

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[b]Normal lubrication is every 250 operating hours. If used in extremely wet conditions, lubricate daily or every 10 operating hours.
[c]Normal lubrication is not necessary. If used in extremely wet conditions, lubricate daily or every 10 operating hours.
[d]Normal lubrication is every 250 operating hours. If used daily, lubricate every 50 operating hours.

Service Completed Date: _____ Signature: _____ Dealer Stamp:

Comments:

KD34109,000057C-19-23JUL18

5500 Hour Service

Clean:

☐ Dual beam radar sensor	☐ Optional fuel water separator and filter element	☐ ILS™ axle internal tie rod ball joint boots[a]

ILS is a trademark of Deere & Company
[a]If used regularly in extremely wet conditions, clean boots every 500 hours.

Check:

☐ Engine oil level ☐ Transmission-hydraulic oil level ☐ Tires	☐ NEUTRAL start system ☐ Transmission PARK system	☐ Engine air intake system ☐ Vari-Cool™ fan drive and belt—Final Tier 4/ Stage V engine[a]

Vari-Cool is a trademark of Deere & Company
[a]Check annually or every 500 operating hours, whichever occurs first.

Tighten:

☐ Wheel and wheel weight bolts		

Change:

☐ Engine oil and filter[ab]	☐ Fuel filters[c]	☐ Transmission-hydraulic oil filter

[a]Service in accordance with information in appropriate Diesel Oil and Filter Service Intervals topic in Engine Oil section of this Operator's Manual. Record oil used in Service - Record Charts - Engine Oil and Filter.
[b]Change at least once per year.
[c]Change every 500 operating hours or as indicated, whichever occurs first.

Lubricate:

☐ MFWD axle king pins, tie rod ends, axle pivot fittings, and steering cylinders[a] ☐ ILS™ king pins, tie rod ends, pivot fittings, and suspension cylinders[b] ☐ MFWD axle outboard U-joint[c] ☐ ILS™ axle inboard U-joint[c]	☐ ILS™ axle internal tie rod ball joints[b] ☐ Rear hitch[d] ☐ Front hitch[d] ☐ Deluxe stabilizers	☐ Wagon hitch ☐ Cab suspension system (If Equipped with Hydraulic Cab Suspension) ☐ Front PTO driveshaft ☐ Vari-Cool™ fan drive—Final Tier 4/Stage V engine[e]

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[b]Normal lubrication is every 250 operating hours. If used in extremely wet conditions, lubricate daily or every 10 operating hours.
[c]Normal lubrication is not necessary. If used in extremely wet conditions, lubricate daily or every 10 operating hours.
[d]Normal lubrication is every 250 operating hours. If used daily, lubricate every 50 operating hours.
[e]Lubricate annually or every 500 operating hours, whichever occurs first. No service if grease fitting is not present.

Service Completed Date: _____ Signature: _____ Dealer Stamp:

Comments:

KD34109,000057D-19-17JUL18

5750 Hour Service

Check:

☐ Engine oil level ☐ Transmission-hydraulic oil level	☐ Tires ☐ NEUTRAL start system	☐ Transmission PARK system

Lubricate:

☐ MFWD axle king pins, tie rod ends, axle pivot fittings, and steering cylinders[a] ☐ ILS™ king pins, tie rod ends, pivot fittings, and suspension cylinders[b] ☐ MFWD axle outboard U-joint[c]	☐ ILS™ axle inboard U-joint[c] ☐ ILS™ axle internal tie rod ball joints[b] ☐ Wagon hitch	☐ Front hitch[d] ☐ Deluxe stabilizers ☐ Rear hitch[d]

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[b]Normal lubrication is every 250 operating hours. If used in extremely wet conditions, lubricate daily or every 10 operating hours.
[c]Normal lubrication is not necessary. If used in extremely wet conditions, lubricate daily or every 10 operating hours.
[d]Normal lubrication is every 250 operating hours. If used daily, lubricate every 50 operating hours.

Service Completed Date: _____ Signature: _____ Dealer Stamp:

Comments:

KD34109,000057E-19-23JUL18

6000 Hour Service

Clean:

☐ Dual beam radar sensor ☐ Optional fuel water separator and filter element	☐ MFWD axle breather[a]	☐ Hydraulic oil suction screen ☐ ILS™axle internal tie rod ball joint boots[b]

ILS is a trademark of Deere & Company
[a]Clean every 1000 operating hours or annually, whichever occurs first.
[b]If used regularly in extremely wet conditions, clean boots every 500 hours.

Check:

☐ Engine oil level ☐ Transmission-hydraulic oil level ☐ Tires ☐ NEUTRAL start system ☐ Transmission PARK system	☐ Engine air intake system ☐ ILS™ upper and lower rod and head end accumulator charge pressure[ab] ☐ Vari-Cool™ fan drive and belt—Final Tier 4/ Stage V engine[c] ☐ Engine coolant freeze point[d]	☐ Auxiliary drive belt and drive belt tensioner ☐ Cab suspension accumulator charge pressure (If Equipped with Hydraulic Cab Suspension)[db] ☐ Engine valve clearance[b] ☐ Front PTO housing oil level

ILS is a trademark of Deere & Company
Vari-Cool is a trademark of Deere & Company
[a]Check annually or every 1500 operating hours, whichever occurs first.
[b]See your John Deere dealer.
[c]Check annually or every 500 operating hours, whichever occurs first.
[d]Check annually or every 1000 operating hours, whichever occurs first.

Tighten:

☐ Wheel and wheel weight bolts		

Change:

☐ Engine oil and filter[ab] ☐ Fuel filters[c] ☐ Cab recirculation and fresh air filters[d] ☐ Engine primary and secondary air filters[d] ☐ MFWD axle housing oil	☐ MFWD or ILS™ wheel hub oil ☐ Transmission-hydraulic oil and filters[e] ☐ Fuel tank vent filter ☐ SCV pilot valve filter ☐ Vari-Cool™ Fan Drive bushings, seals, and wear pads—Final Tier 4/Stage V engine[fg]	☐ DEF tank vent filter—Final Tier 4/Stage V engine[h] ☐ Trailer air brake air dryer filter[i] ☐ Engine coolant[j] ☐ Differential oil

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[b]Change at least once per year.
[c]Change every 500 operating hours or as indicated, whichever occurs first.
[d]Change annually or every 1000 operating hours, whichever occurs first.
[e]Completion of this service requires performance of tasks specific to each transmission type. See appropriate content in Service - Change section of this Operator's Manual.
[f]9.0 L engine.
[g]In extreme conditions. Change every 4500 hours in normal conditions.
[h]Change after first year or first 1500 operating hours, whichever occurs first. After initial service, change every 3 years or 4500 operating hours, whichever occurs first.
[i]Change every 2 years or 1500 operating hours, whichever occurs first.
[j]INITIAL change interval is 6 years or 6000 operating hours, provided cooling system is topped off using only John Deere Cool-Gard™ II and premix. SCHEDULED interval (2 years or 2000 operating hours) can be extended up to 6 years and 6000 operating hours, depending upon coolant being used. See Drain Intervals for Diesel Engine Coolant in Engine Coolant section of this Operator's Manual.

Lubricate:

☐ MFWD axle king pins, tie rod ends, axle pivot fittings, and steering cylinders[a] ☐ ILS™ king pins, tie rod ends, pivot fittings, and suspension cylinders[b] ☐ MFWD axle outboard U-joint[c] ☐ ILS™ axle inboard U-joint[c]	☐ Rear hitch[d] ☐ Front hitch[d] ☐ Wagon hitch ☐ Deluxe stabilizers ☐ ILS™ axle internal tie rod ball joints[b]	☐ Vari-Cool™fan drive—Final Tier 4/Stage V engine[e] ☐ Draft link support shaft bushing ☐ Cab suspension system (If Equipped with Hydraulic Cab Suspension) ☐ Front PTO driveshaft

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[c]Normal lubrication is not necessary. If used in extremely wet conditions, lubricate daily or every 10 operating hours.
[d]Normal lubrication is every 250 operating hours. If used daily, lubricate every 50 operating hours.
[e]Lubricate annually or every 500 operating hours, whichever occurs first. No service if grease fitting is not present.

Service Completed Date: _____ Signature: _____ Dealer Stamp:

Comments:

KD34109,000057F-19-21AUG18

Services Beyond 6000 Hours

Record completion of scheduled services beyond 6000 hours of operation. Use listed equivalent hourly service charts to determine which tasks to perform.

Hour	Charts	Date	Signature	Dealer's Stamp
6250	250			
6500	500			
6750	250			
7000	1000			
7250	250			
7500	1500			
7750	250			
8000	1000			
8250	250			
8500	500			
8750	250			
9000	3000 and 4500			
9250	250			
9500	500			
9750	250			
10000	5000			
10250	250			
10500	500			
10750	250			
11000	1000			
11250	250			
11500	500			
11750	250			
12000	6000			
12250	250			
12500	500			
12750	250			
13000	1000			

Hour	Charts	Date	Signature	Dealer's Stamp
13250	250			
13500	4500			

RX32825,00017B3-19-13SEP17

Diesel Particulate Filter (DPF)—Final Tier 4/ Stage V Engine

CAUTION: Service beyond automated exhaust filter cleaning requires special tools and procedures, see appropriate additional information in this Operator's Manual section.

Automatic DPF cleaning generates very high temperatures. Disable exhaust filter cleaning in conditions where it may be unsafe for elevated exhaust temperatures.

When exhaust filter and warning light indicators are illuminated:

- Ensure exhaust filter cleaning is set to Auto, see Exhaust Filter System Overview—Final Tier 4/Stage V Engine and Auto Exhaust Filter Cleaning Mode—Final Tier 4/Stage V Engine in Emissions Equipment section of this Operator's Manual.
- Perform parked exhaust filter cleaning (if system allows), see Parked Exhaust Filter Cleaning—Final Tier 4/Stage V Engine in Emissions Equipment section of this Operator's Manual.

If exhaust filter cleaning is set to auto, parked exhaust filter cleaning has been performed and exhaust filter and warning light indicators are still illuminated, contact your John Deere dealer.

RX32825,0001778-19-16JUL18

Exhaust Filter/Diesel Particulate Filter (DPF) Ash Handling and Disposal

CAUTION: Under federal, state, and/or local laws or regulations, Diesel ash may be classified as a hazardous waste. Hazardous wastes must be disposed of in accordance with all applicable federal, state and local laws or regulations governing hazardous waste disposal. Only a qualified service provider should remove ash from the DPF. Personal protective equipment and clothing, maintained in a sanitary and reliable condition, should be used when handling and cleaning a DPF, see your John Deere dealer or qualified service provider for assistance.

RX32825,000177A-19-04APR18

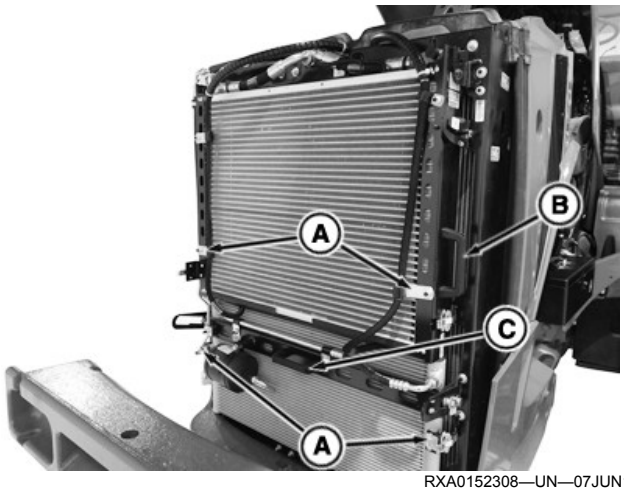
Exhaust Filter Disposal

CAUTION: Proper management of an exhaust filter that has reached the end of its useful life is required, since the ash or catalyst material in the device may be classified as hazardous waste under federal, state, and/or local laws or regulations. Used exhaust filters, which include the diesel particulate filter, may be exchanged at any John Deere dealer or qualified service provider.

RX32825,000177B-19-15JUN17

Engine Cooling System

1. Open hood, see Open Hood in Service - General Information section of this Operator's Manual.

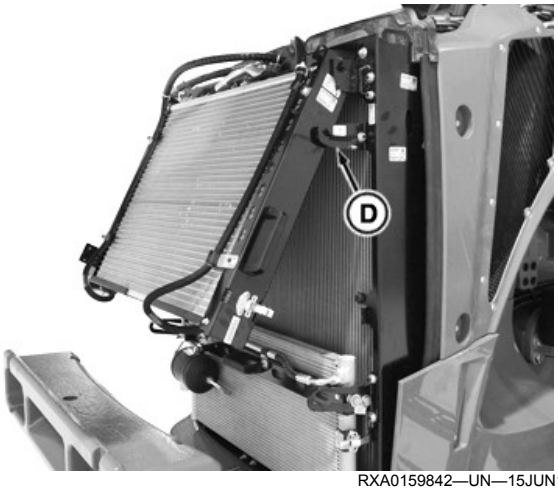


RXA0152308—UN—07JUN16

2. Release two spring latches (A) per side on hydraulic oil cooler and A/C condenser.

NOTE: Using an air hose, clean radiator and cooler units by blowing out any foreign material from back to front.

3. Swing hydraulic oil cooler and air conditioning condenser forward using handle (B) until locked in place.
4. Pull A/C condenser handle (C) forward to access front of radiator.
5. Thoroughly clean, blow air through fuel, hydraulic coolers and air conditioning condenser from back to front.
6. When finished cleaning components, push A/C condenser back into place and close spring latches.



RXA0159842—UN—15JUN17

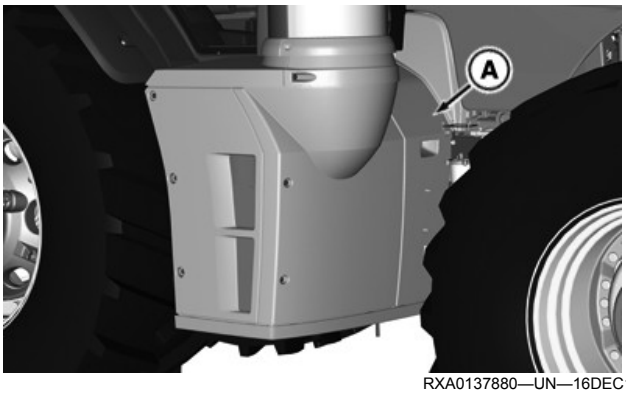
7. Pull up slightly on A/C condenser handle and release oil cooler lock (D) and swing hydraulic oil cooler back to original position and latch in place.

DB71512,0000033-19-15JUN17

Exhaust Enclosure

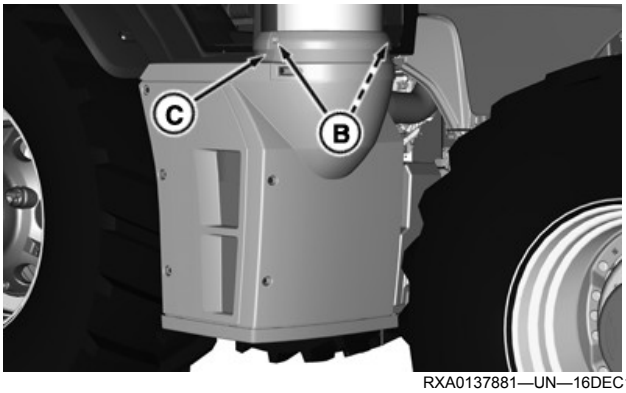
CAUTION: Prevent fires by keeping machine clean of accumulated trash, grease and debris.

1. Shut engine off and allow time for engine to cool.



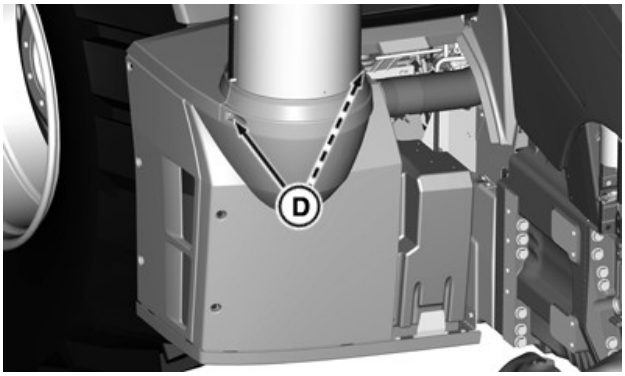
RXA0137880—UN—16DEC13

2. Remove right-hand removable panel (A) by pulling up and out on handle.



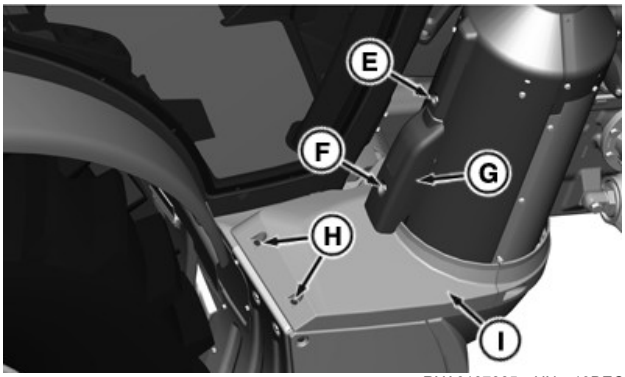
RXA0137881—UN—16DEC13

3. Remove trim ring cap screws (B), and front, rear trim ring sections (C).



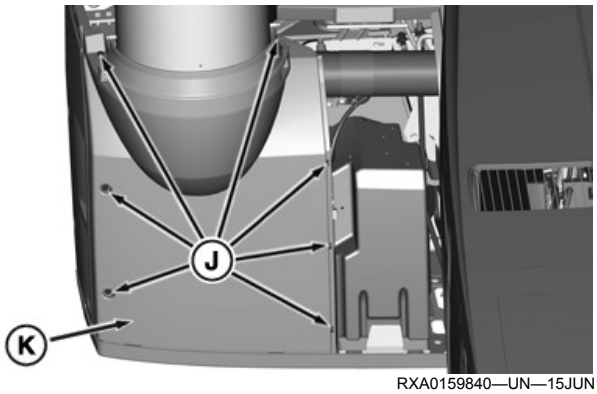
RXA0137882—UN—20DEC13

4. Remove upper front panel cap screws (D).



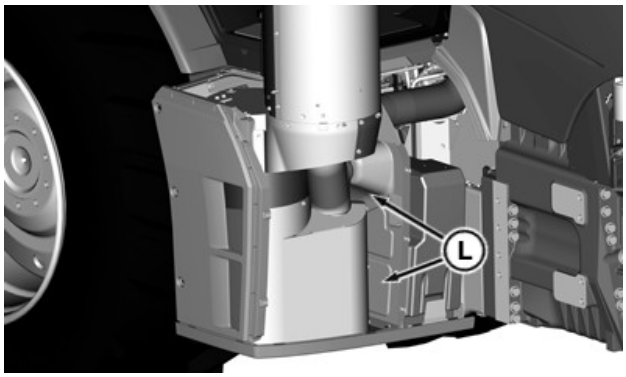
RXA0137885—UN—19DEC13

5. Loosen cap screw (E).
6. Remove NOX heat shield cap screw (F) to remove NOX heat shield (G).
7. Remove rear upper panel cap screws (H) and upper rear panel (I).



RXA0159840—UN—15JUN17

8. Remove lower front panel cap screws (J) and lower front panel (K).

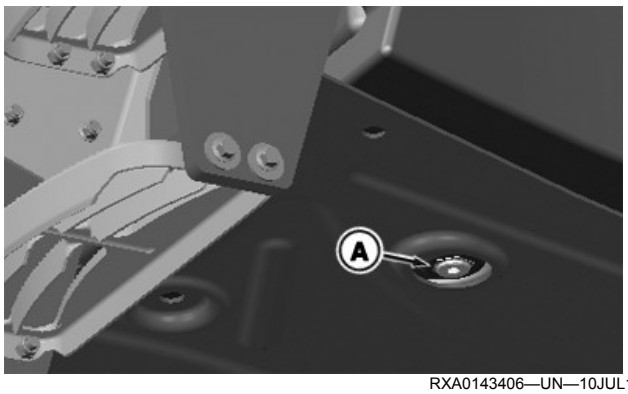


RXA0159841—UN—15JUN17

9. Remove all debris from enclosure area (L) with compressed air.
10. Reinstall all panels in reverse order and tighten all cap screws to 15 N·m (11 ft·lb).

RW29387,00000DC-19-14NOV17

Access DEF Tank Drain Plug



RXA0143406—UN—10JUL14

Remove drain plug (A) to drain DEF from tank.

Check O-ring for defects. Replace if needed.

Clean DEF Tank. See Diesel Exhaust Fluid (DEF) Tank in this section of this Operator's Manual.

Clean out any DEF crystallization in threads.

IMPORTANT: Do not over torque drain plug. Over torquing can cause plug to spin in tank and lead to leaks.

Install drain plug and tighten to 25 N·m (18 lb·ft).

TS36762,0000125-19-09NOV17

Cleaning Diesel Exhaust Fluid (DEF) Tank

CAUTION: Avoid contact with eyes. In case of contact, immediately flush eyes with large amounts of water for a minimum of 15 minutes. Reference the Materials Safety Data Sheet (MSDS) for additional information.

IMPORTANT: If DEF is spilled or contacts any surface other than the storage tank, immediately clean the surface with clear water. DEF is corrosive to painted and unpainted metallic surfaces and can distort some plastic and rubber components.

Spilled DEF, if left to dry or if only wiped away with a cloth, leaves a white residue. Improperly cleaned DEF spill can interfere with diagnosis of Selective Catalytic Reduction (SCR) system leakage problems.

If foreign material or fluid has been added to the DEF tank, drain the DEF tank, flush, and fill with new DEF.

If DEF quality is in question, pull a sample out of the DEF tank and place into a clear container. DEF should be crystal clear with a light ammonia smell. If DEF appears cloudy, has a colored tint, or has a profound ammonia smell, it is likely not within specification. DEF in this condition should not be used.

1. Remove drain plug (if equipped), and drain or siphon bad DEF from DEF tank.

NOTE: Cleaning can take place with DEF tank installed or removed.

2. Clean DEF tank with new DEF.

   DEF must pass visual, smell, and concentration checks before the engine can be ran. See Diesel Exhaust Fluid (DEF) – For Use In Selective Catalytic Reduction (SCR) Equipped Engines in the Fuels, Lubricants, and Coolants Section for more information.

3. Drain or siphon DEF tank.

NOTE: Repeat steps 2—3 until DEF tank has been cleaned.

4. Change DEF dosing unit filter and DEF tank header suction screen.
5. If removed, install DEF tank drain plug.
6. If removed, install DEF tank.
7. Fill DEF tank with new DEF.
8. Check DEF concentration with DEF refractometer, such as JDG11594 or JDG11684. The correct DEF concentration is 31.8% — 33.2%. See your authorized dealer for more information.
9. If DEF is not within specification, does not appear clear, or does not have a slight ammonia smell, contact your authorized dealer.

DX,DEF,CLEANTANK-19-15AUG17

Clean Display

IMPORTANT: Always clean display screen with power off. Cleaning screen while operating could result in unintended button selections.

To clean display, power down and wipe screen with a soft cloth sprayed with a non-ammonia based cleaner, such as John Deere glass or multipurpose cleaner.

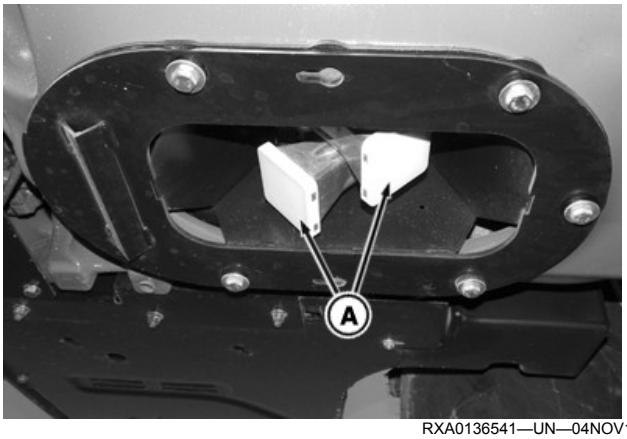
DX,PC,CLEAN,DISP-19-21OCT16

Dual Beam Radar Sensor

IMPORTANT: Inspect radar sensor horns for dirt or debris build up, which may affect accuracy performance. Service may be required more often in some operating conditions.

Avoid use of high pressure washer nozzle pointed directly at radar.

Avoid damage to radar and wiring harness when using sharp tools to remove dirt or packed mud around radar unit.



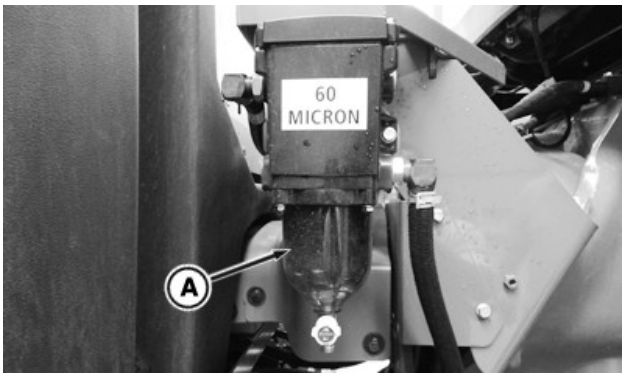
RXA0136541—UN—04NOV13

Dual beam radar sensor (A) is located on bottom of transmission.

1. Check radar sensor for damage.
2. Clean radar sensor with warm water and mild soap.
3. Dry with clean soft cloth.

RW29387,0000087-19-19JUN17

Optional Fuel Water Separator

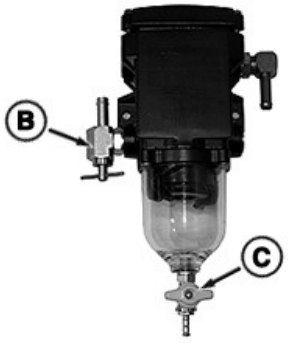


RXA0148376—UN—15JUN15

IMPORTANT: Back flush optional fuel water separator (A) whenever bowl is half full of water or when diagnostic trouble code appears. If, after flushing, trouble code is still displayed, wash filter element, see Optional Fuel Water Separator Filter Element in this Operator's Manual section. If code persists, change primary and secondary fuel filters.

NOTE: Filter element in water separator can be back flushed up to five times before being cleaned, see Optional Fuel Water Separator Filter Element in this Operator's Manual section.

1. Shut off engine.



RXA0159880—UN—19JUN17

2. Close fuel shut-off valve (B).

RXA0159881—UN—19JUN17

3. Open bleed screw (D) on top of water separator

cover. Allow water and dirt to be released from filter element and settle in bottom of bowl.

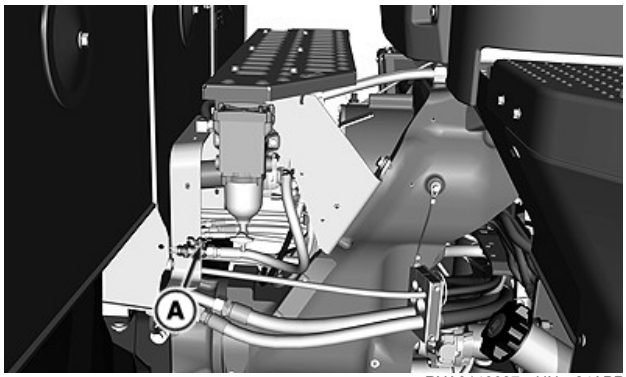
NOTE: Drain fuel into appropriate container and dispose of in accordance with local laws and ordinances.

As fuel, water, and dirt is drained from bowl in step 4, more water and dirt may be flushed from filter element and collect in bottom of bowl.

4. Push IN on drain valve (C) and turn COUNTERCLOCKWISE to drain water and dirt from bowl.
5. Close drain valve and allow water and dirt to settle again.
6. When all dirt and water have been drained, proceed to step 7.
7. Close bleed screw and open fuel shut-off valve.
8. Start and run engine at high idle for at least 2 minutes. If engine will not start or starts and dies, see Fuel Filters in Service - Change section of this Operator's Manual.

TS36762,0000128-19-04APR18

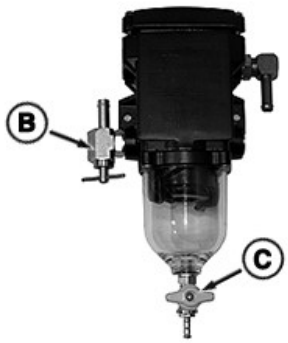
Optional Fuel Water Separator Filter Element



RXA0148087—UN—24APR15

IMPORTANT: Clean optional fuel water separator (A) filter element after each fifth back flushing of water separator assembly. Filter element can be cleaned as often as necessary for an indefinite number of times. Replace element if damaged or if cleaning becomes impossible.

1. Shut off engine.



RXA0159880—UN—19JUN17

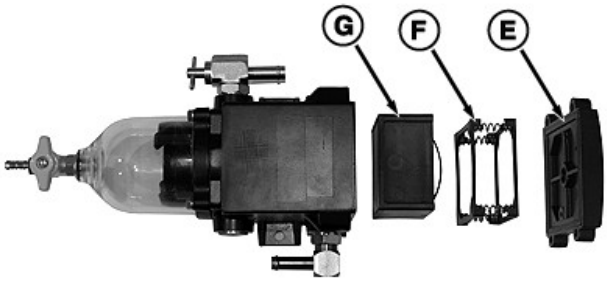
2. Close fuel shut-off valve (B).

NOTE: Drain fuel into appropriate container and dispose of it in accordance with local laws and ordinances.

3. Open drain valve (C) and drain fuel from bowl.

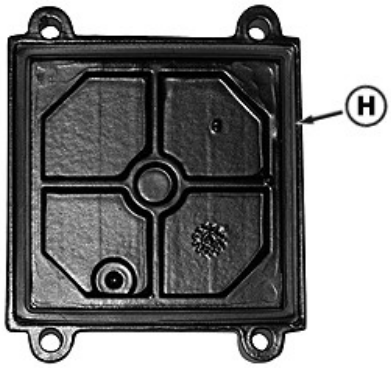
RXA0159882—UN—20JUN17

Loosen lid cap screws (D) evenly in sequence shown.



RXA0159883—UN—19JUN17

5. Remove lid (E), spring cassette (F). Lift filter element (G) from housing using attached handle.
6. Wash filter element in clean diesel fuel or mineral spirits.
7. Carefully inspect filter element for damage. If damaged, or if filter cannot be cleaned, replace filter element.
8. Install cleaned or new filter element and spring cassette.



RXA0159884—UN—19JUN17

9. Inspect lid gasket (H) condition and replace if necessary.
10. Install lid. Tighten cap screws in sequence as removed.
11. Open fuel shut-off valve.
12. Start and run engine at high idle for at least 2 minutes. If engine will not start or starts and dies, see Fuel Filters in Service - Change section of this Operator's Manual.
13. Shut off engine and check for fuel leaks.

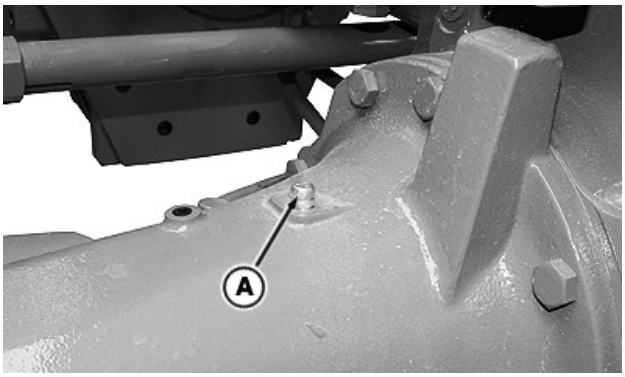
TS36762,0000171-19-05SEP17

MFWD Axle Breather Filter

IMPORTANT: Allowing excess dirt and foreign material to build up in vent filter may cause damage to axle seals.

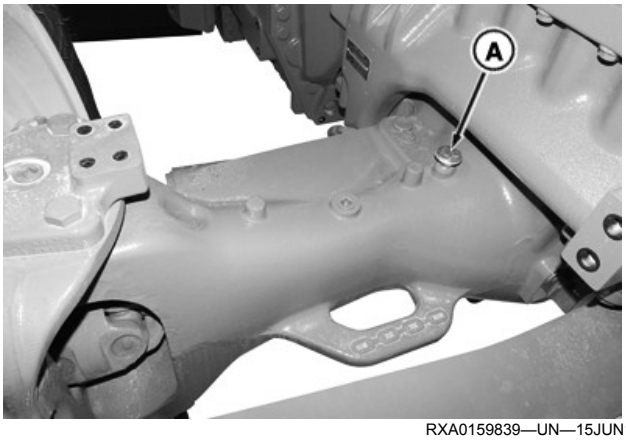
Interval may vary according to operating conditions.

NOTE: If axle breather is packed with dirt, soak in solvent before blowing air through breather vent.



RXA0136535—UN—01NOV13

1300 MFWD Axle



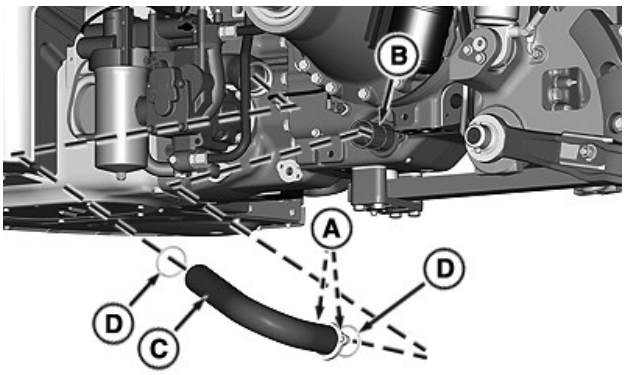
RXA0159839—UN—15JUN17

1500 MFWD Axle

Remove axle vent filter (A). Clean by blowing air through vent filter (bottom to top).

RD47322,0000598-19-19JUN17

Hydraulic Oil Suction Screen



RXA0159838—UN—15JUN17

1. Place drain pans under both ends of oil suction tube (C).
2. Remove cap screws (A) and tube on differential case front left side.
3. Remove suction screen (B) and wash carefully in solvent, then blow dry screen with compressed air.
4. Reinstall suction screen.
5. Install tube, making sure O-rings (D) are correctly positioned.
6. Tighten cap screws to 73 N·m (54 lb·ft).
7. Dispose of used oil in accordance with local laws and ordinances.
8. Proceed to Transmission-Hydraulic Oil and Filters in Service - Change section of this Operator's Manual.

RD47322,0000012-19-14NOV17

Paint Finish

IMPORTANT: Never use strong soaps, chemical detergents, or cleaning agents containing acids, caustics, or abrasives. It is best to use commercially available non-detergent car wash products which will not remove protective wax, and which may be applied to paint finish.

- Wash tractor regularly, particularly if it has been exposed to herbicides, pesticides, road salt, or other chemical agents.
- Never wash tractor in direct sunlight.
- Rinse all cleaning agents away promptly. Never allow them to dry on painted surface.
- Waxing tractor occasionally is recommended to remove residue from and further protect paint finish. Never use waxes containing abrasive compounds.
- Inspect paint surface during washing or waxing for chips and scratches. Repaint any areas where paint has been damaged.

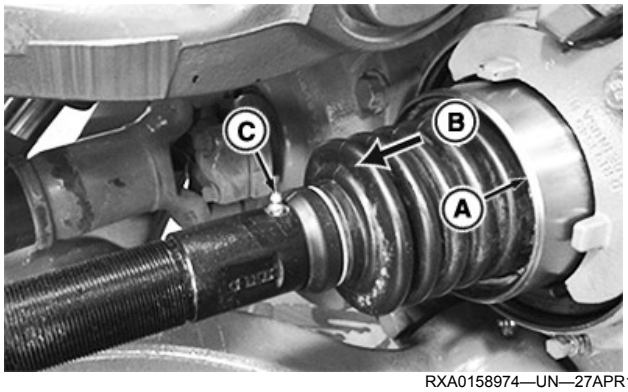
See your John Deere dealer for cleaners, waxes, and touch-up paints to help enhance paint finishes and which are compatible with your equipment.

RX32825,0001777-19-08NOV16

ILS™ Axle Internal Tie Rod Ball Joint Boots

IMPORTANT: Normal lubrication is every 250 hours. In extremely wet conditions, lubricate daily or every 10 operating hours.

Excessive grease buildup can cause damage to boot. If lubricated every 10 operating hours or daily, clean ball joint boot of excess grease every 500 hours.



RXA0158974—UN—27APR17

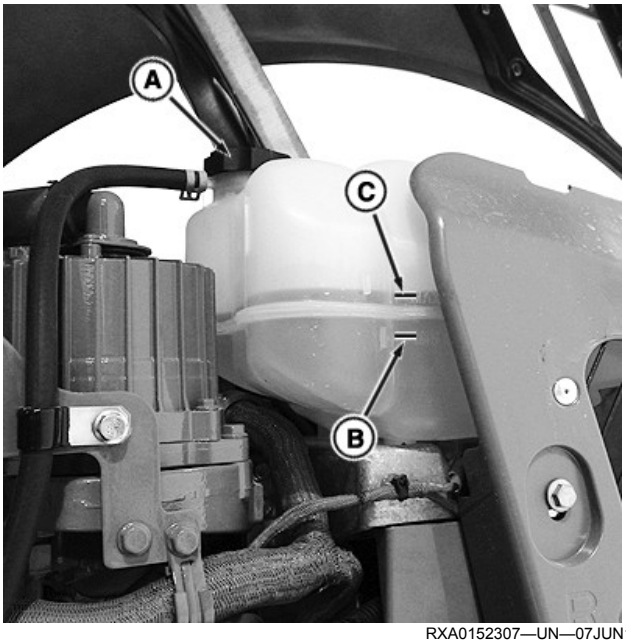
1. Remove snap ring (A)
2. Slide boot (B) outward.
3. Remove all old grease from ball joint cavity and boot.
4. Slide boot back into position on steering rod.
5. Reinstall snap ring.
6. Apply ten pumps of grease to grease fitting (C) on each side of tractor. Use John Deere SD Polyurea grease or other grease as specified in Multipurpose Extreme Pressure (EP) Grease in Other Lubricants section of this Operator's Manual.
7. Repeat procedure on opposite side of tractor.

KD34109,00006A4-19-08MAY18

Engine Coolant Level

Coolant level is monitored electrically. When coolant is low a diagnostic trouble code will appear on CommandCenter™. Check coolant level manually and refill system as necessary.

1. Open hood, see Open Hood in Service-General Information section of this Operator's Manual.



RXA0152307—UN—07JUN16

2. Check coolant level on side of deaeration tank. Level should be at or above MIN COLD (B) but below MAX COLD (C). If level is low, before adding coolant, check for any signs of leakage. Repair if necessary.

IMPORTANT: Do not open deaeration tank cap (A) when engine is warm. Doing so will add air to coolant system.

If coolant level is low, but there is no sign of an external leak, there may be an internal coolant leak. Contact your John Deere dealer.

3. Wait until engine is cool. Remove deaeration tank cap and add coolant. See Engine Coolant section of this Operator's Manual. Do not fill above MAX COLD line.
4. Reinstall deaeration tank cap.
5. Close and secure hood.

DB71512,0000031-19-20FEB18

Coolant Freeze Point

IMPORTANT: Perform coolant service every 1000 hours or annually, whichever comes first.

1. Open hood, see Open Hood in Service-General Information section of this Operator's Manual.

TS281—UN—15APR13

CAUTION: Explosive release of fluids from pressurized cooling system can cause serious burns.

Shut off engine. Only remove cap when cool enough to touch with bare hands. Slowly loosen cap to release pressure before fully removing.

IMPORTANT: Do not open de-aeration tank cap when engine is warm. Doing so will add air to coolant system.

RXA0159890—UN—19JUN17

2. Slowly turn de-aeration tank cap (A) to relieve pressure. Remove cap.
3. Test coolant. Use TY26605 Cool-Gard™ II Test Strips available from your John Deere dealer. Follow instructions on back of reader card in test strip pack. Or, a more precise test device is available, see Testing Coolant Freeze Point in Engine Coolant section of this Operator's Manual.
4. Add TY26603 Cool-Gard™ II Extender (available from your John Deere dealer) as indicated by color matrix on reader card in test strip pack. If tank is too full, drain a small amount of coolant from system before extender is added.
5. Visually check cap O-ring for sealing effectiveness. A correctly sealing O-ring will have imprint of tank neck

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Cool-Gard is a trademark of Deere & Company

mating surface with no apparent scratches or leak paths. If O-ring is not sealing correctly, replace cap.

6. Install de-aeration tank cap.
7. Close and securely latch hood.

DB71512,0000039-19-05JUL17

Water Separator

IMPORTANT: Water can damage fuel systems. If excessive water is found, draining fuel tanks may be required. See Fuel Tank Sump in this section of this Operator's Manual.

Water in fuel collects in bottom of fuel filters. When separator sensor identifies water in fuel system, service alert indicator flashes on corner post display. Alarm sounds for five seconds and corresponding message appears on CommandCenter™ display.

1. Open hood, see Open Hood in Service - General Information section of this Operator's Manual.

RXA0151541—UN—07JUN16

2. Rotate drain valve nut (A) counterclockwise to open and drain accumulated water.
3. Close drain valve nut.
4. Securely close hood.

DB71512,0000032-19-19JUN17

Engine and Exhaust Compartments

IMPORTANT: Accumulated crop residue inside engine compartment can reduce engine and cooling system performance. If tractor has been operated in field conditions which might have caused debris accumulation, inspect and clean engine compartment as necessary.

Directing pressurized water at electronic/electrical components, connectors, bearings and hydraulic seals, fuel injection pump or other sensitive parts and components may cause product malfunctions. Reduce pressure, and spray at a 45° to 90° angle.

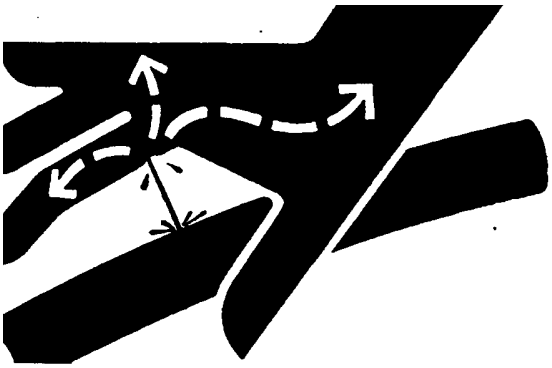
Directing pressurized air at electronic/electrical components or connectors, may cause buildup of static electricity and product malfunctions.

Never steam clean or pour cold water on an injection pump that is operating or hot. Pump could seize.

1. Shut off engine and allow time for engine to cool.
2. Remove front and rear engine side shields, see Remove Front Engine Side Shield and Remove Rear Engine Side Shield in Service-General Information section of this Operator's Manual.
3. Remove any crop or debris within engine and exhaust compartments, especially around turbocharger, exhaust manifold, and exhaust aftertreatment system.
4. Reinstall all engine side shields.
5. Close and securely latch hood.

TS36762,000012C-19-25APR18

Air Conditioning System



X9811—UN—23AUG88

CAUTION: Avoid possible injury. Improper servicing may cause refrigerant to penetrate eyes and skin or cause burns.

IMPORTANT: R-134a refrigerant must be used in air conditioning system. Service requires special equipment and procedures. See your John Deere dealer.

NOTE: Some oil seepage from compressor shaft seal is normal.

Perform following checks if air conditioning system will not cool, or cooling is intermittent:

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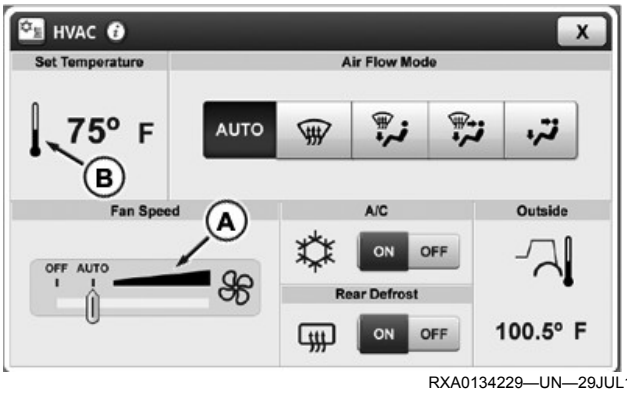
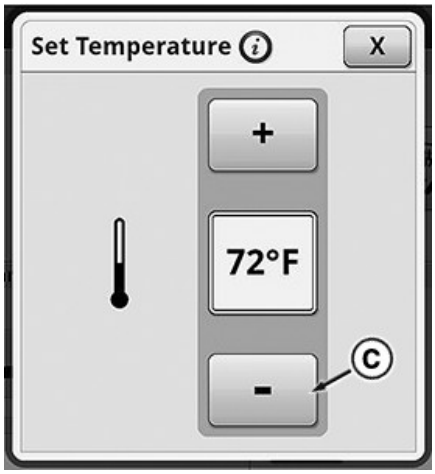


RXA0134229—UN—29JUL13



RXA0155935—UN—23NOV16

- Confirm system does not function correctly. Access HVAC page on CommandCenter™, see HVAC Settings--Generation 4 CommandCenter™ in HVAC section of this Operator's Manual. Set fan increment bar (A) to highest speed. Access Set Temperature page (B) and set temperature to coldest setting (C). Operate engine at 2000 rpm. Check air vents to confirm cold air is not present.
- Inspect and clean cab air filters. Replace filters if necessary, see Cab Recirculation Air Filter in Service - Change section of this Operator's Manual.
- Clean grille and radiator, see Engine Cooling System in Service - Clean section of this Operator's Manual.
- Check air vents for cold air flow.

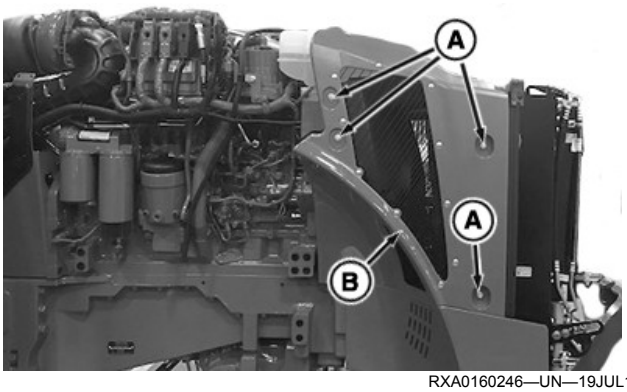
If problems persist, see your John Deere dealer.

TS36762,000012D-19-04APR18

Engine Water Pump Weep Hole - Final Tier 4/Stage V Engine

1. Open hood, see Open Hood in Service - General Information section of this Operator's Manual.

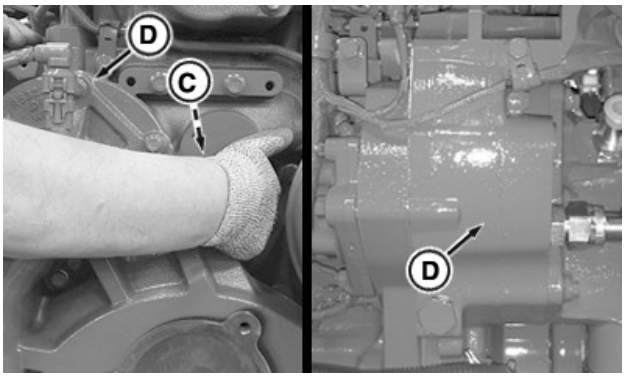
⚠ CAUTION: Avoid injury. Allow engine sufficient time to cool before checking weep hole.



RXA0160246—UN—19JUL17

2. Remove right-hand finger guard cap screws (A) to remove finger guard (B).

NOTE: Components removed to allow unobstructed view of inspection.



RXA0160200—UN—12JUL17

3. Weep hole (C) is located in a square recess on the drive gear housing, behind left-hand side of water pump (D).
4. Inspect weep hole and surrounding area for oil or coolant leakage.
   - Oil leakage indicates a damaged rear seal.
   - Coolant leakage indicates a damaged front seal.

   If leakage is detected, see your John Deere dealer.
5. Reinstall finger guard and tighten cap screws.
6. Close and secure hood.

DB71512,0000037-19-17JUL18

Fuel Tank Sump

NOTE: Drain fuel tank sump if fuel filters are replaced frequently or water is found in the fuel tank. Service may be required more often under some conditions.

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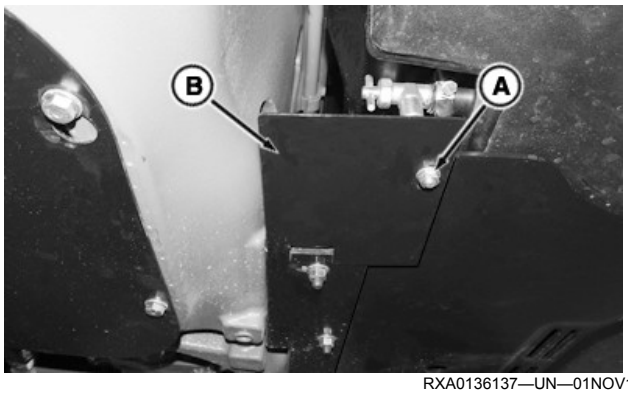
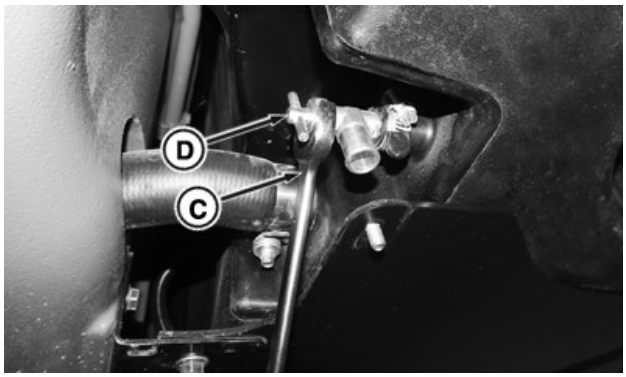


RXA0136137—UN—01NOV13

1. Remove retaining nut (A) and protective shield (B).



RXA0136136—UN—01NOV13

2. Place a catch pan under the drain tee (D).

IMPORTANT: Use wrench to hold drain fitting while opening or closing tee or damage to tank threads can occur.

3. Hold drain fitting with wrench (C) while opening drain tee.
4. Drain fuel until clean, water free fuel appears.
5. Hold fitting with wrench to close drain tee.
6. Reinstall shield and tighten retaining nut to 25 N·m (18 lb·ft).

