8235R, 8260R, 8285R, 8310R, 8335R and 8360R Tractors (S. N. 053101—) North American Edition L3

JOHN DEERE

OPERATOR'S MANUAL

8235R, 8260R, 8285R, 8310R, 8335R and 8360R Tractors (S. N. 053101—) (North American Edition)

OMRE564172 ISSUE L3 (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.

John Deere Waterloo Works
North American Edition
LITHO 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 in 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.

WARRANTY is provided as part of John Deere's support program for customers who operate and maintain their equipment as described in this manual. The warranty is explained on the warranty certificate or statement which you should have received from your dealer.

This warranty provides you the assurance that John Deere will back its products where defects appear within the warranty period. In some circumstances, John Deere also provides field improvements, often without charge to the customer, even if the product is out of warranty. Should the equipment be abused, or modified to change its performance beyond the original factory specifications, the warranty will become void and field improvements may be denied. Setting fuel delivery above specifications or otherwise overpowering machines will result in such action.

THE TIRE MANUFACTURER'S warranty supplied with your machine may not apply outside the U.S.

If you are not the original owner of this machine, it is in your interest to contact your local John Deere dealer to inform them of this unit's serial number. This will help John Deere notify you of any issues or product improvements.

DX,IFC1-19-03APR09-1/1

Required Emission-Related Information
Service Provider

A 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-19-08DEC23-1/1

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.

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

OURX935,000046A-19-04APR06-1/1

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Trademarks	
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PowrQuad PLUS™	Trademark of Deere and Company
Row-Trak™	Trademark of Deere and Company
Service ADVISOR™	Trademark of Deere and Company
SERVICEGARD™	Trademark of Deere and Company
StarFire™	Trademark of Deere and Company
StarFire iTC™	Trademark of Deere and Company
StellarSupport™	Trademark of Deere and Company
TLS™	Trademark of Deere and Company
TouchSet™	Trademark of Deere and Company
Triple Link Suspension™	Trademark of Deere and Company
Vari-Cool™	Trademark of Deere and Company

RX33672,0000DEE-19-25MAY10-1/1

Contents

Continued on next page

Original Instructions. All information, illustrations and specifications in this manual are based on the latest information available at the time of publication. The right is reserved to make changes at any time without notice.

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Recognize Safety Information

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.

T81389—UN—28JUN13

DX,ALERT-19-03OCT22-1/1

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-19-05OCT16-1/1

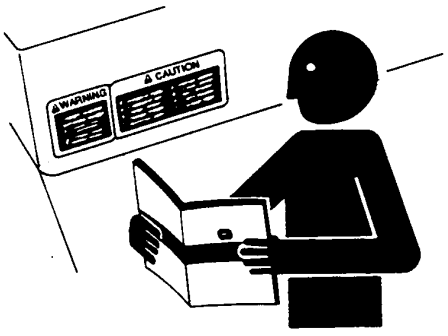
Follow Safety Instructions

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.



TS201—UN—15APR13

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

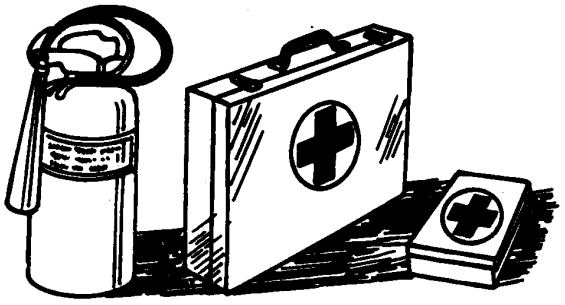
DX,READ-19-01AUG22-1/1

Prepare for Emergencies

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.



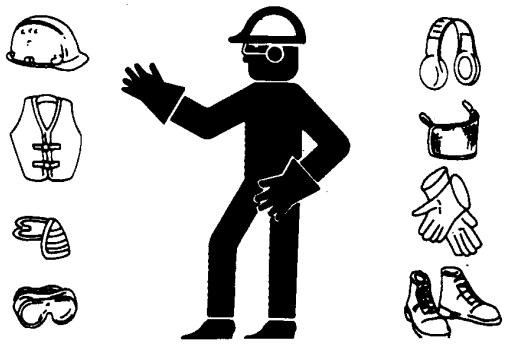
TS291—UN—15APR13

DX,FIRE2-19-03MAR93-1/1

Wear Protective Clothing

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.



TS206—UN—15APR13

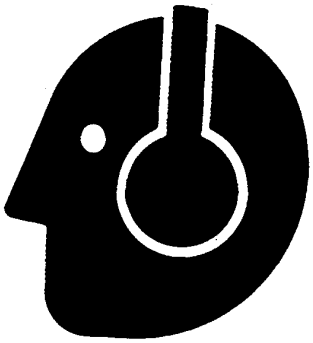
DX,WEAR2-19-03MAR93-1/1

Protect Against Noise

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.



TS207—UN—23AUG88

DX,NOISE-19-03OCT17-1/1

Handle Fuel Safely—Avoid Fires

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.

TS202—UN—23AUG88

DX,FIRE1-19-12OCT11-1/1

Handle Starting Fluid Safely

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.

TS1356—UN—18MAR92

DX,FIRE3-19-14MAR14-1/1

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-19-12OCT11-1/1

In Case of Fire

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:

TS227—UN—15APR13

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,FIRE4-19-22AUG13-1/1

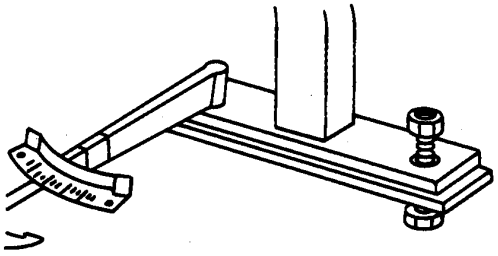
Keep ROPS Installed Properly

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.



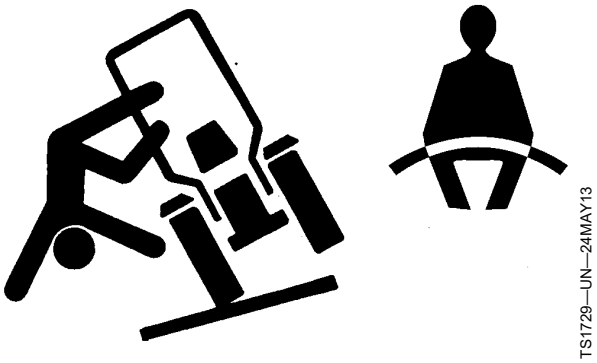
TS212—UN—23AUG88

DX,ROPS3-19-12OCT11-1/1

Use Foldable ROPS and Seat Belt Properly

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.



TS1729—UN—24MAY13

DX,FOLDROPS-19-22AUG13-1/1

Stay Clear of Rotating Drivelines

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.

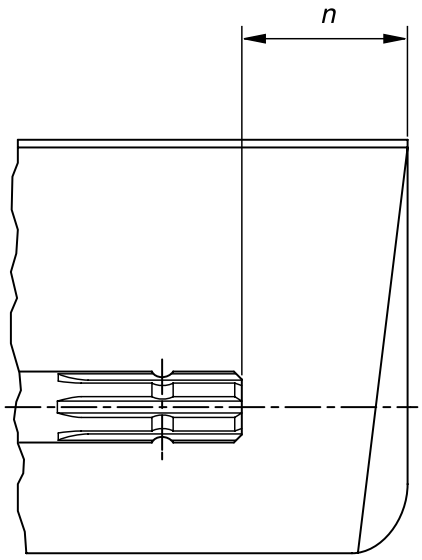
The angle at which the primary implement PTO driveshaft can be inclined may be reduced depending on the shape and size of the tractor master shield and the shape and size of the guard of the primary implement PTO driveshaft.

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.)

TS1644—UN—22AUG95



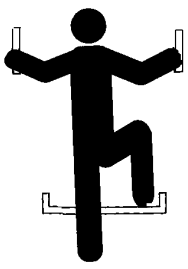
H96219—UN—29APR10

DX,PTO-19-28FEB17-1/1

Use Steps and Handholds Correctly

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.



T133468—UN—15APR13

DX,WW,MOUNT-19-12OCT11-1/1

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.

GreenStar is a trademark of Deere & Company

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-19-15JUL15-1/1

Use Seat Belt Properly

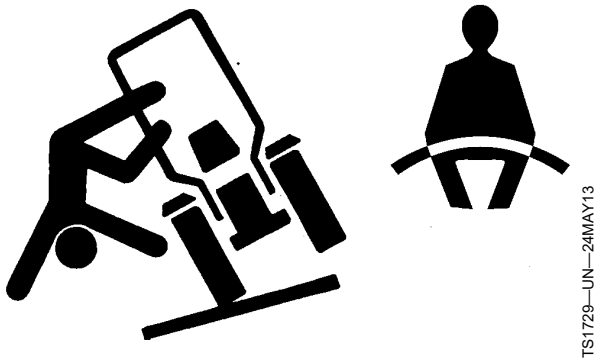
Avoid crushing injury or death during rollover.

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.



TS1729—UN—24MAY13

DX,ROPS1-19-22AUG13-1/1

Operating the Tractor Safely

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.
- Operators must be mentally and physically capable of accessing the operator's station and/or controls, and operating the machine properly and safely.
- Never operate machine when distracted, fatigued, or impaired. Proper machine operation requires the operator's full attention and awareness.
- 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.
- Stay clear of the three-point linkage and pickup 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 a 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.

Heated and Ventilated Operator's Seat

- An overheated seat heater can cause a burn injury or damage to the seat. To reduce the risk of burns, use caution when using the seat heater for extended periods of time, especially if the operator cannot feel temperature change or pain to the skin. Do not place objects on the seat, such as a blanket, cushion, cover, or similar item, which can cause the seat heater to overheat.

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 the 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 are:

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

DX,WW,TRACTOR-19-08MAY19-1/1

Avoid Backover Accidents

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.

PC10857XW—UN—15APR13

DX,AVOID,BACKOVER,ACCIDENTS-19-30AUG10-1/1

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-19-12OCT11-1/1

Operating the Loader Tractor Safely

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.

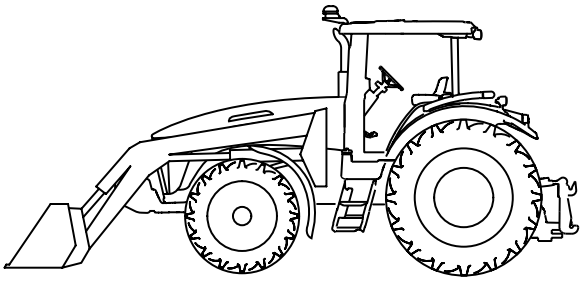
Never allow anyone to walk or work under a raised loader.

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).



TS1692—UN—09NOV09

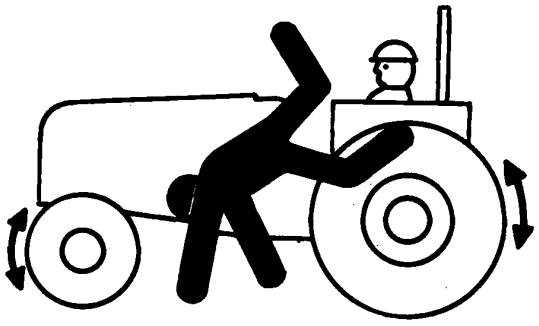
Ballast tractor in accordance to Ballast Recommendations in PREPARE TRACTOR section.

DX,WW,LOADER-19-18SEP12-1/1

Keep Riders Off Machine

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.



TS290—UN—23AUG88

DX,RIDER-19-03MAR93-1/1

Instructional Seat

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

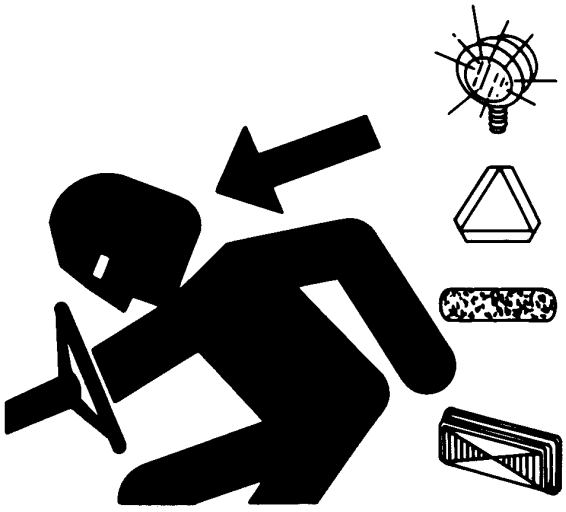
TS1730—UN—24MAY13

DX,SEAT,NA-19-22AUG13-1/1

Use Safety Lights and Devices

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.



TS951—UN—12APR90

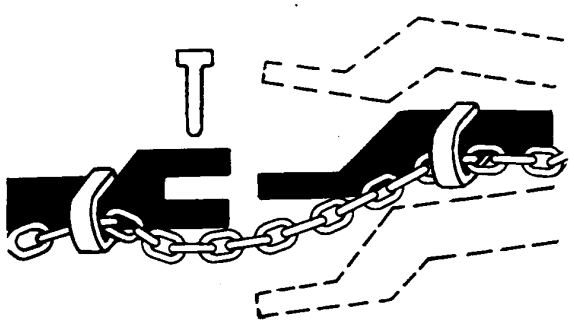
DX,FLASH-19-07JUL99-1/1

Use a Safety Chain

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.



TS217—UN—23AUG88

DX,CHAIN-19-03MAR93-1/1

Transport Towed Equipment at Safe Speeds

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

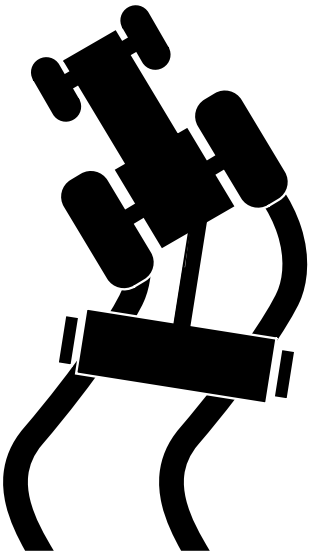
Implements shall be equipped with brakes if the maximum fully loaded weight is greater than 1500 kg (3307 lbs) and greater than 1.5 times the weight of the towing unit.

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).



TS1686—UN—27SEP06

- 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,TOW1-19-28FEB17-1/1

Use Caution on Slopes, Uneven Terrain, and Rough Ground

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.

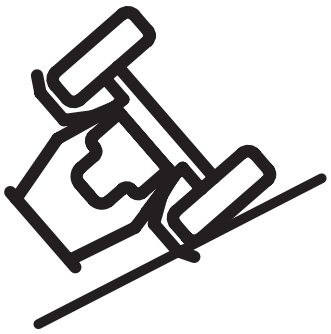
Danger of overturn increases greatly with narrow tread setting, at high speed.

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



RXA0103437—UN—01JUL09

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-19-28FEB17-1/1

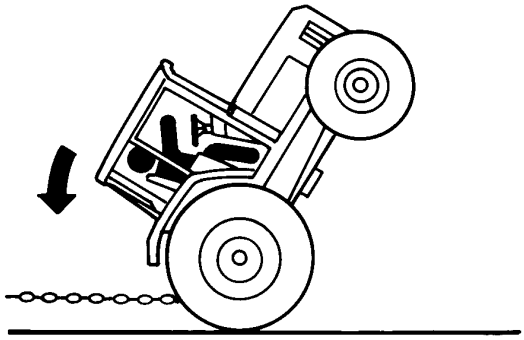
Freeing a Mired Machine

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.



TS1645—UN—15SEP95

TS263—UN—23AUG88

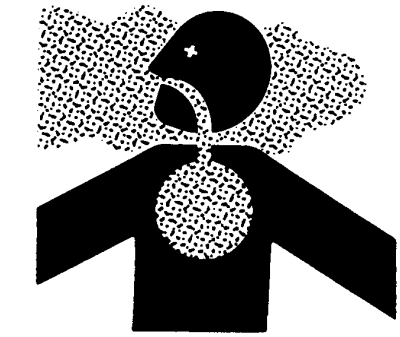
DX,MIRED-19-07JUL99-1/1

Avoid Contact with Agricultural Chemicals

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.



TS220—UN—15APR13

TS272—UN—23AUG88

DX,CABS-19-25MAR09-1/1

Handle Agricultural Chemicals Safely

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.

TS220—UN—15APR13

A34471

A34471—UN—11OCT88

DX,WW,CHEM01-19-24AUG10-1/1

Handling Batteries Safely

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.

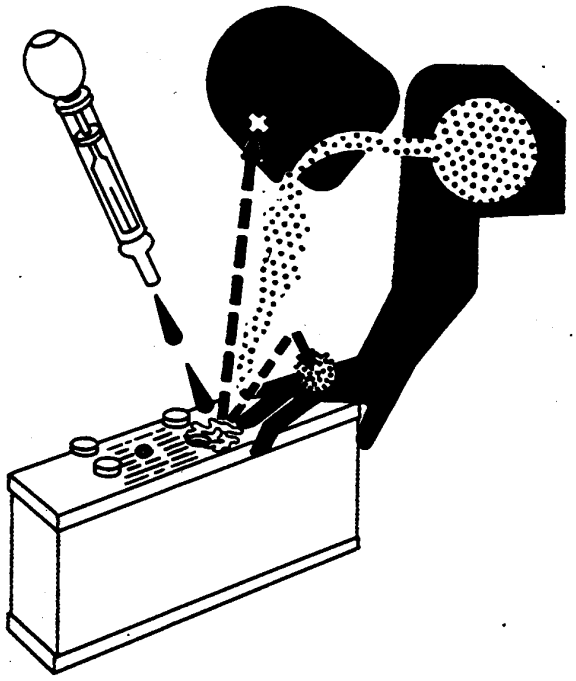
Always remove grounded (-) battery clamp first and replace grounded clamp last.

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

TS204—UN—15APR13

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.



TS203—UN—23AUG88

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-19-02DEC10-1/1

Avoid Heating Near Pressurized Fluid Lines

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.

TS953—UN—15MAY90

DX,TORCH-19-10DEC04-1/1

Remove Paint Before Welding or Heating

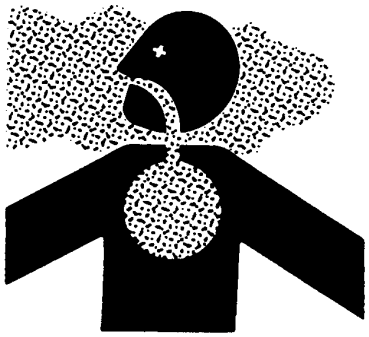
Avoid potentially toxic fumes and dust.

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.



TS220—UN—15APR13

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-19-24JUL02-1/1

Handle Electronic Components and Brackets Safely

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.

TS249—UN—23AUG88

DX,WW,RECEIVER-19-24AUG10-1/1

Practice Safe Maintenance

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.

TS218—UN—23AUG88

DX,SERV-19-28FEB17-1/1

Avoid Hot Exhaust

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.

RG17488—UN—21AUG09

DX,EXHAUST-19-20AUG09-1/1

Clean Exhaust Filter Safely

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:

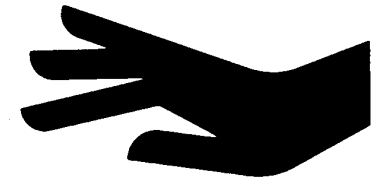
- Only engage power-driven parts required by service procedure
- Ensure that other people are clear of operator station and machine

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

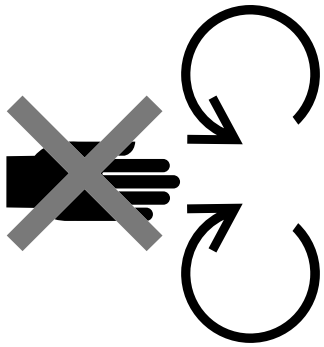
Always disable movement (neutral), set the parking brake or mechanism and disconnect power to attachments or tools before leaving the operator's station.

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

TS227—UN—15APR13



TS271—UN—23AUG88



TS1693—UN—09DEC09

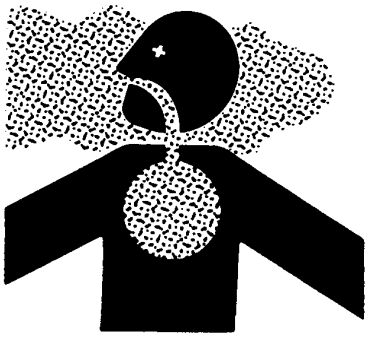
TS1695—UN—07DEC09

DX,EXHAUST,FILTER-19-12JAN11-1/1

Work In Ventilated Area

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.



TS220—UN—15APR13

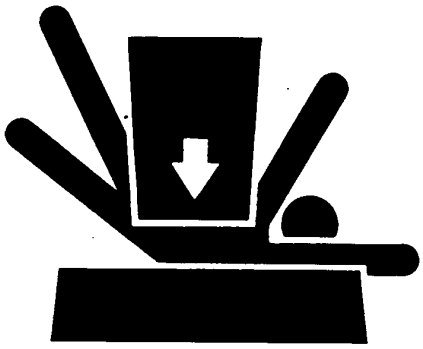
DX,AIR-19-17FEB99-1/1

Support Machine Properly

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.



TS229—UN—23AUG88

DX,LOWER-19-24FEB00-1/1

Prevent Machine Runaway

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.

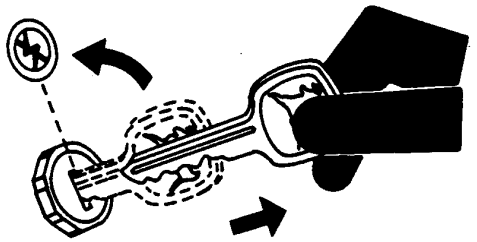
TS177—UN—11JAN89

DX,BYPAS1-19-29SEP98-1/1

Park Machine Safely

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.



TS230—UN—24MAY89

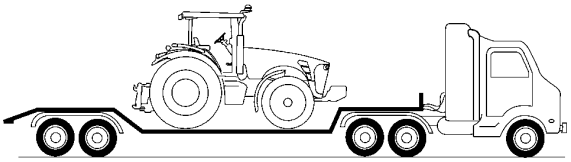
DX,PARK-19-04JUN90-1/1

Transport Tractor Safely

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.



RXA0103709—UN—01JUL09

DX,WW,TRANSPORT-19-19AUG09-1/1

Service Cooling System Safely

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.

TS281—UN—15APR13

DX,WW,COOLING-19-19AUG09-1/1

Service Accumulator Systems Safely

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.

TS281—UN—15APR13

DX,WW,ACCLA2-19-22AUG03-1/1

Service Tires Safely

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.

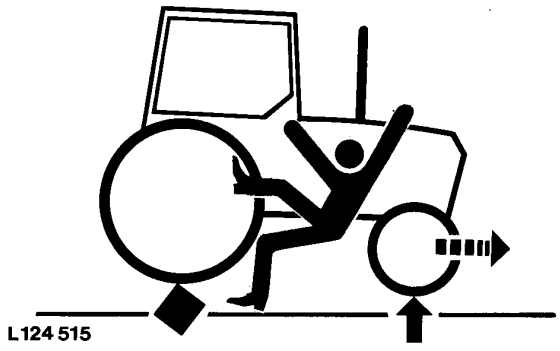
RXA0103438—UN—11JUN09

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-19-28FEB17-1/1

Service Front-Wheel Drive Tractor Safely

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.

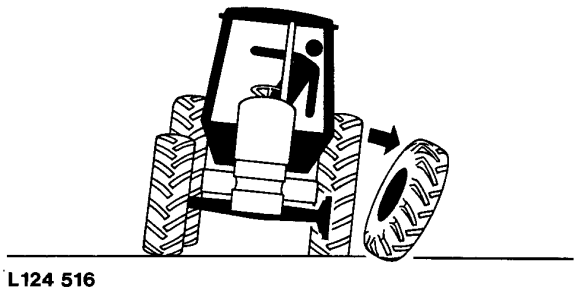


L124515—UN—06AUG94

DX,WW,MFWD-19-19AUG09-1/1

Tightening Wheel Retaining Bolts/Nuts

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



DX,WW,WHEEL-19-12OCT11-1/1

Avoid High-Pressure Fluids

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.

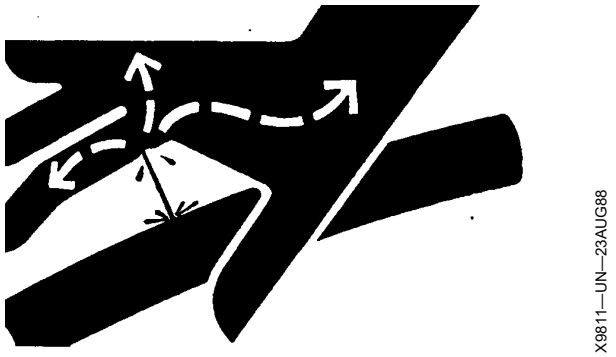
Replace worn or damaged hose assemblies immediately with John Deere approved replacement parts.

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-19-12OCT11-1/1

Do Not Open High-Pressure Fuel System

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.

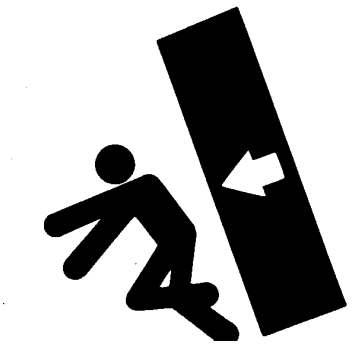
Only technicians familiar with this type of system can perform repairs. (See your John Deere dealer.)

DX,WW,HPCR1-19-07JAN03-1/1

Store Attachments Safely

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.



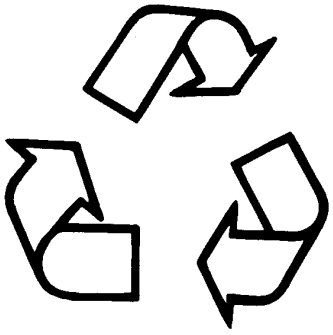
TS219—UN—23AUG88

DX,STORE-19-03MAR93-1/1

Decommissioning — Proper Recycling and Disposal of Fluids and Components

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);



TS1133—UN—15APR13

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-19-01JUN15-1/1

Replace Damaged or Missing Safety Signs

IMPORTANT: Install new safety signs if old signs are damaged, lost or can not be read. Install a new safety sign when replacing any part that previously had a safety sign.

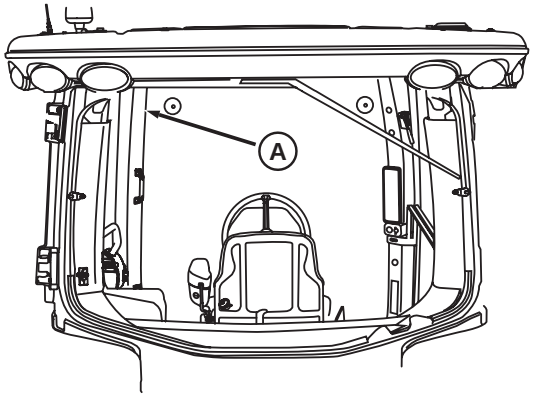
Keep safety signs clean and in good condition. Replacement signs are available from your John Deere™ dealer.

TS231—19—07OCT88

John Deere is a trademark of Deere & Company

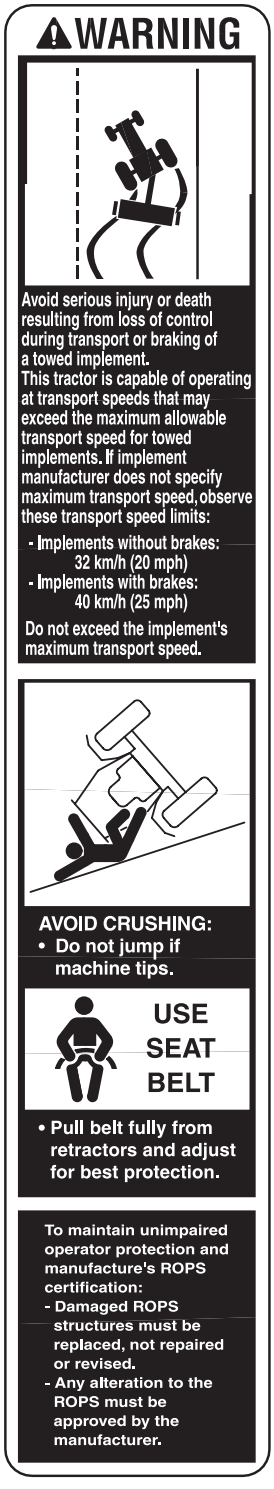
OURX935,0001259-19-02AUG10-1/1

Left Front Cab Corner Posts Safety Labels



RXA0099435—UN—24NOV08

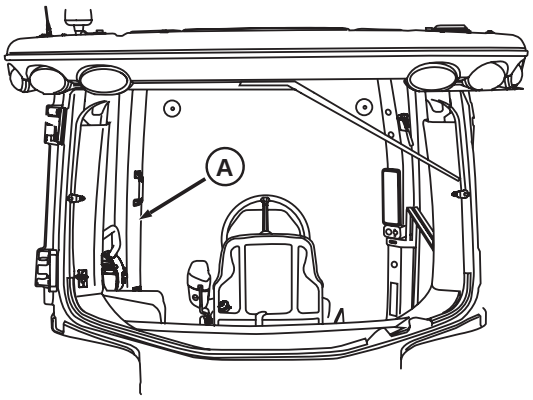
Left Front Corner Post—Upper



RXA0099801—19—03DEC08

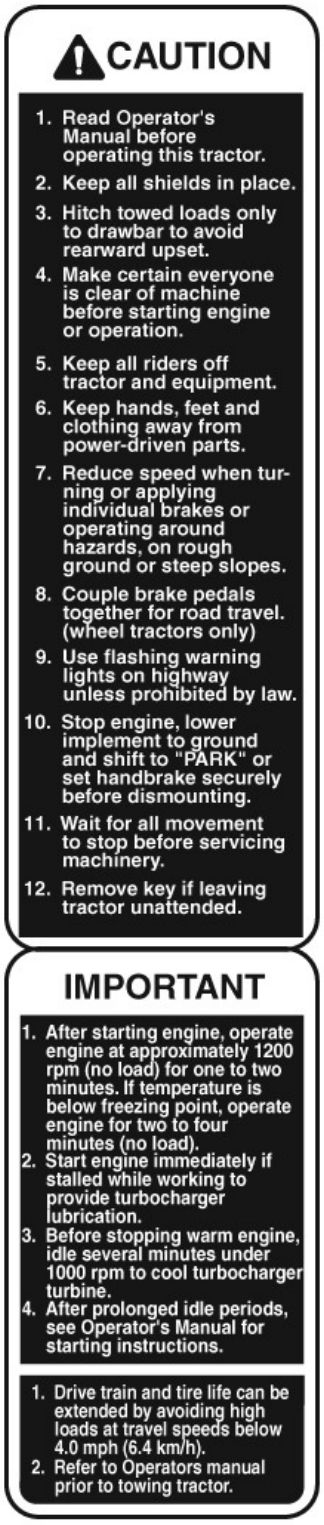
A—Transport Decal

Continued on next page



RXA0099434—UN—24NOV08

Left Front Corner Post—Lower

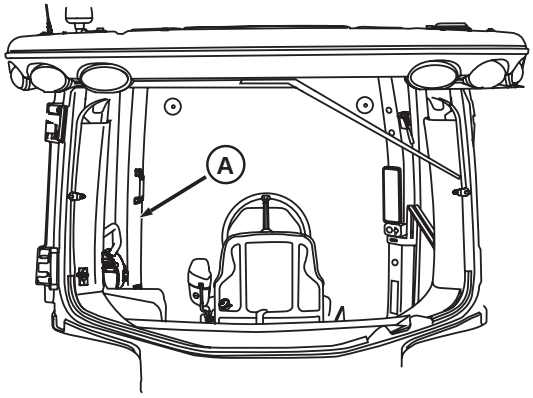


RXA0127318—19—01AUG12

A—Read Operator's Manual Caution

Continued on next page

OURX935,000125A-19-26JUL12-2/3



RXA0099434—UN—24NOV08

Left Front Corner Post—Lower

⚠ CAUTION

This instructional seat has been provided only for training operators or diagnosing machine problems.

Keep all other riders off the tractor and equipment.

Always wear your seat belt.

RXA0068061—19—20APR11

A—Instructional Seat Caution (If Equipped)

OURX935,000125A-19-26JUL12-3/3

Cab Entrance—Caution

RXA0110358—UN—30AUG10

Caution At Cab Steps--Entrance

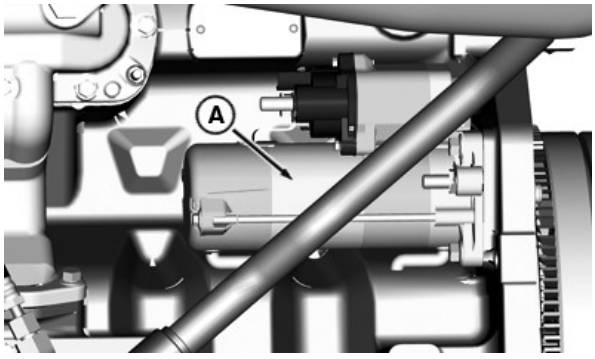
RXA0106910—19—21MAY10

A—Caution Decal

A—Caution Location

OURX935,000125B-19-31AUG10-1/1

Safety Signs — Starter



RXA0107392—UN—16APR10

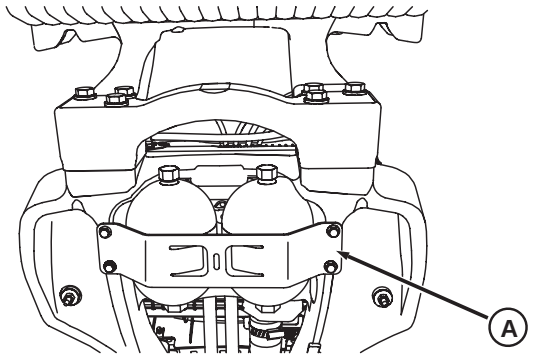
Starter

RXA0068077—19—01JUL03

A—Starting Precautions Danger Decal

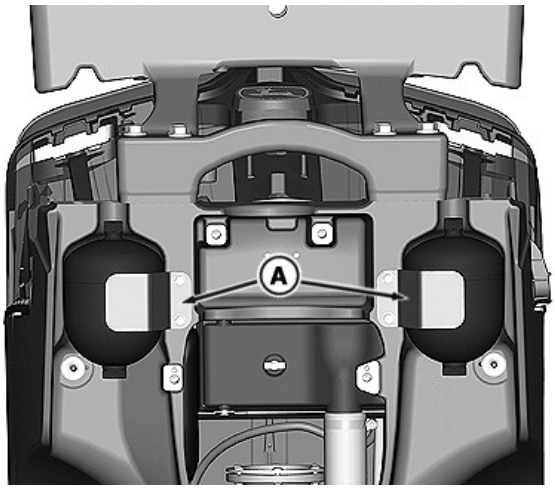
OURX935,000125C-19-30AUG10-1/1

Independent Link Suspension Accumulators (ILS) (If Equipped)



RXA0085582—UN—06JAN06

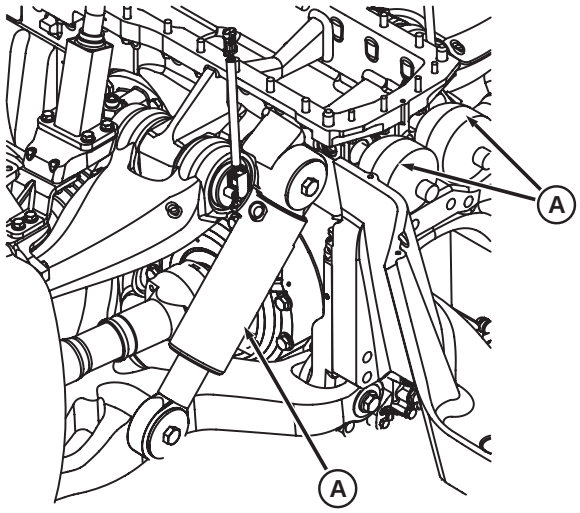
Independent Link Suspension (ILS) Accumulator—Standard Configuration



RXA0110601—UN—02SEP10

Independent Link Suspension (ILS) Accumulator—Configured For Factory Installed Front Hitch

RXA0106913—19—12MAY10



RXA0085581—UN—06JAN06

Independent Link Suspension (ILS) Cylinders

⚠ CAUTION

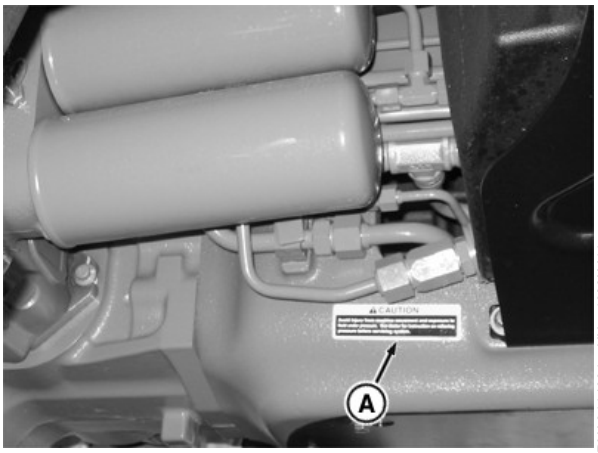
Avoid injury from machine movement and exposure to fluid under pressure. See dealer for instruction on relieving pressure before servicing system.

A—Caution Decal On Accumulators

Read Technical Manual and follow all safety precautions before performing maintenance on accumulator.

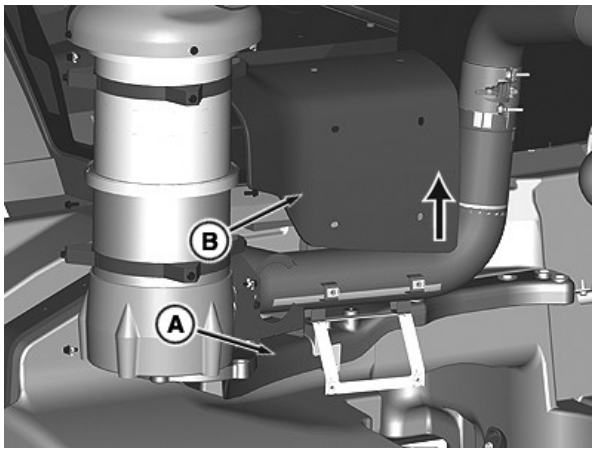
OURX935,000044C-19-06SEP11-1/1

Primary Brake Valve Accumulator



RXA0114901—UN—10MAY11

Primary Brake Valve Accumulator Label Location



RXA0107870—UN—25MAY10

Primary Brake Valve Accumulator Label Location

Accumulator label on exhaust support is underneath cover (B).

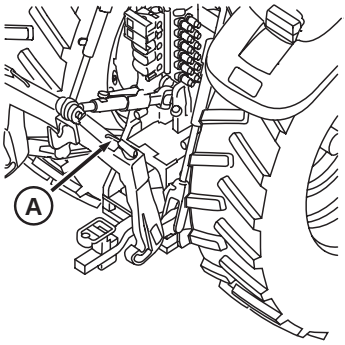
RXA0106913—19—12MAY10

A—Location **B—Cover**

A—Caution Decal On Accumulator

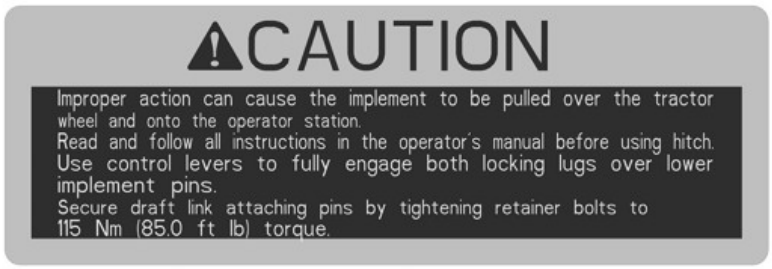
OURX935,00002F3-19-09JUN11-1/1

Quick Coupler (If Equipped)



RXA0085975—UN—18JAN06

Quick Coupler

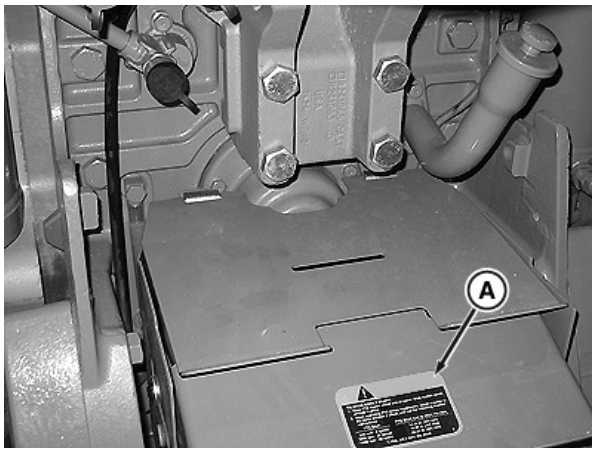


RXA0116658—19—13MAY11

A—Attachment Caution Decal

OURX935,00002F4-19-17MAY11-1/1

Tractor Rear—PTO Shield



RXA0100037—UN—14JUN11

PTO Shield

RXA0116656—19—08JUL11

A—PTO Speeds Warning Decal

OURX935,00002F5-19-17MAY11-1/1

Front PTO (If Equipped)

RXA0126055—UN—20APR12

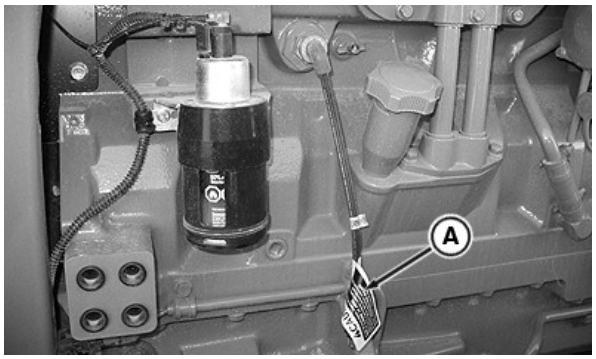
Front PTO Warning Decal

RXA0112684—19—11FEB11

***A**—Avoid Injury From PTO*

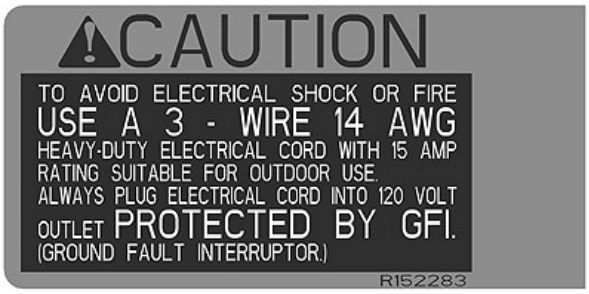
RW29387,00001A6-19-27APR12-1/1

Engine Block Heater (If Equipped)



RXA0117342—UN—18MAY11

Left Side Of Engine



RXA0116659—19—13MAY11

A—Correct Wiring Requirements Caution Decal

OURX935,00002F6-19-17MAY11-1/1

Implement Detected

CAUTION: Implement Detected

Improper operation can cause unintended implement movement.

To avoid death or serious injury to a bystander, understand how this display operates the functions of the implement.

Read and understand the implement Operator Manual.

This message occurs when the system detects an ISOBUS implement. For more information, see the ”ISO Implements” section as well as READ OPERATOR MANUALS FOR ISOBUS IMPLEMENTS in the Safety section.

OURX935,000098B-19-02JUL10-1/1

Auxiliary Control

CAUTION: Auxiliary Control

Improper operation can cause unintended implement movement.

To avoid death or serious injury to a bystander, ensure:

- **All users know which function is mapped to each control**
- **Controls are properly labeled**
- **Controls provide safe implement operation**

If ”Decline” is selected, all auxiliary controls will be disabled.

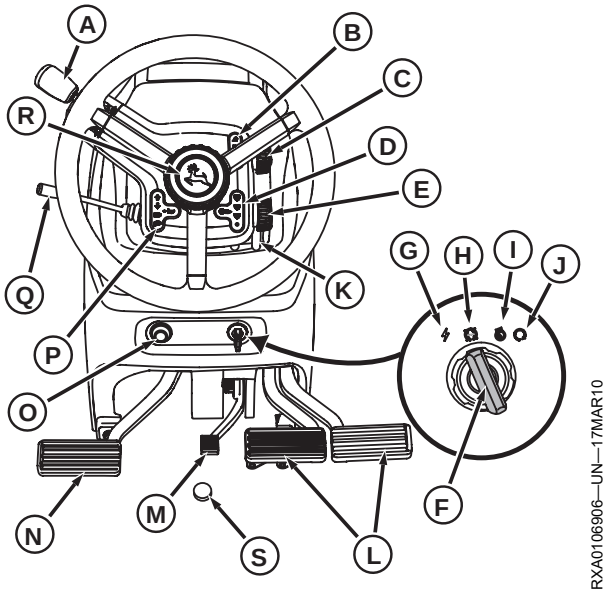
This message occurs when the system detects an auxiliary control. If necessary, review or change the auxiliary control mappings (see ”Auxiliary Controls” section).

If ”Decline” is selected, all auxiliary controls will be disabled. If ”Accept” is selected, all auxiliary controls are enabled.

OURX935,000098C-19-02JUL10-1/1

Front Console

A—Left-Hand Reverser (If Equipped)
B—Light Selection Cluster
C—Light Selector Knob
D—Windshield Wiper Cluster
E—Windshield Wiper Control Knob
F—Key Switch
G—Accessories
H—OFF
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—High/Low Beam Icon
Q—Turn Signal Lever
R—Steering Wheel Telescope Release
S—Differential Lock

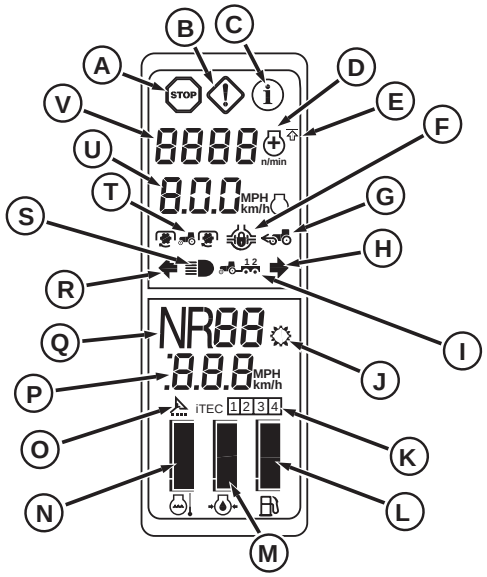


Front Console

OURX935,000020A-19-23FEB11-1/1

Corner Post Display

A—Stop Indicator
B—Service Alert Indicator
C—Information Indicator
D—Power Increase Indicator
E—FieldCruise Indicator
F—Differential Lock
G—MFWD Indicator (Wheel Tractors Only)
H—Right Turn Indicator
I—Trailer Indicator (If Equipped)
J—APS Indicator (If Equipped)
K—iTEC Indicator
L—Fuel Level Gauge
M—Engine Oil Pressure Gauge
N—Coolant Temperature Gauge
O—AutoTrac Indicator
P—Speed
Q—Set Speed [1]/Gear[2]Direction
R—Left Turn Indicator
S—High Beam Indicator
T—Rear PTO Indicator
U—Travel Speed
V—Tachometer



Corner Post Display

[1] *IVT Equipped Tractors*
[2] *PST Equipped Tractors*

OURX935,0000450-19-24AUG12-1/1

Information Indicators

NOTE: All STOP, Service Alert, and Information Indicators are accompanied by an informative message, diagnostic trouble code, and/or fault description shown on CommandCenter. For detailed description on indicators and codes associated with indicators, see STOP, Service Alert and Information Indicators in Diagnostic Trouble Codes section of this Operator's Manual.

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

IMPORTANT: Engine shuts down automatically if STOP signal is received when operator is out of the seat for longer than three seconds and the transmission control is in PARK. CommandCenter display can be reset by cycling key switch.

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

RXA0109847—UN—20AUG10

Corner Post Display

A—STOP Indicator
B—Service Alert Indicator
C—Information Indicator

Information (INFO) Indicator (C): Light comes on continuously and alarm sounds for two seconds, indicating a fault condition.

OURX935,0000432-19-17JUN11-1/1

Digital Indicators—Tachometer, Ground Speed and Transmission

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.

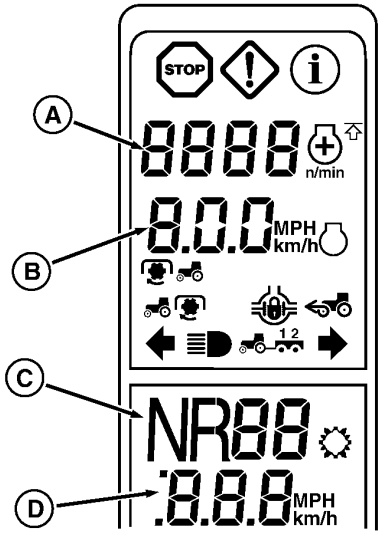
C—Transmission Information: Shows if transmission is in Neutral—N, Forward—F, Reverse—R or Park—P.

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

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

PST Only: Shows gear selected.

D — Set Speed: displays speed set using the set speed adjuster[1].



RXA0119762—UN—17AUG11

A—Tachometer
B—Travel Speed Indicator
C—Transmission Information
D—Set Speed

[1] *Only on IVT/AutoPowr equipped tractors*

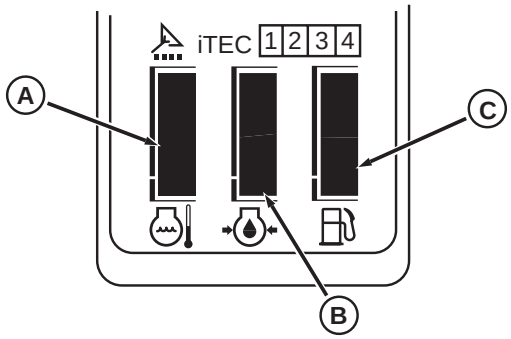
OURX935,0000451-19-13SEP11-1/1

Gauges—Coolant Temperature, Engine Oil Pressure, and Fuel Level

A—Coolant Temperature Gauge: Shows engine coolant temperature between 40 °C — 120 °C (104 °F—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—Engine Oil Pressure Gauge: Shows engine oil pressure, between 8—320 kPa (1—46 psi). All segments are off when oil pressure is low, 0—7 kPa (0—1 psi). All segments are lit when pressure is 320 kPa (46 psi) and above.

C—Fuel Level Gauge: Displays fuel level in tank. Each lighted segment represents 4% of the fuel tank total capacity. When fuel tank is full, all segments are lit. When only the bottom segment is lit, the tank is nearly empty with approximately 40—60 L (10—15 gal.) remaining.

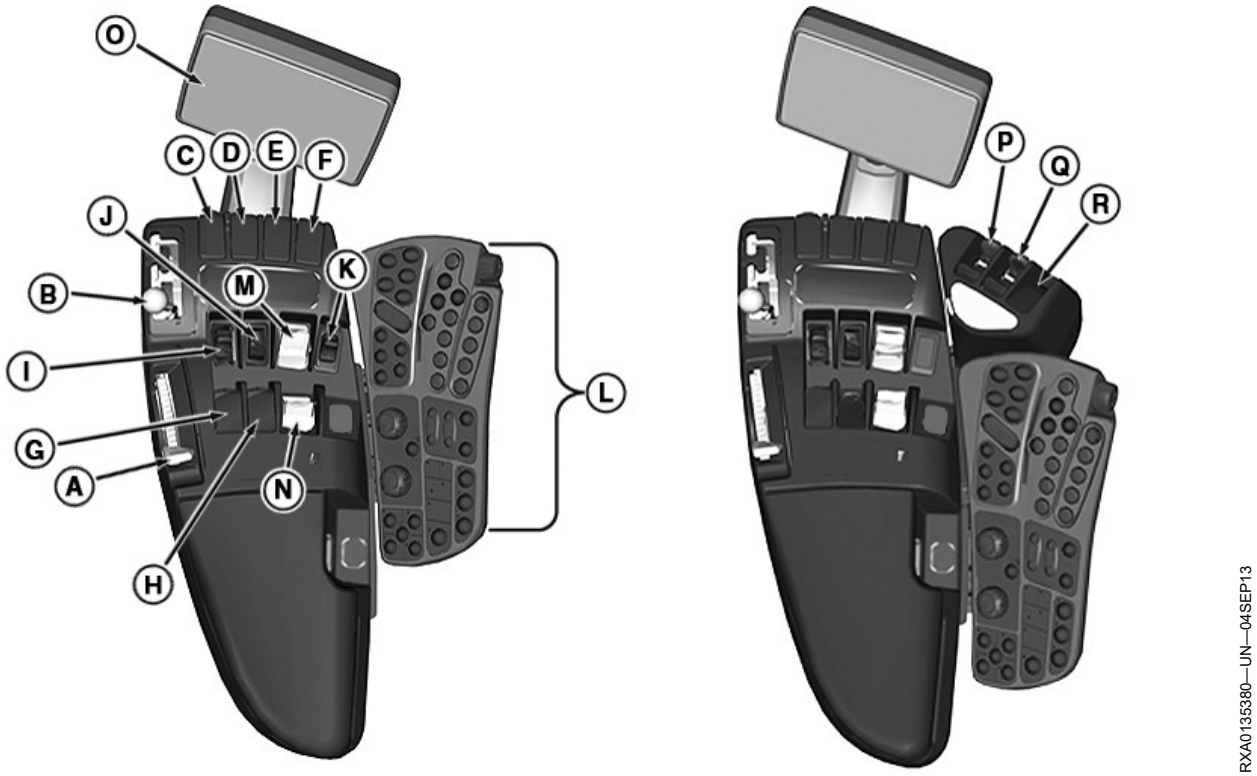


RXA0099154—UN—27JAN09

A—Coolant Temperature Gauge
B—Engine Oil Pressure Gauge
C—Fuel Level Gauge

OURX935,000029C-19-21JUN10-1/1

CommandARM™



CommandARM™ Controls

A—Engine Speed Control/Hand Throttle
B—Transmission Shift Lever
C—Rear Hitch Command Lever
D—SCV I Control Lever
E—SCV II Control Lever
F—SCV III Control Lever
G—SCV IV Control Lever (If Equipped)
H—SCV V Control Lever (If Equipped)
I—iTEC™ Sequence Switch 1 and 2
J—AutoTrac™ Resume Switch
K—iTEC™ Sequence Switch 3 and 4[1]
L—CommandARM™ Controls
M—Front PTO Switch (If Equipped)
N—Rear PTO Switch
O—CommandCenter™
P—Front Hitch Command Lever
Q—SCV V Control Lever (If Equipped)
R—SCV V I Control Lever (If Equipped)

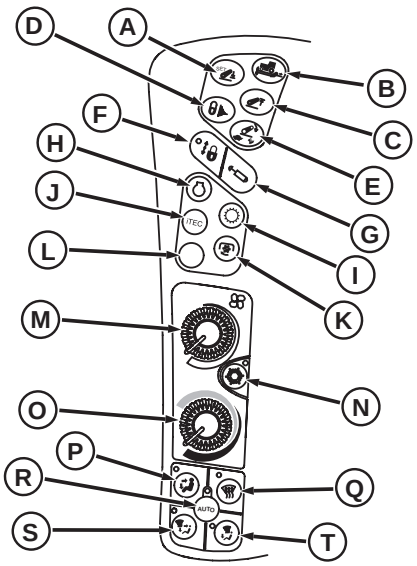
[1] Field Installed Kit, if equipped

OURX935,00002FF-19-04SEP13-1/1

CommandARM™ Controls

Controls indicated with an asterisk (*) are installed only on ClimaTrak™ equipped tractors.

A—Hitch Lower Limit
B—Load Depth Settings
C—Hitch Upper Limit
D—Transport Lock
E—Hitch Rate-Of-Drop
F—Transport Lock—SCV
G—SCV Settings
H—Engine Settings
I—Transmission Settings
J—iTEC™ Settings
K—Rear PTO Settings
L—Not Used
M—Fan Speed Control*
N—Air Conditioner Button *
O—Temperature Control Knob *
P—Cab And Floor Vent*
Q—Defrost *
R—ClimaTrak™ *
S—Defrost, Cab And Floor Vent*
T—Defrost And Floor Vent*



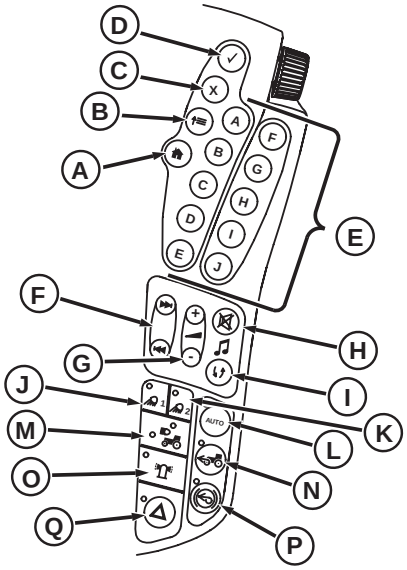
RXA0099690—UN—31OCT08

CommandARM™ Controls — Left Side

ClimaTrak is a trademark of Deere & Company

OURX935,0000452-19-04SEP13-1/2

A—Home Button
B—Menu Button
C—Cancel Button
D—Confirm Button
E—Softkeys
F—Radio Preset/Track Control
G—Radio Volume
H—Radio Mute
I—Radio Source
J—Field Lights 1 Selection
K—Field Lights 2 Selection
L—MFWD AUTO
M—Road/Loader Lights
N—MFWD ON
O—Beacon Light
P—Brake Assist
Q—Emergency Flashers



RXA0099150—UN—25SEP08

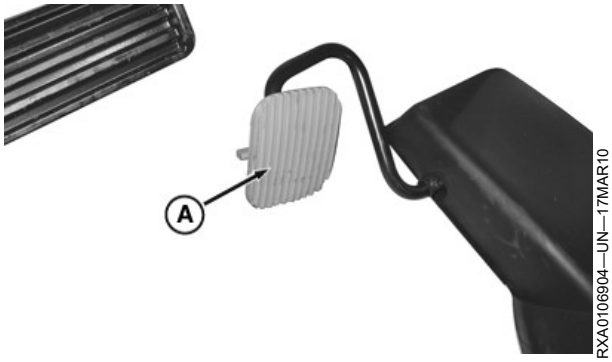
CommandARM™—Right Side

OURX935,0000452-19-04SEP13-2/2

Foot Operated Throttle Control (If Equipped)

Depress foot pedal (A) to control engine rpm.

A—Foot Throttle Pedal



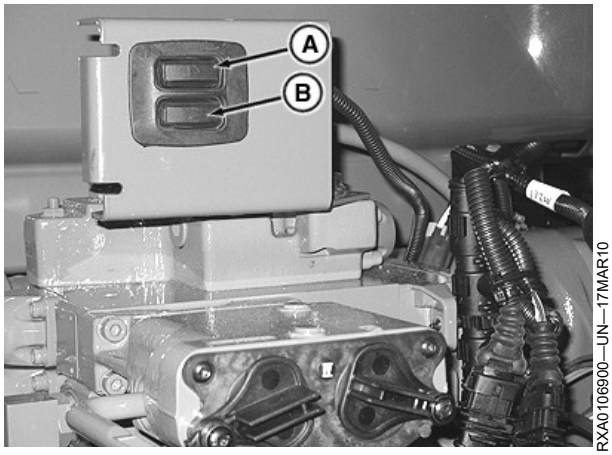
OURX935,0000FCA-19-17MAR10-1/1

External Hitch Raise/Lower Switches

Tractors without fender extensions have external raise (A) and lower (B) switches mounted on the valve stack.

A—SCV Stack Mounted External Raise Switch

B—SCV Stack Mounted External Lower Switch



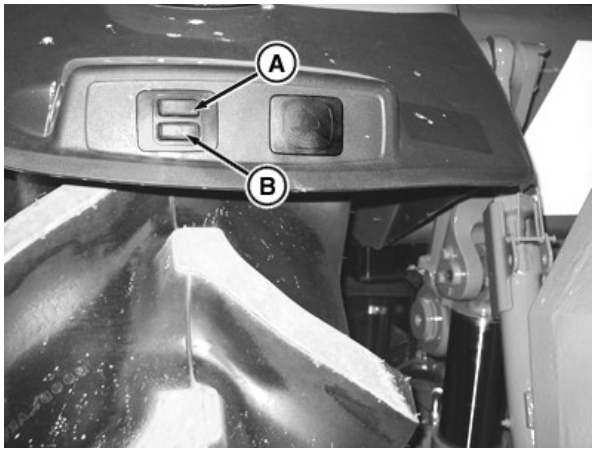
SCV Stack Mounted Rear Hitch External Raise/Lower Switches

Continued on next page

OURX935,0000316-19-16APR12-1/2

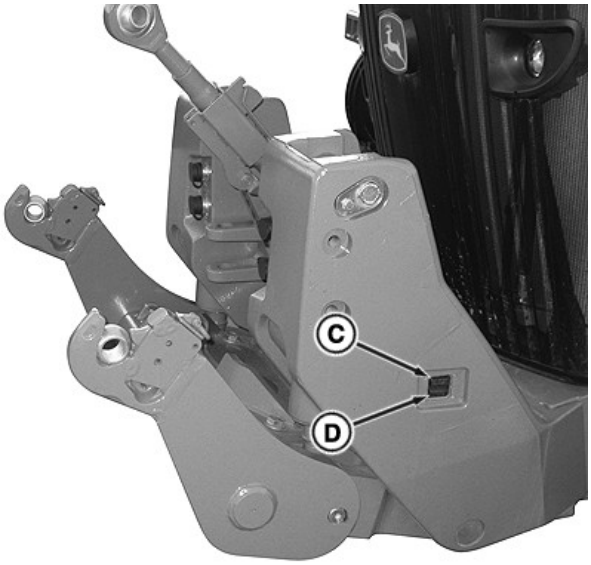
Tractors with optional fender extensions have optional raise switch (A) and lower switch (B) on rear fenders.For tractors equipped with front hitch, front hitch also has remote raise switch (C) and lower switch (D).

A—Raise Switch
B—Lower Switch
C—Front Hitch Raise Switch
D—Front Hitch Lower Switch



RXA0106902—UN—17MAR10

Fender Mounted Rear Hitch Switches



RXA0117461—UN—19MAY11

Front Hitch with External Hitch Raise/Lower Switches

OURX935,0000316-19-16APR12-2/2

External Rear PTO Switch (If Equipped)

NOTE: The external rear PTO switch is equipped only on tractors with rear fender extensions.

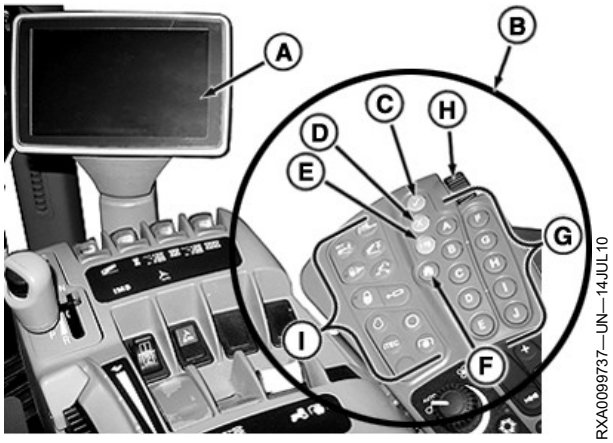
A—External Rear PTO Switch

RXA0126126—UN—30APR12

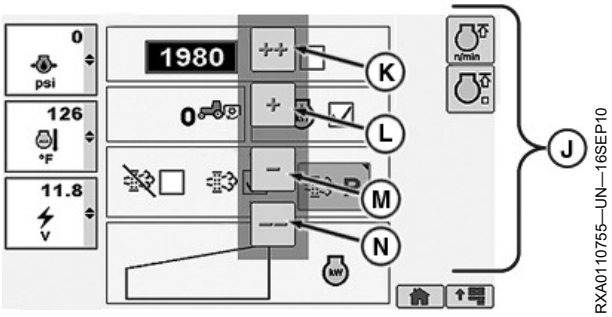
External Rear PTO Switch

RW29387,00001A8-19-30APR12-1/1

Navigating The CommandCenter™—Read Me First



CommandARM™ And CommandCenter™



Softkeys

NOTE: Viewing information on the CommandCenter™ is similar to viewing information in a book. As you page forward more information is presented. Likewise every display of new information is another page in the CommandCenter allowing operator to fine tune tractor functions.

The CommandCenter™ (A) attached to CommandARM™ allows operator to view selected pages required to operate tractor.

There are three methods of navigating through CommandCenter™ pages:

1. **Rotate CommandARM™ thumb wheel (H) to a specific box or softkey (J) and press Confirm button (C) to direct tractor to perform a function. Press Cancel button (D) to void a command.**

*NOTE: **CommandARM™ softkeys, "A" through "J" (G) correlate to softkeys (J) on CommandCenter™ pages**.*

2. **Use softkeys to quickly navigate through the system to a page, then use thumb wheel to select a specific portion of a page.**
3. **For tractors equipped with Touch Screen CommandCenter™ touch softkeys, buttons, or icons to make selection. To adjust setting on bargraph, use increase or decrease value buttons. For input boxes use either key pad, or select input box, when input box highlights, scroll thumb wheel to desired value.**

Primary CommandArm™ controls navigational tools listed below:

A — CommandCenter™ allows operator to monitor and receive immediate visual feed back on all monitored functions associated with tractor operations.

B — CommandARM™ Controls is a key pad made up of buttons, shortcut keys and softkeys allowing operator to manage tractor functions.

C — Confirm Button used to select highlighted item.

D — Cancel Button cancels or deselects action previously selected.

E — Menu Button returns operator to the CommandCenter™ Menu.

F — Home Button returns operator to home page.

G — Softkey Buttons activate softkeys.

H — Thumb Wheel allows operator to perform specific functions such as changing information in input boxes. Rotating thumb wheel forward raises input box values. Rotating thumb wheel rearward lowers input box values.

I — Shortcut Buttons allows operator more direct alternative method of navigating to specific pages without going through CommandCenter™ Main menu.

J — Softkeys allows operator quick access to a specific page or curser placement on page.

K — N Increase/Decrease Value Buttons For tractors equipped with a touchscreen CommandCenter™, allows operator to make setting adjustments touching appropriate button. The ++ and - - allows operator to make larger incremental changes when adjusting than touching + or - buttons. For areas that require tighter adjustments, such as the rear hitch, only the + and - buttons are available.

OURX935,0000A4F-19-30JAN12-1/1

Activating The System

Depending how frequently tractor is used may impact on how the system activates or ”boots up”. There are two types of start ups:

- Warm startup - occurs when the display has been operated in the last 21 days and has NOT lost unswitched power.
- Cold startup - occurs when the display has not been operated in the last 21 days or has lost unswitched power. Cold startup takes longer than warm startup for the display to power up (approximately 30 seconds).

OURX935,000000C-19-21SEP10-1/1

CommandCenter™ Menu

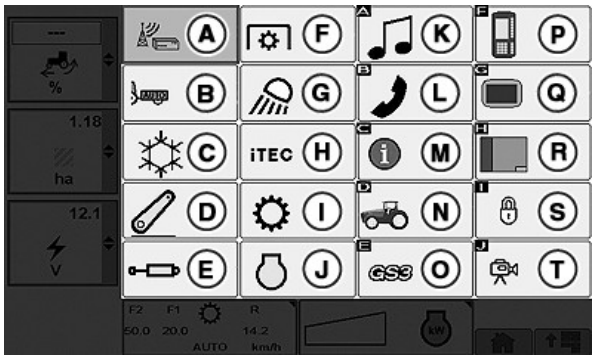
At the CommandARM™ controls press Menu button. **Depending on tractor configuration, the number and order of displayed icons may vary.** From the CommandCenter™ Menu operator can display any main page available. A brief description of each is listed below.

- **A—Remote Software Update** Download, install or cancel software updates. (See Remote Software Update in this Section).
- **B—Tractor-Implement Automation™:** (See Tractor-Implement Automation™ (TIA™) section).
- **C—ClimaTrak™:** Adjust ClimaTrak™ settings (See Operator Station section).
- **D—Hitch:** Adjust hitch (See Hitch section).
- **E—SCV:** Adjust any SCV's (See Selective Control Valves section).
- **F—Lights:** Adjust lighting (See Lights section).
- **G—PTO:** Adjust PTO speed (See Drawbar and PTO section).
- **H—Transmission:** Adjust transmission settings (See Operating PowerShift Transmission or Operating IVT™/AutoPowr™ Transmission sections).
- **I—iTEC™:** Adjust iTEC™ functions (See Intelligent Total Equipment Control (iTEC™) section).
- **J—Engine:** Adjust FieldCruise™ setting or engine rpm (See Operating the Tractor section).
- **K— Radio:** Adjust premium radio only (See Operating the Radio section).
- **L— Phone:** Make or receive calls through the CommandCenter™ (See Operating the Radio section).
- **M— Message Center:** Manages Message Center (See CommandCenter™ section).
- **N—Performance Monitor:** (See CommandCenter™ section).
- **O—GreenStar™:** GreenStar™ (See monitor Operator's Manual)
- **P—Original GreenStar™:** Adjust Original GreenStar System™ components (See Operator Station section).
- **Q—Display:** Adjust display functions (See CommandCenter™ section).

Tractor-Implement Automation is a trademark of Deere & Company
TIA is a trademark of Deere & Company
ClimaTrak is a trademark of Deere & Company
AutoPowr is a trademark of Deere & Company
iTEC is a trademark of Deere & Company
FieldCruise is a trademark of Deere & Company
GreenStar is a trademark of Deere & Company
Original GreenStar System is a trademark of Deere & Company

RXA0098156—UN—07NOV08

CommandARM™ Menu Button



CommandCenter™ Menu

RXA0117313—UN—18MAY11

Bottom Right Corner of Pages

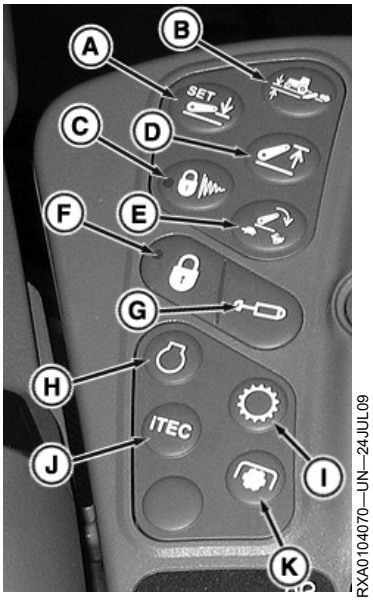
- **R—Layout Manager:** Adjust Layout Manager functions (See CommandCenter™ section).
- **S—Access Manager:** Adjust Access Manager functions (See CommandCenter™ section).
- **T—Video:** (See CommandCenter™ section.)
- **U — Menu Softkey:** located at bottom of most pages. Allows operator to return to main menu from current page.

OURX935,0000A50-19-30JAN12-1/1

Shortcut Buttons

Listed below are CommandARM™ controls shortcut buttons that allow operator to go directly to a specific task.

- **A—Hitch Lower Limit**
- **B—Hitch Load Depth Settings**
- **C—Hitch Transport Lock/Dampening**
- **D—Hitch Upper Limit**
- **E—Hitch Drop Rate**
- **F—SCV Transport Lock**
- **G—SCV Settings**
- **H—Engine**
- **I—Transmission**
- **J—**iTEC™ **Settings**
- **K—PTO Settings**



Shortcut Buttons

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

OURX935,0000A51-19-30JAN12-1/1

Page Structure

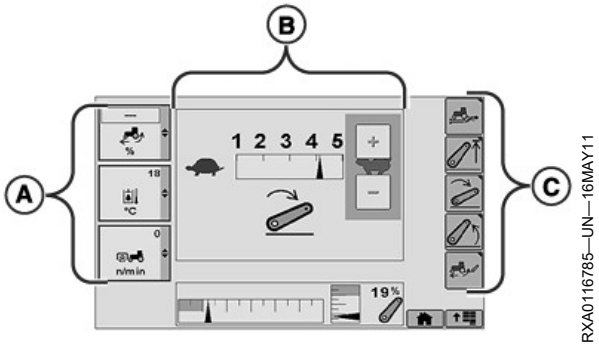
NOTE: Pages are divided into left, center, and right regions. Displayed page shown is reference only. Actual pages may appear differently due to connection of optional devices and tractor configuration.

Left Region (A), Center Region (B) and Right Region (C) selections will be active on most pages.

- **A — Left Region:** allows operator to choose and monitor three boxes at a time. Each box displays an ongoing function or specific tractor status.
- **B — Center Region:** allows operator to view and change tractor settings in a wide variety of applications.
- **C — Right Region:** displays softkey options available to the operator from current page.

Selecting a Right Region softkey displays a new page, function, or allows changing settings.

Left Region boxes are displayed in a strip of three individual boxes to be monitored while allowing operator to focus on specific functions active in page Center Region.

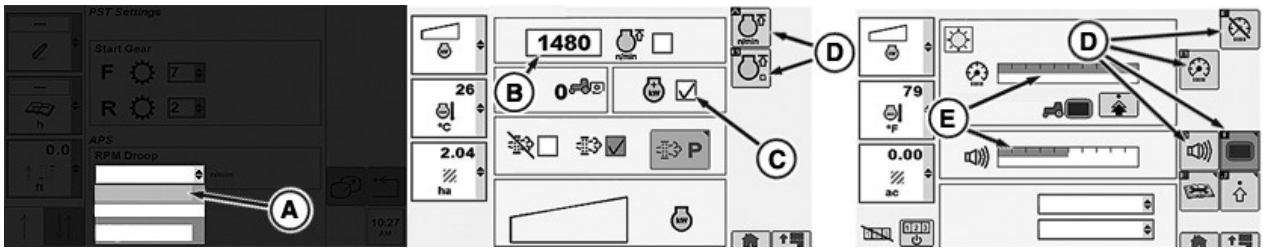


Example of Page Structure

A —Left Region
B —Center Region
C —Right Region

RX32825,0000285-19-30AUG11-1/1

CommandCenter™ Input Fields



RXA0116809—UN—05MAY11

Example Of CommandCenter™ Drop Down Boxes, Check Boxes, Softkeys, and Bar Graphs

There are a variety of input fields and buttons that allow the operator to navigate through pages and the ability to change values.

(A) — Drop-Down Boxes

Drop-down box has a border with a numeric or text value and up/down arrows on the right side that allow operator to select specific value from a pre-populated list.

Highlight drop-down box, list appears, then make selection from options available.

To close drop-down box without making a selection, select Cancel button. List closes and original value remains.

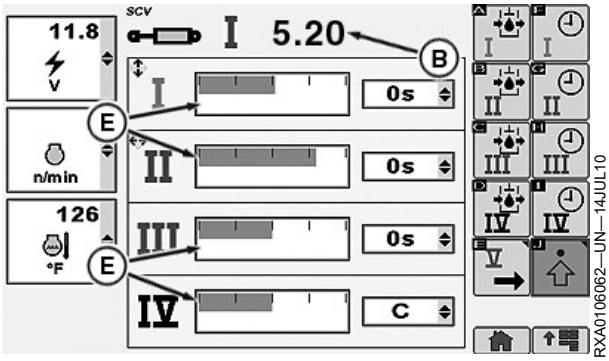
(B) — Input Box

Input box has a border with a numeric value or text. This input box allows the operator to select and enter new values or text.

NOTE: If using thumb wheel, the faster thumb wheel is rotated, the faster values incrementally change. Rotating thumb wheel forward increases value and rotating thumb wheel rearward decreases value.

To change a value, highlight input box, then make selection.

If there is a large range of values, a numeric key pad appears, allowing selection of each digit.



RXA0106062—UN—14JUL10

Example Of CommandCenter Input Box And Bar Graphs

(C) — Check Box

Check box is a square with a border. The function controlled by a check box toggles on or off depending if box is checked or left unchecked respectively.

Select softkeys to activate a prescribed function or navigate to a page.

(E) — Bar Graph

To change a value, highlight bar graph and make selection.

OURX935,0000A52-19-30JAN12-1/1

CommandCenter™ Left Region

A — Rear Hitch Position - Displays current rear hitch position.

B — Engine Coolant Temp - Engine coolant temperature in °C or °F.

C — Distance Counter- Accumulated distance the tractor has traveled displayed in meters or feet.

D — Rear PTO Speed - Displays rear PTO speed in rpm.

E — % Slip - (Requires Radar or GPS radar signal) Displays current wheel slippage as a percent of ground speed compared to the true ground speed.

F — Fuel Remaining - Estimated time until fuel tank is empty.

G — Area Per Hour - Area covered per hour. A number based on current implement width and speed traveled over time.

H — Fuel Consumption Per Area - The amount of fuel used is accumulated over time based on the last area counter reset.

I — System Volts - Supply system voltage.

J — Engine Oil Pressure - Engine oil pressure in kPa or psi.

K — Power Display - Engine power using a bar graph display.

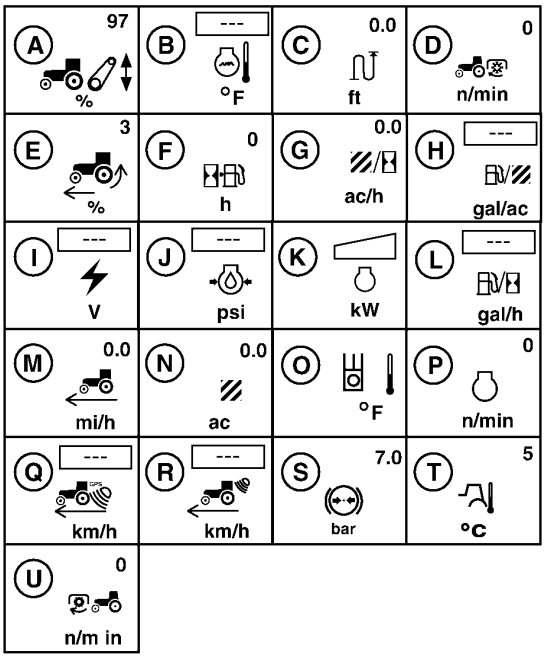
L — Fuel Consumption Per Hour - Displays Liters (Gallons) consumed per hour.

M — Wheel (Ground) Speed - Calibrated ground speed as measured at the axle.

N — Total Area Covered - Total area covered displayed in hectares or acres.

O — Hydraulic Temperature - Hydraulic oil Temperature.

P — Engine rpm - Engine speed in revolutions per minute.



RXA0116788—UN—27JUN11

CommandCenter™ Left Region Boxes

Q — Radar (Ground) Speed - (Requires Radar) Ground speed as measured by dual beam radar.

R — GPS (Ground) Speed - (Requires gps) Ground speed as measured by gps.

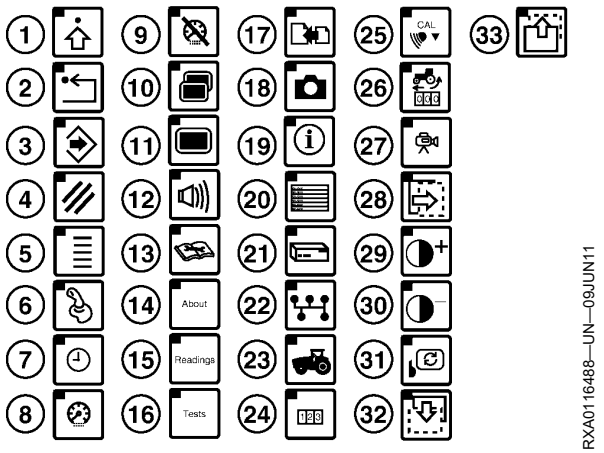
S — Brake System Pressure - Brake system pressure in kPa or psi.

T — Ambient Temperature - Outside air temperature in °C or °F.

U — Front PTO Speed - Displays front PTO speed in rpm (wheel tractors only if equipped).

OURX935,000045D-19-20SEP11-1/1

CommandCenter™ Right Region Softkeys Displayed In This Section



CommandARM™ Softkeys

1 —Setting [1]
2—Back [1]
3—Save/Enter [1]
4—Cancel [1]
5—High Light Color—Display
6—Auxiliary Control—Display
7—Date/Time—Display
8—Adjust Brightness—Display
9—Dim Mode—Display
10—Multiple Display—Display
11—Main—Display
12—Adjust Volume—Display
13—Diagnostics
14—About — Display
15—Readings — Display
16—Tests — Display
17—Reprogramming — Message Center
18—Transfer Debug Files—Message Center
19—Information — Message Center
20—Diagnostic Addresses — Message Center
21—Electronic Control Unit — Message Center
22—Bus Information — Message Center
23—Performance Monitor Main
24—Performance Monitor Settings
25—Calibration—Radar
26—Wheel Slip
27—Video—Video
28—Next
29—Increase Contrast — Video
30—Decrease Contrast — Video
31—Mirror — VideoNext
32—Page Down
33—Page Up

[1] Softkey found throughout CommandCentert™ pages and function is constant throughout.

OURX935,0000A68-19-30JAN12-1/1

Navigating To Specific Page

For Illustration 1:

Select CommandARM™ Menu button, when main menu displays **select Display softkey**.

For Illustrations 2:

1. **Select CommandARM™ Menu button.**
2. **Select CommandCenter™ Display softkey.**
3. When appropriate page displays, **select Advanced Settings softkey.**

For Illustration 3

4. **Select CommandARM™ Menu button.**
5. **Select CommandCenter™ Display softkey.**
6. When appropriate page displays, **select Advanced Settings softkey.**
7. When Settings page displays, **select Highlight softkey.**

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RXA0116493—UN—12MAY11

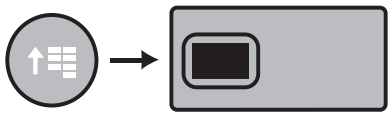


Illustration 1: Menu Button → Display Softkey

RXA0116482—UN—12MAY11

Illustration 2: Menu Button → Display Softkey→ Advanced Settings Softkey

RXA0116470—UN—12MAY11

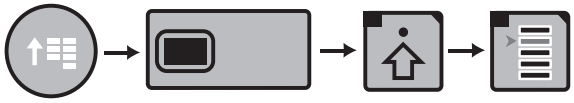


Illustration 3: Menu Button → Display Softkey → Advanced Settings Softkey→ Highlight Softkey

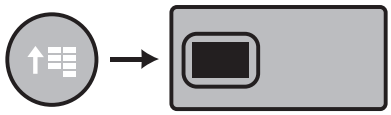
OURX935,0000A69-19-30JAN12-1/1

Setting Alarm Volume

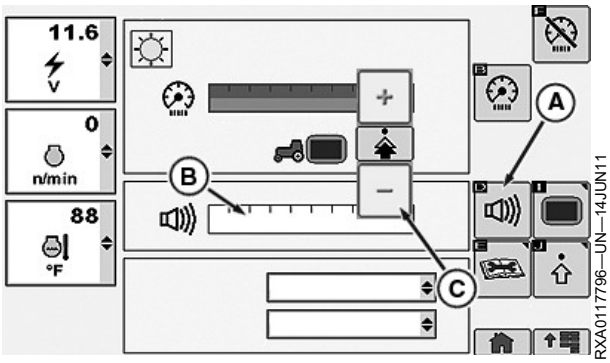
1. Select **Menu button.**
2. Select **Display**.
3. Select **Adjust Volume softkey** (A) to highlight Adjust Volume bar graph (B), then make adjustment.

A —Adjust Volume Softkey **B —Adjust Volume Bar graph**

RXA0116493—UN—12MAY11



CommandARM™ Menu Button → Display Softkey



Display Main Page

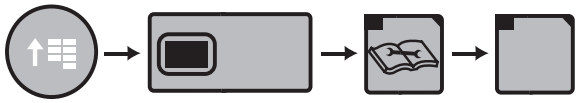
OURX935,0000A53-19-30JAN12-1/1

Display Control and Touchscreen Tests (If Equipped)

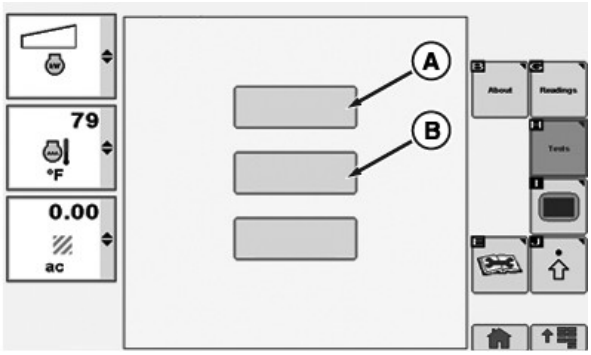
1. Select **Menu button.**
2. Select **Display softkey.**
3. Select **Diagnostics softkey.**
4. Select **Tests softkey**.
5. Select **Display Control Test box (A).**
6. At Display Control Test page, press any CommandARM softkey and verify the corresponding button (C) on CommandCenter page is highlighted.
7. Select Touchscreen Test box (B), then follow instructions on page.
8. Select Done box when finished.

A —Display Control Test
B —Touchscreen Test
C —Shortcut And Softkey Buttons

RXA0116468—UN—12MAY11

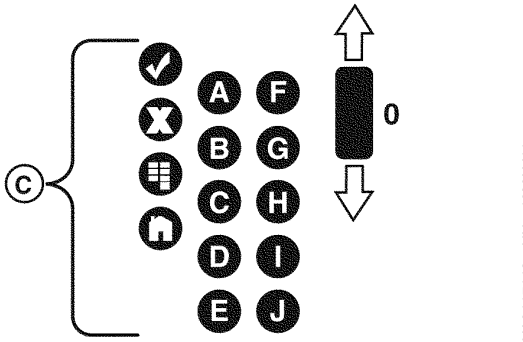


CommandARM Menu Button → Display Softkey → Diagnostics Softkey → Tests Softkey



RXA0117110—UN—16MAY11

Display Control Test Page



RXA0117112—UN—16MAY11

Display Control Test

RX32825,000028B-19-30AUG11-1/1

Touchscreen Calibration Test

1. Select **Menu button.**
2. Select **Display softkey.**
3. Select **Diagnostics softkey.**
4. Select **Tests softkey**.
5. Select Touchscreen calibration box (A).
6. When page displays page is blank except for printed statement, “Touch the mark to calibrate touch accuracy”. Test Touch Pattern appears at center of page. Using your finger, touch Test Touch Pattern and release.
7. Test Touch Pattern appears at upper left corner, touch Touch Test Pattern and release. Touch Test Pattern appears in lower left corner.

   Touch Test Touch Pattern. Touch Test Pattern appears in lower right corner.

   Touch Test Touch Pattern. Touch Test Pattern appears in upper right corner.

   Touch Test Touch Pattern. Touch Test pattern appears in center of screen.

   Touch Test Touch Pattern.
8. If “Success!” appears no other action is required.

   If “Failed!” appears, perform test again.

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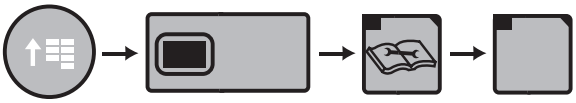
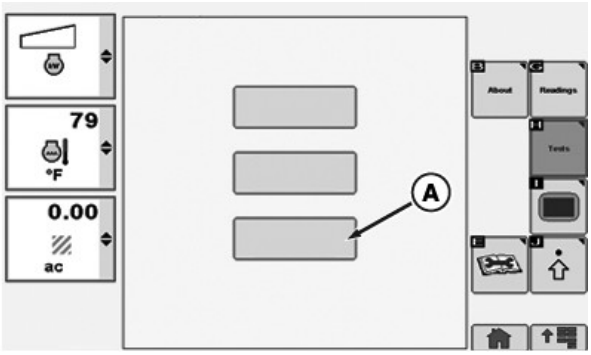
RXA0116468—UN—12MAY11



CommandARM Menu Button → Display Softkey → Diagnostics Softkey → Tests Softkey



Display Control Test

A —Touchscreen Calibration Box

If “Failed!” appears, after second attempt, contact your John Deere™ dealer.

OURX935,0000A6B-19-30JAN12-1/1

Setting Cab Lighting

Continued on next page

OURX935,0000A54-19-30JAN12-1/2

1. Select **Menu button.**
2. Select **Display**.
3. Selecting Cab Dim softkey (A) navigates to Cab Dim bar graph (B).

NOTE: As bar graph value goes up, cab lighting brightens. As bar graph value decreases, cab lighting dims.

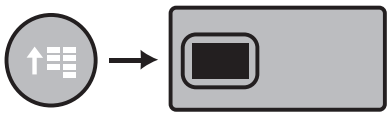
4. Select toggle button (C) to toggle between either stand alone mode or synchronization with cab mode (D).

NOTE: Selecting Dim Mode softkey (E) darkens CommandCenter™ . This feature allows operator to go from field operations when CommandCenter™ is required to driving on road without CommandCenter™ when illumination may effect drivers night vision.

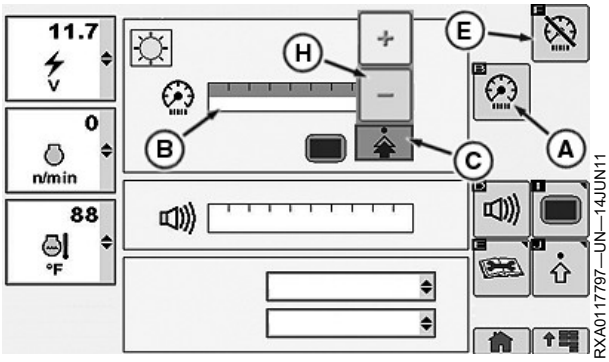
5. Make selection between Sync With Cab, Stand Alone mode, then select Save/Enter button (G) or select cancel (F).

A —Cab Dim Softkey
B—Cab Dim Bar Graph
C—Sync With Cab/Stand Alone Toggle Button
D—Sync With Cab Box
E—Dim Mode Display Softkey
F—Cancel
G—Save/Enter Button
H—Increase/Decrease Value Buttons

RXA0116493—UN—12MAY11

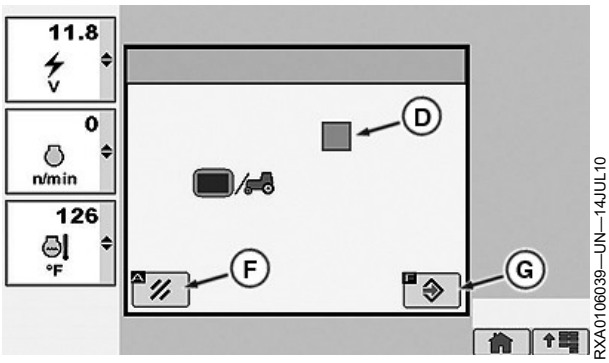


CommandARM Menu Button → Display



RXA0117797—UN—14JUN11

Display Main Page → Day Lighting



RXA0106039—UN—14JUL10

Backlight Settings Page

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OURX935,0000A54-19-30JAN12-2/2

Viewing Basic Diagnostic Readings

Basic display diagnostics such as operating voltage, and CAN bus status can be found on the Diagnostics Readings Page.

This information maybe requested by your John Deere dealer to aid diagnostics.

1. Select **Menu button.**
2. Select **Display softkey**.
3. Select **Diagnostics softkey**.

RXA0116490—UN—12MAY11

CommandARM Menu Button → Display Softkey → Diagnostics Softkey

4. System diagnostics are located on Display Settings Readings page.

OURX935,0000A6D-19-30JAN12-1/1

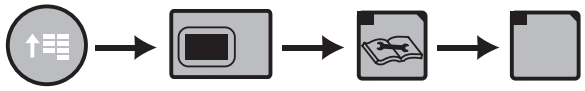
CommandCenter™ Software Version

1. Select **Menu button.**
2. Select **Display**.
3. Select **Diagnostics softkey**.
4. Select **About softkey**.

Installed software version number installed on the display is found on this page.