RX32825,000058A-19-14NOV17

MFWD Axle Housing Oil Level

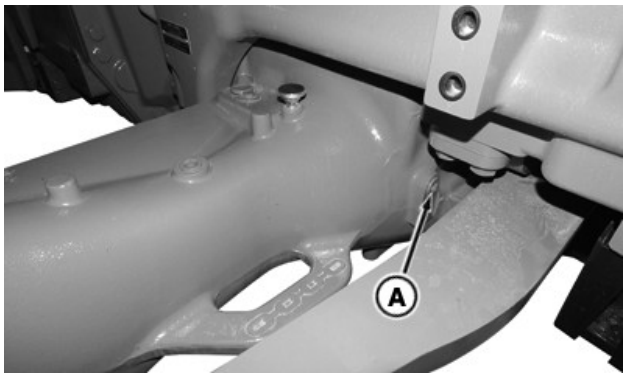
IMPORTANT: If there are any indications of oil leaks, do not operate tractor until the source has been determined and repairs made.

NOTE: ILS™ MFWD differential case shares oil with tractor transmission-hydraulic system. Checking transmission-hydraulic oil level also checks level of differential case oil on ILS™ tractors..

1. Park tractor on level ground.

RXA0136739—UN—08NOV13

1300 MFWD Axle



RXA0136738—UN—08NOV13

1500 MFWD Axle

2. Remove axle housing oil plug (A). Oil level should be at bottom of hole.
3. If oil level is low, add oil until level is correct. Use John Deere Hy-Gard™ oil as specified in MFWD Axle Housing Oil in Other Lubricants section of this Operator's Manual.
4. Install fill plug and tighten to 40 N·m (30 lb·ft) for 1300 MFWD axle and 80 N·m (59 lb·ft) for 1500 MFWD axle.

RD47322,0000684-19-14NOV17

MFWD or ILS™ Wheel Hub Oil Level

IMPORTANT: If there are any indications of oil leaks, do not operate tractor until the source has been determined and repairs made.

1. Park tractor on level ground.
2. Maneuver tractor forward or backward until the words OIL LEVEL cast into wheel hub are horizontal.

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Hy-Gard is a trademark of Deere & Company

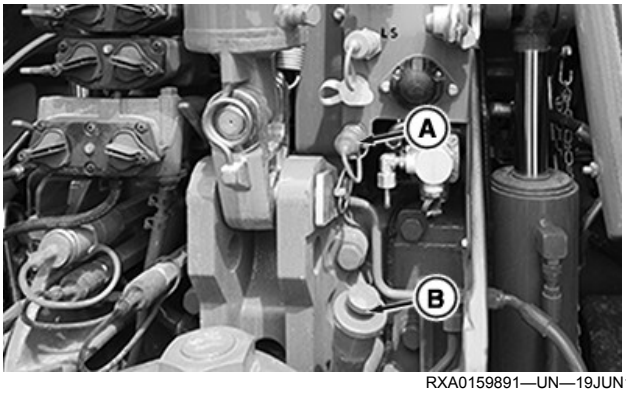
RXA0136208—UN—24OCT13

3. Remove wheel hub drain/fill plug (A). Oil level should be just below fill hole.
4. If oil level is low, fill to bottom of fill hole. Use John Deere GL-5 Gear Lubricant as specified in Gear Oil in Other Lubricants section of this Operator's Manual.
5. Apply pipe sealant with Teflon®, or equivalent, to threads of drain/fill plug.
6. Install and tighten drain/fill plug to 70 N·m (52 lb·ft).
7. Repeat procedure with other wheel hub

RX32825,0001853-19-14NOV17

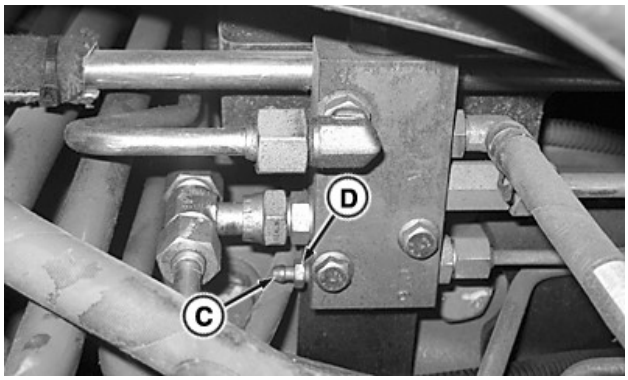
Trailer Hydraulic Brakes

NOTE: An assistant is needed to perform this procedure.



RXA0159891—UN—19JUN17

1. Remove cap and connect a hose to hydraulic trailer brake coupler (A).
2. Remove transmission-hydraulic oil filler cap (B) and place other end of hose into hydraulic oil filler tube.



RXA0155631—UN—10NOV16

3. Loosen bleed valve nut (D).
4. Connect a hose over bleed valve connection (C). Place other end of hose into hydraulic oil filler tube.
5. Start engine.
6. At slow idle, depress brake pedals for approximately 2 minutes.
7. Tighten bleed valve nut with brake pedals depressed.
8. Shut off engine and remove key.
9. Remove hoses and install hydraulic oil filler tube cap and hydraulic coupler cap.

DB71512,0000041-19-19JUN17

Trailer Air Brakes

NOTE: An assistant is needed to perform this procedure.

Trailer air brakes are equipped with automatic bleed valves. Automatic bleed valves will vent an air/oil/water mixture multiple times during normal operation of tractor.

CAUTION: To avoid injury, be sure all people are clear of tractor.

1. Start tractor.
2. Wait 1 minute for air tanks to build up pressure.

NOTE: Continuous release of air will not allow trailer air brakes to bleed. Coupler must be cycled in an on/off process.

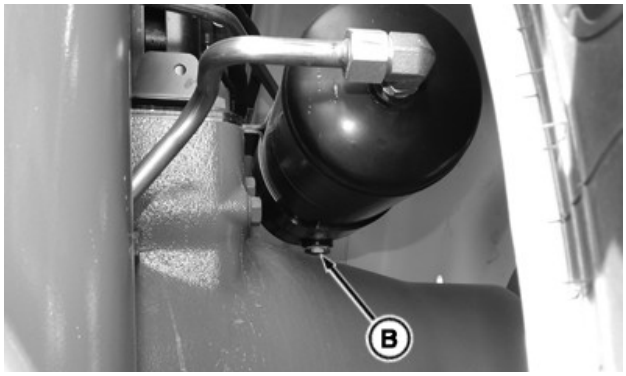
Teflon is a trademark of DuPont Co.

RXA0159913—UN—19JUN17

3. Person 1 repeatedly cycles red trailer air brake coupler (A) on and off.

RXA0159914—UN—19JUN17

Left-Hand Bleed Valve



RXA0159915—UN—19JUN17

Right-Hand Bleed Valve

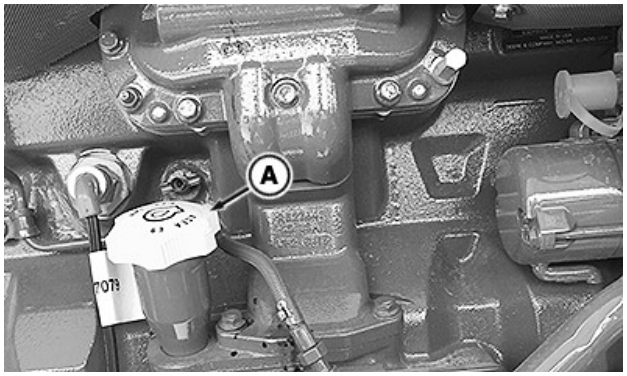
4. Air brake bleed valves (B) are located on bottom of trailer brake air tanks. Person 2 places hand below bleed valves, and feels for a release of air, water or oil.

Bleed valves cycle randomly. If they do not operate first time, wait 10 minutes and try this process again. If no venting is observed, contact your John Deere dealer.

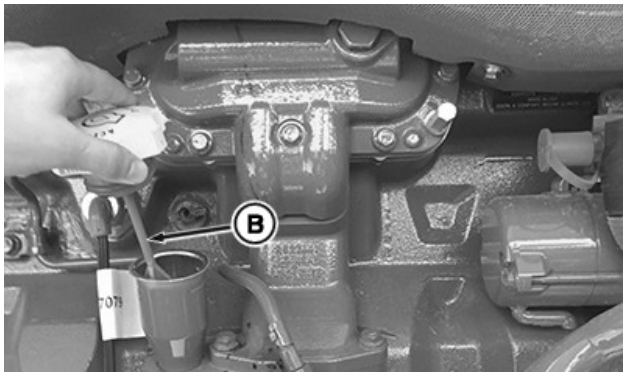
DB71512,0000042-19-05JUL17

Engine Oil Level

1. Park tractor on level ground. Stop engine and remove key.



RXA0160993—UN—28SEP17



RXA0160994—UN—28SEP17

2. Loosen filler cap (A) to remove attached dipstick (B).
3. Remove cap and clean dipstick.

IMPORTANT: Do not operate engine with oil level above top or below bottom of cross-hatch area on dipstick. Oil levels within cross-hatch area are considered acceptable operating range.

RXA0136132—UN—01NOV13

4. Retighten cap, then remove and check oil level on dipstick. Oil level at top of cross-hatch area (C) indicates FULL. Oil level should be between ADD mark and FULL mark of cross-hatch area on dipstick.
5. If needed, add oil recommended in Engine Oil section of this Operator's Manual.
6. Reinstall and tighten filler cap before starting engine.

RX32825,0000579-19-27FEB18

Transmission-Hydraulic Oil Level

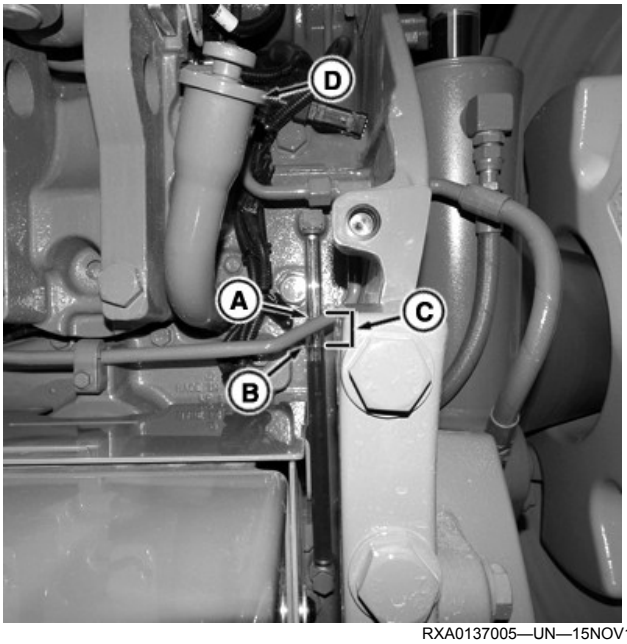
IMPORTANT: Hydraulic oil level sensor detects a low oil level or hydraulic oil loss. DTC appears on display. Check hydraulic oil level and fill to normal operating range.

1. Operate engine at approximately 1200 rpm for at least one minute.
2. Park tractor on level ground and fully lower hitch.
3. Verify oil temperature is between 20°C - 45°C (68°F - 113°F). See Machine Monitor in CommandCenter™ section of this Operator's Manual. Sight gauge observations will be incorrect when oil temperature is outside of specified range.
4. Stop engine and wait five minutes until oil level stabilizes in differential case.

IMPORTANT: Overfilling transmission-hydraulic oil can result in decreased operating efficiency, power loss, and heat generation during transport.

Except when operating in side-hill or high volume applications, keep oil level at or slightly below top of normal operating range. Never fill system above maximum operating level. Drain oil if necessary.

If oil appears milky or foamy, oil may be contaminated with water, change oil immediately. If oil is discolored or smells burned, oil may be overheating. See your John Deere dealer.



RXA0137005—UN—15NOV13

5. Oil level should be between FULL (A) and ADD (B) marks on sight glass. Optimum level is FULL mark or between Safe Operating Area (C) marks.
6. If oil level is below lower mark, remove filler cap (D) and add hydraulic oil. See Transmission and Hydraulic Oil in Other Lubricants section of this Operator's Manual.

RX32825,0000578-19-19JUN17

Tires

IMPORTANT: Keep tires at recommended pressure to insure maximum performance. See inflation pressure tables in Front and Rear Wheels, Tires, and Treads sections of this Operator's Manual.

Inspect tires for cuts or breaks and repair. Adjust and maintain tire pressure according to recommended pressure charts for optimum field performance. Check pressure of each tire at least once a week. If tires contain liquid ballast, use a special air-water gauge, and measure with valve stem positioned at bottom.

TS36762,000013D-19-14DEC16

NEUTRAL Start System

CAUTION: Avoid personal injury or damage to tractor. If engine starts with left-hand or right-hand reverser lever in forward or reverse positions, there is a malfunction in starting circuit. Repair immediately. See your John Deere dealer.

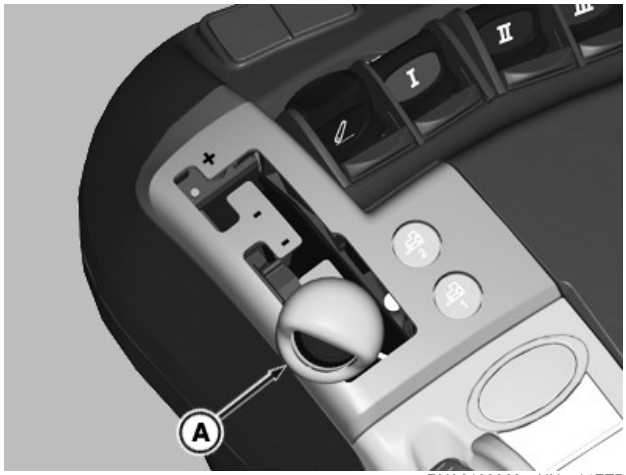
Avoid personal injury. Make sure that everyone is clear of tractor.

1. Park tractor on level ground.
2. Fully depress clutch and brake pedals.
3. Shut off tractor.

RXA0130962—UN—14FEB13

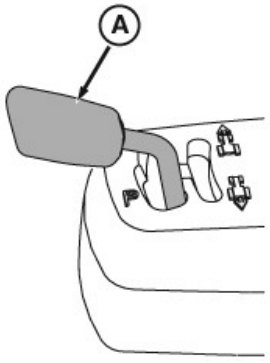
e23™ Transmission Left-Hand Reverser

CommandCenter is a trademark of Deere & Company



RXA0130963—UN—14FEB13

e23™ Transmission Right-Hand Reverser or 16-Speed Powershift Transmission Reverser



RXA0130964—UN—14FEB13

IVT™/AutoPowr™ Transmission Left-Hand Reverser

RXA0130965—UN—14FEB13

IVT™/AutoPowr™ Transmission Right-Hand Reverser

4. Move reverser lever (A) to any position **except** NEUTRAL or PARK position.

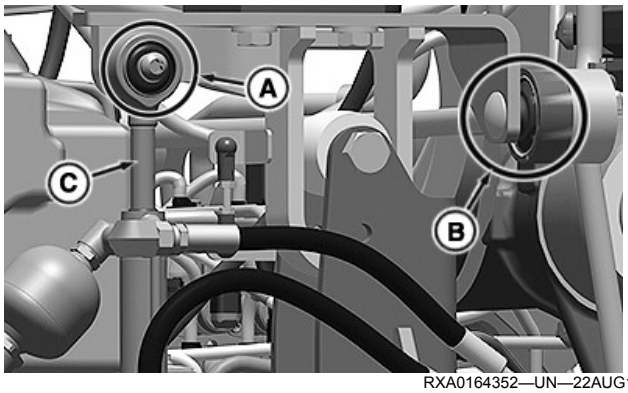
NOTE: Engine should start in NEUTRAL or PARK position only (depending upon transmission type).

5. Attempt to start engine. If engine starts in any position other than NEUTRAL or PARK (depending upon transmission type), neutral start system should be repaired. See your John Deere dealer **immediately**.

Transmission and Reverser Lever Options	Tractor Starts In
16-Speed Powershift Transmission Reverser	PARK or NEUTRAL
e23™ Transmission Left-Hand Reverser	PARK only
e23™ Transmission Right-Hand Reverser	PARK or NEUTRAL
IVT™/AutoPowr™ Transmission Left-Hand Reverser	PARK or NEUTRAL
IVT™/AutoPowr™ Transmission Right-Hand Reverser	PARK only

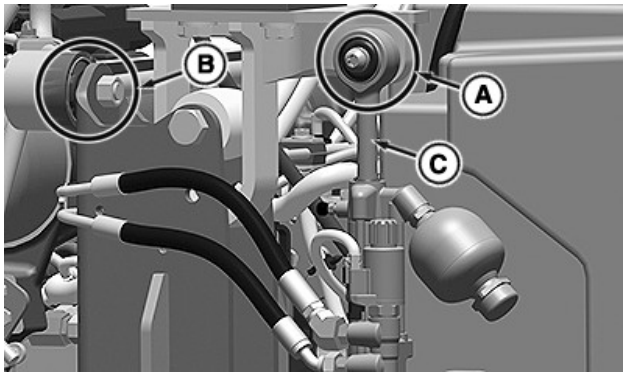
DB71512,0000005-19-08FEB18

Hydraulic Cab Suspension Components



RXA0164352—UN—22AUG18

Left-Hand Side Behind and Below Cab



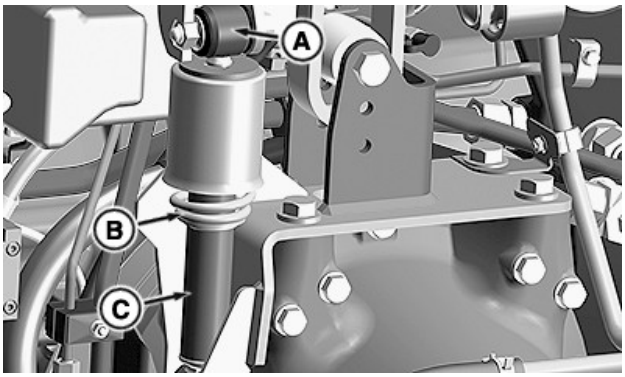
RXA0164353—UN—22AUG18

Right-Hand Side Behind and Below Cab

1. Check suspension cylinder (A) and panhard rod bushing (B) for degraded or missing rubber. If rubber is damaged replace complete bushing assembly.
2. Check suspension cylinder (C) for signs of leaking oil, replace if leaking.

BH38674,0000D42-19-23AUG18

Mechanical Cab Suspension Components



RXA0164062—UN—27AUG18

1. Check bushings (A) for degraded or missing rubber. If rubber is damaged replace complete bushing assembly.
2. Check coil spring (B) for breakage, replace if broken.
3. Check shock (C) for signs of leaking oil, replace if leaking.

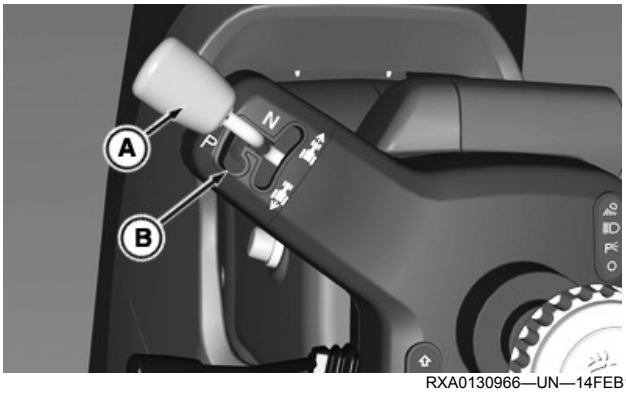
BH38674,0000D4F-19-23AUG18

Transmission PARK System

CAUTION: Avoid personal injury or damage to tractor. If engine starts with left-hand or right-hand reverser lever in forward or reverse positions, there is a malfunction in starting circuit. Repair immediately. See your John Deere dealer.

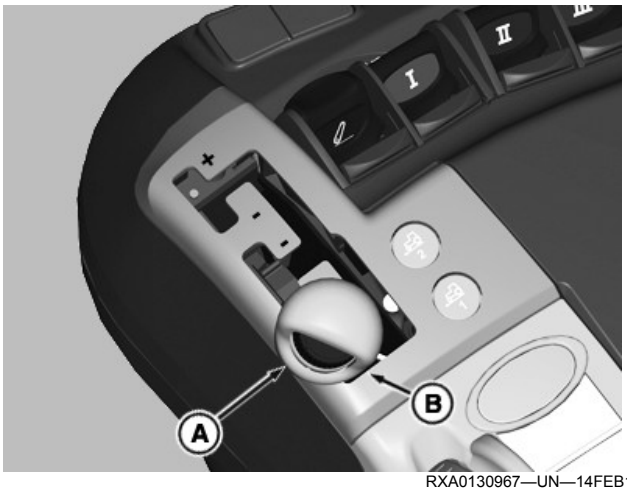
Avoid personal injury. Make sure that everyone is clear of tractor.

1. Position tractor on a 30% incline [1 m (3.3 ft) vertically for every 3 m (9.8 ft) horizontally] with front of tractor facing downward.



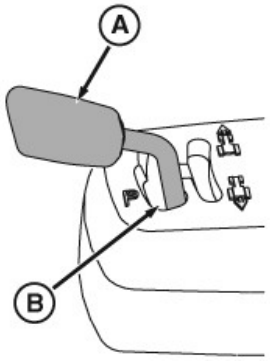
RXA0130966—UN—14FEB13

e23™ Transmission Left-Hand Reverser



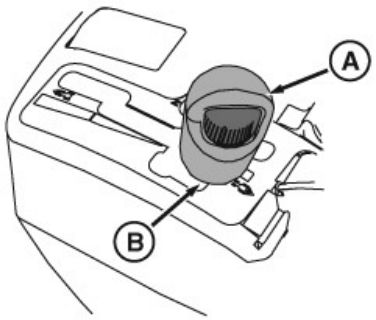
RXA0130967—UN—14FEB13

e23™ Transmission Right-Hand Reverser or 16-Speed Powershift Transmission Reverser



RXA0130968—UN—14FEB13

IVT™/AutoPowr™ Transmission Left-Hand Reverser



RXA0130969—UN—14FEB13

IVT™/AutoPowr™ Transmission Right-Hand Reverser

2. Move reverser lever (A) to PARK position (B).

CAUTION: Avoid injury or property damage. If tractor fails PARK test, repair transmission.

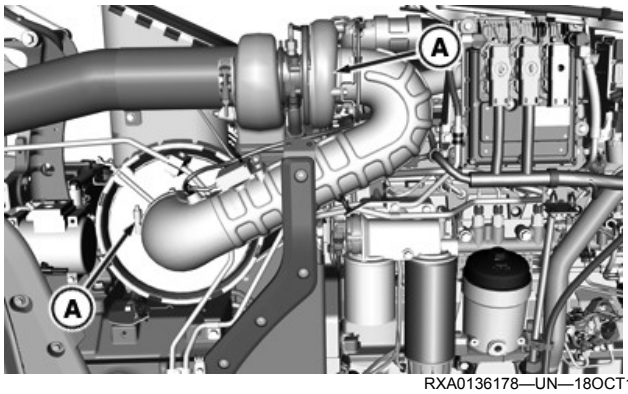
3. If tractor does not hold stationary on incline with reverser lever in PARK position, repair transmission immediately. See your John Deere dealer.

DB71512,0000004-19-05OCT17

Engine Air Intake System—Final Tier 4/ Stage V Engine

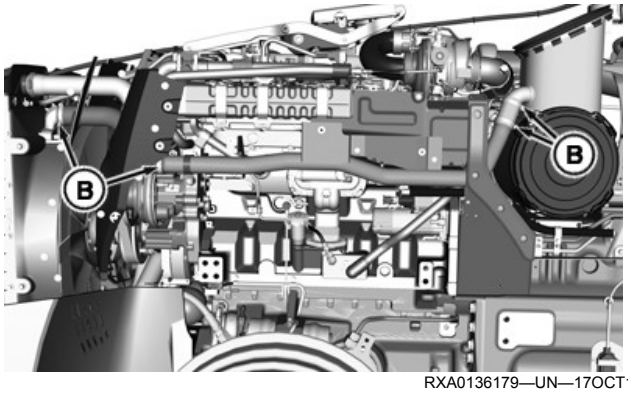
1. Open hood. See Open Hood in Service-General section of this Operator's Manual.
2. Check all air intake system joints for damage and leak-free

   tight connections.

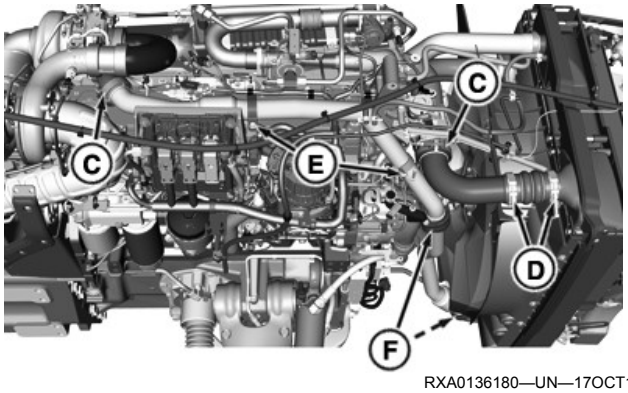


RXA0136178—UN—18OCT13

3. Tighten air cleaner pipe and constant hose clamps (A) to 8 N·m (6 lb·ft).



RXA0136179—UN—17OCT13

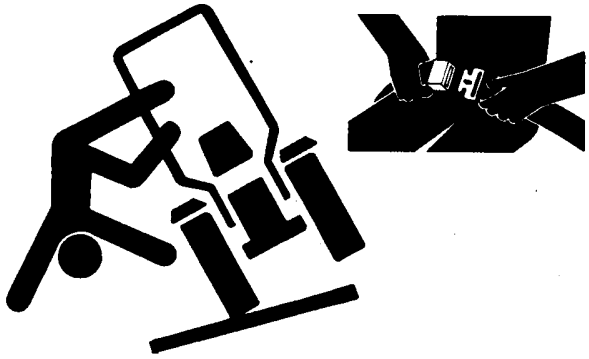


RXA0136180—UN—17OCT13

4. Tighten aspirator hose clamps (B), band clamps (C), hose clamps (D), charge air pipe hose (E), and flange clamps (F) to 10 N·m (7 lb·ft).

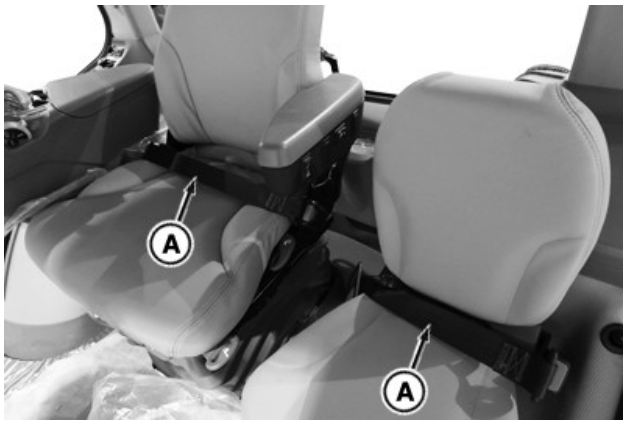
RD47322,000058F-19-17JUL18

Seat Belts



TS205—UN—23AUG88

CAUTION: If seat belt system, including mounting hardware, buckle, belt, or retractor shows any sign of damage such as cuts, fraying, extreme or unusual wear, discoloration or abrasion, the entire seat belt system should be replaced immediately. Replace belt system only with replacement parts approved for your machine.



RXA0136864—UN—14NOV13

Inspect seat belts (A) and mounting hardware. If seat belts need to be replaced, see your John Deere dealer.

TS36762,0000146-19-05SEP17

ILS™ Upper and Lower Rod and Head End Accumulator Charge Pressure

IMPORTANT: Check ILS™ Accumulator Charge Pressure every 1500 hours or annually, whichever comes first.

See your John Deere dealer.

RX32825,000059B-19-20JUN17

ILS is a trademark of Deere & Company

Cab Suspension Accumulator Charge Pressure (If Equipped with Hydraulic Cab Suspension)

IMPORTANT: Check cab suspension accumulator charge pressure every 1000 hours or annually, whichever comes first.

See your John Deere dealer.

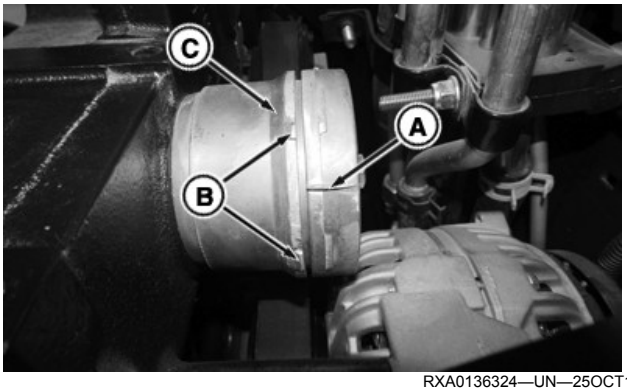
TS36762,0000142-19-27AUG18

Auxiliary Drive Belt and Drive Belt Tensioner

1. Open hood, see Open Hood in Service - General Information section of this Operator's Manual.
2. Remove left and right auxiliary drive belt shields at rear of engine compartment.

NOTE: If auxiliary drive belt must be replaced, see Auxiliary Drive Belt in Service - Change section of this Operator's Manual.

3. Inspect auxiliary drive belt for excessive wear, cracking or damage. Replace if necessary.
4. Release tension on drive belt. Rotate tensioner pulley to be sure that pulley turns freely, without binding, Inspect pulley for excessive damage or wear. Replace if necessary.



RXA0136324—UN—25OCT13

5. Check auxiliary drive belt tension indicator (A). If indicator is within normal operating band (B), belt is not excessively stretched and should not be replaced. If indicator is outside normal operating band, and within stretch indicator band (C), replace belt.
6. Reinstall drive belt shields. Close and securely latch hood.

DB71512,000003A-19-20JUN17

Engine Valve Clearance

NOTE: To confirm which engine your tractor is equipped with, see Engine Serial Number in Identification Numbers section of this Operator's Manual.

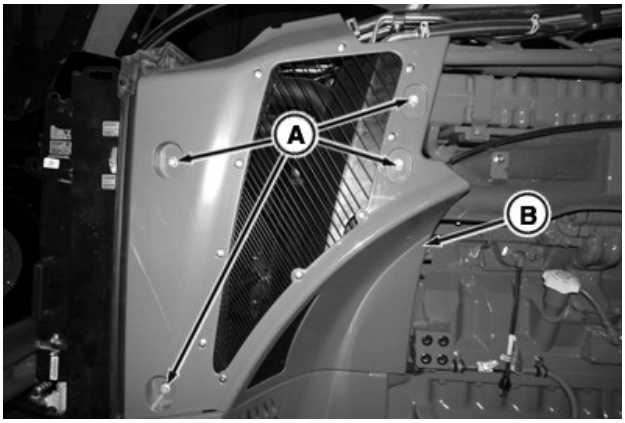
See your John Deere dealer.

TS36762,0000148-19-14DEC16

Vari-Cool™ Fan Drive and Belt—Final Tier 4/Stage V Engine

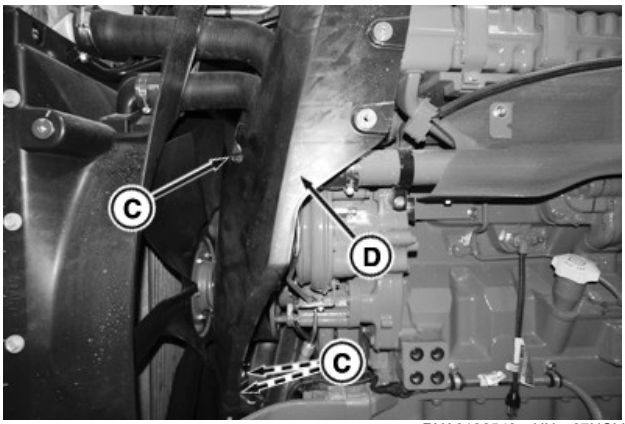
IMPORTANT: Avoid damage to Vari-Cool fan drive. Check drive assembly and belt every 500 hours or annually, whichever occurs first.

1. Raise engine hood, see Open Hood in Service - General Information section of this Operator's Manual.



RXA0136544—UN—06NOV13

2. Remove cap screws (A) and left-hand engine finger guard (B).

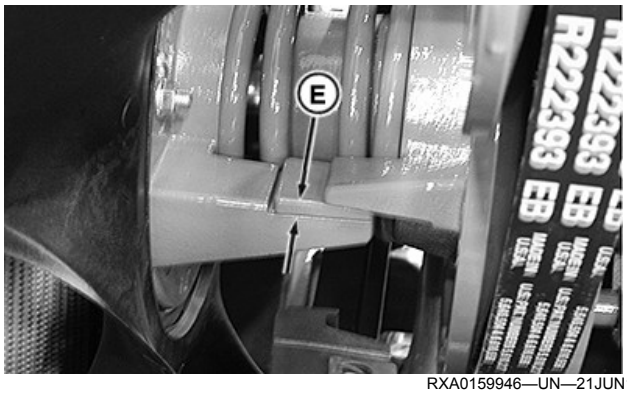


RXA0136549—UN—07NOV13

3. Remove cap screws (C) and left-hand diverter panel (D).
4. Check fan drive assembly for leaking grease or hydraulic oil. If leakage is found, see your John Deere dealer.

IMPORTANT: Damaged Vari-Cool™ components may generate a Diagnostic Trouble Code (DTC).

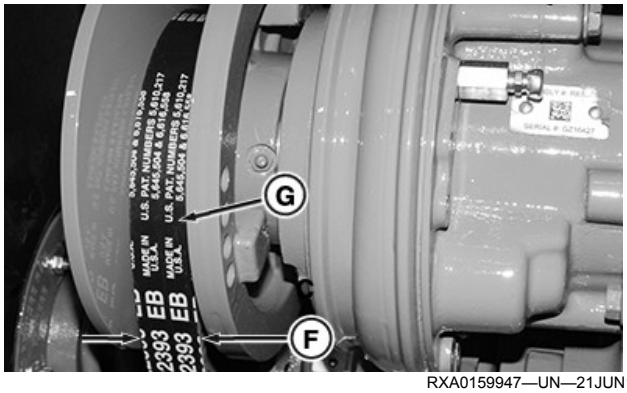
5. If Diagnostic Trouble Codes for Vari-Cool™ fan drive are displayed, see your John Deere dealer.



RXA0159946—UN—21JUN17

Measure drive unit wear pad thickness (E). If thickness of any one pad is 1.00 mm (0.04 in) or less, replace all pads. If any pad is damaged or appears excessively worn, replace all pads, see your John Deere dealer.

NOTE: Operating with fan belt less than specified width may generate Diagnostic Trouble Code (DTC).



RXA0159947—UN—21JUN17

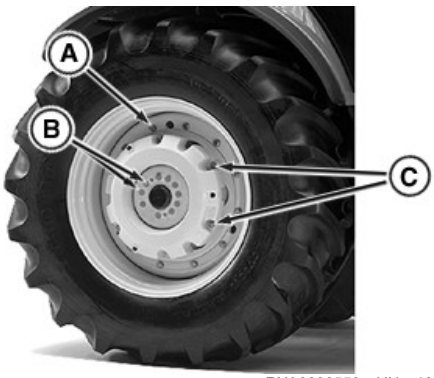
7. Measure width of fan belt (F). Replace belt when width is 29 mm (1.1 in) or less, see Vari-Cool Fan Belt in Service - Change section of this Operator's Manual.
8. Check fan belt (G) and replace if damaged or excessively worn, see Vari-Cool™ Fan Belt in Service - Change section of this Operator's Manual.
9. Reinstall diverter panel and tighten cap screws to 20 N·m (14 lb·ft).
10. Reinstall finger panel and tighten cap screws.
11. Close and secure hood.

TS36762,00002E9-19-28AUG18

Wheel and Wheel Weight Bolts

CAUTION: Avoid the possibility of personal injury. Never operate tractor with loose wheel or wheel weight bolts. Failure to follow torquing procedure may result in personal injury. Wheel and wheel weight bolts are critical and require repeated torquing to assure secure tightness.

IMPORTANT: Failure to follow correct tightening procedure could result in equipment damage.



RXA0098559—UN—16JUN08

Tighten front and rear wheel bolts (A), hub bolts (B) and wheel weight bolts (C) using appropriate torquing procedures described below.

RX32825,000177F-19-15NOV16

Use Wheel Tightening Stand

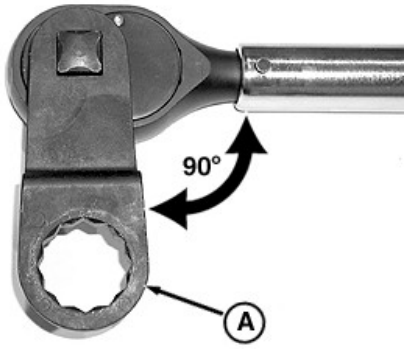
RXA0113539—UN—11FEB11

Wheel tightening stand (A) may be used to aid in tightening wheel and wheel weight hardware. Stand will support torque wrench (B) and extension when tightening bolts at different heights.

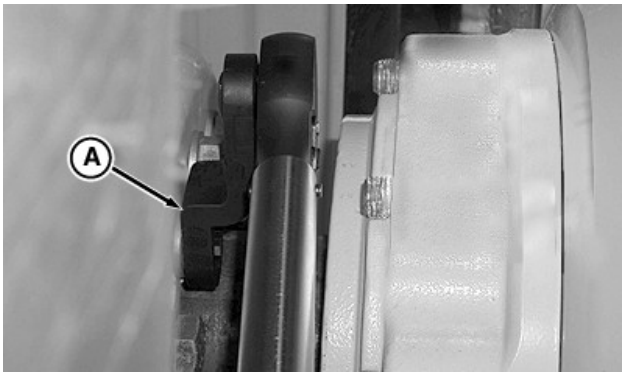
See your John Deere dealer for information on purchasing or fabricating stand.

RX32825,0001780-19-15NOV16

Use Wheel Torque Wrench Adapter



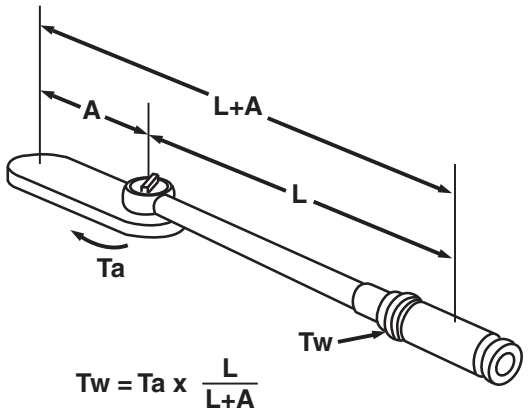
RXA0086802—UN—15FEB06



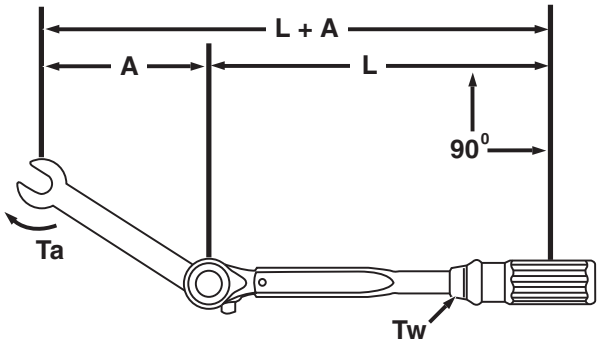
RXA0086804—UN—15FEB06

Install JDG679 Torque Wrench Adapter (A) [32 mm (3/4 in) drive] improves access to sleeve bolts on inner cast wheels with outside duals in place. See your John Deere dealer.

Install adapter at **90° angle** from torque wrench shaft to assure correct torque specification of 610 N·m (450 lb·ft).



RXA0061214—UN—19JUN02



RXA0062101—UN—15AUG02

When unable to use adapter at 90° angle from torque wrench shaft, use formula to calculate correct torque wrench setting (Tw) to obtain desired final torque on bolts.

Tw	=	Torque setting on torque wrench
Ta	=	Torque actually being applied to bolt
L	=	Length from point of force (center of the wrench handle) to center of head of torque wrench
A	=	Application distance from center of torque wrench head to center of adapter [95 mm (3.75 in)]

Example: Torque wrench length = 0.91 m (36 in), wrench adapter = 0.1 m (4 in), Value Tw for torque wrench setting is 549 N·m (405 lb·ft).

RX32825,0001781-19-09NOV17

Rear Wheel Weight Bolts

CAUTION: Avoid the possibility of personal injury. Never operate tractor with loose wheel weight bolts. Failure to follow torquing procedure may result in personal injury. Wheel weight bolts are critical and require repeated torquing to assure secure tightness.

IMPORTANT: Failure to follow tightening procedure could result in equipment damage.

RXA0130316—UN—15JAN13

Tighten all wheel weight bolts (A) to 310 N·m (230 lb·ft) for M16 and 610 N·m (450 lb·ft) for M20.

Drive tractor approximately 100 m (100 yd). Then check bolt torque and retighten until bolts maintain torque specification.

IMPORTANT: Keep wheel weight bolts tightened to specification. If tractor is operated with loose bolts, damage to equipment may occur.

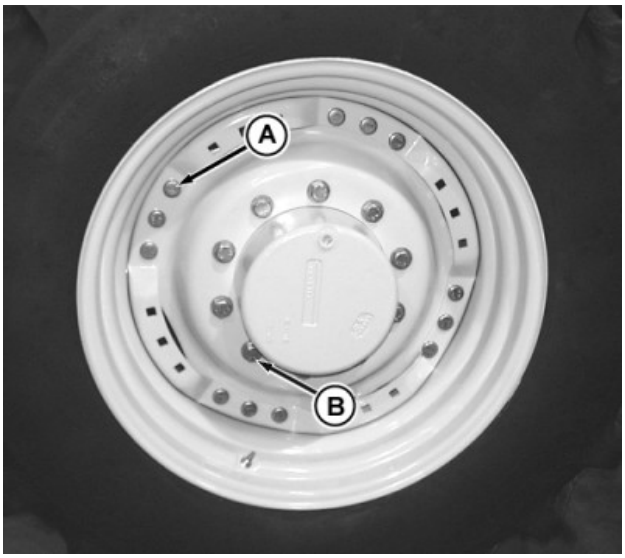
Retighten bolts after working 3 hours, again after 10 hours and daily for first week of operation or until bolts do not move when retorqued.

RX32825,0001782-19-13NOV17

Front Wheel Bolts

CAUTION: Avoid the possibility of personal injury. Never operate tractor with loose wheel bolts. Failure to follow torquing procedure may result in personal injury. Wheel bolts are critical to operation and require repeated torquing to assure secure tightness.

IMPORTANT: Failure to follow tightening procedure could result in equipment damage.



RXA0130317—UN—15JAN13

Tighten all wheel disk to rim bolts (A) to 300 N·m (225 lb·ft) and wheel disk to hub bolts (B) (eight-position and two-position wheels) to 600 N·m (445 lb·ft).

Drive tractor approximately 100 m (100 yd). Then check bolt torque and retighten until bolts maintain torque specification.

IMPORTANT: Keep wheel bolts tightened to specification. If tractor is operated with loose bolts, damage to equipment may occur.

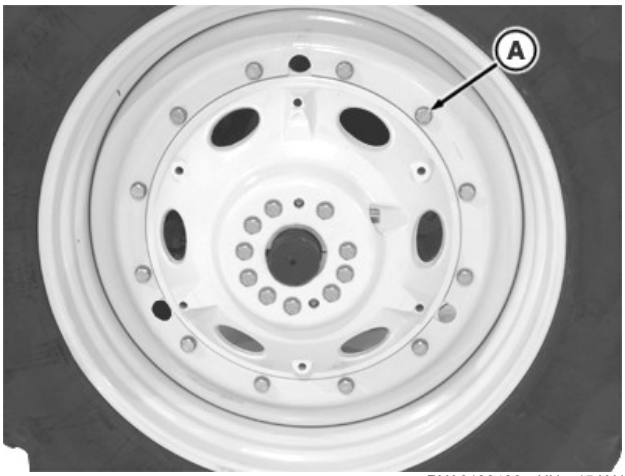
Retighten bolts after working 3 hours, again after 10 hours and daily for first week of operation or until bolts do not move when retorqued.

RX32825,0001783-19-13NOV17

Rear Drive Wheel to Cast Hub Bolts

CAUTION: Avoid the possibility of personal injury. Never operate tractor with loose wheel bolts. Failure to follow torquing procedure may result in personal injury. Wheel bolts are critical to operation and require repeated torquing to assure secure tightness.

IMPORTANT: Failure to follow tightening procedure could result in equipment damage.



RXA0130486—UN—15JAN13

Heavy Duty Cast 10-Bolt Hub

Tighten all wheel to hub bolts (A) to 600 N·m (445 lb·ft).

Drive tractor approximately 100 m (100 yd). Then check bolt torque and retighten until bolts maintain torque specification.

IMPORTANT: Keep wheel bolts tightened to specification. If tractor is operated with loose bolts, damage to equipment may occur.

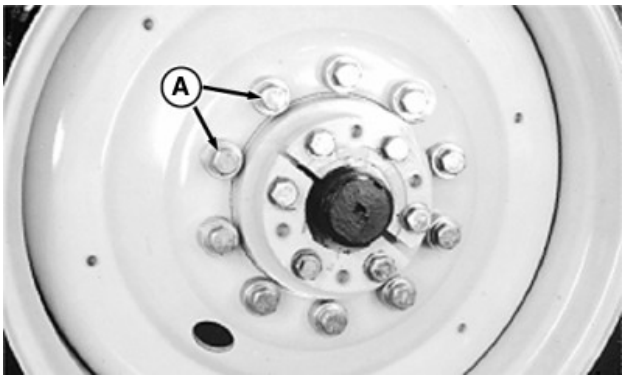
Retighten bolts after working 3 hours, again after 10 hours and daily for first week of operation or until bolts do not move when retorqued.

RX32825,0001784-19-13NOV17

Rear Steel Wheel to Hub Bolts

CAUTION: Avoid the possibility of personal injury. Never operate tractor with loose wheel bolts. Failure to follow torquing procedure may result in personal injury. Wheel bolts are critical to operation and require repeated torquing to assure secure tightness.

IMPORTANT: Failure to follow tightening procedure could result in equipment damage.



RXA0084448—UN—05OCT05

Standard Hub

Tighten all wheel to hub bolts (A) to 600 N·m (445 lb·ft).

Drive tractor approximately 100 m (100 yd). Then check bolt torque and retighten until bolts maintain final torque specification.

IMPORTANT: Keep wheel bolts tightened to specification. If tractor is operated with loose bolts, damage to equipment may occur.

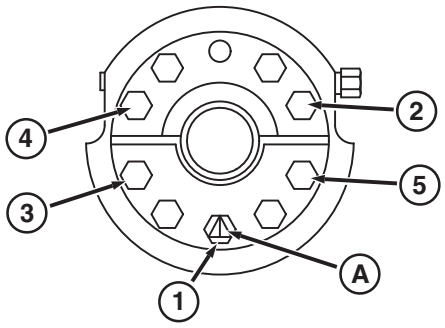
Retighten bolts after working 3 hours, again after 10 hours and daily for first week of operation or until bolts do not move when retorqued.

RX32825,0001785-19-13NOV17

Rear Steel Wheels—Cast Hub Bolts

CAUTION: Avoid the possibility of personal injury. Never operate tractor with loose wheel bolts. Failure to follow procedure may result in personal injury. Wheel bolts are critical to operation and require repeated torquing to assure secure tightness.

IMPORTANT: Some bolts may loosen as sleeve is tightened. Repeat torquing sequence until ALL sleeve bolts maintain proper torque. Failure to follow procedure could result in damage to equipment.



RXA0155678—UN—11NOV16

Tighten five hub sleeve bolts (1-5) to 204 N·m (150 lb·ft) in sequence shown beginning with center cap screw (A) in lower sleeve.

Tighten bolts to 410 N·m (300 lb·ft) using same tightening sequence.

Drive tractor approximately 100 m (100 yd). Then tighten bolts to 600 N·m (445 lb·ft).

IMPORTANT: Keep wheel bolts tightened to specification. If tractor is operated with loose bolts, damage to equipment may occur.

Retighten bolts after working 3 hours, again after 10 hours and daily for first week of operation or until bolts do not move when retorqued.

RX32825,0001786-19-13NOV17

Rear Wheel Bolts—Heavy-Duty Cast 10-Bolt Hubs

CAUTION: Avoid the possibility of personal injury. Never operate tractor with loose wheel bolts. Failure to follow procedure may result in personal injury. Wheel bolts are critical to operation and require repeated torquing to assure secure tightness.

IMPORTANT: Some bolts may loosen as sleeve is tightened. Repeat torquing sequence until ALL bolts maintain proper torque. Failure to follow procedure could result in damage to equipment.

RXA0130320—UN—15JAN13

Heavy Duty Cast Drive Hub

Tighten wheel to hub bolts (1-10) to 400 N·m (300 lb·ft) in numerical sequence shown.

Tighten bolts to 610 N·m (450 lb·ft) in numerical sequence shown.

Drive tractor approximately 100 m (100 yd). Using numerical sequence shown, check bolt torque and retighten to 610 N·m (450 lb·ft).

IMPORTANT: Keep wheel bolts tightened to specification. If tractor is operated with loose bolts, damage to equipment may occur.

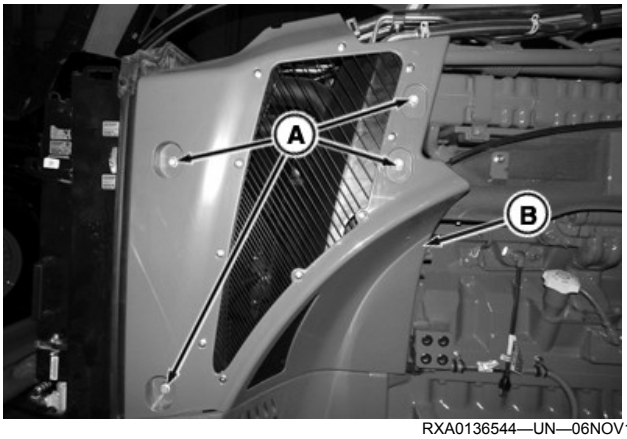
Retighten bolts after working 3 hours, again after 10 hours and daily for first week of operation or until bolts do not move when retorqued.

RX32825,0001787-19-13NOV17

Vari-Cool™ Fan Belt - 9.0L Final Tier 4/ Stage V Engines

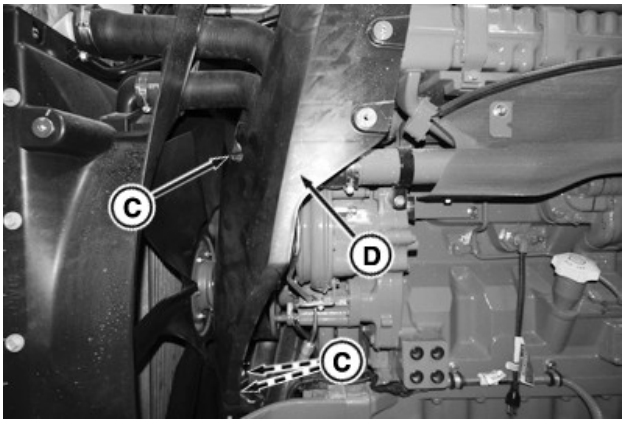
IMPORTANT: When engine is stopped, fan drive oil pressure is released and flows back to the reservoir.