VT App Build Number:
XX.XX.XXXX.SDU.XX

RXA0116557—UN—16MAY11



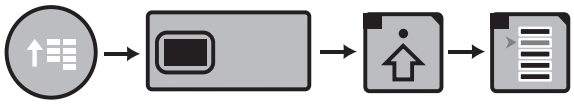
CommandCenter™ Menu Button → Display → Diagnostics → About

OURX935,0000A6C-19-30JAN12-1/1

Selecting Highlight Color

1. Select **Menu button.**
2. Select **Display softkey.**
3. Select **Advanced Settings softkey**.
4. Select **Highlight softkey**.
5. At Display Setting Highlight Color page, set highlight to green, blue, or red by placing check in the appropriate check box.

RXA0116470—UN—12MAY11



CommandARM™ Menu Button → Display Softkey → Advanced Settings Softkey → Highlight Softkey

OURX935,0000A56-19-30JAN12-1/1

Auxiliary Controls

The following message occurs when the system detects an auxiliary control. If necessary, review or change the auxiliary control mappings. Immediately after the message the operator can either decline or accept by using thumb wheel and scrolling to appropriate box. Select appropriate response by pressing the Confirm button. If ”Decline” is selected, all auxiliary controls will be disabled. If ”Accept” is selected, all auxiliary controls are enabled.

NOTE: If a different control is installed, Auxiliary Control will need to be remapped to introduce new control inputs to implement functions. When Auxiliary Controls are detected or have changed, the operator is responsible to ensure:

- *All users know which function is mapped to each control.*
- *Controls are properly labeled.*
- *Controls provide safe implement operation.*
- *Return to Auxiliary Control Setup and remap controls.*

CAUTION: Auxiliary Control detected Improper operation can cause unintended implement movement.

To avoid death or serious injury to a bystander, ensure:

- **All users know which function is mapped to each control.**
- **Controls are properly labeled.**
- **Controls provide safe implement operation.**

If ”Decline” is selected, all auxiliary controls will be disabled.

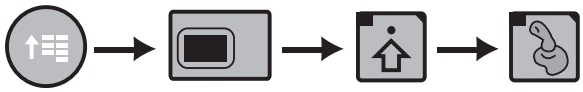
ISO compliant auxiliary controls may be used to control ISO compliant implement functions. Display Auxiliary Controls page is used to configure implement functions to available controls. The display does not operate the implement functions, but is used as an interface to map functions to input controls.

A two-switch ISO compliant auxiliary control device is used to control a drawn sprayer equipped with an ISO implement controller. The sprayer has two controlled functions: pump on/off and boom on/off. Using Auxiliary Control feature, each function may be mapped to one of the Auxiliary Control device switches.

Auxiliary Controls Setup:

1. Select **Menu button.**
2. Select **Display**.
3. Select **Advanced Settings softkey.**
4. Select **Auxiliary Control softkey**.

RXA0116556—UN—16MAY11



CommandARM™ Menu Button → Display → Advanced Settings → Auxiliary Control

*NOTE: Auxiliary Controls page allows the user to match inputs (C) with various implement functions (D). This process is called ”**Mapping**” an input to a function. Once this ”**Mapping**” is completed, a function may be performed by activating the associated input. The available functions and inputs depend on the ISO compliant implements/controls (E) that are currently connected.*

View Drop Down Box (A)	Input Device (B)	Input (C)	Function (D)	Implement (E)

5. Select View Drop-Down Box (A).

NOTE: An input device (B) consist of a number of inputs. These inputs may be buttons, switches, or dials.

6. Select Input Device.
7. Function (D) and Implement (E) will display, along with Auxiliary Control icon, when control is enabled.

To assign an input device’s controls to an implement’s functions:

1. Select an implement function.
2. The row that contains the currently selected implement function will be indicated by a cursor colored rectangle.
3. Select the list control under the ”**Input Device**” column in the currently selected row.
4. Choose an ”**Input Device**” by selecting one of the items listed in this control.
5. Another list control will appear in the ”**Input**” column.
6. Select an item from this list to select the specific input to map to the currently selected implement ”**Function**.” Functions which are in use are grayed out, but can be selected.

IMPORTANT: The input device selection list only shows inputs which are compatible to the implement functions.

7. A status indicator will appear to indicate if the input device’s control was successfully mapped to the implement "**Function**" or not.
   - A green status indicator indicates that the mapping is completed successfully.
   - A red status indicator indicates that the mapping was

Continued on next page

not successful. In this case, check the assignments and change as necessary.

OURX935,0000A57-19-10APR12-2/2

Setting Country, Language, And Units

1. Select **Menu button.**

OURX935,0000A58-19-30JAN12-1/2

2. Select **Display softkey.**
3. Select **Advanced Settings softkey**.
4. At the Display Settings Regional page, on the first line select country/region tractor is currently used in. Listed below are countries/region that may be selected:

Argentina	Finland	Portugal
Austria	Germany	Romania
Australia & New Zealand	Greece	Russia
Belgium	Hungary	Slovakia
Bulgaria	Iceland	South Africa
Brazil	Italy	Sweden
Canada	Latin America	Switzerland
Czech Republic	Latvia	Turkey
Croatia	Lithuania	Ukraine
Denmark	Netherlands	United Kingdom
Estonia	Norway	USA
France	Poland	

5. Selecting Units Advanced Settings Box, immediately after the Units drop down box on line four, gives the option to change between either US, Imperial, or metric units for all the lines by selecting this single check box.

   OR

6. On the second line in drop down box, select primary operator's language.

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CommandARM™ Menu Button → Display Softkey → Advanced Settings Softkey

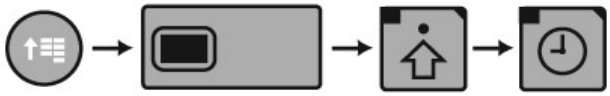
NOTE: Not all languages are available on each tractor. A software download kit may be needed to install certain languages. Contact your John Deere™ dealer for more information.

7. On the third line in drop down box, select numeric format desired. i.e. U.S. or metric.
8. On the fourth line in drop down box, select units required either U.S. or metric.
9. On the fifth line in drop down box, select date format desired.
10. In check box at the bottom of the page, select 24 hour clock check box to change to 24 hour clock or leave unchecked for 12 hour clock.
11. Selecting Units Advanced Settings Box, immediately after the Units drop down box on line four, gives the option to change between either U.S., Imperial, or metric units for all the lines by selecting this single check box.

OURX935,0000A58-19-30JAN12-2/2

Setting System Time

RXA0116471—UN—20JUN11



CommandARM Menu Button → Display → Advance Settings → Date/Time

NOTE: Enter the current time and your time zone.

1. Select **Menu button.**
2. Select **Display.**
3. Select **Settings softkey.**
4. Select **Date/Time softkey.**
5. When Display — Settings — Time/Date page displays, if GPS Time and Date check box on the first line is unchecked, select each of the blocks on the next two lines and enter appropriate:

   - Month
   - Day
   - Year
   - Hour
   - Minute
   - AM or PM As Appropriate

   If GPS Time and Date check box is checked the previous blocks in the list above cannot be changed.

   - Select and place appropriate time in Time Zone box.

Argentina -2	Croatia +1	Russia
Austria +1	Denmark +1	Moscow +3
Australia	Germany +1	Samara +4
Brisbane +10	Estonia +2	Orenburg +5
Adelaide +10	France 0	Omsk +6
Perth + 9	Finland +2	Krasnoyarsk +7
Melbourne +11	Greece +2	Switzerland +1
Bulgaria +2	Iceland 0	Slovakia +1
Brazil	Italy +1	South Africa +2
Sao Paulo -3	Hungary +1	Sweden +1
Mato Grosso -4	Central America + 5	United Kingdom 0
Canada	Latvia +2	Ukraine +2
Vancouver -7	Lithuania +2	Turkey +2
Calgary -6	Netherlands +1	USA
Winnipeg -5	Norway +1	Los Angeles - 7
Toronto -4	Poland +1	Denver - 6
Halifax -3	Portugal 0	Chicago -5
Czech Republic +1	Romania +2	Atlanta -4

   - Select month.
   - Select day.
   - Select year.
   - Select hour.
   - Select minute.
   - Select either AM or PM.

6. At the bottom of the page, in Daylight Saving Time check box, place check if daylight saving time is used in your country/region.

OURX935,00007FA-19-19OCT11-1/1

Read Operator Manuals for ISOBUS Implements

CAUTION: Implement Detected

Improper operation can cause unintended implement movement.

To avoid death or serious injury to a bystander, understand how this display operates the functions of the implement.

Read and understand the implement Operator Manual.

This message occurs when the system detects an ISOBUS implement. For more information, READ OPERATOR MANUALS FOR ISOBUS IMPLEMENTS.

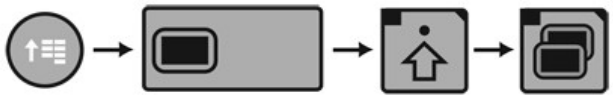
This display can be used as a display device for any implement that meets ISO 11783 standard. This includes capability to control ISOBUS implements. When used in this manner, information and implement control functions placed on the display are provided by the implement and are the responsibility of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

NOTE: ISO 11783 is also named "ISOBUS".

OURX935,00002D4-19-09MAY11-1/1

Connecting ISO Implements and ISO Display Options

RXA0120592—UN—14SEP11



CAUTION: Implement Detected

Improper operation can cause unintended implement movement.

To avoid death or serious injury to a bystander, understand how this display operates the functions of the implement.

Read and understand the implement Operator Manual.

This message occurs when the system detects an ISOBUS implement. For more information, READ OPERATOR MANUALS FOR ISOBUS IMPLEMENTS.

1. Select **Menu button.**
2. Select **Display**.
3. Select **Advanced Settings softkey**.
4. Select **Multiple Display.**

In some cases it is necessary to operate with more than one ISO terminal display. In such cases configure CommandCenter™ to recognize and operate in conjunction with a second ISO display. The following tables distinguish between single, multiple, and custom settings.

Single Display Mode

Display Mode:	Single
GreenStar™ :	On
Original GreenStar™ Monitor:	On
Implement Bus:	On
Functional Instance	
GreenStar™:	1
Original GreenStar™ Monitor:	1
Implement Bus:	1
Vehicle Bus:	1

Change Settings | Restore Factory Default Settings

Single Display Mode

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If Change Settings box in lower left corner is selected, Restore Factory Default Settings box appears in lower right corner allowing operator the option of restoring factory default settings.

Single Display mode is active when:

- CommandCenter™ is the only display being used

Multiple Display Mode

Display Mode:	Multiple
GreenStar™:	Off
Original GreenStar™ Monitor:	Off
Implement Bus:	Off
Functional Instance	
GreenStar™:	1
Original GreenStar Monitor:	1
Implement Bus:	1
Vehicle Bus:	1

Change Settings

Multiple Display Mode

Multiple Display mode is active when:

- A second John Deere™ ISO display is connected. Note
  - GreenStar™ Off
  - Original GS Monitor Off
  - Implement Bus Off
- If settings are changed in this mode, mode is now referred to as Custom Mode.

Custom Display Mode

Display Mode:	Custom
GreenStar™ :	Off
Original GreenStar™ Monitor:	Off
Implement Bus:	On
Functional Instance	
GreenStar™:	1
Original GreenStar Monitor:	1
Implement Bus:	1
Vehicle Bus:	1

Change Settings | Restore Factory Default Settings

Custom Display Mode

Custom Display mode is active when:

- Setting changed Multiple Display Mode Note

Continued on next page

- GreenStar™ Off
- Original GS Monitor Off
- Implement Bus On

- If settings are changed in this mode, page reflects change

Note Before disconnecting display, Restore Factory Default Settings in lower right corner must be selected. System reverts to Multiple Display Mode, If it does not, GreenStar **will not** repopulate CommandCenter after restart.

Change Settings			
Changing these settings may cause devices to stop working			
On/Off	Functional Instance		
GreenStar™:		✓	1
Original GreenStar™ Monitor:		✓	1
Implement Bus		✓	1
Vehicle Bus			1
///		Save Settings and Restart Display	

Change Settings

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John Deere is a trademark of Deere & Company

General Recommendations:

- Ensure that ignition is in **OFF** position when connecting auxiliary ISO displays or ISO implements.
- Restore Factory Default Settings before disconnecting external ISO display.

Guide For Display Settings for Multiple Display Pages	
GreenStar™ applications	GreenStar™ applications **cannot** operate simultaneously on two displays.
Original GreenStar™	OriginalGreenStar™ monitor **cannot** operate simultaneously on two displays. *NOTE: All Original GreenStar™ monitor functionality can only be viewed via Original GreenStar™ display, if equipped.*
Implement Bus Virtual Terminal	Implement Bus Virtual Terminal can be active on two ISO displays. • Enable Implement Bus to view an ISO implement on the CommandCenter™. • Disable Implement Bus to view an ISO implement on alternate ISO display. *NOTE: Functional instance box (I) may change depending on ISO implement. Consult ISO implement manual.*
Tractor Bus Virtual Terminal	Tractor Bus Virtual Terminal cannot be disabled. No adjustment required.

OURX935,0000A59-19-30JAN12-2/2

Default Home Page

1. Select **Menu button.**
2. Select **Layout Manager.**
3. Page displayed is the most recent home page used. See Configuring Home page to display optional Home page.
4. Select Home Softkey (A) repeatedly until default Home page displays.

Default Home page is made up of configurable and static areas. Configurable areas are Performance Monitor Settings Options (C), see Using Performance Monitor Main in this section and Left Region boxes (H), see CommandCenter™ in this section for options.

Default Home page static areas are:

- B — Engine Hours
- D — Rear Hitch
- E — SCV's
- F — Intelligent Power Management
- G — Transmission

A —Home Softkey
B—Engine Hours
C—Drop Down Boxes
D—Rear Hitch
E—SCVs
F—Intelligent Power Management
G—Transmission
H—Left Region

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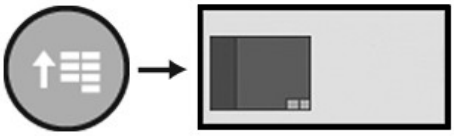
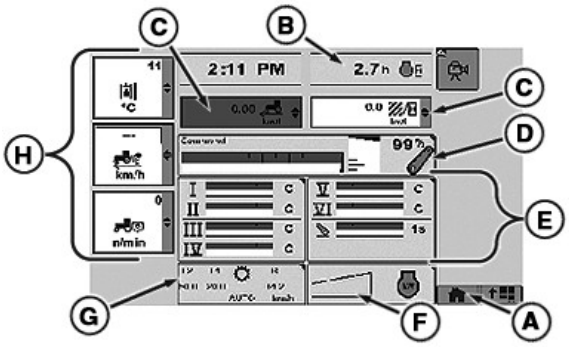


CommandARM™ Controls Menu Button→Layout Manager Icon



RXA0116772—UN—16MAY11

Layout Manager—Selected Home Page

OURX935,0000A5A-19-30JAN12-1/1

Configuring Home Page

1. Select **Menu button.**
2. Select **Layout Manager.**
3. Layout Manager will open in the home page that was last used.
4. Select Region drop down box (A) to display options which include 3 home page options and 10 softkeys options.

↑	Home Page 1
	Home Page 2
	Home Page 3
	Softkey A
	Softkey B
	Softkey C
	Softkey D
	Softkey E
	Softkey F
	Softkey G
	Softkey H
	Softkey I
↓	Softkey J

5. Place check in Home Page Cycle check box (C) to have desired page displayed.
6. To view home pages after they are included in the home page cycle, select CommandARM™ Home button displaying home page 1. Selecting Home button repeatedly displays consecutive home pages, 1, 2, or 3.
7. Open drop down box (A) to select pages or softkeys available for your tractor configuration.

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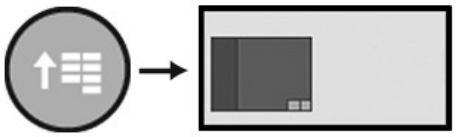
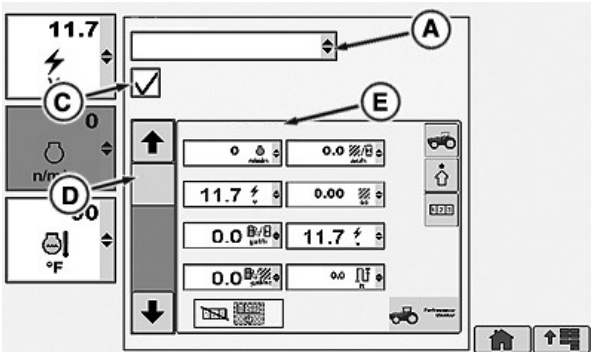


CommandARM™ Controls Menu Button→Layout Manager Icon



RXA0106103—UN—20AUG10

Layout Manager—Selected Home Page

A —Region Drop Down Box
B —Page Name
C —Home Page Cycle Check Box
D —Desired Softkey

NOTE: Page Name (B) is printed across the top of page. Not all pages are identified with a specific page name.

8. To remove page from Layout Manager, remove check from check box (C). Check box is deactivated and page is no longer displayed in Layout Manager.
9. The 10 softkeys can also be programmed with the softkey options available to each. The selected softkey would then appear on the selected home page.

Continued on next page

OURX935,0000A5B-19-10APR12-1/2

The default home page can be configured to monitor a number of ongoing tractor functions, of which (A) is an example and normally monitored in the left region.

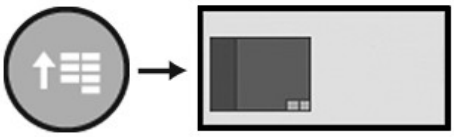
NOTE: Softkey layouts are only visible on home pages that support reconfigurable softkeys.

To add configurable softkey to home page:

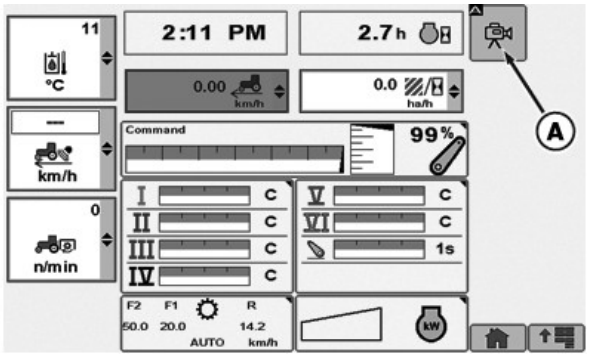
1. Select **Main Menu**.
2. Select **Layout Manager**.
3. Select Region drop down box (B).
4. Select desired softkey A though J (softkey E in this example).
5. Using Up/Down arrows (C) scroll to desired configurable softkey (D).
6. Select Home softkey (E) at the bottom of right region.
7. Selected softkey (A) is then added to right region of home page.

A —Softkey (Video)
B —Region Drop Down Box
C —Arrow Up/Down
D —Softkey (Video)
E —Home

RXA0116492—UN—11MAY11

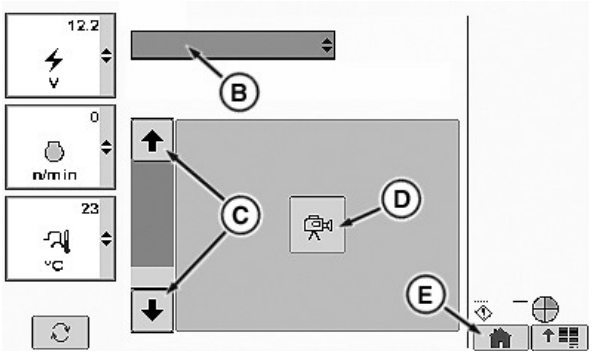


CommandARM™ Controls Menu Button→Layout Manager Icon



RXA0116773—UN—16MAY11

Default Home Page



RXA0110932—UN—16SEP10

Adding Video Softkey

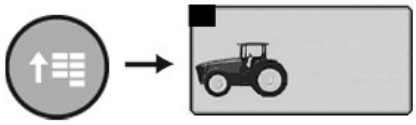
OURX935,0000A5B-19-10APR12-2/2

Using Performance Monitor Main

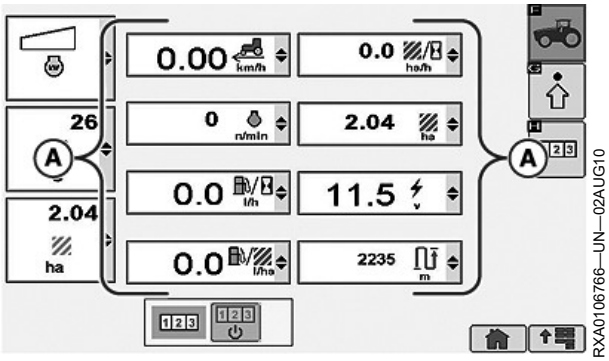
1. Select **Menu button.**
2. Select **Performance Monitor**.
3. When Performance Monitor Main page appears, 8 options are displayed (A). Current settings can be monitored at this time.
4. Selecting the drop down box in any of the 8 displayed options allows operator to select any of the remaining performance monitor options.

A —Displayed Performance Monitor Options
B—Ground Speed
C—Radar Speed
D—GPS Speed
E—Engine RPM
F—Front PTO Speed
G—Rear PTO Speed
H—% Wheel Slip
I—Fuel Consumption Per Hour
J—Fuel Consumption Per Area
K—Area Covered Per Hour
L—Total Area Covered
M—Engine Coolant Temperature
N—Hydraulic Oil Temperature
O—Engine Oil Pressure
P—System Voltage
Q—Distance Covered
R—Hitch Position
S—Brake System Pressure
T—Engine Power
U—Hours of Fuel Remaining
V—Ambient Temperature

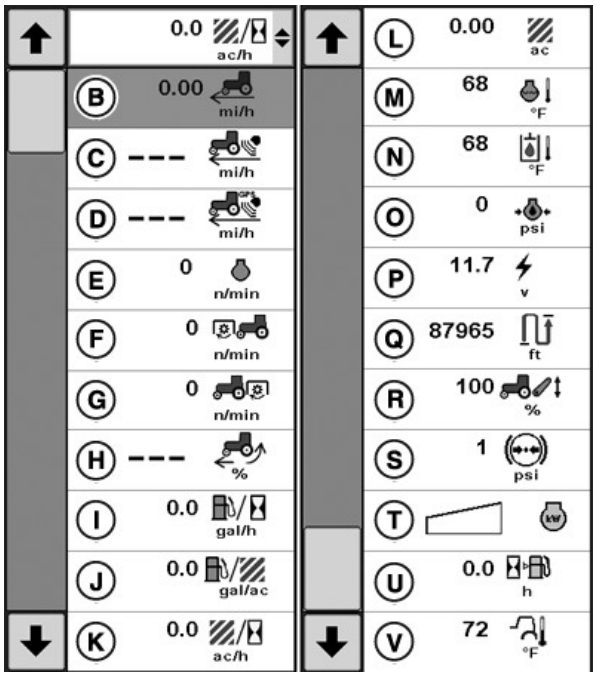
RXA0116496—UN—11MAY11



CommandARM™ Menu Button → Performance Monitor



Performance Monitor Main Page



Performance Monitor Settings Options

OURX935,0000A5C-19-30JAN12-1/1

Setting Implement Width and Control Modes —Performance Monitor Settings

1. Select **Menu button.** Keypad displays.
2. Select **Performance Monitor**.
3. Select **Performance Monitor Main softkey**.
4. Select Implement Width softkey (A).

NOTE: When inputting implement width, if a number is entered incorrectly, select backspace button (B) or the entire entry is removed by selecting the cancel button (D).

5. Using keypad (E) enter implement width required, then select enter button (C).

Area Counter Control Modes are changed by selecting Area Counter Control Mode Drop Down box, make mode selection.

A —Implement Width Softkey
B—Keypad Back Space Button
C—Keypad Enter/Save Button
D—Keypad Cancel Button
E—Keypad Keys
F—Area Counter Control Mode Drop Down Box
G—Manual Mode
H—Switch Mode
I—Auto Mode
J—Rear hitch Mode
K—Front Hitch Mode
L—Rear PTO Mode
M—Front PTO Mode
N—SCV I Mode
O—SCV II Mode
P—SCV III Mode
Q—SCV IV Mode
R—SCV V Mode
S—SCV VI Mode
T—GreenStar™

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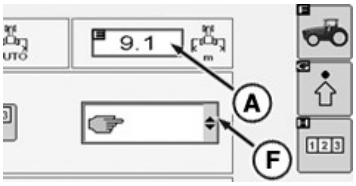
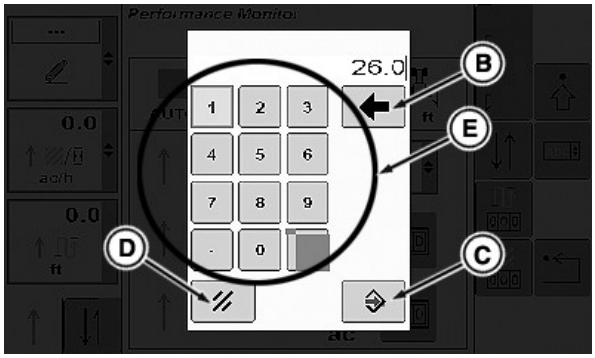
CommandARM™ Menu Button → Home → Performance Monitor Main Softkey

RXA0117366—UN—14JUN11



Performance Monitor Page



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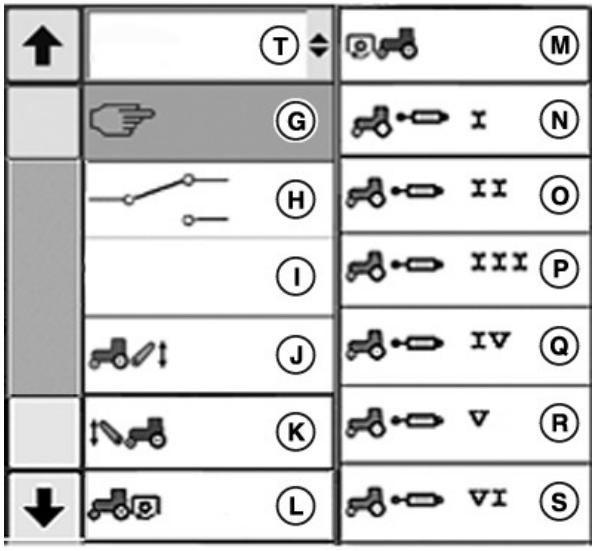
Performance Monitor Keypad Page



RXA0117367—UN—14JUN11

Area Counter Control Modes

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OURX935,0000A5D-19-30JAN12-1/1

Setting Service Interval and Resetting Hours Since Service—Performance Monitor Settings

1. Select **Menu button.**
2. Select **Performance Monitor**.
3. Select **Performance Monitor Settings softkey**.
4. At Performance Monitor page go to Service Alarm Interval box (A) and select it.

NOTE: If not changing setting at this time, select cancel button in lower left corner of Service Alert page.

5. Service Alert page appears with a questions and note:

Are you sure you want to reset the total hours since service?
NOTE: If you are using Access Manager and have multiple displays connected, resetting the average totals on this display may reset the average totals on other displays as well.

Select Enter/Save button in lower right corner to continue.

NOTE: If an incorrect number is entered on keypad (E), selecting back space button (F) backspaces one space each time button is pushed.

6. Using key pad enter number of hours until next desired service alarm notification.
7. Select Enter/Save button (C) to store new number.

OR

Select cancel button (D) to escape.

8. Select Reset Hours Since Service Box (B) and make appropriate change using keypad as described for setting service interval.

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CommandARM™ Menu Button → Performance Monitor → Performance Monitor Settings

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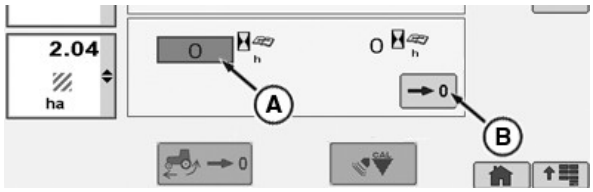
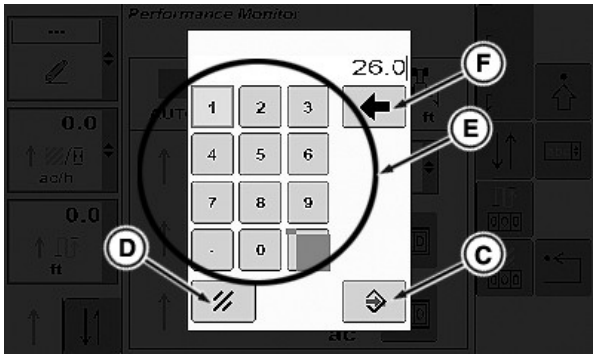


Performance Monitor Settings Page



RXA0120736—UN—21SEP11

Key Pad

A —Service Alarm Interval Box
B—Reset Hours Since Service Box
C—Enter/Save Button
D—Cancel Button
E—Key Pad
F—Back Space Button

OURX935,0000A5F-19-30JAN12-1/1

Calibrating Dual Beam Radar—Performance Monitor Setting

1. Select **Menu button.**
2. Select **Performance Monitor.**
3. Select **Performance Monitor Settings softkey**.
4. At the bottom of the Performance Monitor Settings page, select **Calibrate Radar button**.
5. Place check in Dual Beam Radar check box (A).
6. Select calibration Box (B).

Drive an unloaded vehicle at least 3.2 km/h then press the calibration button

A —Dual Beam Radar Check Box

B —Calibration Box

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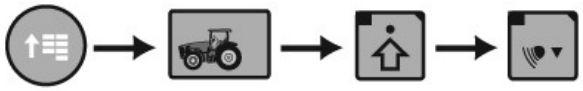
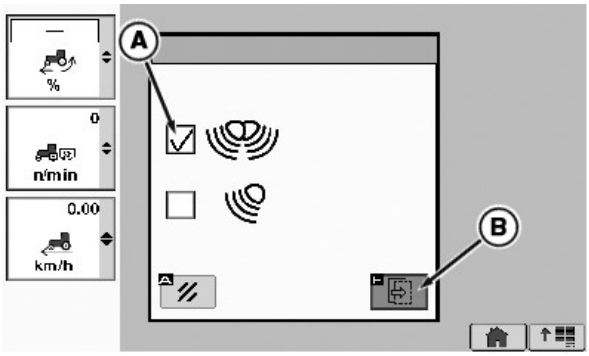


CommandARM™ Menu Button → Performance Monitor → Performance Monitor Settings → Calibrate Radar



Calibrate Radar Page

OURX935,0000A60-19-09APR12-1/1

Manual Vehicle Speed Calibration—Performance Monitor Settings

NOTE: The Vehicle Speed Calibration (Manual) procedure is not used with John Deere™ Dual Beam Radar.

Automatic vehicle calibration is used with John Deere™ Dual Beam radar or GPS signal device. See VEHICLE SPEED CALIBRATION (AUTOMATIC) in this Section.

Ttractors equipped with no radar or single beam radar, a change in tire size or loading of tractor can affect wheel and ground speed which requires recalibration.

1. On a hard level dry surface, mark out a 400 ft. (122 m.) course. Place easily visible markers at the start and end of the course.
2. Drive tractor up to, but do not cross, course start line.
3. Select **Menu button.**
4. Select **Performance Monitor.**
5. Select **Performance Monitor Settings softkey**.
6. At the bottom of the Performance Monitor Settings page, select **Calibrate Radar button**.
7. Select ”Other RADAR” which automatically places check in check box (A).
8. Select calibration Box (B) and proceed on course.
9. Calibration results then display.

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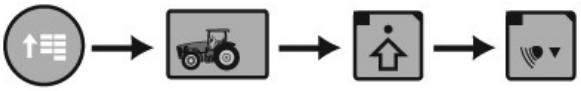
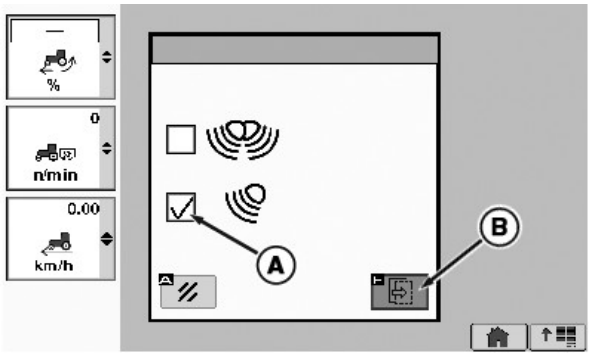


CommandARM™ Menu Button → Performance Monitor → Performance Monitor Settings → Calibrate Radar



RXA0117184—UN—09JUN11

Calibration Box

A —Other Radar Check Box **B —Calibration Box**

Calibration Results	
If Calibration is Successful	**If Calibration is Unsuccessful**
Calibration Successful	Calibration Unsuccessful

10. If failed message is received, perform procedure again.

NOTE: If after 3 attempts vehicle speed calibration is unsuccessful, see your John Deere dealer.

OURX935,0000A61-19-13APR12-1/1

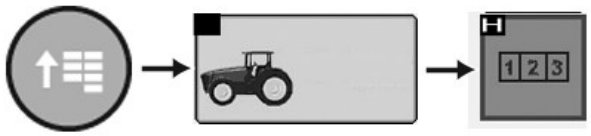
Setting Distance Counter—Performance Monitor Total

1. Select **Menu button.**
2. Select **Performance Monitor**.
3. Select **Performance Monitor Totals softkey**.
4. To reset area counters or fuel counter, select Zero Area and Fuel Counter button (A).
5. To reset distance counter, select Zero distance counter button (B).

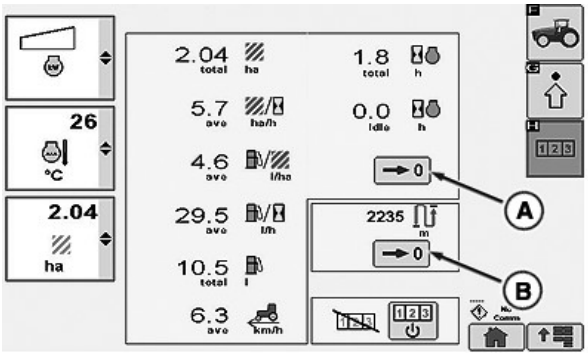
A —Zero Area And Fuel Counter Button

B —Zero Distance Counter Button

RXA0116495—UN—11MAY11



CommandARM™ Menu Button → Performance Monitor → Performance Monitor Totals



Performance Monitor Totals Page

OURX935,0000A62-19-30JAN12-1/1

Access Manager

1. Select **Menu button.**
2. Select **Access Manager.**

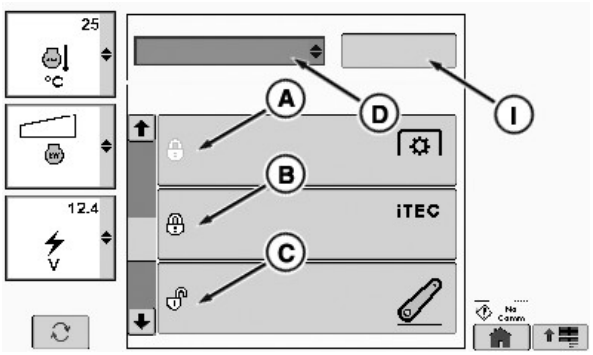
NOTE: Access Manager page displays tractor components/capabilities that can be locked (B), partially locked (A) or unlocked (C).

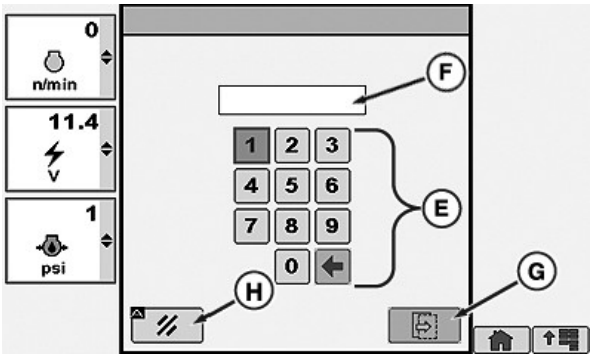
3. When Access Manager page displays, select Current Access Level drop down box (D). Drop down box allows the choice of owner or operator.
4. When drop down box displays, select owner or operator.
5. If owner is selected, select Change Password Box (I). When Password page displays, go to keypad (E) and type in new four number password. Numbers will display on password page display (F) as they are selected. When finished select Accept button (G) or Cancel button (H).

A —Partially Locked Position
B —Locked Position
C —Open Position
D —Access Level Drop Down Box
E —Key Pad
F —Display
G —Accept Button
H —Cancel Button
I —Change Password Box

RXA0116469—UN—12MAY11

Access Manager





Password Page With Key Pad

Continued on next page

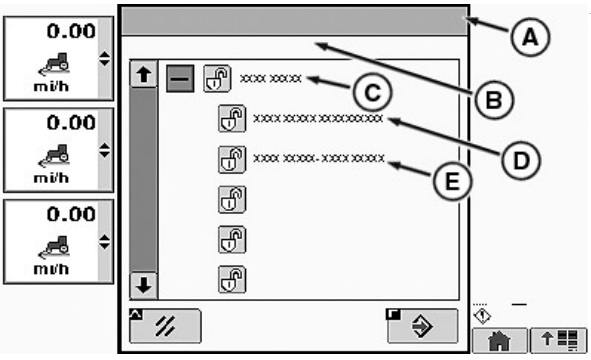
OURX935,00002EE-19-03JAN12-1/3

NOTE: While in owner mode, each option available can be preset to limit specific settings from being changed. Doing so reduces the risk of operator error because once set only those with the owner current password can unlock system to make changes. Access Manager changes made are not visible while in owner mode, but are visible in operator mode. To verify that changes made are in the system, log on as operator.

Main component can be locked by selecting padlock which will display on Access Manager page as locked. If individual sub-components/specific components are locked, the main component will be displayed as partially locked. If all sub-components/specific components are locked or unlocked, the main component will be displayed as locked or unlocked, respectively.

6. Using Access Manager allows owner to control the following applications on the tractor. The table following contains the relevant sub-components and specific components.

   - GreenStar
   - Performance Monitor
   - Transmission
   - Lights
   - Engine
   - PTO
   - iTEC
   - Rear Hitch
   - SCV
   - Display
   - Layout Manager



Rear Hitch Operator Access Levels Page

A —Page Name
B —Notice
C —Main Component/ Capability
D —Specific Component/ Capability
E —Specific Component/ Capability

Main Component	Sub-Component	Specific Component
GreenStar	Machine	Machine Offsets
	Implement	Implement
		New
		General Settings
		Implement Width
	Track Spacing	
	Recording Source	
	Guidance	New/Edit/Delete
		Tracking Mode
		Select Track
	Settings	General Settings
		Light Bar Settings
		AutoTrac Settings
		Curve Track Setting
		Shift Track Settings
		Row Sense Settings
	Shift Track	
	Field	New
		Client
		Farm
		Field
	Boundaries	

Main Component	Sub-Component	Specific Component
	General Settings	Map Settings
		Activations
Swath Control Pro	On/Off	
	SCP Settings	
Performance Monitor	Reset Counters	
	Settings	
Transmission	IVT/AutoPowr Mode	
	Maximum Wheel Speed	
	Standard Settings	
	Advanced Settings	
	User Mode	

Main Component	Sub-Component	Specific Component
Lights		
Engine	FieldCruise On/Off	
	FieldCruise Settings	
PTO	PTO Advanced Settings	
	Engagement Rates	
	Remote Control	
	FieldCruise Settings	
iTEC	Change Implements	
	iTEC Settings	
Rear Hitch	Load Depth	
	Upper Limit	
	Drop Rate	
	Raise Rate	
	Slip Sensitivity	
SCV	SCV	SCV I
		SCV II
		SCV III
		SCV IV
		SCV V
		SCV VI or SCV VII
	Single Lever Control	

Continued on next page

Main Component	Sub-Component	Specific Component
	Auto Load	
Display	Language/Units/Dates	
	Multiple Displays	

Main Component	Sub-Component	Specific Component
	Brightness and Volume	
Layout Manager		

OURX935,00002EE-19-03JAN12-3/3

Continued on next page

OURX935,00002EE-19-03JAN12-4/3

Use Video Display Capability Properly (Touchscreen CommandCenter™ Only)

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.

RXA0109491—UN—05AUG10

Avoid Backover Accidents

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.**

OURX935,0000A63-19-30JAN12-1/1

Installing Video Display Camera (Touchscreen CommandCenter™ Only, Equipped with 2630 Display)

IMPORTANT: Avoid damaging camera by mounting camera securely to equipment and in a location in which camera will not be pinched, crushed, kicked, or knocked off.

NOTE: Camera placement is limited to video camera cable length and safety considerations for camera. Mount camera in a sturdy and secure location. Consider camera field of view when selecting location.

1. Tractor is equipped with four, four pin video connectors to attach camera(s). Remove cap screws (A), then remove cab rear panel to access connectors (B). Chart shows connector pin/function information.

Pin Number	Function
1	Power
2	Ground
3	Signal
4	Signal—Ground

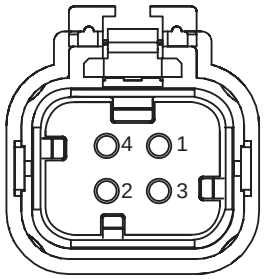
NOTE: The camera connector harnesses are identified with these labels: TRACTOR CAM, 2630 CAM1, 2630 CAM2, and 2630 CAM3.

Connect the camera to either of the connectors and the video appears in corresponding video on the display. Example, if a camera is connected into the 2630 CAM 1 connector, camera can be viewed in video 1 on the 2630 display.

2. Connect camera cable into four pin connectors, route cable and mount camera at desired location.
3. Install back panel on tractor.

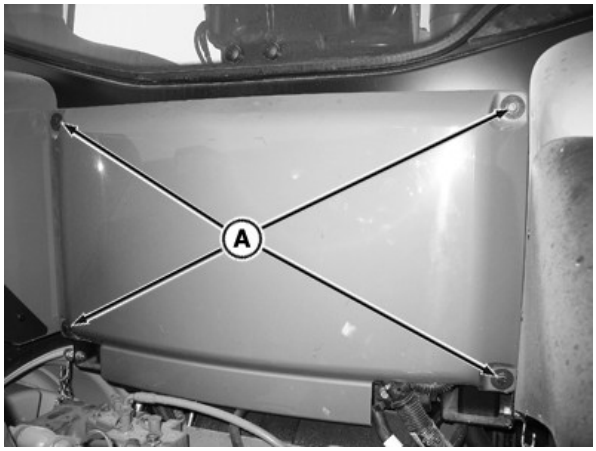
A —Cap Screws

B —Video Connectors for 2630 Display



RXA0107925—UN—28MAY10

Video Connector Pin Identification



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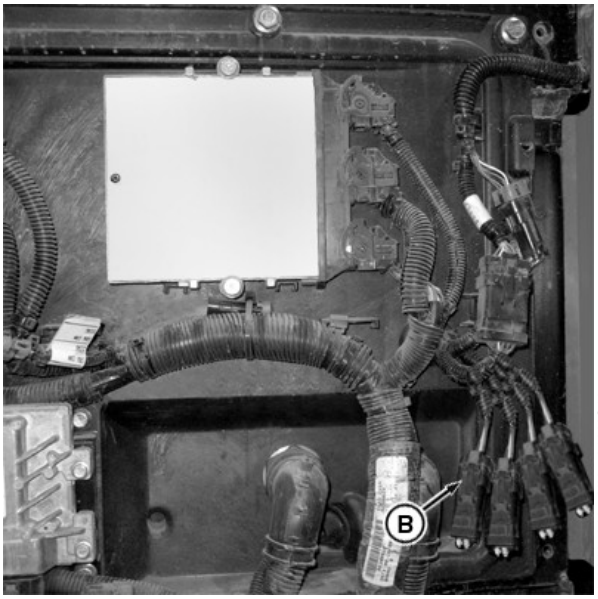
Remove Rear Panel



RXA0127242—UN—01AUG12

Video Connectors Location

TO84419,0000358-19-14SEP12-1/1

Three Camera Video Harness with Ethernet Cable (If Equipped)

The GreenStar™ (GS3) 2630 Display can support three video inputs for those who want additional visibility when operating the tractor. Attach base display connector (A) and video signal connector (B) to the back of the 2630 Display.

NOTE: This is in addition to the video input for the CommandCenter™ Touchscreen Display .

If equipped, the Ethernet cable (C) with GS3 2630 Display allows remote access to dealers and customers, with their approval, to view exactly what the operator is viewing on the GS3 2630 Display.

A— Base Display Connector
B— Video Signal Connector
C— Ethernet Cable

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CommandCenter is a trademark of Deere & Company

RXA0127459—UN—07AUG12

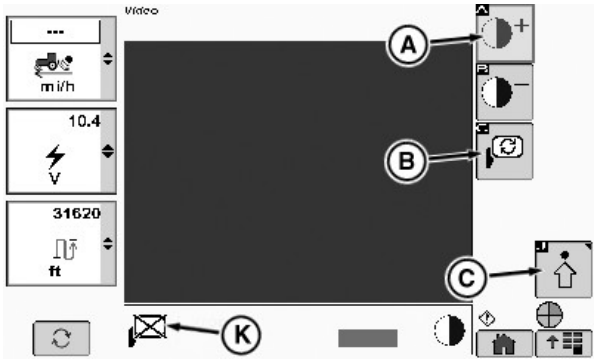
Integrated Video Harness with Ethernet Cable

TO84419,0000359-19-29NOV12-1/1

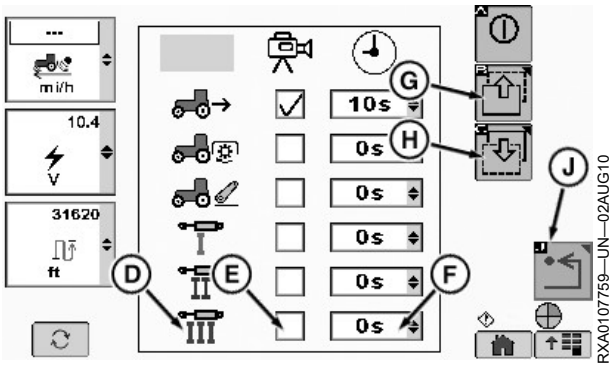
Video Display Settings (Touchscreen CommandCenter™ Only)

RXA0110766—UN—09SEP10

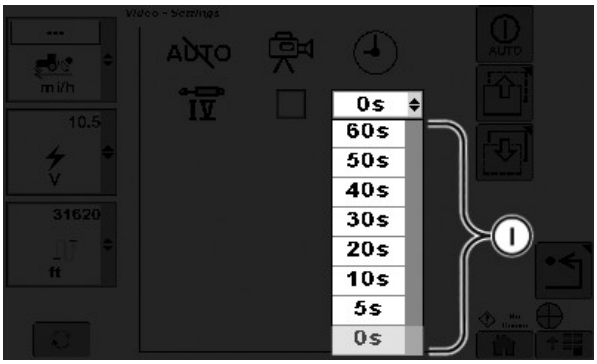
CommandCenter™ Menu Button → Video Softkey



Video Page



Video Settings Page



Extended Time Drop Down Box Options

A —Increase Contrast Softkey
B —Mirror Softkey
C —Advanced Softkey
D —Trigger Options
E —Trigger Option Check Box
F —Extended Time Drop Down Box
G —Page Up Softkey
H —Page Down Softkey
I —Extended Time Options
J —Back Softkey
K —Mirror Indicator

1. Select **Menu button.**
2. Select **Video softkey**.
3. Select softkeys plus or minus (A) to adjust video focus.

NOTE: Selecting mirror softkey allows operator to choose either a mirror image or a standard view of what the camera is viewing.