1. Disconnect negative (-) battery cable.
2. Open hood, see Open Hood in Service - General Information section of this Operator's Manual.



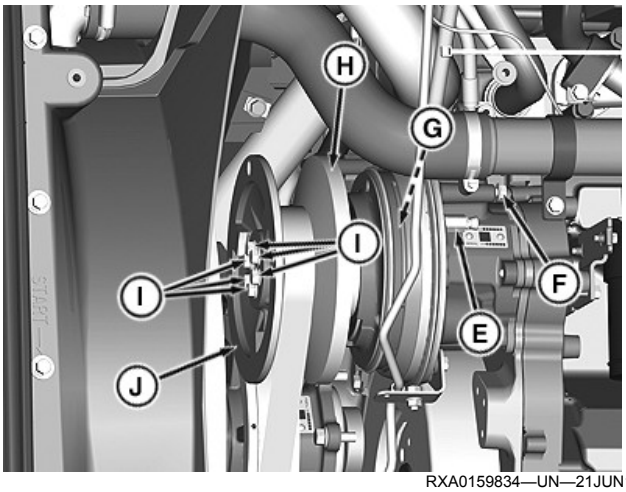
RXA0136544—UN—06NOV13

3. Remove cap screws (A) and left-hand finger guard (B).



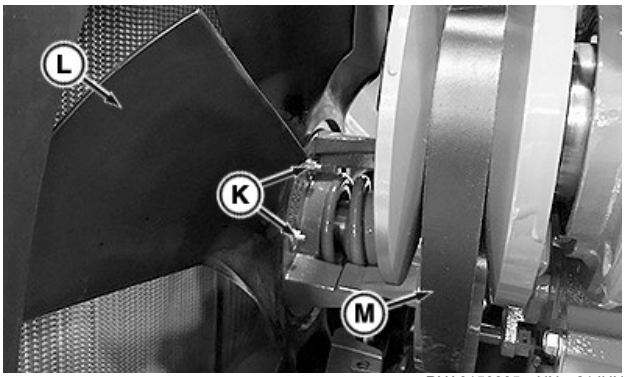
RXA0136549—UN—07NOV13

4. Remove cap screws (C) and diverter panel (D).



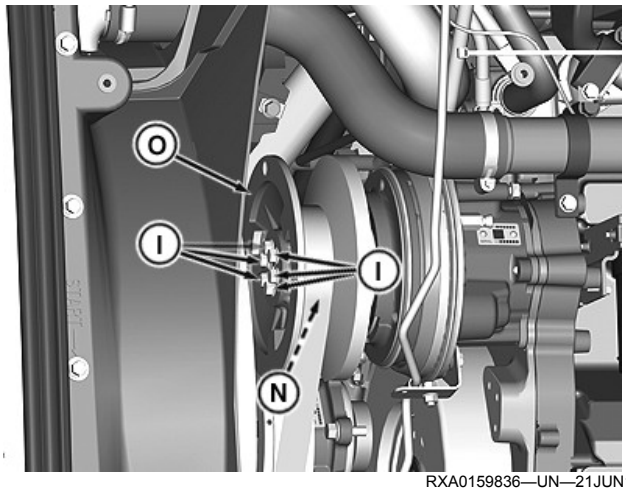
RXA0159834—UN—21JUN17

5. Remove vent adapter (E) from housing.
6. Remove cap screw (F) and install into vent adapter hole in piston plate (G).
7. Tighten cap screw to pull inner sheave (H) inward.
8. Hold front sheave (J) and remove cap screws (I).
9. Pull front sheave evenly off shaft.



RXA0159835—UN—21JUN17

10. Remove six nuts (K) and carefully position fan (L) against radiator.
11. Remove belt (M) through opening between fan and hub.
12. Discard old belt.
13. Install new fan belt between fan and hub so that it is positioned between lower sheave halves.
14. Slide fan into place, install nuts and tighten to 35 N·m (26 lb·ft).
15. Clean front sheave and shaft mating surfaces.



RXA0159836—UN—21JUN17

16. Pull belt onto drive shaft (N) and against rear sheave.

IMPORTANT: When installing front sheave (O), make sure belt remains loose and is not pinched between sheaves.

17. Install front sheave.
18. Hold front drive sheave and tighten cap screws to 37 N·m (27 lb·ft).
19. Remove cap screw and install vent adapter. Tighten vent adapter to 24 N·m (18 lb·ft). Reinstall cap screw and tighten to 13 N·m (10 lb·ft).
20. Reinstall diverter panel. Tighten cap screws to 20 N·m (15 lb·ft).

NOTE: Starting engine with belt loose between sheaves allows belt to climb out of groove between sheaves. Belt will correctly position itself within a few seconds after engine is started.

21. Start engine and run at idle for 15 seconds. Turn off engine.
22. Remove right-hand side front shield and make sure that belt is correctly positioned between sheaves.

CAUTION: Keep hands away from exposed fan blades. Blades have sharp edges which may result in personal injury.

23. Reinstall finger panel and tighten cap screws.

DB71512,0000035-19-17JUL18

Vari-Cool™ Fan Drive Bushings, Seals, and Wear Pads

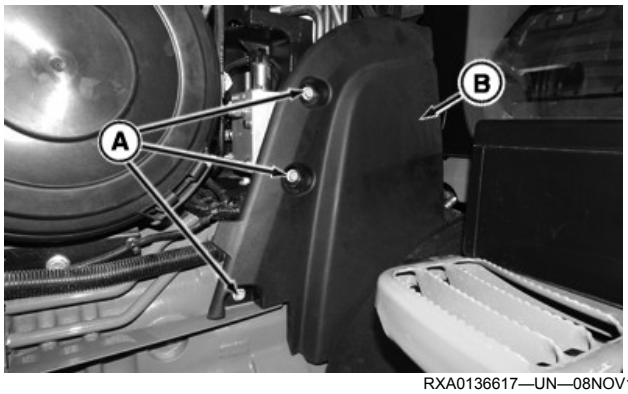
IMPORTANT: In extreme conditions, change components every 2000 hours. In normal conditions, change every 4500 hours.

See your John Deere dealer.

TS36762,0000358-19-28AUG18

Auxiliary Drive Belt

1. Open hood, see Open Hood in Service - General Information section of this Operator's Manual.

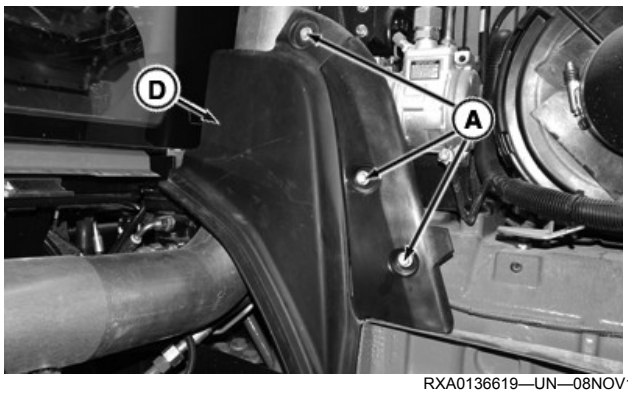


RXA0136617—UN—08NOV13

2. Remove cap screws (A) to remove left-hand shield (B).

RXA0136618—UN—08NOV13

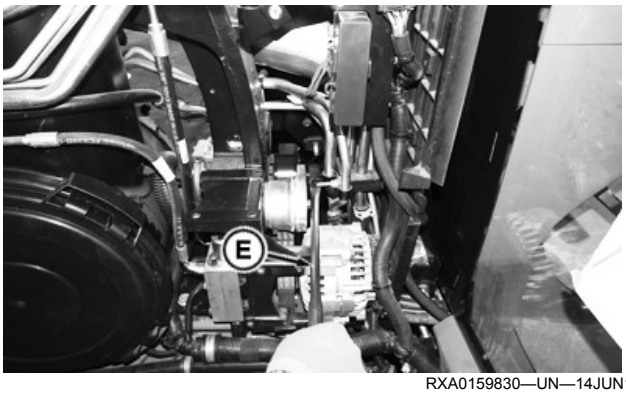
3. Remove right-hand cover (C).



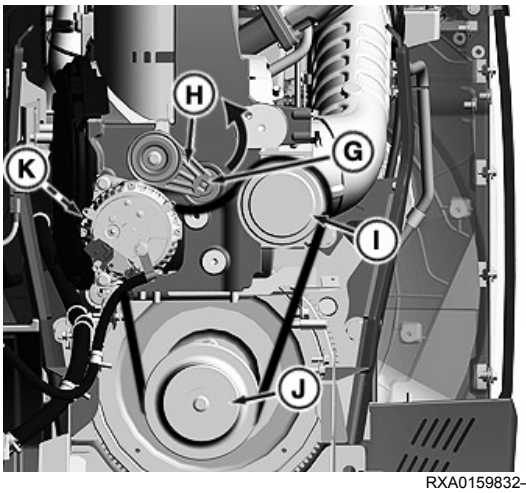
RXA0136619—UN—08NOV13

4. Remove cap screws (A) and remove right-hand shield (D).

IMPORTANT: Keep tension off belt during removal.

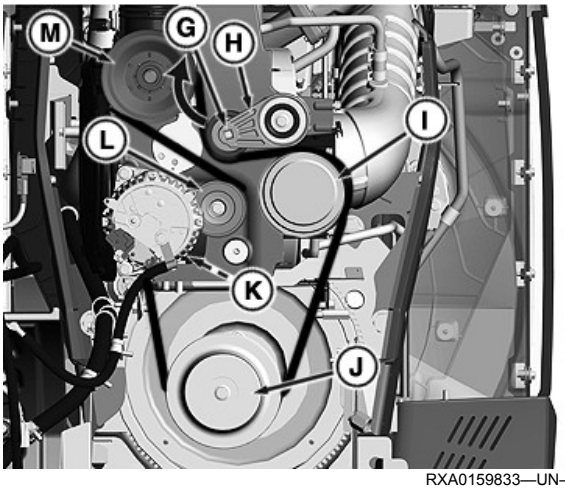


RXA0159830—UN—14JUN17



RXA0159832—UN—21JUN17

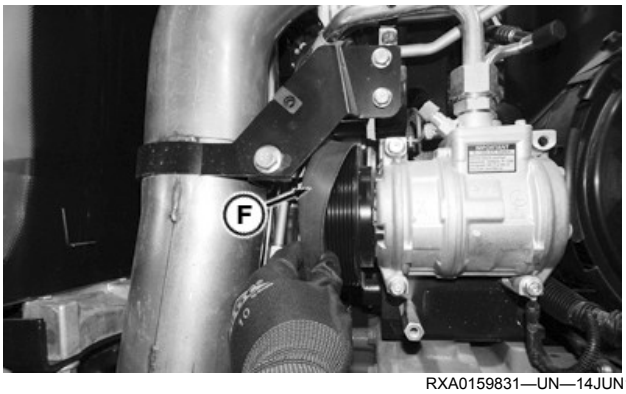
Tractor Without Air Brake



RXA0159833—UN—21JUN17

Tractor With Air Brake

5. Insert 1/2 inch drive socket wrench (E) into square hole (G) on tensioner arm (H).
6. Push down on wrench handle to relieve tension on drive belt.



RXA0159831—UN—14JUN17

7. Request an assistant to remove auxiliary belt (F) from air conditioner pulley(I).
8. For tractors with air brake only, remove belt from air brake pulley (M) and idler (L).
9. Remove belt from alternator pulley (K).
10. Remove belt from auxiliary drive pulley (J).
11. Discard old belt.

NOTE: There is minimal clearance between transmission auxiliary drive pulley and tractor frame. Do not damage new belt when installing.

12. Install new belt to auxiliary drive pulley, then on alternator pulley.
13. For tractors with air brake, install belt on air brake pulley and idler.
14. Install belt on air conditioner pulley.
15. Remove 1/2 inch drive socket wrench and restore tension on new belt.
16. Reinstall shields, cover, and securely close hood.

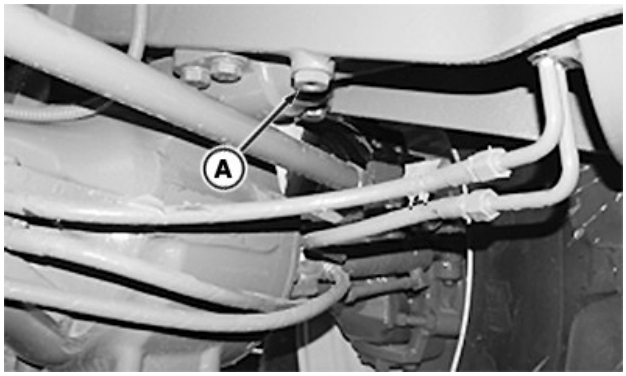
DB71512,0000036-19-20JUN17

Engine Oil and Filter

IMPORTANT: Sulfur content should not exceed 0.10%. Sulfur content less than 0.10% is preferred. See Engine Oil and Filter Service Intervals in Engine Oil section of this Operator's Manual for your engine.

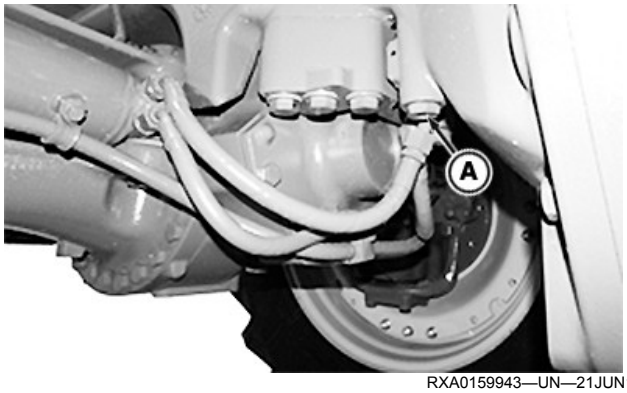
IMPORTANT: Initial break-in service interval of new or rebuilt wet sleeve engine with Break-In Plus must go at least 100 hours to assure surface mating of rings and liners has had an opportunity to occur. 100 hour minimum applies to all new or rebuilt engines. Maximum service interval is the same as service interval recommendations listed in Engine Oil and Filter Service Intervals in Engine Oil section of this Operator's Manual. Replace at 500 hours or annually whichever comes first.

1. Operate engine approximately 5 minutes to warm oil, then stop engine.
2. Remove engine fill cap at dipstick.



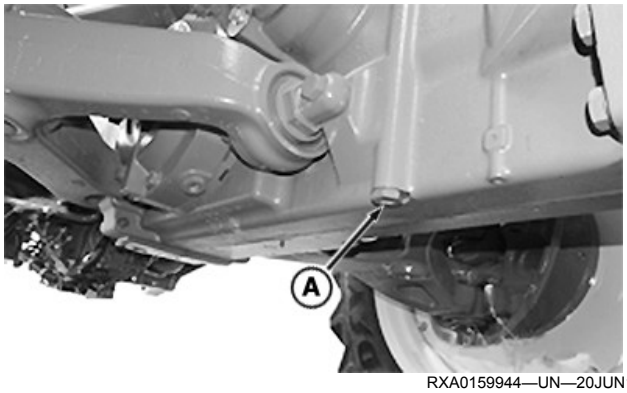
RXA0159942—UN—21JUN17

1300 MFWD Axle



RXA0159943—UN—21JUN17

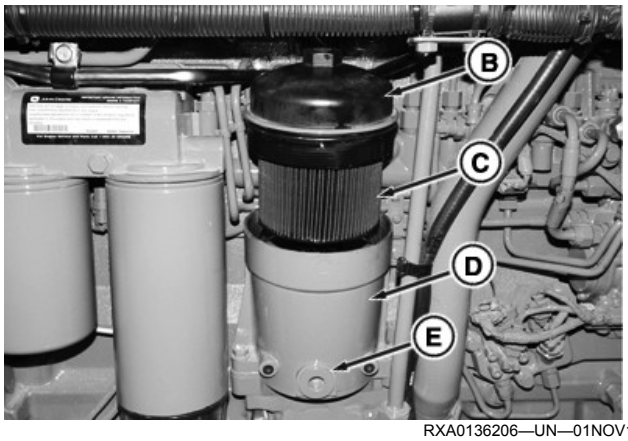
1500 MFWD Axle



RXA0159944—UN—20JUN17

ILS™ Axle

3. Place drain pan below engine oil drain plug (A). Drain plug location will vary depending upon front axle type.
4. Remove engine oil drain plug and drain crankcase oil while engine is warm.



RXA0136206—UN—01NOV13

NOTE: Do not remove plug (E) on base of oil filter housing (D). Oil will automatically drain back into crankcase when filter is removed.

5. Using a 32 mm wrench, unscrew oil filter cover (B) and lift as shown to allow oil filter (C) to drain into crankcase.
6. Dispose of used oil and oil filter in accordance with local laws and ordinances.
7. Remove filter cover with oil filter attached.

RXA0136207—UN—24OCT13

8. While holding cover, strike filter against solid surface to remove. Discard used filter.
9. Remove old O-ring and replace with new O-ring provided with new filter element. Lubricate new O-ring with a small amount of engine oil.
10. Press new filter into cover until it snaps into place.
11. Insert cover and filter into oil filter housing, then tighten cover to 40 N·m (30 lb-ft).
12. Install drain plug after oil has been drained from crankcase, then tighten drain plug to 102 N·m (75 lb-ft).

IMPORTANT: Overfilling engine oil may result in loss of engine performance or damage to engine components. Check oil level during refill to assure that correct amount of oil is added.

13. Refill crankcase with seasonal viscosity grade oil as specified in appropriate Diesel Engine Oil topic in Engine Oil section of this Operator's Manual. Check

oil level during fill process to guard against overfill. For crankcase capacity, see Capacities in Specifications section of this Operator's Manual

14. Start engine and check for leaks.
15. Stop engine. Recheck oil level. Add oil if necessary.

RX32825,000005A-19-15NOV17

Fuel Filters

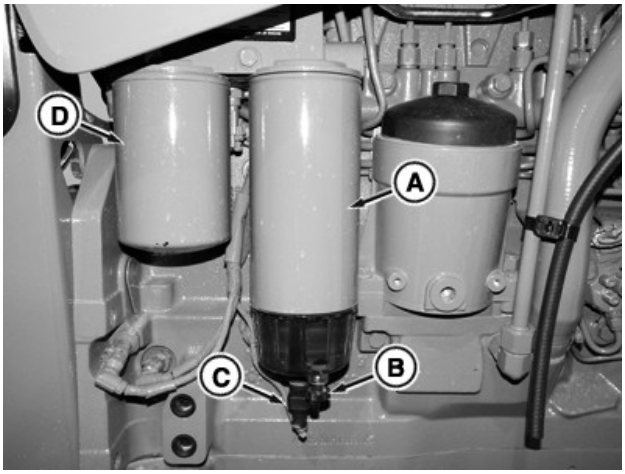
CAUTION: Always Shut off engine and remove key before performing maintenance work on fuel filter.

IMPORTANT: To determine which engine your tractor is equipped with, see Engine Serial Number in Identification Numbers section of this Operator's Manual.

NOTE: Service may be required more often under some conditions.

Drain fuel tank sump if fuel filters are replaced frequently or water in the fuel tank, see Fuel Tank Sump in Service - Check section of this Operator's Manual.

1. Thoroughly clean exterior of fuel filters and surrounding area.



RXA0136539—UN—04NOV13

2. Open drain valve (B) of primary fuel filter (A) to drain water and contaminants into suitable container.
3. Disconnect the Water-In-Fuel (WIF) sensor connector (C) from primary filter.

IMPORTANT: Always replace both filters at the same time.

4. Remove the final fuel filter (D) first, for clearance, using a suitable filter wrench. Then remove primary fuel filter canister.
5. Remove primary fuel filter element and replace with new element.

IMPORTANT: Do NOT prefill either fuel filter with fuel.

6. Remove packing for primary fuel filter canister and replace with new packing provided with filter element. Lubricate packing for primary fuel filter with fuel, and install canister onto base. Tighten 1/2 turn after packing contacts base.
7. Connect sensor.
8. Lubricate packing on new final fuel filter, and install filter onto base. Tighten 1/2 turn after packing contacts base.

IMPORTANT: Key must be turned to ON position for 3 minutes before starting engine to provide time to prefill fuel filters. Fuel system is self-bleeding.

Do not try to start engine until 3 minute time elapses or an air lock in fuel system may occur.

9. Turn key switch to ON position for 3 minutes to allow transfer pump to prefill fuel filters.
10. Turn key switch clockwise to START position, and run engine at 1200 rpm for 2 minutes.

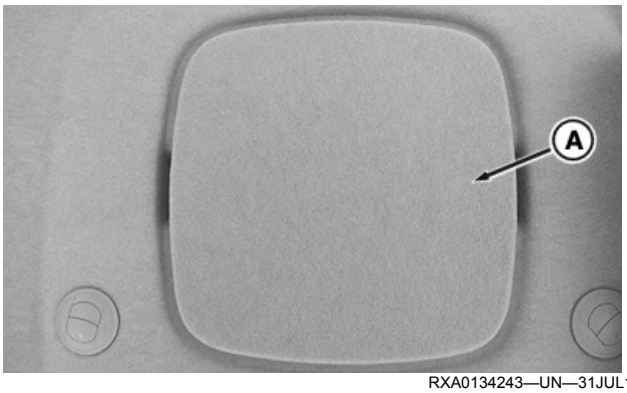
RD47322,0000016-19-05APR18

Cab Recirculation Air Filter

CAUTION: Cab air filters are not designed to filter out harmful chemicals. Follow instructions in implement Operator's Manual and those given by chemical manufacturer when using agricultural chemicals.

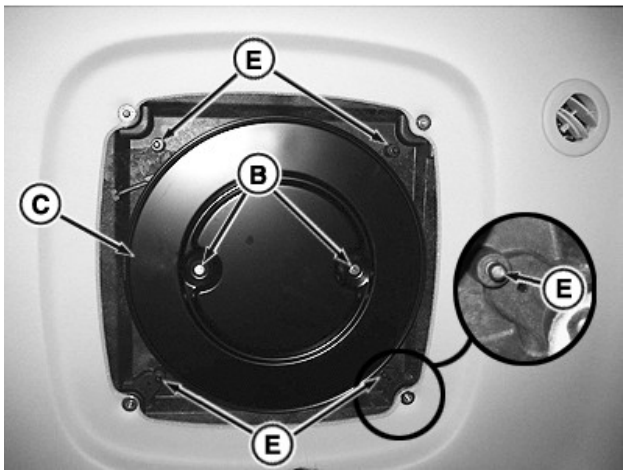
IMPORTANT: Replacement interval can vary according to operating conditions. Normal service is 1000 hours or annually, whichever occurs first.

1. Close entry door to prevent debris getting into cab.



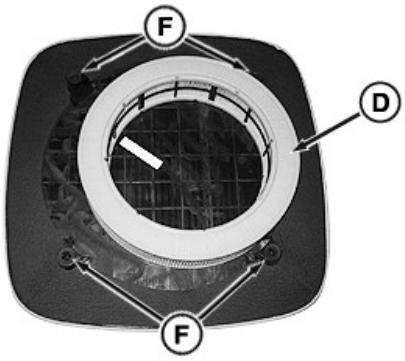
RXA0134243—UN—31JUL13

2. Remove upholstery cover (A) in headliner by grasping outer edges and pulling down.



RXA0100957—UN—17MAR09

3. While holding cover (C) in place with one hand, remove fasteners (B) allowing cover to be lowered.
4. Using a clean cloth, wipe down inside and outside of filter cover.



RXA0100959—UN—17MAR09

5. Remove and discard old recirculation filter (D).
6. Install new filter.
7. Install cover (C) and tighten fasteners (B).
8. Install upholstery cover by lining up ball studs (E) with clip nuts (F) and firmly push up.

TS36762,000014F-19-29JUN17

Cab Fresh Air Filter

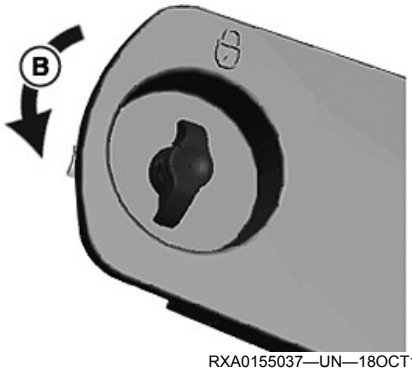
CAUTION: Cab air filters are not designed to filter out harmful chemicals. Follow instructions in implement Operator's Manual and those given by chemical manufacturer when using agricultural chemicals.

IMPORTANT: Replacement interval can vary according to operating conditions. Normal service is 1000 hours or annually, whichever occurs first.

RXA0099137—UN—19SEP08

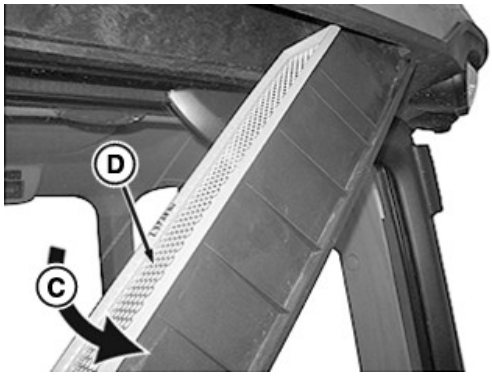
1. Support cover (A).

NOTE: Filter cover latch has three positions; open, latched, and locked. Cover is not locked when in latched position.



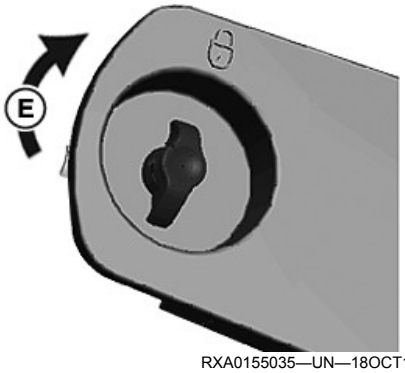
RXA0155037—UN—18OCT16

2. Turn knob fully counterclockwise (B) to unlatch cover.



RXA0155036—UN—18OCT16

3. Swing down (C) cover.
4. Remove and discard old fresh air filter (D).
5. Wipe down inside and outside of filter cover with a clean cloth.
6. Install new filter.



RXA0155035—UN—18OCT16

7. Close cover and turn knob fully clockwise (E) to securely lock latch.

TS36762,0000150-19-06JUL17

Engine Primary and Secondary Air Filters

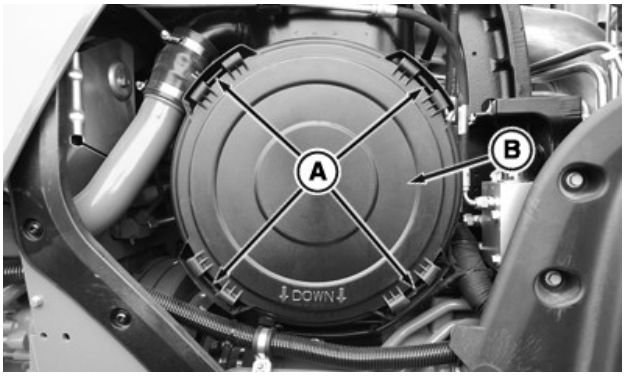
IMPORTANT: Filter service can vary depending on operating conditions.

Replace filters annually or every 1000 hours, whichever comes first. If diagnostic trouble code appears, service or replace primary engine air filter.

Replace primary filter after every six cleanings.

Replace secondary engine air filter at every second primary filter change.

1. Open hood, see Open Hood in Service - General Information section of this Operator's Manual, to access air filter housing cover on left side of engine.



RXA0147463—UN—20FEB15

2. Release plastic clips (A) and remove filter cover (B).

RXA0136203—UN—24OCT13

3. Turn and pull to remove primary filter (C).
4. Replace filter if it has been cleaned six times. Proceed to step 7.

IMPORTANT: To avoid damage, do not exceed 517 kPa (5.17 bar) (75 psi) air pressure when servicing filters.

Never wash filters under any circumstances.

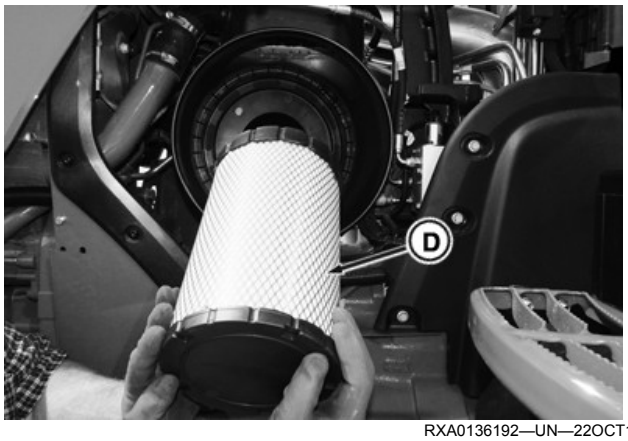
RXA0147462—UN—20FEB15

5. Clean filter using 517 kPa (5.17 bar) (75 psi) maximum pressure compressed air. Hold nozzle next to inner surface and move up and down pleats.
6. Hold bright light inside filter and carefully check for damage. Replace filter if mesh screen is damaged or filter shows slightest rupture or hole.

IMPORTANT: Never attempt to clean secondary filter.

Replace secondary air filter as specified.

Install new secondary air filter immediately to prevent dust from entering air intake system.

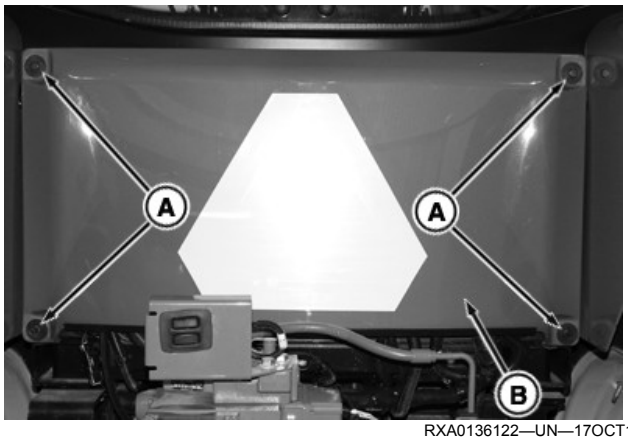


RXA0136192—UN—22OCT13

7. Remove and inspect or replace secondary filter (D). Replace filter:
   a. Annually or,
   b. Every second primary filter change or,
   c. When secondary filter is dirty.
8. Inspect primary and secondary filter gaskets. Replace filter if gaskets are in poor condition.
9. Install filter elements.
10. Install cover, positioning text with arrows pointed down to ensure proper seal.
11. Close and secure hood.

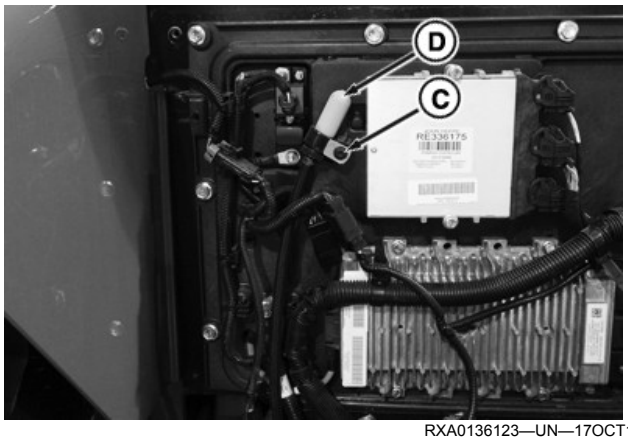
DB71512,0000030-19-20JUN17

Fuel Tank Vent Filter



RXA0136122—UN—17OCT13

1. Remove four rear cab panel cap screws (A) and remove rear panel (B).

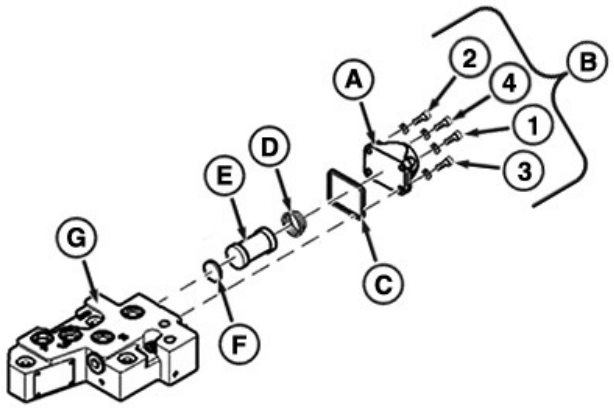


RXA0136123—UN—17OCT13

2. Loosen clamp (C) and slide fuel tank vent filter (D) from clamp.
3. Release tension hose clamp and slide down on hose to remove vent filter.
4. Replace vent filter, slide tension hose clamp up on hose and reinstall filter through clamp. Tighten clamp.
5. Replace rear cab panel and tighten cap screws.

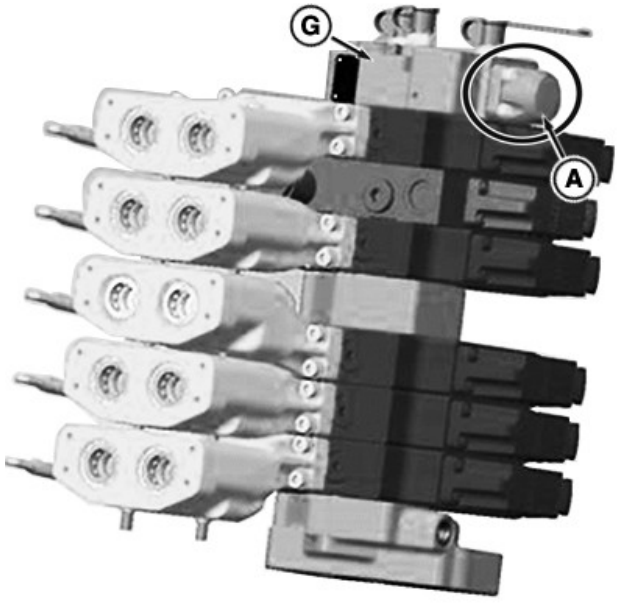
SV81855,0000191-19-20JUN17

SCV Pilot Valve Filter



RXA0152694—UN—11JUL16

1. Remove cap screws (B).



RXA0152693—UN—11JUL16

2. Remove SCV pilot filter cover (A) from SCV pilot filter housing (G).
3. Remove old spring (D), SCV pilot filter (E), and O-ring (F).
4. Install new O-ring, SCV pilot filter, and spring.
5. Replace gasket (C) and SCV pilot filter cover.
6. Install cap screws and tighten to 6 N·m (53 lb·in) in sequence (1, 4, 3, 2).

TS36762,0000157-19-08NOV17

DEF Tank Vent Filter—Final Tier 4/Stage V Engine

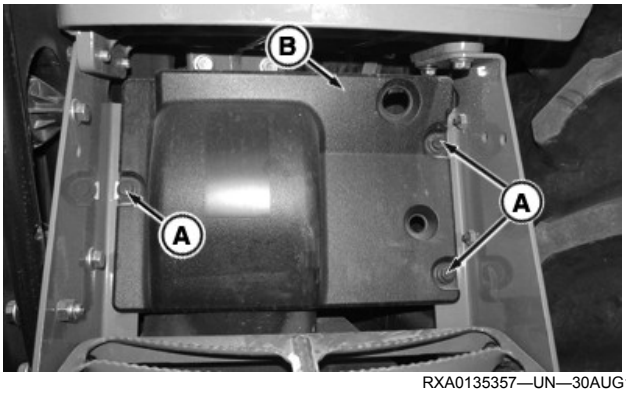
CAUTION: DEF contains urea. Do not get the substance in eyes. In case of contact, immediately flush eyes with large amounts of water for a minimum of 15 minutes. Do not take internally. In event DEF is ingested, contact a physician immediately. Reference Material Safety Data Sheet (MSDS) for additional information.

IMPORTANT: To determine tractor engine type, see Engine Serial Number in Identification Numbers Section of this Operator's Manual.

Initial replacement 1500 hours of operation or 1 year whichever comes first. Thereafter, replace every 4500 hours of operation or every 3 years, whichever comes first.

Using incorrect or unapproved aftertreatment components can cause damage to vehicle's aftertreatment system and reduce ability of aftertreatment system to function correctly. Never interchange aftertreatment components between Interim Tier 4/Stage III B and Final Tier 4/Stage V equipped vehicles.

If DEF is spilled or contacts any surface other than the storage tank, immediately clean the surface with clear water. DEF is corrosive to painted and unpainted metallic surfaces and may distort some plastic and rubber components.



RXA0135357—UN—30AUG13

1. Remove cap screws (A) and shield (B).

RXA0135335—UN—29AUG13

2. Remove DEF tank vent (C) located above DEF dosing unit.
3. Install new DEF tank vent filter.
4. Reinstall DEF tank shield and DEF tank shield cap screws. Tighten to 37 N·m (27 lb·ft).

TS36762,0000158-19-16JUL18

In-Line DEF Filter (If Equipped)

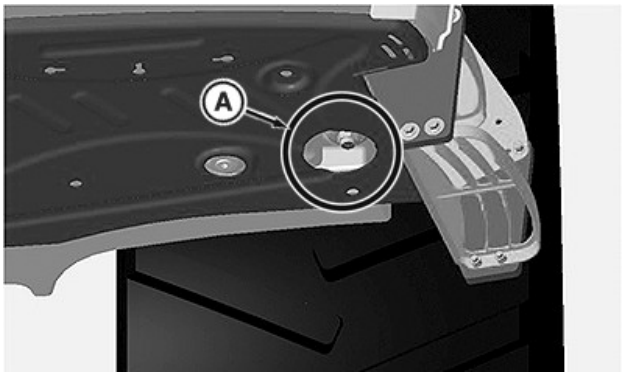
CAUTION: DEF contains urea. Do not get the substance in eyes. If contact occurs, immediately flush eyes with large amounts of water for a minimum of 15 minutes. Do not take internally. In the event DEF is ingested, contact a physician immediately. Reference Materials Safety Data Sheet (MSDS) for additional information.

IMPORTANT: Prevent damage to tractor emissions system. Tractor is equipped with an engine which uses a Selective Catalytic Reduction (SCR) system. Light is illuminated during Diesel Exhaust Fluid (DEF) purge from system. Do not begin service on filter until battery disconnect switch light has gone out.

See Battery Disconnect Switch in Engine Operation section of this Operator's Manual.

NOTE: If tractor is equipped with in-line DEF filter there is no DEF header filter.

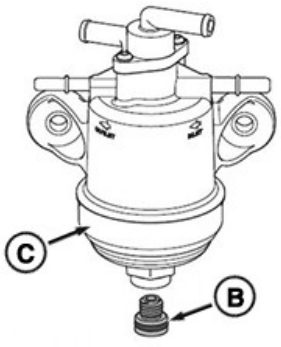
1. Watch indicator light on battery disconnect switch, when indicator light has gone out go to step 2.



RXA0164379—UN—27AUG18

Bottom Side of Steps

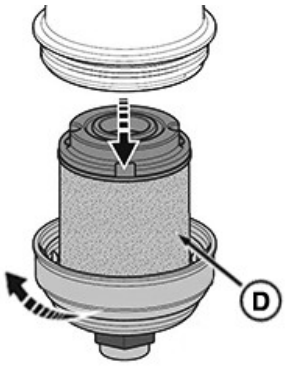
2. Locate DEF pump and in-line DEF filter assembly (A).



RXA0163954—UN—23JUL18

NOTE: Container must hold at least 300 mL (.32 qt).

3. Remove drain plug (B) and drain DEF fluid into a proper container.
4. Rotate filter housing (C) counterclockwise.

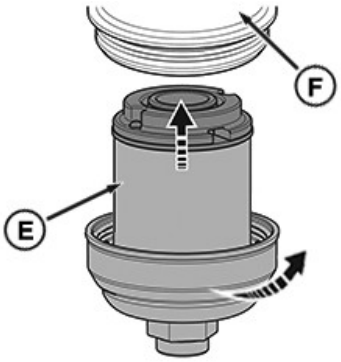


RXA0163956—UN—23AUG18

5. Pull filter assembly down.

NOTE: If necessary, tap filter to loosen.

6. Remove and discard filter (D) and foam compensation element under filter.



RXA0163955—UN—23AUG18

7. Install filter (E) into filter housing (F) rotate clockwise. Tighten housing to 25 N·m (18.4 lb·ft).
8. Inspect O-ring on drain plug. Replace if damaged.
9. Install drain plug. Tighten to 4 N·m (3 lb·ft).

BH38674,0000D46-19-29AUG18

DEF Header Filter—Final Tier 4 or Stage V Engine

IMPORTANT: Always use DEF as specified in Diesel Exhaust Fluid (DEF) section of this Operator's Manual.

Reduce damage and poor performance issues with DEF system. DEF header filter protects system from low quality or contaminated DEF. Replace as required.

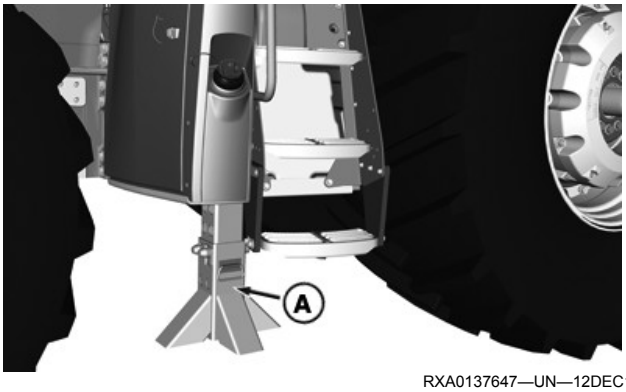
NOTE: A blocked DEF header filter is only one of the several problems which cause listed (Diagnostic Trouble Code) DTC messages to appear.

NOTE: If tractor is equipped with DEF header filter there will be no in-line DEF filter.

If either DTC message appears on CommandCenter™ display, replace header filter:

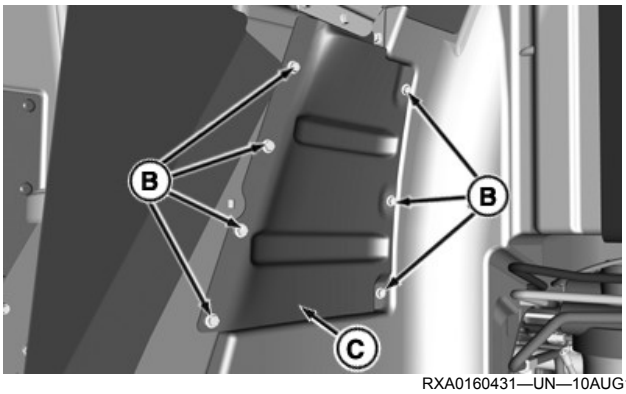
- ECU4334.01 - Dosing Unit Pressure Extremely Low
- ECU4334.18 - Dosing Unit Pressure Moderately Low

1. Stop tractor and place transmission into PARK.
2. Disconnect (—) battery cable.



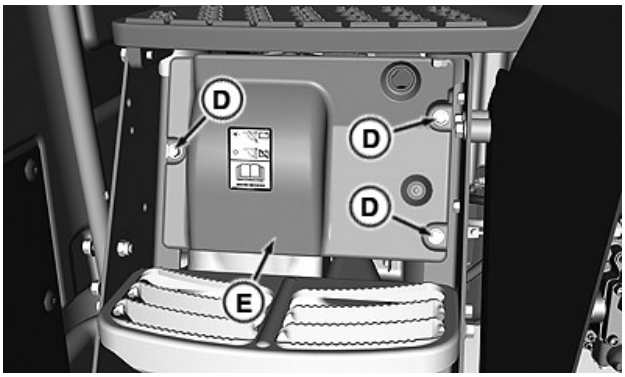
RXA0137647—UN—12DEC13

3. Place jackstand (A) under fuel tank.



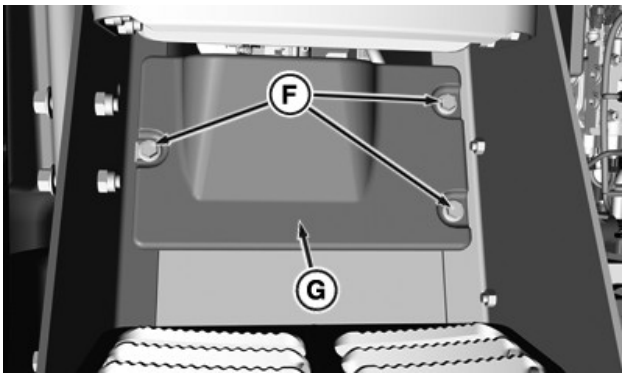
RXA0160431—UN—10AUG17

4. Remove cap screws (B) and wheel cover (C).



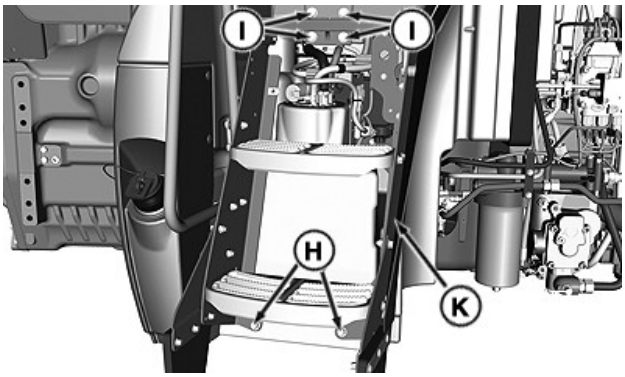
RXA0160432—UN—10AUG17

5. Remove step cover cap screws (D) and step cover (E).



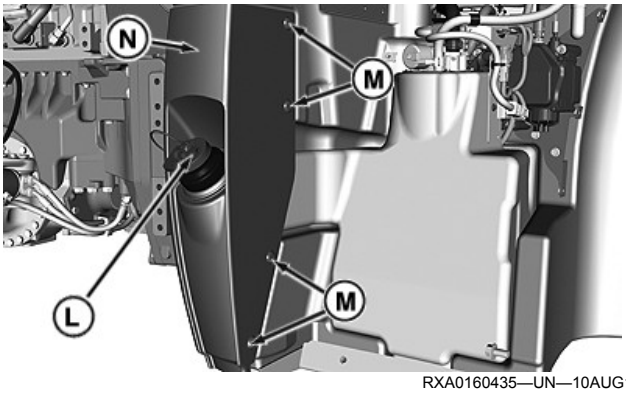
RXA0160433—UN—10AUG17

6. Remove cap screws (F) and lower step cover (G), if equipped.

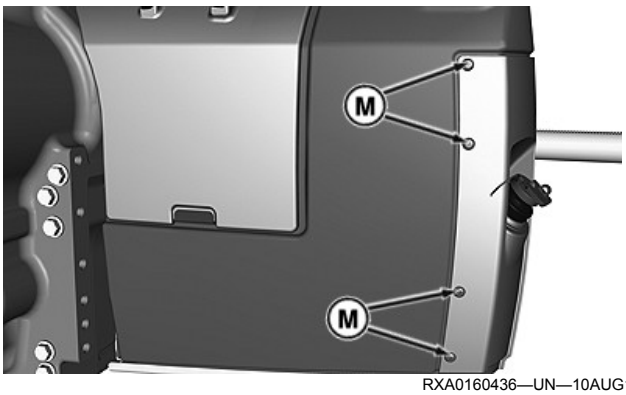


RXA0160434—UN—10AUG17

7. Remove cap screws (H and I) and step assembly (J).



RXA0160435—UN—10AUG17



RXA0160436—UN—10AUG17

8. Remove DEF cap (L), splash guard cap screws (M), and splash guard (N).

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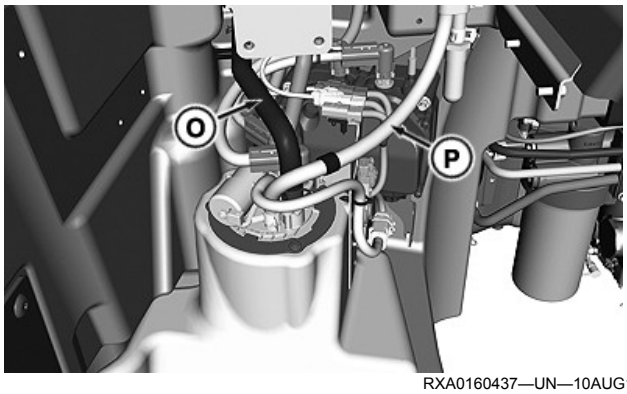
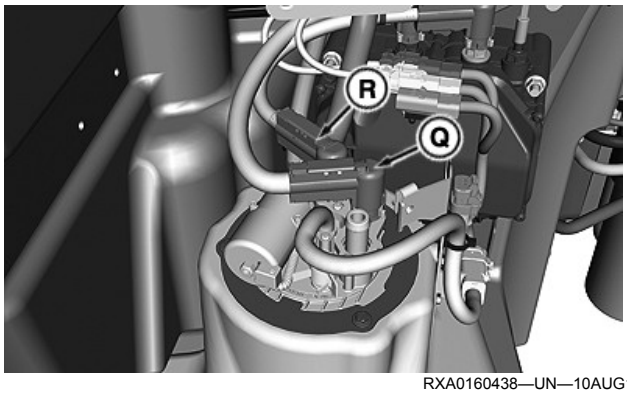


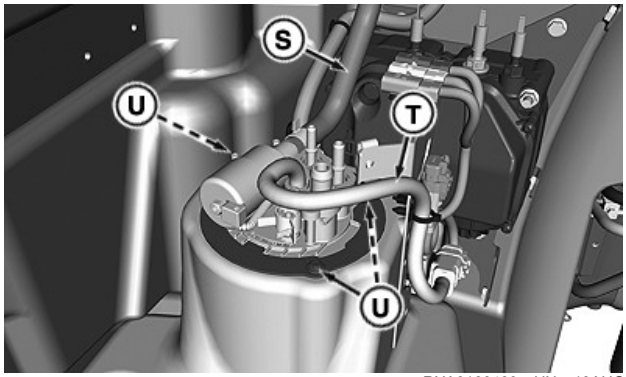
RXA0160437—UN—10AUG17

9. Remove lines (O and P).



RXA0160438—UN—10AUG17

10. Remove lines (Q and R).



RXA0160439—UN—10AUG17

11. Remove coolant return line (S), electrical connector (T), and 3 header-mounted cap screws (U).

CAUTION: Avoid contact with eyes. In case of contact, immediately flush eyes with large amounts of water for a minimum of 15 minutes. Reference the Materials Safety Data Sheet (MSDS) for additional information.