4. Select mirror softkey (B). Mirrored image will be on and displayed at mirror indicator (K) or off and mirror indicator displays an X as shown.
5. Select advanced settings softkey (C).

NOTE: Trigger is an action which will cause video page to display live camera image. Operator can set video page to start and end when trigger event starts and stops. Additionally, the time the video page is active can be extended beyond end of trigger event to provide additional viewing. Extended time display can be set from 5 to 60 seconds.

For example: if hitch is the trigger and extended time is set to 0, video page activates precisely when hitch is activated. Video page display ends immediately when hitch movement is complete. If extended time is set to 60 seconds, video page activates at moment when hitch is activated, then remains active 60 seconds after hitch movement is complete.

Up to six trigger options are displayed per page. If more than six options are available, select page up softkey (G) or down softkey (H) to view additional options.

6. Select desired trigger from options (D) available on left side of page and select check box (E) for appropriate trigger.
7. Select drop down box (F) in page right column to select desired extended time (I).
8. Select Back softkey (J) to return to previous page.

OURX935,0000A65-19-30JAN12-1/1

Remote Software Updates (If Equipped)

Service ADVISOR™ Remote (SAR) provides the ability to a John Deere™ dealer technician or company person to remotely update vehicle software using John Deere™ telematics infrastructure. The Service ADVISOR™ Remote User Interface on CommandCenter™ informs vehicle operator when new software is available for download or installation. The interface allows the operator to accept or cancel a software download. When the software update has successfully downloaded, the operator will be able to initiate the software installation. The CommandCenter™ interface informs the vehicle operator about programming status and final result.

1. Select **Menu button.**
2. Select **Remote Software Updates softkey.**

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

RXA0116558—UN—16MAY11

CommandARM™ Menu Button → Remote Software Updates Softkey

3. When Software Updates page displays, the operator can:
   - Reject download
   - Download software
   - Install software by following the on-screen instructions

OURX935,0000A66-19-30JAN12-1/1

Message Center

1. Select **Menu button.**
2. Select **Message Center.**

Message Center is used to access detailed diagnostic information and to manually initiate reprogramming sessions.

Message Center can also display detailed diagnostic information such as Control Unit Information and CAN Bus Information, used by your John Deere™ dealer for advanced troubleshooting.

Softkeys are listed below:

- A — Message Center Reprogramming Page
- B — Transfer Debug Files
- C — Messages
- D — Diagnostic Addresses
- E — Trouble Codes
- F — Control Unit Information
- G — Bus Information

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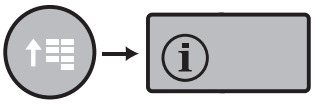
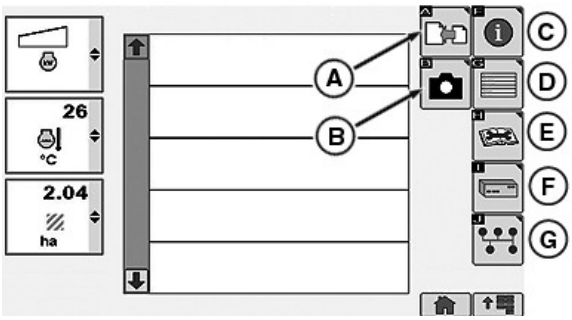
RXA0116491—UN—12MAY11



CommandARM™ Menu Button → Message Center



RXA0106008—UN—14JUL10

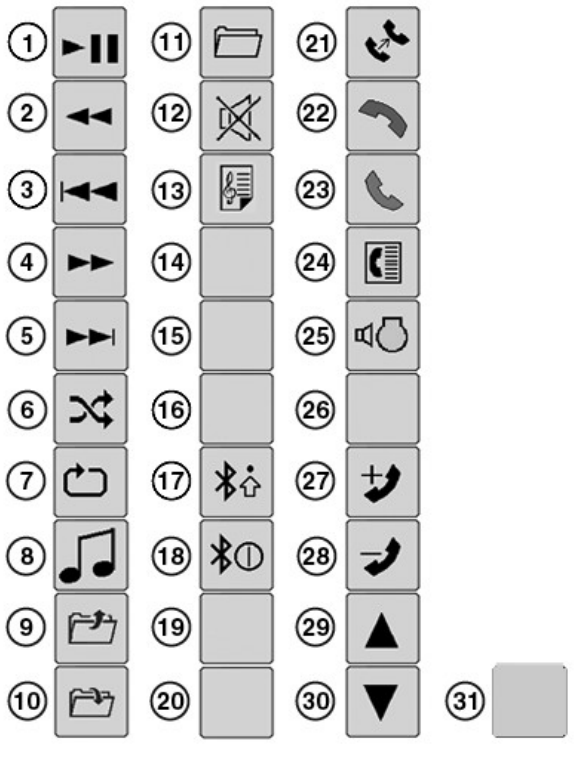
Message Center Page

OURX935,0000A67-19-30JAN12-1/1

CommandCenter Radio and Phone Right Region Softkeys

Any other softkey information can be found in the CommandCenter section.

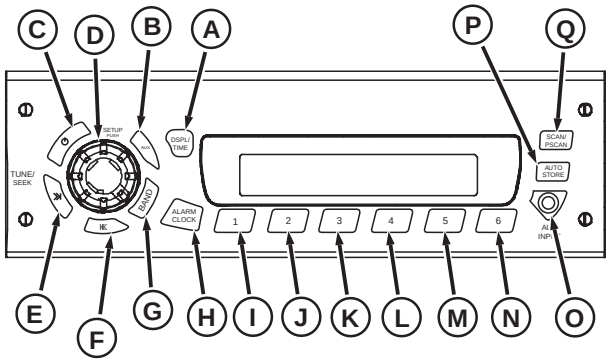
1—Play/Pause
2—Fast Reverse
3—Previous Track
4—Fast Forward
5—Next Track
6—Random Folder/Random All
7—Repeat Folder/Repeat All
8—Source Select
9—Folder Up
10—Folder Down
11—Folder Select
12—Mute
13—Playlist Enable/Disable
14—(CAT) Category Mode Enable/Disable
15—(CAT +) Category Up
16—(CAT -) Category Down
17—Bluetooth Settings[1]
18—Bluetooth ON/OFF
19—Band
20—Auxiliary (AUX)
21—Transfer Call
22—Hang Up
23—Dial Number/Answer Call
24—Phone Book
25—Volume Compensation
26—Change Active Phone
27—Add Phone
28—Delete Phone
29—Page Up
30—Page Down
31—Scan



[1] Bluetooth is a trademark of Bluetooth SIG

OURX935,0000453-19-21SEP11-1/1

Operating Deluxe Radio



RXA0100009—UN—16DEC08

Radio

A—DISPLAY/TIME
B—AUX
C—Power
D—SETUP
E—Tune/Seek (+)
F—Tune/Seek (-)
G—BAND
H—ALARM CLOCK
I—Preset Station 1
J—Preset Station 2
K—Preset Station 3
L—Preset Station 4
M—Preset Station 5
N—Preset Station 6
O—AUX INPUT Port
P—AUTO STORE
Q—SCAN/PSCAN

Radio can be operated in any one of two modes:

1. Radio ON with tractor key switch in ON or ACC position.
2. With tractor key switch OFF, press radio Power Button, radio will play up to one hour, then shut off automatically.

Radio display can be changed to either time or station frequency

1. Press and hold DISP/TIME button (A) for 3 seconds.
2. Observe slow flash on display.
3. Press preset station (any of buttons 1 through 6 (I through N).
4. Wait three to five seconds, press DISP/TIME button to toggle between time or station frequency.

Operating Radio

Press On/Off (C) to turn radio on or off.

Press BAND (G) to switch between AM, FM1, FM2, or FM3 bands.

Press AUX (B) to play external device connected via auxiliary input port (O) to radio front panel.

Press SETUP (D) repeatedly to adjust bass, treble, fade, seek sensitivity, dim, balance and speakers. Rotate SET UP knob for adjustment. Adjust brightness of display by pressing SETUP until ”DIM” appears on display. Rotate SET UP knob to adjust.

Press TUNE/SEEK (E or F) buttons quickly to ”tune” or search for the next higher or lower frequency and radio will stop on that frequency even if no station exists . Holding Tune/Seek buttons longer than half a second initiates seek function. Seek function stops at next higher/lower frequency with a strong radio signal. Seek threshold signal strength is adjusted within SETUP function.

Press ALARM CLOCK (H) to enter alarm set mode, see Setting Deluxe radio Alarm and Clock in this section.

Plug external audio devices into AUX INPUT (O).

Pressing SCAN/PSCAN (Q) buttons to scan all stations on band you are using. When a strong frequency is found, radio will play for 8 seconds before continuing scanning. Display will show PSCN, frequency, preset number, and current band. Preset scan will continue until you press SCAN/PSCAN button again.

Storing Preset Stations (I through N)

1. Select FM1, FM2, FM3, or AM.
2. Tune to desired station.
3. Press and hold one of the six preset buttons (I through N) to store selected station.
4. Repeat procedure for remaining preset buttons.

Press AUTO STORE (P) until ”AUTO” and the ”AS” icon appear to automatically store six strongest stations of a selected band. Press AUTO again to restore original presets.

Playing Preset Stations

Press appropriate button 1-6.

OURX935,0000AE5-19-06SEP11-1/1

Setting Clock and Alarm—Deluxe Radio

NOTE: If no adjustments are made for 5 seconds during alarm set process, alarm clock setup will be cancelled and radio will return to normal operation, keeping whatever setting changes have been made.

Setting Clock

1. Switch ignition to ON position.
2. Press and hold DSPL/TM SET (C) button until ”hours” and ”minutes” digits flash and you hear a beep.
3. Press DSPL/TM SET button again until ”hours” digits flash.
4. Rotate SETUP (B) knob to change the hour. Rotate knob clockwise to increase and counterclockwise to decrease the hour.
5. Press DSPL/TM SET button again until ”minutes” digits flash.
6. Rotate SETUP knob to change minutes. Rotate knob clockwise to increase and counterclockwise to decrease minutes.
7. Press DSPL/TM SET button again to complete time set procedure. Display will return to default display.

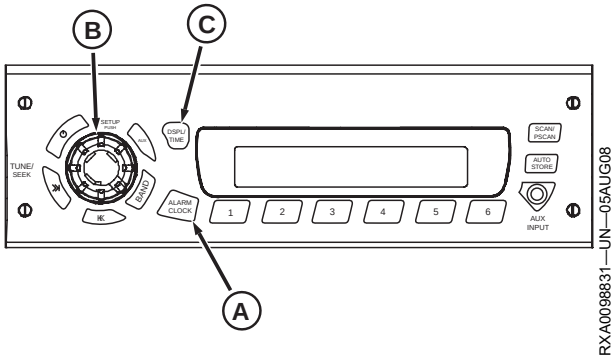
Change display clock function to 12 or 24 hour mode

The 12 hour mode distinguishes between AM and PM and 24 hour mode operates as military time.

1. To change mode press and hold the "DSPL/TM SET" button until clock display digits begin to flash (approximately 2 seconds).
2. To change from 12 to 24 hour time format, press and release the number "5" preset station button. If pressed a second time, it will toggle back from 24 to 12 hour mode.
3. Wait 5 seconds without pushing any radio buttons for clock to return to regular operation.

Setting The Alarm

1. With radio on, press and hold ALARM CLOCK (A) button until ”ALARM” icon and SET are displayed. Hour digits for alarm time will begin to flash.
2. Rotate SETUP (B) knob to change the hour. Rotate knob clockwise to increase and counterclockwise to decrease hour.
3. Press ALARM CLOCK button again until minutes digits flash.
4. Rotate SETUP knob to change minutes. Rotate knob clockwise to increase and counterclockwise to decrease minutes.
5. Press ALARM CLOCK again until SET TONE appears on display.
6. Press ALARM button again until VOL appears on display. Press button again and you will hear alarm tone. Rotate SETUP knob clockwise to increase and counterclockwise to decrease volume.
7. Press ALARM CLOCK button again to finish and return display to normal operation. Alarm icon will appear on display to indicate that alarm is active.



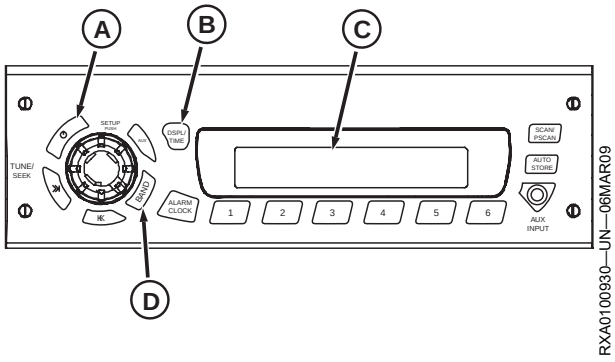
Radio

A—ALARM CLOCK
B—SETUP
C—DSP/TM SET

OURX935,0000AE6-19-02SEP09-1/1

Changing World Tuner Settings—Deluxe Radio

1. Turn tractor key switch on and push radio Power button (A) to turn radio off.
2. Push and hold DISP/Time Button (B) for 2 or 3 seconds until time on radio display (C) flashes.
3. Promptly push BAND Button (D) to display regions for frequency selection.
4. Each time BAND Button is pushed, radio display cycles to next region.
5. When desired region is displayed for correct frequency band, press and hold BAND Button until display changes and the time is displayed, then release BAND Button.



Deluxe Radio

A—Power Button
B—DISP/TIME Button
C—Display
D—Band Button

OURX935,0000AE7-19-04SEP09-1/1

Operating Premium Radio with Compact Disc (CD) Player

General Radio Functions

Premium radio is equipped with:

- An AM band with 6 AM presets
- Two FM bands with a total of 12 FM presets
- Three satellite bands with a total of 18 satellite presets
- One weather band with 6 WX presets

Radio can be operated in any one of two modes;

1. Radio ON with tractor key switch in ON or ACC position.
2. With tractor key switch OFF, press radio Power Button, radio will play up to one hour, then shut off automatically.

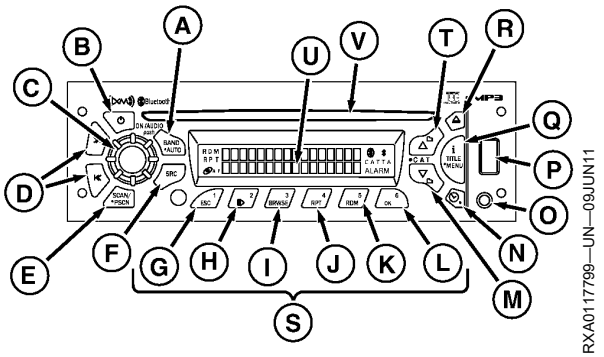
Adjusting the Volume

To increase volume, rotate Audio knob (C) clockwise. To decrease volume, rotate knob counterclockwise.

One-Hour Timer With ignition off, press Power button (B) or AUDIO knob (C) to activate radio's one-hour timer. Radio turns off after one hour. Press Power button (B) or AUDIO knob (C) again to reactivate one-hour timer.

Display

Radio displays time when off.



Radio

A—Band/Auto Button
B—Power
C—Audio Knob
D—Seek Buttons
E—SCAN/PSCN
F—SRC
G—ESC
H—Pause/Play CD
I—Browse
J—RPT
K—RDM
L—OK
M—Down Button
N—Clock/Alarm
O—Auxiliary Input
P—USB Port
Q—iTitle Menu
R—Eject
S—Programmable Stations 1—6
T—Up Button
U—Display
V—CD Slot

BAND/AUTO: Press BAND/AUTO Button (A) to switch between FM1, FM2, AM, SAT1, SAT2, SAT3 and WX.

SEEK: Press Seek (D) (>> or) to switch radio to next higher/lower frequency.

Audio mutes during Seek UP/DOWN process. Select either >> or << button while radio searches for signal. Tuner stops at frequency tuned. Seek mode ends when tunable station is found or Seek is canceled. Radio returns to original station if Seek is canceled. If no station is found, Seek continues searching until canceled.

To cancel Seek:

- Switch modes
- Change bands
- Press SCAN/PSCAN button
- Press any preset button
- Press and hold BAND/AUTO button
- Turn off power

NOTE: Quickly pressing Seek button causes radio to "tune" or search for the next higher or lower frequency and radio will stop on that frequency even if no station is there. Holding Seek Button longer than half a second initiates the "seek" function. The "seek" function stops at the next higher/lower frequency with a strong radio signal and will stop at that station. For example, changing from 107.1 to 107.3 by selecting the Up button (T) or changing from 107.3 to 107.1 by selecting the Down button (M).

AUTO STORE:
Auto Store temporarily stores the 6 strongest stations on push buttons 1-6 (S). Press and hold BAND/AUTO button for more than 2 seconds then an audible beep is heard and AUTOSTORE appears on display. Press and hold BAND/AUTO button again to cancel AUTO STORE after original presets are restored. AS is displayed while AUTO STORE is active. Pressing BAND/AUTO Button while listening in one radio mode will not effect presets in any other mode.

SCAN/PSCAN

Press SCAN/PSCAN button (E) to scan all stations on the current band. When a strong frequency is found, radio plays for 8 seconds before continuing to scan. To end scan, press SCAN/PSCAN again. Radio beeps, then displays SCAN plus the frequency currently tuned.

Press SCAN/PSCAN Button and hold for more than 2 seconds to scan current band preset stations. Radio plays selected station for 8 seconds and then continues scanning. PSCN appears on display along with frequency, preset number, and current band. Preset scan continues until SCAN/PSCAN is pressed again.

Storing Preset Stations

- Turn radio ON
- Select band
- Tune desired station.
- Press and hold desired preset buttons for more than 2 seconds (radio is muted)
- When station is set, an audible beep is heard
- Repeat process for each of the remaining 6 preset station buttons

Playing Preset Stations

Continued on next page

Press appropriate button 1-6 (G through L).

ZE59858,00007FA-19-18AUG11-2/3

Auxiliary Mode—Premium Radio

Front Auxiliary Mode

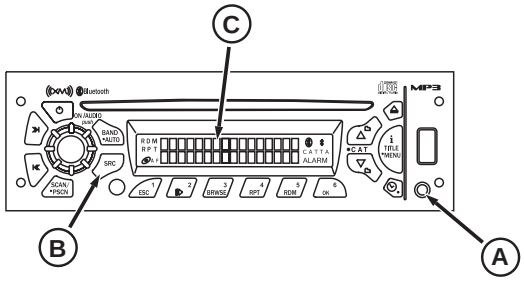
In Front Aux Mode, play external audio devices connected via auxiliary input port (A) on radio faceplate. Front auxiliary mode is not an option until device is connected to auxiliary input port.

Rear Auxiliary Mode

NOTE: Rear auxiliary input port is located on the right console. Slide cover rearward to access rear auxiliary port.

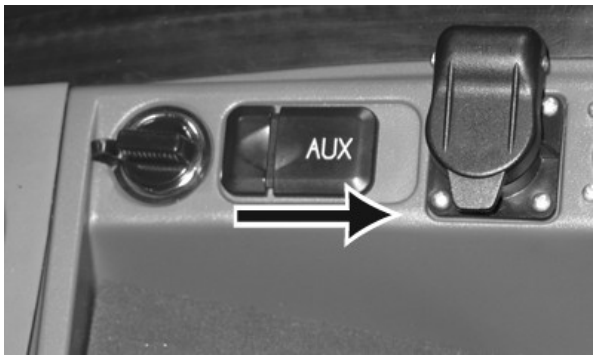
To use audio device connected via rear auxiliary input port, press SRC (B) button until radio display (C) shows ”REAR AUX” and turn device on.

A—Auxiliary Input
B—SRC Button
C—Display



RXA0104593—UN—04SEP09

Radio



RXA0100453—UN—25FEB09

Slide Cover Rearward To Access Rear Auxiliary Port

ZE59858,00007FA-19-18AUG11-3/3

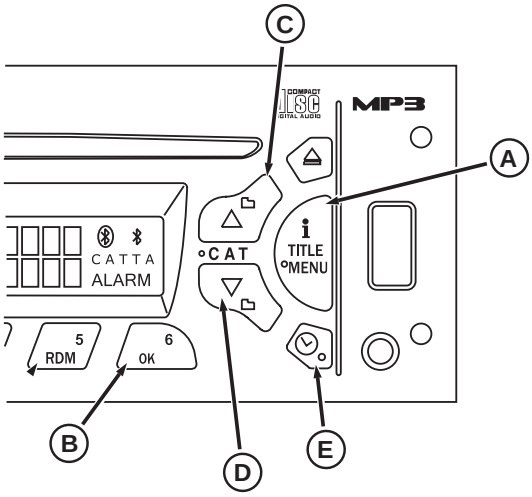
Setting Clock — Premium Radio

Clock function in 12 hour mode distinguishing between a.m. and p.m. or 24 hour mode displays military time. Clock is displayed when tractor key switch is on and radio is off. With radio and ignition off, display is blank.

Setting the Clock

1. Turn tractor key switch on.
2. Press and hold ”iTitle/Menu” button (A) for more than 2 seconds until Menu is displayed.
3. Press OK button (B) to enter clock submenu.
4. Turn AUDIO knob or press up button (C) or down button (D) to change to SET TIME. Press OK button to enter set mode.
5. Turn AUDIO knob or press up/down buttons to change between 12 hour or 24 hour format. Press OK button to select one.
6. Display changes to clock configuration, causing hour digits to flash. Rotate AUDIO knob or press up/down buttons to change hour. Rotating knob clockwise while pressing up button will increase hour, rotating counterclockwise while pressing down button will decrease hour.

NOTE: At any point in the time set process not pressing a button or rotating knob within 8 seconds will cancel time set mode, return radio to normal operation and keep whatever setting changes that have been made. Pressing Power button or band button sets clock at whatever time selected.



RXA0100807—UN—06MAR09

Setting The Clock

A—iTitle/Menu Button
B—OK Button
C—Up Button
D—Down Button
E—Clock Alarm Button

7. Press OK button. Minute digits begin flashing. Rotating knob clockwise while pressing up button will increase minutes, rotating counterclockwise while pressing down button will decrease minutes.

ZE59858,000065E-19-23MAR11-1/1

Setting the Alarm—Premium Radio

Setting the Alarm

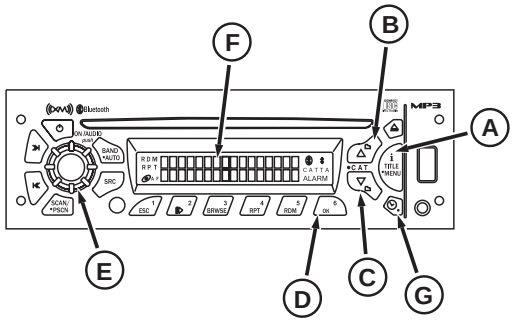
1. With radio on, press and hold “i Title/Menu” button (A) for more than 2 seconds until Menu displays.
2. Rotate AUDIO knob (E) or press Up button (B) or Down button (C) to change to SET ALARM. Press OK button (D) to enter alarm submenu.
3. Press OK button to turn on or off alarm. Alarm icon displays when enabling alarm. Rotate Audio knob or press up/down buttons to change to SET TIME and press OK button. Hour digits for the alarm time will begin to flash. Format is the same as set for clock.
4. Rotate Audio knob or press Up/Down buttons to change hour. Rotating knob clockwise and pressing up button increases hour. Rotating counterclockwise and pressing Down button will decrease hour.

NOTE: SET MUS, alarm sound is the same as the setting when radio was turned off. For example: Alarm heard is the same station last tuned to. If last station is no longer available, alarm sounds a medium priority tone for 2 minutes before changing to a high priority tone. If AUX input, a CD or other media were last used and there is no longer AUX input or CD available, the alarm reverts to radio.

5. Press OK button causing minute digits to flash. Rotate Audio knob or press up/down buttons to change minutes. Rotating knob clockwise and pressing up button will increase minutes. Rotating counterclockwise and pressing the down button will decrease the minutes.

NOTE: NOTE: If SET TONE is selected, alarm will sound medium priority tone for 2 minutes before changing to constant high priority tone.

6. To set alarm time, press OK button. Select between SET MUS (Music) or SET TONE, then press OK button.
7. Press OK button again to set alarm tone or music volume. Press OK Button, VOLUME is displayed as actual volume of the tone or music is heard. To increase volume, rotate the Audio knob clockwise or counterclockwise to to decrease volume.



RXA0100811—UN—06MAY09

Setting The Clock

A—iTitle Menu
B—Up Button
C—Down Button
D—OK Button
E—Audio Knob
F—Display
G—Clock Alarm Button

NOTE: At any point in the time set process, not pressing a button or rotating knob within 8 seconds will cancel time set mode, return radio to normal operation and keep whatever setting changes have been made.

8. Press OK button again to finish and return display to normal operation. ALARM icon will appear on display indicating alarm is active.

Turning Alarm Off:

When alarm is triggered, press and hold CLOCK/ALARM button (G) until ALARM icon on display disappears. If not held, it will automatically shut off after 63 minutes. Radio will return to mode (on or off) it was in before alarm sounded.

Activating Snooze Mode:

Press any button for less than 2 seconds when alarm sounds. SNOOZE will appear on radio display for 3 seconds and alarm will be postponed for 9 minutes. If any button is pressed during the 3 seconds, radio will return to the mode it was in before alarm sounded.

OURX935,0000AED-19-04SEP09-1/1

Compact Disk (CD) Mode — Premium Radio

Playing Compact Disk (CD):

1. Turn ignition on and press ON (B) to turn on radio.
2. Insert a disk partway into CD slot (C), label-side up. CD player will automatically pull disk in. Radio displays CD READING, then CD icon followed by track number and elapsed time until first track is played. Then CD begins playing.

NOTE: CD must be loaded into CD player in order to select CD as a source with the SRC button (D). If no CD has been loaded, the CD source will be skipped when the SRC button (D) is pressed. If no available source radio will remain on Rear AUX.

If CD is ejected and not removed within 15 seconds, CD will reload but will not start playing until SRC button is pressed.

3. **CD Mode Displays**

   Press the iTitle/Menu Button (A) to toggle between different displays views:

   - Artist Name
   - Song Name
   - Album Name

NOTE: CD player plays full-size CDs, MP3, and WMA disks.

CD information including disk and track title is shown on display (I) when track starts to play. If there is more information than can appear on display at one time, display will advance every 2 seconds until all information has appeared.

4. Press SRC button (D) to play CD.

   If CD is loaded, CD icon remains on until it is ejected. CD READING appears followed by track number and elapsed time.

NOTE: If CD is ejected but not removed within 15 seconds, CD will reload but not play until SRC button is pressed.

5. To remove CD from player, press Eject Button (E).

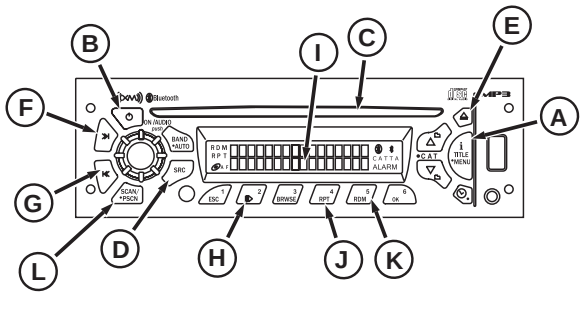
Button Functions

SEEK >> (F):

- Press for less than 2 seconds to forward to next track.
- Press and hold same button to fast forward, when released CD plays.

SEEK << (G):

- Press button for less than 2 seconds to go to the beginning of current track.
- Press button within first 10 seconds of the track, radio goes to previous track.



RXA0101846—UN—06MAY09

Radio With CD Player

A—iTitle/Menu
B—Radio ON
C—CD Slot
D—SRC
E—Eject
F—SCAN >>
G—SCAN <<
H—Pause/Play
I—Display
J—Repeat
K—Random
L—SCAN/PSCAN

- Press and hold button to fast forward, when released CD plays.
- Press button again within first second to go to the beginning of previous track.
- Press and hold to fast reverse. Release button, disk begins playing.

PAUSE/PLAY (H):

- Press button to pause a CD. ”PAUSE” is viewed on radio display (I) and audio is muted.
- Press button again to resume playing.

RPT/RPT Folder (J):

- Press button to repeat current track playing. ”Track Repeat” is displayed.
- Press button again to stop repeating.
- When an MP3 CD is placed in the CD player, ”Folder Repeat” will be enabled.

RDM/RDM Folder (K):

- Press button to activate random track selection. RDM icon on display indicates that tracks on the loaded disk are played randomly.
- Press button again to stop random track selection.
- When an MP3 CD is placed in the CD player, Random Folder will be enabled.

TRACK SCAN :

- Press SCAN/PSCAN (L) for less than 2 seconds to scan tracks on a disk. After playing 8 seconds of current track, radio will go to next track.
- When all tracks on disk have been scanned, SCAN ends and playback begins with first track of SCAN.
- Press SCAN again to deactivate scan.

ZE59858,00007F8-19-27JUN11-1/1

Using iPod® — Premium Radio

Radio is capable of controlling and playing music from iPod. Only the following models have faceplate browsing features.

iPod Nano

iPod 2G Nano

iPod 3G Nano

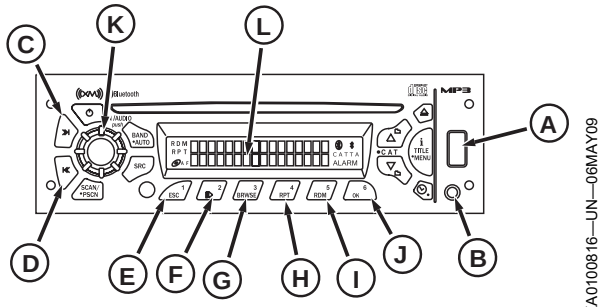
iPod 5G Classic

Other iPod models not supported can still be played through Aux port on radio, but no browsing features are available.

Insert iPod USB cable connector to radio USB connector (A) (the other end connected to your iPod). iPod READING appears on display (L). Insert 3.5 mm Audio cable connector to radio Aux input jack connector (B) (the other end connected to iPod 3.5 mm audio jack connector). If Audio cable is not connected, radio will display FRONT AUX JACK UNPLUGGED. After all connections have been made, and radio has finished reading iPod, iPod will begin playing. Elapsed time and track number are displayed. Play begins from current track played on iPod and continues sequentially through all tracks from the iPod last selected mode. After playing iPod last track last selected mode, play stops and radio displays iPod Menu. Buttons Functions:

- **SEEK >> (C) :**
  - Press for less than 2 seconds to forward to next track.
  - Press and hold to fast forward.
  - Release button, track continues playing.
- **SEEK << (D):**
  - Press for less than 2 seconds to go to the beginning of current track.
  - Press within first 10 seconds of track, radio goes to the previous track.
  - Press button within the first 14 second to go to the beginning of previous track.
  - Press and hold button to fast reverse.
  - Release button, track will continue to play.
- **ESC (E):** Press to exit or go back to previous menu when on a menu.
- **PAUSE/PLAY (F):**
  - Press to pause a track, ”PAUSE” will be displayed and the audio will be muted.
  - Press PAUSE/PLAY again to resume playing the track.

iPod is a trademark of Apple,Inc.



Radio With CD Player

A—USB Connector
B—Radio Aux Input
C—SEEK >> Button
D—SEEK<< Button
E—ESC Button
F—Pause/Play Button
G—BRWSE Button
H—RPT Button
I—RDM Button
J—OK Button
K—Audio Knob
L—Display

- **BRWSE (G):** Press BRWSE button to enter iPod Menu and the following options.
  - Scroll and select with the On/AUDIO Knob (K).
  - Turn to right to increase, left to decrease and press knob to confirm selection.
- **RPT (H):** If RPT is pressed a second time REPEAT ALL TRACKS appears on display and RPT icon remains turned on. The same folder/playlist (iPod last selected mode) will continue to play until RPT button is pressed again. If RPT is pressed a third time, REPEAT OFF will appear on display. Function is off and RPT icon is off. Then display returns to default.
  - Press button once to repeat current track. RPT icon & REPEAT ONE TRACK will appear on display
  - The same file will continue to play until the RPT button is pressed again.
- **RDM (I):** press RDM button again to reach SHUFFLE OFF.
  - Pressing button activates shuffle tracks, albums or OFF selection. RDM icon on display indicates that this feature is on.
  - Press button again to cancel SHUFFLE TRACKS or SHUFFLE ALBUMS.
- **OK (J):** Press OK Button when on a menu to confirm selection.

To remove iPod USB cable connector simply pull the device. Radio will return to previous mode/source.

ZE59858,000081E-19-01NOV11-1/1

Satellite Service for Premium Radio — US and Canada Only

When the XM® logo (A) appears above Audio Knob on radio, it is satellite radio compatible. XM® satellite radio services offer more than 100 channels of digital quality audio programming which can be heard uninterrupted across the United States and Canada.

A service fee is required to receive satellite broadcasts. For more information, contact XM® at www.xmradio.com or by phone at 1-800-852-XMXM (9696) .

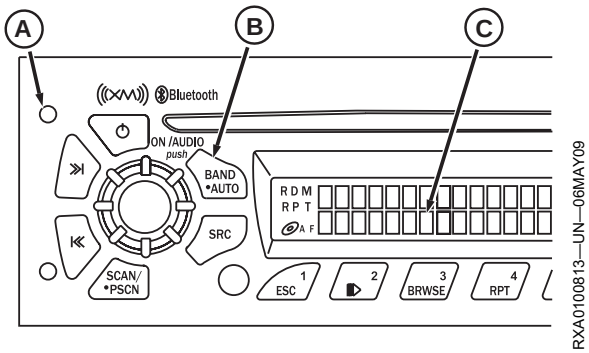
To activate integrated or external satellite radio:,

Furnish satellite radio provider with the satellite radio's Electronic Serial Number. To find the electronic serial number complete the instructions that follow.

If satellite radio provider is XM® Satellite Radio:

- 1. With ignition and radio ON, press BAND button (B) and select XM1, XM2, or XM3.

XM is a trademark of SIRIUS XM Radio Inc.



Radio With CD Player

A—SAT Radio
B—Band Button
C—Display

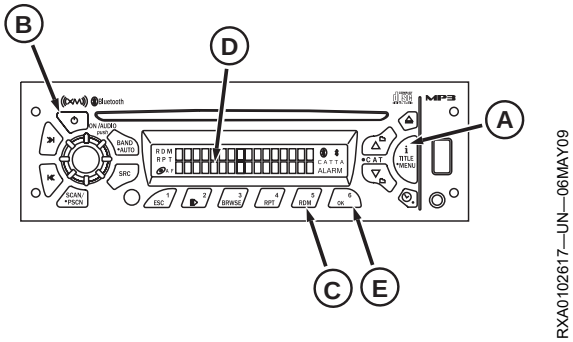
- 2. Tune radio to channel 0 and the 8-digit serial number will appear on display (C).

ZE59858,0000662-19-13JAN11-1/1

Changing World Tuner Setting—Premium Radio

OURX935,0000AF2-19-25SEP09-1/2

1. Turn ignition switch on.
2. Using Power button (B), turn radio off.
3. Press and hold iTitle button (A) and RDM button (C) for three seconds.
4. When "Advanced Freq Zone" appears on display (D), press OK button (E).
5. Rotate audio knob until desired country appears on display.
6. Press OK button.
7. SEL appears to the right of selected country or region and after 5 seconds display returns to current time.



Country Code

A— iTitle Button
B—Power Button
C—RDM Button
D—Display
E—OK Button

OURX935,0000AF2-19-25SEP09-2/2

USB Mode – Premium Radio

Premium Radio is capable of controlling and playing audio via USB devices (less than 1 GB in size) with the following audio formats: MP1, MP2, MP3 (VBR), WMA (ver 9 and VBR) and ACC (MPEG4 and M4A). Radio will be able to read and play a maximum of 50 folders and play lists. Long files, folders or a combination can reduce the number of files and folders that can be played. If device contains more than 50 folders or 11 folder levels, radio will only allow access to and navigate to the maximum number and ignore additional items.

- Insert USB device fully into USB connection (A)
- USB READING appears on the radio display (B) and audio will begin playing.

File type, elapsed time and track number are displayed. First track begins playing and continues sequentially through all tracks. After playing last track of the last folder, play continues at first track of the first folder or root directory.

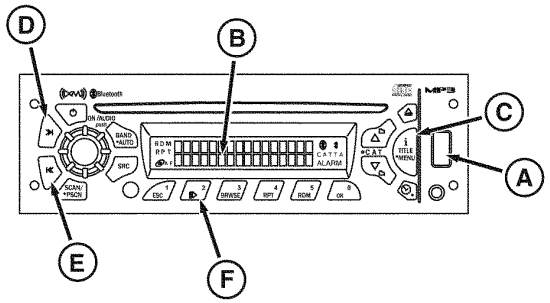
NOTE: When playing MP3 or WMA files, press the i Title Menu button (C) to toggle between different radio on display views.

- *Track number*
- *Artist Name*
- *Song Name*
- *Album Name*
- *Folder/PLST Name*

Button Functions:

SEEK >> (D)

- Press for less than 2 seconds to forward to next track.
- Press and hold to fast forward. Release button, track will continue to play.



RXA0102616—UN—11FEB11

USB Mode Premium Radio

A—USB Connection
B—Display
C—iTitle Menu
D—Seek >>
E—Seek <<
F—Pause/Play CD

SEEK << (E)

- Press for less than 2 seconds to go to beginning of current track.
- Press within the first 10 seconds of track, radio goes to previous track.
- Press button within the first 14 second to go to beginning of previous track.
- Press and hold button to fast reverse.
- Release button, track continues to play.

PAUSE/PLAY (F)

- Press to pause a track, “PAUSE” is displayed and audio is muted.
- Press PAUSE/PLAY again to resume playing the track.

OURX935,0000AF4-19-10SEP09-1/1

Setting up Hands Free (Bluetooth®) Mode – Premium Radio

Premium Radio has hands free capabilities through Bluetooth® technology. Up to 16 mobile phones can be saved to Premium Radio at one time.

NOTE: Ensure device being paired is Bluetooth® capable and has been enabled.

1. Turn radio ON.
2. Press and hold iTitle Menu button (A) until audible beep sounds. Audio Knob (E) can also be used as an OK button.
3. Rotate AUDIO knob (E) or press up/down buttons (B and C).
4. When HANDS FREE appears on display (F), press OK button (D).
5. Rotate AUDIO knob or press up/down buttons and select ON.
6. Press OK button.

NOTE: Bluetooth® Status icon should appear on radio display.

Add Phone

1. Rotate AUDIO knob or press up/down buttons.
2. Watch display and select ADD PHONE by pressing OK button.

NOTE: When ADDING PHONE appears on display, radio is scanning for Bluetooth® devices. Ensure that paired Bluetooth® device has been set to add a device and is searching for DEA355 Radio.

After 3 minutes, if no phone is added, radio displays NO PHONE FOUND.

3. ADDING PHONE will appear on radio display for 3 seconds and Bluetooth® (icon) will blink up to 3 minutes.
4. Use PIN number 0000 to connect to radio.

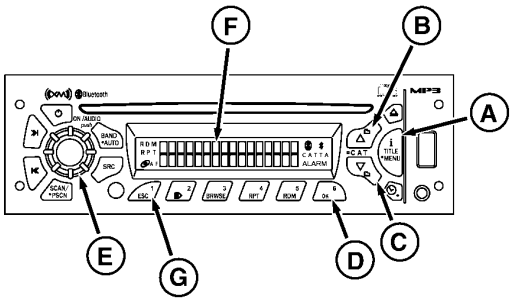
NOTE: When mobile phone is successfully added to radio, PHONE CONNECTED will appear on display first line. Radio display second line will show Bluetooth® phone name for 3 seconds.

Premium radio will allow pairing with up to 16 Bluetooth® devices. When 16 devices have been stored, the ADD PHONE option is disabled until a phone is deleted.

After the initial pairing is completed, radio will automatically pair a previously added cell phone, when that phone comes within Bluetooth® range.

NOTE: Edit Phone menu will be enabled when at least one cell phone is paired with the radio.

Edit Phone:



RXA0117800—UN—09JUN11

Setting Up Bluetooth® Mode

A—iTitle Menu Button
B—Up Button
C—Down Button
D—OK Button
E—Audio Knob
F—Display
G—ESC Button

1. Rotate AUDIO knob or press up/down buttons and when EDIT PHONE appears on display, press OK button.
2. The radio will display a list of mobile phones added.
3. To delete a mobile phone, rotate AUDIO knob or press up/down buttons to select desired mobile phone, then press OK button.
4. Phone is deleted, and radio display returns to previous menu display.

NOTE: Change Phone menu will be enabled when at least two cell phones are paired with the radio.

Change Phone:

1. Rotate AUDIO knob or press up/down buttons and when CHANGE PHONE appears on display, press OK button.
2. The radio will display a list of mobile phones added.
3. To change a mobile phone, rotate AUDIO knob or press up/down buttons to select desired mobile phone, then press OK button.
4. Phone is selected, and radio display returns to previous menu display.

Answer Phone:

1. To accept incoming call, press OK button.
2. To reject incoming call, press ESC button (G).

HANDSFREE (Bluetooth)

When a mobile phone has been previously paired with the radio and an incoming call is received, the radio will pause/mute and show on the display the phone name on the first line and the phone number on the second line. The << characters indicate incoming call. When a call is placed on the mobile phone, the radio will pause/mute and show on the display the phone name on the first line and the phone number on the second line. The >> characters indicate outgoing call.

Call Transfer:

Continued on next page

If a call is in progress press the 2/PAUSE/PLAY button to allow the system to transfer the call to the mobile phone. The radio will display CALL TRANSFERRED.

Phone Disconnection:

If the mobile phone ends the Bluetooth connection with the radio, is turned off or when the phone signal gets out of range, the radio will display PHONE DISCONNECTED.

Phone Reconnection:

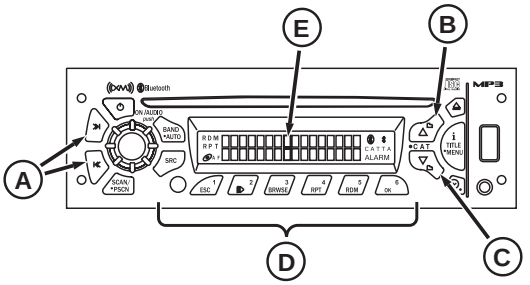
If the mobile phone previously connected re-activates the connection with the radio, the mobile phone is turned on or the phone signal gets in range, the radio will display PHONE CONNECTED.

ZE59858,00007F9-19-24OCT11-1/1

Using Weather Band

Weather Radio is a service of the National Weather Service. It provides continuous broadcasts of the latest weather information directly from the National Weather Service. When in Weather band mode, display (E) will show WX and channel number. Channel can be changed using SEEK Buttons (A) or Up Button (B) or Down Button (C). They can also be preset to Preset Station buttons (D).

A—Seek Buttons
B—Up Button
C—Down Button
D—Preset Station Buttons
E—Display



RXA0100812—UN—06MAY09

Premium Radio With CD Player Shown

ZE59858,0000667-19-13JAN11-1/1

Premium Radio Source Select on the CommandCenter™

1. Select **Menu button.**
2. Select **Radio softkey.**

When the radio is OFF, selecting the radio menu icon will navigate to the Source Select page. Selecting a source from the Source Select page will turn the radio ON to that selected source.

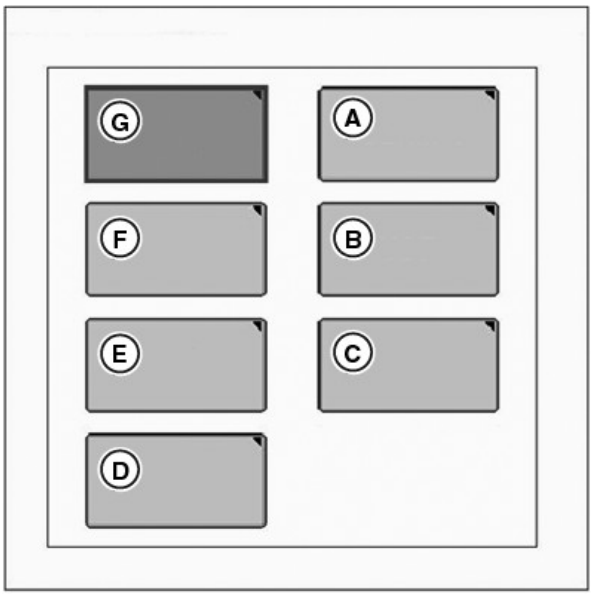
When the radio is ON, selecting the radio menu icon will navigate to the currently selected source's home page.

Selecting the Source Select page softkey from a radio home page will navigate to the Source Select page. Selecting a source from the Source Select page will change the radio to that selected source.