IMPORTANT: If DEF is spilled or contacts any surface other than the storage tank, immediately clean the surface with clear water. DEF is corrosive to painted and unpainted metallic surfaces and can distort some plastic and rubber components.

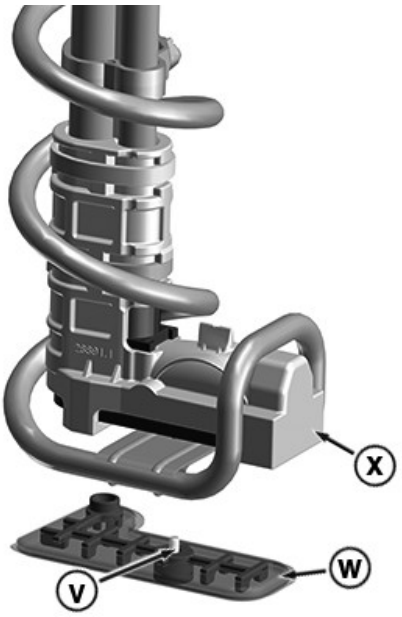
Spilled DEF, if left to dry or if only wiped away with a cloth, leaves a white residue. Improperly cleaned DEF spill can interfere with diagnosis of Selective Catalytic Reduction (SCR) system leakage problems.

12. Clear all debris from area around DEF tank header.

IMPORTANT: Cap and plug all lines and fittings to prevent contamination. Coolant in DEF causes Selective Catalytic Reduction (SCR) system performance issues.

NOTE: Mark all hoses and wires before removal.

13. Remove DEF tank header.
14. Remove O-rings and inspect for damage. Replace if necessary.



RXA0160702—UN—23AUG17

15. Remove DEF header filter retaining screw (V).
16. Remove filter (W) from header assembly (X).
17. Install filter (W).
18. Install screw (V) and tighten to 1 N·m (11 lb·in).
19. Lubricate O-rings with clean DEF.

IMPORTANT: Plugged DEF header filter may indicate that dosing unit filter is also plugged.

21. Examine header filter. If filter is plugged with contaminants go to step 22. If not plugged, go to step 26.
22. Change DEF dosing unit filter. See Dosing Unit Filter in this Operator's Manual section.
23. Check DEF tank for contaminated DEF. See Testing Diesel Exhaust Fluid (DEF) in DEF section of this Operator's Manual.
24. If DEF is contaminated, drain and clean DEF tank.

See Diesel Exhaust Fluid (DEF) Tank in Service - Clean section of this Operator's Manual.

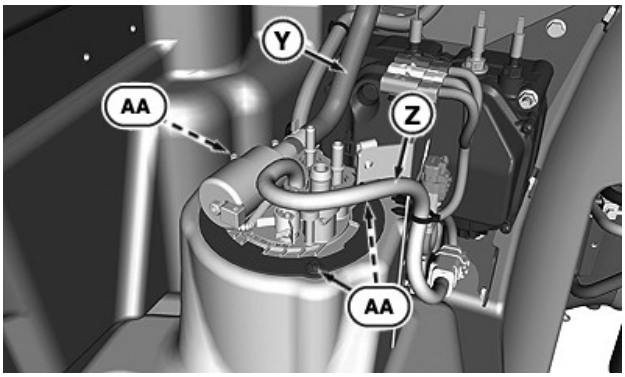
25. Check stored DEF supply. See Testing Diesel Exhaust Fluid (DEF) in DEF section of this Operator's Manual.

IMPORTANT: Prevent DEF leak, header, or align notches on locking ring with plastic tabs on header.

26. Insert DEF tank header assembly and header assembly cap screws (AA). Tighten to 8 N·m (71 lb·in).

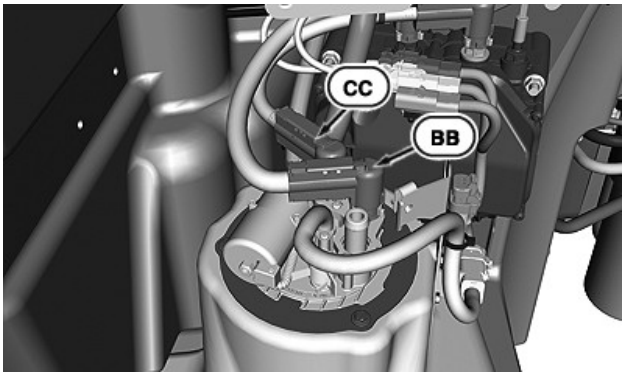
IMPORTANT: Push DEF line onto fitting until a "click" is heard. Then lightly pull back to ensure that it is connected and locked it in place.

NOTE: DEF supply and return lines have unique sized fittings.



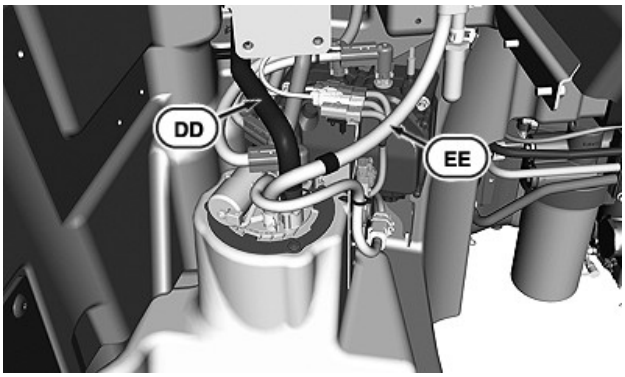
RXA0160440—UN—10AUG17

27. Connect DEF line (Y) and electrical connector (Z).



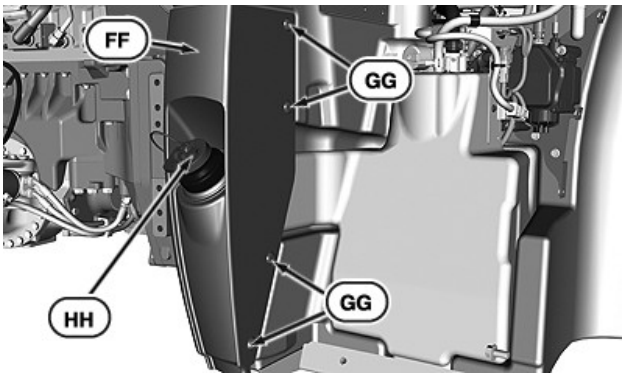
RXA0160441—UN—15AUG17

28. Install DEF supply line (BB) and DEF return line (CC).

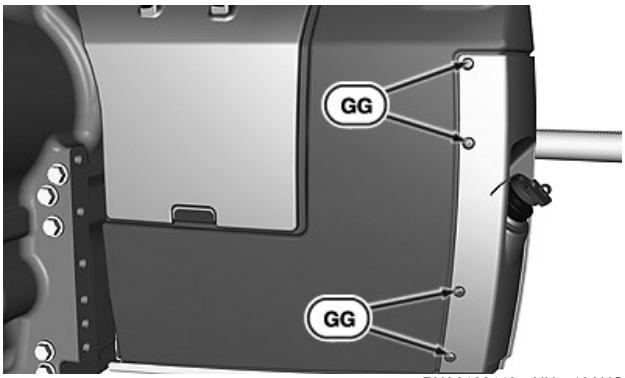


RXA0160442—UN—10AUG17

29. Install coolant supply line (DD) and DEF vent line (EE).

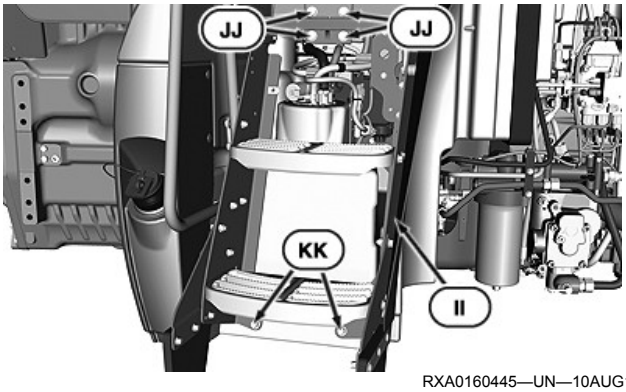


RXA0160444—UN—10AUG17



RXA0160443—UN—10AUG17

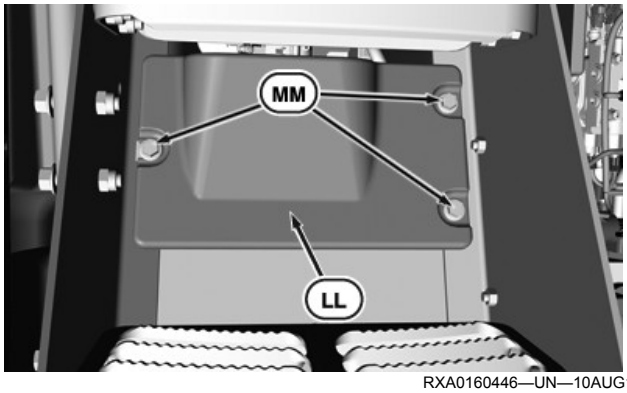
30. Install splash guard (FF) and splash guard cap screws (GG). Tighten to 8 N·m (71 lb·in). Install DEF cap (HH).



RXA0160445—UN—10AUG17

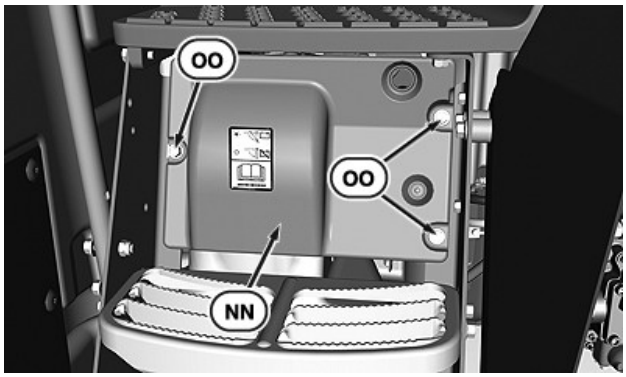
31. Install step assembly (II), step platform cap screws

(JJ), and step bracket cap screws (KK). Tighten step bracket cap screws to 55 N·m (41 lb·ft) and step platform cap screws to 128 N·m (94 lb·ft)



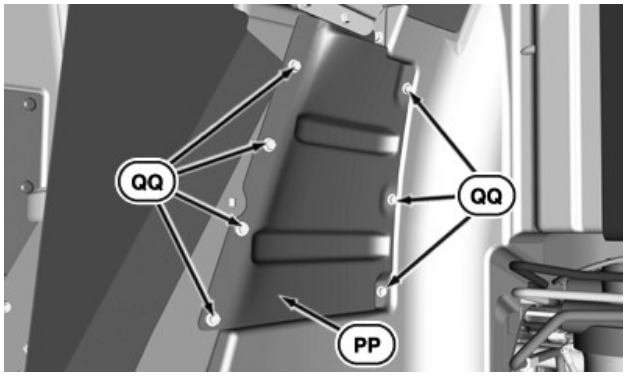
RXA0160446—UN—10AUG17

32. Install lower step cover (LL) and lower step cover cap screws (MM).



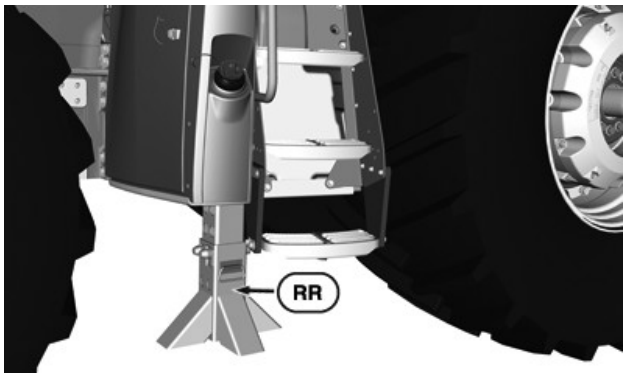
RXA0160447—UN—10AUG17

33. Install step cover (NN) and step cover cap screws (OO). Tighten to 25 N·m (221 lb·in).



RXA0160448—UN—10AUG17

34. Install wheel cover (PP) and wheel cover cap screws (QQ). Tighten to 25 N·m (221 lb·in).



RXA0160430—UN—10AUG17

35. Remove jackstand (RR).
36. Connect (—) battery cable.
37. Start and run tractor.

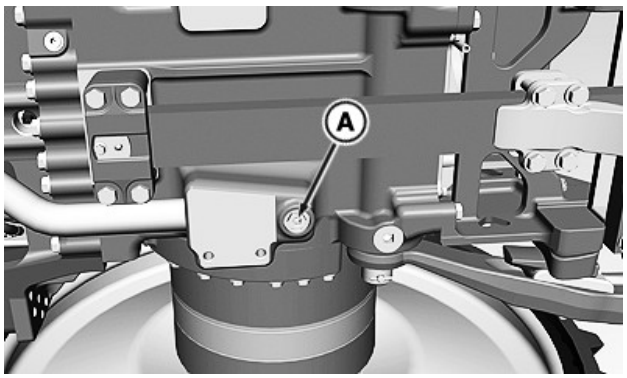
IMPORTANT: If DTC message reappears, filter may not have been causing problem that generated code. See your John Deere dealer.

BH38674,0000BF3-19-28AUG18

Differential Oil

IMPORTANT: If oil appears milky or foamy, oil may be contaminated with water, change oil immediately. If oil is discolored or smells burned, oil may be overheating. See your John Deere dealer.

1. Park tractor on level surface with hitch lowered.
2. Place drain pan under differential case.



RXA0136869—UN—19NOV13

3. Remove drain plug (A) on bottom of rear differential case. Retain drain plug for reinstallation.
4. After used oil is completely drained, reinstall drain plug and tighten to 102 N·m (75 lb·ft).
5. Dispose of used oil in accordance with local laws and ordinances.
6. For tractors with IVT™/AutoPowr™ transmission, proceed to IVT™/AutoPowr™ and e23™

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AutoPowr is a trademark of Deere & Company

Transmissions-Hydraulic Oil in this section of this Operator's Manual.

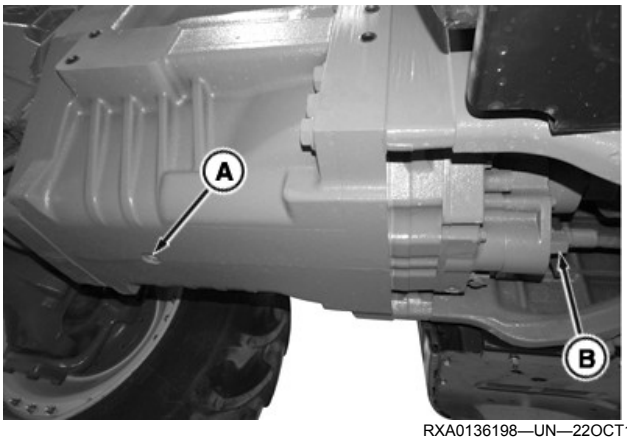
RX32825,000000E-19-15NOV17

Drain 16-Speed Transmission

NOTE: For tractors equipped with ILS™, see Drain ILS™ in this section of this Operator's Manual.

For tractors not equipped with ILS™, see Clean Hydraulic Oil Suction Screen in Service - Clean section of this Operator's Manual.

1. Place drain pan under transmission drain plug.

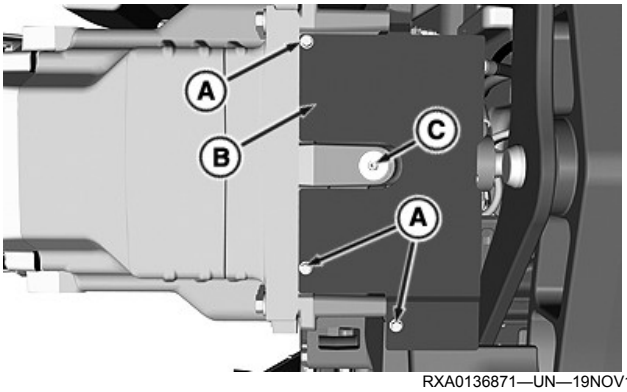


RXA0136198—UN—22OCT13

2. Remove drain plug (A).
3. Remove filter screen plug (B).
4. Remove filter screen and wash carefully in solvent. Blow dry with compressed air before reinstalling screen.
5. Reinstall filter screen plug and drain plug. Tighten filter screen plug to 70 N·m (52 lb·ft) and drain plug to 80 N·m (59 lb·ft).
6. Dispose of used oil in accordance with local laws and ordinances.

RW29387,0000081-19-15NOV17

IVT™/AutoPowr™ and e23™Transmissions-Hydraulic Oil



RXA0136871—UN—19NOV13

1. Remove four cap screws (A) and cover (B).
2. Place drain pan under transmission drain plug (C).
3. Remove drain plug.

IMPORTANT: Do not remove screen unless it is dirty. Contact your John Deere dealer with questions regarding removal of hydro control valve or transmission filter screen.

When servicing hydraulic components, cleanliness is essential and ANY FOREIGN MATERIAL (DIRT) can damage equipment! Clean area around hydro control valve thoroughly with steam cleaner prior to removing valve. Make sure valve is clean before reinstalling.

4. Using a work light, inspect filter through bottom drain plug opening.
5. If filter screen appears clean, reinstall plug and tighten to 69 N·m (51 lb·ft).

   Dispose of oil in accordance with local laws and ordinances.

   If screen appears dirty, remove it.

IMPORTANT: Disconnect wiring harness and protect from dripping oil before removing screen access plug. Oil in wiring harness connectors can damage equipment.

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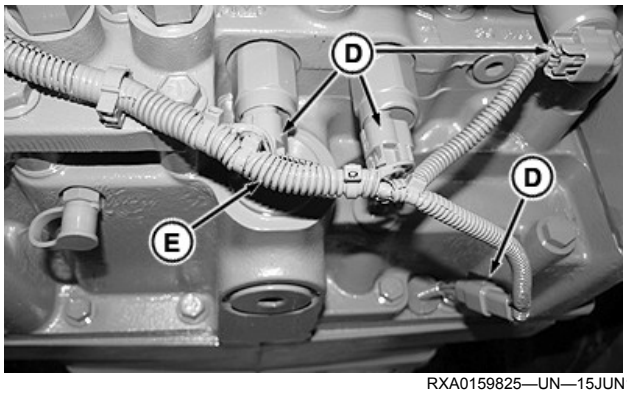
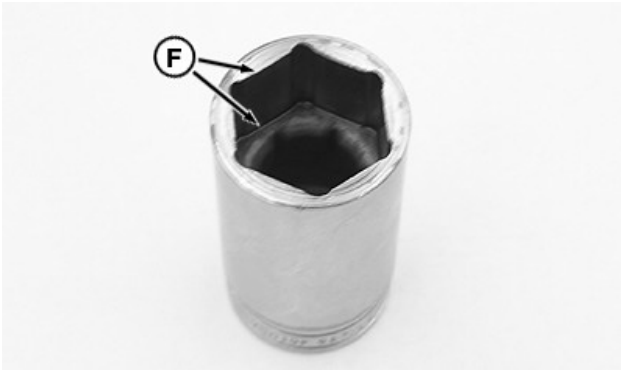


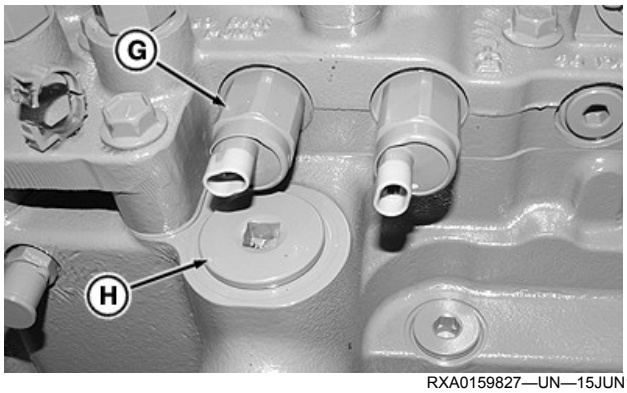
RXA0159825—UN—15JUN17

6. Remove connectors (D) on control valves. Secure wiring harness (E) away from oil.



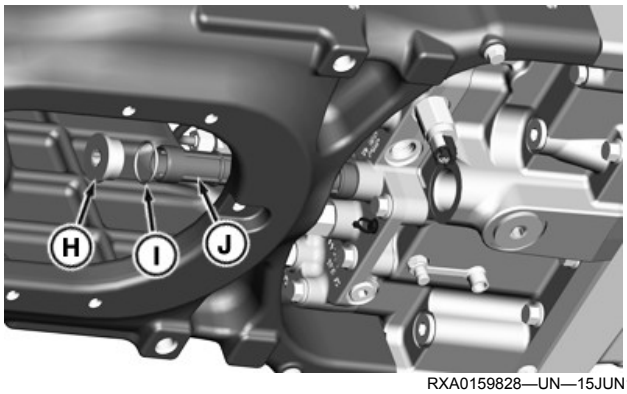
RXA0159826—UN—15JUN17

IMPORTANT: Remove hydro control valve with a 1 1/4 in. (deep broach) deep well socket (F) to avoid damaging control valve.



RXA0159827—UN—15JUN17

7. Remove hydro control valve (G).

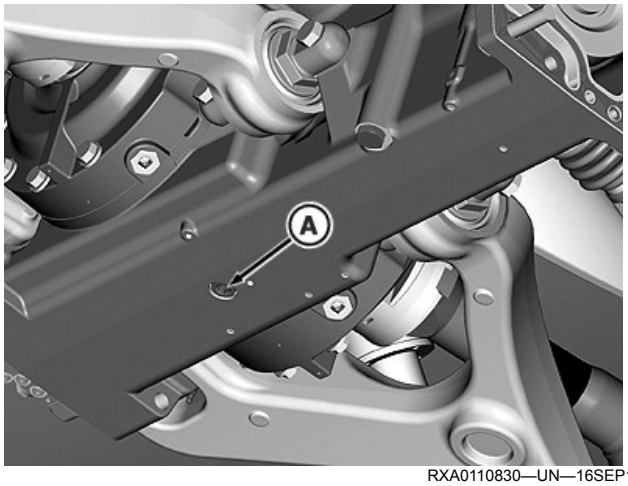


RXA0159828—UN—15JUN17

8. Remove screen access plug (H) at front of transmission, with O-ring (I).
9. Remove filter screen (J).
10. Wash filter screen carefully in solvent. Blow dry with compressed air.
11. Reinstall filter screen in transmission, screen access plug, and tighten to 69 N·m (51 lb·ft).
12. Reinstall control valve and tighten to 45 N·m (33 lb·ft).
13. Reinstall wiring harness connectors.
14. Dispose of used oil in accordance with local laws and ordinances.

SV81855,00001C2-19-15NOV17

Drain ILS™



RXA0110830—UN—16SEP10

1. Place drain pan under ILS™ drain plug (A).
2. Remove drain plug.
3. After oil is drained, reinstall drain plug and tighten to 80 N·m (59 lb·ft).
4. Dispose of used oil in accordance with local laws and ordinances.

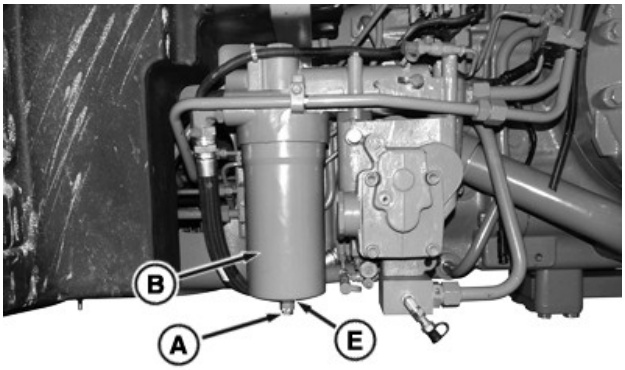
5. See Hydraulic Oil Suction Screen in Service - Clean section of this Operator's Manual.

RX32825,0000011-19-15NOV17

Transmission-Hydraulic Oil Filter

NOTE: Change just transmission-hydraulic filter after first 500 operating hours only. Thereafter, change transmission-hydraulic oil and filter every 1500 operating hours.

1. Start engine.
2. Fully lower rear hitch.
3. Stop engine.



RXA0160996—UN—28SEP17

4. Place drain pan under transmission-hydraulic filter housing (B).
5. Remove drain plug (A) from bottom of housing and drain oil.
6. Remove housing. Turn counterclockwise.
7. Remove old filter element from housing.
8. Dispose of used oil and oil filter in accordance with local laws and ordinances.

RXA0136347—UN—28OCT13

9. Apply hydraulic oil to both sides of new filter element gasket (C) and install filter element into filter housing.

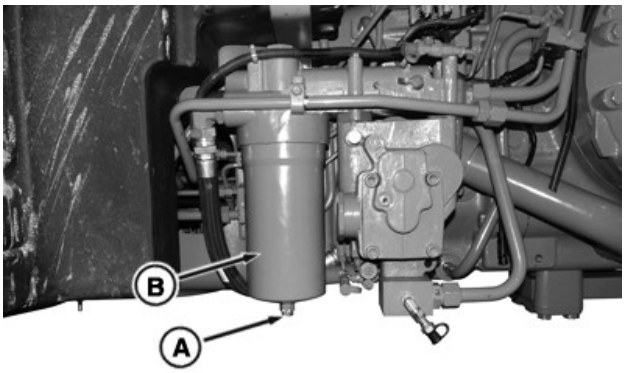
RXA0136346—UN—28OCT13

10. Apply anti-seize compound to filter housing threads (D). Compound is supplied with replacement filter.
11. Install filter housing. Use nut on bottom of housing (E) and tighten to 68 N·m (50 lb·ft).
12. Install drain plug and tighten to 39 N·m (29 lb·ft).
13. Check oil level. See Transmission-Hydraulic Oil Level in Service - Check section of this Operator's Manual.
14. Refill system as necessary. See Transmission-Hydraulic Oil in Other Lubricants section of this Operator's Manual.
15. Recheck oil level.

KD34109,0000701-19-16NOV17

Transmission-Hydraulic Oil and Filters

1. Start engine.
2. Fully lower rear hitch.
3. Stop engine.
4. Place drain pan under transmission/hydraulic filter.



RXA0136342—UN—29OCT13

5. Remove drain plug (A) from bottom of filter housing (B) to drain oil.
6. Remove filter housing (B) by turning counterclockwise.
7. Remove old filter element from filter housing and properly discard filter element.

RXA0136347—UN—28OCT13

8. Apply hydraulic oil to both sides of new filter element gasket (C) and install filter element into filter housing.

IMPORTANT: Anti-seize is supplied with the new replacement filter.

RXA0136346—UN—28OCT13

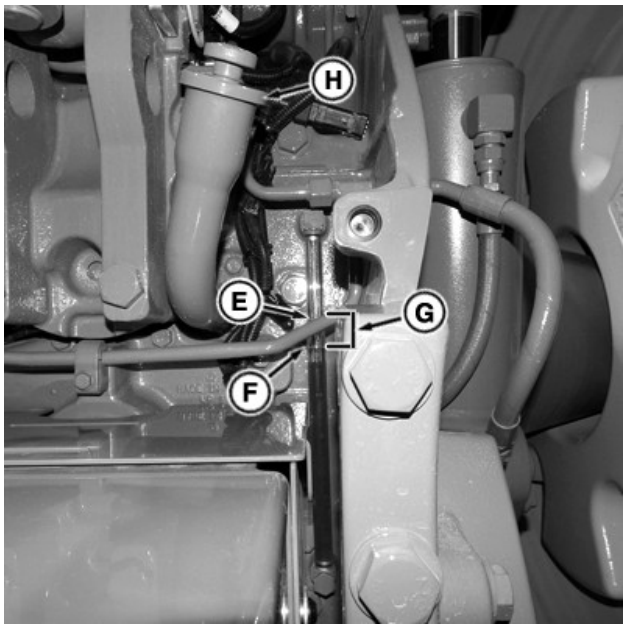
9. Apply anti-seize to filter housing threads (D).
10. Install filter housing and tighten to 68 N·m (50 lb·ft).
11. Reinstall filter housing drain plug and tighten to 39 N·m (29 lb·ft).
12. Before refilling transmission-hydraulic oil, be sure all drain plugs are correctly installed.

IMPORTANT: Avoid damage to transmission and hydraulic system components. Carefully follow initial oil fill procedure.

NOTE: Oil temperature should be between 20 - 45°C (68 - 113°F). See CommandCenter™ Machine Monitor page, Temperature tab to determine oil temperature.

Sight gauge observations will be significantly higher with hotter oil temperatures and lower with colder oil or if engine has not run long enough.

13. Fill differential housing with oil. Use John Deere transmission and hydraulic oil as specified in Other Lubricants section of this Operator's Manual. For transmission-hydraulic oil capacity, see Capacities in Specifications section of this Operator's Manual.
14. Start engine and run at 900 rpm for at least 3 minutes.
15. Operate engine at 1200 rpm for at least one minute.
16. Stop engine and wait at least five minutes until oil level stabilizes in differential case.



RXA0159824—UN—15JUN17

17. Oil level should be between FULL (E) and ADD (F) marks on sight glass. Optimum level is FULL mark or between Safe Operating Area (G) marks.

IMPORTANT: Oil level above top mark on sight glass can result in power loss and heat generation during transport.

If oil level is below lower mark, remove filler cap (H) and add hydraulic oil. If oil level is above top mark, drain oil to bring level into correct range.

18. Start and operate engine several minutes. Check for leaks while engine is operating.

19. Stop engine and recheck oil level after a minimum of five minutes.
20. Add oil as necessary.

RD47322,0000013-19-16NOV17

MFWD or ILS™ Wheel Hub Oil

1. Park tractor on level ground.

RXA0136209—UN—24OCT13

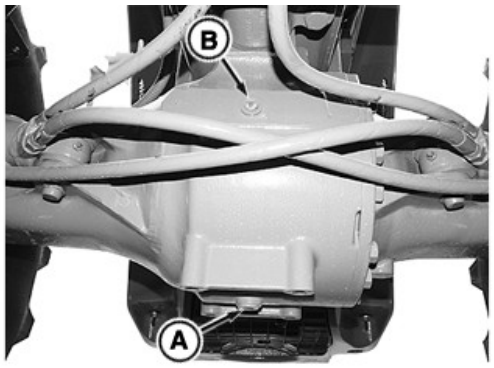
2. Maneuver tractor forward or backward until drain/fill plug (A) is at bottom of hub.
3. Remove drain/fill plug and drain oil.
4. When oil has drained, maneuver tractor so that words OIL LEVEL cast into wheel hub are horizontal.
5. Fill MFWD wheel hub with oil through drain/fill hole until oil is even with bottom of hole. Use John Deere GL-5 Gear Lubricant oil as specified in Gear Oil in Other Lubricants section of this Operator's Manual. For wheel hub capacity, see Capacities in Specifications section of this Operator's Manual.
6. Install drain/fill plug and tighten to 80 N·m (59 ft·lb).
7. Repeat procedure with other wheel hub.

RX32825,0000686-19-16NOV17

MFWD Axle Housing Oil

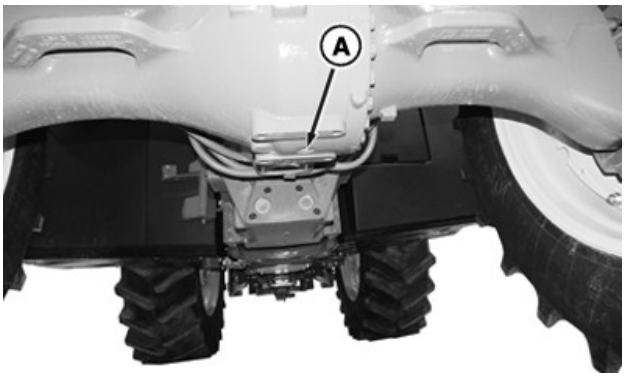
NOTE: ILS™ MFWD differential case shares oil with tractor transmission-hydraulic system. Draining and filling transmission-hydraulic oil level also fills differential case oil on ILS™ tractors.

1. Park tractor on level ground.



RXA0136533—UN—01NOV13

1300 MFWD Axle

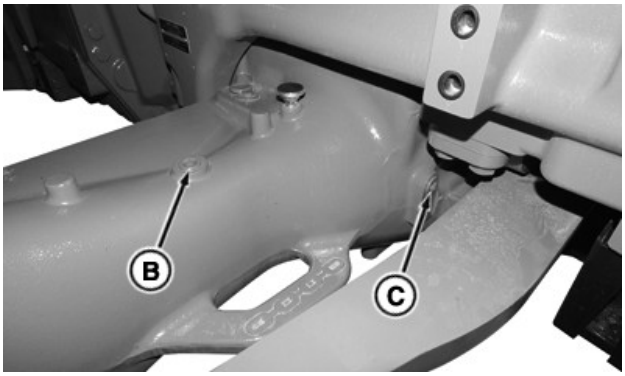


RXA0136737—UN—08NOV13

1500 MFWD Axle

2. Remove axle housing drain plug (A) (1300 or 1500 axle) and drain oil. After oil has drained, reinstall drain plug and tighten to 70 N·m (52 lb·ft).
3. Dispose of used oil in accordance with local laws and ordinances.
4. Fill MFWD axle housing with John Deere Hy-Gard™ oil as specified in Other Lubricants section of this Operator's Manual. For axle housing capacity, see Capacities in Specifications section of this Operator's Manual.

   1300 axle: remove fill plug (B) and add oil through fill hole until oil level is even with bottom of fill hole. Reinstall fill plug and tighten to 80 N·m (59 lb·ft).



RXA0136322—UN—25OCT13

1500 MFWD Axle

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Hy-Gard is a trademark of Deere & Company

1500 axle: Remove fill plug (B) and check plug (C). Add oil through fill hole until oil level is even with bottom of check hole. Reinstall fill and check plugs and tighten to 80 N·m (59 lb·ft).

5. Start and run tractor for several minutes, then remove fill plug (1300 axle) or check plug (1500 axle) and recheck oil level. Add additional oil as necessary. Operate tractor and recheck oil level until level is correct.

RD47322,0000687-19-16NOV17

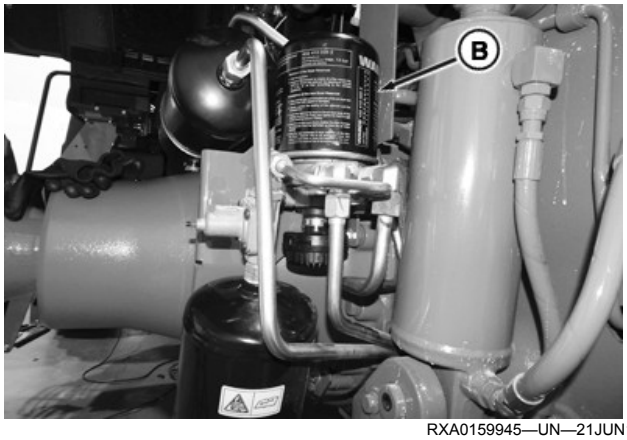
Trailer Air Brake Air Dryer Filter

IMPORTANT: Replace at least every 2 years, regardless of operating hours.

1. PARK tractor, shut OFF engine and remove key.

RXA0159913—UN—19JUN17

2. Manually depress release valve inside red air trailer brake coupler (A).



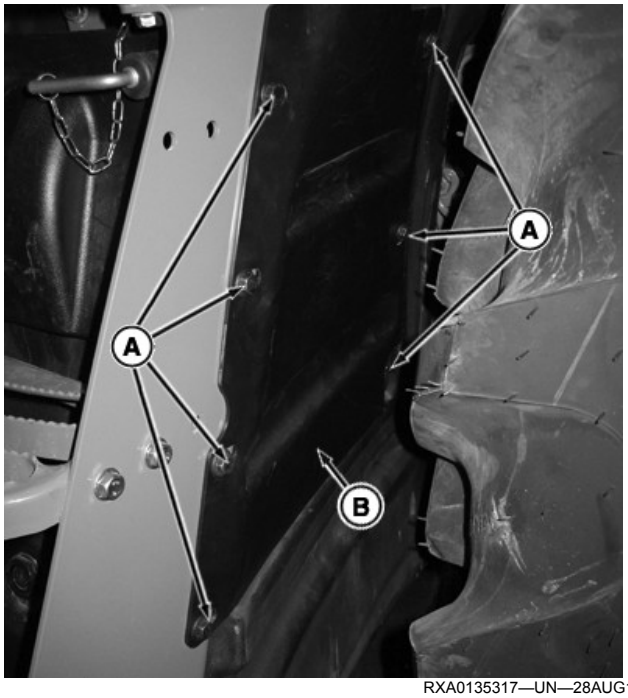
RXA0159945—UN—21JUN17

3. After all air pressure is released, remove air trailer brake dryer filter (B) and discard.
4. Lubricate new filter gasket with clean oil.
5. Install new air trailer brake dryer filter until gasket contacts air dryer housing surface. Hand tighten additional 1/2 turn.

DB71512,0000043-19-21JUN17

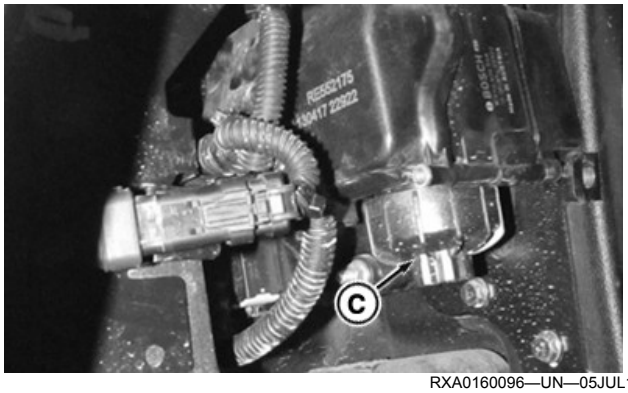
Access DEF Dosing Unit Filter—Final Tier 4/ Stage V Engine

IMPORTANT: Replace every 4500 hours of operation or every 3 years, whichever comes first.



RXA0135317—UN—28AUG13

1. Remove cap screws (A) and shield (B).



RXA0160096—UN—05JUL17

2. Diesel exhaust fluid (DEF) dosing unit filter (C) is located on bottom of dosing unit
3. See Changing Diesel Exhaust Fluid (DEF) Dosing Unit Filter in this section of this Operator's Manual.
4. Install in reverse order and tighten to 37 N·m (27 lb·ft).

TS36762,000015A-19-16JUL18

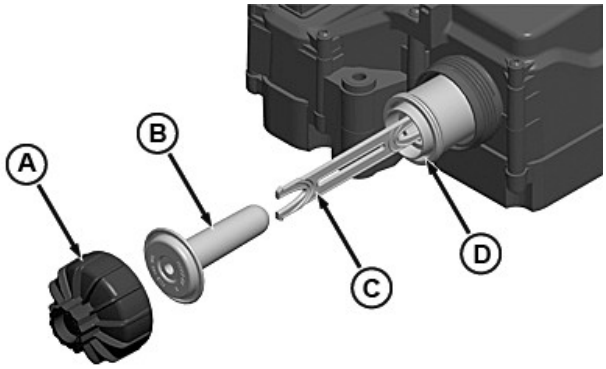
DEF Dosing Unit Filter—Final Tier 4/Stage V Engine

CAUTION: Avoid contact with eyes. In case of contact, immediately flush eyes with large amounts of water for a minimum of 15 minutes. Reference the Materials Safety Data Sheet (MSDS) for additional information.

IMPORTANT: If DEF is spilled or contacts any surface other than the storage tank, immediately clean the surface with clear water. DEF is corrosive to painted and unpainted metallic surfaces and can distort some plastic and rubber components.

Spilled DEF, if left to dry or if only wiped away with a cloth, leaves a white residue. Improperly cleaned DEF spill can interfere with diagnosis of Selective Catalytic Reduction (SCR) system leakage problems.

NOTE: Servicing DEF dosing unit filter may require removing additional covers or components, see Access DEF Dosing Unit for location information.



RG22534—UN—21MAR13

1. Remove DEF dosing unit filter cover (A).
2. Remove and discard DEF dosing unit filter equalizing element (B).
3. Insert “Black” end of DEF dosing unit filter tool (C) into DEF dosing unit filter (D) until CLICK is felt or heard indicating DEF dosing unit filter tool is fully engaged.

NOTE: A tool such as a screwdriver can be inserted into DEF dosing unit filter tool slot to assist removal.

4. Pull DEF dosing unit filter tool and DEF dosing unit filter from DEF dosing unit. Discard DEF dosing unit filter and DEF dosing unit filter tool.

IMPORTANT: Plugged DEF dosing unit filter may indicate that header filter is also plugged.

5. Examine dosing unit filter. If filter is plugged with contaminants, go to step 6. If not plugged, go to step 10.
6. Change DEF header filter, see Header Filter in this Operator’s Manual section.
7. Check DEF tank for contaminated DEF, see Testing Diesel Exhaust Fluid (DEF) in Diesel Exhaust Fluid (DEF) section of this Operator’s Manual.
8. If DEF is contaminated, drain and clean DEF tank, see Diesel Exhaust Fluid (DEF) Tank in Service - Clean section of this Operator’s Manual.
9. Check stored DEF supply, see Testing Diesel Exhaust Fluid (DEF) in Diesel Exhaust Fluid (DEF) section of this Operator’s Manual.
10. Clean DEF dosing unit threads and mating surfaces with distilled water.
11. Lubricate new DEF filter O-rings with clean engine oil. Carefully insert DEF dosing unit filter into DEF dosing unit.
12. Install new DEF dosing unit filter equalizing element into DEF dosing unit filter.
13. Install DEF dosing unit filter cover and tighten to 23 N·m (204 lb·in).

RX32825,0001857-19-15AUG18

Engine Crankshaft Damper

See your John Deere dealer.

TS36762,000015C-19-26JUN17

Transmission Torsional Damper

NOTE: Replacement not required on 8370R equipped with e23 transmission or 8400R tractors.

See your John Deere dealer.

EC82310,0000049-19-21AUG18

Engine Coolant

IMPORTANT: *INITIAL* change interval is 6 years or 6000 hours, provided cooling system is topped off using only John Deere Cool-Gard™ II and premix . After initial service, *SCHEDULED* interval (2 years or 2000 hours) can be extended up to 6 years or 6000 hours depending on coolant used. Follow recommendations in Drain Intervals for Diesel Engine Coolant in Fuels, Lubricants, and Coolant section of this manual.

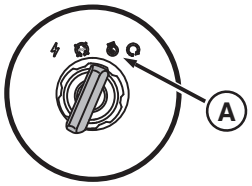
IMPORTANT: Replace thermostat, thermostat gasket, de-aeration tank cap, and radiator cap whenever system is flushed.

Cool-Gard is a trademark of Deere & Company

1. Park tractor, turn key switch to OFF and allow radiator to cool.

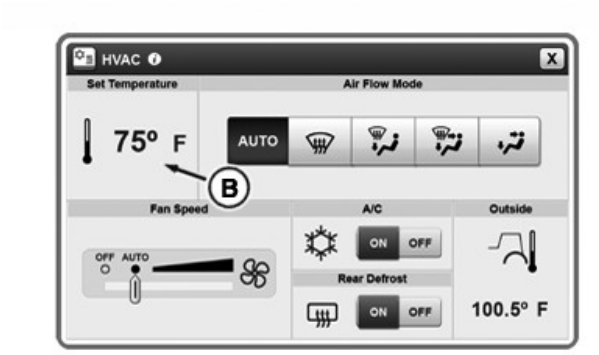
NOTE: Throughout draining, flushing, and filling procedure, set cab temperature to highest setting to ensure that fluids are drained from heating/air conditioning unit. If temperature is not set to highest setting or key switch is not turned to Run, system will not completely drain.

2. Open hood, see Open Hood in Service - General Information section of this Operator's Manual.



RXA0110623—UN—02SEP10

3. Turn key to Run (A).



RXA0131853—UN—03APR13

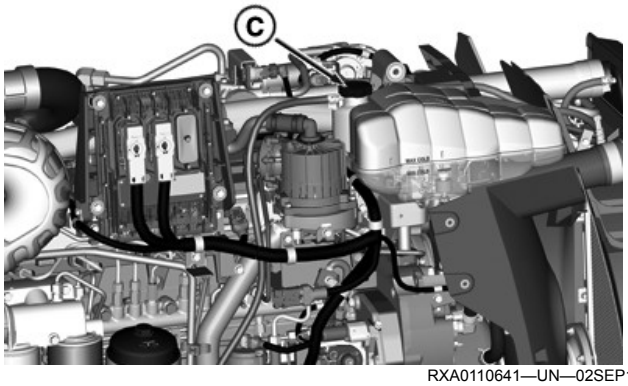
4. Set cab temperature (B) to highest setting possible, see HVAC Settings—Generation 4 CommandCenter™ in HVAC section of this Operator's Manual.

TS281—UN—15APR13

⚠ CAUTION: Explosive release of fluids from pressurized cooling system can cause serious burns.

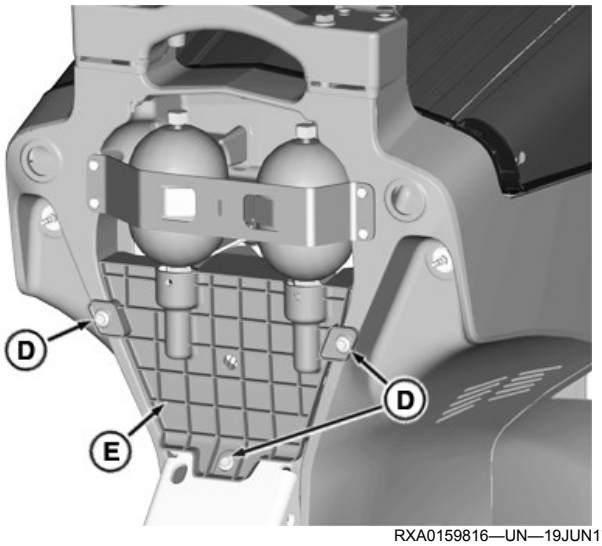
Shut off engine. Only remove cap when cool enough to touch with bare hands. Slowly loosen cap to first stop to relieve pressure before removing completely.

5. Remove old radiator cap and replace with new cap.



RXA0110641—UN—02SEP10

6. Remove and discard old de-aeration tank cap (C).



RXA0159816—UN—19JUN17

7. Remove cap screws (D), then remove deflector (E) beneath radiator drain valve.

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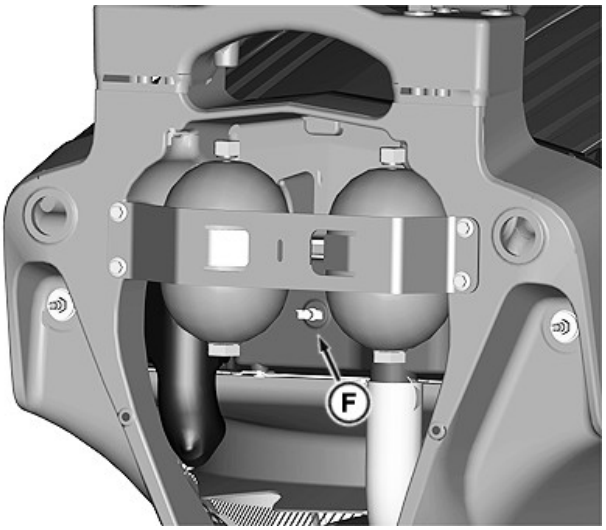
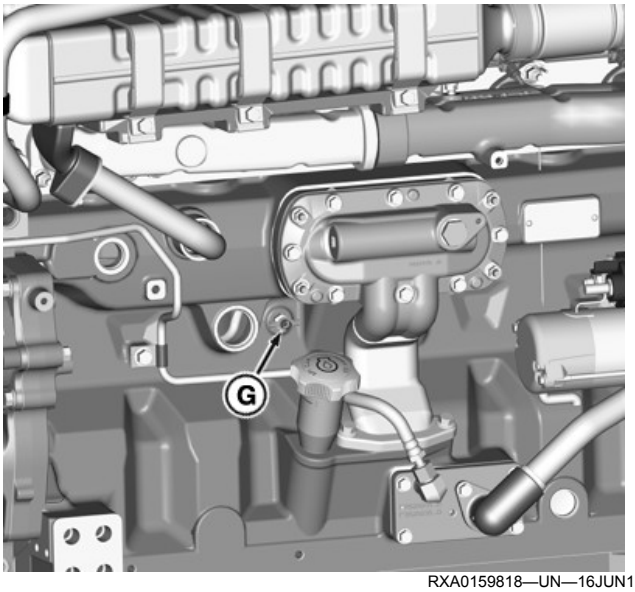


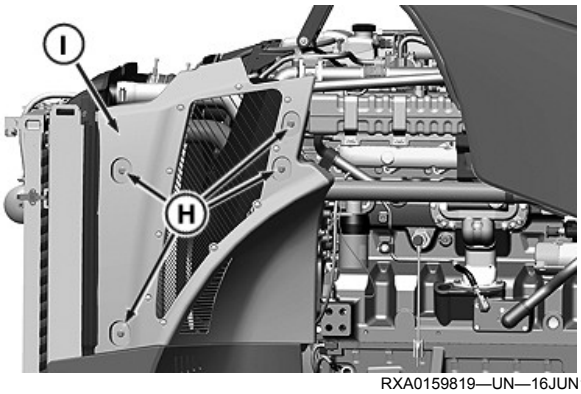
RXA0159817—UN—16JUN17

8. Place catch pan under radiator drain valve (F).
9. Open radiator drain valve and drain coolant into catch pan.



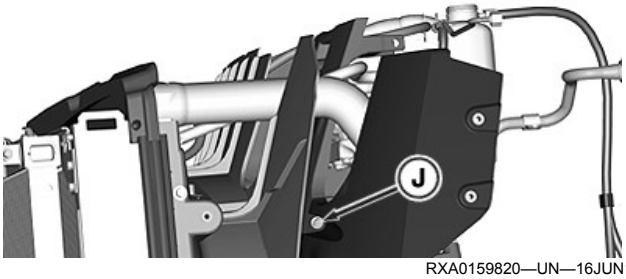
RXA0159818—UN—16JUN17

10. Place catch pan under engine drain valve (G).
11. Open engine drain valve and drain coolant into catch pan.
12. Allow radiator and engine to drain.

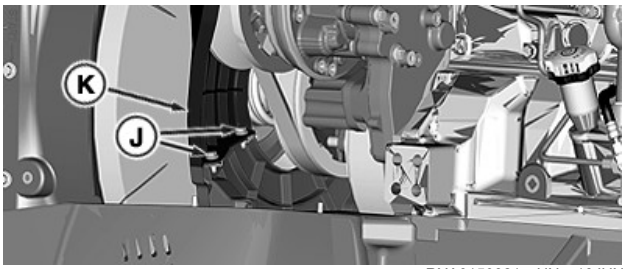


RXA0159819—UN—16JUN17

13. Remove cap screws (H) and left front side panel (I).

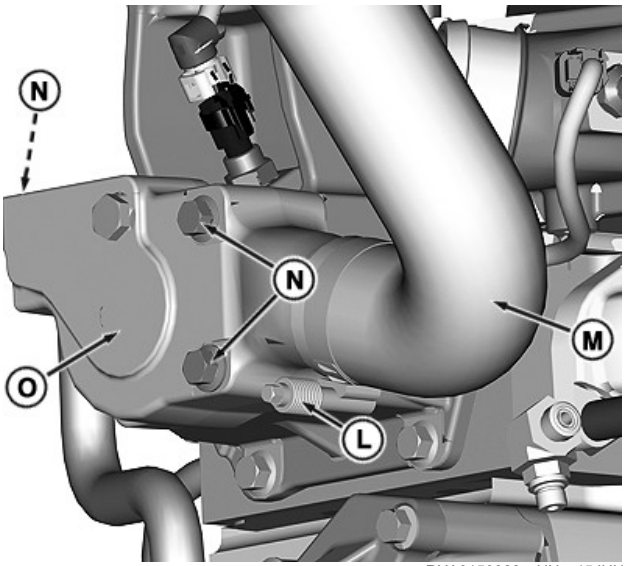


RXA0159820—UN—16JUN17



RXA0159821—UN—16JUN17

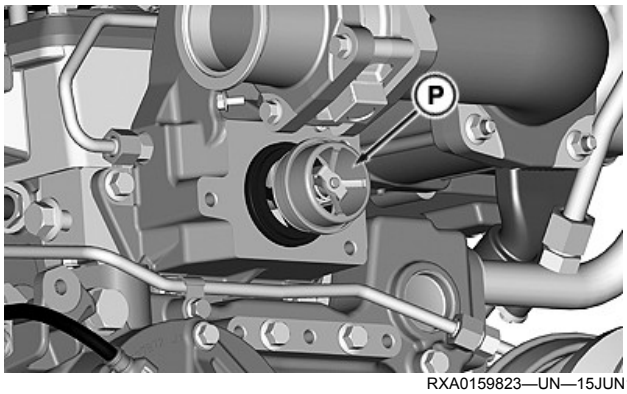
14. Remove cap screws (J).
15. Remove diverter (K).



RXA0159822—UN—15JUN17

16. Loosen hose clamp (L) and slide hose (M) off thermostat cover.
17. Remove cap screws (N) and thermostat cover (O).

NOTE: During draining, filling, and flushing; cooling system thermostat is not installed.



RXA0159823—UN—15JUN17

18. Remove old thermostat (P) and clean sealing area.
19. Install new gasket and cover. Tighten cap screws to 48 N·m (35 lb·ft).
20. Reinstall radiator hose and clamp, diverter, and side panel.
21. Close engine drain valve and radiator drain valve.
22. Dispose of old coolant in accordance with local laws and ordinances.

IMPORTANT: Never pour cold water or coolant into hot engine.

NOTE: See your John Deere dealer for recommendations on cleaning solutions.

23. Fill cooling system at de-aeration tank with cooling system cleaning solution.
24. Install new de-aeration cap.

IMPORTANT: Make sure side panel is installed and hood is closed before starting engine to assure correct air flow through radiator.

25. Close hood and reinstall side panel.
26. Start engine and run at a minimum of 1500 rpm for at least 15 minutes.
27. Shut off engine and allow cleaning solution to cool.
28. Make sure cab temperature is set to highest setting, then turn key to Run position.

TS281—UN—15APR13

CAUTION: Explosive release of fluids from pressurized cooling system can cause serious burns.

Only remove cap when cool enough to touch with bare hands. Slowly loosen cap to first stop to relieve pressure before removing completely.

29. Open hood, remove de-aeration cap, put drain pans in place, then open radiator and engine drain valves.
30. Allow cooling system to drain.
31. Close engine and radiator drain valves.
32. Dispose of cleaning solution in accordance with local laws and ordinances.

IMPORTANT: Never pour cold water or coolant into hot engine.

33. Fill cooling system at de-aeration tank with clean water.
34. Install new de-aeration tank cap.

IMPORTANT: Make sure side panel is installed and hood is closed before starting engine.

35. Close and secure hood.
36. Start engine and run at a minimum of 1500 rpm for at least 15 minutes.
37. Shut off engine and allow water to cool.
38. Make sure cab temperature is set to highest setting, then turn key to Run position.

TS281—UN—15APR13

CAUTION: Explosive release of fluids from pressurized cooling system can cause serious burns.

Only remove cap when cool enough to touch with bare hands. Slowly loosen cap to first stop to relieve pressure before removing completely.

39. Open hood, remove de-aeration cap, put drain pans in place, then open radiator and engine drain valves.
40. Allow cooling system to drain completely.
41. Remove left side panel and diverter.
42. Loosen hose clamp and slide hose back, remove cap screws, thermostat cover, and gasket.
43. Inspect sealing area to ensure it is clean.
44. Apply light coat of RTV silicone sealant to new gasket.
45. Install new thermostat, new gasket, and cover. Tighten cap screws to 48 N·m (35 lb·ft).
46. Reinstall hose, clamps, diverter, and left front side panel.
47. Close engine drain valve and radiator drain valve.
48. Dispose of drained water in accordance with local laws and ordinances.

NOTE: Use engine coolant specified in Engine Coolant section of this Operator's Manual.

49. Fill cooling system at de-aeration tank with new coolant solution. For cooling system capacity, see Capacities in Specifications section of this Operator's Manual.
50. Install de-aeration cap.

CAUTION: Make sure side panel is installed and hood is closed before starting engine.

51. Install front side panel and close hood.
52. Start engine and run at a minimum of 1500 rpm for at least 15 minutes.

NOTE: Coolant may seep out of de-aeration tank overflow vent as air is purged from cooling system.

Coolant level may change when tractor is running or during next few operation cycles.

It is highly recommended cooling system be checked for leaks after draining, flushing, and refilling to ensure optimum tractor performance. See your John Deere dealer for procedure and appropriate tools.

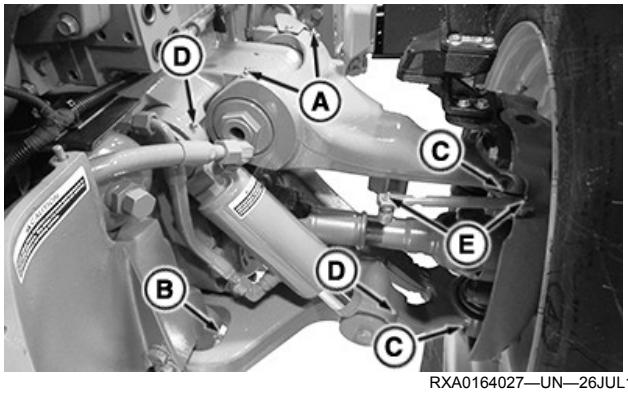
53. After completing service, monitor coolant level for next three days of operation. Most effective way to check coolant level is when tractor is cool. If coolant is low, fill de-aeration tank to mark on tank.

DB71512,000003B-19-05APR18

ILS™ King Pins, Tie Rod Ends, Pivot Fittings, and Suspension Cylinders

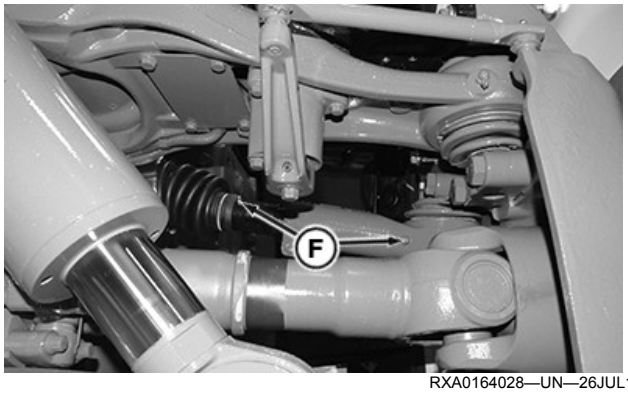
IMPORTANT: Normal lubrication for ILS™ is at 250 hours. If operated in extremely wet conditions, lubricate axle fittings daily or every 10 hours.

Use John Deere SD Polyurea grease or other grease as specified in Multipurpose Extreme Pressure (EP) Grease in Other Lubricants section of this Operator's Manual.



RXA0164027—UN—26JUL18

ILS™ Front Axle



RXA0164028—UN—26JUL18

Upper A-Arm Pivot Points—Lubricate fittings (A) for each upper a-arm pivot point.

Lower A-Arm Pivot Points—Lubricate fittings (B) for each lower a-arm pivot point.

Kingpins—Lubricate fittings (C) for each kingpin bearing.

Suspension Cylinders—Lubricate fittings (D) for both ends of each suspension cylinder.

Wheel Angle Sensor Linkage—Lubricate fittings (E) for wheel angle sensor linkage.

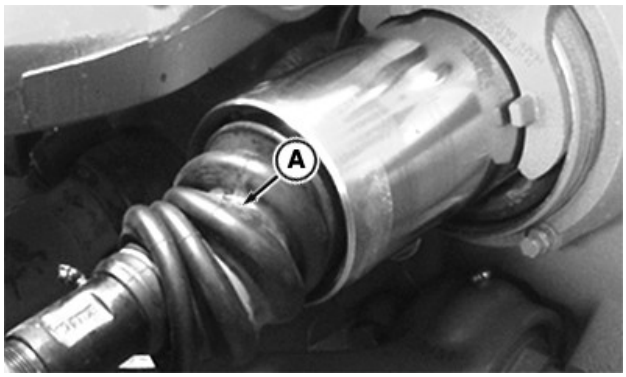
Tie Rods—Lubricate fittings (F) for each tie rod.

RD47322,000067C-19-21AUG18

ILS™ Axle Internal Tie Rod Ball Joints

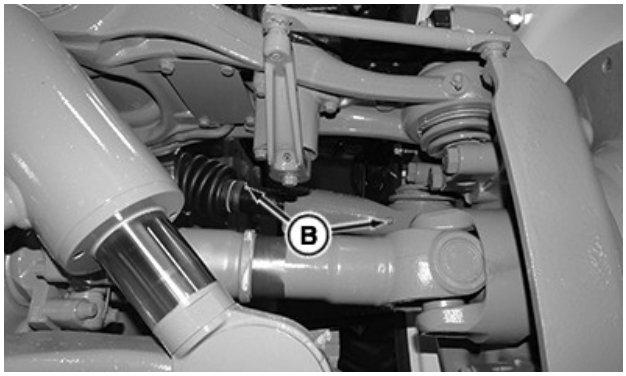
IMPORTANT: Normal lubrication is every 250 hours. In extremely wet conditions, lubricate daily or every 10 operating hours.

IMPORTANT: Excessive grease buildup can cause damage to boot. Clean grease from boot.



RXA0158972—UN—27APR17

1. If tie rod boot appears distended (A), See ILS™ Axle Internal Tie Rod Ball Joint Boot in Service - Clean section of this Operator's Manual. If boot is not distended, or once boot is cleaned, go to step 2.



RXA0164029—UN—26JUL18

2. Apply ten pumps of grease to fittings (B). Repeat on opposite side of tractor. Use John Deere SD Polyurea grease or other grease as specified in Multipurpose Extreme Pressure (EP) Grease in Other Lubricants section of this Operator's Manual.

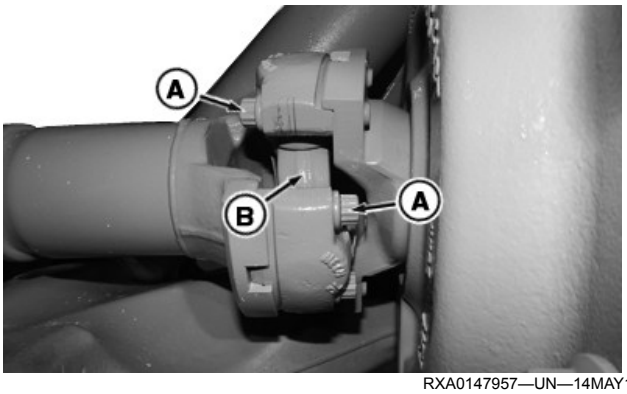
RD47322,00005A9-19-26JUL18

ILS™ Inboard U-Joint

IMPORTANT: Normal lubrication is not necessary. In extremely wet conditions, lubricate daily or every 10 hours.

Lubricate with John Deere SD Polyurea grease or other grease as specified in Multipurpose Extreme Pressure (EP) Grease in Other Lubricants section of this Operator's Manual.

ILS is a trademark of Deere & Company



RXA0147957—UN—14MAY15

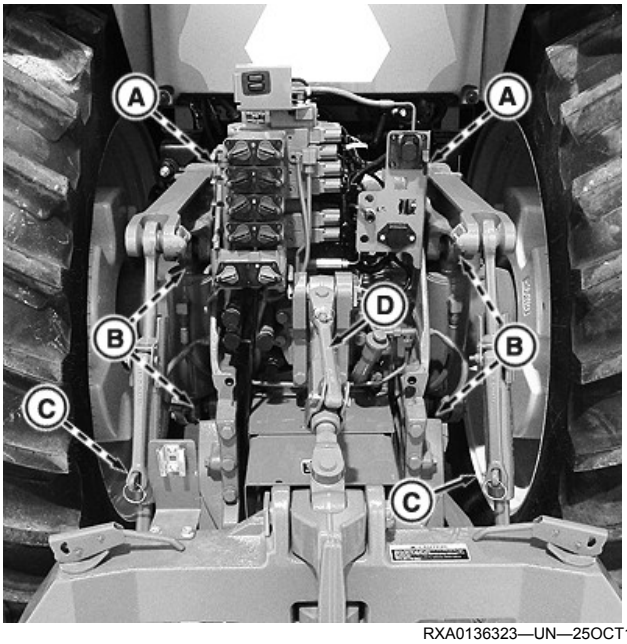
Standard inner U-joint (B) cannot be lubricated. When operating in extremely wet conditions:

1. Remove eight cap screws (A).
2. Remove standard U-joint and replace with U-joint with grease fitting (AT149827).
3. Reinstall cap screws and tighten to 150 N·m (111 lb·ft).

RD47322,000067D-19-08MAY18

Rear Hitch

IMPORTANT: Normal lubrication is every 250 hours. If used daily, lubricate every 50 hours.



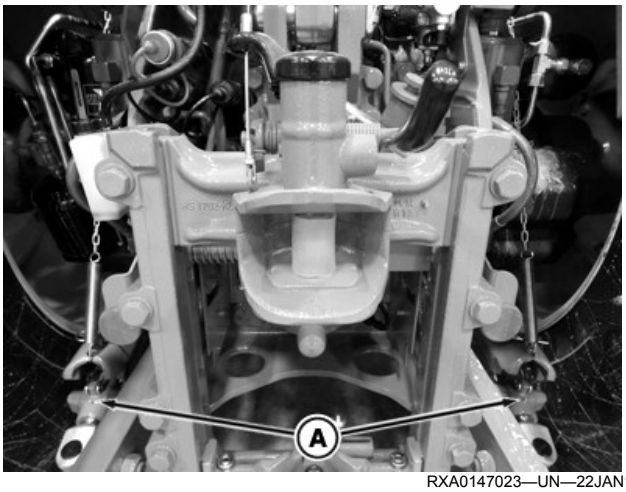
RXA0136323—UN—25OCT13

Lubricate rockshaft (A), lift cylinders (B), lift links (C), and center link (D) fittings.

Use John Deere SD Polyurea grease or other grease as specified in Multipurpose Extreme Pressure (EP) Grease in Other Lubricants section of this Operator's Manual.

RX32825,000057D-19-08MAY18

Deluxe Stabilizers



RXA0147023—UN—22JAN15

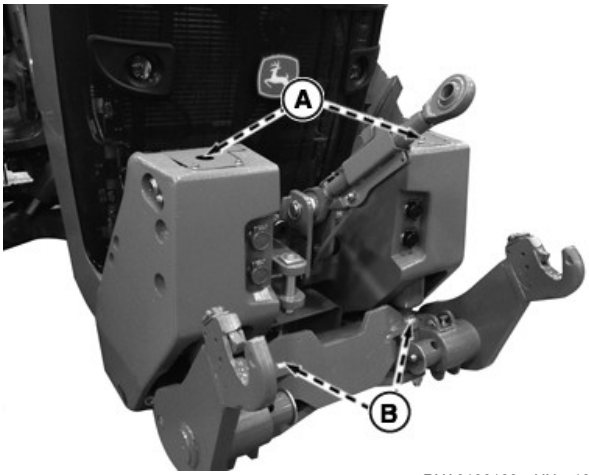
Lubricate deluxe stabilizers (A).

Use John Deere SD Polyurea grease or other grease as specified in Multipurpose Extreme Pressure (EP) Grease in Other Lubricants section of this Operator's Manual.

SV81855,000035F-19-08MAY18

Front Hitch

IMPORTANT: Normal lubrication is every 250 hours. If used daily, lubricate every 50 hours.



RXA0136188—UN—18OCT13

Lubricate front hitch fittings (A and B)

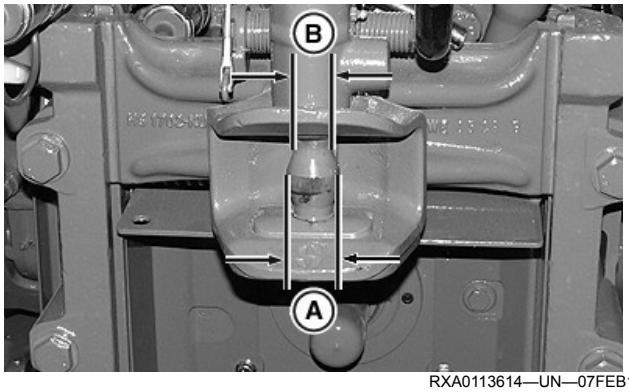
Use John Deere SD Polyurea grease or other grease as specified in Multipurpose Extreme Pressure (EP) Grease in Other Lubricants section of this Operator's Manual.

RX32825,000057E-19-08MAY18

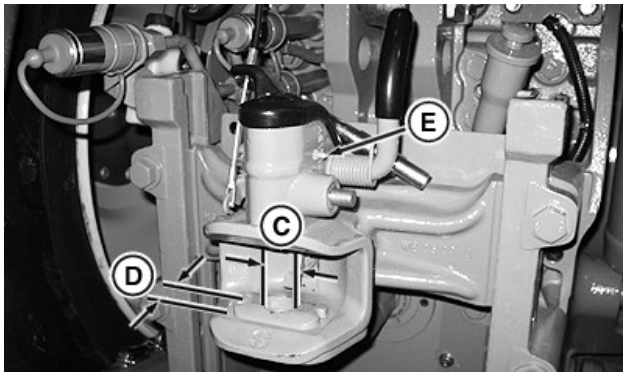
Wagon Hitch

CAUTION: Avoid injury or damage to equipment. Replace parts that have reached or exceeded their wear limit.

Wagon Hitch



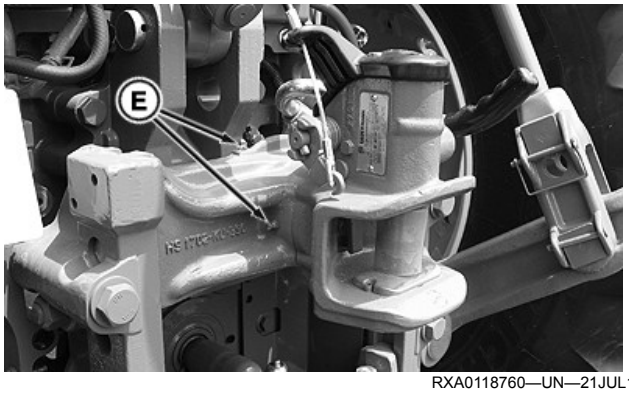
RXA0113614—UN—07FEB11



RXA0113616—UN—07FEB11

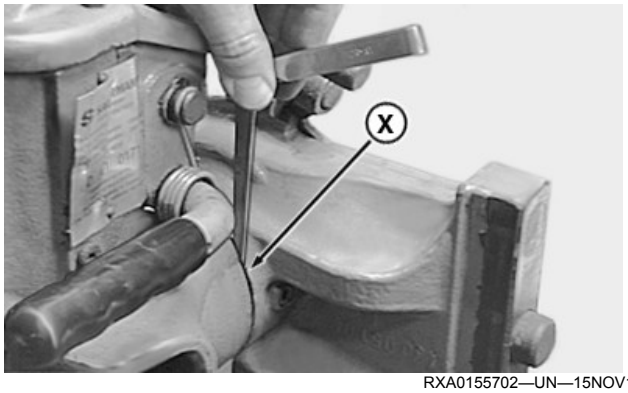
Specifications	
Large Diameter (A)	36 mm (1.42 in) Minimum
Small Diameter (B)	27 mm (1.06 in) Minimum
Receiver Hole Diameter (C)	34 mm (1.33 in) Maximum
Wear Plate Thickness (D)[a]	6 mm (0.24 in) Minimum

[a] *Minimum Permitted Thickness*

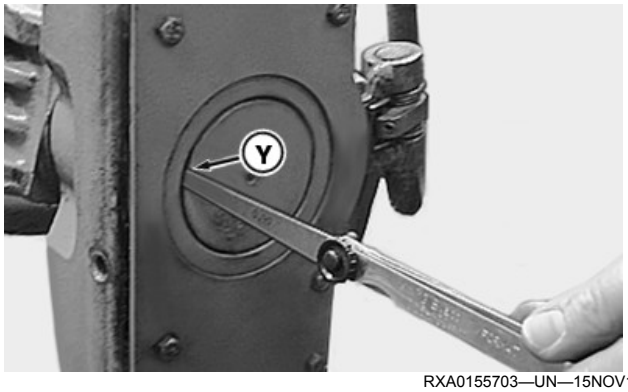


RXA0118760—UN—21JUL11

Lubricate grease fittings (E). Use John Deere multi-purpose grease as specified in Multipurpose Extreme Pressure (EP) Grease in Other Lubricants section of this Operator's Manual.



RXA0155702—UN—15NOV16

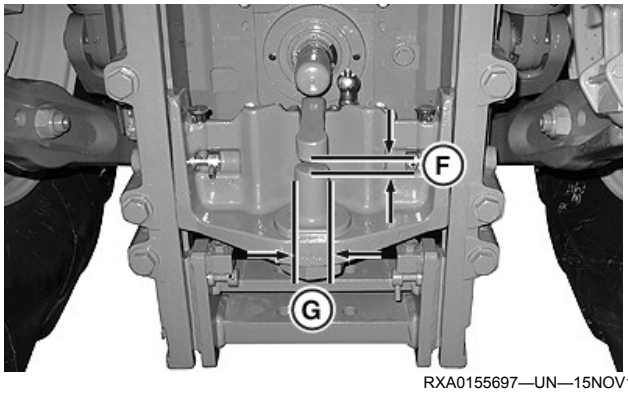


RXA0155703—UN—15NOV16

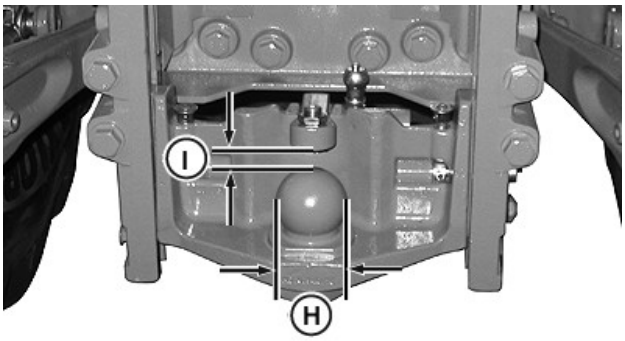
IMPORTANT: If bearing play (Y) is greater than 1.5 mm (0.059 in), replace entire wagon hitch assembly.

Replace internal retaining wire if gap (X) is greater than 3 mm (0.118 in).

Couplings



RXA0155697—UN—15NOV16



RXA0155698—UN—15NOV16

Specifications	
Piton Coupling Pin Diameter (F)	10 mm (0.39 in) Minimum
Gap (G)	41.5 mm (1.63 in) Maximum
Ball Coupling Ball Diameter (H)	4 mm (0.16 in) Minimum
Gap (I)	78 mm (0.39 in) Maximum

RX32825,0001794-19-08MAY18

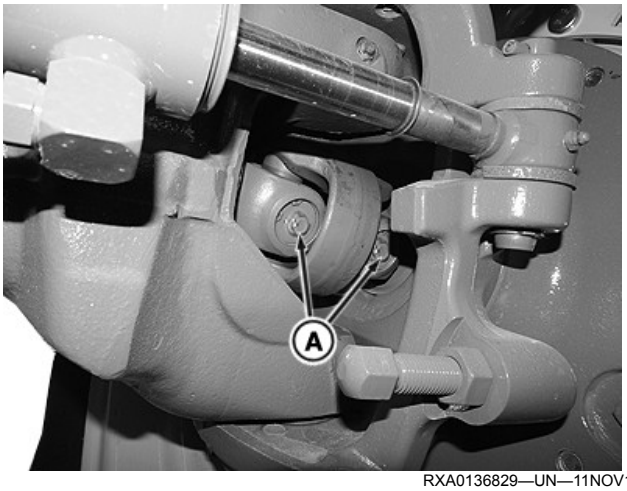
MFWD U-Joints

IMPORTANT: No normal service interval. If operated in extremely wet conditions, lubricate daily or every 10 hours.

Drilled passages in U-joints allow grease to reach all four bearings from a single grease fitting.

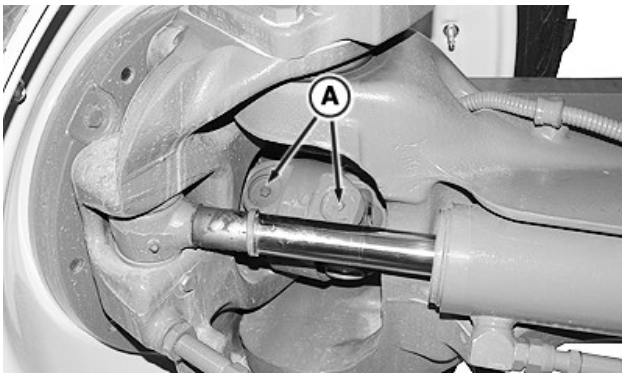
For normal operations, outboard U-joints are sealed and not equipped with grease fittings. For extremely wet conditions:

1. Replace plugs with M10 thread 90° grease fittings



RXA0136829—UN—11NOV13

1300 MFWD Axle



RXA0136830—UN—11NOV13

1500 MFWD Axle

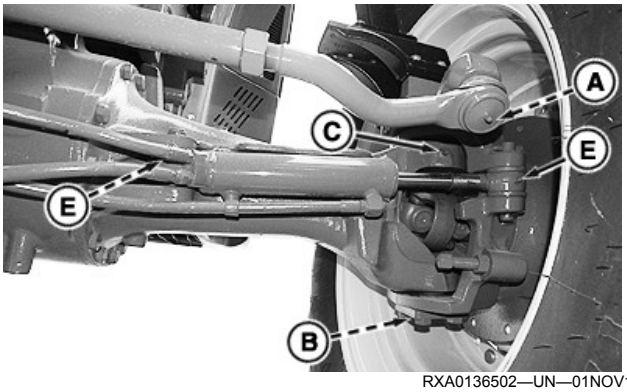
2. Apply grease to both U-joints at lubrication points (A). Use John Deere SD Polyurea grease or other grease as specified in Multipurpose Extreme Pressure (EP) Grease in Other Lubricants section of this Operator's Manual.
3. Tighten plugs to 0.904 N·m (8 lb·in).

RD47322,0000583-19-08MAY18

MFWD Axle King Pins, Tie Rod Ends, Axle Pivot Fittings, and Steering Cylinders (1300 MFWD Axle)

IMPORTANT: Normal lubrication is every 500 hrs. In extremely wet conditions, lubricate daily or every 10 hrs.

Use John Deere SD Polyurea grease or other grease as specified in Multipurpose Extreme Pressure (EP) Grease in Other Lubricants section of this Operator's Manual.

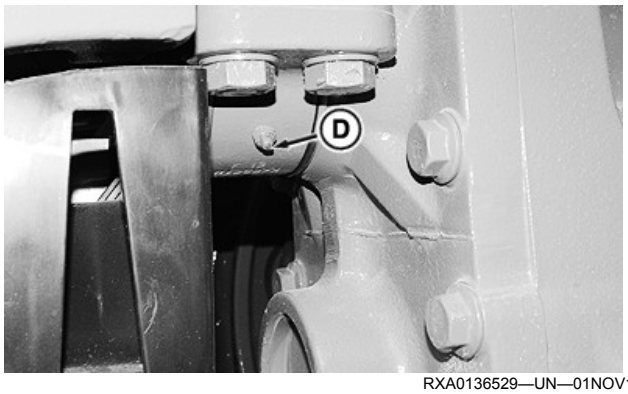


RXA0136502—UN—01NOV13

Kingpins—Lubricate fittings (B and C) until grease appears at orifice on bottom end of each kingpin bearing.

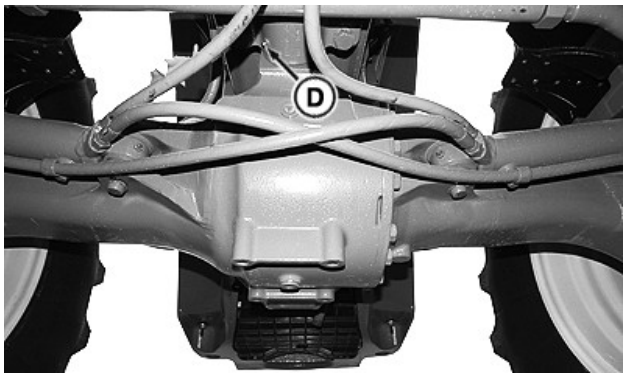
Tie Rods—Lubricate fittings (A).

Steering Cylinder—Lubricate fittings (E).



RXA0136529—UN—01NOV13

Axle Pivot (Front)



RXA0136525—UN—01NOV13

Axle Pivot (Rear)

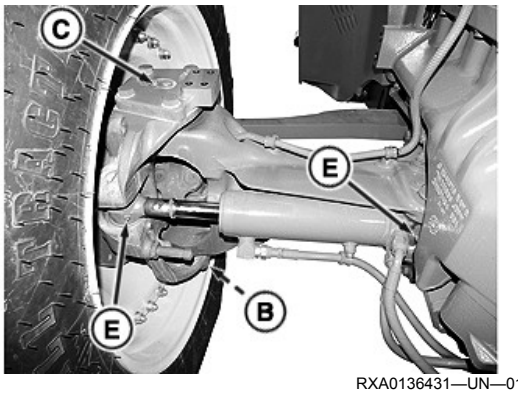
Axle Pivot—Lubricate front and rear fittings (D).

RD47322,00002BA-19-08MAY18

MFWD Axle King Pins, Tie Rod Ends, Axle Pivot Fittings, and Steering Cylinders (1500 MFWD Axle)

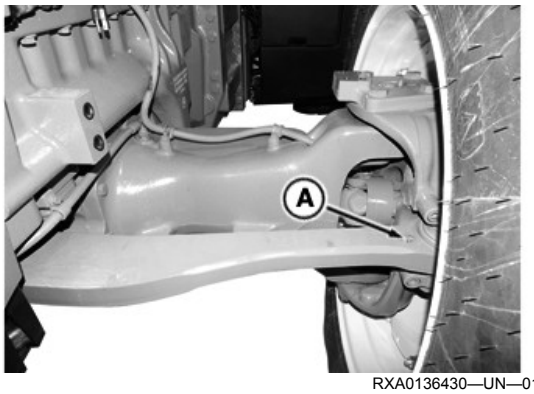
IMPORTANT: Normal lubrication is every 500 hrs. In extremely wet conditions, lubricate daily or every 10 hrs.

Use John Deere SD Polyurea grease or other grease as specified in Multipurpose Extreme Pressure (EP) Grease in Other Lubricants section of this Operator's Manual.



RXA0136431—UN—01NOV13

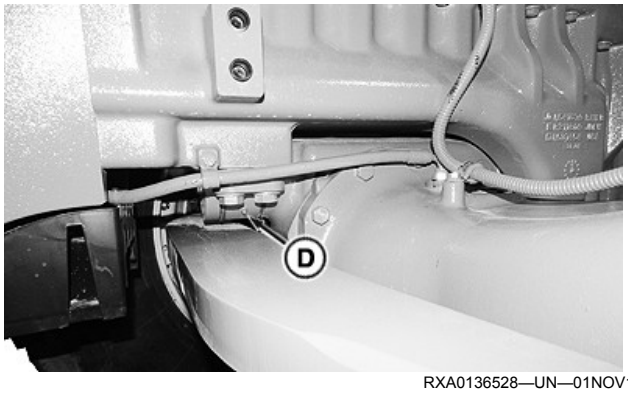
Kingpins—Lubricate fittings (B and C) until grease appears at orifice on bottom end of each kingpin bearing.



RXA0136430—UN—01NOV13

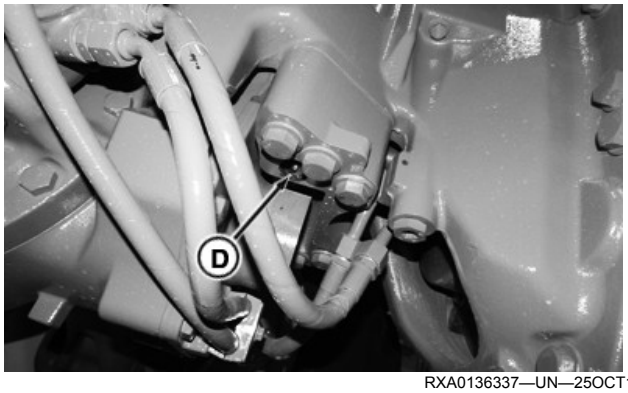
Tie Rods—Lubricate fittings (A).

Steering Cylinder—Lubricate fittings (E).



RXA0136528—UN—01NOV13

Axle Pivot (Front)



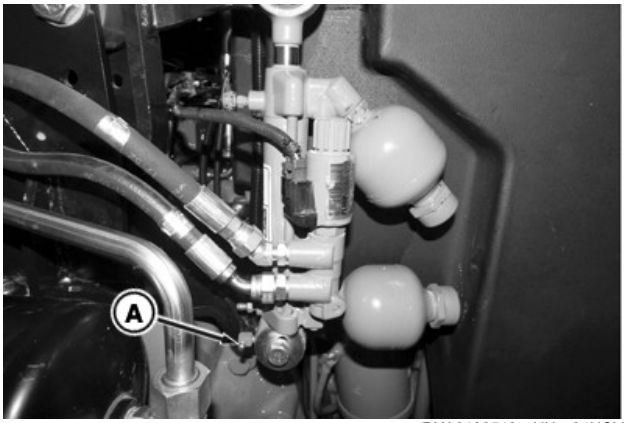
RXA0136337—UN—25OCT13

Axle Pivot (Rear)

Axle Pivot—Lubricate front and rear fittings (D).

RD47322,0000582-19-08MAY18

Hydraulic Cab Suspension (If Equipped)



RXA0136540—UN—04NOV13

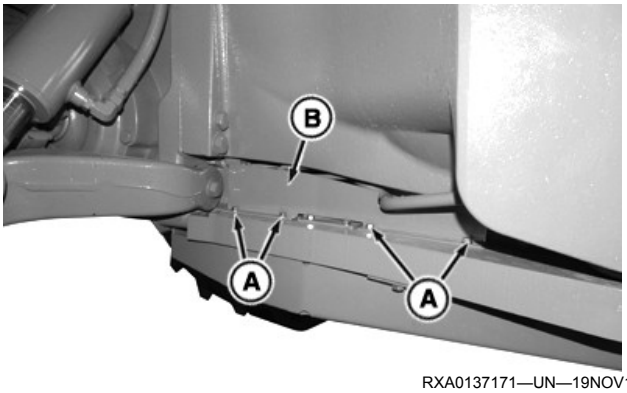
Lubrication Fitting on Cab Suspension System

Lubricate grease fittings (A), on each side of cab, with several strokes of grease gun.

Use John Deere multi-purpose grease as specified in Multipurpose Extreme Pressure (EP) Grease in Other Lubricants section of this Operator's Manual.

RD47322,0000719-19-24AUG18

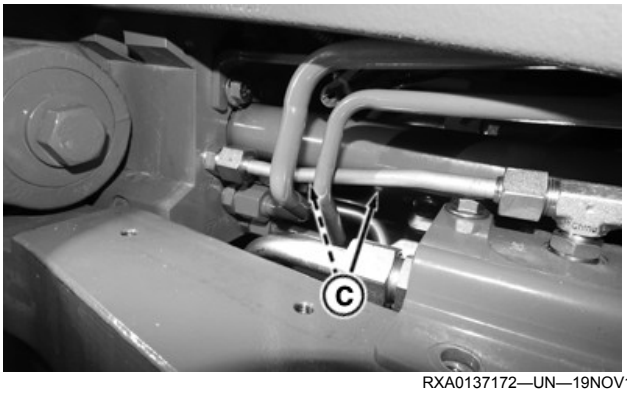
Front PTO Drive Shaft



RXA0137171—UN—19NOV13

1. Remove and retain four cap screws (A) and panel (B).

   Use John Deere SD Polyurea grease or other grease as specified in Multipurpose Extreme Pressure (EP) Grease in Other Lubricants section of this Operator's Manual.

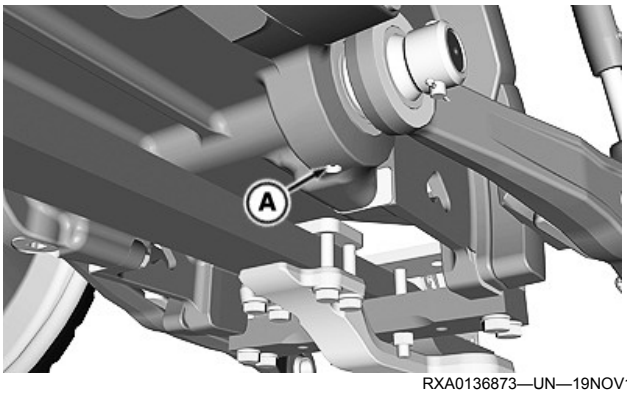


RXA0137172—UN—19NOV13

2. Grease two grease fittings (C) on drive shaft.
3. Install panel and four cap screws. Tighten to 37 N·m (27 lb·ft).

RD47322,00002CD-19-08MAY18

Draft Link Support Shaft Bushing



RXA0136873—UN—19NOV13

Under Rear Left-hand Side of Tractor

Apply one or two shots of grease to support shaft grease fitting (A).

Use John Deere SD Polyurea grease or other grease as specified in Multipurpose Extreme Pressure (EP) Grease in Other Lubricants section of this Operator's Manual.

RX32825,00005AA-19-08MAY18

Service - Electrical Overview

In addition to fuses and relays mounted in fuse panels (behind operator's seat), tractors are also equipped with solid state load centers located in two electronic control units.

These solid-state load centers replace fused relay circuits previously used. Their primary function is to control the majority of high current loads such as rear fender lights and horn. Load center circuitry monitors loads and voltages providing fast reaction time and ability to alert operator if a circuit overloads or if voltage is out of specification, i.e. open circuit (undercurrent) or short circuit (over-current).

If circuit is faulty and a diagnostic trouble code is generated, circuit will stay OFF and diagnostic trouble code will remain active until circuit is recycled by operator. If circuit or one of its components is turned back ON and problem is no longer present, system will function normally.

As an example, if a light circuit is determined to have an over-current condition, load center system will shut the circuit off. If operator turns light switch off and back on, and system senses zero amps when light controlled by the switch is off, system will turn system back on and normal operation will turn back on.

If total current load of load center exceeds a preset level, software will automatically shut down system, turning off one circuit at a time. Logic circuit will wait a few seconds between circuit shutdowns to determine if total controller current has fallen below preset level, or if additional circuits should be turned off.

Solid state circuits are rated for a fixed value. If additional electrical devices need to be added to tractor, it is recommend to use a power strip or convenience outlets in conjunction with an off/on switch. Splicing into a wire in the wrong location could cause circuit to overload and shut circuit down.

If extra implement lights and controls, such as switches are needed, contact your John Deere dealer. A dealer can provide information on correct method to tie in a light switch with one of accessory wires located in 7 pin terminal on back of tractor.

TS36762,000015E-19-31AUG17

Welding Near Electronic Control Units

TS953—UN—15MAY90

IMPORTANT: Do not jump-start engines with arc welding equipment. Currents and voltages are too high and may cause permanent damage.

1. Disconnect the negative (-) battery cable(s).
2. Disconnect the positive (+) battery cable(s).
3. Connect the positive and negative cables together. Do not attach to vehicle frame.
4. Clear or move any wiring harness sections away from welding area.
5. Connect welder ground close to welding point and away from control units.
6. After welding, reverse Steps 1—5.

DX,WW,ECU02-19-14AUG09

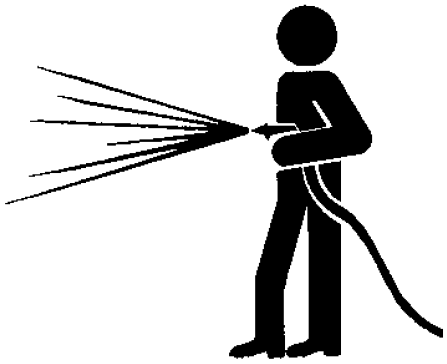
Keep Electronic Control Unit Connectors Clean

IMPORTANT: Do not open control unit and do not clean with a high-pressure spray. Moisture, dirt, and other contaminants may cause permanent damage.

1. Keep terminals clean and free of foreign debris. Moisture, dirt, and other contaminants may cause the terminals to erode over time and not make a good electrical connection.
2. If a connector is not in use, put on the proper dust cap or an appropriate seal to protect it from foreign debris and moisture.
3. Control units are not repairable.
4. Since control units are the components LEAST likely to fail, isolate failure before replacing by completing a diagnostic procedure. (See your John Deere dealer.)
5. The wiring harness terminals and connectors for electronic control units are repairable.

DX,WW,ECU04-19-11JUN09

Compressed Air Use

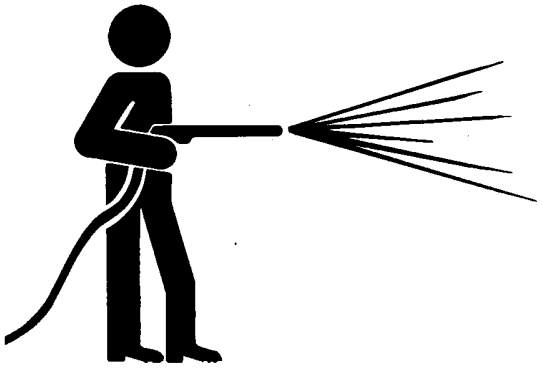


RW56455—UN—30JUN97

IMPORTANT: Directing pressurized air at electronic/electrical components or connectors, may cause buildup of static electricity and product malfunctions.

TS36762,000015F-19-21JUN17

High-Pressure Washers Use



T6642EJ—UN—18OCT88

IMPORTANT: Directing pressurized water at electronic/electrical components or connectors, bearings and hydraulic seals, fuel injection pumps, exhaust outlet or other sensitive parts and components may cause product malfunctions. Reduce pressure, and spray at a 45 to 90 degree angle. When washing do not direct any water towards the exhaust or any fill tank openings.

TS36762,0000160-19-21JUN17

Disconnect Battery

CAUTION: Avoid injury or damage to tractor systems from inadvertent contact with electrical power. Disconnect battery when directed.

IMPORTANT: Prevent damage to tractor emissions system. Battery disconnect switch with indicator light: Tractor is equipped with an engine which uses a Selective Catalytic Reduction (SCR) system. Light is illuminated during Diesel Exhaust Fluid (DEF) purge from system. Do not turn disconnect switch off until light goes out.

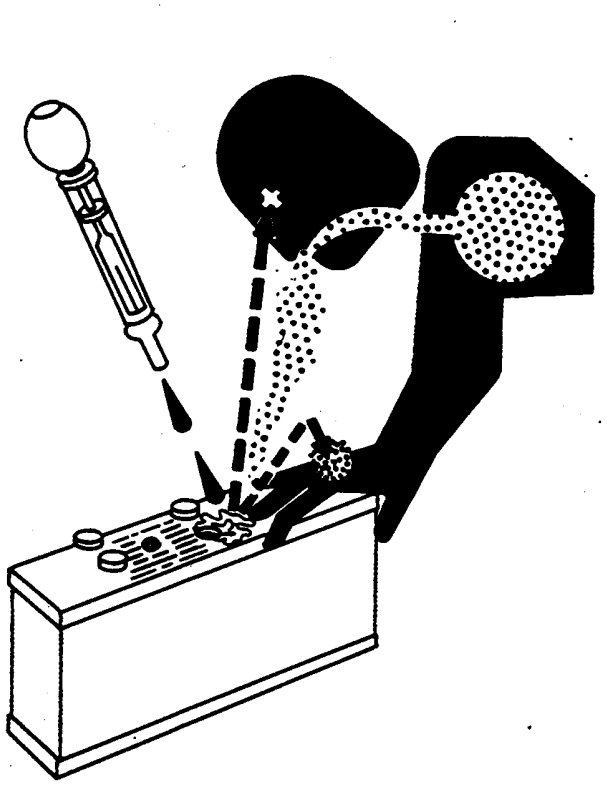
Battery disconnect switch without indicator light: Engine not equipped with SCR system. No waiting period is required before turning off switch.

See Battery Disconnect Switch in Engine Operation section of this Operator's Manual.

TS36762,0000161-19-17JUL18

Handling Batteries Safely

TS204—UN—15APR13



TS203—UN—23AUG88

Battery gas can explode. Keep sparks and flames away from batteries. Use a flashlight to check battery electrolyte level.

Never check battery charge by placing a metal object across the posts. Use a voltmeter or hydrometer.

Always remove grounded (-) battery clamp first and replace grounded clamp last.

Sulfuric acid in battery electrolyte is poisonous and strong enough to burn skin, eat holes in clothing, and cause blindness if splashed into eyes.

Avoid hazards by:

- Filling batteries in a well-ventilated area
- Wearing eye protection and rubber gloves
- Avoiding use of air pressure to clean batteries
- Avoiding breathing fumes when electrolyte is added
- Avoiding spilling or dripping electrolyte
- Using correct battery booster or charger procedure.

If acid is spilled on skin or in eyes:

1. Flush skin with water.
2. Apply baking soda or lime to help neutralize the acid.
3. Flush eyes with water for 15—30 minutes. Get medical attention immediately.

If acid is swallowed:

1. Do not induce vomiting.
2. Drink large amounts of water or milk, but do not exceed 2 L (2 qt.).
3. Get medical attention immediately.

WARNING: Battery posts, terminals, and related accessories contain lead and lead compounds, chemicals known to the State of California to cause cancer and reproductive harm. **Wash hands after handling.**

DX,WW,BATTERIES-19-02DEC10

Service Batteries and Connectors

RXA0086786—UN—14FEB06

CAUTION: It can cause a buildup of static charge leading to potential injury.

Battery gas can explode. Keep sparks and flames away from batteries. Use flashlight to check battery electrolyte level.

Never check battery charge by placing metal object across posts. Use a voltmeter or hydrometer.

Always remove battery ground cables before positive battery cables and connect them last. Do not let disconnected ground terminal touch metal surface.

WARNING: Battery posts, terminals, and related accessories contain lead and lead compounds, chemicals known to the State of California to cause cancer and reproductive harm. **Wash hands after handling.**

CAUTION: Avoid contact with poisonous sulfuric acid in battery electrolyte. Battery acid can burn skin, damage clothing, and cause blindness if splashed into eyes.

NOTE: Although this battery is a maintenance free battery, conditions such as long periods of operation at high ambient temperatures and excessive engine cranking may require adding water. See label on battery.

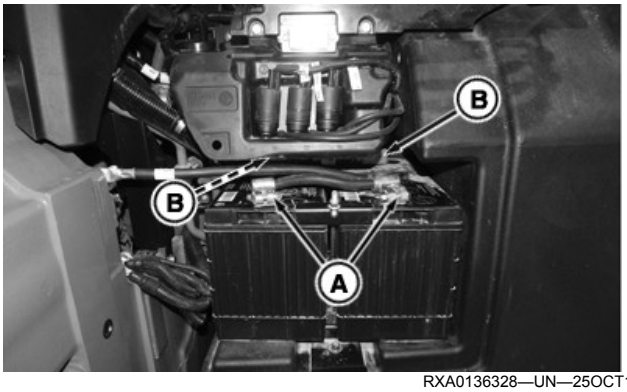
For optimum battery performance, keep battery terminals clean and tight. For replacement batteries, follow manufacturer's recommendations.

IMPORTANT: Prevent damage to tractor emissions system. Battery disconnect switch with indicator light: Tractor is equipped with an engine which uses a Selective Catalytic Reduction (SCR) system. Light is illuminated during Diesel Exhaust Fluid (DEF) purge from system. Do not turn disconnect switch off until light goes out.

Battery disconnect switch without indicator light: Engine not equipped with SCR system. No waiting period is required before turning off switch.

See Battery Disconnect Switch in Engine Operation section of this Operator's Manual.

1. If tractor is:
   - Equipped with battery disconnect switch with indictor light, wait until indicator light has gone out. Then go to step 2.
   - Not equipped with battery disconnect switch indicator light. Go to step 2.
2. Turn off battery disconnect switch.
3. Remove battery compartment cover.
4. Remove battery hold down clamp and slide batteries forward.



RXA0136328—UN—25OCT13

5. Disconnect negative battery cables (A), then positive battery cables (B).

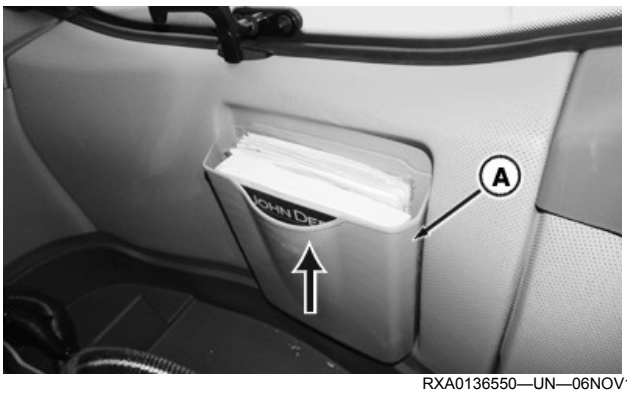
IMPORTANT: Never use compressed air to clean batteries.