A—CD/MP3
B—USB
C—AUX
D—XM
E—Weather
F—FM
G—AM

RXA0117314—UN—18MAY11

CommandARM™ Menu Button → Radio Softkey



RXA0113162—UN—18JAN11

Source Select Page

OURX935,00005C4-19-20SEP11-1/1

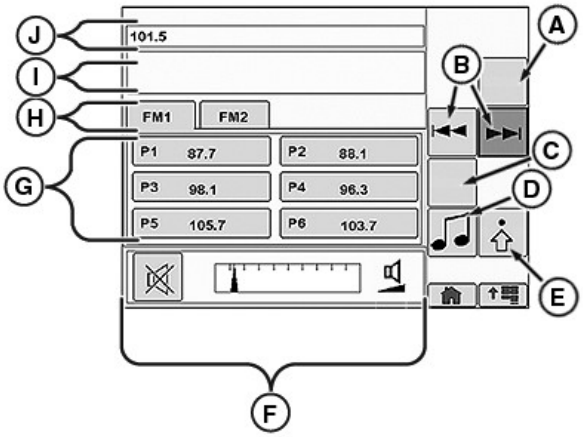
Premium Radio AM/FM Home Page on the CommandCenter™

SCAN Mode (A) will scan available radio stations and pause for 8 seconds before moving onto the next station. To cycle through channels use Seek Forward/Back softkeys (B). Six presets can be programmed in the Preset Stations softkeys (G). To change a preset, select and hold the preset for 3 seconds. Two banks of presets are available for FM home page. Cycle through the banks using the tabs (H).

Band softkey (C) will cycle through radio tuner sources (AM, FM, Weather, and XM). The Select Source softkey (D) will give the operator the ability to cycle through radio tuner sources and external sources (see Premium Radio Source Select on the CommandCenter™ in this section).

In Display Area 1 (I) artist name and song name will be visible if available from the radio station. In Display Area 2 (J) channel number, preset number, and station name will be visible.

AM and Weather home pages are similar to FM home page.



FM Home Page Shown

A—SCAN
B—Seek Forward/Back
C—Band
D—Source Select
E—Audio Settings
F—Volume Control
G—Presets 1-6
H—FM1/FM2 Tabs
I—Display Area 1
J—Display Area 2

CommandCenter is a trademark of Deere & Company

ZE59858,0000689-19-06SEP11-1/1

Premium Radio CD/MP3/USB/AUX Home Pages on the CommandCenter™

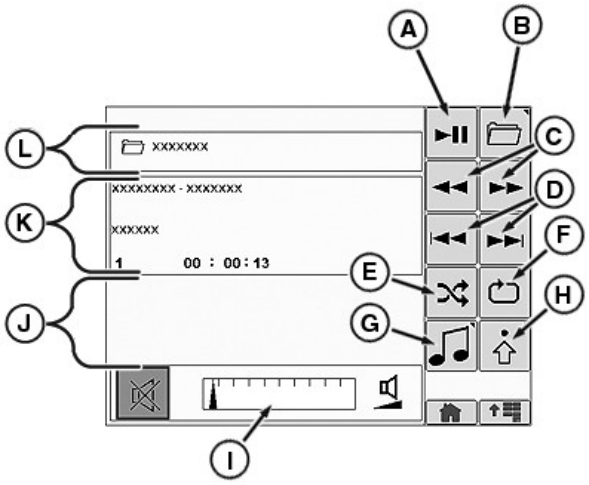
The Folder Select softkey (B) will bring you to the Folder Select page. The Folder Select softkey (B) and Folder Name (L) are not available when playing a CD or iPod®. The Random softkey (E) will cycle through Random Folder, Random All, and Random Off. The Repeat softkey (F) will cycle through Repeat Track, Repeat Folder, Repeat All, and Repeat Off. The Select Source softkey (G) will give the operator the ability to cycle through radio tuner sources and external sources (see Premium Radio Source Select on the CommandCenter™ in this section).

On the iPod® Home Screen, the iPod® selection softkeys (J) will be available. These softkeys are Previous, Browse, Next, OK, and ESC.

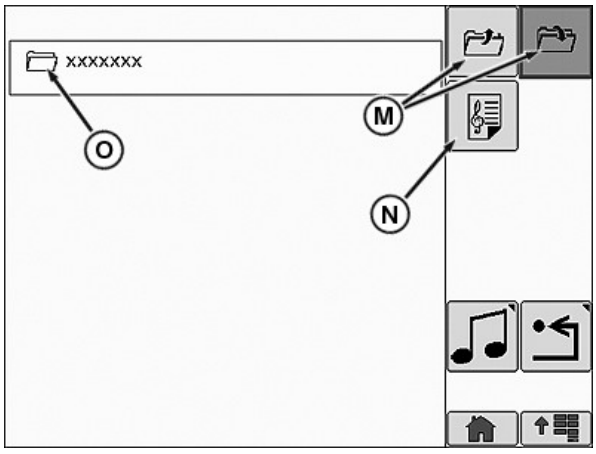
The Display Box (K) will show artist name, album name, song name, track number, and elapsed time. Depending on the home page that is selected, some of these displays may not be available. Folder Name (L) is not available on the CD or iPod® Home Pages.

By choosing the Folder Select softkey (B) you will be able to select what folder to play music from. On the Folder Select page cycle through folders with the Folder Up/Folder Down softkeys (M). The Playlist softkey (N) will enable playlist mode. Playlist mode plays only songs from selected playlists.

A— Play/Pause
B—Folder Select
C—Fast Reverse/Fast Forward
D—Previous Track/Next Track
E—Random Folder/Random All
F—Repeat Track/Repeat Folder/Repeat All
G—Source Select
H—Audio Settings
I—Volume Adjustment
J—iPod® Selection Softkeys (iPod® Only)
K—Display Area 1
L—Folder Name
M—Folder Up/Folder Down
N—Playlist Enable/Disable
O—Folder Name



MP3 Home Page Shown



Folder Select Page

CommandCenter is a trademark of Deere & Company
iPod is a trademark of Apple, Inc.

ZE59858,000068A-19-23MAR11-1/1

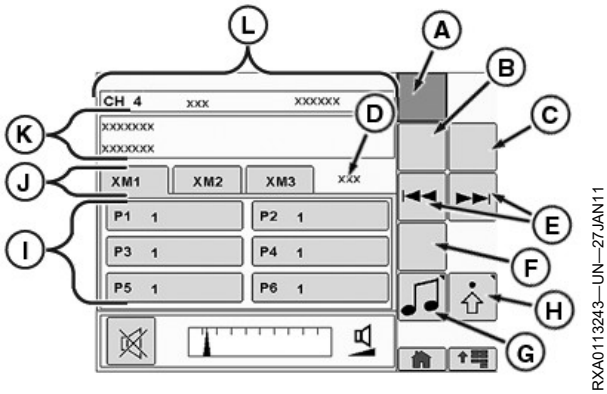
Premium Radio XM Home Page on the CommandCenter™

Category search mode is activated using the Category Mode enable/disable softkey (A). To cycle through categories use the Previous Category (B) and Next Category (C) softkeys. When Category Mode is activated, Category Indicator (D) will be shown. To cycle through channels use previous/next channel (E). Six presets can be programmed in the Preset Stations softkeys (I). To change a preset, select and hold the preset for 3 sec. Three banks of presets are available. Cycle through the banks using the tabs (J).

Band softkey (F) will cycle through radio tuner sources (AM, FM, Weather, and XM). The Select Source softkey (G) will give the operator the ability to cycle through radio tuner sources and external sources (see Premium Radio Source Select on the CommandCenter™ in this section).

In Display Area 1 (K) artist name and song name will be visible. In Display Area 2 (L) channel number, preset number, category name, and channel name will be visible.

CommandCenter is a trademark of Deere & Company



XM Home Page

A—(CAT) Category Mode
B—(CAT-) Previous Category
C—(CAT+) Next Category
D—(CAT) Category Indicator
E—Previous Channel/Next Channel
F—Band
G—Select Source
H—Audio Settings
I—Presets 1—6
J—XM 1—3 Tabs
K—Display Area 1
L—Display Area 2

ZE59858,000068C-19-22FEB11-1/1

Premium Radio Settings on the CommandCenter™

1. Select **Menu button.**
2. Select **Radio softkey.**
3. Select **Advanced Settings softkey.**

Operator can change Bass (A), Treble (B), Middle (C), Balance (D), and Fade (E) on Audio Settings page 1. Volume compensation is located on Audio Settings page 2. Volume compensation automatically adjusts the radio's volume based on external noise. To enable/disable volume compensation select the Volume Compensation check box (F). Volume sensitivity can be adjusted to low, medium, or high.

Radio Data System (RDS)

If Premium radio is set to “Europe” standard (see Changing World Tuner Setting—Premium Radio in this section) the Radio Data System (RDS) becomes available. RDS allows display of radio station selected, artist and song information. RDS also provides additional options on Radio Settings Page 2. To enable/disable these features, select appropriate check box using soft keys. Options available are:

- **AF (Alternative Frequency) (G)** — Automatically retunes radio to different frequency providing same station content when first station’s signal becomes too weak.

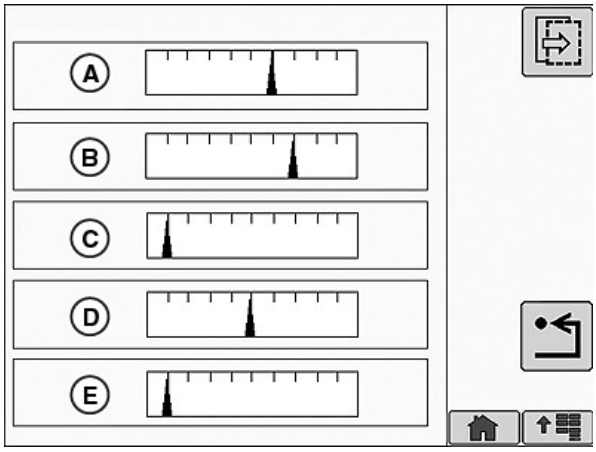
NOTE: AF (Alternate Frequency) must be enabled to select Traffic Announcements (TA) function.

- **Traffic Announcements (TA) (H)** — Stops or pauses CD play or retunes currently selected station to receive a traffic bulletin. Radio volume will automatically increase for traffic bulletin.

A—Bass
B—Treble
C—Middle
D—Balance
E—Fade
F—Volume Compensation
G—AF (Alternate Frequency)
H—Traffic Announcements (TA)

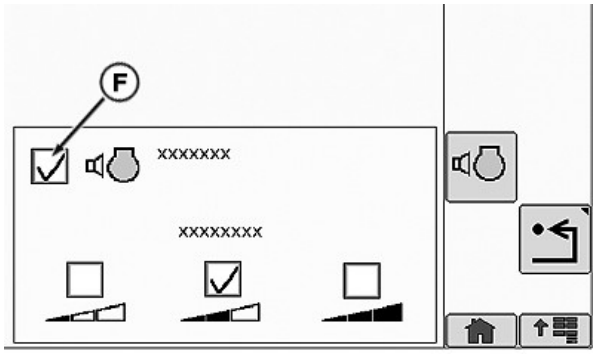
RXA0118820—UN—21JUL11

CommandARM Menu Button → Radio Softkey → Advanced Settings Softkey



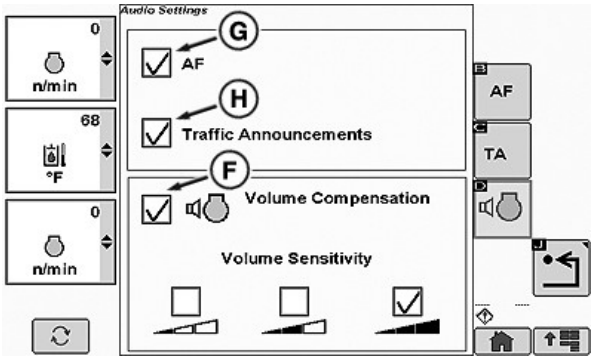
RXA0118806—UN—21JUL11

Radio Settings Page 1



RXA0118807—UN—21JUL11

Radio Settings Page 2 (Without RDS)



RXA0126909—UN—19JUN12

Radio Settings Page 2 (With RDS)

OURX935,0000505-19-20JUN12-1/1

Operating the Phone Through the CommandCenter

1. Select **Menu button.**
2. Select **phone softkey.**

To place a call, enter the phone number with the number softkeys. Next select the Dial Phone Number softkey (C).

While in a call, an In Call Phone popup will display name, contact information, and number.

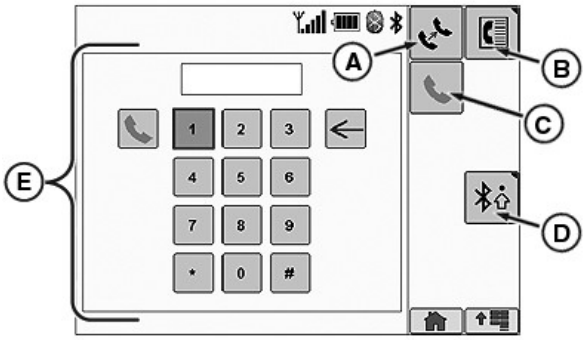
While in a call, use the Transfer Call softkey (A) to transfer the call to your cell phone. When transfer is completed **Call Transferred** will be displayed.

The Phone Book softkey (B) will transfer you to the Phone Book page (see Phone Book on the CommandCenter in this section). The BluetoothSettings softkey will transfer you to the Bluetooth® Settings page (see Premium Radio Settings on the CommandCenter™ in this section).

NOTE: Phone softkeys (E) and phone book softkey (B) are not available while in a call. Use your cell phone if you need to use numbers while in a call.

RXA0119442—UN—09AUG11

CommandARM Menu Button → Phone Softkey



RXA0113276—UN—27JAN11

A—Transfer Call
B—Phone Book
C—Dial Phone Number
D—BlueTooth Settings
E—Phone Softkeys

OURX935,0000506-19-04AUG11-1/1

Phone Book on the CommandCenter

Select **Menu button.**

Select **Phone softkey.**

Select **Phone Book softkey.**

If a new contact is made in your cell phone, the phone must be re-synced with the radio Bluetooth® (see Phone Settings on CommandCenter™ in this section). A contact entry CANNOT be edited through the CommandCenter™. The contact must be edited through the cell phone, and the cell phone must be re-synced with the radio Bluetooth® (see Phone Settings on CommandCenter™ in this section).

Selecting a contact from the Phone Book Contact List (B) will automatically place a call to that contact number. An incoming call from a contact will display a contact's name and number. If a call is received from an unknown phone number, the phone number and **Unknown** will be displayed in a popup window.

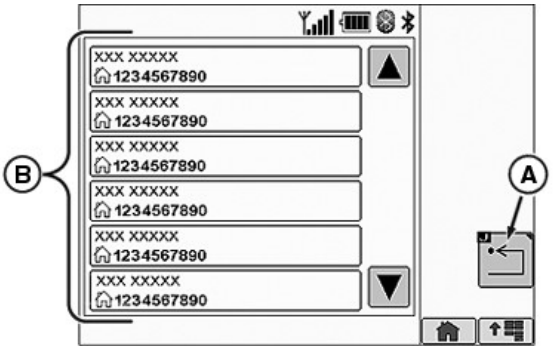
When a call is missed, a missed call popup window will be displayed with the callers phone number and name if the caller is listed in the phone book, or **Unknown** if the caller is not listed.

NOTE: Some phones will not correctly sync with the radio Bluetooth® . When this happens a call cannot be made from the Phone Book page.

CommandCenter is a trademark of Deere & Company
Bluetooth is a trademark of Bluetooth SIG

RXA0117319—UN—18MAY11

CommandARM Menu Button → Phone → Phone Book



RXA0113302—UN—27JAN11

A—Return
B—Phone Book Contact List

The maximum number of phone book entries is 650. The maximum number of characters in a phone number is 20. The maximum number of characters in a phone book name is 20.

OURX935,0000507-19-04AUG11-1/1

Phone Settings on the CommandCenter™

Select **Menu** button.

Select **Phone** softkey.

Select **Bluetooth® Settings** softkey.

To turn the radio's Bluetooth® feature ON, select the Bluetooth® ON/Off softkey (A). When the radio's Bluetooth® feature is ON, Bluetooth® Power Indicator (K) is active.

To add a phone:

1. Select the Add Phone softkey (C).
   Adding Phone is displayed in the Message Box (G).
2. On your cell phone, select **Add New Device** in the Bluetooth® menu.
3. Select DEA355 Radio from the list of available Bluetooth® devices on your cell phone.
4. Select Bond With Device on your cell phone. PIN for the Delphi radio is 0000.

NOTE: Not ALL cell phones will be able to use the radio's Bluetooth® feature.

Once a cell phone is connected successfully, **Phone Connected** is displayed in the Message Box (G). When a cell phone is actively connected to the radio, Paired Bluetooth® Indicator (J) is active. Up to 16 cell phone pairings can be stored in the radio's Bluetooth® feature.

When a phone is first paired with the radio's Bluetooth® feature, the cell phone is automatically in sync with its phone book.

To change an active cell phone:

Select the desired cell phone from the Paired Phone List (F). Once the desired cell phone is selected, select the Change Active Phone softkey (B). The first phone in the Paired Phone List (F) is the current active phone.

To re-sync your cell phone:

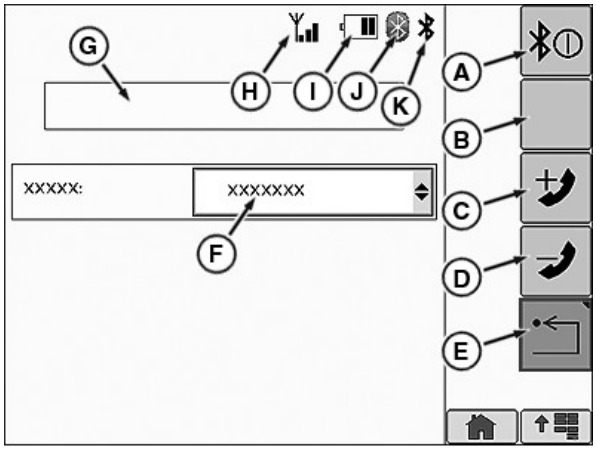
- Turn cell phone Off, then back On.
- Turn key switch Off, wait 1 minute, then turn key switch back On.

Once the key switch is turned back on, the cell phone that is in range of the tractor's radio will automatically sync its phone book.

To re-pair your cell phone with the radio's Bluetooth® feature, cycle the power of the radio's Bluetooth® with the Bluetooth® ON/OFF softkey (A).

RXA0117320—UN—18MAY11

CommandARM™ Menu Button → Phone → Bluetooth® Settings Softkey



RXA0113278—UN—27JAN11

A— Bluetooth On/Off
B—Change Active Phone
C—Add Phone
D—Delete Phone
E—Return
F—Paired Phone List
G—Message Box
H—Phone Signal Strength
I—Phone Battery Strength
J—Paired Bluetooth® Indicator
K—Bluetooth® Power Indicator

NOTE: Make sure that your cell phone's Bluetooth® ability is enabled when trying to pair a cell phone to the radio Bluetooth® feature.

To delete a cell phone:

Make sure that the desired cell phone is selected in the Paired Phone List (F), next select the Delete Phone softkey (D).

Five Phone Signal Strength bars (H) indicate maximum cell phone signal strength.

Four phone Battery Strength bars (I) indicate maximum cell phone battery strength..

OURX935,0000508-19-14SEP11-1/1

Light Identification

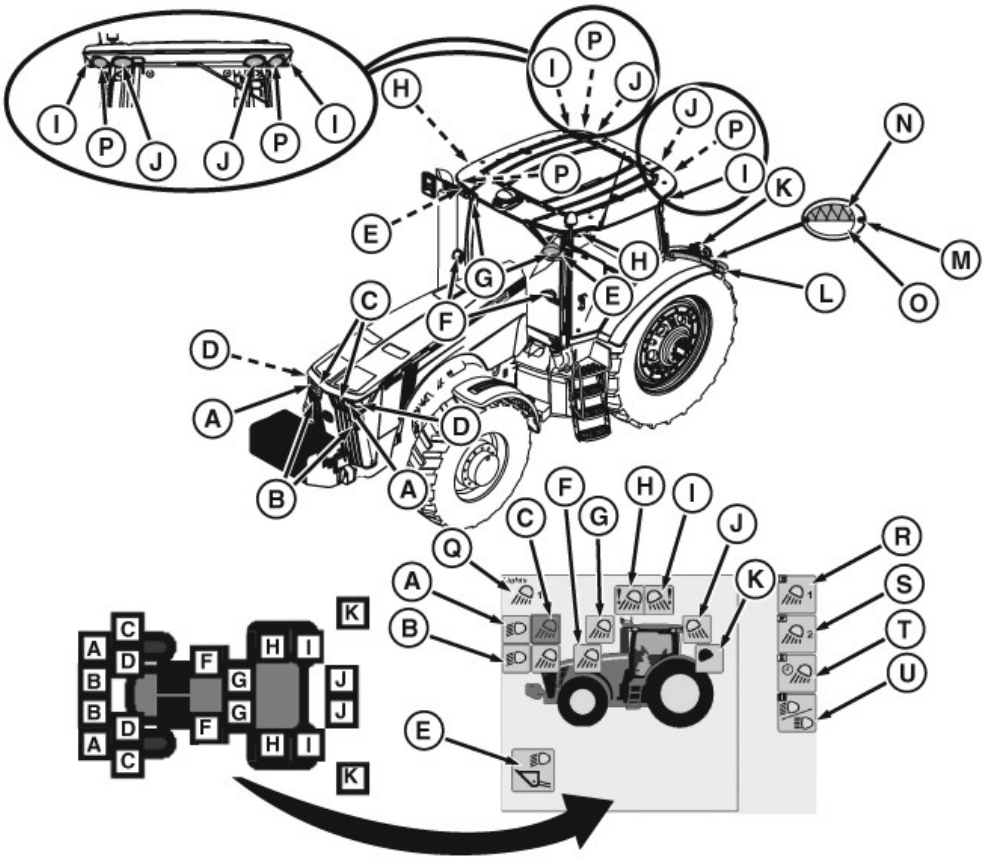
A —Field Lights 1
B —Field Lights 2
C —Egress Lighting
D —High/Low Beam

RXA0116486—UN—13MAY11

CommandCenter™ Right Region Softkeys Displayed In This Section

Continued on next page

OURX935,0000300-19-09APR12-1/2



RXA0117186—UN—16MAY11

A—Road Lights (High Beam)
B—Road Lights (Low Beam)
C—Inner Hood
D—Outer Hood
E—Loader
F—Mid Body
G—Front Inner Roof
H—Front Side Roof [1]
I—Rear Side Roof [1]
J—Rear Inner Roof
K—Rear Fender [2]
L—Extremity Light
M—Rear Lights
N—Amber Lens
O—Red Lens
P—Front And Rear Outer Roof (Amber Light Bulbs)
Q—Indicator, Flood Light Position
R—Field Lights 1 Softkey
S—Field Lights 2 Softkey
T—Egress Lighting Softkey
U—High Beam/Low Beam Softkey

All lights, except for Premium lighting option inner hood flood lights (C), are same for left and right side of tractor. With Premium lighting option, right inner hood flood light is an HID bulb, and left inner hood flood light is a halogen bulb.

White Lights are any exterior tractor lights that do not have colored lenses or colored bulbs and are made up of both Road Lights and Flood Lights.

Lights are configured on CommandCenter light page. White Lights (A through K) are configured ON by selecting that particular light. Selecting a particular light a second time will toggled it OFF. CommandArm controls actually turn lights on and off, See Programmable Lights in this section.

[1] In this illustration, depicted as "light programmed ON—faulted
[2] In this illustration, depicted as "Programmed OFF"

OURX935,0000300-19-09APR12-2/2

Programmable Lights

CAUTION: Avoid injury caused by accidental collision with another vehicle. Always comply with traffic regulations when driving tractor on a road. Dim Road Lights to low-beam for oncoming vehicles. Avoid using Flood Lights which could blind or confuse other drivers.

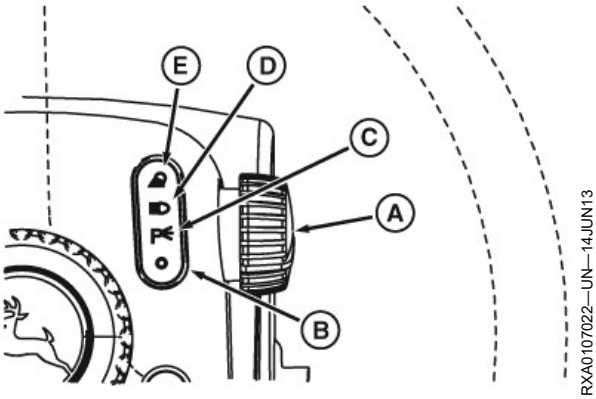
Selector knob (A) is in OFF position (B). Turn Selector knob forward to Park Lights (C) turns on brake lights. Turn Selector knob forward to Road Lights (D) turns on either high beam or low beam Road Lights. Turn Selector knob forward to Flood Lights (E) turns on all Floods Lights previously configured at CommandCenter Light page.

When the steering column Selector knob is turned to Flood Lights, selecting Field Lights 1 soft key (F) allows operator to configure which Field Lights are ON or OFF for that application. Operator can toggle between Field Lights 1 or Flood Lights 2 simply by pressing Flood Lights 1 button (L) or Flood Lights 2 button (M) respectively. Selecting Field Lights (2) soft key (G) displays second option of Field Lights. Verify Field Lights configuration displayed by looking at Flood Lights Position Indicator (J) in the upper left corner of the CommandCenter Light page.

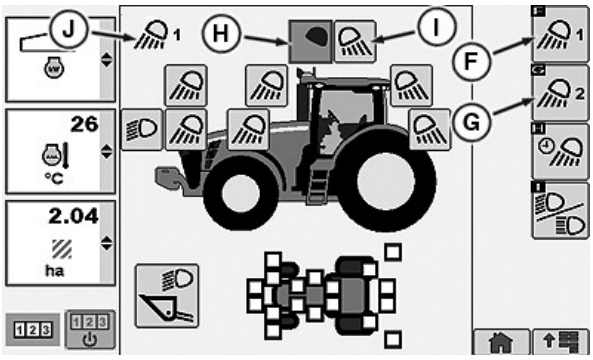
Light page displays for 3 seconds whenever light switch is changed to a programmable setting. If no changes are made, display returns to last screen shown. Light indicators change from black (H) to white (I) when configured ON.

CommandArm Controls indictor lights (N or O) indicates the status of Road Lights or Loader Lights if equipped.

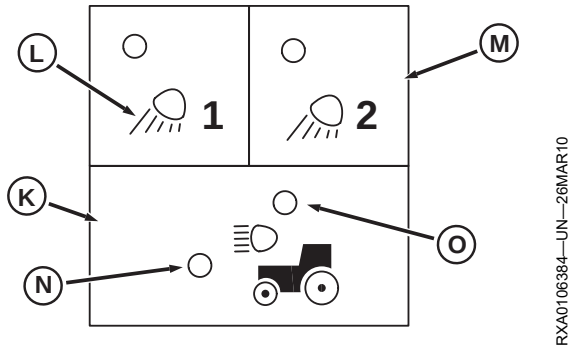
A—Selector Knob
B—OFF
C—Parking Lights
D—Road Lights
E—Flood Lights
F—Field Lights 1 Soft Key
G—Field Lights 2 Soft Key
H—Light Configured OFF
I—Light Configured ON
J—Flood Lights Position Indicator
K—Road Lights
L—Flood Lights 1
M—Flood Lights 2
N—Road Light Indicator
O—Loader Light Indicator



Steering Column Light Switch

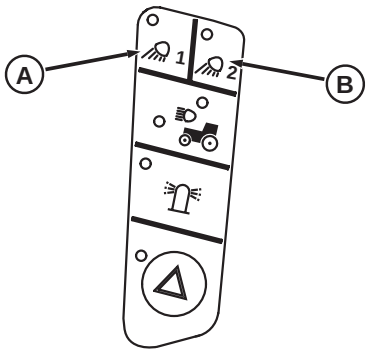


CommandCenter Lights Page



CommandArm Lights Buttons

Continued on next page

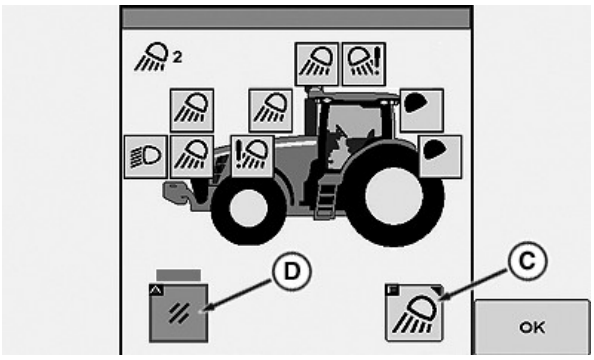


RXA0103507—UN—15JUN09

CommandArm Controls Field Lights Buttons

A—Field Lights 1 **B—Field Lights 2**

While operating in the field pressing Flood Lights 1 (A) or Flood Lights 2 (B) will display a quick view (3 seconds) of the appropriate lights programmed on before defaulting back to previous page displayed on CommandCenter .



RXA0107023—UN—18AUG10

Lighting Quick Look

C— Lights **D—Cancel**

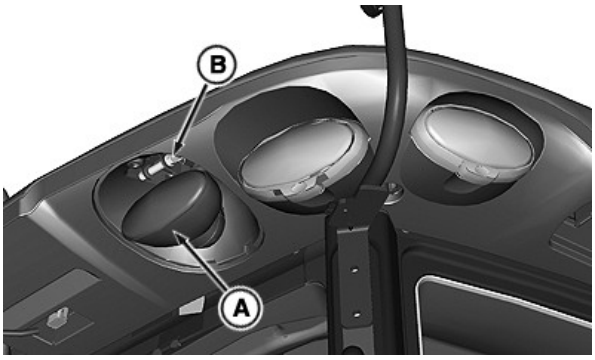
Selecting Lights (C) displays lights page on CommandCenter allowing light to be configured. Selecting cancel returns operator previous page.

OURX935,0000301-19-18JAN12-2/2

Adjustable Flood Lights (If Equipped)

Front inner roof (A), rear inner roof, mid body and rear fender lights are adjustable. Loosen cap screw, adjust light beam to desired position, the tighten cap screw.

A—Adjustable Light **B—Cap Screw**



RXA0119178—UN—27JUL11

Front Inner Roof Light Shown

OURX935,00004ED-19-28JUL11-1/1

Delayed Egress Lighting (If Equipped)

Programming delayed egress lighting allows operator to select which combination of road/flood lights will remain on and for the amount of time those selected lights will remain on after light selector knob is turned to the OFF position.

Field egress lighting is all lights chosen on egress lighting page and will activate for the time selected. Field egress lighting will activate when the light switch has been in “Field” position for at least 10 seconds with the key switch on, and light switch is turned off with key switch on, and key switch has been turned off within 5 minutes of the light switch being turned off.

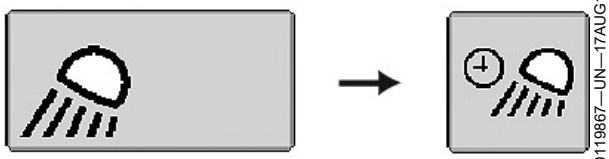
Road egress lighting will only be active for the time selected on egress lighting page for only low beam road lights. Road egress lighting will activate when the light switch has been in “Road” position for at least 10 seconds with the key switch on, and light switch turned off with key switch on, and key switch has been turned off within 5 minutes of the light switch being turned off.

1. Select **Menu button.**
2. Select **Lights softkey.**
3. Select **Delayed Egress Lighting softkey.**
4. Select **Delayed Egress Time Drop Down Box (A).**
5. When drop-down box options appear, select desired **Delayed Egress Time (B)** before lights will automatically turn off. This could be from 10 to 300 seconds in 30 second increments.

A—Delayed Egress Time Drop Down Box **B—Delayed Egress Time**

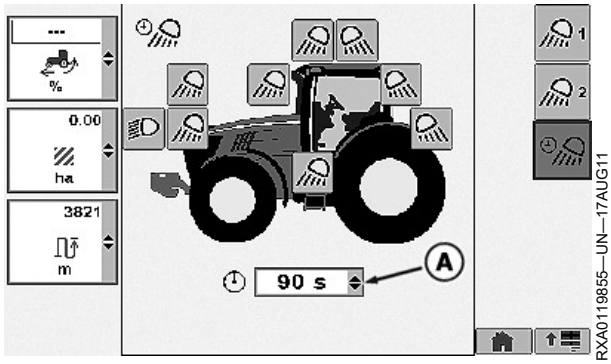
RXA0098156—UN—07NOV08

CommandARM™ Menu Button



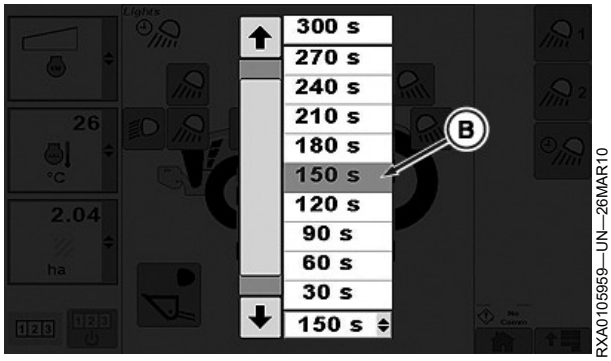
RXA0119867—UN—17AUG11

Lights Softkey → Delayed Egress Lighting Softkey



RXA0119855—UN—17AUG11

Lights Page (Delayed Egress Lighting)

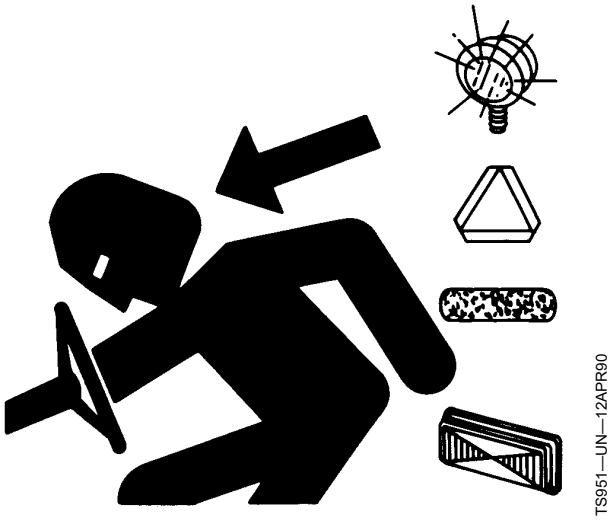


RXA0105959—UN—26MAR10

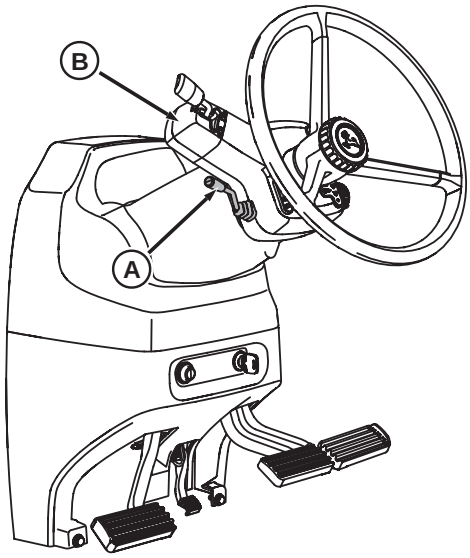
Delayed Egress Time Drop Down Box

OURX935,0001099-19-11JUL12-1/1

Operating Turn Signals and High/Low Beam



TS951—UN—12APR90



RXA0098434—UN—07JUL08

A—Turn Signal Lever

B—Left Hand Reverser (If Equipped)

CAUTION: 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.

NOTE: When turn signal is activated, a short audible chirping sound will be heard.

Turn Signals:

Push Turn Signal Lever (A) up for a right turn, or pull down for a left turn. Return lever to center position after completing turn.

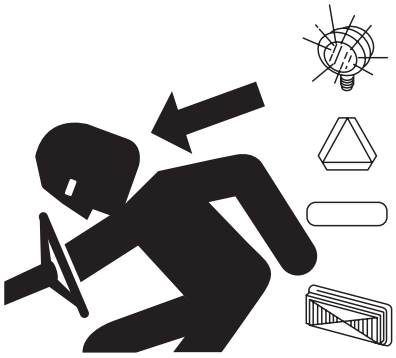
High/Low Beam:

Push lever (A) forward to activate high beam headlights; high beam indicator will come on. Pull lever into center position to operate low beam. Pull lever toward you and release will momentarily activate high beams.

Use low beam road lights when approaching oncoming vehicles.

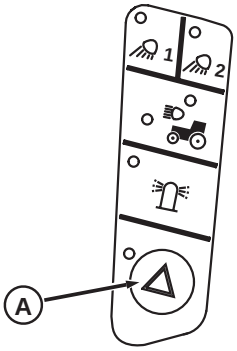
OURX935,000045E-19-29JUN11-1/1

Operating Hazard Lights and Extremity Transport Lights



RXA0086584—UN—09FEB06

Use Safety Lights and Devices Warning



RXA0098436—UN—07JUL08

Hazard Light Button

CAUTION: To prevent possible personal injury, always operate flashing lights when traveling on a highway or public roads, except where prohibited by law.

Extremity Transport Lights (D) are needed when tractor width exceeds 3.7 m (12 ft). Always use road lights and transport warning lights when operating tractor on a road or highway at night OR during the day. Extremity Transport Lights alert other vehicles of your extended width. Use flashing warning lights and turn signals day and night. Follow local regulations for equipment lighting and marking.

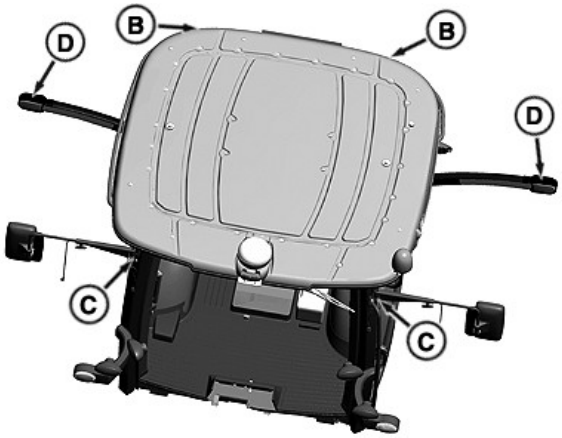
Push Hazard Switch (A) to activate flashing amber hazard lights (B, C, and D).

IMPORTANT: To avoid damage, extremity lights may be retracted when parking tractor in storage building.

Extremity Transport Lights operate with Hazard Light Switch ”ON”.

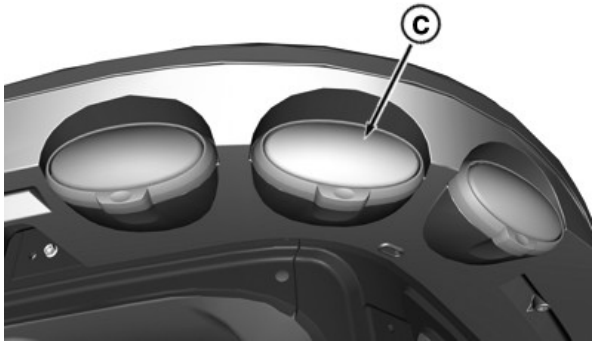
Adjust Extremity Transport Lights no more than 400 mm (16 in.) from widest point of tractor.

A—Hazard Light Switch
B—Rear Outer Roof Light Equipped With Amber Bulb
C—Front Outer Roof Light Equipped With Amber Bulb
D—Extremity Transport Lights

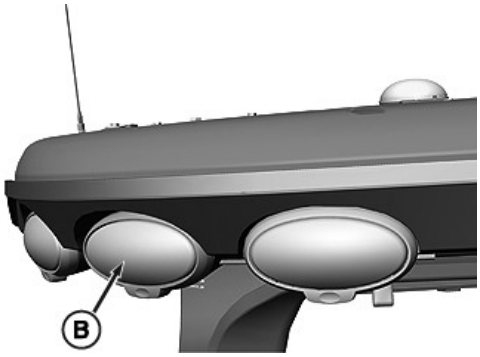


RXA0099877—UN—02DEC08

Cab Amber Lights



RXA0099874—UN—09JUL12



RXA0099875—UN—02DEC08

OURX935,0001017-19-01APR10-1/1

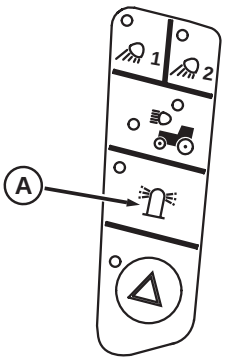
Operating Rotary Beacon Light (If Equipped)

Push Rotary Beacon Switch (A) to activate the Rotary Beacon Light (B).

When Rotary Beacon Light is not being used:

- Loosen nut (C) and remove light assembly.
- Install rubber protective cap (D) on connector.

A—Rotary Beacon Switch
B—Rotary Beacon Light
C—Nut
D—Protective Cap



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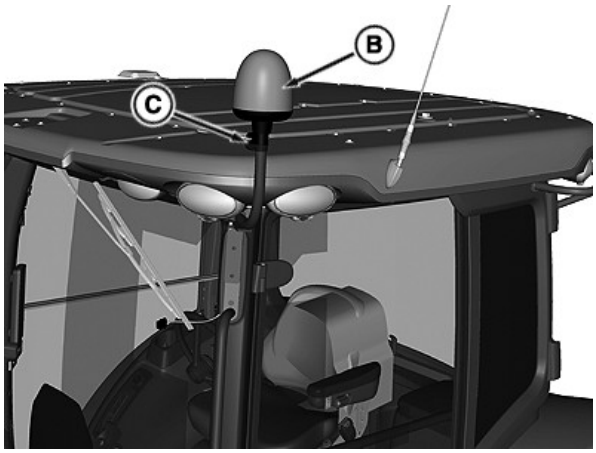
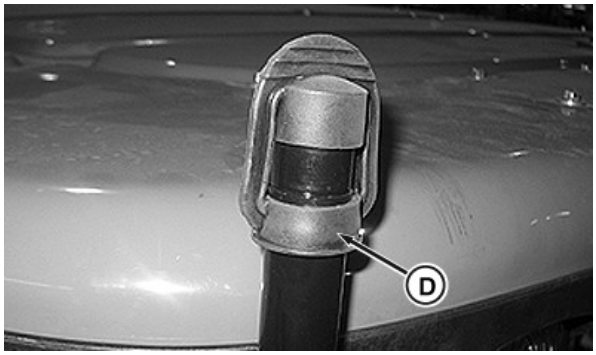


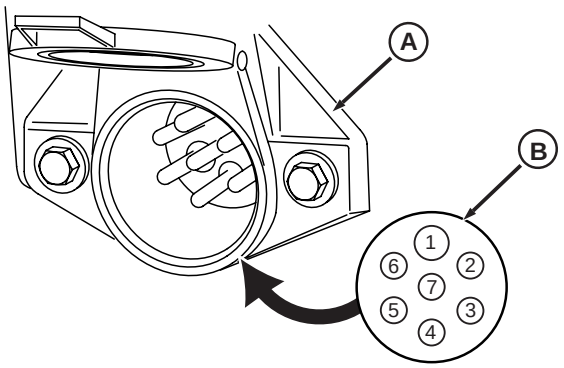
RXA0099172—UN—25SEP08



RXA0100494—UN—11FEB09

OURX935,0001014-19-04JUN10-1/1

Using Seven-Terminal Outlet



RXA0085739—UN—06JAN06

A—Seven Terminal Outlet **B—Terminal Numbers**

Seven Terminal Outlet (A) is used to connect lights, turn signals, and remote electrical equipment on trailers or implements. Always use auxiliary light on towed implement when tractor rear signals and other lights are obscured.

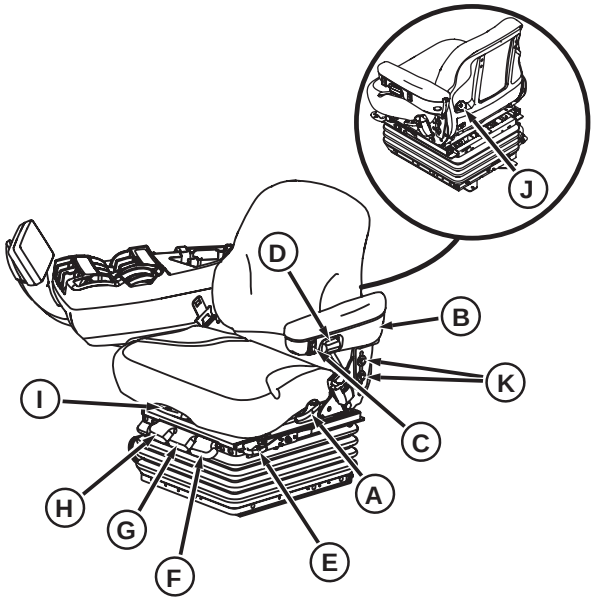
If extra implement lights and controls, such as switches are needed, contact your John Deere dealer. Your dealer can provide information on methods to tie in the light switch with one of the accessory wires located in the Seven Terminal Outlet on the back of the tractor.

NOTE: Matching plug is available through your John Deere dealer.

Terminal Numbers (B)	Function
1	Ground
2	Flood
3	Left Turn Signal
4	Brake Lights
5	Right Turn Signal
6	Tail Light
7	Accessory

OURX935,000045F-19-29JUN11-1/1

Adjusting Air Suspension Seat



RXA0099794—UN—16DEC08

Seat With Fold-Down Armrest

A — Back Tilt Handle - Allows seat back to tilt.

B — Flip Up Armrest - Can be flipped up out of the way.

C — Height Adjustment - Turn key to "ON". Press lower portion of switch to lower seat or press upper portion of switch to raise seat.

D — Tilt Adjustment Knob - Turn knob to adjust armrest angle.

E — Fore Aft Adjustment Handle - Allows entire seat assembly to slide forward or backward.

F — Fore-Aft Isolation Handle - Push down on handle to allow operator seat to slide forward or backward. Pull up on handle to lock seat in place.

G — Lateral Isolation Handle - Push down on handle to unlock lateral seat suspension. Pull up on handle to lock seat in position.

H — Firmness Adjustment Handle - Handle adjusts suspension shock. Moving handle to farthest down position provides the firmest ride; farthest up position provides softest ride.