6. Remove any corrosion with a terminal brush, then clean terminals and battery posts using a baking soda and water solution.
7. Rinse with clean water and air dry.
8. Slide batteries back into compartment.
9. Install battery hold down clamp.
10. Connect positive battery cables, then connect negative battery cables.
11. Apply thin coat of grease to cable ends.
12. Install battery compartment cover.
13. Turn battery disconnect switch on.

KD34109,0000557-19-21AUG18

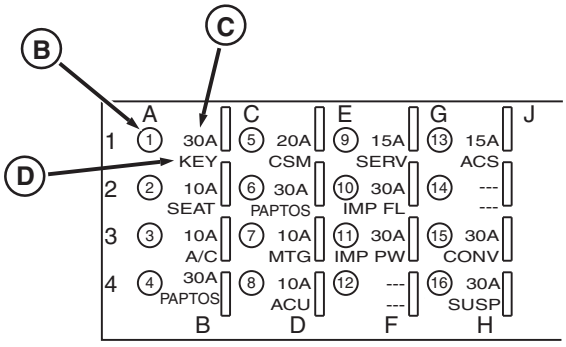
Access Load Center Fuses

NOTE: Fold seat backrest down to allow easier access, and allow to cab lighting to shine on load center when fuses are being inspected or replaced.



RXA0136550—UN—06NOV13

Load center is found directly behind operator's seat and just below cab rear window. To access load center, lift up on Operator's Manual holder (A).



RXA0159961—UN—22JUN17

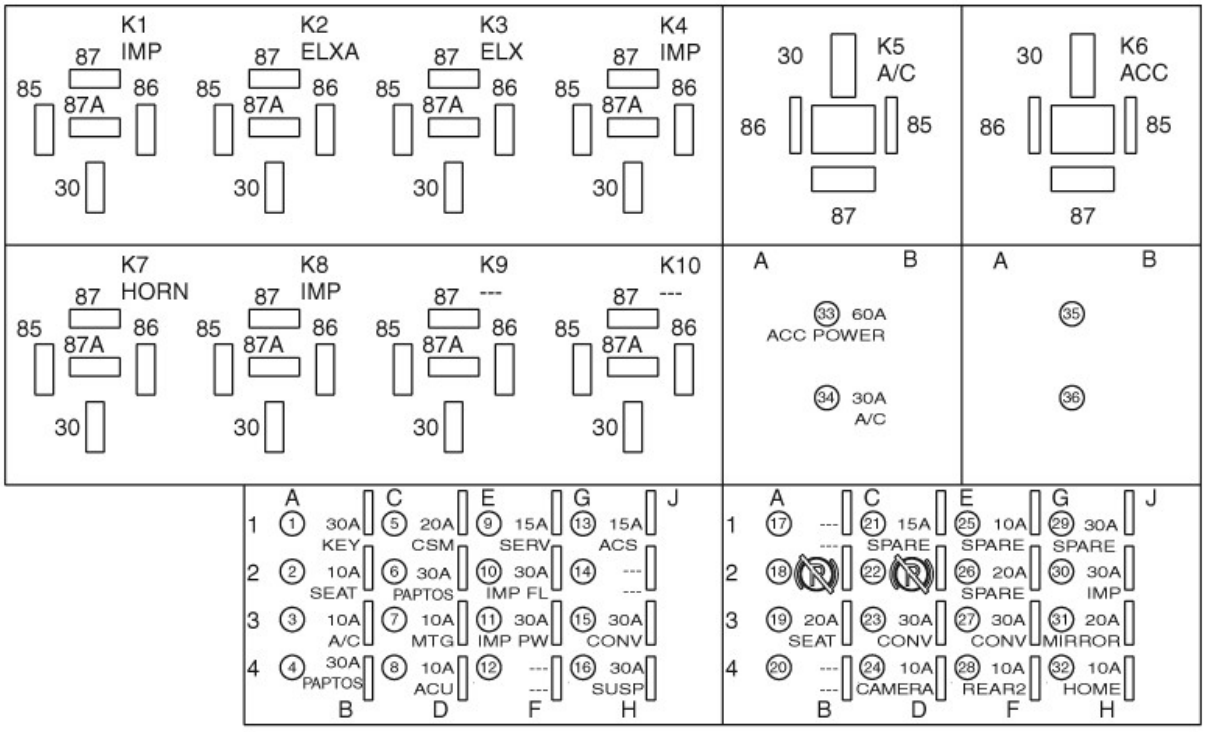
Diagram identifies load center fuse location (B), size (C), and description (D).

IMPORTANT: Prevent damage to tractor emissions system. Battery disconnect switch with indicator light: Tractor is equipped with an engine which uses a Selective Catalytic Reduction (SCR) system. Light is illuminated during Diesel Exhaust Fluid (DEF) purge from system. Do not turn disconnect switch off until light goes out.

Battery disconnect switch without indicator light: Engine not equipped with SCR system. No waiting period is required before turning off switch.

See Battery Disconnect Switch in Engine Operation section of this Operator's Manual.

IMPORTANT: Replacement fuses must be the same rating as original. Ensure key is in OFF position.



RXA0127389—UN—25JAN13

K1—ISO Implement Connector Power Relay
K2—Electronics Relay
K3—Electronics Relay
K4—Implement Accessory Relay
K5—Blower Relay
K6—Accessories Relay
K7—Warning Horn Relay
K8—Implement Flood Relay
K9—Not Used
K10—Not Used
1—Key Switch (30 Amp)
2—Operator Presence Switch (10 Amp)
3—Air Conditioner (10 Amp)
4—Not Used
5—Radio, Primary Display, and Interior Lights (20 Amp)
6—Not Used
7—Modular Telematics Gateway (10 Amp)
8—Armrest Control Unit (10 Amp)
9—Server (15 Amp)
10—Implement Flood Lights (30 Amp)
11—Implement Accessory (30 Amp)
12—Not Used
13—Steering Controller (15 Amp)
14—Not Used
15—Convenience Outlet Battery (30 Amp)
16—Tracks Suspension (Tracks Only) (30 Amp)
17—Not Used
18—Park Brake Release
19—Seat Controls (20 Amp)
20—Not Used
21—Spare (15 Amp)
22—Park Brake Release
23—Convenience Outlet Switched (30 Amp)
24—Video Camera Power and Armrest Outlet (10 Amp)
25—Spare (10 Amp)
26—Spare (20 Amp)
27—Convenience Outlet Switched (30 Amp)
28—Rear Chassis Control Unit (10 Amp)
29—Spare (30 Amp)
30—ISO Implement Connector (30 Amp)
31—Remote Mirror (20 Amp)
32—Come Home Mode (10 Amp)
33—Accessories Power (60 Amp)
34—Blower Motor (30 Amp)
35—Not Used
36—Not Used

DB71512,000003C-19-21AUG18

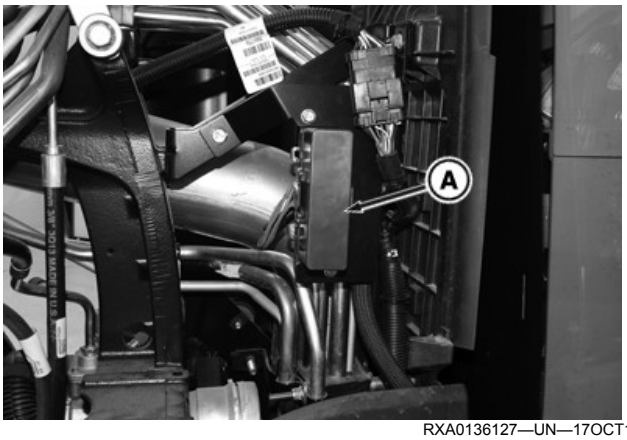
Access Front Load Center

IMPORTANT: Prevent damage to tractor emissions system. Battery disconnect switch with indicator light: Tractor is equipped with an engine which uses a Selective Catalytic Reduction (SCR) system. Light is illuminated during Diesel Exhaust Fluid (DEF) purge from system. Do not turn disconnect switch off until light goes out.

Battery disconnect switch without indicator light: Engine not equipped with SCR system. No waiting period is required before turning off switch.

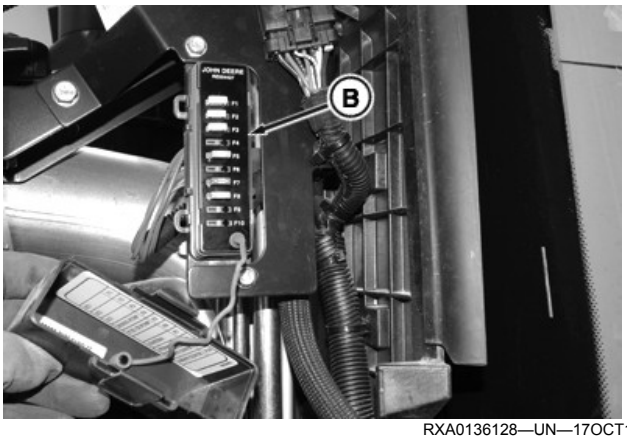
See Battery Disconnect Switch in Engine Operation section of this Operator's Manual.

IMPORTANT: Replacement fuses must be the same rating as original. Ensure key is in OFF position.



RXA0136127—UN—17OCT13

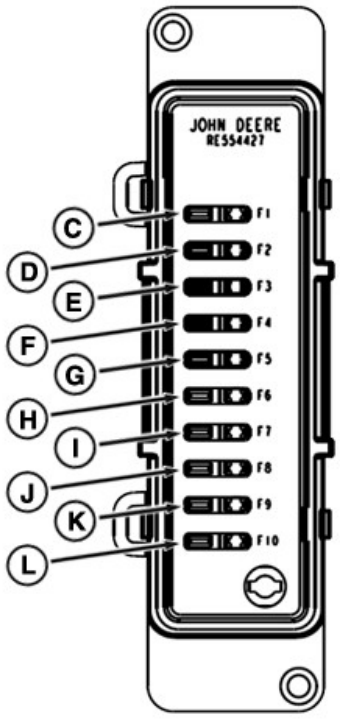
Load Center Cover



RXA0136128—UN—17OCT13

Load Center Fuse Panel

Open hood, see Open Hood in Service - General Information section of this Operator's Manual, to locate left side load center (B) located in front of side cowl. Push cover side tabs together to remove cover (A).



RXA0130342—UN—11JAN13

Fuses

A—Load Center Cover
B—Load Center Fuse Panel
C—F1 - ECU (20 Amp)
D—F2 - ECU (20 Amp)
E—F3 - ECU (20 Amp)
F—F4 - Not Used
G—F5 - Fuel Transfer Pump (15 Amp)
H—F6 - Not Used
I—F7 - Key Switch (10 Amp)
J—F8 - ActiveCommand Steering (ACS)™ Control Unit (If ACS™ Equipped) or AutoTrac™ Control Unit (If AutoTrac™ Equipped) (15 Amp)
K—F9 - Front Chassis Control Unit 2 (If Front Hitch or Front PTO Equipped) (25 Amp)
L—F10 - Front Chassis Control Unit 1 (If Suspended Front Axle Equipped) (10 Amp)

KD34109,00006A5-19-21AUG18

Access Master Fuses

IMPORTANT: Prevent damage to tractor emissions system. Battery disconnect switch with indicator light: Tractor is equipped with an engine which uses a Selective Catalytic Reduction (SCR) system. Light is illuminated during Diesel Exhaust Fluid (DEF) purge from system. Do not turn disconnect switch off until light goes out.

Battery disconnect switch without indicator light: Engine not equipped with SCR system. No waiting period is required before turning off switch.

ActiveCommand Steering is a trademark of Deere & Company
AutoTrac is a trademark of Deere & Company

See Battery Disconnect Switch in Engine Operation section of this Operator's Manual.

CAUTION: Disconnect both negative and positive battery connections from both batteries prior to fuse inspection or replacement.

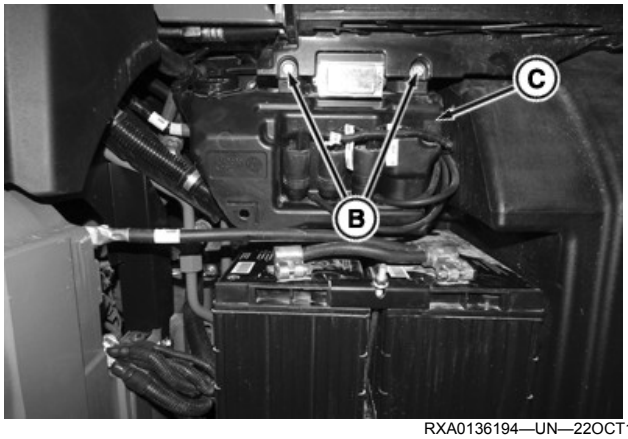
IMPORTANT: Do not attempt to disassemble master fuses unless instructed by your John Deere dealer.

Replacement fuses must be the same rating as original.

Master fuse module is located inside battery compartment.

RXA0136193—UN—22OCT13

1. Open battery compartment cover (A) to access fuse compartment.

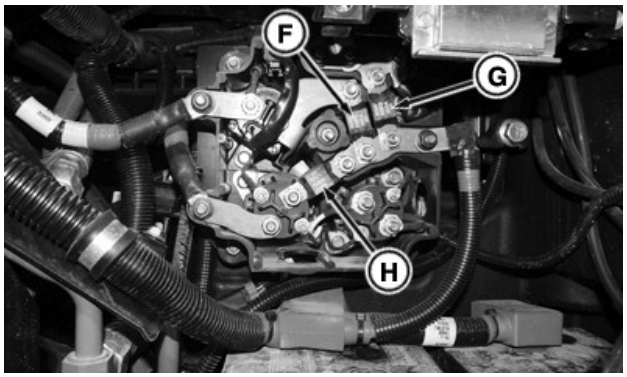


RXA0136194—UN—22OCT13

2. Remove cap screws (B) to move windshield washer reservoir (C) out of the way.

RXA0136195—UN—22OCT13

3. Remove nut (D) and cover (E).

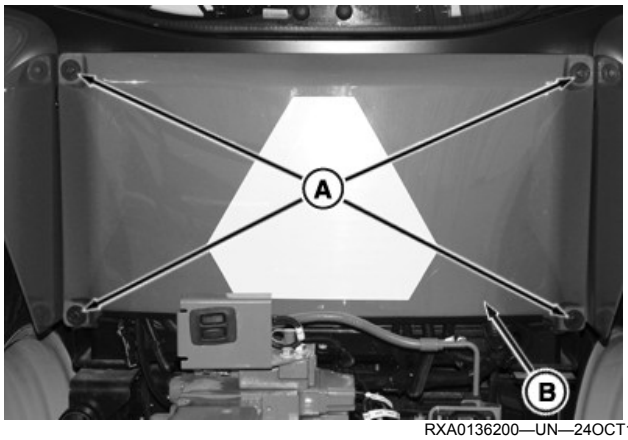


RXA0136196—UN—22OCT13

- Master fuse (F)—300 Amps
- Starter master (G)—300 Amps
- Backup hydraulic pump (H)—175 Amps

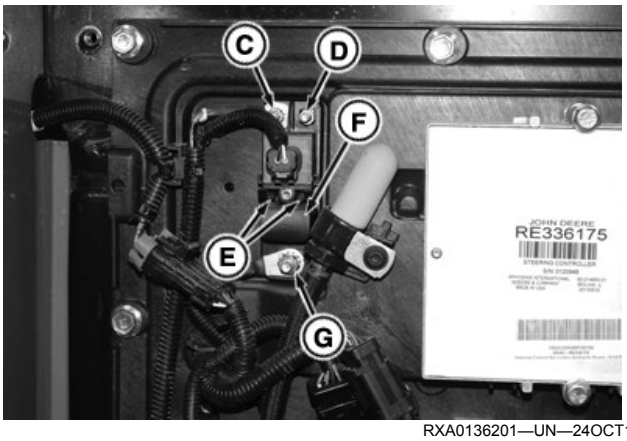
RX32825,0000029-19-21AUG18

Access Implement Power Relay Module Fuses

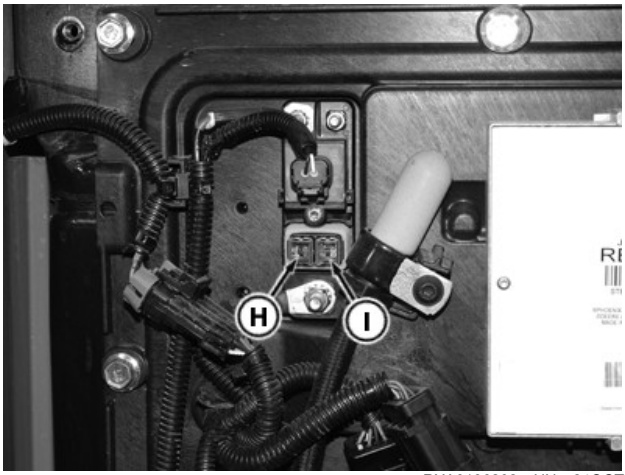


RXA0136200—UN—24OCT13

Remove four cap screws (A) and rear cab panel (B). Implement power relay module is located in upper left corner, routes power to implement bus breakaway connector.



RXA0136201—UN—24OCT13



RXA0136202—UN—24OCT13

Top left module stud is switched power lug (C) protected by a 60 Amp fuse (H). Top right module stud is unswitched power lug (D) protected by a 30 Amp fuse (I).

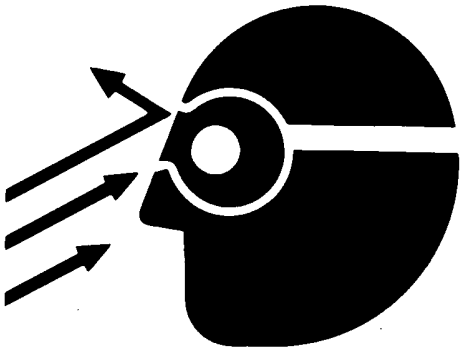
Bottom center is the battery power input stud (G).

To Change Fuses

1. Press down on fuse cover tabs (E) and remove fuse cover (F).
2. To remove, pull fuse straight back.
3. Install new fuse.
4. Reinstall cover and slide tabs over cover edge to hold in place.
5. Reinstall rear cab panel and tighten cap screws.

GH15097,000053B-19-22JUN17

Handle Halogen Light Bulbs Safely



TS266—UN—23AUG88

H39474—UN—30JUN00

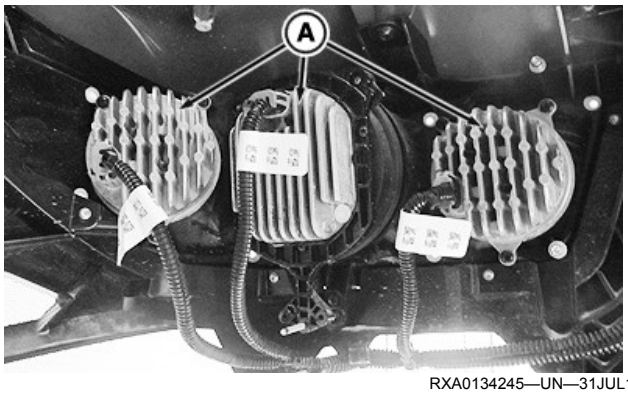
CAUTION: Halogen bulbs (A) contain gas under pressure. Handling a bulb improperly could cause it to shatter into flying fragments. To avoid possible injury:

- **Turn light switch off and allow bulbs to cool before changing. Leave switch off until bulb change is done.**
- **Wear eye protection.**
- **Handle bulb by its base. Keep bulb oil free; wear gloves to avoid touching glass.**
- **Do not drop or scratch bulb. Keep moisture away.**
- **Place used bulb in the new bulb carton and dispose of properly. Keep out of reach of children.**

TS36762,0000165-19-05SEP17

Change Front HID/LED Light Assembly

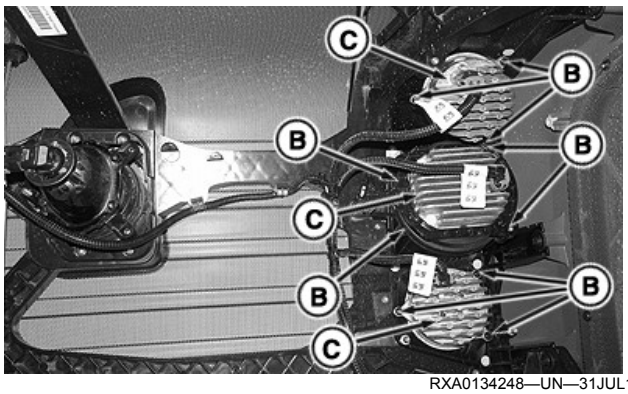
1. Open hood, see Open Hood in Service-General Information section of this Operator's Manual.



RXA0134245—UN—31JUL13

Right-Hand Side Shown

2. Disconnect harness connector (A).



RXA0134248—UN—31JUL13

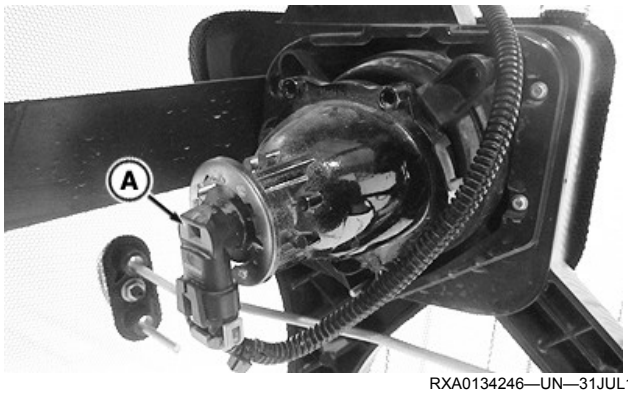
Right-Hand Side Shown

3. Remove screws (B) and light assembly (C).
4. Replace light assembly.
5. Install new light assembly in reverse order of removal.
6. Close and secure hood.

TS36762,0000166-19-05JUL17

Change Front Grille Halogen Light Bulbs

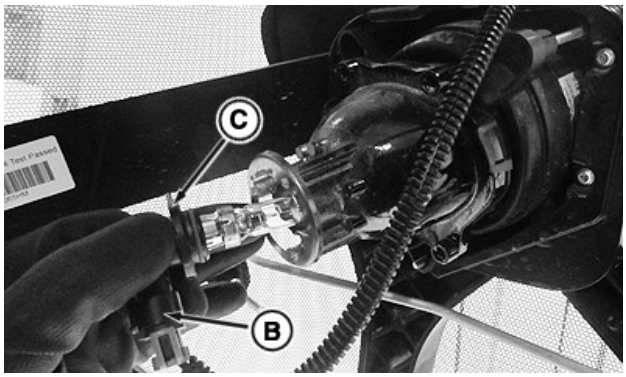
1. Open hood, see Open Hood in Service-General Information section of this Operator's Manual.



RXA0134246—UN—31JUL13

Right-Hand Side Shown

2. Rotate halogen headlight (A) counterclockwise 1/4 turn and remove.



RXA0134247—UN—31JUL13

Right-Hand Side Shown

3. Disconnect wiring harness plug by lifting retaining tab (B).
4. Replace light bulb assembly (C).
5. Install new light bulb in reverse order of removal.
6. Close and secure hood.

TS36762,0000167-19-05JUL17

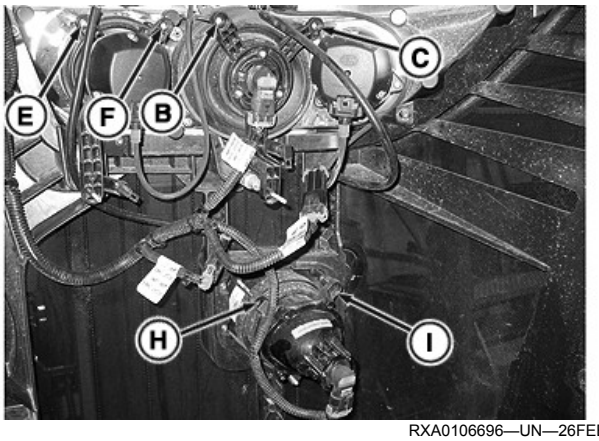
Adjust Front Grille Lights

For High Beam Headlights:

RXA0106698—UN—26FEB10

Right-Hand Lights Shown

1. To lower high beam aim, turn high beam adjustment screw (A) clockwise.



RXA0106696—UN—26FEB10

Right-Hand Lights Shown

To raise and tilt out high beam, turn high beam adjustment screw (B) clockwise.

To raise and tilt in high beam, turn high beam adjustment screw (C) clockwise.

For Inner Hood Light:

2. To lower inner hood light, turn inner hood light adjustment screw (D) clockwise.

   To raise and tilt out inner hood light beam, turn inner hood light beam adjustment screw (E) clockwise.

   To raise and tilt in inner hood light beam, turn inner hood light beam adjustment screw (F) clockwise.

For Low Beam Headlights:

3. To lower low beam aim, turn low beam adjustment screw (G) clockwise.

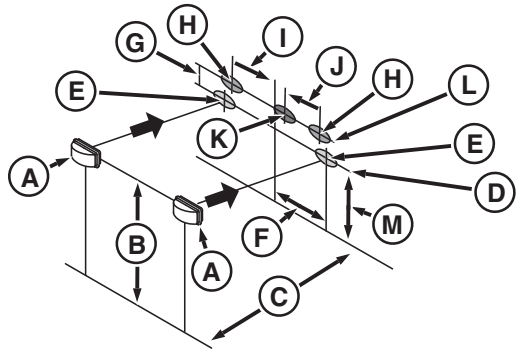
   To raise and tilt out low beam headlights, turn low beam adjustment screw (H) clockwise.

   To raise and tilt in low beam headlights, turn low beam adjustment screw (I) clockwise.

4. Repeat for opposite side of tractor.

GH15097,0000540-19-22JUN17

Adjust Headlights



RXA0161046—UN—11OCT17

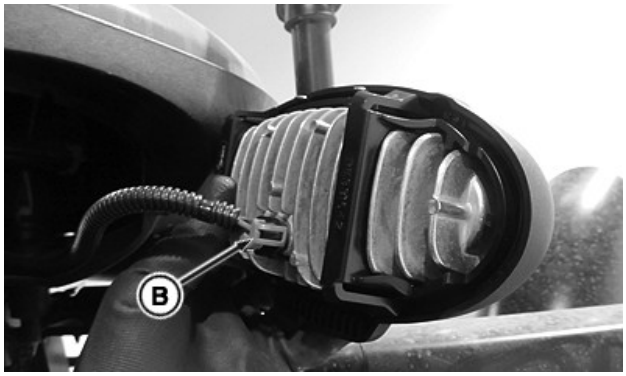
1. Park tractor on level surface with low beam road lights (A) 7.5 meters (25 ft) (C) from a straight wall. Tractor must be perpendicular to wall. Turn on low beam road lights.
2. Measure distance (B) from center of road light low beam lamps to ground.
3. Mark a horizontal line (D) on wall 0.7 times height (B).
4. On wall, mark each road light low beam center (E).
5. Determine total distance between centers of road light low beams.
6. Calculate one-half distance determined in step 5.
7. Mark vertical line at distance calculated in step 6 from center of right-hand low beam center.
8. Distance (F) between center of road light low beam and center line should be 914 mm (36 in). Adjust as necessary, see Adjust Front Grille Lights in this section of this Operator's Manual.
9. Turn on road light high beams.
10. Adjust road light high beams so edge of bright area (L) is **at least** one tenth of distance (M) **above** road light low beam centers (E). Distance (G) is approximately 355 mm (14 in).
11. On wall, mark each road light high beam center (H), then mark a horizontal center line between center of road light high beams.
12. Distance (I) between center of road light high beams and center line should be 787 mm (31 in). Adjust as necessary, see Adjust Front Grille Lights in this section of this Operator's Manual.
13. Configure inner hood lights ON.
14. Turn on field lights. Inner hood light beam center (K) should be on horizontal line between centers of road light high beams. Adjust as necessary.
15. Distance (J) between inner hood light beam center (K) and light center line should be 635 mm (25 in). Adjust as necessary.

TS36762,0000169-19-05APR18

Change Front, Side And Rear Cab Roof Light Bulb

RXA0134250—UN—31JUL13

1. Push down light fixture latch tab (A). Remove fixture.

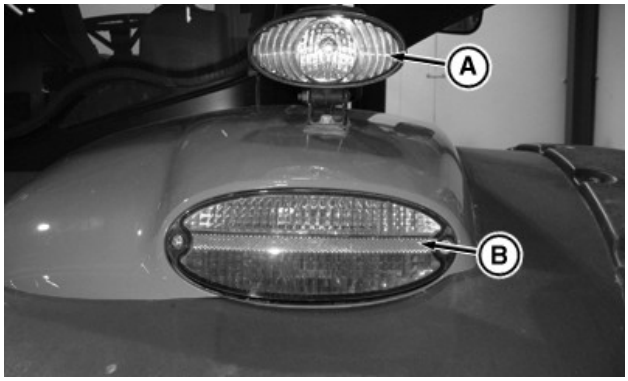


RXA0134251—UN—31JUL13

2. Disconnect harness connector (B) and replace light assembly.
3. Connect harness connector.
4. Insert fixture into cab roof until it seats and tab snaps into place.

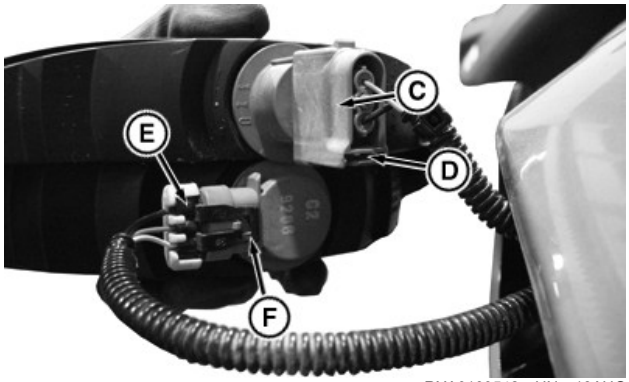
TS36762,000016A-19-24OCT17

Change Brake or Turn Signal Light Bulb



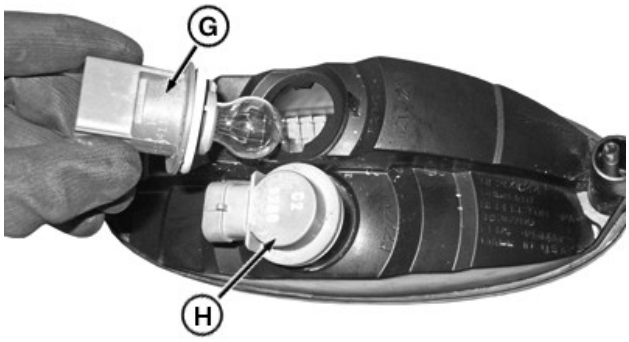
RXA0109540—UN—18AUG10

1. Remove screws and tail light lens (B).



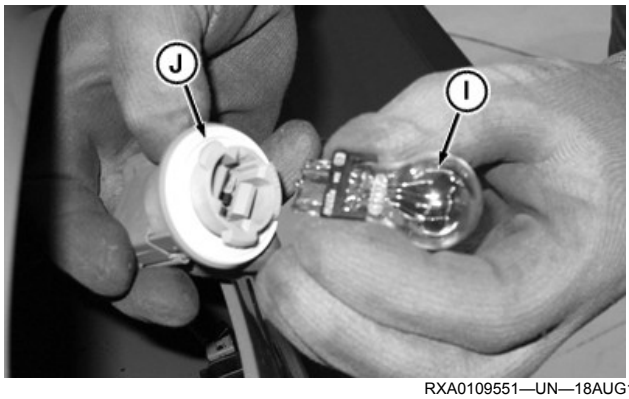
RXA0109542—UN—18AUG10

2. Press turn signal tab (D) and remove turn signal wiring harness (C).
3. Lift brake light tab (F) and remove brake light wiring harness (E).



RXA0109544—UN—08OCT10

4. Rotate turn signal (H) or brake light bulb fixture (G) 1/4 turn counterclockwise and remove from housing.
5. Rotate brake light bulb fixture 1/4 turn counterclockwise and remove.



RXA0109551—UN—18AUG10

A—HID Light
B—Tail Light Lens
C—Turn Signal Wiring Harness
D—Turn Signal Tab
E—Brake Light Wiring Harness
F—Brake Light Tab
G—Turn Signal Bulb Fixture
H—Brake Light Bulb Fixture
I—Bulb
J—Fixture

6. Pull bulb (I) out of fixture (J).

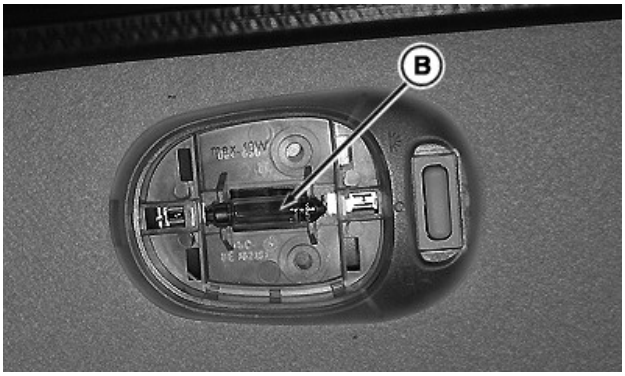
7. Install new bulb in fixture and turn fixture 1/4 turn clockwise to install.
8. Reinstall wiring harnesses (C and E).
9. Reinstall lens and screws.

TO84419,0000231-19-05JUL17

Change Dome Light Bulb

RXA0099130—UN—19SEP08

1. Remove lens cover (A).

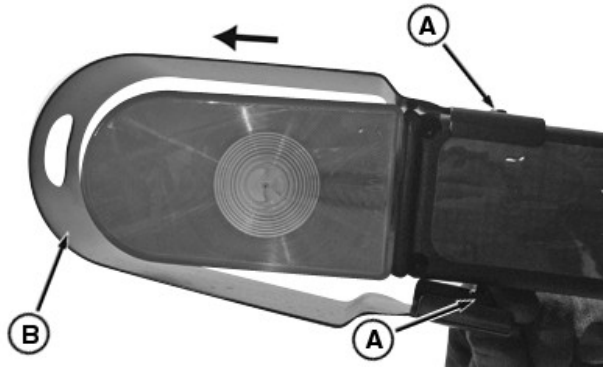


RXA0099128—UN—19SEP08

2. Grasp light bulb (B) firmly and pull straight down.
3. Gently push new bulb into fixture until it seats.
4. Reinstall cover.

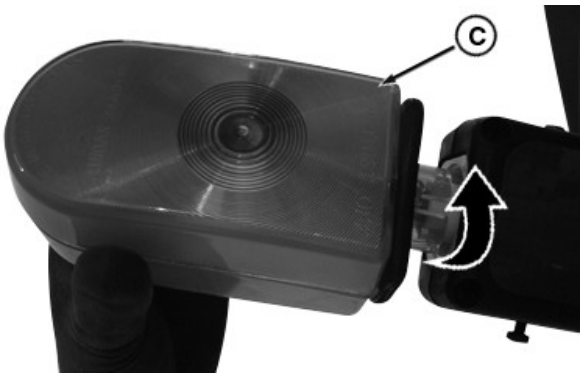
TS36762,000016C-19-05JUL17

Change Extremity Warning Light Bulb



RXA0108609—UN—29JUL10

1. Loosen screws (A).
2. Slide shield (B) away from lens cover to remove.



RXA0108611—UN—29JUL10

3. Turn lens cover (C) counterclockwise to access light bulb.

RXA0108613—UN—29JUL10

4. Twist old bulb (D) to remove.
5. Install new bulb.
6. Reassemble housing in reverse order of disassembly.

TS36762,000016F-19-05JUL17

Engine

Symptom	Problem	Solution
Engine hard to start or will not start	Incorrect starting procedure	Review starting procedure
	Relay K2 Failed (ELXA)	Check load center K2 Relay. See Access Load Center Fuses in Service - Electrical section of this Operator's Manual
	FE01, FE02, FE03, or FE07 Front load center fuse failed	Check front load center fuses FE01, FE02, FE03 or FE07. See Access Load Center Fuses in Service - Electrical section of this Operator's Manual
	Alternator Battery Master Fuse Failed	Check front load center alternator battery master fuse
	No fuel	Check fuel tank
	Air in fuel line	Bleed fuel line (Turn key to RUN for 60 seconds with engine off)
	Cold weather	Use cold weather starting aids
	Slow starter speed	See Starter Turns Over Slowly in Electrical System Troubleshooting
	Crankcase oil too heavy	Use correct oil viscosity
	Incorrect type of fuel	Consult fuel supplier; use correct fuel type for operating conditions
	Water, dirt, or air in fuel system	Drain, flush, fill and bleed system
	Clogged fuel filter	Replace filter elements
	Dirty or faulty injectors	Have your John Deere dealer check injectors
	Injection pump shut-off not reset	Turn key switch to OFF then to ON
Engine knocks	Insufficient oil	Add oil
	During warm up, pilot injection system will activate and deactivate depending on engine operating temperature	This is normal operation
	Low coolant temperature	Replace thermostats
	Engine overheating	See Engine Overheats in Engine Troubleshooting

Symptom	Problem	Solution
Engine runs irregularly or stalls frequently	Low coolant temperature	Replace thermostats
	Clogged fuel filters	Replace filter elements
	Water, dirt, or air in fuel system	Drain, flush, fill and bleed system
	Water in fuel system	See Fuel Tank Sump in Service - Check section of this Operator's Manual
	Vent on fuel tank obstructed	Clean vent under rear cab panel
	Dirty or faulty injectors	Have your John Deere dealer check injectors
Below normal engine temperature	Defective thermostat	Replace thermostats
	Defective temperature gauge or sender	See your John Deere dealer
	Variable speed fan running too fast	See your John Deere dealer
Variable Fan Speed Drive surges at low engine rpm	Fan drive surging is NOT normal	See your John Deere dealer
Throttle does not allow full engine rpm	IVT™/AutoPowr™ load control knob may not be set properly	See IVT™/AutoPowr™ Transmission section of this Operator's Manual
	Maximum Set Speed may be on and limiting max engine rpm	Check the settings for Maximum Set Speed in the CommandCenter™. Select full rpm on the display
	Cold oil can limit engine speed to 1500 rpm	Warm up transmission/hydraulic oil
		See your John Deere dealer if problem persists
Lack of power	Engine overloaded	Reduce load or shift to lower gear
	Low fast idle speed	Make sure Maximum Set Speed is set to MAX rpm
		Make sure IVT™/AutoPowr™ is set correctly
		See your John Deere dealer
	Intake air restriction	Service air cleaner
	Clogged fuel filters	Replace fuel filter elements

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Symptom	Problem	Solution
	Water in fuel system	See Fuel Tank Sump in Service - Check section of this Operator's Manual
	Incorrect type of fuel	Use correct fuel
	Overheated engine	See Engine Overheats in Engine Troubleshooting
	Below normal engine temperature	Remove and check thermostats
	Incorrect valve clearance	See your John Deere dealer
	Dirty or faulty injectors	Have your John Deere dealer check injectors
	Turbocharger not functioning	See your John Deere dealer
	Leaking exhaust manifold gasket	See your John Deere dealer
	Implement incorrectly adjusted	See implement operator's manual
	Restricted fuel inlet	Clean or replace fuel line
	Incorrect ballast	Adjust ballast to load. See Performance Ballasting section of this Operator's Manual
Low oil pressure	Low oil level	Add oil
	Incorrect type of oil	Drain, fill crankcase with correct quality and viscosity of oil
High oil consumption	Crankcase oil too light	Use correct viscosity oil
	Oil leaks	Check for leaks in lines, around gaskets and drain plug
	Defective turbocharger	See your John Deere dealer
	Restricted engine breather tube	Unclog engine breather tube
Engine emits smoke	Incorrect type of fuel	Use correct fuel
	Clogged or dirty air cleaner	Service air cleaner
	Engine overloaded	Reduce load or shift to a low gear
	Injection nozzles dirty	See your John Deere dealer
	Turbocharger not functioning	See your John Deere dealer

Symptom	Problem	Solution
Engine overheats	Dirty radiator core, oil cooler, or grille screens	Remove all trash and clean coolers
	Engine overloaded	Shift to lower gear or reduce load
	Low engine oil level	Check oil level. Add oil as required
	Low coolant level	Fill de-aeration tank and recovery tank to correct level, check radiator and hoses for loose connections or leaks
	Faulty radiator cap	Replace radiator cap
	Loose or defective fan belt	Check and replace belt as needed
	Fan drive running too slow	Make sure retaining bolt has been replaced with the vent. See Vari-Cool™ fan belt in Service Change section of this Operator's Manual
	Cooling system needs flushing	Flush cooling system See your John Deere dealer
	Defective thermostat	Replace thermostats
	Defective temperature gauge or sender	See your John Deere dealer
High fuel consumption	Clogged or dirty air cleaner	Service air cleaner
	Engine overloaded	Reduce load or shift to lower gear
	Injection nozzles dirty	See your John Deere dealer
	Implement incorrectly adjusted	See implement operator's manual
	Excessive ballast	Adjust ballast to load. See Performance Ballasting section of this Operator's Manual

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Transmission

Symptom	Problem	Solution
PST transmission vent between engine and transmission yoke leaks oil	Clogged transmission filter screen	Clean screen

Symptom	Problem	Solution
Transmission warning displays	Diagnostic trouble code has been stored	Access PTI or PTP codes in the CommandCenter™ display. See Troubleshooting - Diagnostic Trouble Codes (DTC) section of this Operator's Manual
PST Transmission skips gears	No problem	See Shift Transmission in 16-Speed Powershift Transmission section of this Operator's Manual
Transmission shifts slowly and tractor steers hard	Cold oil	See Warm-Up Transmission-Hydraulic System in Transmission - General Information section of this Operator's Manual
Transmission slips, shifts rough or abruptly (jerky) after oil change	Recalibrate transmission	See Powershift Transmission Recalibration in Other Lubricants section of this Operator's Manual Have dealer recalibrate See your John Deere dealer
Transmission starts out too fast/ slow	No problem	Startup gear can be changed through the CommandCenter™ settings. See Shift Transmission in 16-Speed Powershift Transmission section of this Operator's Manual See Set Startup Gears in e23™ Transmission section of this Operator's Manual If problem persists, see your John Deere dealer

GH15097,0000549-19-27FEB18

Hydraulic System

Symptom	Problem	Solution
Entire hydraulic system fails to function	Low oil supply	Check sight glass, fill system with correct oil
	Clogged hydraulic filter	Replace hydraulic oil filter
	Clogged charge pump suction screen	Clean screen
	High-pressure internal leak	See your John Deere dealer
Hydraulic oil overheats	Low or high oil supply	Fill system to correct level

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Symptom	Problem	Solution
	Oil cooler air passages clogged	Clean oil cooler and condenser in front cooling module
	Internal hydraulic leak	See your John Deere dealer
	Implement hydraulic load not matched to tractor or not properly routed back into tractor hydraulic system	See Hydraulic Connections section of this Operator's Manual
	Clogged transmission oil screen	Clean transmission oil screen

GH15097,000054A-19-13OCT17

Hitch

Symptom	Problem	Solution
Insufficient transport clearance	Center link too short	Adjust center link
	Center link in wrong position	Put center link of tractor in correct hole. See Rear Hitch section of this Operator's Manual
	Lift links too short	Adjust lift links
	Implement not level	Level implement
	Implement not correctly adjusted	See implement operator's manual
	Upper height limit not correctly set	Adjust upper height limit in CommandCenter™
	ILS™ leveling not functioning correctly or extended above level	Induce leveling with engine operating by depressing clutch and putting transmission in gear for four seconds. Repeat until suspension is in normal operating position
Hitch fails to follow lever	Malfunction in lever position sensor circuit or hitch position sensor	See your John Deere dealer
Poor position control	Load/depth mix control in wrong position	Adjust load/depth mix control in the CommandCenter™ to the left
	System is reset	Enable system
	Malfunction in lever position sensor circuit or hitch position sensor	See your John Deere dealer

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Symptom	Problem	Solution
	ILS™ leveling not functioning correctly during large draft changes	Induce leveling with engine operating by depressing clutch and putting transmission in gear for four seconds. Repeat until suspension is in normal operating position
Hitch drops slowly	Hitch rate-of-drop control not correctly set	Adjust rate-of-drop through settings in CommandCenter™
Hitch fails to lift or lifts slowly	Excessive load on hitch	Reduce load
	Center link in wrong position	Put center link in correct hole
	Hitch valve leak	See your John Deere dealer
	Raise limit switch setting may be limiting lift	Check settings in CommandCenter™
Implement will not operate at desired depth	Lift links too short	Adjust lift links
	Lack of penetration	See implement operator's manual
	Draft sensor failed	See your John Deere dealer
Insufficient or no hitch response to draft load	Load/depth mix control in wrong setting	Adjust load/depth mix control in the CommandCenter™ hitch settings
	Rate-of-drop too slow	Adjust rate-of-drop in the CommandCenter™ hitch settings
Hitch too responsive	Load/depth mix control not correctly set	Adjust load/depth mix control in the CommandCenter™ hitch settings
Hitch settles too fast after tractor is parked and engine is shut off	Internal circuit leakage	See your John Deere dealer
Hitch will not move (controls not working, including rear raise/lower switch)	Blown fuse(s)	Replace fuse(s) See Access Load Center Fuses in Service - Electrical section of this Operator’s Manual
External raise/lower switch will not move hitch	Failure of raise/lower switch, connector, or wiring harness	See your John Deere dealer
Pickup hitch not operate correctly	Pickup hitch will not latch	Adjust pickup hitch, see Rear Hitch section of this Operator’s Manual

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Selective Control Valve (SCV)

Symptom	Problem	Solution
Remote cylinder will not lift load	Flow check	Cycle SCV levers
	Excessive load	Reduce load
	SCV control lever assigned to a different than expected SCV	Change SCV hoses to desired SCV and control lever
	SCV joystick assigned to a different than expected SCV	Assign joystick to desired SCV
	Hoses not completely installed	Install hoses firmly into SCV
	Incorrect remote cylinder size	Use correct size cylinder
	SCV control lever lock engaged	Release SCV control lever lock
	Incorrect or damaged hose tips	Replace hose tips
Remote cylinder rate of travel too fast or too slow	Incorrect flow rate	Adjust flow rate
Direction of remote cylinder travel is reversed	Incorrect hose connections	Reverse hose connections
Hoses will not couple	Incorrect hose male connectors	Replace connectors with ISO Standard connectors
Detent does not hold or releases too soon	Detent time set incorrectly	Set time correctly
	SCV lever is not being released to neutral soon enough	Return SCV lever to center after being in detent position for more than 0.8 seconds
	SCV lever is not being released to neutral	Check hydraulic oil level, may be low
SCV lever does not release	SCV float is being ”commanded”	Do not push lever down in forward position
	Lever mechanism failed	See your John Deere dealer
Implement does not operate or does not operate correctly	Incorrect hose connections	See implement operator's manual
		See your John Deere dealer

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TouchSet Depth Control

Symptom	Problem	Solution
Depth control does not function correctly	Implement transport lock-up valve closed	Open valve

Symptom	Problem	Solution
	Cylinders not rephased (synchronized)	**IMPORTANT: Be sure all air is bled from depth control system**
		Rephase cylinders
	Machine operating at different depths	See implement operator's manual
	Cylinder leakage	Eliminate cause of leakage
		Repair or replace cylinders; see your John Deere dealer
	Insufficient tractor hydraulic pressure	See John Deere dealer to check hydraulic pressure
	Hydraulic hoses not connected correctly	Reconnect correctly

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Electrical System

Symptom	Problem	Solution
Voltage indicator displayed when there is low battery voltage (key ON and engine OFF)	Defective battery	Check electrolyte level and specific gravity
	Low charging voltage	Have your John Deere dealer check charging circuit
	High resistance in charging circuit	Have your John Deere dealer check charging circuit
	Indicator malfunction	Have your John Deere dealer check indicator
Voltage symbol displayed and service alert indicator flashing indicating low charging voltage (engine running)	Low engine speed	Increase speed
	Auxiliary drive belt slipping, not charging alternator	Check auxiliary drive belt tension
	Defective battery	Check electrolyte level and specific gravity
	Defective alternator	Have your John Deere dealer check alternator
	Excessive electrical load	Decrease load
Voltage symbol displayed and service alert indicators flashing indicating excessive charging voltage	Faulty connection to alternator	Check wiring connections

Symptom	Problem	Solution
	Defective regulator	Have your John Deere dealer check alternator
Chirping noise from side console	Noise is normal	Solid state electronic drivers are used instead of relays to control turn signal lights. Tractor warning system provides a turn signal indicator beep instead of relay clicking noise
Batteries will not charge	Loose or corroded connections	Clean and tighten connections
	Sulfated or worn-out batteries	Check electrolyte level and specific gravity
	Loose or defective alternator belt	Adjust auxiliary belt tension or replace belt
Starter inoperative	Transmission in gear	Place transmission in PARK
	Faulty or maladjusted neutral start switch or starter solenoid malfunction	See your John Deere dealer
	Loose or corroded connections	Clean and tighten loose connections
	Low battery output	See your John Deere dealer
	Blown fuse	Replace fuse. See Access Load Center Fuses in Service - Electrical section of this Operator's Manual
	Alternator battery master relay failed	Replace alternator battery master relay
Starter turns over slowly	Low battery output	Check electrolyte level and specific gravity
	Crankcase oil too heavy	Use correct viscosity oil
	Loose or corroded connections	Clean and tighten loose connections
Entire electrical system does not function	Faulty battery connection	Clean and tighten connections
	Battery disconnect system switch in “OFF” position	Turn battery disconnect switch to “ON” position
	Sulfated or worn out batteries	Check electrolyte level and specific gravity
	Blown master fuse	Replace master fuse. See Access Master Fuses in Service - Electrical section of this Operator's Manual

Symptom	Problem	Solution
Blower malfunctioning	Blower does not work	Check for stored codes, total cab electrical load may be exceeding solid state load center capacity
	Blown fuse	Replace fuse. See Access Load Center Fuses in Service - Electrical section of this Operator's Manual
Blower operates only in PURGE	Blown blower resistance assembly	See your John Deere dealer

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Operator Enclosure

Symptom	Problem	Solution
Blower not keeping dust out of operator enclosure	Defective seal around filter element	Check seal condition
		Check filter for correct installation
	Defective filter	Replace filter
	Excessive air leak	Seal air leaks
	Blower air flow too low	See Blower Air Flow Too Low in Operator Enclosure Troubleshooting
Blower air flow too low	Clogged filter or air intake screen	Inspect and/or replace
	Heater core or evaporator core clogged	Clean
Heater will not shut off	Heater hoses connected incorrectly	See your John Deere dealer
	Cable/water valve not adjusted properly	See your John Deere dealer
Air conditioner not cooling	Low voltage	See your John Deere dealer
	Low refrigerant	See your John Deere dealer
	Belt slipping	Check belt tension
	Compressor switch not turned ON	Turn compressor switch ON
Intermittent cooling	Air restriction in front corners	Clean radiator, oil cooler, and air conditioner condenser
Seat suspension not working	Blown fuse(s)	Replace fuses. See Access Load Center Fuses in Service - Electrical section of this Operator's Manual

Symptom	Problem	Solution
Radio does not function	Blown fuse(s)	Replace fuse. See Access Load Center Fuses in Service - Electrical section of this Operator's Manual
Tractor bounces or jumps	Power hop/wheel hop	Check weight split
		Check ballast
		Check inflation pressures
		See Controlling Power Hop in Performance Ballasting section of this Operator's Manual
	Loose wheel hardware	Tighten hardware to correct torque

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Tractor Operation

Symptom	Problem	Solution
Tractor bounces or jumps	Power hop/wheel hop	See Controlling Power Hop in the Performance Ballasting section of this Operator's Manual
		Check weight split
		Check ballast
		Check inflation pressures
		See your John Deere dealer

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ILS™ Troubleshooting

Symptom	Problem	Solution
Suspension settles	Suspension cylinder leaking	See your John Deere dealer
	Check valve leaking	See your John Deere Dealer
Suspension does not level	Position sensor failure	See your John Deere Dealer
	Blown fuse(s) in front load center	Replace fuse. See Access Load Center Fuses in Service - Electrical section of this Operator's Manual
	Wheel speed less than 0.5 km/h (0.3 mph)	Increase speed
	Auto-leveling disabled	See your John Deere Dealer

Symptom	Problem	Solution
Suspension does not lock during hitch operation	Excess leakage, valve stuck, or solenoid failure	See your John Deere Dealer
	Wheel speed greater than 30 km/h (18.6 mph)	Reduce speed to less than 20 km/h (12.4 mph)
	Auto-leveling disabled	See your John Deere Dealer
Excessive suspension damping or suspension does not unlock	Wheel speed less than 0.5 km/h (0.3 mph)	Increase speed
	Auto-leveling disabled	See your John Deere Dealer
Tractor bounces or jumps	ILS™ is locked	See your John Deere Dealer
	Tires not correctly inflated or out of round	Check tires and inflation pressure
	Tires cold and out of round	Drive tractor 3.2 km (2 miles) to determine if condition still exists
Front axle with heavy front implement attached	ILS™ sinks down	Use manual mode to lift the front axle manually

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Steering System

Symptom	Problem	Solution
No steering	Transmission shift lever in PARK position	Shift lever into NEUTRAL position
	Plugged hydraulic steering filter	Replace steering filter
	Loss of electrical power to steering controller	Check fuse F13, see Load Center Fuses in Service - Electrical section of this Operator's Manual
		See your John Deere dealer
	Other electrical or hydraulic malfunctions	Check vehicle monitor for warning codes, see Troubleshooting - Diagnostic Trouble Codes section of this Operator's Manual
		See your John Deere dealer
Will not turn as short as desired/ expected or difficult to turn under load	Implement causes side loading greater than steering system can overcome when attempting to turn.	Raise implement
		Slow down during turn or execute turn by doing a series of brief short turns

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Symptom	Problem	Solution
		Let drawbar swing
		Add ballast, see Performance Ballasting section of this Operator's Manual
		See Drawbar section of this Operator's Manual
	Electrical or hydraulic malfunction	Check vehicle monitor for warning codes, see Troubleshooting - Diagnostic Trouble Codes section of this Operator's Manual
		See your John Deere dealer
	Plugged transmission hydraulic filter	Replace transmission hydraulic filter
Tractor drifts or pulls to one side	Implement causing side load on tractor	Adjust implement to eliminate side draft
		Let drawbar swing
		Add ballast, see Performance Ballasting section of this Operator's Manual
		See Drawbar section of this Operator's Manual
	Steering wheel does not self center	See your John Deere dealer
Will not turn as short as desired/ expected with no load	Electrical or hydraulic malfunction	Check vehicle monitor for warning codes, see Troubleshooting - Diagnostic Trouble Codes section of this Operator's Manual
		See your John Deere dealer
	Attempting to turn while stopped (loose soil, heavy ballast); steering load exceeds system capacity	Maintain forward/reverse motion while turning
		Increase engine speed and/or hold steering wheel against stop for a couple of seconds to allow greater steering force
Will not turn as short as desired/ expected (high gear, low engine speed)	Minimum turn radius is naturally greater in high gears and maximum steering pump flow is less at low engine speed	Downshift before turn
		See appropriate transmission section of this Operator's Manual

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Premium Radio

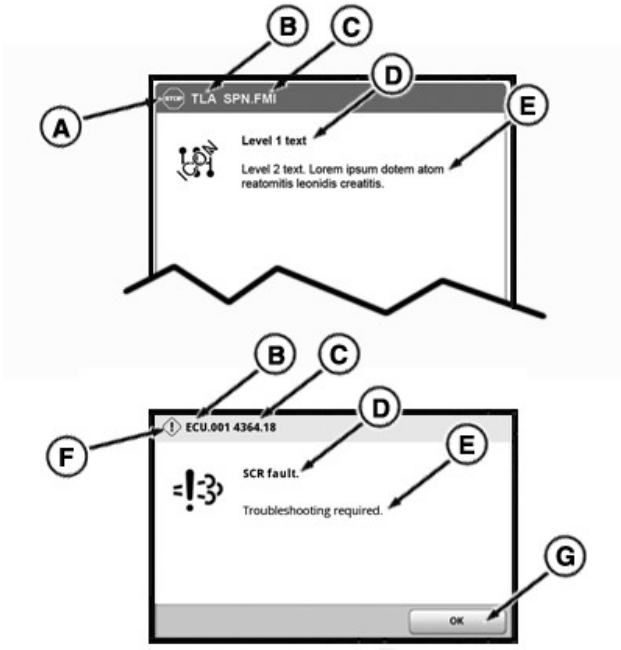
Symptom	Problem	Solution
"DEV ERR" displayed	No playable files on media	Change media

Symptom	Problem	Solution
“BLOCKED” displayed	No audio in any source	Verify radio is installed in correct vehicle. Run engine for at least 5 minutes. Restart radio to resolve.
Radio display blank with radio on.	Display in DIM-OFF mode.	Change to DIM-ON mode in radio SETUP mode.

TS36762,0000280-19-25JUN18

STOP and Service Alert Indicators

NOTE: All STOP and Service Alert Indicators are accompanied by an informative message, diagnostic trouble code, and/or fault description shown on CommandCenter™.



RXA0137743—UN—11DEC13

STOP Indicator (A): Light flashes and alarm sounds continuously. A serious malfunction has occurred, requiring immediate attention or the tractor will be damaged. Control unit (B), diagnostic trouble code (C), system (D) and solution (E) are identified on CommandCenter™. When control unit detects a malfunction or condition ”out of range”, a diagnostic trouble code containing the control unit followed by an industry standard number are displayed. Numbers to the left of the decimal indicate the malfunction and numbers to the right of decimal indicate the condition.

IMPORTANT: Engine will shut down automatically if STOP signal is received when operator is out of the seat for longer than 3 seconds and the transmission control is in PARK. CommandCenter™ display can be reset by cycling key switch.

If situation allows to stop operations immediately, reduce engine speed to idle, then shut down engine and turn key ON to observe CommandCenter™ display for problem identification and solution. It may be necessary to access the stored codes, see Using Diagnostics, Stored Codes and CAN Statistics. Correct problem before restarting.

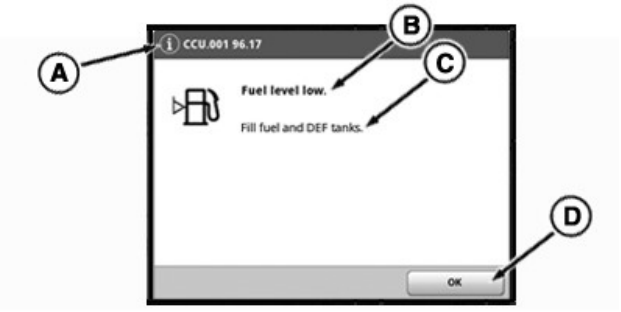
Service Alert Indicator (F): Light flashes and alarm sounds five times indicating a performance or operational problem has been detected, which must be resolved as soon as possible. Some Service Alert Indicators can be ”acknowledged” and cleared by pressing OK button (G) CommandCenter™ display. If condition still exists, diagnostic trouble code may reappear later. Continued operations can cause a Service Alert to escalate into a STOP indicator. If appropriate corrective action is not taken soon (serviced, repaired, operated in a different manner), a significant reduction in performance and/or damage to machine will occur.

When Service Alert Indicator is displayed, place tractor in park and shut off engine.

Follow solution on CommandCenter™ or if situation cannot be corrected contact your John Deere dealer.

TS36762,0000281-19-05JUL17

Information Indicator



RXA0154533—UN—05OCT16

In some situations, the Information (INFO) Indicator light comes on continuously and alarm sounds for 2 seconds, indicating a fault condition. CommandCenter™ display shows diagnostic trouble code (A) and fault description including system affected (B), and suggested problem solution (C). Follow problem solution. Tractor operations can continue without damage; but, performance of some functions may be degraded.

Operating in a different manner may correct and clear an out of range condition. Some alerts can be ”acknowledged” and cleared by pressing OK button (D). If condition still exists after following solution or pressing OK button, alert may reappear later.

If situation cannot be corrected, see your John Deere dealer.

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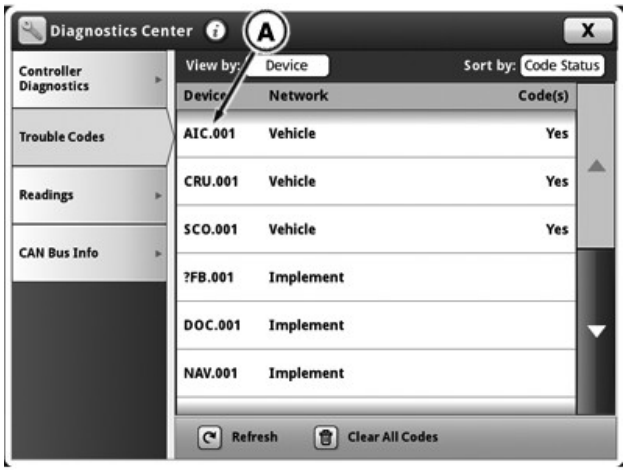
Access Diagnostic Trouble Codes

NOTE: If problem is not resolved after cycling power to tractor, or following solution on CommandCenter™ page, see your John Deere dealer.

Not all active DTC's are displayed. Follow steps to retrieve stored DTC's.

RXA0133360—UN—26JUL13

1. Select **Menu.**
2. Select **System tab.**
3. **Diagnostics Center icon.**
4. Select **Trouble Codes tab.**



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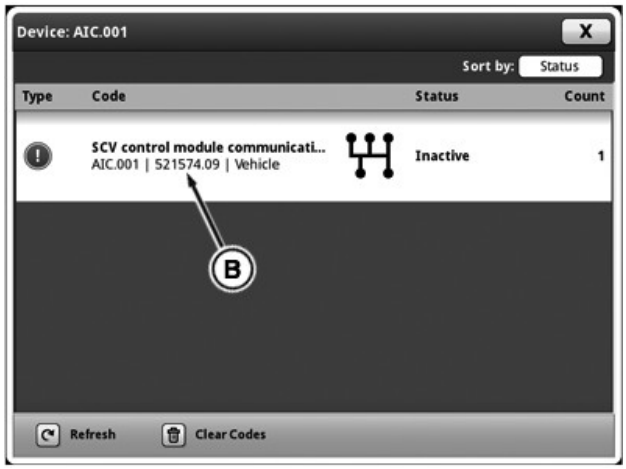
Trouble Codes Page

5. Select control unit (A) desired.



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6. Select diagnostic code (B) for code display.

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Place Tractor in Storage

IMPORTANT: If tractor will not be used for more than three months, the following recommendations for storage and removal from storage will minimize corrosion and deterioration.

NOTE: Whenever possible store tractor in a building or under a roof to avoid damage resulting from prolonged exposure to the elements.

1. Lower hitch.
2. Change engine oil and replace filter (if required).

NOTE: Do not add BioDiesel fuel if placing tractor in storage.

3. Drain fuel tank and add back approximately 19 L (5 gal) of fuel.

IMPORTANT: Final Tier 4/Stage V Engines Only: To determine tractor engine type, see Engine Serial Number in Identification Numbers section of this Operator's Manual. Long-term storage of Diesel Exhaust Fluid (DEF) in vehicle (over six months) is not recommended. If long-term storage is necessary, periodic testing of DEF is recommended to ensure that urea concentration does not fall out of specification.

4. Final Tier 4 and Stage V tractors: Diesel Exhaust Fluid (DEF) has a limited shelf life, but may be stored in vehicle for as long as six months, depending upon storage conditions, see Storing DEF in Diesel Exhaust Fluid (DEF) section of this Operator's Manual. If draining DEF tank is necessary, see Draining DEF Tank in Fuel, Lubricants, and Coolant section of this Operator's Manual for proper procedure.
5. Using plastic bags and either tape or tie-bands, seal air inlets and exhaust, crankcase vent tube, radiator overflow hose, and transmission-hydraulic system fill cap.

IMPORTANT: Prevent damage to tractor emissions system. Battery disconnect switch with indicator light: Tractor is equipped with an engine which uses a Selective Catalytic Reduction (SCR) system. Light is illuminated during Diesel Exhaust Fluid (DEF) purge from system. Do not turn disconnect switch off until light goes out.

Battery disconnect switch without indicator light: Engine not equipped with SCR system. No waiting period is required before turning off switch.

NOTE: See Battery Disconnect Switch in Engine Operation section of this Operator's Manual.

6. If tractor is:
   - Equipped with battery disconnect switch with indictor light, wait until indicator light has gone out. Then go to step 7.
   - Not equipped with battery disconnect switch indicator light. Go to step 7.
7. Turn off battery disconnect switch.
8. Disconnect batteries. See Service Batteries and Connections in Service – Electrical section of this Operator's Manual.
9. Remove and store batteries in a cool, dry location. Keep batteries charged.[1]
10. Coat all exposed (machined) metal surfaces such as lift cylinders and steering cylinder rods with light coat of grease.
11. Lubricate all grease fittings.

If tractor must be stored outside, follow these additional precautions.

1. Cover instrument panel, control levers, and seat with sheets of material or cardboard to protect against sun rays.
2. Thoroughly clean tractor, touching up any scratched or chipped painted surfaces.
3. Wax or cover entire tractor with waterproof material.
4. Raise tires or tracks off the ground and/or cover them to protect from heat and sunlight.

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Remove Tractor from Storage

1. Remove all coverings placed in or on tractor while preparing for storage.

IMPORTANT: To avoid engine damage, unseal crankcase vent tube.

2. Unseal all openings sealed during storage.
3. Remove any accumulated trash or debris, especially around engine and inside engine compartment.

IMPORTANT: If air conditioning compressor is locked up, engine operation with compressor clutch engaged may damage drive belt or compressor.

4. Rotate air conditioner compressor pulley several turns. If pulley does not turn freely, compressor components may be seized. See your John Deere dealer.
5. Check auxiliary drive belt for cracking and if

[1] *Disconnect battery ground cable for short-term storage periods (20 to 90 days).*

serviceable, install auxiliary drive belt on air conditioner pulley.

6. Check under and around tractor for any evidence of fluid leaks.

IMPORTANT: If transmission-hydraulic oil level was correct at time of storage, and there is no evidence of hydraulic oil leaks, there should be no concern starting tractor even if transmission-hydraulic oil sight glass level is low. Over a period of storage, hydraulic oil may drain into transmission, causing sight glass to read low even when adequate amount of oil is available. If there are indications of oil leaks, do not start tractor until the source has been determined and repairs made. If there are no leakage indications, but there is any doubt about oil level at time of storage, check hydraulic oil level as soon as possible after starting tractor.

7. Check transmission-hydraulic oil level. Add oil as required.
8. Check all other fluid levels. Fill as required.
9. Fill fuel tank.

IMPORTANT: To confirm which engine your tractor is equipped with, see Engine Serial Number in Identification Numbers section of this Operator's Manual.

10. (Final Tier 4 and Stage V engine) If Diesel Exhaust Fluid (DEF) tank has not been drained, test urea concentration, see Testing DEF in Diesel Exhaust Fluid (DEF) section of this Operator's Manual. If concentration is not within specifications, drain and replace with new or good DEF. If DEF tank has been drained, fill tank. See Refilling DEF Tank in Diesel Exhaust Fluid (DEF) section of this Operator's Manual for appropriate procedures.
11. Inspect tires and check tire inflation pressures. See Front or Rear Wheels, Tires and Treads sections of this Operator's Manual.
12. Perform all Daily or 10 Hour service procedures and any other scheduled services as required. See 10 Hour or Daily Service in Service - Record Charts section of this Operator's Manual.
13. Install batteries and connect cables.
14. Turn battery disconnect switch on.
15. Turn key to RUN position for one minute to allow fuel system to prime.

NOTE: While operating engine at slow idle, visually check all instruments and indicators to ensure they function properly.

16. Start and operate engine at slow idle for several minutes.
17. Check tractor functions and systems, including air conditioning.
18. Warm up tractor before putting tractor under load.

TS36762,0000285-19-17JUL18

Paint Finish Care

IMPORTANT: Never use strong soaps, chemical detergents, or cleaning agents containing acids, caustics, or abrasives. It is best to use commercially available car wash (non-detergent) products which will not remove protective wax, which may be applied to the paint finish.

- Wash tractor regularly, particularly if it has been exposed to herbicides, pesticides, road salt, or other chemical agents.
- Never wash tractor in direct sunlight.
- All cleaning agents should be rinsed away promptly and not be allowed to dry on painted surface.
- Waxing tractor occasionally is recommended to remove residue from and further protect paint finish. Never use waxes containing abrasive compounds.
- Inspect paint surface during washing or waxing for chips and scratches. Repaint any areas where paint has been damaged.

Your John Deere dealer has a full line of cleaners, waxes, and touch-up paints to help enhance the paint finishes and which are compatible with your equipment.

TS36762,0000286-19-22JUN17

Specifications

Engine

	8245R	8270R	8295R	8320R	8345R	8370R	8400R
POWER							
Rated engine power PS[a] (hp ISO) at 2100 engine rpm (97/68/EC)[b]	180 kW (245 hp)	199 kW (270 hp)	217 kW (295 hp)	235 kW (320 hp)	254 kW (345 hp)	272 kW (370 hp)	294 kW (400 hp)
Rated engine power PS[a] (hp ISO) at 2100 engine rpm (ECE-R24)	173 kW (235 hp)	191 kW (259 hp)	208 kW (283 hp)	226 kW (307 hp)	244 kW (331 hp)	261 kW (355 hp)	282 kW (384 hp)
Rated PTO power (hp SAE) at rated engine speed (2100 erpm)[cd]	149 kW (200 hp)	167 kW (225 hp)	184 kW (247 hp)	200 kW (269 hp)	216 kW (291 hp)	233 kW (313 hp)	233 kW (313 hp)
Intelligent Power Management (97/68/EC)	Optional — 35 additional engine horsepower PS (hp ISO) at 2100 rpm (rated speed)						
Constant Power Range (rpm)	1500 - 2100						1600 - 2100
ENGINE							
Manufacturer	John Deere PowerTech™ PSS 9.0 L (B20 Diesel Compatible)						
Aspiration	Dual series turbocharger with fixed geometry first stage, variable geometry second stage, air-to-air aftercooling, and cooled exhaust gas recirculation						
Intelligent Power Management (IPM)	Optional						
Rated Speed	2100 rpm						
Type	Diesel, in-line, 6-cylinder, wet-sleeve cylinder liners with 4 valves-in-head						
Filter, engine air	Dual-stage with engine cooling fan aspiration						
Displacement	9.0 L (549 in^3)						
Bore and stroke	118.4 mm (4.66 in) x 136 mm (5.35 in)						
Compression ratio	16.0:1						
Lubrication	Full-pressure, full-flow filtration with bypass						
Filter, oil	Replaceable cartridge style oil filter						
FUEL SYSTEM (Type)	Electronically controlled, high-pressure common rail with electric fuel transfer pump (self-priming)						
Filter system	Two-stage with water separator and service indicator light						
Filter, primary	10 micron spin-on element with water indication sensor and drain						
Filter, secondary	2 micron spin-on element						

PowerTech is a trademark of Deere & Company
[a]German term for horse power in which one PS is equivalent to 0.9863 horse power.
[b]97/68/EC power refers to average (50% MOE) net brake power measured and corrected for ambient conditions according to the EC emissions directive. It is equivalent to internal Deere Standard RES10080, and SAE Standards J1349, J1995.
[c]PTO power for IVT™/AutoPowr™ transmission models. PST models will be slightly higher. Does not include optional equipment losses.
[d]80% factory observed MOE value.

EC82310,000059B-19-14FEB18

Capacities

	8245R	8270R	8295R	8320R	8345R	8370R	8400R
FUEL TANK							
Group 47/48 Tires	615 L (162.5 gal)						
Group 49 Tires	676 L (178.6 gal)						
DEF TANK	23.0 L (6 gal)						
COOLING SYSTEM	32.6 L (8.6 gal)						
ENGINE CRANKCASE OIL VOLUME							
1300 MFWD	25.0 L (6.6 gal)			—			
1500 MFWD	28.0 L (7.4 gal)						
ILS™	27.5 L (7.3 gal)						

	8245R	8270R	8295R	8320R	8345R	8370R	8400R
TRANSMISSION, DIFFERENTIAL, HYDRAULIC SYSTEM							
1300 MFWD/1500 MFWD	140 L (37 gal)						
ILS™	165 L (43.6 gal)						
AXLE HOUSING							
1300 MFWD	13.6 L (3.6 gal)			—			
1500 MFWD	18.7 L (4.9 gal)						
WHEEL HUBS (Each)							
1300 MFWD/1500 MFWD	3.8 L (4 qt)						
ILS™	3.8 L (4 qt)				5.6 L (5.9 qt)		
AUXILIARY RESERVOIR VOLUME							
Oil Needed at Fill (If Equipped)							
Left-Hand Tank	21.8 L (23.0 qt)						
Right-Hand Tank	37.5 L (39.6 qt)						
Usable Take-out Oil (If Equipped)							
Left-Hand Tank	18 L (19.1 qt)						
Right-Hand Tank	32 L (33.5 qt)						

ILS is a trademark of Deere & Company

EC82310,000059C-19-14FEB18

Hydraulic System

	8245R	8270R	8295R	8320R	8345R	8370R	8400R
Type	Closed-center, pressure/flow compensated						
Main pump, axial piston (displacement)	Standard — 85 cc; Optional — Dual pump (85 cc plus 35 cc)						
Maximum pressure	20400 ± 300 kPa (2958 ± 44 psi)						
Rated flow							
85 cc pump	227.1 L/min (60 gpm)						
Dual pump 85 cc plus 35 cc	321.0 L/min (85 gpm)						
Rear SCVs							
1/2 inch ISO couplers	Standard — 4; Optional — 5 and 6						
3/4 inch and 1/2 inch ISO couplers	Optional — 5 (SCV 1: 3/4 inch coupler, SCV 2-5: 1/2 inch couplers)						
Available flow at a single rear SCV							
1/2 inch couplers	132 L/min (35 gpm)						
3/4 inch coupler	159 L/min (42 gpm)						
Front SCVs[a]	Standard — 1 SCV; Optional — 2 SCVs						
Available flow at front SCVs	96 L/min (25 gpm)						
Take-out oil capacity	Standard — 40 liters @ 2 L/sec; Optional[b] — 90 liters @ 2 L/sec						

[a] *only available with front hitch*
[b] *Requires field-installed auxiliary tanks*

EC82310,000059E-19-14FEB18

Transmission and Power Train

	8245R	8270R	8295R	8320R	8345R	8370R	8400R
TRANSMISSION							
e23™ 40K[ab]	Standard						
e23™ 50K[cb]	Optional						
IVT™/AutoPowr™ 0.050 - 42 km/h (0.030 - 26 mph)[db]	Optional						—
IVT™/AutoPowr™ 0.050 - 50 km/h (0.030 - 31 mph)[eb]	Optional						—
16-speed PowerShift™[fb] 16F, 5R[g] with Auto Power Shift	Optional				—		
REAR AXLE FINAL DRIVES	Inboard planetary three-pinion						
REAR AXLES	Rack-and-Pinion, Double-Flat, or Flange Axles						
110 x 3012 mm (4.33 x 118.5 in) - Long							
Single-taper hub	Optional		—				
Dual-taper hub	Optional		—				
120 x 3012 mm (4.72 x 118.5 in) - Long							
Dual-taper hub	Optional						—
Double-flat axle with single-taper hub	Optional						Standard
120 x 2550 mm (4.72 x 100.4 in) - Short							
Double-flat axle with single-taper hub	Optional						
Flange axle with 335 mm bolt circle[h]	Optional						—
REAR WHEEL EQUIPMENT	Group 47/48/49 tires available as Singles/Duals/Triples — See your John Deere dealer for tire size selection and limitations						
FRONT AXLES							
1300 MFWD (Tread range 1524 to 2235 mm (60 to 88 in)[i])	Standard			—			
1500 MFWD (Tread range 1524 to 3657 mm (60 to 144 in)[i])	Optional[j]						
1500 MFWD 3-meter tread spacing	Optional[k]						
ILS™ (Tread range 1524 to 3657 mm (60 to 144 in)[i])	Optional[j]			Standard[j]			
ILS™ 3-meter tread spacing	Optional[k]						
Suspension travel	+ or - 125 mm (4.92 in)[m]						
With front brakes	Standard[j] — 50 km/h (31 mph); Optional[j] — 40 km/h (25 mph)						
STEERING (Tilt - telescope with memory)							
Hydraulic power-steering with electric pump back-up	Standard — 406 mm (16 in) diameter steering wheel Ration/Turns Lock-to-Lock: 1300 MFWD (14.2:1 /3.4); 1500 MFWD (22.8:1 /5); ILS™ (18.9:1 /4.3)						
ActiveCommand Steering (ACS)™ with electric pump back-up	Optional with ILS™ — 345 mm (13.6 in) diameter steering wheel Variable steering ratio 15:1 to 23:1 (3.1-5.0 turns lock-to-lock) with Dynamic Road Wheel Offset Control and passive tactile feedback						
DIFFERENTIAL LOCK							
Front Axle							
1300 MFWD	Limited Slip			—			
1500 MFWD/ILS™	Full-locking electrohydraulic (actuated at same time as rear diff-lock)						
Rear Axle							

	8245R	8270R	8295R	8320R	8345R	8370R	8400R
1300 MFWD/1500 MFWD/ILS™	Standard — Full-locking electrohydraulic						

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IVT is a trademark of Deere & Company
AutoPowr is a trademark of Deere & Company
PowerShift is a trademark of Deere & Company
ILS is a trademark of Deere & Company
ActiveCommand Steering (ACS) is a trademark of Deere & Company
[a]*42 km/h @ 1410 ECO erpm with group 49 tires, 42 km/h @ 1480 ECO erpm with group 48 tires, 42 km/h @ 1560 ECO rpm with group 47 tires*
[b]*Base tractor configuration on level ground, with specified tires groups above at mfg recommendation for tire pressure. eRPM are load dependent*
[c]*50 km/h @ 1670 ECO erpm with group 49 tires, 50 km/h @ 1770 ECO erpm with group 48 tires, 50 km/h @ 1860 ECO rpm with group 47 tires*
[d]*42 km/h @ 1360 ECO erpm with group 49 tires, 42 km/h @ 1430 ECO erpm with group 48 tires, 42 km/h @ 1510 ECO rpm with group 47 tires*
[e]*50 km/h @ 1630 ECO erpm with group 49 tires, 50 km/h @ 1710 ECO erpm with group 48 tires, 50 km/h @ 1810 ECO rpm with group 47 tires*
[f]*42 km/h @ 2050 erpm with group 49 tires, 42 km/h @ 2160 erpm with group 48 tires, 40.8 km/h @ 2210 erpm with group 47 tires*
[g]*Only available through dealer programming in some geographic regions*
[h]*Region 2 only*
[i]*5-step drop*
[j]*With or without duals*
[k]*Field install only - with front ballast limitations and no duals allowed.*
[l]*5- or 6-step drop*
[m]*At tread center-line for 5-step front-to-rear ratio axle at 1880 mm*

EC82310,000059F-19-20AUG18

Hitch, Drawbar, and PTO

	8245R	8270R	8295R	8320R	8345R	8370R	8400R
3-POINT HITCH (Rear): Lower draft shaft with electrohydraulic bending bar draft sensing							
Category 3/3N with Quik-Coupler							
Lift Capacity[a]: 6350 kg (14000 lb)	Standard			—			
Lift Capacity[a]: 8391 kg (18500 lb)	Optional[b]			—			
Category 4N/3 with Quik-Coupler							
Lift Capacity[a]: 6804 kg (15000 lb)	—			Standard[b]			
Lift Capacity[a]: 9072 kg (20000 lb)	Optional[b]						
3-POINT HITCH (Front): (Requires ILS™)							
Category 3N Ground-Engaging: Lift Capacity[a]: 3800 kg (8377 lb)[c]	Optional						
DRAWBAR							
Category 3							
1837 - 2700 kg (4050 - 6000 lb)[d]	Standard			—			
Category 4							
Without heavy-duty support: 2245 kg (4950 lb)[e]	Optional			Standard			
With heavy duty-support: 4990 kg (11000 lb)[e]	Optional						
3-in-1 hitch rails[f], Wagon hitch, Ball hitch, Piton hitch	Optional[g]						
REAR PTO: Independent							
1-3/4-in, 20-spline, 1000-rpm	Standard						
1-3/4-in, 20-spline, 1000-rpm; capable of 1-3/8 in 540/1000 rpm	Optional						
1-3/4-in, 20-spline, 1000-rpm/1000E rpm	Optional						
PTO Speed @ Engine rpm	**16-Speed PST**: 1000 PTO rpm @ 2003 engine rpm, 1000 ECO PTO rpm @ 1596 engine rpm, 540 PTO rpm @ 1817 engine rpm; **IVT™/AutoPowr™**: 1000 PTO rpm @ 2000 engine rpm, 1000 ECO PTO rpm@ 1594 engine rpm, 540 PTO rpm @ 1814 engine rpm; **e23™**: 1000 PTO rpm @ 1995 engine rpm, 1000 ECO PTO rpm@ 1590 engine rpm, and 540 PTO rpm @ 1810 engine rpm						
FRONT PTO: Requires ILS™ axle and IVT™/AutoPowr™ or e23™ Transmission[h]							

	8245R	8270R	8295R	8320R	8345R	8370R	8400R
1-3/4-in, 20-spline, 1000[i]	Optional						
PTO Speed @ Engine RPM (1:2 ratio)	1000 PTO rpm @ 2000 erpm						
PTO Power (SAE hp)	112 kw (150 HP) Maximum Output						

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AutoPowr is a trademark of Deere & Company
[a]*Lift capacity per OECD measured 24 inch (610 mm) behind the coupler.*
[b]*Requires 120 mm axle*
[c]*Max lift capacity is 5200 kg (11464 lb) measured 0 mm (0 in) behind the draft hook links.*
[d]*Maximum vertical load dependent on drawbar position*
[e]*Maximum vertical load capacity*
[f]*Not compatible with Category 4 heavy-duty support*
[g]*Availability dependent upon destination*
[h]*IVT™/AutoPowr™ are not available on 8400R*
[i]*Counter-clockwise rotation when facing PTO*

EC82310,00005A0-19-08AUG18

Electrical System

	8245R	8270R	8295R	8320R	8345R	8400R
Alternator/Battery	200 amps/12 Volt (two batteries in parallel)					
Total cold cranking amps	1850 (2-925CCA Group 31 batteries)					

EC82310,00005A1-19-14FEB18

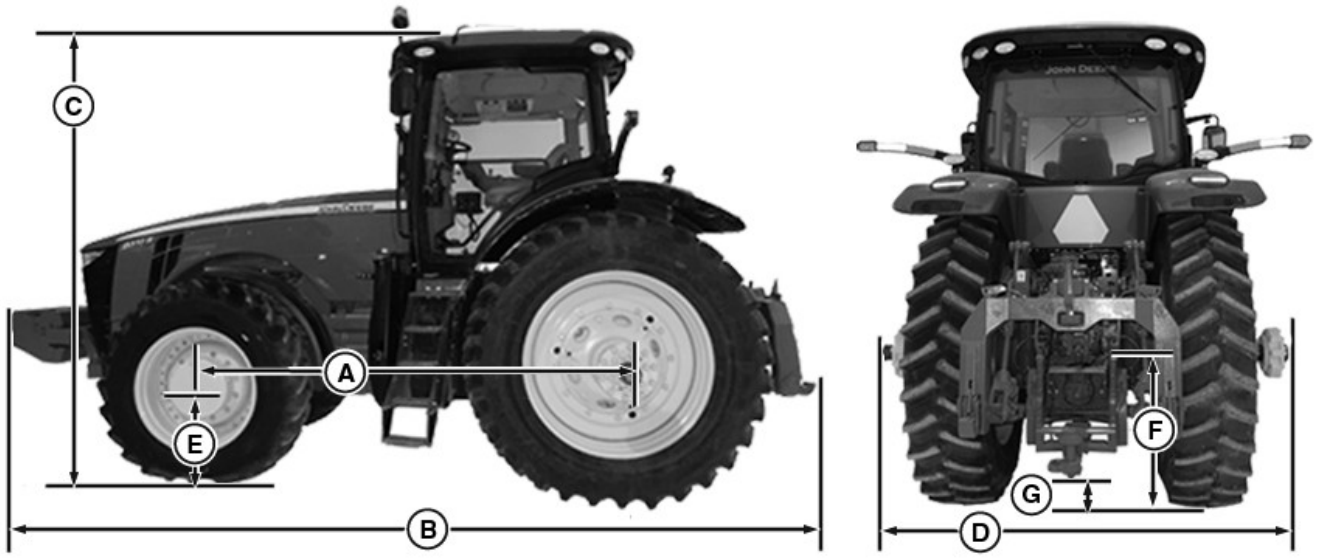
Other Equipment

AutoTrac™ Ready	Standard
Modular Telematics Gateway (MTG)	Available with JDLink™ hardware, activations, and Ethernet Harness[a]
Service ADVISOR™ Remote	Available with JDLink™ hardware and activations
CommandCenter™ Video	
With 4200 Processor	Single video input (Tyco Connector PN 776536-1) for camera using PAL or NTSC signal. Integrated behind rear cab cover. Camera and extension harness available through parts.
With 4600 Processor	Four video inputs (Tyco Connector PN 776536-1) for camera using PAL or NTSC signal. Integrated behind rear cab cover. Camera and extension harness available through parts.

AutoTrac is a trademark of Deere & Company
JDLink is a trademark of Deere & Company
Service ADVISOR is a trademark of Deere & Company
CommandCenter is a trademark of Deere & Company
[a]*Availability dependent upon destination*

RW29387,00001EF-19-14FEB18

Overall Tractor Dimensions



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	8245R	8270R	8295R	8320R	8345R	8370R	8400R
WHEELBASE (A)							
1300 MFWD / ILS™ and 1500 HDMFWD	3080 mm (121.3 in) / 3050 mm (120.1 in)						
OVERALL LENGTH (B)							
Includes North American weights and Category 4 hitch and quick-hitch	6636 mm (261.3 in)						
OVERALL HEIGHT (C) (Top of Cab)							
Group 47	3299 mm (129.9 in)						
Group 48	3353 mm (132.0 in)						
Group 49	3484 mm (137.2 in)						
OVERALL REAR AXLE WIDTH (D)							
Measured at rear axle ends, with no duals	Long Axle: 3012 mm (118.5 in); Short Axle: 2550 mm (100.4 in)						
AXLE CLEARANCE (E)							
1300 MFWD and 1500 HDMFWD / ILS™	686 mm (27 in) / 590 mm (23.2 in)						
HEIGHT FROM GROUND (Tractor equipped with Group 48 rear tires)							
Bottom Rear Axle **(F)**	762 mm (30.0 in)						
Drawbar **(G)**	376 mm (14.8 in)						
AVERAGE STANDARD WEIGHT (Less front weights)							
MFWD, PST, 1400 lb inner weights, front weight support, Category 3 hitch with quick-hitch, 480/80R46 dual rear tires, 420/85R34 single front tires, and 114 L (30 gal) fuel	12680 kg (27953 lb)			—			
ILS™, e23™, 1400 lb inner weights, front weight support, Category 4	15091 kg (33271 lb)						

	8245R	8270R	8295R	8320R	8345R	8370R	8400R
hitch with quick-hitch, 480/80R50 dual rear tires, 420/8R34 dual front tires, and 87.1 L (23 gal) fuel							
ILS™, e23™, 1400 lb inner weights, front hitch, Category 4 3-in-1 hitch rails with 80 mm ball, IF900/60R42 rear singles, and IF600/70R30 front singles, air trailer brakes, and 87.1 L (23 gal) fuel	14270 kg (31459 lb)						
MAX UN-BALLASTED WEIGHT							
Includes front PTO, cab suspension, IVT™/AutoPowr™, 650 front tires, 900 rear tires, dual pump, 85 L take-out, and front SCV's)	14299 kg (31523.9 lb)						

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IVT is a trademark of Deere & Company
AutoPowr is a trademark of Deere & Company

RW29387,0000187-19-13JUL18

Ground Speeds With 16 Speed PowerShift™ Transmission

Ground speeds are at rated engine speed of 2100 rpm (unless otherwise noted) using maximum tire rolling circumference.

Forward Speeds

Gear	Tire Group		
	47	48	49
	Maximum Rolling Circumference mm (in)		
	5850 (230)	6165 (243)	6495 (256)
	Maximum Ground Speed km/h (mph)		
	42 (26)	42 (26)	42 (26)
	km/h (mph)		
1	1.9 (1.2)	2.0 (1.2)	2.1 (1.3)
2	2.5 (1.5)	2.6 (1.6)	2.8 (1.7)
3	3.3 (2.0)	3.5 (2.2)	3.7 (2.3)
4	4.5 (2.8)	4.7 (2.9)	5.0 (3.0)
5	5.0 (3.1)	5.3 (3.3)	5.6 (3.4)
6	5.8 (3.6)	6.1 (3.8)	6.4 (4.0)
7	6.7 (4.2)	7.1 (4.4)	7.4 (4.6)
8	7.7 (4.8)	8.1 (5.0)	8.6 (5.3)
9	8.9 (5.5)	9.4 (5.8)	9.9 (6.2)
10	10.3 (6.4)	10.8 (6.8)	11.4 (7.1)
11	11.9 (7.4)	12.6 (7.8)	13.3 (8.3)
12	13.8 (8.6)	14.5 (9.0)	15.3 (9.5)
13	16.2 (10.1)	17.1 (10.7)	18.0 (11.2)
14	21.7 (13.5)	22.9 (14.2)	24.1 (15.0)
15	29.0 (18.0)	30.5 (19.0)	32.1 (20.0)
16	40.8 (25.3) @ 2210 erpm	42.0 (26.0) @ 2160 erpm	42.0 (26.0) @ 2050 erpm

Reverse Speeds

Gear	Tire Group		
	47	48	49
	Maximum Rolling Circumference mm (in)		
	5850 (230)	6165 (243)	6495 (256)
	Maximum Ground Speed km/h (mph)		
	42 (26)	42 (26)	42 (26)
	km/h (mph)		
R1	1.8 (1.1)	1.8 (1.2)	1.9 (1.2)
R2	4.7 (2.9)	4.9 (3.0)	5.2 (3.2)
R3	5.9 (3.7)	6.2 (3.9)	6.6 (4.1)
R4	10.8 (6.8)	11.4 (7.1)	12.0 (7.5)
R5	15.2 (9.4)	16.0 (10.0)	16.9 (10.5)

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Ground Speeds - e23™ Transmission

Ground speeds are at rated engine speed of 2100 rpm (unless otherwise noted) using maximum tire rolling circumference.

Forward Speeds

Tire Group	47		48		49	
Maximum Rolling Circumference mm (in)	5850 (230)		6165 (243)		6495 (256)	
Maximum Ground Speed km/h (mph)	42 (26)	50 (31)	42 (26)	50 (31)	42 (26)	50 (31)
Gear	km/h (mph)					
1	2.3 (1.4)		2.4 (1.4)		2.5 (1.5)	
2	2.6 (1.6)		2.8 (1.7)		2.9 (1.8)	
3	3.1 (1.9)		3.2 (1.9)		3.4 (2.1)	
4	3.6 (2.2)		3.7 (2.3)		3.9 (2.4)	
5	4.1 (2.5)		4.3 (2.6)		4.6 (2.8)	
6	4.8 (2.9)		5.0 (3.1)		5.3 (3.2)	
7	5.5 (3.4)		5.8 (3.6)		6.1 (3.7)	
8	6.4 (3.9)		6.7 (4.2)		7.1 (4.4)	
9	7.4 (4.5)		7.7 (4.7)		8.2 (5.0)	
10	8.5 (5.2)		9.0 (5.5)		9.5 (5.9)	
11	9.9 (6.1)		10.4 (6.4)		11.0 (6.8)	
12	11.4 (7.1)		12.1 (7.5)		12.7 (7.8)	
13	13.3 (8.2)		14.0 (8.6)		14.8 (9.1)	
14	15.3 (9.5)		16.1 (10.0)		16.9 (10.5)	
15	17.7 (10.1)		18.7 (11.6)		19.7 (12.2)	
16	20.2 (12.5)		21.3 (13.2)		22.4 (13.9)	
17	23.4 (14.5)		24.7 (15.3)		26.0 (16.1)	
18	27.2 (16.9)		28.6 (17.7)		30.2 (18.7)	
19	31.5 (19.5)		33.2 (20.6)		35.0 (21.7)	
20	36.5 (22.6)		38.4 (23.8)		40.5 (25.1)	
21	42.0 (26.1) @ 2080 erpm	42.4 (26.3)	42.0 (26.1) @ 1980 ECO erpm	44.6 (27.7)	42.0 (26.1) @ 1870 ECO erpm	47.0 (29.2)
22	42.0 @ (26.1) @ 1810 ECO erpm	48.6 (30.2)	42.0 (26.1) @ 1720 ECO erpm	51.3 (31.8)	42.0 (26.1) @ 1630 ECO erpm	53.5 (33.2) @ 2080 erpm
23	42.0 (26.1) @ 1560 ECO erpm	53.5 (33.2) @ 1990 ECO erpm	42.0 (26.1) @ 1480 ECO erpm	53.5 (33.2) @ 1890 ECO erpm	42.0 (26.1) @ 1400 ECO erpm	53.5 (33.2) @ 1790 ECO erpm

Reverse Speeds

Tire Group	47		48		49	
Maximum Rolling Circumference mm (in)	5850 (230)		6165 (243)		6495 (256)	
Maximum Ground Speed km/h (mph)	42 (26)	50 (31)	42 (26)	50 (31)	42 (26)	50 (31)
Gear	km/h (mph)					
R1	2.7 (1.6)		2.9 (1.8)		3.0 (1.8)	
R2	3.7 (2.2)		3.9 (2.4)		4.1 (2.5)	
R3	4.9 (3.0)		5.2 (3.2)		5.5 (3.4)	
R4	6.6 (4.1)		6.9 (4.2)		7.3 (4.5)	
R5	7.6 (4.7)		8.0 (4.9)		8.5 (5.2)	
R6	10.3 (6.4)		10.8 (6.7)		11.4 (7.0)	
R7	13.8 (8.5)		14.5 (9.0)		15.3 (9.5)	
R8	18.4 (11.4)		19.4 (12.0)		20.4 (12.6)	
R9	24.3 (15.0)		25.6 (15.9)		27.0 (16.7)	

Tire Group	47		48		49	
Maximum Rolling Circumference mm (in)	5850 (230)		6165 (243)		6495 (256)	
Maximum Ground Speed km/h (mph)	42 (26)	50 (31)	42 (26)	50 (31)	42 (26)	50 (31)
Gear	km/h (mph)					
R10	30.0 (18.6) @ 1930 ECO erpm		30.0 (18.6) @ 1830 ECO erpm		30.0 (18.6) @ 1740 ECO erpm	30.0 (18.6) @ 1730 ECO erpm
R11	30.0 (18.6) @ 1440 ECO erpm	30.0 (18.6) @ 1430 ECO erpm	30.0 (18.6) @ 1360 ECO erpm		30.0 (18.6) @ 1290 ECO erpm	

RD47322,0000597-19-05MAY17

Ground Speeds With IVT™/AutoPowr™ Transmission

Ground speed is infinitely variable from 20 km/h (12 mph) in reverse to 42 or 50 km/h (26 or 31 mph) in forward.

The chart lists minimum engine speed needed to maintain 42 or 50 km/h (26 or 31 mph) ground speed using rolling circumference shown. Transmission ratios up to give top speed until engine speed drops below rpm listed.

For example, in Auto mode at full throttle with Group 48 tires at 50 km/h (31 mph) ground speeds, if load pulls engine rpm down to 1710 rpm, ground speed will be 50 km/h (31 mph). If the load pulls engine rpm below 1710 rpm, ground speed will decrease.

In manual mode at full throttle, ground speed would also be 50 km/h (31 mph). The transmission will ratio back to give a top speed of 50 km/h (31 mph).

NOTE: Actual rpm may vary from those listed.

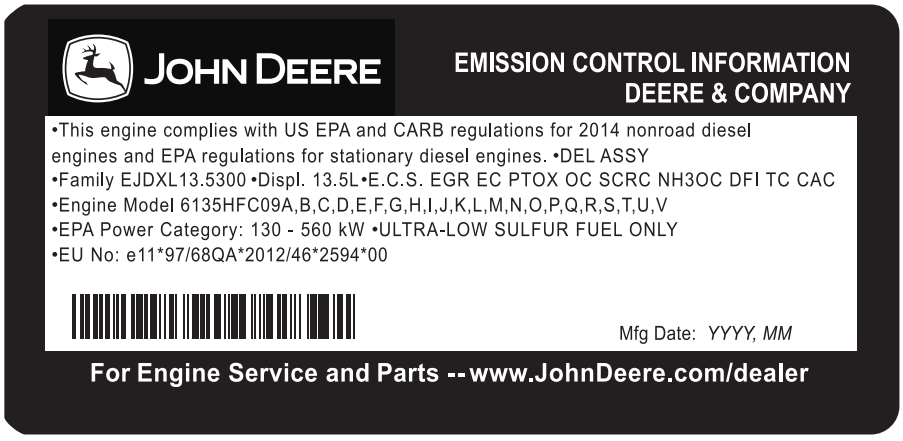
Tire sizes used are group nominal. Actual tires sizes can vary up to 2%.

Ground Speed km/h (mph)	Tire Group		
	47	48	49
	Maximum Rolling Circumference mm (in)		
	5850 (230)	6164 (243)	6497 (256)
42 (26)	1510 rpm[a]	1430 rpm[a]	1360 rpm[a]
50 (31)	1800 rpm[a]	1710 rpm[a]	1620 rpm[a]

[a] *Minimum engine speed*

RD47322,00005A0-19-05MAY17

Emissions Control System Certification Label



RG24291—UN—18SEP13

Engine Emissions Label

CAUTION: Statutes providing severe penalties for tampering with emissions controls may apply to the user or dealer.

The emissions warranty applies to those engines marketed by John Deere that have been certified by the United States Environmental Protection Agency (EPA)

and/or California Air Resources Board (CARB); and used in the United States and Canada in Non-road equipment. The presence of an emissions label like the one shown signifies that the engine has been certified with the EPA and/or CARB. The EPA and CARB warranties only apply to new engines having the certification label affixed to the engine and sold as stated above in the geographic areas. The presence of an EU number signifies that the engine has been certified with the European Union countries per Directive 97/68/EC. The EPA and/or CARB emissions warranties do not apply to the EU countries.

The emissions label has applicable US EPA and/or CARB regulatory year. The regulatory year determines which warranty statement is applicable to engine. See "EPA Non-road Emissions Control Warranty Statement —Compression Ignition" and "CARB Non-road Emissions Control Warranty Statement—Compression Ignition". For additional regulatory year warranty statements, see www.JohnDeere.com or contact the nearest John Deere service dealer for assistance.

Emission Control System(s) Laws

The U.S. EPA and California ARB prohibit the removal or rendering inoperative of any device or element of design installed on or in engines/equipment in compliance with applicable emission regulations prior to or after the sale and delivery of the engines/equipment to the ultimate purchaser.

DX,EMISSIONS,LABEL-19-01AUG14

EPA Non-road Emissions Control Warranty Statement—Compression Ignition

JOHN DEERE

DXLOGOV1—UN—28APR09

U.S. AND CANADA EMISSION CONTROL WARRANTY STATEMENT
YOUR WARRANTY RIGHTS AND OBLIGATIONS

To determine if the John Deere engine qualifies for the additional warranties set forth below, look for the "Emissions Control Information" label located on the engine. If the engine is operated in the United States or Canada and the Emissions Control information label states: "This engine complies with US EPA regulations for nonroad and stationary diesel engines", or "This engine conforms to US EPA nonroad compression-ignition regulations", refer to the "U.S. and Canada Emission Control Warranty Statement." If the engine is operated in California, and the label states: "This engine complies with US EPA and CARB regulations for nonroad diesel engines", or "This engine conforms to US EPA and California nonroad compression-ignition emission regulations", also refer to the "California Emission Control Warranty Statement."

Warranties stated on this certificate refer only to emissions-related parts and components of your engine. The complete engine warranty, less emissions-related parts and components, is provided separately. If you have any questions about your warranty rights and responsibilities, you should contact John Deere at 1-319-292-5400.

JOHN DEERE'S WARRANTY RESPONSIBILITY

John Deere warrants to the ultimate purchaser and each subsequent purchaser that this off-road diesel engine including all parts of its emission-control system was designed, built and equipped so as to conform at the time of the sale with Section 213 of the Clean Air Act and is free from defects in materials and workmanship which would cause the engine to fail to conform with applicable US EPA regulations for a period of five years from the date the engine is placed into service or 3,000 hours of operation, whichever first occurs.

Where a warrantable condition exists, John Deere will repair or replace, as it elects, any part or component with a defect in materials or workmanship that would increase the engine's emissions of any regulated pollutant within the stated warranty period at no cost to you, including expenses related to diagnosing and repairing or replacing emission-related parts. Warranty coverage is subject to the limitations and exclusions set forth herein. Emission- related components include engine parts developed to control emissions related to the following:

Air-Induction System
Fuel System
Ignition System
Exhaust Gas Recirculation Systems
Aftertreatment Devices
Crankcase Ventilation Valves
Sensors
Engine Electronic Control Units

EMISSION WARRANTY EXCLUSIONS

John Deere may deny warranty claims for malfunctions or failures caused by:

- Non-performance of maintenance requirements listed in the Operator's Manual
- The use of the engine/equipment in a manner for which it was not designed
- Abuse, neglect, improper maintenance or unapproved modifications or alterations
- Accidents for which it does not have responsibility or by acts of God

The off-road diesel engine is designed to operate on diesel fuel as specified in the Fuels, Lubricants and Coolants section in the Operators Manual. Use of any other fuel can harm the emissions control system of the engine/equipment and is not approved for use.