I — Seat Swivel - Lift up on handle to allow seat to swivel. Push down on handle to lock seat in position.

J — Lumbar Adjustment Knob - Turn clockwise to add support to lower back. Turn counterclockwise to lessen resistance to lower back.

K — Armrest Adjustment - Loosen cap screws to slide Arm Rest up or down. Retighten cap screws.

OURX935,00004EB-19-03AUG11-1/1

Adjusting ActiveSeat (If Equipped)

*NOTE: Before operating tractor, adjust ActiveSeat to your height and weight. This will allow you to get the most from **ride zone protection**. ActiveSeat has a built-in buffer at the high and low end of vertical seat travel, resulting in a much smoother ride.*

A — Back Tilt Handle (A) - Allows seat back to tilt.

B — Flip Up Armrest (B) - Can be flipped up out of the way.

C — Height Adjustment (C) - Turn key to ”ON”. Press lower portion of switch to lower seat or press upper portion of switch to raise seat.

D — Tilt Adjustment Knob (D) - Turn knob to adjust armrest angle.

E — Fore Aft Adjustment Handle (E) - Allows entire seat assembly to slide forward or backward.

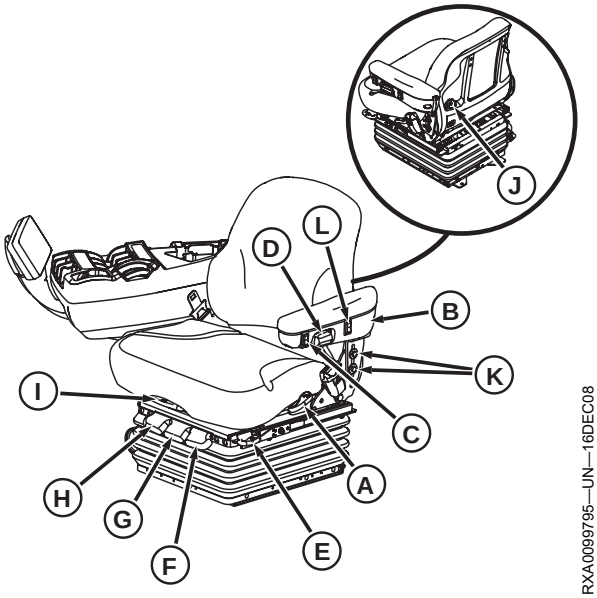
F — Fore-Aft Isolation Handle (F) - Push down on handle to allow operator seat to slide forward or backward. Pull up on handle to lock seat in place.

G — Lateral Isolation Handle (G) - Push down on handle to unlock lateral seat suspension. Pull up on handle to lock seat in position.

H — Adjustment Damper (H) - Reserved for Air Suspension Seat only.

I — Seat Swivel (I) - Lift on handle to allow seat to swivel. Push down on handle to lock seat in position.

J — Lumbar Adjustment Knob (J) - Turn clockwise to add support to lower back. Turn counterclockwise to lessen resistance to lower back.



RXA0099795—UN—16DEC08

K — Armrest Adjustment (K) - Loosen cap screws to slide arm rest up or down. Retighten cap screws.

L — Firmness Adjustment (L) - provides three different levels of seat suspension performance. Press upper portion **”+”** of switch for the firmest ride or lower portion **”—”** for the softest ride.

Ride Zone Protection - The seat is ride zone protected. The seat will automatically adjust back into the protected zone when operator adjusts the seat height position at or near the vertical seat travel limits.

OURX935,000025B-19-03AUG11-1/1

Using Instructional Seat

CAUTION: This instructional seat has been provided only for training operators or diagnosing machine problems. Keep all other riders off the tractor and equipment. Always wear seat belts (A).

Instructional seat back tilts forward to be used as a writing surface (B). Flip up seat (C) tilts up allowing easier entrance and egress.

A—Seat Belt
B—Writing Surface
C—Flip Up Seat

RXA0107055—UN—01APR10

Instructional Seat

RXA0107057—UN—03JUN10

Instructional Seat Converted To Writing Surface

RXA0107061—UN—01APR10

Instructional Seat Folded Up For Easier Egress

OURX935,0001009-19-26MAR10-1/1

Heated Leather Seat (If Equipped)

NOTE: Heater will automatically turn off after 1 hour of use and can be turned on again manually, as needed.

The heated leather seat provides three heat settings for increased comfort during cold days. Heat intensity is controlled by a momentary switch (A) located in the left armrest. The four settings are: HIGH, MEDIUM, LOW, and OFF. When tractor is shut off, seat heater also turns off or after one hour of use switch will automatically turn off. To start or restart seat heater:

- Press switch one time for HIGH (Red LED ON).
- Press switch two times for MEDIUM (Amber LED ON).
- Press switch three times for LOW (Yellow LED ON).
- Press switch four times for OFF (LED OFF).

LED Diagnostics Blink Pattern

• LED On longer than Off—Heating wire failure.

• LED Off longer than On—Temperature sensor failure.

Clean seat with mild soap and warm water. Use automotive leather conditioner for conditioning. Conditioning should be done every 6 months if tractor is stored outside. If stored inside conditioning interval can be extended to 12 months.

RXA0077640—UN—28SEP04

Heated Leather Seat

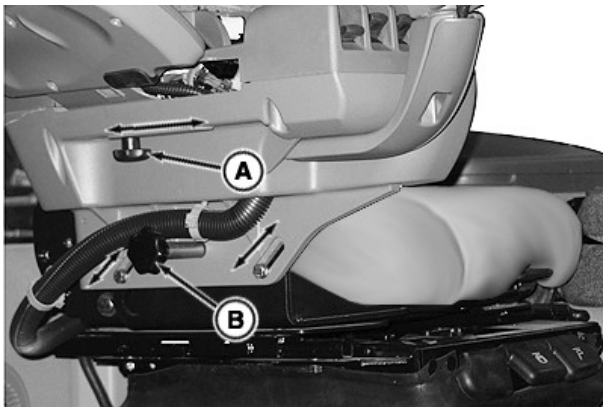
RXA0077642—UN—28SEP04

LED momentary switch

A—Heated Seat Switch

OURX935,0000860-19-04MAR09-1/1

Adjusting CommandARM™ Position



RXA0110926—UN—14SEP10

Right-Hand Side Shown

A—CommandARM™ Controls Fore/Aft Knob

B—CommandARM™ Raise And Lower Knob

1. Loosen CommandARM™ controls Fore/Aft Knob (A) and slide CommandARM™ controls forward or rearward to desired position.
2. Loosen CommandARM™ Raise/Lower Knob (B) to raise left console to desired height position.
3. Hand tighten knobs after making desired adjustment.

OURX935,000025C-19-04SEP13-1/1

Operating Cab Heat, Defrost, and Air Conditioning—Standard Equipment

Push Air Conditioning Switch (A) ON for cab cooling or defrosting. Leave switch OFF for heat.

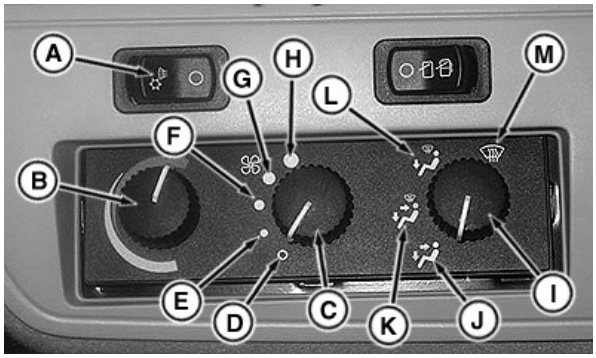
Turn Temperature Control Knob (B) to red zone for heating or blue zone for cooling.

IMPORTANT: If system is not cooling properly, turn air conditioning switch off to avoid possible compressor damage.

NOTE: Purge position is used for rapid cab cool down.

Turn fan speed control knob (C) to desired setting (D—H).

Turn air flow direction knob (I) for desired outlet (J—M).



RXA0100317—UN—25FEB09

Air Conditioning Controls

A—Air Conditioning Switch
B—Temperature Control Knob
C—Fan Control Knob
D—OFF
E—Low Speed
F—Medium Speed
G—High Speed
H—Purge
I—Air Flow Direction Knob
J—Cab And Floor
K—Defrost, Floor And Cab
L—Defrost And Floor
M—Defrost

OURX935,0000861-19-25FEB09-1/1

Operating Automatic Temperature Control — ClimaTrak™ (ATC)

Controls and settings are displayed on the CommandCenter™. Changes made through CommandARM™ controls result in CommandCenter™ displaying HVAC page.

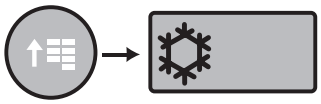
Rotate Fan ON/OFF Control knob (A) to adjust fan speed. Fan indicator arrow (B) moves in relation to fan speed.

Turn Temperature Control Knob (C) to red zone for heating or blue zone for cooling. Temperature display (E) indicates current cab temperature. Ambient temperature (M) is displayed at CommandCenter™ right side.

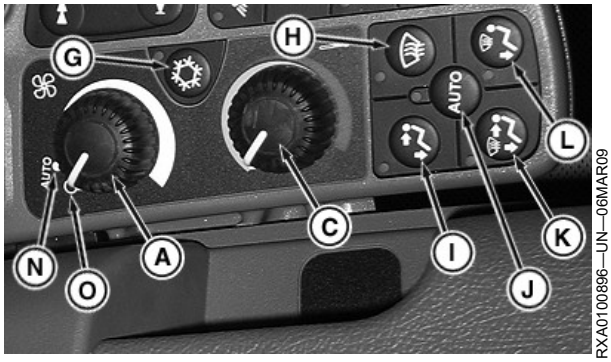
The bottom portion of display (F) indicates which of several modes the heating and cooling unit is currently operating in. Pressing buttons (G through L) changes the display and operating mode. Selecting defrost or air flow options will automatically enable compressor. Listed below is each of those modes.

- **Compressor Enable (G)** enables the compressor which turns air conditioner on and off.
- **Defrost (H)** turns on defroster and directs air flow to windshield.
- **Cab and Floor Vent (I)** directs air flow at operator chest and feet simultaneously.
- **ClimaTrak Enable, Auto (J)** automatically adjust direction of air flow.
- **Defrost and Cab (K)** directs cab air temperature to operator and windshield simultaneously.
- **Defrost and Floor Vent (L)** directs cab air temperature to footwell and windshield simultaneously.

RXA0116562—UN—12MAY11

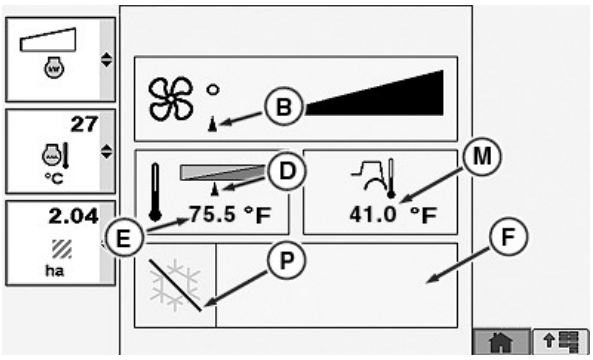


CommandCenter™ Menu Icon



RXA0100896—UN—06MAR09

CommandARM™ Controls



RXA0106079—UN—04AUG10

CommandCenter™ HVAC Page

A—Fan ON/OFF Control Knob
B—Fan Setting Indicator Arrow
C—Temperature Control Knob
D—Temperature Indicator Arrow
E—Set Point Temperature Display
F—HVAC Mode
G—Air Conditioner Control Button
H—Defrost
I—Cab And Floor Vent
J—ClimaTrak Enable (Auto)
K—Defrost, Floor Vent And Cab
L—Defrost And Floor Vent
M—Ambient Temperature
N—Auto
O—OFF
P—Air Conditioner Icon

OURX935,0000303-19-04SEP13-1/1

Adjusting Steering Wheel and Column

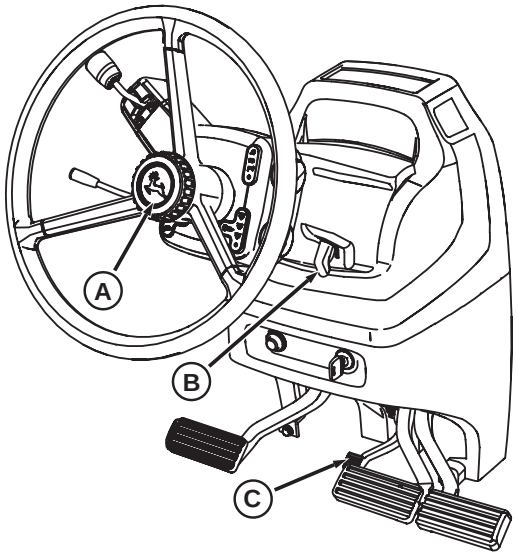
Telescope: Rotate knob (A) counterclockwise to extend or retract steering column. Rotate knob clockwise to lock.

Tilt: Pull up on lever (B) and move steering column to desired position. Release lever to lock.

Memory: Push down on foot pedal (C) to permit steering column to move up and out of the way for easy entry or exit.

Push down on foot pedal and pull down on steering wheel to return steering column to previous setting.

A—Knob
B—Lever
C—Foot Pedal



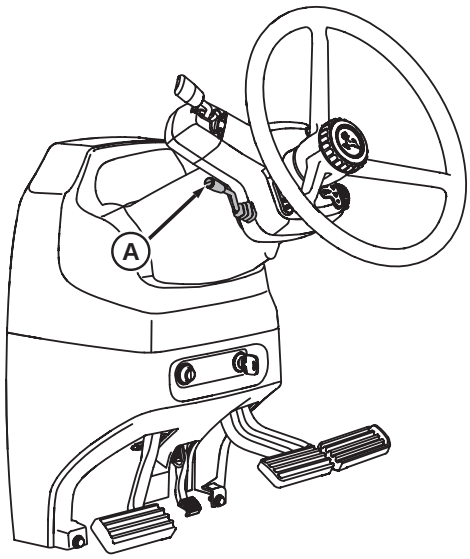
RXA0098499—UN—07JUL08

OURX935,0000545-19-25FEB09-1/1

Operating Horn

Push button on the end of signal arm (A) to activate horn.

A—Signal Arm And Horn



RXA0098438—UN—26JAN09

OURX935,00002A7-19-27JAN09-1/1

Operating Front Wiper and Washer

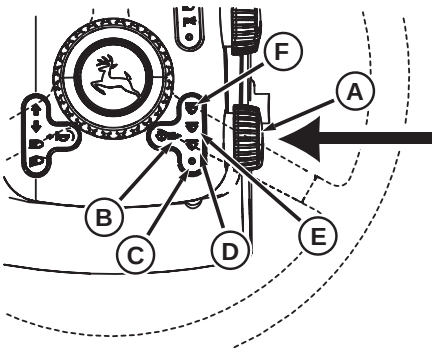
Wiper/washer knob (A) has four positions:

- C—OFF
- D—Intermittent Operation
- E—Slow Speed
- F—Fast Speed

Push knob in to operate windshield washer.

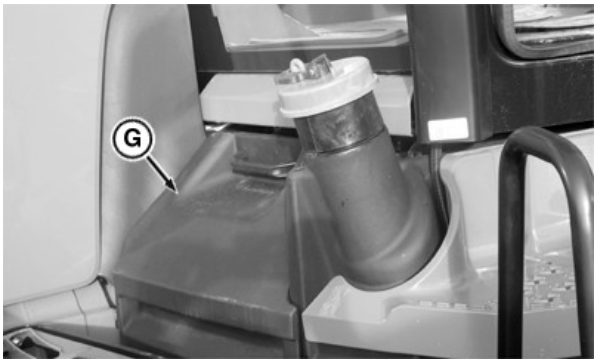
Remove battery box cover (G) to fill reservoir (H) with non-freezing windshield washer fluid.

A—Front Wiper/Washer Knob
B—Washer Icon
C—Off
D—Intermittent Speed
E—Slow Speed
F—Fast Speed
G—Battery Box Cover
H—Windshield Washer Reservoir



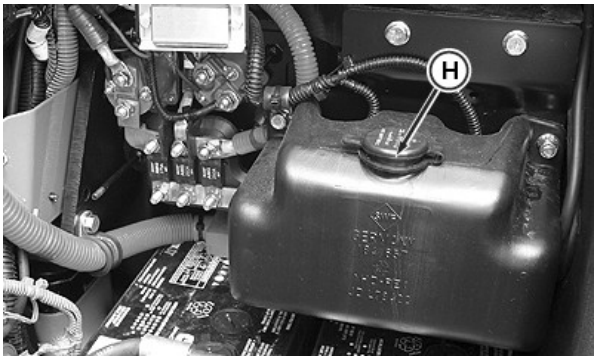
RXA0098437—UN—22DEC08

Rotate Switch



RXA0109724—UN—18AUG10

Remove Cover



RXA0109379—UN—16AUG10

Windshield Washer Reservoir

OURX935,0000004-19-31AUG10-1/1

Operating Rear Wiper and Washer (If Equipped)

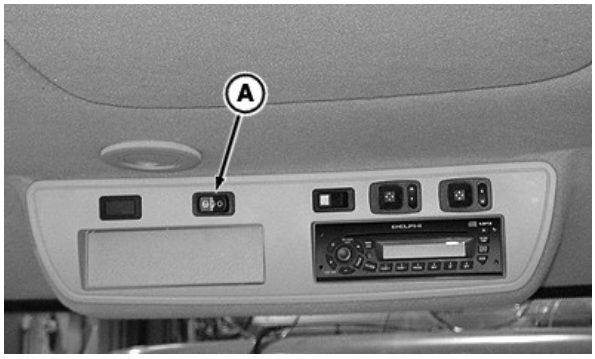
Switch (A) has three positions:

Right — OFF position.

Left — ON position. Rear wiper is activated.

Far Left — Rear window washer ON when switch is held. Release switch to turn OFF rear window washer.

A—Rear Wiper/Washer Switch



RXA0098445—UN—07JUL08

OURX935,0000005-19-05AUG10-1/1

Installing Business Band or CB Radio and Antenna

CAUTION: Under no circumstances should business band radio antenna be mounted to rear of cab or antenna cable be routed 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.

CAUTION: Prevent possible personal injury. Disconnect battery ground cable before any electrical repair.

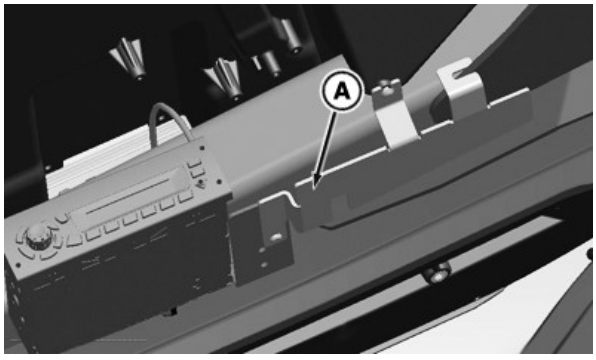
NOTE: Only tractors equipped with Business Band Radio Mounting and Wiring Option from factory have business band bracket behind headliner and antenna cables behind right rear corner post cover. See your John Deere dealer for Business Band Radio and Antenna Installation Instructions.

Custom Installation

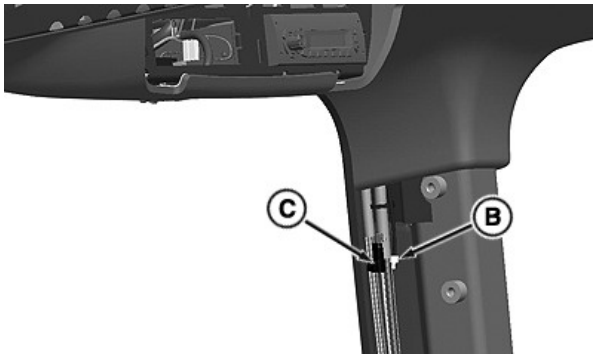
Custom CB or Business Band radio installation requires special tools and skills to tune antenna for lowest possible VSWR. A qualified professional should be employed or consulted before attempting installation. Contact your John Deere dealer for recommendations. The following specifications will be useful to an installer.

Specifications for Factory Installed Radio Installation Kit:

- Roof Antenna Mount: MNO 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: A grounded large antenna counterpoise foil under green cab roof allows installation of either a ¼ or ½ wave antenna.



Business Band Radio Bracket — Headliner Removed To Show Location



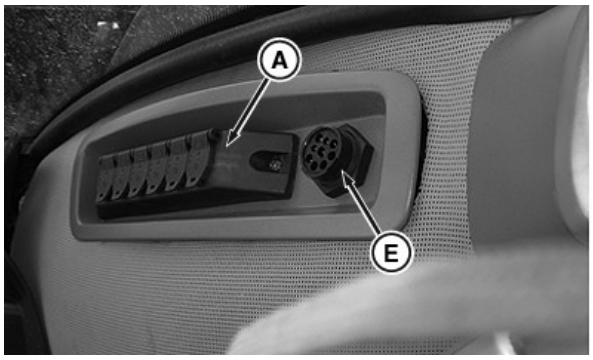
Antenna Coaxial Cable And Business Band Radio Power/Ground plug Coiled Behind Right Rear Corner Post Cover

A—Bracket
B—Antenna Coaxial Cable
C—Business Band Radio Power/ Ground Cable

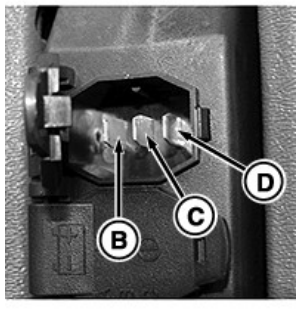
- CB Antenna: A normal CB antenna can be attached to factory-installed MNO antenna mount through use of an appropriate adapter. A special CB antenna already equipped with an MNO base may alternatively be used.

RW29387,0000174-19-07FEB12-1/1

Using Auxiliary Power Strip And Electrical Outlets (If Equipped)



Auxiliary Power Strip



Auxiliary Power Strip Convenience Outlet

IMPORTANT: Power strip is not a surge suppressor. Electrical equipment with program memory requires protection from damage of electrical surges and spikes.

The power strip (A) provides six outlets of 12-volt power with grounds for use when connecting auxiliary equipment. This power is 30 amp switched and 30 amp unswitched.

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°.

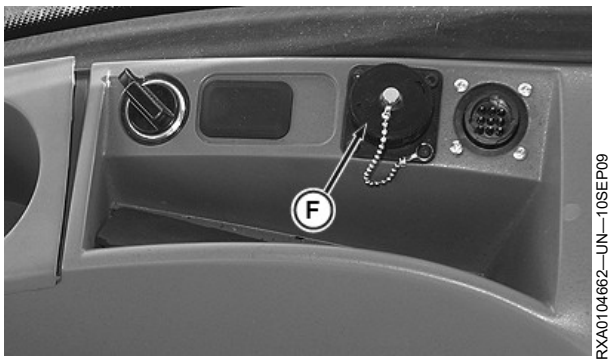
Adapters are available from your John Deere dealer for the following: cigarette lighter adapters, three-way convenience adapters, and standard adapters.

NOTE: Outlets are protected by a 30-amp fuse.

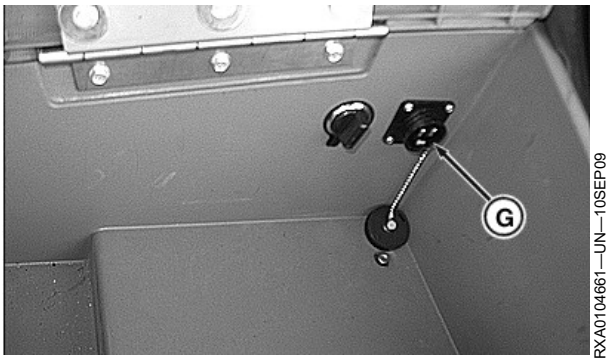
12-volt accessory outlets (F) are located on right-hand console or outlet (G) in the storage box are used when connecting auxiliary equipment.

Pin (H) provides battery power (hot), pin (I) provides ground, and pin (J) provides (key) switched power. For additional information on connections, see appropriate auxiliary equipment installation instructions or your John Deere dealer.

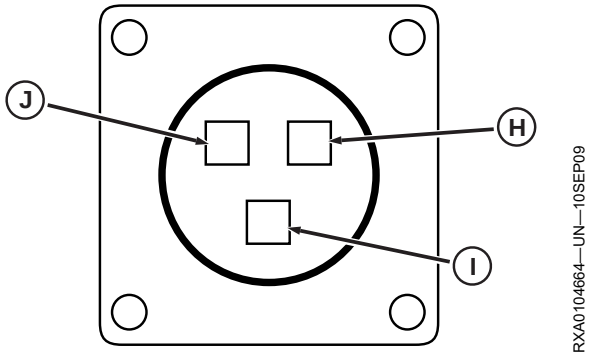
A—Auxiliary Power Strip
B—Battery (Unswitched)
C—Ground
D—Switched
E—Diagnostic Connector (DEALER USE ONLY)
F—Accessory Outlet (Right-Hand Console)
G—Accessory Outlet (In Storage Box)
H—Battery (Unswitched)
I—Ground
J—Switched Circuit



Accessory Electrical Outlet On Right-Hand Console



Accessory Electrical Outlet In Storage Box



Accessory Electrical Outlet Pins

OURX935,00004D0-19-18JUL11-1/1

Connecting Compatible Electronic Equipment

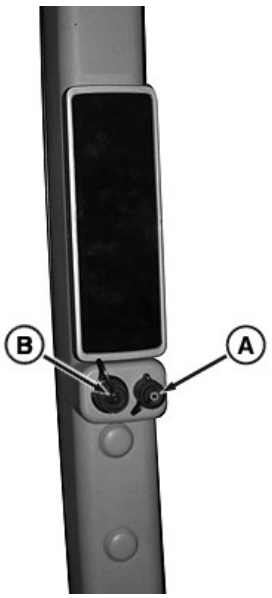
All 8R and 8RT Series Tractors are ISOBUS ready and offer connections for implements conforming to both ISO 11786 and 11783 standards. The ISO 11786 connector shown on the right, provides a radar or GPS speed signal. See Configuring Tractor For GPS/Radar in this section.

GreenStar corner post connector (B) allows any GreenStar display connection. See your John Deere dealer for compatible adapter harnesses.

IMPORTANT: ISOBUS 11783 Socket (F) on the right-hand console, is only to be used with ISO11783 compliant components. Other uses could damage tractor electronic components.

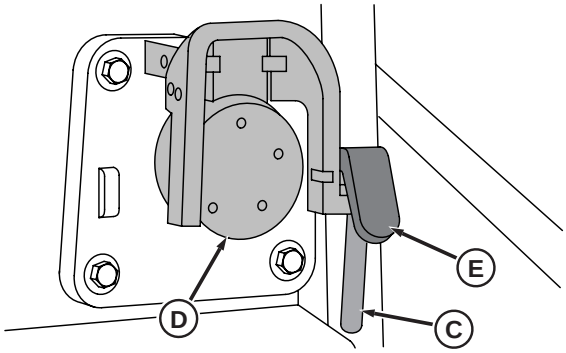
The ISOBUS ready preparation includes the ISO 11783 standardized connector on the right-hand console and implement connector on the tractor rear facilitating tractor/implement communications.

A—ISO11786 Standard Connector (Corner Post Right)
B—GreenStar Connector (Corner Post Left)
C—Handle
D—Implement Connector (Tractor Rear)
E—Release
F—ISO11783 Standard Connector (Right-Hand Console)



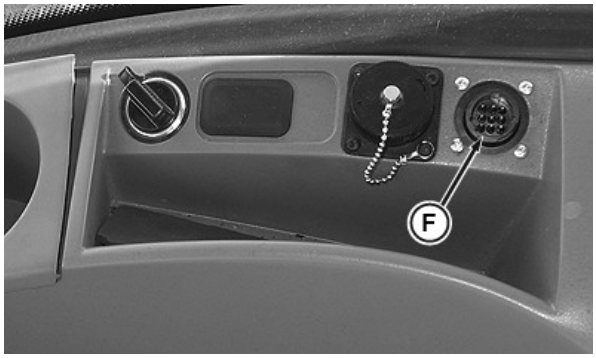
RXA0104285—UN—11AUG09

Front Right Corner Post



RXA0099727—UN—06NOV08

Implement connector on Tractor Rear



RXA0104663—UN—10SEP09

Right-Hand Console ISO 11783 Connector

OURX935,00004D1-19-18JUL11-1/1

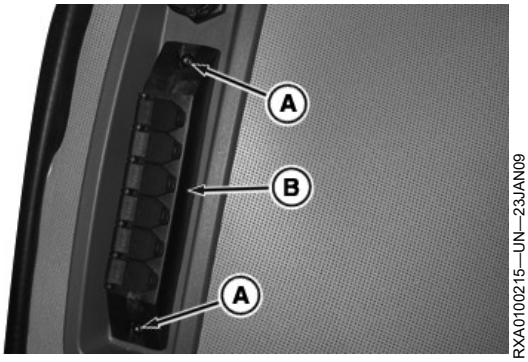
Configuring Tractor For GPS/Radar

Tractors equipped with radar must be re-configured if switching to GPS radio as the true ground speed input signal. To configure tractor:

1. Remove screws (A) and power strip (If Equipped) (B), or cover plate.
2. Inside right-hand console locate one wire lead marked ”GPS” and one marked ”Radar”.
3. Remove radar plug (C) from tractor connector (E).
4. Remove GPS plug (D) from dust cap (F).
5. Install GPS plug into tractor connector.
6. Install radar plug into dust cap.
7. Install power strip.

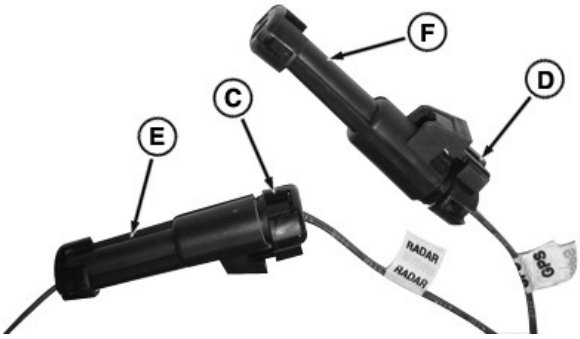
Tractors not equipped with radar, but wanting to add a GPS signal require two controller addresses to be changed. Contact your John Deere dealer.

A—Screws
B—Power Strip
C—Radar Plug
D—GPS Plug
E—Tractor Connector
F—Dust Cap



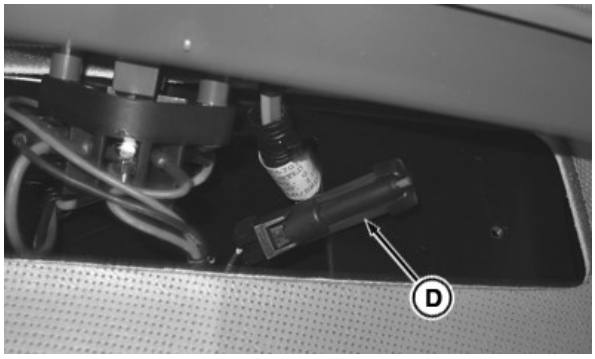
RXA01000215—UN—23JAN09

Remove Screws And Optional Power Strip



RXA01000213—UN—23JAN09

Configured Plugs For Radar



RXA01000217—UN—23JAN09

Remove Plug

OURX935,0000521-19-21JUN11-1/1

Mounting StarFire Receiver

CAUTION:

Falling while installing or removing a global positioning receiver can cause serious injury. Use a ladder or platform to easily reach a mounting location.

Use sturdy and secure footholds and hand holds. Do not install or remove the receiver in wet or icy conditions.

Mount StarFire receiver (A) on StarFire receiver bracket (B).

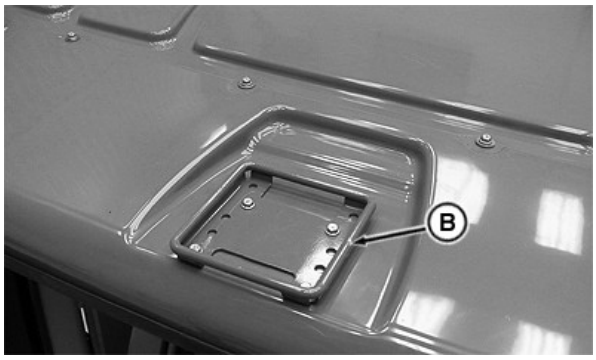
NOTE: Refer to your John Deere dealer or to StarFire receiver installation instructions for further compatibility.

See your John Deere dealer for compatible adapter harnesses.

A—StarFire Receiver **B—StarFire Receiver Bracket**

RXA0107026—UN—31MAR10

StarFire Receiver Mounted on StarFire Receiver Bracket



RXA0107027—UN—31MAR10

StarFire Receiver Bracket

OURX935,000025E-19-08MAR11-1/1

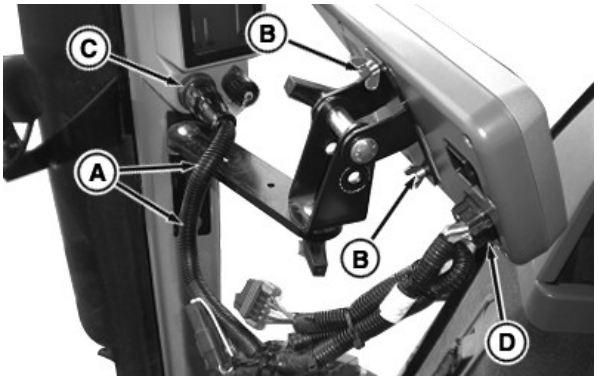
Installing GreenStar System Components

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).

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 the display.
4. Position display so that it is comfortable to reach and does not obstruct your view.
5. Connect StarFire receiver connector (E) to Starfire receiver (F).

NOTE: See your John Deere dealer for compatible adapter harnesses.

A—Corner Post Mounts
B—Wing Nuts (2 Used)
C—GreenStar Corner Post Connector
D—GreenStar Display Connector
E—StarFire Receiver Connector
F—StarFire Receiver

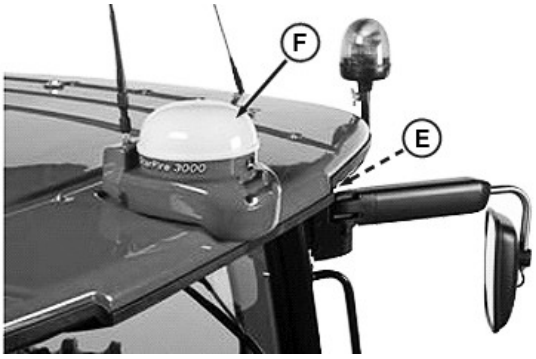


RXA0104665—UN—10SEP09

Attach Bracket To Corner Post Mount

RXA0109995—UN—20AUG10

GreenStar Display Front View

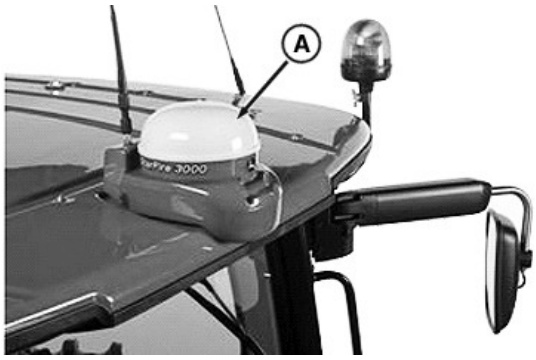


RXA0109999—UN—20AUG10

Connect StarFire Receiver

OURX935,000025F-19-14NOV11-1/1

Connecting AutoTrac Assisted Steering System (If Equipped)



RXA0109998—UN—20AUG10

StarFire Receiver

RXA0110000—UN—20AUG10

GreenStar Display 2630

NOTE: Electro-hydraulic steering is required for AutoTrac to function.

Refer to AutoTrac Operator's Manual for detailed instructions.

- AutoTrac system utilizes StarFire position receiver (A) and GreenStar Display 2630 (B)[1] to assist operator in steering tractor.
- Operator must turn vehicle at the end of each pass and to go around any field obstacles. Steering control is obtained by simply turning steering wheel.

NOTE: See your John Deere dealer for compatible adapter harnesses.

A—Position Receiver
B—GreenStar Display 2630
C—GreenStar Display 1800
D—GreenStar Display 2600

RXA0100708—UN—26FEB09

GreenStar Display 1800

RXA0084306—UN—26SEP05

GreenStar Display 2600

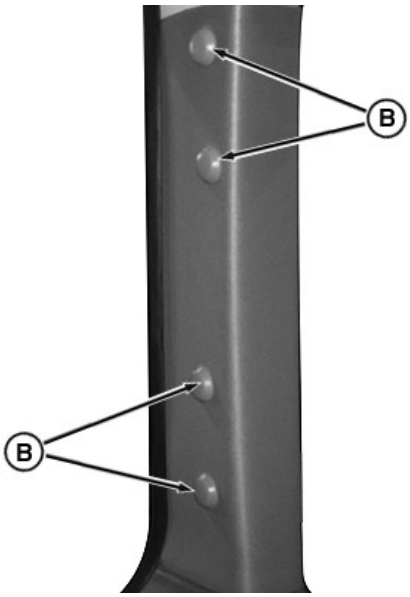
[1] *GreenStar Display 1800 (C) OR 2600 (D) are compatible*

OURX935,0000260-19-08MAR11-1/1

Monitor Bracket Mounts

RXA0100906—UN—06MAR09

Front Corner Post Mounting Points



RXA0100908—UN—06MAR09

Rear Corner Post Mounting Points

A—Front Corner Post Mounting Points

B—Rear Corner Post Mounting Points

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.

OURX935,00004D2-19-18JUL11-1/1

Using Manual Mirror (If Equipped)

Turn mirror arm adjustment knob (A) counterclockwise to adjust mirror arm (B) in or out to desired length. Turn mirror adjustment knob clockwise hold mirror in place.

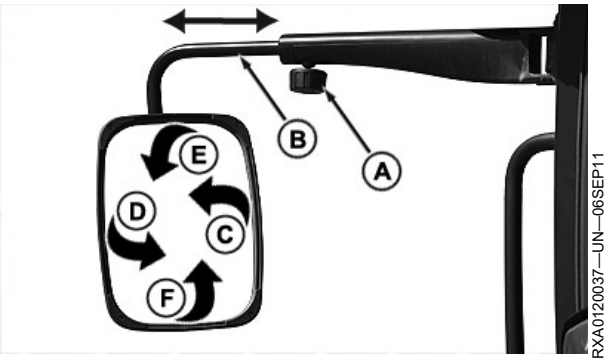
Press inside edge (C) of mirror glass to rotate mirror in.

Press outside edge (D) of mirror glass to rotate mirror out.

Press upper edge (E) of mirror glass to rotate mirror up.

Press lower edge (F) of mirror glass to rotate mirror down.

Using a soft cloth after mirror is adjusted, using a soft cloth, wipe any smudges off the face of the mirror.



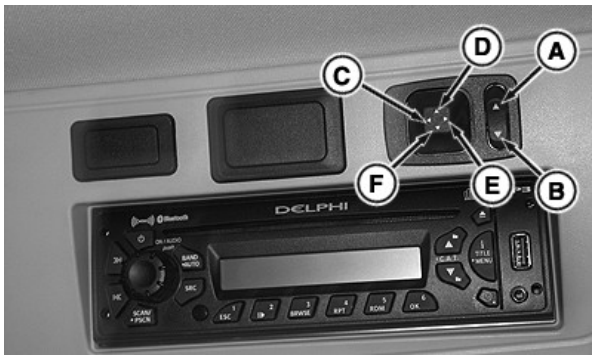
RXA0120037—UN—06SEP11

Manual Mirror

A—Mirror Arm Adjustment Knob
B—Mirror Arm
C—Inside Edge
D—Outside Edge
E—Upper Edge
F—Lower Edge

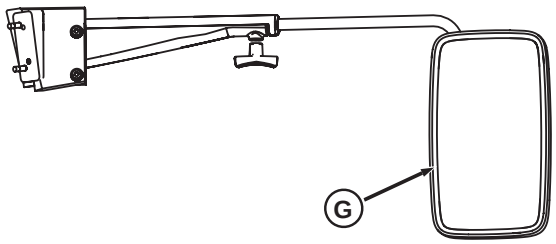
OURX935,000054B-19-06SEP11-1/1

Using Electric Mirror (If Equipped)



RXA0100805—UN—25FEB09

Rear View Mirror Switch



RXA0100485—UN—06MAR09

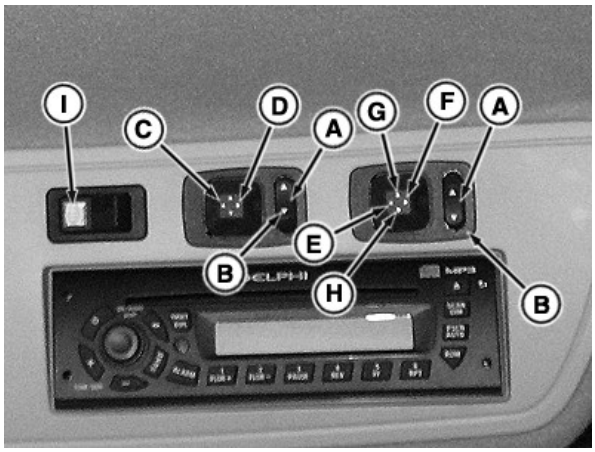
Electrical Rear View Mirror (Right-Hand Side Shown)

A—Selection Switch—Right Mirror
B—Selection Switch—Left Mirror
C—Angle Left
D—Tilt Up
E—Angle Right
F—Tilt Down
G—Standard Mirror

1. Push selection switch (A) for right mirror or switch (B) to control left mirror.
2. Push adjustment switch (C) to angle mirror left or switch (E) to angle mirror right.
3. Push adjustment switch (D) to tilt up or switch (F) to tilt mirror down.

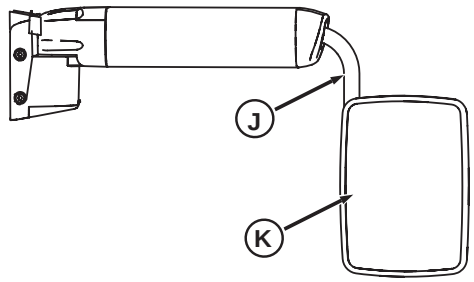
OURX935,00004C6-19-11APR09-1/1

Using Telescoping Heated Electric Mirror (If Equipped)



RXA0098963—UN—26FEB09

Rear View Mirror Switch



RXA0100486—UN—06MAR09

Telescoping Electrical Rear View Mirror (Right-Hand Side Shown)

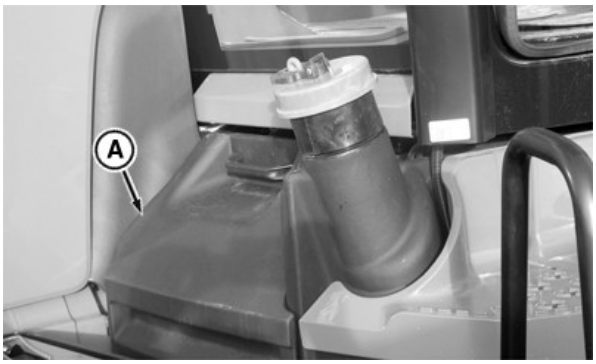
A—Selection Switch—Right Mirror
B—Selection Switch—Left Mirror
C—Extend
D—Retract
E—Angle Left
F—Angle Right
G—Tilt— Up
H—Tilt—Down
I—Heating Switch
J—Telescoping Arm
K—Mirror

1. Push switch (A) to control right mirror. Push switch upward to select mirror angle adjustments or downward for telescoping arm position.
2. Push switch (B) to control left mirror. Push switch upward to select mirror angle adjustments or downward for telescoping arm position.
3. Push adjustment switch (C) to left to extend or right to retract mirrors. Both mirrors can extend/retract depending on which way toggle switch is flipped (A or B).
4. Push switch (G) to tilt mirror up or switch (H) to tilt mirror down.
5. Push switch (E) to angle mirror left or switch (F) to angle mirror right.

NOTE: Heating switch (I) activates/deactivates heated mirror function. Switch will light when heated mirrors are activated, mirror heater is not on timer. Heated mirrors are deactivated with the ignition key switch, if heating switch (I) doesn't return to off position the mirrors will be activated again when ignition switch is turned to accessory or on position.

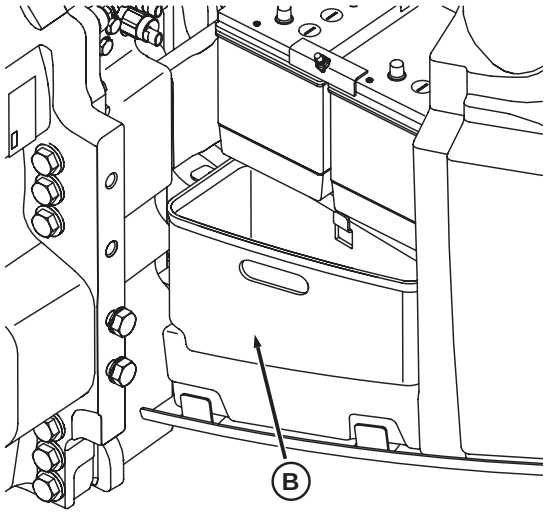
OURX935,00008B9-19-13JUL12-1/1

Using Storage Compartment



RXA0109842—UN—18AUG10

Storage Compartment Cover



RXA0110425—UN—30AUG10

Storage Compartment Cover

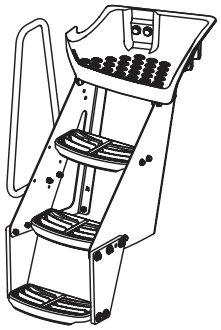
A—Handle **B—Storage Compartment**

Pull handle (A) firmly to open magnetic cover latch.

Remove cover retainer to gain access to storage compartment (B).

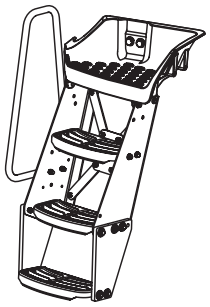
OURX935,0000053-19-31AUG10-1/1

Steps and Handrails



RXA0125168—UN—17FEB12

Wide Steps and Handrails



RXA0125169—UN—17FEB12

Narrow Steps and Handrails

Tractors are equipped from factory with either narrow or wide steps and handrail configuration. The wide and narrow step and handrail configurations are fixed and **not** adjustable.

RW29387,000018A-19-02AUG12-1/1

Break-In Period

Break-In Checks

Tighten wheel and axle bolts after **3 HOURS**, **10 HOURS** and daily for the first week of operation.

Operate engine at heavy loads without sustained maximum load.

Avoid idling engine longer than 5 minutes.

Daily or Every 10 Hours

IMPORTANT: John Deere Break-in Oil must be added if oil level is BELOW ADD MARK on dipstick. DO NOT fill above crosshatch pattern or FULL mark.

- Check engine oil level
- Check coolant level
- Check transmission-hydraulic oil level
- Lubricate front axle:[1]
  - Standard front axle: Pivot pin, wheel bearings, steering spindles/cylinder ends and tie rod ends[1]
  - MFWD: Axle pivot, king pins and tie rods[1]
- Lubricate hitch components
- Inspect tires to make sure tires have no cuts or punctures
- Drain moisture from the trailer brake air pressure tank (if equipped)

[1] *In extremely wet conditions*

OURX935,0000F9B-19-02MAR10-1/1

Exhaust Filter System Overview

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

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

- Utilize AUTO Exhaust Filter Cleaning mode.
- Avoid unnecessary idling.
- Use proper engine oil. (See Fuels, Lubricants, and Coolants section for recommendations.)
- Use only ultra low sulfur fuel. (See Fuels, Lubricants, and Coolants section for recommendations.)

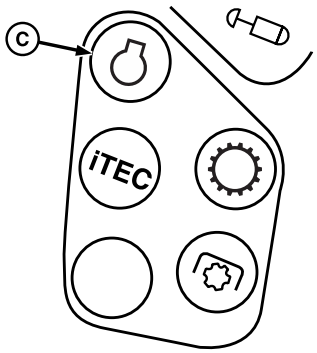
OURX935,00004D3-19-18JUL11-1/2

There are two exhaust filter system modes: Auto (A) and Disable (B). Mode selection can be accessed via the engine page by pressing engine button (C) on the CommandARM console.

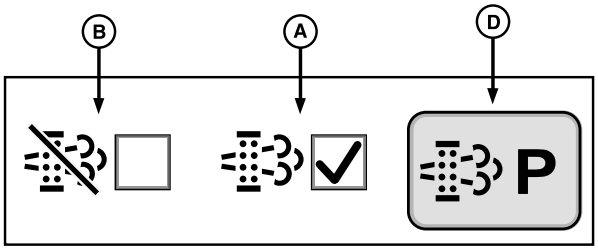
IMPORTANT: Disable mode (B) should be used when temporarily connected to an indoor ducted exhaust system for diagnostic and repair activities.

NOTE: Parked Exhaust Filter Cleaning button (D) may be active or inactive (grayed out) depending on exhaust filter restriction level. See Parked Exhaust Filter Cleaning later in this section.

A—AUTO Exhaust Filter Cleaning Mode
B—Disable Exhaust Filter Cleaning Mode
C—Engine Button
D—Parked Exhaust Filter Cleaning Button



H94790—UN—06OCT09



RXA0108765—UN—15JUL10

OURX935,00004D3-19-18JUL11-2/2

AUTO Exhaust Filter Cleaning Mode

AUTO Mode allows the Exhaust Filter System to intelligently perform exhaust filter cleaning as required.

Cornerpost Display Indicators and CommandCenter prompts will provide the operator information related to exhaust filter system activity.

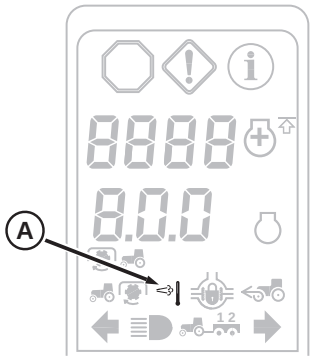
Continued on next page

OURX935,00004D4-19-12AUG11-1/2

Exhaust Filter Cleaning Indicator (A) will illuminate when the exhaust filter system is actively performing exhaust filter cleaning.

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

Exhaust Filter Restricted—Depending on operating conditions, the Exhaust Filter System may request a change in operation. CommandCenter prompts will recommend operational changes.



RXA0108859—UN—19JUL10

A—Exhaust Filter Cleaning Indicator

OURX935,00004D4-19-12AUG11-2/2

Parked Exhaust Filter Cleaning

Parked Exhaust Filter Cleaning is an automated process which allows the system to clean the exhaust filter when required. During the process the engine speed will be controlled by the system and the machine must remain parked to complete the procedure. Time required for the Parked Exhaust Filter Cleaning process is dependent upon the level of exhaust filter restriction, ambient temperatures and current exhaust gas temperature. CommandCenter prompts will provide estimated time to completion.

Select the Parked Exhaust Filter Cleaning button, then follow CommandCenter prompts to complete the Parked Exhaust Filter Cleaning process.

OURX935,00004D5-19-18JUL11-1/2

NOTE: Parked Exhaust Filter Cleaning may exceed 40 minutes.

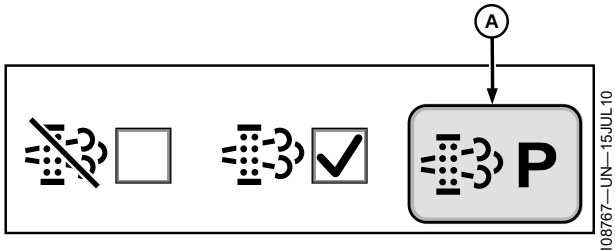
IMPORTANT: During parked exhaust filter cleaning operation, the engine may operate at elevated idle.

Engine speed will be controlled by the machine during filter cleaning.

Once process has been started, a status page will appear.

There are two steps in the Parked Filter Cleaning process, preparation and cleaning. During the preparing to clean exhaust filter, the Exhaust Filter System will control engine speed to increase exhaust temperature. During the cleaning, diesel particulates or soot are cleaned from the Exhaust Filter System.

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



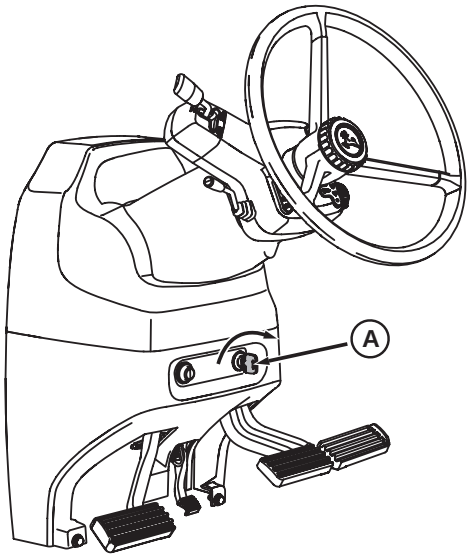
RXA0108767—UN—15JUL10

A—Parked Exhaust Filter Cleaning Button

OURX935,00004D5-19-18JUL11-2/2

Starting the Engine

TS177—UN—11JAN89



RXA0098446—UN—19MAR09

A—Ignition Key

CAUTION:

Avoid the possibility of personal injury or death. Engine starting with shift lever in gear indicates a malfunction of the starting circuit. Repairs should be made immediately by 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 the operator seat.

Before Starting The Tractor

1. SCV levers are in NEUTRAL position.
2. PTO is disengaged.
3. Hand throttle is in slow idle position.
4. Transmission shift lever is in PARK position.
5. Be sure everyone is clear of tractor and attached equipment.
6. Depress clutch and brake pedals.
7. Sound the horn.

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

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

If Engine Fails To Start:

Check Fuel (quality and quantity).

Check Electrical system.

In cold weather (at or below -6 °C (21 °F), follow steps listed in Cold Weather Starting—With Starting Aid or Cold Weather Starting—Without Optional Starting Aid.

If engine fails to start after three attempts, it may be necessary to consult a John Deere service technician.

NOTE: For tractors equipped with IVT/AutoPowr, engine speed is limited to 1500 rpm if transmission oil temperature is less than -5 °C (23 °F).

For tractors equipped with PST, engine speed is limited to 1500 rpm if transmission oil temperature is less than -18 °C (0 °F).

OURX935,00004D6-19-18JUL11-1/1

Operating The Engine

Do not start engine with throttle pushed all the way forward.

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

To get maximum performance from your tractor:

- Ensure that tractor is correctly ballasted, see Ballasting section.
- For PST transmission, see Operating PowerShift Transmission.
- For IVT and AutoPowr, see Operating IVT and AutoPowr Transmission.

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

Allow engine to idle for 20 seconds before turning ignition to Off position.

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

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

OURX935,00002AE-19-14SEP11-1/1

Stopping the Engine

IMPORTANT: Before stopping engine that has been operating at working load, idle engine at least 1 or 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.

1. Stop tractor and pull throttle back to slow idle position.
2. Depress clutch and brake pedals.
3. Put transmission in PARK position.
4. Lower all equipment to the ground.
5. Make sure SCV levers are in NEUTRAL position.
6. Make sure PTO switch is disengaged.

CAUTION: Remove ignition switch key to help prevent accidents.

7. Turn ignition key to **OFF** position and remove key.

OURX935,00002AF-19-03MAY11-1/1

Engine Fuel System and Power Rating

Fuel System

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

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

Engine Certification/Power Rating

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

OURX935,000040A-19-18JAN06-1/1

Cold Weather Starting—Without Optional Starting Aid

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

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

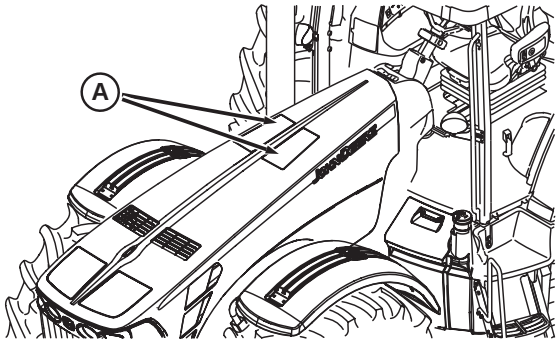
CAUTION: Starting fluid is extremely flammable. While using this product do not smoke and extinguish all flames. Turn off all pilot lights, stoves, heaters, electrical motors and other sources of ignition while using this product and/or vapors are still present. Avoid contact of aerosol with battery 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: Spray starting fluid through air intake screens (A) located in the center of the top of the hood.

1. Spray starting fluid into air intake once for two or three seconds.
2. Follow steps as outlined in Starting the Engine.

NOTE: If engine fails to start after three attempts, it may be necessary to consult a John Deere service technician.

TS1356—UN—18MAR92

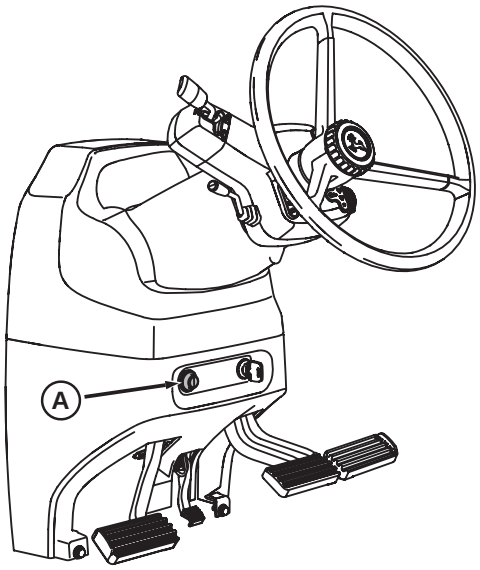


RXA0085772—UN—09JAN06

A—Air Intake Screens

OURX935,000046A-19-31JAN06-1/1

Cold Weather Starting—With Starting Aid



RXA0098447—UN—07JUL08

A—Starting Fluid Switch

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

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

1. Start tractor as described in Starting the Engine.

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, turn ignition key and while engine is cranking follow the following recommendations:
   - Apply starter fluid in a series of quick taps rather than a stream.
   - After a series of taps (no more than three) on starter fluid button (A) 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.

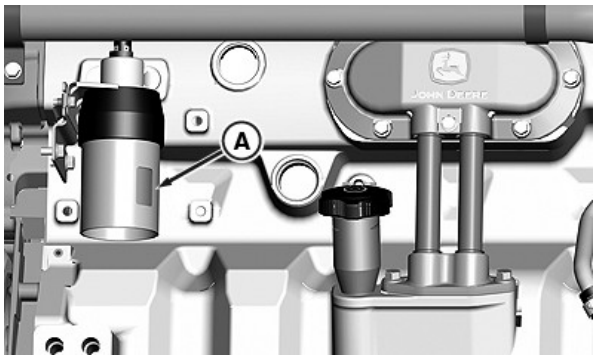
OURX935,00002AB-19-05JUN08-1/1

Changing Starting Fluid Can (If Equipped)

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

1. Raise hood to access canister (A).
2. Remove safety cap and plastic spray nozzle from new can.
3. Loosen canister and remove old can.
4. Install new can and tighten canister.

IMPORTANT: To avoid drawing dust into engine, always keep a starting fluid can in position or clean bottom of canister and install bottom side up.



RXA0106749—UN—02MAR10

Right-Hand Side

A—Canister

OURX935,0000F9C-19-02MAR10-1/1

Using Auxiliary Heaters

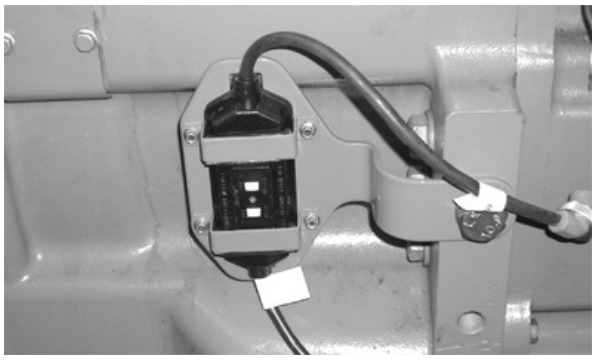
CAUTION: To avoid electrical shock or fire, use a 3-wire, 14 AWG (14 gauge), heavy-duty electrical cord with 15 amp rating, suitable for outdoor use. Always plug electrical cord into an outlet protected by GFI (Ground Fault Interrupter).

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

TS210—UN—23AUG88

Optional auxiliary heaters available from your John Deere dealer:

- Engine Coolant (1000 W)—-If Equipped[1].
- Transmission (200 W)—If Equipped[1].
- Hydraulic Charge Pump (200 W)—If Equipped[1].



RXA0078042—UN—10NOV04

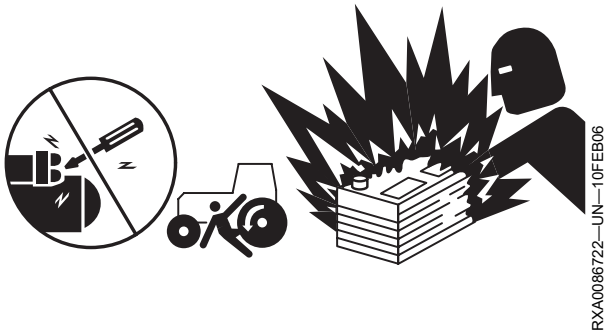
Connect the heaters and the ground fault interrupter to a ground fault protected 110-volt electrical outlet.

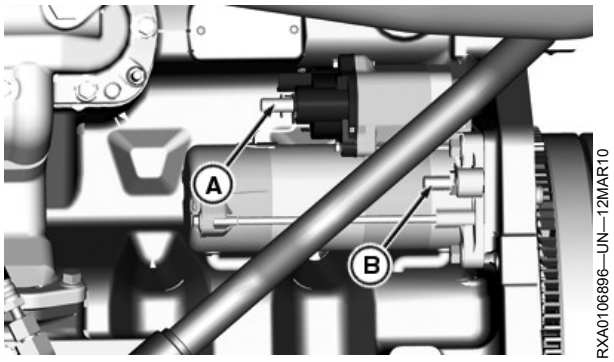
IMPORTANT: The ground fault interrupter on the tractor protects the tractor only, not the electrical wiring supplying power to the tractor. Test all ground fault interrupters before each use.

[1] *Includes a ground fault interrupter*

OURX935,0000496-19-02JAN08-1/1

Using a Battery Booster or Charger





A—Positive Terminal **B—Ground**

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

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 a 12 volt charge.

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.

Booster Battery

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

Battery Charger

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

1. Attach positive charger lead to positive remote 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.

OURX935,000111A-19-24MAY10-1/1

Avoid Contact with Agricultural Chemicals

CAUTION: This enclosed cab does not protect against inhaling vapor, aerosol or dust.

1. When operating in an environment where pesticides are present, wear a long-sleeved shirt, long-legged pants, shoes, and socks.
2. If pesticide use instructions require respiratory protection, wear an appropriate respirator inside the cab.
3. Wear personal protective equipment as required by the pesticide use instructions when leaving the enclosed cab:
   - into a treated area
   - to work with contaminated application equipment such as nozzles which must be cleaned, changed or redirected
   - to become involved with mixing and loading activities
4. Before 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.
5. Clean your shoes or boots to remove soil or other contaminated particles prior to entering the cab.

TS220—UN—15APR13

TS272—UN—23AUG88

DX,CABS1-19-25MAR09-1/1

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.

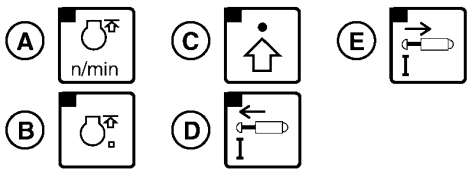
1. Sweep or vacuum the floor of cab.
2. Clean headliners and inside cowlings of cab.
3. Wash entire exterior of vehicle.
4. Dispose of any wash water with hazardous concentrations of active or non-active ingredients according to published regulations or directives.

DX,CABS2-19-24JUL01-1/1

CommandCenter Right Region Softkeys Displayed In This Section

A —FieldCruise Settings
B—FieldCruise On/OffPosition
C—Settings
D—Extend
E—Retract

RXA0116484—UN—17AUG11



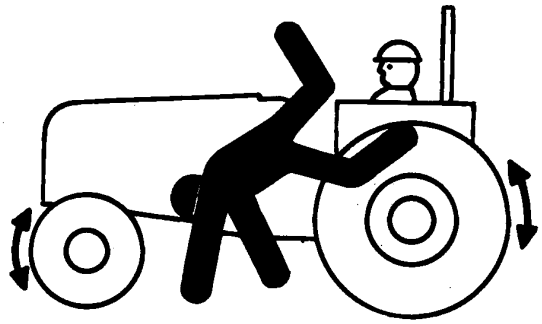
CommandCenter Softkeys

OURX935,00002E3-19-25AUG11-1/1

Keep Riders Off Machine

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

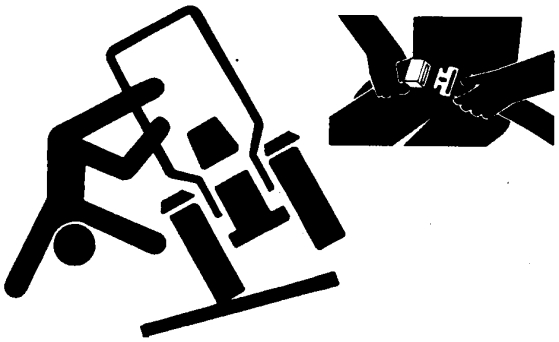
Riders on machine are subject to injury such as being struck by foreign objects and being thrown off of the machine. Riders also obstruct the operator's view resulting in the machine being operated in an unsafe manner.



TS290—UN—23AUG88

DX,RIDER-19-03MAR93-1/1

Using Seat Belts



TS205—UN—23AUG88

RXA0110197—UN—26AUG10

Optional Instructional Seat Shown

A—Seat Belts

CAUTION:

Minimize chance of possible injury from an accident. Use seat belts (A) when operating the tractor.

Instructional seat is provided only for training operators or diagnosing machine problems. Keep all other riders off the tractor and equipment. Always wear your seat belt.

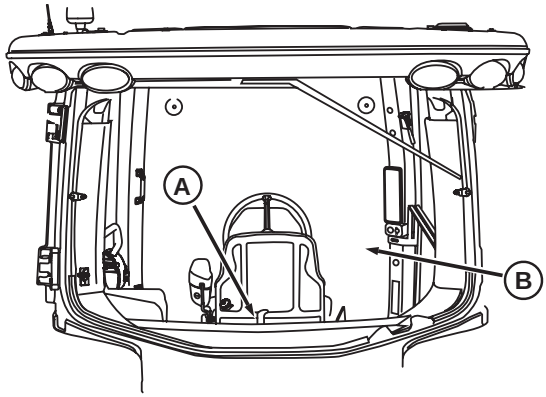
Inspect seat belts and mounting hardware annually. (See Annual Service section).

OURX935,0000D8F-19-31AUG10-1/1

Using Emergency Exit

The rear window (B) provides a large exit path if the cab door is blocked in an emergency situation. To exit through rear window, turn handle (A) and push window open.

A—Handle **B—Rear Window**



RXA0099426—UN—24NOV08

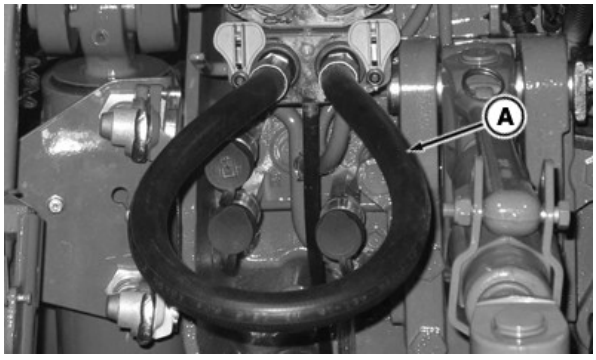
OURX935,000057E-19-21OCT08-1/1

Transmission-Hydraulic System Warm-Up

Avoid operating tractor under load until transmission/hydraulic system has warmed up.

1. Install jumper hose (A) into SCV I coupler.
2. At CommandARM controls, select **Menu button**.
3. At the CommandCenter menu, **select SCV**.
4. When SCV page displays, in the left region, select hydraulic temperature box (B).
5. Select SCV I extend flow bar graph (C), then adjust desired rate of flow. Numeric flow input displays in flow input box (D).
6. Select arrows in SCV I extend time drop down box (E).
7. At the drop down menu, make selection.
8. Pull SCV I lever (F) to extend.
9. Select SCV I retract flow bar graph (H).
10. Select desired retract rate of flow.
11. Select arrows in SCV I retract time drop down box (I).
12. At the drop down menu, make selection.
13. Set SCV II as described above. At CommandCenter select SCV II extend and retract softkeys and pull SCV II lever (G) to perform system warm up.
14. Shift transmission to PARK position and operate engine at 1500 rpm.
15. Monitor left region hydraulic temperature box until temperature reaches 38° C (100 ° F).
16. Return SCV I and SCV II lever to neutral position.
17. Disconnect jumper hose.

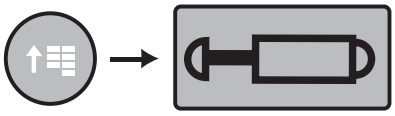
A—Jumper Hose
B—Hydraulic Temperature Box
C—Extend Flow Bar Graph
D—Flow Input Box
E—Extend Time Drop Down Box
F—SCV I Lever
G—SCV II Lever
H—Retract Flow Bar Graph
I—Retract Time Drop Down Box



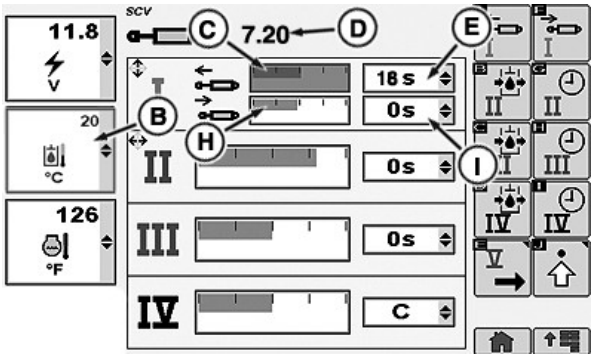
RXA0100362—UN—03FEB09

Install Jumper Hose Into SCV Coupler

RXA0116593—UN—12MAY11

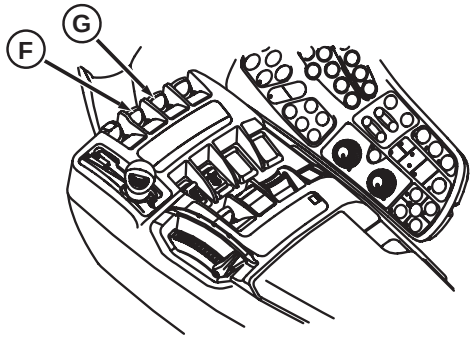


CommandARM Menu button → CommandCenter SCV



RXA0117823—UN—10JUN11

CommandCenter Display



RXA0099914—UN—08DEC08

CommandArm

OURX935,0000478-19-27JUL11-1/1

Operating Tractor with Independent Link Suspension

Start Up Mode

- Independent Link Suspension does not move until placed into either forward or reverse.
- Independent Link suspension flexes when transmission shift lever is placed in NEUTRAL or any forward or reverse gear.
- If tractor has settled, Independent Link Suspension may rise about 25 mm (1 in.) seeking to center.
- Leveling is completed when tractor wheel speed is above 0.5 km/h (0.3 mph).

Independent Link Suspension is Locked (in Restricted Mode) under Following Conditions:

- Operator activates hitch raise/lower switch
- Transmission shift lever placed in PARK
- Wheel speed less than 0.5 km/h (0.3 mph)
- While correcting for an out of level condition
- Operator applies both brake pedals

Rear Hitch:

- Controllers limit suspension response when hitch is raised or lowered with a load since front weight changes
- Depressing clutch and moving transmission shift lever into gear for four seconds and then back to NEUTRAL adjusts suspension toward the 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 the front end of tractor.

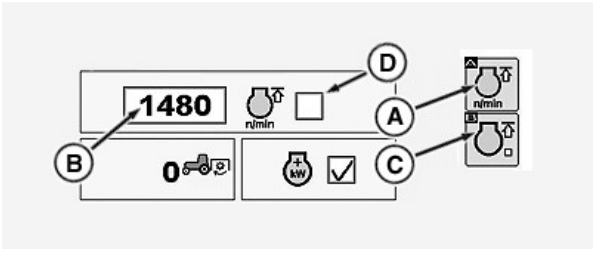
- Front end can settle when tractor is parked. Keep front end of tractor away from equipment or other items.

OURX935,00007A1-19-02JAN08-1/1

Using FieldCruise

RXA0117362—UN—01AUG11

CommandARM Menu Button → CommandCenter Menu Engine Icon



RXA01106463—UN—04AUG10

Engine Page

A—FieldCruise Settings Softkey **B—RPM Input Box** **C—FieldCruise On/Off Softkey** **D—Check Box**

IMPORTANT: Engine must be running for FieldCruise adjustment to operate.

Engine speed can be adjusted from 1050—2100 rpm. Changes to rpm setting take place immediately.

FieldCruise utilizes a constant speed governor curve, providing instant response to varying loads.

Limiting engine speed in light load situations may improve fuel economy.

IVT/AutoPowr: Selecting appropriate CommandCenter IVT setting is the preferred method of controlling engine rpm, but FieldCruise can be considered for certain applications such as PTO operation when baling.

To Activate FieldCruise:

1. Select **Engine**.

NOTE: When FieldCruise On/Off softkey (C) is selected, it toggles FieldCruise on or off and displays check box (D) either checked for FieldCruise ON or unchecked for FieldCruise OFF.

2. When engine page appears, select FieldCruise On/Off softkey (C).

To Adjust Engine rpm:

NOTE: When FieldCruise Settings softkey (A) is selected, rpm input box (B) is highlighted.

3. Select **FieldCruise Settings softkey**.
4. At rpm input box select desired engine speed. Rotate thumb wheel forward to increase engine rpm or rearward to decrease engine rpm.

OURX935,0000479-19-28JUL11-1/1

Intelligent Power Management (If Equipped)

Intelligent Power Management provides a controlled power boost of up to 26 kW to tractor under the following operating conditions:

- **At Transport speeds, during acceleration** power boost occurs in steps through the range from 23—28 km/h (14.3—17.4 mph).
- **At Transport speeds, during deceleration** power boost ramps down in equal steps in the range from 23—18 km/h (14.3—11.2 mph).
- **Tractor moving and PTO under load;** must be moving at least 0.5 km/h (0.3 mph) and PTO consuming moderate power before power boost engages.

Power increase is not provided under draft applications or non loaded rear PTO applications. Power increase is only provided when required.

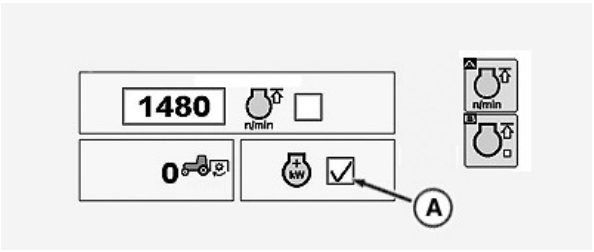
1. Select **Engine.**

NOTE: When Intelligent Power Management is engaged, the Intelligent Power Management level is identified by the solid portion displayed. Segments to the right of the solid portion indicate additional engine power above rated.

NOTE: Intelligent Power Management is available as a factory or field installed option.

RXA0117362—UN—01AUG11

CommandARM Menu Button → CommandCenter Menu Engine Icon



RXA0110827—UN—10SEP10

Engine Page

A—Intelligent Power Management Box

With tractor moving and rear PTO under load or in transport above 23 km/h (14.3 mph), power increase indicator will appear on corner post display and Intelligent Power Management level is displayed on the CommandCenter.

2. Select Intelligent Power Management box (A) to activate Intelligent Power Management. Check appears in Intelligent Power Management check box.

OURX935,000047A-19-23JUL13-1/1

Using The Brakes

Use individual brakes (A or C) to assist in making sharp turns.

CAUTION: Avoid possible injury from losing control of tractor:

- **Lock brake pedals together with arm (B) when operating on roads.**
- **Reduce speed if towed load weighs more than the tractor or when transporting loads under adverse conditions. Avoid hard braking applications. (See TRANSPORTING TOWED EQUIPMENT, in Transport Section and Implement Manual.)**
- **Tractor wheels may lock and skid on slippery downhill slopes. (For IVT/AutoPowr tractors, See DOWNHILL OPERATION IN SLIPPERY CONDITIONS, in the IVT/AutoPowr Transmission section.)**

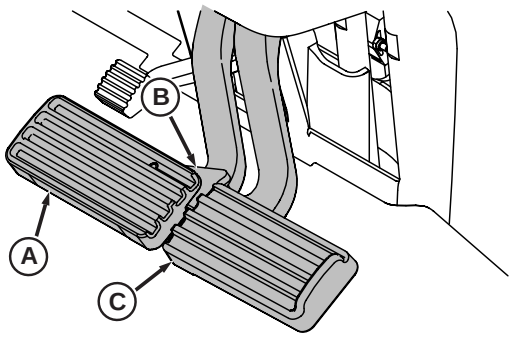
Test brakes with engine stopped to be sure manual brake system is functioning. (See General Maintenance and Inspection section).

Use individual brake pedals to assist in making sharp turns in non-transport situations.

IMPORTANT: Avoid unnecessary wear on brakes and increased fuel consumption. DO NOT rest feet on brake pedals during tractor operation.

For PST Tractors Only

Brakes must be pressed once within first 2 hours of tractor moving at a speed greater than 0.5 kph (0.3) mph or tractor will generate diagnostic trouble code 524169.14. Although not required, placing foot on brakes when first putting tractor in gear eliminates this code.



Lock Individual Brakes Together While Transporting

A—Brake Pedal
B—Arm
C—Brake Pedal

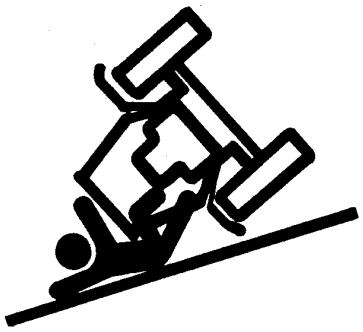
For IVT/AutoPowr Tractors Only

When operating at low idle, individual brake pedals will stop tractor without the use of clutch. 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 will slow tractor to a stop.

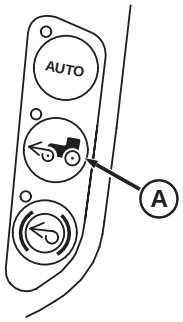
NOTE: Depressing the clutch to stop tractor equipped with IVT transmission is not necessary. (See STOPPING AND PARKING TRACTOR in Operating IVT/AutoPowr Transmission Section.)

OURX935,000047B-19-30JUN11-1/1

Using Mechanical Front-Wheel Drive



RW13093—UN—07DEC88



RXA0099425—UN—08OCT08

A—MFWD button

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 ON mode, rather than AUTO mode for four-wheel braking.

IMPORTANT: Use only AUTO or BRAKE ASSIST positions when transporting tractor. See Transport Section.

MFWD can be engaged and disengaged in all gears (forward and reverse) during operation and under full load. MFWD has three operating modes.

Center Button **ON** Mode—engages MFWD. MFWD on under all conditions. CommandARM light indicates engagement.

Top Button**AUTO** Mode. Indicator on display shows MFWD engagement.

MFWD Automatically Disengages:

- When pressing either brake pedal
- At speeds above 20.5 km/h (12.7 mph)

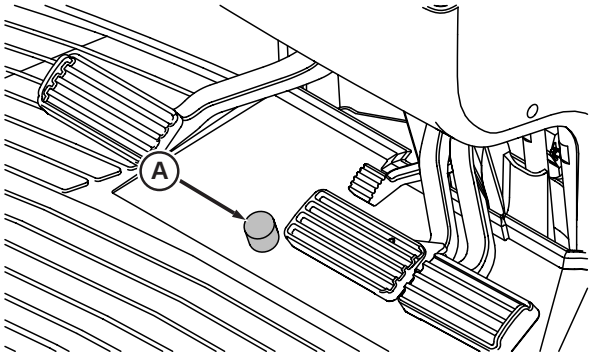
MFWD Automatically Engages:

- When BOTH brake pedals are depressed
- At **any** speed below 19.5 km/h (12 mph)

Bottom Button **BRAKE ASSIST** Mode—MFWD OFF **except** when BOTH brake pedals are depressed at speeds above 5 km/h (3 mph).

OURX935,000047C-19-30JUN11-1/1

Using Differential Lock



RXA0069157—UN—27AUG03

A— Differential Lock Button

IMPORTANT: Engage differential lock before entering a situation where wheel slippage may occur or when all wheels appear to be turning at the same speed. If engaged after wheels begin to spin, damage to differential could result.

NOTE: On some tractors both front and rear axles have differential locks. When equipped with both, the front axle differential lock will engage when the rear differential lock engages.

When one wheel begins to slip, engage differential lock by pressing switch (A). Indicator light on display panel will light. Disengage differential lock by pressing either brake pedal.

RD47322,0000581-19-14MAY12-1/1

Using 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 Operating Tractor—IVT/AutoPowr Transmission section.)

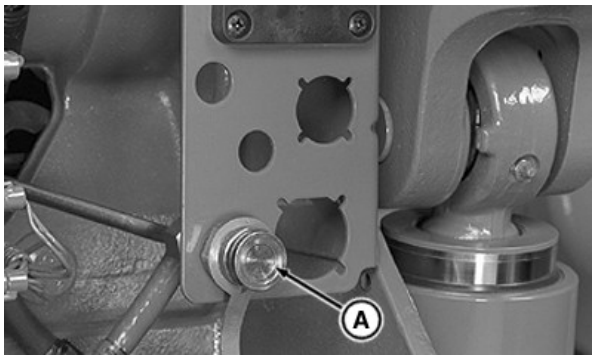
OURX935,000047D-19-19MAR13-1/2

Remove cap from trailer brake coupler (A). Ensure the hose coupler is clean before connecting to trailer brake coupler.

Depress brake pedals to operate hydraulic trailer brake. The braking effect depends on pressure applied to the brake pedals.

IMPORTANT: Reduce brake wear:

- **Make sure the pressure hose is connected.**
- **Select the same gear for both downhill and uphill driving.**
- **Check the hydraulic trailer brake regularly for correct functioning.**

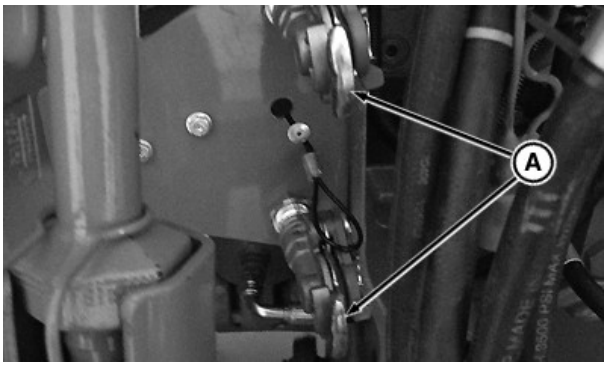


RXA0082409—UN—25JUL05

A—Trailer Brake Coupler

OURX935,000047D-19-19MAR13-2/2

Using Trailer Air Brakes (If Equipped)



RXA0097297—UN—19FEB08

Brake Couplers

A—Couplers

CAUTION: Avoid possible injury from losing control of tractor equipped with IVT transmission operating on downhill slopes. Tractor wheels may lock and skid on slippery downhill slopes. (See Downhill Operation In Slippery Conditions in Operating Tractor—IVT Transmission section.)

IMPORTANT: Agricultural tractor trailer air brakes are designed only for use with agricultural implements and agricultural trailers. This system is not compatible with trailer air brake systems used by over-the-road vehicles and does not conform with the standards of over-the-road trailer air and electrical systems.

Air brakes are a dual-line system.

Clean connections before attaching air hoses. Lift cover from brake coupler and connect trailer hoses. Attach blue trailer hose, service hose, on to tractor blue coupler. Attach trailer red hose, park hose, to tractor red coupler.

NOTE: Trailer lighting plug may need to be rewired to work with tractor 7-pin connector. All trailer warning lights must be operational.

Attach trailer lighting plug to tractor 7-pin connector.

Start engine and allow air system to reach working pressure. While air pressure builds, Service Alert indicator light comes on and air pressure warning appears on CommandCenter display. When operating pressure is reached, indicator light and warning display shut off automatically.

IMPORTANT: With trailer lines connected, do not drive tractor until operating pressure is reached and service alert light and warning display shut off.

Depress brake pedals to stop tractor-trailer while disengaging the clutch.

IMPORTANT: Reduce brake wear:

- **Make sure the pressure hoses are connected.**
- **Select the same gear for both downhill and uphill driving.**
- **Check the air brake on the trailer regularly for correct functioning.**

NOTE: Depressing the clutch to stop tractor equipped with IVT transmission is not necessary. See Stopping And Parking the Tractor in Operating Tractor—IVT Transmission.

Bring tractor-trailer to a complete stop, shift transmission to PARK before dismounting tractor or disconnecting lines from couplers. Seal connections with dust caps whenever hoses are disconnected.

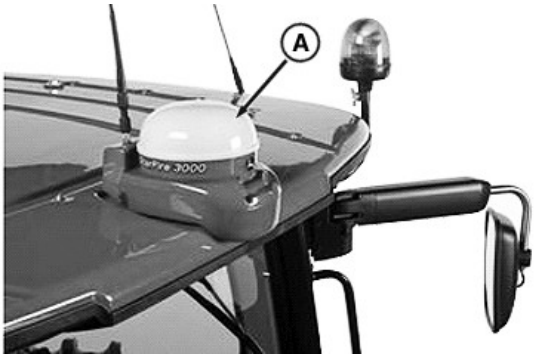
OURX935,0000583-19-03DEC08-1/1

AutoTrac Assisted Steering System (If Equipped)

NOTE: Electro-hydraulic steering is required for AutoTrac to function. Refer to AutoTrac Operator's Manual for detailed instructions.

- AutoTrac system utilizes StarFire position receiver (A), GreenStar display and mobile processor (B) to assist operator in steering tractor. See Installing GreenStar System Components in the Operator Station Section.
- Operator must enter implement width minus overlap desired in GreenStar display, and drive first field pass in a straight line, to enter starting and ending points of desired path.
- To activate AutoTrac initially, push Resume switch located on the CommandARM after GreenStar display has been enabled. For each field pass after that, the mark (C) on the display should stay in the middle of the tractor hood, when AutoTrac is being used.
- AutoTrac is a straight-line guidance system. Operator must turn vehicle at the end of each pass and to go around any field obstacles. Steering control is obtained by simply turning steering wheel.

A—Position Receiver
B—Mobile Processor
C—Mark



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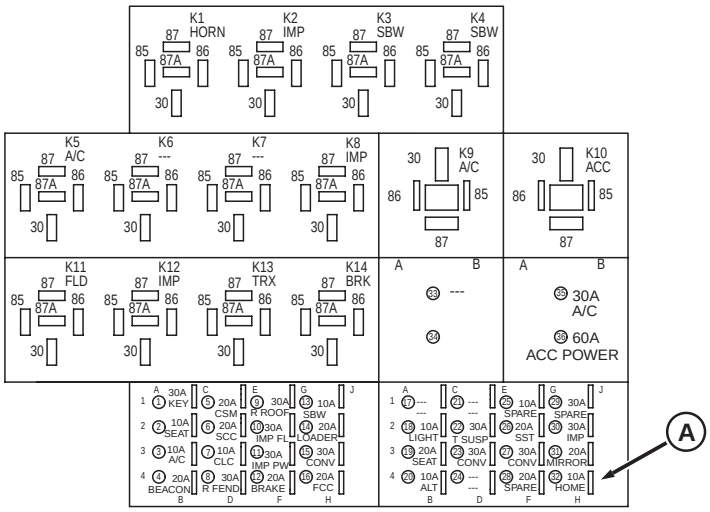
OURX935,000047E-19-22JUL11-1/1

Come Home Mode



Remove Fuse #32 And Retain

A—Fuse # 32

NOTE: ***Come Home Mode allows the tractor, with engine operation, to be moved under limited capabilities****.*

Removing #32 fuse (A) enables electric hydraulic pump supplying oil for braking and steering. Enabling electric hydraulic pump allows tractor to be operated at a maximum of 8 km/h (5 mph) forward speed and 3 km/h (1.8 mph) reverse speed.

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. Start engine.

NOTE: When drive lever is removed from the Park position, any brake pedal or steering wheel movement engages electric hydraulic pump to supply hydraulic oil as needed.

When driving tractor in come home mode, do not exceed tractor limited capability.

3. For PST equipped tractors, place shift lever in appropriate forward or reverse gear.

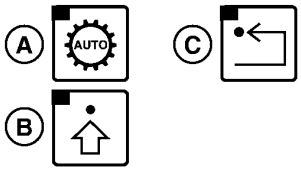
   For IVT and AutoPowr equipped tractors, move speed control lever to appropriate forward or reverse band.

OURX935,00005C5-19-20SEP11-1/1

CommandCenter Right Region Softkeys Displayed In This Section

A —Automatic Power Shift
B—Settings
C—Back

RXA0116485—UN—01SEP11



CommandCenter Softkeys

OURX935,0000559-19-25AUG11-1/1

Operating the Transmission

CAUTION: Avoid personal injury or damage to tractor. If engine starts with the shift lever in gear, there is a malfunction of the starting circuit. Repair should be made immediately by your John Deere dealer.

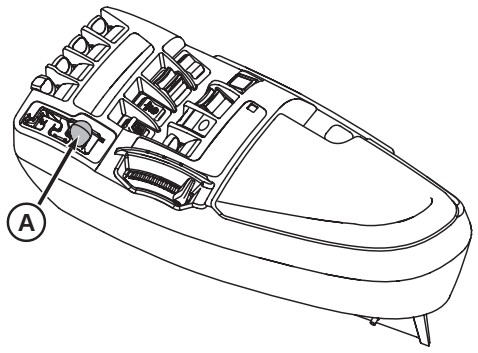
IMPORTANT: Prevent transmission or clutch damage:

- **Never depress clutch pedal while tractor is rolling downhill or coasting since serious transmission damage may result**
- **Never attempt to start tractor by towing or pushing**
- **Stop tractor completely before shifting to PARK position**
- **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**

Transmission is shifted using lever (A).

Transmission can be shifted, without use of clutch pedal, either into a forward or reverse direction.

Clutch pedal allows operator maximum manual control for connecting implements, operating in confined areas, or rocking tractor.



RXA0098723—UN—24JUL08

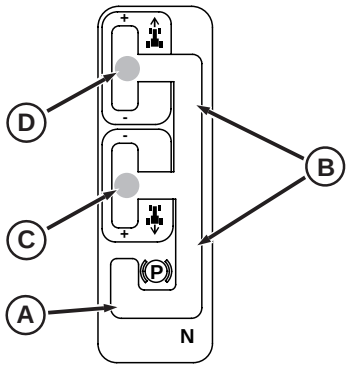
A—Transmission Shift Lever

The corner post will display ”N” for NEUTRAL, or ”F” or ”R” for forward and reverse directions plus selected gear.

NOTE: Operator presence switch is built into seat to prevent shifting into gear unless operator is in seat or clutch pedal is depressed.

OURX935,00004E1-19-19JUL11-1/1

Shifting the Transmission



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A—Rear Slot **B—Right Slot** **C—Center Slot** **D—Front Slot**

Shift Lever Positions

PARK — Rear slot (A)—Park brake applied when lever is fully forward in slot.

NEUTRAL — Right slot (B)—Park brake is released when lever is moved to the right slot.

Reverse — Center slot (C)—Tractor will begin moving rearward when lever enters this slot. Push lever forward for downshifts and pull rearward for upshifts.

Forward — Front slot (D)—Tractor will begin moving forward when lever enters this slot. Push lever forward for upshifts and pull rearward for downshifts.