To the extent permitted by law John Deere is not liable for damage to other engine components caused by a failure of an emission-related part, unless otherwise covered by standard warranty.

THIS WARRANTY IS EXPRESSLY IN LIEU OF ANY OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. REMEDIES UNDER THIS WARRANTY ARE LIMITED TO THE PROVISIONS OF MATERIAL AND SERVICES AS SPECIFIED HEREIN. WHERE PERMITTED BY LAW, NEITHER JOHN DEERE NOR ANY AUTHORIZED JOHN DEERE ENGINE DISTRIBUTOR, DEALER, OR REPAIR FACILITY OR ANY COMPANY AFFILIATED WITH JOHN DEERE WILL BE LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES.

Emission_CI_EPA (18Dec09)

JOHN DEERE

U.S. AND CANADA EMISSION CONTROL WARRANTY STATEMENT
YOUR WARRANTY RIGHTS AND OBLIGATIONS

To determine if the John Deere engine qualifies for the additional warranties set forth below, look for the "Emissions Control Information" label located on the engine. If the engine is operated in the United States or Canada and the Emissions Control information label states: "This engine complies with US EPA regulations for nonroad and stationary diesel engines", or "This engine conforms to US EPA nonroad compression-ignition regulations", refer to the "U.S. and Canada Emission Control Warranty Statement." If the engine is operated in California, and the label states: "This engine complies with US EPA and CARB regulations for nonroad diesel engines", or "This engine conforms to US EPA and California nonroad compression-ignition emission regulations", also refer to the "California Emission Control Warranty Statement."

Warranties stated on this certificate refer only to emissions-related parts and components of your engine. The complete engine warranty, less emissions-related parts and components, is provided separately. If you have any questions about your warranty rights and responsibilities, you should contact John Deere at 1-319-292-5400.

JOHN DEERE'S WARRANTY RESPONSIBILITY

John Deere warrants to the ultimate purchaser and each subsequent purchaser that this off-road diesel engine including all parts of its emission-control system was designed, built and equipped so as to conform at the time of the sale with Section 213 of the Clean Air Act and is free from defects in materials and workmanship which would cause the engine to fail to conform with applicable US EPA regulations for a period of five years from the date the engine is placed into service or 3,000 hours of operation, whichever first occurs.

Where a warrantable condition exists, John Deere will repair or replace, as it elects, any part or component with a defect in materials or workmanship that would increase the engine's emissions of any regulated pollutant within the stated warranty period at no cost to you, including expenses related to diagnosing and repairing or replacing emission-related parts. Warranty coverage is subject to the limitations and exclusions set forth herein. Emission- related components include engine parts developed to control emissions related to the following:

Air-Induction System
Fuel System
Ignition System
Exhaust Gas Recirculation Systems
Aftertreatment Devices
Crankcase Ventilation Valves
Sensors
Engine Electronic Control Units

EMISSION WARRANTY EXCLUSIONS

John Deere may deny warranty claims for malfunctions or failures caused by:

- Non-performance of maintenance requirements listed in the Operator's Manual
- The use of the engine/equipment in a manner for which it was not designed
- Abuse, neglect, improper maintenance or unapproved modifications or alterations
- Accidents for which it does not have responsibility or by acts of God

The off-road diesel engine is designed to operate on diesel fuel as specified in the Fuels, Lubricants and Coolants section in the Operators Manual. Use of any other fuel can harm the emissions control system of the engine/equipment and is not approved for use.

To the extent permitted by law John Deere is not liable for damage to other engine components caused by a failure of an emission-related part, unless otherwise covered by standard warranty.

THIS WARRANTY IS EXPRESSLY IN LIEU OF ANY OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. REMEDIES UNDER THIS WARRANTY ARE LIMITED TO THE PROVISIONS OF MATERIAL AND SERVICES AS SPECIFIED HEREIN. WHERE PERMITTED BY LAW, NEITHER JOHN DEERE NOR ANY AUTHORIZED JOHN DEERE ENGINE DISTRIBUTOR, DEALER, OR REPAIR FACILITY OR ANY COMPANY AFFILIATED WITH JOHN DEERE WILL BE LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES.

Emission_CI_EPA (18Dec09)

TS1721—UN—15JUL13
DX,EMISSIONS,EPA-19-12DEC12

CARB Non-road Emissions Control Warranty Statement—Compression Ignition

Emissions Control Warranty Statement 2016 through 2018

JOHN DEERE

DXLOGOV1—UN—28APR09

CALIFORNIA EMISSIONS CONTROL WARRANTY STATEMENT

YOUR WARRANTY RIGHTS AND OBLIGATIONS

To determine if the John Deere engine qualifies for the additional warranties set forth below, look for the “Emission Control Information” label located on the engine. If the engine is operated in the United States or Canada and the engine label states: “This engine complies with US EPA regulations for nonroad and stationary diesel engines”, or “This engine complies with US EPA regulations for stationary emergency diesel engines”, refer to the “U.S. and Canada Emission Control Warranty Statement.” If the engine is operated in California, and the engine label states: “This engine complies with US EPA and CARB regulations for nonroad diesel engines” also refer to the “California Emissions Control Warranty Statement.”

Warranties stated on this certificate refer only to emissions-related parts and components of your engine. The complete engine warranty, less emission-related parts and components, is provided separately. If you have any questions about your warranty rights and responsibilities, you should contact John Deere at 1-319-292-5400.

CALIFORNIA EMISSIONS CONTROL WARRANTY STATEMENT:

The California Air Resources Board (CARB) is pleased to explain the emission-control system warranty on 2016 through 2018 off-road diesel engines. In California, new off-road engines must be designed, built and equipped to meet the State’s stringent anti-smog standards. John Deere must warrant the emission control system on your engine for the periods of time listed below provided there has been no abuse, neglect or improper maintenance of your engine.

Your emission control system may include parts such as the fuel injection system and the air induction system. Also included may be hoses, belts, connectors and other emission-related assemblies.

John Deere warrants to the ultimate purchaser and each subsequent purchaser that this off-road diesel engine was designed, built, and equipped so as to conform at the time of sale with all applicable regulations adopted by CARB and is free from defects in materials and workmanship which would cause the failure of a warranted part to be identical in all material respects to the part as described in John Deere's application for certification for a period of five years from the date the engine is delivered to an ultimate purchaser or 3,000 hours of operation, whichever occurs first for all engines rated at 19 kW and greater. In the absence of a device to measure hours of use, the engine shall be warranted for a period of five years.

EMISSIONS WARRANTY EXCLUSIONS:

John Deere may deny warranty claims for failures caused by the use of an add-on or modified part which has not been exempted by the CARB. A modified part is an aftermarket part intended to replace an original emission-related part which is not functionally identical in all respects and which in any way affects emissions. An add-on part is any aftermarket part which is not a modified part or a replacement part.

In no event will John Deere, any authorized engine distributor, dealer, or repair facility, or any company affiliated with John Deere be liable for incidental or consequential damage.

JOHN DEERE'S WARRANTY RESPONSIBILITY:

Where a warrantable condition exists, John Deere will repair or replace, as it elects, your off-road diesel engine at no cost to you, including diagnosis, parts or labor. Warranty coverage is subject to the limitations and exclusions set forth herein. The off-road diesel engine is warranted for a period of five years from the date the engine is delivered to an ultimate purchaser or 3,000 hours of operation, whichever occurs first. The following are emissions-related parts:

Air Induction System
- Intake manifold
- Turbocharger
- Charge air cooler

Fuel Metering system
- Fuel injection system

Exhaust Gas Recirculation
- EGR valve

Catalyst or Thermal Reactor Systems
- Catalytic converter
- Exhaust manifold

Emission control labels

Particulate Controls
- Any device used to capture particulate emissions
- Any device used in the regeneration of the capturing system
- Enclosures and manifolding
- Smoke Puff Limiters

Positive Crankcase Ventilation (PCV) System
- PCV valve
- Oil filler cap

Advanced Oxides of Nitrogen (NOx) Controls
- NOx absorbers and catalysts

SCR systems and urea containers/dispensing systems

Miscellaneous Items used in Above Systems
- Electronic control units, sensors, actuators, wiring harnesses, hoses, connectors, clamps, fittings, gasket, mounting hardware

Any warranted emissions-related part scheduled for replacement as required maintenance is warranted by John Deere for the period of time prior to the first scheduled replacement point for the part. Any warranted emissions-related part not scheduled for replacement as required maintenance or scheduled only for regular inspection is warranted by John Deere for the stated warranty period.

OWNER'S WARRANTY RESPONSIBILITIES:

As the off-road diesel engine owner you are responsible for the performance of the required maintenance listed in your Operator's Manual. John Deere recommends that the owner retain all receipts covering maintenance on the off-road diesel engine, but John Deere cannot deny warranty solely for the lack of receipts or for the owner's failure to ensure the performance of all scheduled maintenance. However, as the off-road diesel engine owner, you should be aware that John Deere may deny you warranty coverage if your off-road diesel engine or a part has failed due to abuse, neglect, improper maintenance or unapproved modifications.

The off-road diesel engine is designed to operate on diesel fuel as specified in the Fuels, Lubricants and Coolants section in the Operators Manual. Use of any other fuel may result in the engine no longer operating in compliance with applicable emissions requirements.

The owner is responsible for initiating the warranty process, and should present the machine to the nearest authorized John Deere dealer as soon as a problem is suspected. The warranty repairs should be completed by the authorized John Deere dealer as quickly as possible.

Emissions regulations require the customer to bring the unit to an authorized servicing dealer when warranty service is required. As a result, John Deere is NOT liable for travel or mileage on emissions warranty service calls.

Emission_CI_CARB (13Jun14)

Emissions Control Warranty Statement 2016 through 2018

DXLOGOV1 —UN—28APR09

JOHN DEERE

CALIFORNIA EMISSIONS CONTROL WARRANTY STATEMENT
YOUR WARRANTY RIGHTS AND OBLIGATIONS

To determine if the John Deere engine qualifies for the additional warranties set forth below, look for the “Emission Control Information” label located on the engine. If the engine is operated in the United States or Canada and the engine label states: “This engine complies with US EPA regulations for nonroad and stationary diesel engines”, or “This engine complies with US EPA regulations for stationary emergency diesel engines”, refer to the “U.S. and Canada Emission Control Warranty Statement.” If the engine is operated in California, and the engine label states: “This engine complies with US EPA and CARB regulations for nonroad diesel engines” also refer to the “California Emissions Control Warranty Statement.”

Warranties stated on this certificate refer only to emissions-related parts and components of your engine. The complete engine warranty, less emission-related parts and components, is provided separately. If you have any questions about your warranty rights and responsibilities, you should contact John Deere at 1-319-292-5400.

CALIFORNIA EMISSIONS CONTROL WARRANTY STATEMENT:

The California Air Resources Board (CARB) is pleased to explain the emission-control system warranty on 2016 through 2018 off-road diesel engines. In California, new off-road engines must be designed, built and equipped to meet the State’s stringent anti-smog standards. John Deere must warrant the emission control system on your engine for the periods of time listed below provided there has been no abuse, neglect or improper maintenance of your engine.

Your emission control system may include parts such as the fuel injection system and the air induction system. Also included may be hoses, belts, connectors and other emission-related assemblies.

John Deere warrants to the ultimate purchaser and each subsequent purchaser that this off-road diesel engine was designed, built, and equipped so as to conform at the time of sale with all applicable regulations adopted by CARB and is free from defects in materials and workmanship which would cause the failure of a warranted part to be identical in all material respects to the part as described in John Deere's application for certification for a period of five years from the date the engine is delivered to an ultimate purchaser or 3,000 hours of operation, whichever occurs first for all engines rated at 19 kW and greater. In the absence of a device to measure hours of use, the engine shall be warranted for a period of five years.

EMISSIONS WARRANTY EXCLUSIONS:

John Deere may deny warranty claims for failures caused by the use of an add-on or modified part which has not been exempted by the CARB. A modified part is an aftermarket part intended to replace an original emission-related part which is not functionally identical in all respects and which in any way affects emissions. An add-on part is any aftermarket part which is not a modified part or a replacement part.

In no event will John Deere, any authorized engine distributor, dealer, or repair facility, or any company affiliated with John Deere be liable for incidental or consequential damage.

RG26035—UN—24JUN14

JOHN DEERE'S WARRANTY RESPONSIBILITY:

Where a warrantable condition exists, John Deere will repair or replace, as it elects, your off-road diesel engine at no cost to you, including diagnosis, parts or labor. Warranty coverage is subject to the limitations and exclusions set forth herein. The off-road diesel engine is warranted for a period of five years from the date the engine is delivered to an ultimate purchaser or 3,000 hours of operation, whichever occurs first. The following are emissions-related parts:

Air Induction System

- Intake manifold
- Turbocharger
- Charge air cooler

Fuel Metering system

- Fuel injection system

Exhaust Gas Recirculation

- EGR valve

Catalyst or Thermal Reactor Systems

- Catalytic converter
- Exhaust manifold

Emission control labels

Particulate Controls

- Any device used to capture particulate emissions
- Any device used in the regeneration of the capturing system
- Enclosures and manifolding
- Smoke Puff Limiters

Positive Crankcase Ventilation (PCV) System

- PCV valve
- Oil filler cap

Advanced Oxides of Nitrogen (NOx) Controls

- NOx absorbers and catalysts

SCR systems and urea containers/dispensing systems

Miscellaneous Items used in Above Systems

- Electronic control units, sensors, actuators, wiring harnesses, hoses, connectors, clamps, fittings, gasket, mounting hardware

Any warranted emissions-related part scheduled for replacement as required maintenance is warranted by John Deere for the period of time prior to the first scheduled replacement point for the part. Any warranted emissions-related part not scheduled for replacement as required maintenance or scheduled only for regular inspection is warranted by John Deere for the stated warranty period.

OWNER'S WARRANTY RESPONSIBILITIES:

As the off-road diesel engine owner you are responsible for the performance of the required maintenance listed in your Operator's Manual. John Deere recommends that the owner retain all receipts covering maintenance on the off-road diesel engine, but John Deere cannot deny warranty solely for the lack of receipts or for the owner's failure to ensure the performance of all scheduled maintenance. However, as the off-road diesel engine owner, you should be aware that John Deere may deny you warranty coverage if your off-road diesel engine or a part has failed due to abuse, neglect, improper maintenance or unapproved modifications.

The off-road diesel engine is designed to operate on diesel fuel as specified in the Fuels, Lubricants and Coolants section in the Operators Manual. Use of any other fuel may result in the engine no longer operating in compliance with applicable emissions requirements.

The owner is responsible for initiating the warranty process, and should present the machine to the nearest authorized John Deere dealer as soon as a problem is suspected. The warranty repairs should be completed by the authorized John Deere dealer as quickly as possible.

Emissions regulations require the customer to bring the unit to an authorized servicing dealer when warranty service is required. As a result, John Deere is NOT liable for travel or mileage on emissions warranty service calls.

Emission_CI_CARB (13Jun14)

RG26036—UN—24JUN14

Emissions Control Warranty Statement 2019 through 2021

JOHN DEERE

DXLOGOV1—UN—28APR09

CALIFORNIA EMISSIONS CONTROL WARRANTY STATEMENT
YOUR WARRANTY RIGHTS AND OBLIGATIONS

To determine if the John Deere engine qualifies for the additional warranties set forth below, look for the "Emission Control Information" label located on the engine. If the engine is operated in the United States or Canada and the engine label states: "This engine complies with US EPA regulations for nonroad and stationary diesel engines", or "This engine complies with US EPA regulations for stationary emergency diesel engines", refer to the "U.S. and Canada Emission Control Warranty Statement." If the engine is operated in California, and the engine label states: "This engine complies with US EPA and CARB regulations for nonroad diesel engines" also refer to the "California Emissions Control Warranty Statement."

Warranties stated on this certificate refer only to emissions-related parts and components of your engine. The complete engine warranty, less emission-related parts and components, is provided separately. If you have any questions about your warranty rights and responsibilities, you

should contact John Deere at 1-319-292-5400.

CALIFORNIA EMISSIONS CONTROL WARRANTY STATEMENT:

The California Air Resources Board (CARB) is pleased to explain the emission-control system warranty on 2019 through 2021 off-road diesel engines. In California, new off-road engines must be designed, built and equipped to meet the State's stringent anti-smog standards. John Deere must warrant the emission control system on your engine for the periods of time listed below provided there has been no abuse, neglect or improper maintenance of your engine.

Your emission control system may include parts such as the fuel injection system and the air induction system. Also included may be hoses, belts, connectors and other emission-related assemblies.

John Deere warrants to the ultimate purchaser and each subsequent purchaser that this off-road diesel engine was designed, built, and equipped so as to conform at the time of sale with all applicable regulations adopted by CARB and is free from defects in materials and workmanship which would cause the failure of a warranted part to be identical in all material respects to the part as described in John Deere's application for certification for a period of five years from the date the engine is delivered to an ultimate purchaser or 3,000 hours of operation, whichever occurs first for all engines rated at 19 kW and greater. In the absence of a device to measure hours of use, the engine shall be warranted for a period of five years.

EMISSIONS WARRANTY EXCLUSIONS:

John Deere may deny warranty claims for failures caused by the use of an add-on or modified part which has not been exempted by the CARB. A modified part is an aftermarket part intended to replace an original emission-related part which is not functionally identical in all respects and which in any way affects emissions. An add-on part is any aftermarket part which is not a modified part or a replacement part.

In no event will John Deere, any authorized engine distributor, dealer, or repair facility, or any company affiliated with John Deere be liable for incidental or consequential damage.

JOHN DEERE'S WARRANTY RESPONSIBILITY:

Where a warrantable condition exists, John Deere will repair or replace, as it elects, your off-road diesel engine at no cost to you, including diagnosis, parts or labor. Warranty coverage is subject to the limitations and exclusions set forth herein. The off-road diesel engine is warranted for a period of five years from the date the engine is delivered to an ultimate purchaser or 3,000 hours of operation, whichever occurs first. The following are emissions-related parts:

Air Induction System
- Intake manifold
- Turbocharger
- Charge air cooler

Fuel Metering system
- Fuel injection system

Exhaust Gas Recirculation
- EGR valve

Catalyst or Thermal Reactor Systems
- Catalytic converter
- Exhaust manifold

Emission control labels

Particulate Controls
- Any device used to capture particulate emissions
- Any device used in the regeneration of the capturing system
- Enclosures and manifolding
- Smoke Puff Limiters

Positive Crankcase Ventilation (PCV) System
- PCV valve
- Oil filler cap

Advanced Oxides of Nitrogen (NOx) Controls
- NOx absorbers and catalysts

SCR systems and urea containers/dispensing systems

Miscellaneous Items used in Above Systems
- Electronic control units, sensors, actuators, wiring harnesses, hoses, connectors, clamps, fittings, gasket, mounting hardware

Any warranted emissions-related part scheduled for replacement as required maintenance is warranted by John Deere for the period of time prior to the first scheduled replacement point for the part. Any warranted emissions-related part not scheduled for replacement as required maintenance or scheduled only for regular inspection is warranted by John Deere for the stated warranty period.

OWNER'S WARRANTY RESPONSIBILITIES:

As the off-road diesel engine owner you are responsible for the performance of the required maintenance listed in your Operator's Manual. John Deere recommends that the owner retain all receipts covering maintenance on the off-road diesel engine, but John Deere cannot deny warranty solely for the lack of receipts or for the owner's failure to ensure the performance of all scheduled maintenance. However, as the off-road diesel engine owner, you should be aware that John Deere may deny you warranty coverage if your off-road diesel engine or a part has failed due to abuse, neglect, improper maintenance or unapproved modifications.

The off-road diesel engine is designed to operate on diesel fuel as specified in the Fuels, Lubricants and Coolants section in the Operators Manual. Use of any other fuel may result in the engine no longer operating in compliance with applicable emissions requirements.

The owner is responsible for initiating the warranty process, and should present the machine to the nearest authorized John Deere dealer as soon as a problem is suspected. The warranty repairs should be completed by the authorized John Deere dealer as quickly as possible.

Emissions regulations require the customer to bring the unit to an authorized servicing dealer when warranty service is required. As a result, John Deere is NOT liable for travel or mileage on emissions warranty service calls.

Emission_CI_CARB (01Feb17)

Emissions Control Warranty Statement 2019 through 2021

DXLOGOV1 —UN—28APR09

JOHN DEERE

CALIFORNIA EMISSIONS CONTROL WARRANTY STATEMENT
YOUR WARRANTY RIGHTS AND OBLIGATIONS

To determine if the John Deere engine qualifies for the additional warranties set forth below, look for the "Emission Control Information" label located on the engine. If the engine is operated in the United States or Canada and the engine label states: "This engine complies with US EPA regulations for nonroad and stationary diesel engines", or "This engine complies with US EPA regulations for stationary emergency diesel engines", refer to the "U.S. and Canada Emission Control Warranty Statement." If the engine is operated in California, and the engine label states: "This engine complies with US EPA and CARB regulations for nonroad diesel engines" also refer to the "California Emissions Control Warranty Statement."

Warranties stated on this certificate refer only to emissions-related parts and components of your engine. The complete engine warranty, less emission-related parts and components, is provided separately. If you have any questions about your warranty rights and responsibilities, you should contact John Deere at 1-319-292-5400.

CALIFORNIA EMISSIONS CONTROL WARRANTY STATEMENT:

The California Air Resources Board (CARB) is pleased to explain the emission-control system warranty on 2019 through 2021 off-road diesel engines. In California, new off-road engines must be designed, built and equipped to meet the State's stringent anti-smog standards. John Deere must warrant the emission control system on your engine for the periods of time listed below provided there has been no abuse, neglect or improper maintenance of your engine.

Your emission control system may include parts such as the fuel injection system and the air induction system. Also included may be hoses, belts, connectors and other emission-related assemblies.

John Deere warrants to the ultimate purchaser and each subsequent purchaser that this off-road diesel engine was designed, built, and equipped so as to conform at the time of sale with all applicable regulations adopted by CARB and is free from defects in materials and workmanship which would cause the failure of a warranted part to be identical in all material respects to the part as described in John Deere's application for certification for a period of five years from the date the engine is delivered to an ultimate purchaser or 3,000 hours of operation, whichever occurs first for all engines rated at 19 kW and greater. In the absence of a device to measure hours of use, the engine shall be warranted for a period of five years.

EMISSIONS WARRANTY EXCLUSIONS:

John Deere may deny warranty claims for failures caused by the use of an add-on or modified part which has not been exempted by the CARB. A modified part is an aftermarket part intended to replace an original emission-related part which is not functionally identical in all respects and which in any way affects emissions. An add-on part is any aftermarket part which is not a modified part or a replacement part.

In no event will John Deere, any authorized engine distributor, dealer, or repair facility, or any company affiliated with John Deere be liable for incidental or consequential damage.

RG29280—UN—02FEB17

JOHN DEERE'S WARRANTY RESPONSIBILITY:

Where a warrantable condition exists, John Deere will repair or replace, as it elects, your off-road diesel engine at no cost to you, including diagnosis, parts or labor. Warranty coverage is subject to the limitations and exclusions set forth herein. The off-road diesel engine is warranted for a period of five years from the date the engine is delivered to an ultimate purchaser or 3,000 hours of operation, whichever occurs first. The following are emissions-related parts:

Air Induction System

- Intake manifold
- Turbocharger
- Charge air cooler

Fuel Metering system

- Fuel injection system

Exhaust Gas Recirculation

- EGR valve

Catalyst or Thermal Reactor Systems

- Catalytic converter
- Exhaust manifold

Emission control labels

Particulate Controls

- Any device used to capture particulate emissions
- Any device used in the regeneration of the capturing system
- Enclosures and manifolding
- Smoke Puff Limiters

Positive Crankcase Ventilation (PCV) System

- PCV valve
- Oil filler cap

Advanced Oxides of Nitrogen (NOx) Controls

- NOx absorbers and catalysts

SCR systems and urea containers/dispensing systems

Miscellaneous Items used in Above Systems

- Electronic control units, sensors, actuators, wiring harnesses, hoses, connectors, clamps, fittings, gasket, mounting hardware

Any warranted emissions-related part scheduled for replacement as required maintenance is warranted by John Deere for the period of time prior to the first scheduled replacement point for the part. Any warranted emissions-related part not scheduled for replacement as required maintenance or scheduled only for regular inspection is warranted by John Deere for the stated warranty period.

OWNER'S WARRANTY RESPONSIBILITIES:

As the off-road diesel engine owner you are responsible for the performance of the required maintenance listed in your Operator's Manual. John Deere recommends that the owner retain all receipts covering maintenance on the off-road diesel engine, but John Deere cannot deny warranty solely for the lack of receipts or for the owner's failure to ensure the performance of all scheduled maintenance. However, as the off-road diesel engine owner, you should be aware that John Deere may deny you warranty coverage if your off-road diesel engine or a part has failed due to abuse, neglect, improper maintenance or unapproved modifications.

The off-road diesel engine is designed to operate on diesel fuel as specified in the Fuels, Lubricants and Coolants section in the Operators Manual. Use of any other fuel may result in the engine no longer operating in compliance with applicable emissions requirements.

The owner is responsible for initiating the warranty process, and should present the machine to the nearest authorized John Deere dealer as soon as a problem is suspected. The warranty repairs should be completed by the authorized John Deere dealer as quickly as possible.

Emissions regulations require the customer to bring the unit to an authorized servicing dealer when warranty service is required. As a result, John Deere is NOT liable for travel or mileage on emissions warranty service calls.

Emission_CI_CARB (01Feb17)

RG29281—UN—27FEB17
DX,EMISSIONS,CARB-19-03FEB17

Required Emission-Related Information

Service Provider

A qualified repair shop or person of the owner's choosing may maintain, replace, or repair emission control devices and systems with original or equivalent replacement parts. However, warranty, recall, and all other services paid for by John Deere must be performed at an authorized John Deere service center.

DX,EMISSIONS,REQINFO-19-12JUN15

Limited Battery Warranty

NOTE: Applicable in North America only. For complete machine warranty, reference a copy of the John Deere warranty statement. Contact your John Deere dealer to obtain a copy.

To Secure Warranty Service

The purchaser must request warranty service from a John Deere dealer authorized to sell John Deere batteries, and present the battery to the dealer with the top cover plate codes intact.

Free Replacement

Any new battery which becomes unserviceable (not merely discharged) due to defects in material or workmanship within 90 days of purchase will be replaced free of charge. Installation costs will be covered by warranty if (1) the unserviceable battery was installed by a John Deere factory or dealer, (2) failure occurs within 90 days of purchase, and (3) the replacement battery is installed by a John Deere dealer.

Pro Rata Adjustment

Any new battery which becomes unserviceable (not merely discharged) due to defects in material or workmanship more than 90 days after purchase, but before the expiration of the applicable adjustment period, will be replaced upon payment of the battery's current list price less a pro rata credit for unused months of service. The applicable adjustment period is determined from the Warranty Code printed at the top of the battery and chart below. Installation costs are not covered by warranty after 90 days from the date of purchase.

This Warranty Does Not Cover

Breakage of the container, cover, or terminals.

Depreciation or damage caused by lack of reasonable and necessary maintenance or by improper maintenance.

Transportation, mailing, or service call charges for warranty service.

Limitation of Implied Warranties and Purchaser's Remedies

To the extent permitted by law, neither John Deere nor any company affiliated with it makes any warranties, representations or promises as to the quality, performance or freedom from defect of the products covered by this warranty. IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, TO THE EXTENT APPLICABLE, SHALL BE LIMITED IN DURATION TO THE APPLICABLE ADJUSTMENT PERIOD SET FORTH HERE. THE PURCHASER'S ONLY REMEDIES IN CONNECTION WITH THE BREACH OR PERFORMANCE OF ANY WARRANTY ON JOHN DEERE BATTERIES ARE THOSE SET FORTH HERE. IN NO EVENT WILL THE DEALER, JOHN DEERE OR ANY COMPANY AFFILIATED WITH JOHN DEERE BE LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES. (Note: Some states do not allow limitations on how long an implied warranty lasts or the exclusion or limitation of incidental or consequential damages. So these limitations and exclusions may not apply to you.) This warranty gives you specific legal rights, and you may also have some rights which vary from state to state.

No Dealer Warranty

The selling dealer makes no warranty of it's own and the dealer has no authority to make any representation or promise on behalf of John Deere, or to modify the terms or limitations of this warranty in any way.

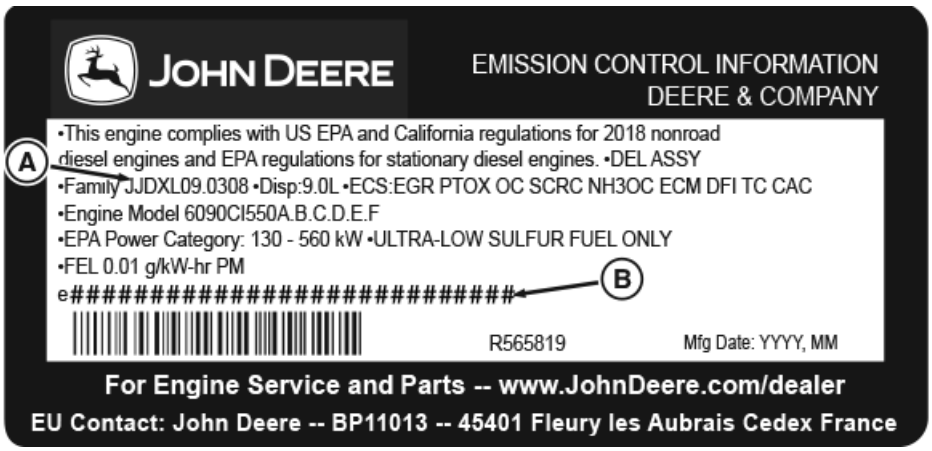
Pro Rata Months of Adjustment

Warranty Code	Warranty Period
A	40 Months
B	36 Months
C	24 Months

NOTE: If your battery is not labeled with a warranty code, it is a warranty code "B".

DX,BATWAR,NA-19-16APR92

Carbon Dioxide Emissions (CO_2)



Engine Emissions Label

A—Family

B—Europe Family

NOTE: If your engine emissions label lists both a family number (A) and a Europe family number (B), reference the Europe family number using the chart.

NOTE: The first letter of the family number is not utilized for family identification on the chart.

To identify the carbon dioxide (CO_2) output, locate the engine emissions label. Find the appropriate family on the emissions label and reference the chart.

Family	CO_2 Output
_JDXL02.9323	668 g/kWh
_JDXL06.8324	683 g/kWh
_JDXL09.0325	646 g/kWh
_JDXL13.5326	661 g/kWh

This CO_2 measurement results from testing over a fixed test cycle under laboratory conditions a(n) (parent) engine representative of the engine type (engine family) and shall not imply or express any guarantee of the performance of a particular engine.

DX,EMISSIONS,CO2-19-12JAN18

Identification Numbers

Identification Plates

Each tractor has the identification plates shown on these pages. The letters and numbers stamped on the plates identify a component or assembly. ALL these characters are needed when ordering parts or identifying a tractor or component for any John Deere product support program.

Also, they are needed for law enforcement to trace your tractor if it is ever stolen. ACCURATELY record these characters in the spaces provided in each of the following photographs. Additionally in a separate and secure location, maintain an up-to-date inventory of all product and component serial numbers.

RW29387,00003B7-19-22JUN16

Product Identification Number

Product Identification Number

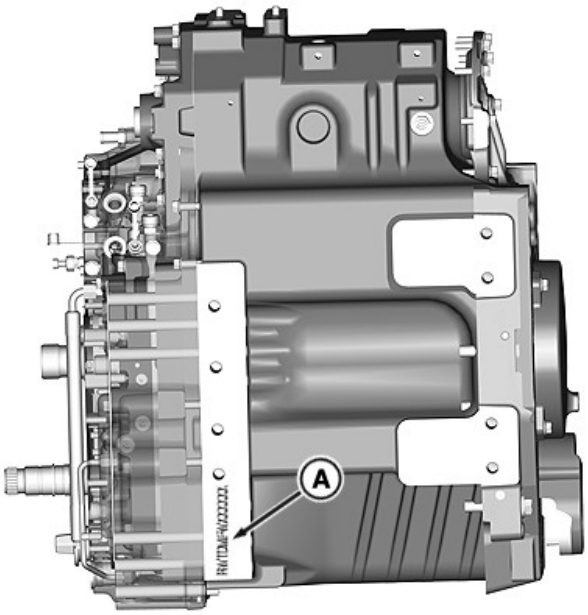
*_ _ _ _

Transmission Serial Number

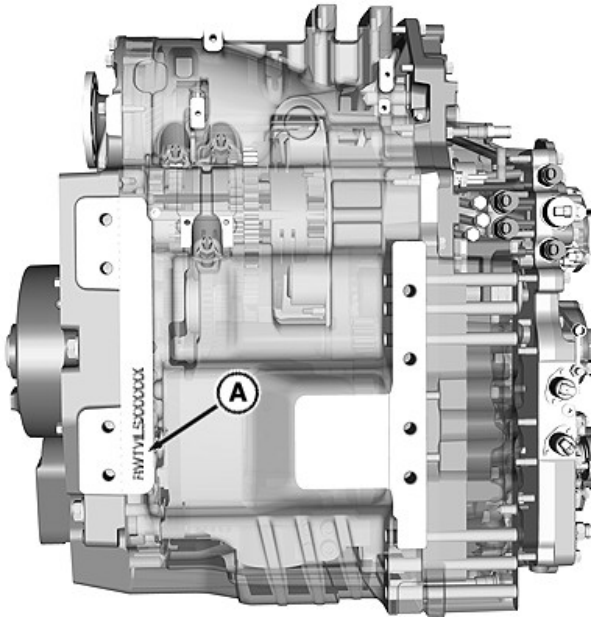
Serial Number

_____

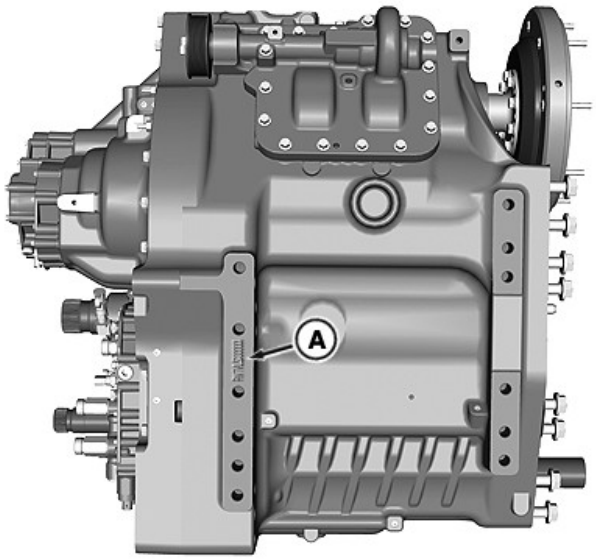
Record serial number (A) in space provided.



RXA0144022—UN—05AUG14
16-Speed Transmission (Stamped Into Right-Hand Side)



RXA0144023—UN—05AUG14
IVT™/AutoPowr™ Transmission (Stamped Into Left-Hand Side)



RXA0144024—UN—05AUG14
e23™ Transmission (Stamped Into Left-Hand Side)

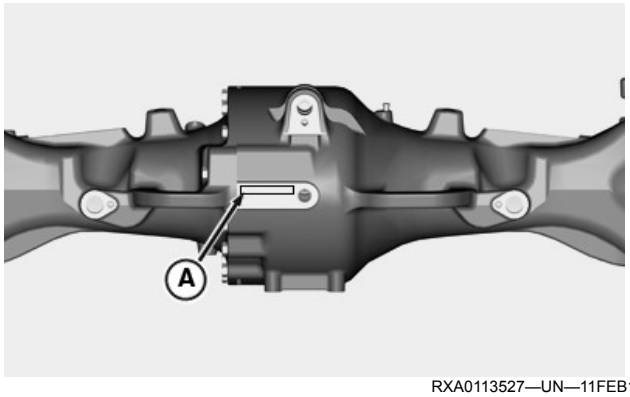
EC82310,0000070-19-05JUL17

Axle Serial Number

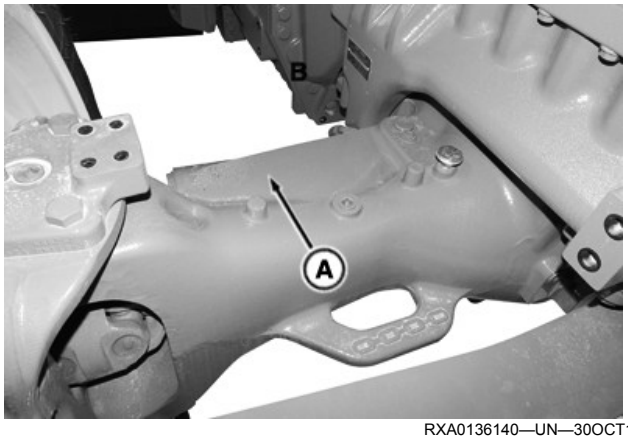
Serial Number

_____

Record serial number (A) in space provided.

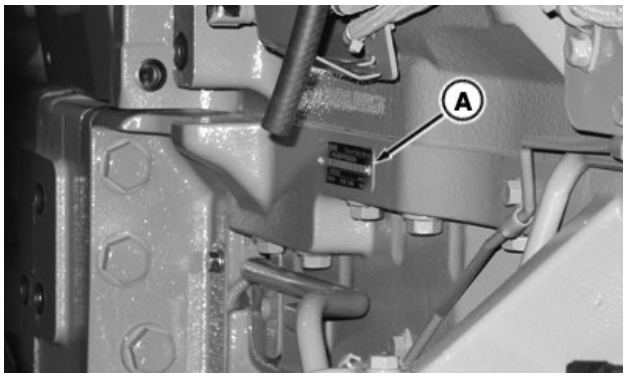


RXA0113527—UN—11FEB11
1300 MFWD Axle (Stamped Into Front of MFWD Axle Housing)



RXA0136140—UN—30OCT13

1500 MFWD Axle (Stamped Into Top of Right-Hand Axle Housing)



RXA0136542—UN—06NOV13

ILS™ Front Axle (Plate On Right-Hand Side of Tractor)

EC82310,0000073-19-05JUL17

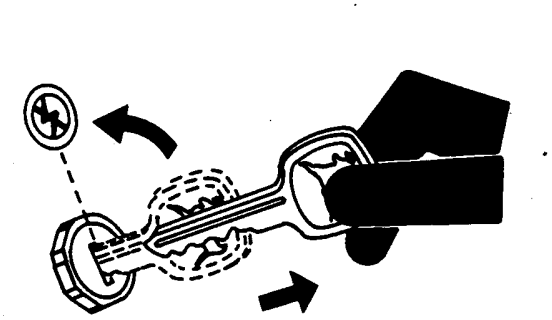
Keep Proof of Ownership

TS1680—UN—09DEC03

1. Maintain in a secure location an up-to-date inventory of all product and component serial numbers.
2. Regularly verify that identification plates have not been removed. Report any evidence of tampering to law enforcement agencies and order duplicate plates.
3. Other steps you can take:
   - Mark your machine with your own numbering system
   - Take color photographs from several angles of each machine

DX,SECURE1-19-18NOV03

Keep Machines Secure



TS230—UN—24MAY89

1. Install vandal-proof devices.
2. When machine is in storage:
   - Lower equipment to the ground
   - Set wheels to widest position to make loading more difficult
   - Remove any keys and batteries
3. When parking indoors, put large equipment in front of exits and lock your storage buildings.
4. When parking outdoors, store in a well-lighted and fenced area.
5. Make note of suspicious activity and report any thefts immediately to law enforcement agencies.
6. Notify your John Deere dealer of any losses.

DX,SECURE2-19-18NOV03

Change of Ownership

Subsequent Ownership

Second Owner

Serial Number:	Tractor Model:
Engine Number:	Registration Number:
Previous Owner:	New Owner:
Address:	Address: . . . .
Purchase Date: Hours at Purchase:	Dealer's Stamp *(only if sold through a dealer)*

Third Owner

Serial Number:	Tractor Model:
Engine Number:	Registration Number:
Previous Owner:	New Owner:
Address:	Address: . . . .
Purchase Date: Hours at Purchase:	Dealer's Stamp *(only if sold through a dealer)*

TS36762,000029B-19-23NOV16

Predelivery

Predelivery Checklist

NOTE: Make a copy of this checklist and complete while performing.

NOTE: Tractor may not be equipped with some options listed.

The following inspection, adjustment and service work was performed prior to delivery of this machine.

Perform air conditioning pre-run procedure:

IMPORTANT: Reduce chance of air conditioning compressor damage. Complete pre-run procedure when tractor:

Arrived at dealership

Has not been run for over 29 days

☐ 1. Start tractor and run engine low idle.
☐ 2. Turn air conditioning system to high.
☐ 3. Air cleaner elements are installed correctly.
☐ 4. Run tractor for at least three minutes.
☐ 5. Shut off tractor.

Perform following checks before operating tractor:

☐ 1. Engine oil level is between low and full marks.
☐ 2. Coolant level is correct.
☐ 3. Air cleaner elements are installed correctly.
☐ 4. Air intake system clamps are tight.
☐ 5. Transmission-hydraulic and axle oil levels are correct.
☐ 6. Lubrication fittings are greased.
☐ 7. Shields, guards, handrails and steps are installed correctly.
☐ 8. Exterior and interior labels are smooth and neat.

Tractor is free of:

☐ 9. Coolant leaks.
☐ 10. Engine oil leaks.
☐ 11. Fuel leaks.
☐ 12. Transmission, hydraulic and axle oil leaks.
☐ 13. Paint defects.

Perform checks inside cab:

☐ 1. Check for diagnostic trouble codes. If codes are present, record codes and see Service ADVISOR™ to resolve and repair as needed. Clear all codes.
☐ 2. All brake systems operate correctly.
- Service brakes
- Parking brake
- Hydraulic or air trailer brake (if equipped)
- Secondary brake (If equipped)

☐ 3. Transmission operates correctly (including PARK position).
☐ 4. Neutral start switch operates correctly.
☐ 5. SCVs operate correctly.
☐ 6. Rear and front hitches operate correctly.
☐ 7. Rear and front PTOs operate correctly.
☐ 8. Warning system lights and instrument displays and gauges operate correctly.
☐ 9. All lights operate correctly in all switch positions.
☐ 10. Engine fast and slow idle are set correctly.
☐ 11. Seat can be adjusted properly.
☐ 12. Check seat belt integrity. Seat belt latches function correctly.
☐ 13. Doors operate correctly.
☐ 14. Cab is clean and upholstery appearance neat.
☐ 15. Premium radio region code set for location.
☐ 16. Radio operates correctly.
☐ 17. Washers and wipers operate correctly.
☐ 18. Heater, ventilation and air conditioning system operates correctly. For details see separate information leaflet in tractor cab.
☐ 19. All optional equipment is installed and operates correctly.

Dealer Services:

☐ 1. Thoroughly wash tractor.
☐ 2. Charge battery and set battery date code.
☐ 3. Replace transport rain cap with muffler extension.
☐ 4. Check and adjust tire pressure.
☐ 5. Adjust wheel spacing for customer needs.
☐ 6. Check track tread settings and track alignment.
☐ 7. Check and adjust toe-in, pivoting fenders and steering stops.

IMPORTANT: Failure to follow track tractor road transport recommendations may void tractor warranty, see Transport section and General Track Use Guidelines in Tracks – General Information section of this Operator's Manual.

☐ 8. Perform track system break-in procedure, see Perform Track Systems Break-In in Break-In Service (100 Hours or Less) section of this Operator's Manual.

IMPORTANT: Retighten wheel bolts after working 3 hours and again after 10 hours. Continue to tighten to specified torque daily during first week of operation.

- ☐ 9. Tighten wheels and weights to specifications (even if no adjustments are made).
- ☐ 10. Tighten track drive wheel, drive wheel sleeve, idler wheel and mid-roller cap screws to specifications (even if no adjustments are made).
- ☐ 11. Tighten loader bracket hardware to specifications.
- ☐ 12. Reposition all components from shipping to operating positions (for example, mirrors.)
- ☐ 13. Adjust all lights, including extremity transport warning lights and beacon light. Check all lights for compliance with local regulations.
- ☐ 14. Adjust hitch components and lock in position.
- ☐ 15. Install Slow Moving Vehicle emblem (if required).
- ☐ 16. Check optional trailer hitches for proper operation.
- ☐ 17. If a loader is installed and tractor is equipped with TouchSet™ hydraulic control, ensure that detent times are set to 0. Recalibrate joystick (if required).
- ☐ 18. Set up CommandCenter™ display to customer preference.
- ☐ 19. Activate Automatic Exhaust Cleaning Mode in CommandCenter™.
- ☐ 20. Install StarFire™ receiver.
- ☐ 21. Set up JDLink™ customer account.
- ☐ 22. Perform test drive. Verify correct function of all systems, including transmission, brakes, and steering.
- ☐ 23. Calibrate radar.
- ☐ 24. Check for diagnostic trouble codes. If codes are present, record codes and see Service ADVISOR™ to resolve and repair as needed. Clear all codes.

Date and signature of dealer/service technician:

BH38674,0000D35-19-29JUN18

TouchSet is a trademark of Deere & Company
CommandCenter is a trademark of Deere & Company
StarFire is a trademark of Deere & Company
JDLink is a trademark of Deere & Company
Service ADVISOR is a trademark of Deere & Company

Delivery Checklist and Certificate

Make two copies of this form. Complete one copy for customer and retain a second copy for dealer records.
☐ Customer Copy ☐ Dealer Copy

Delivery Checklist

At the Dealer:
□ Predelivery inspection completed
□ All necessary forms and literature available
□ Labels installed
□ Customer specified attachments and options are installed or available

IMPORTANT: Retighten wheel bolts after working *3 hours* and again after *10 hours*. Continue to tighten to specified torque *daily* during first week of operation.
□ **Check hardware is tight on frame, drawbar support, wheels, and wheel weights or track system components**

At Delivery Area with Customer:
(shown and explained)
□ All warning labels on machine
□ Location of all serial numbers on machine
□ Operator's Manual
□ Help Text access and function
□ Lubrication and service points on machine and attachments
□ Tire or track maintenance and care
□ Use of lubrication and maintenance schedules
□ Break-in service procedures
□ Warranty coverage and procedure

Demonstrated operating procedures:
□ Engine—throttle, starting and stopping
□ Transmission
□ Steering
□ Brakes
□ Hitch and SCVs
□ Differential lock
□ PTO
□ Three-point hitch adjustment
□ iTEC™ system
□ Lights
□ Wipers
□ Heater
□ Air conditioning
□ CommandCenter™ display and controls
□ Operator's seat

iTEC is a trademark of Deere & Company
CommandCenter is a trademark of Deere & Company

Delivery Certificate

Serial number: _____

Vehicle Model: _____

OM Number: _____ Issue: _____

Registration No.: _____

Engine No.: _____

Delivery Date: _____

Owner's Name: _____

Delivery Hours: _____

Street Address: _____

Dealership: _____

City/State: _____

Dealer's Stamp: _____

ZIP/Postal Code/Country: _____

I hereby confirm receiving the tractor in good condition complete with Operator's Manual. I have received the Operator's Manual. All necessary work upon delivery has been carried out and I have been informed of the safe method of operation and the mandatory daily maintenance work as per the Delivery Checklist.

Customer's Signature: _____ Dealership Instructor's Signature: _____

Date: _____ Date: _____

BH38674,0000D36-19-30MAY18

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John Deere Service Literature Available

Technical Information

Technical information can be purchased from John Deere. Publications are available in print or CD-ROM format.

Orders can be made using one of the following:

- John Deere Technical Information Store: **www.JohnDeere.com/TechInfoStore**
- Call 1-800-522-7448
- Contact your John Deere dealer

Available information includes:

TS189—UN—17JAN89

PARTS CATALOGS list service parts available for your machine with exploded view illustrations to help you identify the correct parts. It is also useful in assembling and disassembling.

TS191—UN—02DEC88

OPERATOR'S MANUALS providing safety, operating, maintenance, and service information.

TS224—UN—17JAN89

TECHNICAL MANUALS outlining service information for your machine. Included are specifications, illustrated assembly and disassembly procedures, hydraulic oil flow diagrams, and wiring diagrams. Some products have separate manuals for repair and diagnostic information. Some components, such as engines, are available in a separate component technical manual.

TS1663—UN—10OCT97

EDUCATIONAL CURRICULUM including five comprehensive series of books detailing basic information regardless of manufacturer:

- Agricultural Primer series covers technology in farming and ranching.
- Farm Business Management series examines "real-world" problems and offers practical solutions in the areas of marketing, financing, equipment selection, and compliance.
- Fundamentals of Services manuals show you how to repair and maintain off-road equipment.
- Fundamentals of Machine Operation manuals explain machine capacities and adjustments, how to improve machine performance, and how to eliminate unnecessary field operations.
- Fundamentals of Compact Equipment manuals provide instruction in servicing and maintaining equipment up to 40 PTO horsepower.

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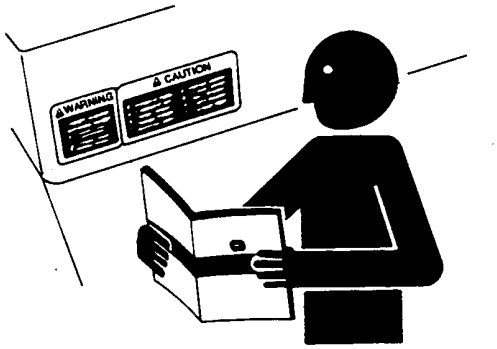
John Deere Service Keeps You On The Job

John Deere Is At Your Service



TS201—UN—15APR13

CUSTOMER SATISFACTION is important to John Deere.

Our dealers strive to provide you with prompt, efficient parts and service:

–Maintenance and service parts to support your equipment.

–Trained service technicians and the necessary diagnostic and repair tools to service your equipment.

CUSTOMER SATISFACTION PROBLEM RESOLUTION PROCESS

Your John Deere dealer is dedicated to supporting your equipment and resolving any problem you may experience.

1. When contacting your dealer, be prepared with the following information:

–Machine model and product identification number

–Date of purchase

–Nature of problem

2. Discuss problem with dealer service manager.

3. If unable to resolve, explain problem to dealership manager and request assistance.

4. If you have a persistent problem your dealership is unable to resolve, ask your dealer to contact John Deere for assistance. Or contact the Ag Customer Assistance Center at 1-866-99DEERE (866-993-3373) or e-mail us at www.deere.com/en_US/ag/contactus/.

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