Commanded Gears

NOTE: Use a higher gear and lower engine speed for light load operations to save fuel and reduce wear. Under full load conditions, use full throttle engine speed.

Transmission will start out in 7F and 2R after engine is started. These are the default gears.[1]

Once in forward or reverse, commanded gear changes to the last gear of operation before shifting to NEUTRAL.

The initial commanded gear can also be changed prior to initiating motion to match the operation.

FORWARD gears (1 through 11) and REVERSE gears (1 through 3) may be preselected by depressing clutch pedal and pushing or pulling shift lever until desired gear is displayed.

Cold Weather Starting

Transmission will not shift into 15F and 16F speeds until normal operating temperature has been reached. Delayed shifting may also be noticeable.

Shifting From Reverse

The highest forward gear transmission will automatically shift to is 11F, when shifting from reverse. For example, if transmission is in 13F and is shifted to reverse, and then back to forward, transmission will automatically shift to 11F.

Additionally, if transmission is in 11F or higher and tractor is stopped by using clutch or shifting to NEUTRAL and not shifted through reverse, transmission will be in 11F when shifted forward again.

Shifting—WITHOUT Using Clutch Pedal

Hold lever to shift up or down to selected gear. Transmission will shift one gear at a time until lever is released.

”Bump” lever to quickly shift up or down to selected gear. Transmission will skip gears, if lever is moved faster than transmission can shift.

Shifting—Using Clutch Pedal

Hold lever to shift up or down until desired gear is displayed. Transmission will go into commanded gear when clutch pedal is released.

”Bump” lever to quickly shift up or down until desired gear is displayed. Transmission will go into commanded gear when clutch pedal is released.

Rapid Shift

To reach transport speed quickly, depress clutch pedal and rapidly ”bump” shift lever to 11F. Transmission will shift directly to 11F when clutch is released. Once tractor is underway in 11F, ”bump” shift lever to 16F.

Shuttle Shifting (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 will be 2R, regardless of previous reverse gear, when shifting from 14F—16F to reverse.

Ground Speed Matching

CAUTION: Avoid possible accident and injury from loss of vehicle control. Never coast down hill.

Continued on next page

OURX935,000006F-19-14SEP10-1/2

Transmission will match ground speed as clutch is released after tractor slows when clutch pedal is depressed at speeds greater than 11F or 3R.

Transmission will not match ground speeds as clutch is released after tractor slows when clutch pedal is depressed at speeds below 11F or 3R. Transmission will remain in 11F or 3R even if tractor comes to complete stop.

Transmission will not shift up to match ground speed as clutch is released, if tractor speeds up while clutch pedal is depressed.

[1] Programmed forward gear can be changed from the default, 7F up to 11F; reverse gear can be changed from 2R to 1R. See Setting Startup Gear in this section.

Starting Out With Load—11F

Starting out in 11F with a heavy load may cause clutch to slip excessively. A flashing transmission symbol and a Service Alert warning light will display. 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 13F, 12F, 10F, 8F or 6F.

OURX935,000006F-19-14SEP10-2/2

Setting Startup Gear And RPM Droop

Continued on next page

OURX935,0000304-19-17MAY11-1/3

Selecting Forward Startup Gear

1. Select **Transmission.**
2. Select **Advanced Settings softkey**.
3. Using thumb wheel, scroll down to arrows in forward gear drop down box (A).
4. Using Confirm button select forward gear (B).

Selecting Reverse Startup Gear

1. Using thumb wheel, scroll down to reverse gear drop down box (C) and press Confirm button.
2. Using Confirm button select reverse gear (D).

A—Forward Gear Drop Down Box
B—Forward Gear Selected
C—Reverse Gear Drop Down Box
D—Reverse Gear Selected

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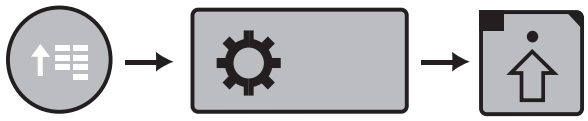
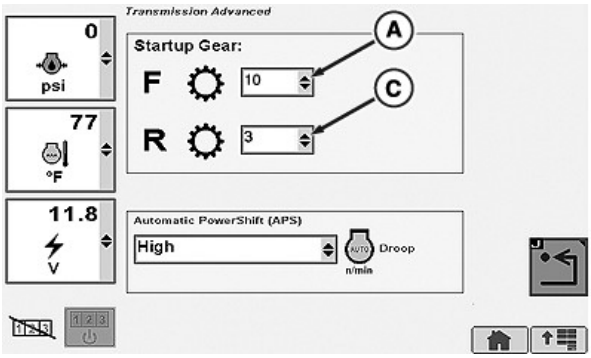


Transmission → Advanced Settings



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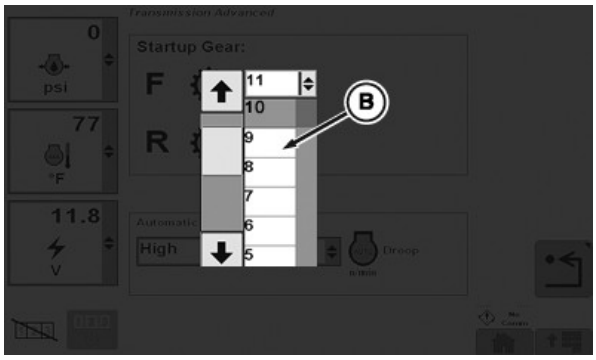
PST Settings Page



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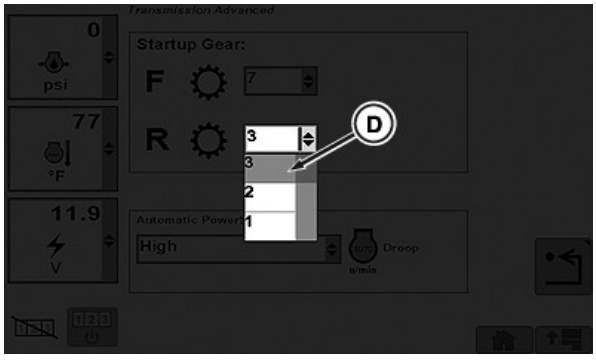
Drop Down Box For Forward Start Up Gear



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Drop Down Box For Reverse Start Up Gear

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OURX935,0000304-19-17MAY11-2/3

Selecting rpm Droop

1. Select **Transmission.**
2. Select **Advanced Settings softkey**.
3. Using thumb wheel, scroll down to rpm Droop drop down box (A).

NOTE: When droop drop down box appears, scroll thumb wheel to appropriate selection where it will highlight automatically.

4. Press Confirm button to select required highlighted droop setting (B).

Autoshift sensitivity can be changed through transmission setting in CommandCenter. Medium setting set from factory should satisfy most field applications.

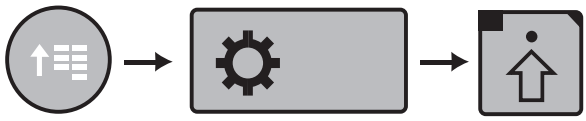
1. Low — Most sensitive engine speed control setting for APS load mode. Used for applications where strict engine speed control is desired. Minimal engine speed droop is required to initiate automatic shifts. This setting is automatically selected by the PTP control unit when PTO is ON.

2. Medium — 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 will be encountered and a balanced sensitivity to changing loads is desired.

3. High — 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 will downshift as many gears as necessary under heavy load. Throttle position change allows a maximum downshift or upshift of three gears.

RXA0116587—UN—12MAY11



Transmission → Advanced Settings

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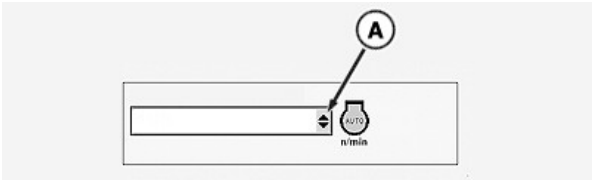
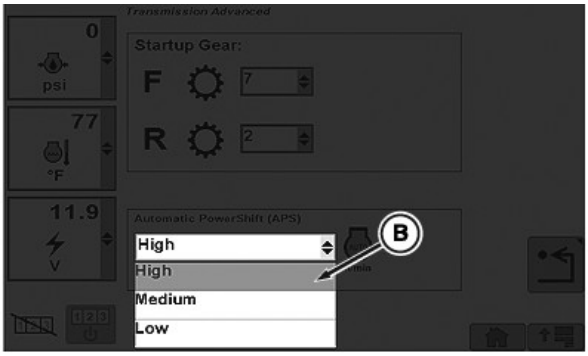


PST Settings Page



RXA0106127—UN—18FEB10

Drop Down For Droop Setting

A—RPM Droop Drop Down Box

B—RPM Droop Selection

OURX935,0000304-19-17MAY11-3/3

Operating 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

1. Select **Transmission**.
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.
5. When Resume switch (D) is selected, transmission will default to set gear.

- Set throttle to full throttle.
- Select maximum forward gear.
- Select the **APS Softkey** (C). APS indicator will light. APS will automatically downshift and upshift as engine rpm or load changes.
- When using Automatic PowerShift.
-

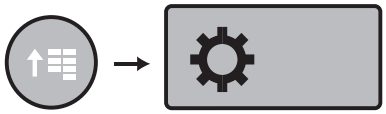
Any manual shift cancels APS. Pressing Automatic PowerShift button restores control of shifting to APS.

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

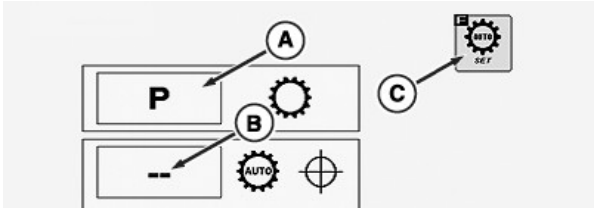
APS is cancelled when operator shifts transmission to another gear, neutral or reverse.

RXA0116588—UN—12MAY11



Transmission Shortcut Button

RXA0106119—UN—04AUG10



PST Page

RXA0104068—UN—24JUL09

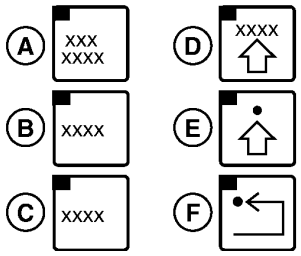
Resume Switch

A—Current Gear Box
B—Set Gear Box
C—APS Softkey
D—Resume Switch

OURX935,0000305-19-18JUL11-1/1

CommandCenter Right Region Softkeys Displayed In This Section

A —Full Auto Mode
B —Custom Mode
C —Manual Mode
D —Custom Settings
E —Advanced Settings
F —Back



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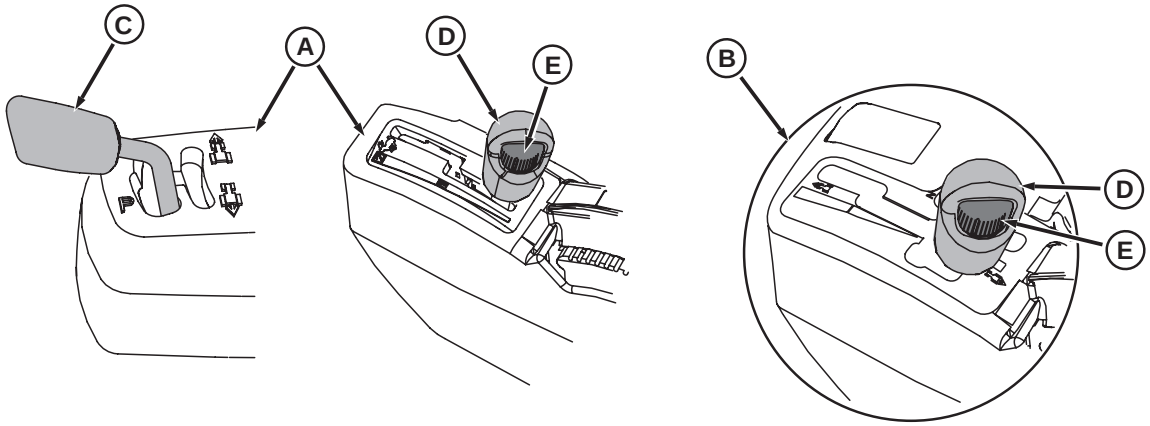
CommandCenter Softkeys

OURX935,0000557-19-25AUG11-1/1

Controls Identification



RXA0101118—UN—20MAR09

IVT/AutoPowr Controls

A—Left Hand Reverser Controls
B—Right Hand Reverser
C—Left-Hand Reverser Lever
D—Speed Control Lever
E—Set Speed Adjuster

IVT/AutoPowr transmission provides infinitely variable ground speeds in the forward mode from 50 meters per hour (164 feet per hour) to 40 km/h (25 mph) or 50 km/h (31 mph) depending on tractor specifications. Reverse mode provides infinitely variable ground speeds from 50 meters per hour (164 feet per hour) to 20 km/h (12.4 mph). (Maximum speeds may vary slightly due to tire size.)

IVT/AutoPowr tractors are equipped with either a left-hand reverser or right-hand reverser. A left-hand configuration requires two levers; the left-hand reverser lever (C) which controls tractor direction, park and neutral and the speed control lever (D), located on the CommandARM that controls ground speed.

The right-hand option consists of a right-hand reverser lever (B) located in the CommandARM and controls tractor direction, park, neutral, and ground speed.

There are two variable speed bands in the forward direction on all tractors. Tractors equipped with a left-hand reverser also have two speed bands in reverse. Tractors equipped with right-hand reverser will have only a single reverse band.

Set speeds are the maximum ground speeds in each speed band. The speed control lever must be pushed to the end of the slot to achieve set speeds. Rotate set speed adjuster (E) clockwise to increase and counterclockwise to decrease set speed.

OURX935,00004D7-19-19JUL11-1/1

Left-Hand and Right-Hand Reverser Shift Patterns

Park (A): Engages park brake to hold tractor stationary, preventing tractor from rolling; "P" will appear on corner post display.

Neutral (B): Disengages park brake allowing it to roll, but does not transmit power to the wheels; "N" will appear on the corner post display.

Reverse (C): Transmits power to wheels for rearward travel; ”R” will appear on corner post display.

Power Zero (D): Hand-held zero position is used to temporarily hold tractor stationary on a relatively flat surface.

Scroll Position (E): Scrolls through set speeds on corner post display continuously, while tractor is not moving.

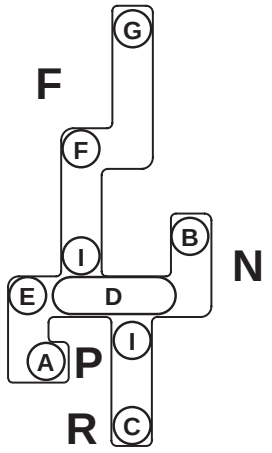
Forward Speed Band 1 (F): Transmits power to wheels for forward travel; ”F1” will appear on corner post display.

Forward Speed Band 2 (G): Transmits power to wheels for forward travel; ”F2” will appear on corner post display.

Forward (H): Transmits power to wheels for forward travel; ”F” will appear on corner post display.

Minimum Speed (I): Transmits power to wheels in direction selected.

A—Park
B—Neutral
C—Reverse
D—Power Zero
E—Scroll Position
F—Forward Speed Band 1
G—Forward Speed Band 2
H—Forward
I—Minimum Speed



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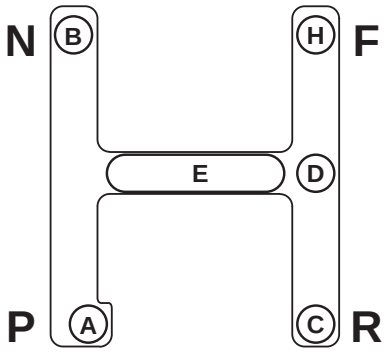
Right-Hand Reverser



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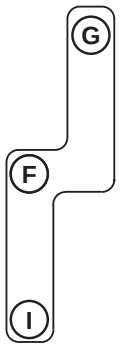
Left-Hand Reverser



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Left-Hand Reverser Speed Lever

OURX935,00010CA-19-10MAY10-1/1

Operating The Transmission

CAUTION: Avoid personal injury or damage to tractor. If engine starts in gear, there is a malfunction in the starting circuit. Repairs should be made immediately by your John Deere dealer.

IMPORTANT: Prevent transmission or clutch damage:

- **Never depress clutch pedal while tractor is rolling downhill or coasting, as serious transmission damage may result**
- **Never attempt to start tractor by towing or pushing**
- **Stop tractor completely before shifting to PARK position**
- **Avoid excessive ballast**
- **Clutch pedal must be fully depressed to completely disengage clutch. Never rest foot on clutch pedal while tractor is moving**

*NOTE: On tractors equipped with IVT/AutoPowr transmission an automatic calibration update is triggered after **all** the following conditions are true for a continuous 20 seconds:*

- *Engine operating at less than 1300 rpm*
- *Transmission is in PARK*
- *Transmission oil temperature is greater than 25 °C (77°F)*
- *PTO OFF*

Calibration is attempted only once per engine start and will be aborted if shift lever is moved during the calibration process. If calibration process is interrupted, tractor reacts normally to operator commands. This does not affect the tractor and calibration is not attempted again during that engine start up. The calibration process takes approximately 45 seconds, but the noticeable portion of the calibration process takes only 30 seconds. During the process, the software is updating values for the control valves. The operator will hear a slight gear whine as various speeds and shifts are performed.

Starting Engine

IMPORTANT: Tractor with left-hand reverser can start in neutral.

Tractors with right-hand reverser cannot start in neutral. If tractor does start in neutral, contact your John Deere dealer for repair.

Ensure transmission is in PARK position; corner post monitor will display ”P” for park. Start engine.

Stopping Engine

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 stop engine.

For tractors with right-hand reverser, reduce engine speed to low rpm, pull right-hand reverser lever back to slowest setting and depress brake pedals until travel stops. Move right-hand reverser lever to PARK position. Slowly release brakes and stop engine.

CAUTION: Always place reverser lever in PARK position before dismounting tractor.

OURX935,00004E2-19-28JUL11-1/1

Adjusting Set Speeds

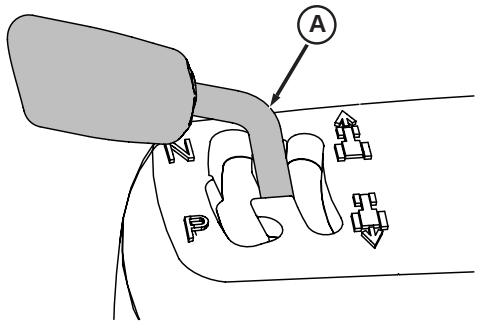
CAUTION: Avoid unexpected rapid acceleration. Check and adjust set speeds before putting tractor in motion.

Turn key switch to ”RUN” position. (For tractors with right-hand reverser, engine must be running to change set speeds.)

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 it displays by rotating set speed adjuster on speed control lever forward to increase the set speed value or rearward to decrease it.

NOTE: Set speed adjustments may affect the corresponding set speed of the opposite direction. (See ADJUSTING REVERSE-FORWARD SET SPEED RATIO in this section.)



RXA0068281—UN—27AUG03

Left-Hand Reverser Shown

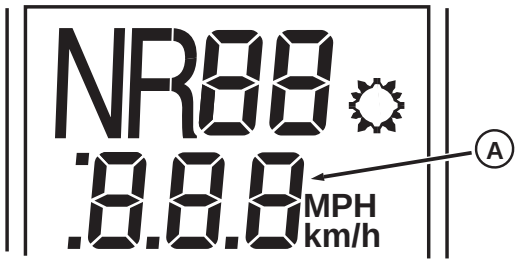
A—Left-Hand Reverser

OURX935,00010CD-19-10MAY10-1/2

Set speed of a selected speed band is displayed in orange on the corner post display and the ground speed of the tractor is displayed in white letters. Set speed can be adjusted while the tractor is moving by rotating set speed adjuster (B). Increasing set speed value increases ground speed. Decreasing set speed value decreases ground speed. New set speed is now on display (A).

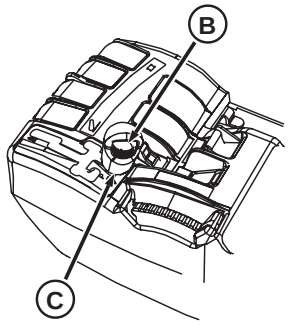
Maximum ground speed of a selected speed band is attained at full throttle when speed control lever (C) is pushed forward to end of respective speed band slot.

A—Display
B—Set Speed Adjuster
C—Speed Control Lever



RXA0098901—UN—20AUG08

Corner Post Display



RXA0101043—UN—19MAR09

Right-Hand Reverser Shown

OURX935,00010CD-19-10MAY10-2/2

Set Speeds—Guidelines And Examples

The value of Set Speed 1 is always at least 10% less than the value of Set Speed 2. This ensures a smooth transition between speed bands and is illustrated in the following examples.

NOTE: F1 refers to Forward mode, Set Speed in speed band 1. F2 refers to Forward mode, Set Speed in speed band 2.

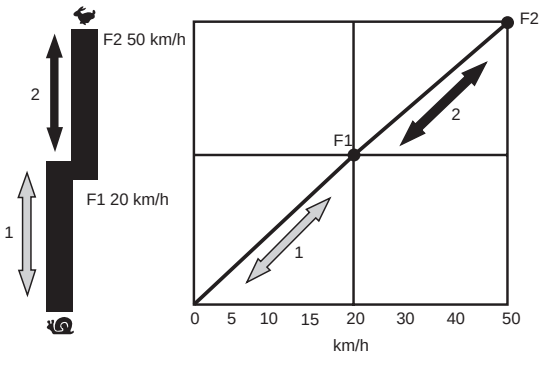
Example 1: Maximum Forward Set Speeds are selected for each speed band.

Example 2: Value of Set Speed 1 has been reduced to 10 km/h (6 mph). Set Speed 2 value has not been changed, but lower portion of speed band 2 has automatically decreased to meet the top end of speed band 1.

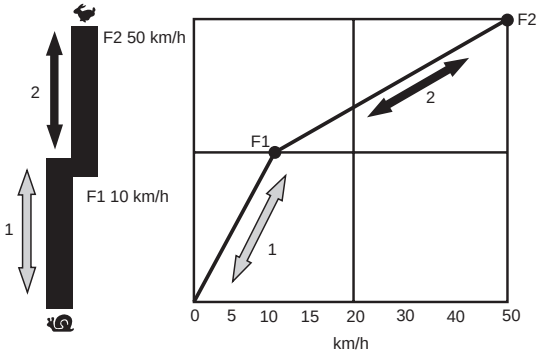
NOTE: Actual set speed increases or decreases at least 10% of the adjusted speed band, and can range up to 12.5%. Ten percent is used in illustrations of Examples 3 and 4, and can actually differ by as much as 2.5% of the speeds shown.

Example 3: Set Speed 2 has been 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 the new value of Set Speed 2.

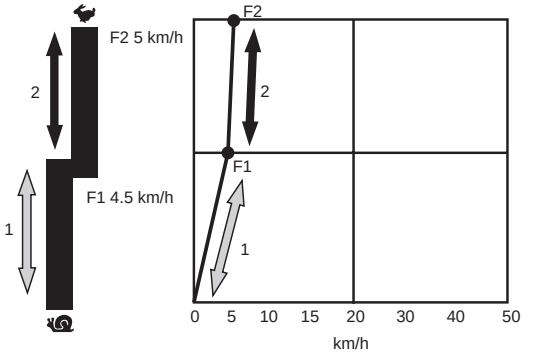
Example 4: Set Speed 1 has been increased to 20 km/h (12.4 mph), which is higher than the value of Set Speed 2. Set Speed 2 automatically increases to 22—22.5 km/h (13.7—14.0 mph), 10—12.5% above the new value of Set Speed 1.



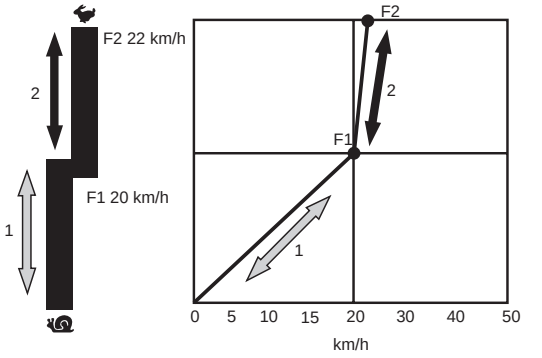
Example 1



Example 2



Example 3



Example 4

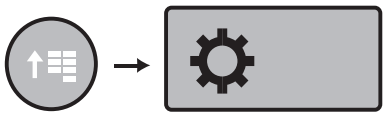
OURX935,00010CE-19-10MAY10-1/1

IVT/AutoPowr Modes And Setting Maximum Speed

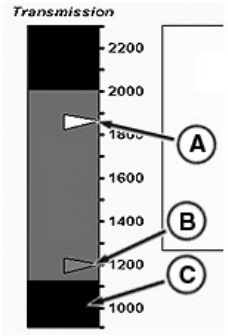
IVT/AutoPowr offers 3 modes to get the most fuel efficiency and load control from your tractor:

- **Full Auto**
  Automatically adjusts Fuel Economy Minimum Engine Speed allowing the tractor to use the most fuel efficient engine speed under light load.
  Automatically adjusts Auto Shift Engine Speed Droop allowing the tractor to use its peak power under full load.
- **Custom**
  Operator can choose the Fuel Economy Minimum Engine Speed, Auto Shift Engine Speed Droop, and Load Anticipation reaction.
- **Manual**
  Tractor performs as though equipped with a normal transmission and reacts to controls. No Fuel Economy or Load Control functions active in this mode.

RXA0116588—UN—12MAY11



CommandARM Menu Button → Transmission



RXA0111796—UN—28OCT10

Transmission Page

A—Auto Shift Engine Speed (White Marker)
B—Fuel Economy Minimum Engine Speed (Blue Marker)
C—Full Throttle, Low Idle Speed Limit

Full Auto	Custom	Manual
• Auto Shift (or Load Control) ON. • Fuel Economy Feature 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. • Fuel Economy Minimum Engine Speed with PTO On is Adjustable. • Fuel Economy Minimum Engine Speed with PTO Off is Adjustable. • Load Anticipation for Hitch is Adjustable. • Load Anticipation for SCVs is Adjustable.	• Auto Shift (or Load Control) OFF. • Fuel Economy Feature 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.)*

Bar graph in the left region reflects preset operating settings in Full Auto mode. Each of the following, after being preset, will remain unchanged during operation, but the operator will hear engine rpm raise or lower as tractor reacts to changing conditions and lever movements.

- White marker (A) reflects auto shift engine speed.
- Blue marker (B) reflects fuel economy engine speed.
- Black Band full throttle, engine speed limit.

Forward Maximum Speed or Reverse Maximum Speed displays the maximum forward or reverse speed limits. To change the Maximum Speed, select appropriate Maximum Speed box. When Maximum Speed box highlights, select desired speed. Increasing the speeds does not change the dynamic behavior of the tractor. But if the operator changes the Maximum Forward or Reverse speed below current set speed, the set speed would decrease to the max speed and the vehicle speed would decrease.

OURX935,00004D8-19-28JUL11-1/1

Custom IVT/AutoPowr Settings

NOTE: All settings pertaining to this page are only applicable when IVT/AutoPowr Transmission is in Custom mode.

Fuel economy feature may raise minimum engine speed to 1500 rpm when load anticipation is enabled and either the hitch/ SCV is placing a heavy load on the engine or an SCV is in continuous flow. If load on the engine is still too much, load anticipation feature may raise minimum engine speed to 1800 rpm.

1. Select **CommandARM Menu**
2. Select **Transmission**.
3. Select **Custom softkey.**

NOTE: Auto Shift Engine Speed Droop PTO ON can be set from 2 % —26 % or PTO OFF can be set from 2% — 26 %.

To Set Auto Shift Engine Speed Droop, PTO ON:

4. Select Auto Shift Engine Speed Droop input box PTO On. PTO On box highlights.
5. Adjust percentage value to desired value.

To Set Auto Shift Engine Speed Droop, PTO OFF:

6. Select Auto Shift Engine Speed Droop input box PTO OFF. PTO OFF box highlights.
7. Adjust percentage value to desired value.

To Set ECO Engine Speed rpm, PTO ON:

8. Select ECO Engine Speed PTO ON box . When drop down box appears, select desired rpm from options listed or choose ‘ECO OFF’ to disable the fuel economy feature.

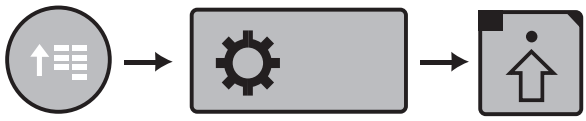
To Set ECO Engine Speed, PTO OFF:

9. Select ECO Engine Speed PTO OFF box. When drop down box appears, select desired rpm from options listed.

To Turn On Load Anticipation:

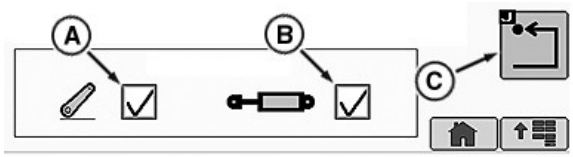
The Load Anticipation feature allows the IVT/AutoPowr transmission to predict loads due to activation of hitch or SCV movement. By default, Load Anticipation is enabled in the "Full Auto" mode selected on the Transmission page. In the "Custom" mode, load anticipation for the hitch is enabled when the hitch check box is checked. In the "Custom" mode, load anticipation for SCVs is enabled when the SCV check box is checked.

RXA0116587—UN—12MAY11



Transmission Custom Settings Page

RXA0110752—UN—16SEP10



Transmission Custom Settings Page

A—Load Anticipation (Hitch)
B—Load Anticipation (SCV)
C—Back

Fuel economy feature may raise minimum engine speed to 1500 rpm when load anticipation is enabled and either the hitch/ SCV is placing a heavy load on the engine or an SCV is in continuous flow. If load on the engine is still too much, load anticipation feature may raise minimum engine speed to 1800 rpm.

1. Select either Hitch check box (A) or SCV check box (B). When SCV check box is checked, engine speed is boosted, if needed, at each occurrence SCV is extended or retracted. When Hitch check box is checked, engine speed is boosted, if needed, at each occurrence hitch is raised or lowered.
2. To return to previous page, select Return softkey (C).

OURX935,00004D9-19-14SEP11-1/1

Adjusting Reverse-Forward Set Speed Ratio

Reverse/Forward Ratio can be set to operate independent of each other or from 0.3-to-1.3 times as fast (in 0.1 increments). Forward and Reverse Set Speeds are the same at 1.0 setting (1 to 1 ratio).

Continued on next page

OURX935,0000307-19-17MAY11-1/2

Maximum reverse speed is up to 20 km/h (12 mph) regardless of ratio.

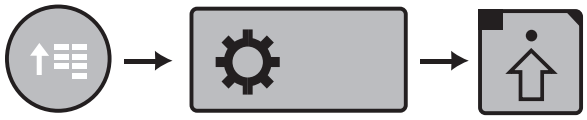
1. Select **Transmission**.
2. Select **Advanced Settings softkey.**
3. Select Set Speed Ratio drop down box which will display available options (A).
4. Select speed ratio from drop down box options.

Forward Set Speed is 4 km/h (2.5 mph) and Ratio is:	Reverse Set Speed km/h (mph) is:
0.3	1.2 (0.25)
0.4	1.6 (1.)
0.5	2.0 (1.2)
0.6	2.4 (1.5)
0.7	2.8 (1.75)
0.8	3.2 (2.)
0.9	3.6 (2.2)
1.0	4.0 (2.5)
1.1	4.4 (2.7)
1.2	4.8 (3.)
1.3	5.2 (3.2)
Independent	No ratio because reverse and forward gears 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.

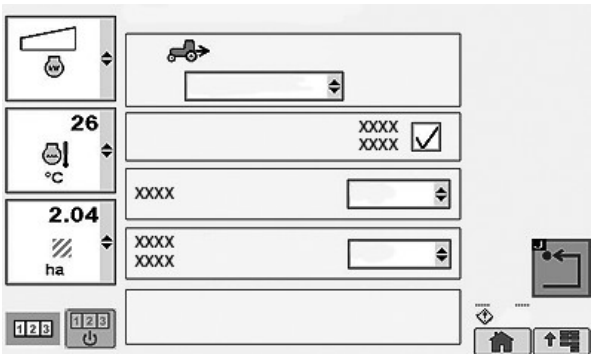
5. Select Show Transmission Calibrations Alerts check box to display transmission calibration alerts.

A—Set Speed Ratio Drop Down Box

RXA0116587—UN—12MAY11

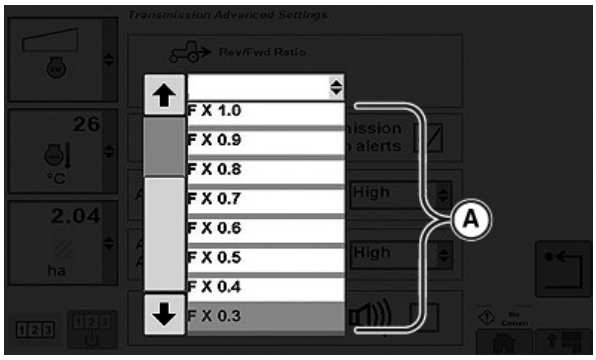


Transmission → Advanced Settings



RXA0106943—UN—03AUG10

Transmission Advanced Settings Page



RXA0106031—UN—29JUL10

Set Speed Ratio Drop Down Box

OURX935,0000307-19-17MAY11-2/2

Adjusting AutoClutch Sensitivity and Acceleration Aggressiveness

1. Select **Transmission**.
2. Select **Advanced Settings softkey.**

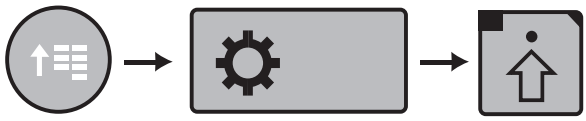
NOTE: To keep the AutoClutch from disengaging before the trailer brakes are applied, AutoClutch Sensitivity options allows operator to adjust AutoClutch settings to load requirements. The larger the trailer, the lower the AutoClutch Sensitivity setting. ***Auto Clutch Sensitivity factory default setting is set to High, which will support most operations.***

3. Select AutoClutch Sensitivity drop down box (A).
   - **High (Factory Default):** is for light or no trailer (load).
   - **Medium:** is for medium trailers (load).
   - **Low:** is for heavy trailers (load).
4. Select appropriate setting.

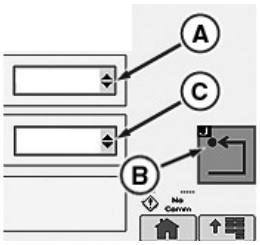
NOTE: Acceleration Aggressiveness options allows operator to adjust Acceleration Aggressiveness settings to load requirements. The larger the trailer, the lower the Acceleration Aggressiveness setting. ***Acceleration Aggressiveness factory default setting is set to High, which will support most operations.***

5. Select Acceleration Aggressiveness drop down box (C). Drop down box appears allowing three options. This allows operator the ability to fine tune acceleration when pulling trailers.
   - **High (Factory Default):** is for light or no trailer (load).
   - **Medium:** is for medium trailers (load).
   - **Low:** is for heavy trailers (load).
6. Select appropriate setting.
7. Select Back softkey (B) to return to previous screen.

RXA0116587—UN—12MAY11



Transmission → Advanced Settings



RXA0106944—UN—20AUG10

Transmission Advanced Settings Page

A—AutoClutch Sensitivity Drop Down Box
B—Back Softkey
C—Acceleration Aggressiveness Drop Down Box

OURX935,0000308-19-17MAY11-1/1

Adjusting Set Speeds To Match Varying Load Conditions

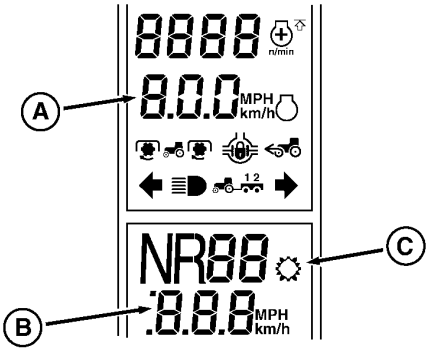
All Tractors:

Select a set speed that is approximately 3.2 km/h (2 mph) higher than the desired working speed in order to obtain maximum productivity in applications where a precise forward speed is **not** critical, such as plowing. The tractor will reach the higher set speed value during a no load or light load condition.

Symbol (C) indicates engine is at full load and transmission is shifting to maintain peak tractor performance. Commanded speed may not match actual speed.

Tractors Equipped with Radar:

The ground speed (A) indicated on the display will always be lower than the set speed (B) **if there is a measurable wheel slip.**



RXA0119443—UN—09AUG11

A—Ground Speed
B—Set Speed
C—Full Load Symbol

OURX935,0000509-19-08AUG11-1/1

Putting 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.

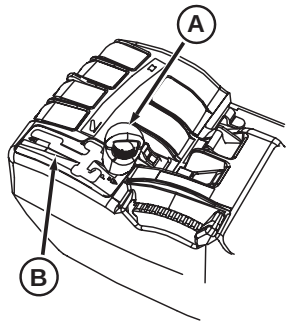
*NOTE: Tractor cannot be put in gear unless operator is seated. Information indicator will light and a corresponding message appears on the CommandCenter display when Forward, Reverse, or NEUTRAL positions are selected and operator is **not** in the seat.*

To initiate motion, move lever from PARK position to either Forward or Reverse position with operator seated.

NOTE: Cold conditions may affect IVT/AutoPowr/ tractor performance:

- *Engine speed will be 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 the clutch to put tractor in motion is not necessary.



RXA0079023—UN—28FEB05

Right-Hand Reverser Shown

A—Speed Control Lever **B—Speed Band**

NOTE: In the event of a seat switch failure, tractor can still be put into motion by cycling (depress/release) the clutch or brake pedals.

Move reverser lever into Forward or Reverse position.

Use throttle and speed control lever to obtain desired speed.

OURX935,00004DA-19-18JUL11-1/1

Tractor Speed Displays On Corner Post Display And CommandCenter

A set speed (A) is the maximum ground speed of selected speed band.

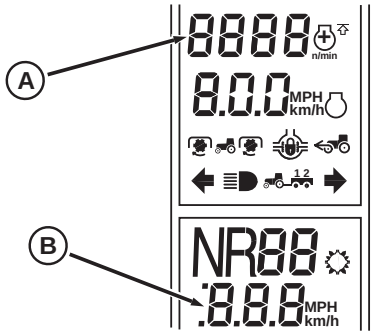
Ground Speed

The ground speed (B) value on tractors equipped with radar will always show a lower value than the set speed selected if there is measurable wheel slip.

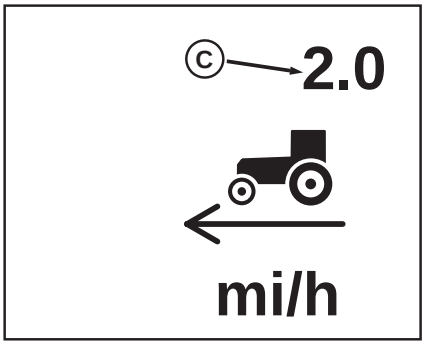
Commanded Speed (CommandCenter)

Commanded speed (C) is determined by any given position of the speed control lever at full engine speed. If the lever is pushed all the way forward to the end of the speed band slot, commanded speed will equal set speed.

A—Ground Speed
B—Set Speed
C—Commanded Speed



RXA0098903—UN—19MAR09



RXA0098900—UN—20AUG08

OURX935,00004EE-19-25AUG11-1/1

Using 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.

The default ratio between speed bands 1 and 2 is 2.5 in creeper mode. This is done to eliminate rapid acceleration when lever is moved into speed band 2. For example, if speed band 1 is set at 100 m/h (328.1 ft/h), the corresponding maximum speed in band 2 is 250 m/h (820.2 ft/h). The default ratio may be temporarily overridden (such as when making headland turns) by increasing speed band 2 to a maximum of 10 km/h (6 mph). Moving the lever back to band 1 restores the previous working speeds.

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).

In creeper mode, reverse set speed can be set to no more than forward set speed. The reverse set speed limit can be temporarily overridden by moving the Right Hand Reverser Lever into Reverse Speed Band and increasing the reverse set speed. Moving the Right Hand Reverse Lever from Reverse Speed Band to Forward Speed Band 1 and not changing Forward Set Speed 1 will reset Reverse Set Speed to no more than Forward Set Speed.

OURX935,00009C7-19-02JUN09-1/1

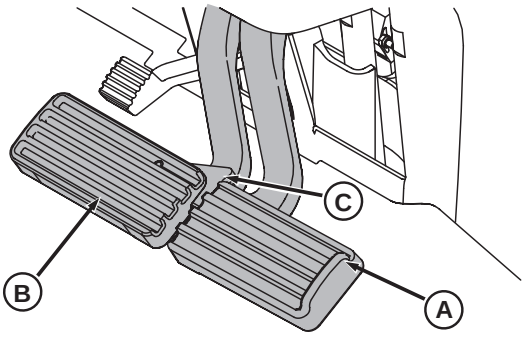
Using Individual Brake Pedals

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 will slow tractor to a stop.

CAUTION: Avoid possible injury. Braking tractor while commanding a high engine speed will require higher brake pedal force.

Avoid possible injury due to sudden or unexpected acceleration. When brake pedals are released, tractor will automatically accelerate to speed currently commanded by throttle and speed control lever.



RXA0122335—UN—17NOV11

A—Right Brake Pedal
B—Left Brake Pedal
C—Pedal Lock Tab

OURX935,00009C8-19-17NOV11-1/1

Stopping And Parking The Tractor

CAUTION: Avoid possible injury due to losing control of tractor. Couple brake pedals (A) together when driving on roads.

1. Reduce throttle to low engine rpm.
2. Depress both brake pedals. **It is not necessary to depress clutch**. The brakes will activate AutoClutch (automatic clutch function within transmission) to stop tractor.
3. Move speed control lever to slowest position.
4. Shift reverser to PARK position.
5. Lower implements and shut off PTO.
6. Shut engine off and remove key.

Stopping The Tractor using the AutoClutch

Depress both brake pedals. **It is not necessary to depress clutch, reduce throttle, or move speed control lever.** Brakes will activate AutoClutch. When brakes are released, tractor accelerates to currently commanded speed.

CAUTION: Avoid possible injury. Braking tractor while commanding a high engine speed will require higher brake pedal force.

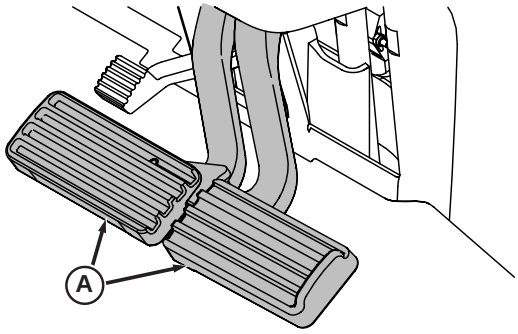
Avoid possible injury due to sudden or unexpected acceleration. When brake pedals are released, tractor will automatically accelerate to speed currently commanded by throttle and speed control lever.

Using PowerZero Position

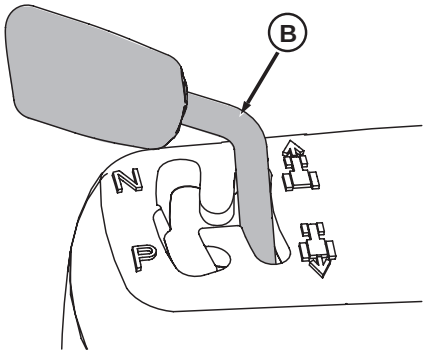
Hold reverser lever in Power Zero position (B) to temporarily hold tractor stationary.

NOTE: Depending on speed and load, Power Zero may not bring tractor to a stop if already in motion.

Using NEUTRAL Position



RXA0068273—UN—27AUG03



RXA0089425—UN—09JUN06

Left Hand Reverser Shown In Power Zero

A—Brake Pedals **B—Power Zero Position**

Transmission NEUTRAL position is obtained (with engine running) by shifting reverser to NEUTRAL position. Tractor will roll freely in NEUTRAL position.

Using PARK Position

CAUTION: Always place reverser lever in PARK position before dismounting tractor.

Transmission PARK position holds tractor stationary.

OURX935,00004E4-19-19JUL11-1/1

Downhill Operation In Slippery Conditions

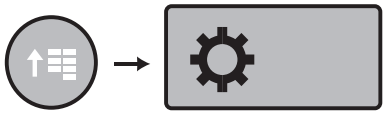
1. Go to **Main Menu**.
2. Select **Transmission**.
3. When transmission page displays, select Manual softkey. Check will appear in the page center region check box.

OURX935,0000424-19-28JUL11-1/2

CAUTION: Avoid possible injury from losing control of tractor while operating on a downhill slope. Tractor wheels may lock and skid on slippery downhill slopes. Observe the following precautions:

- **Adjust set speed value to a safe downhill operating speed.**
- **Do not make major speed reductions with the speed control lever.**

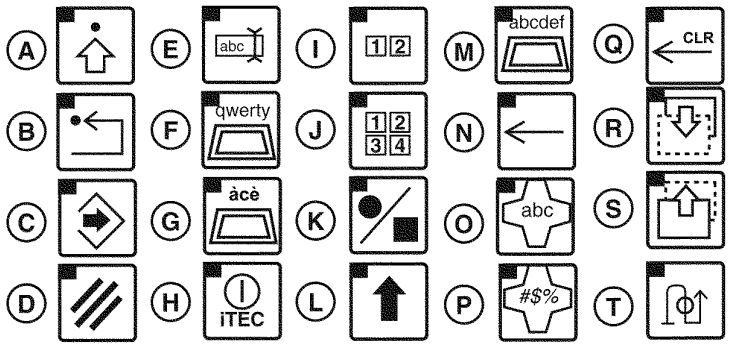
RXA0116588—UN—12MAY11



CommandARM Menu Button → Transmission

OURX935,0000424-19-28JUL11-2/2

CommandCenter™ Right Region Softkeys Displayed In This Section



RXA0116489—UN—10MAY11

CommandCenter™ Softkeys

A —Settings
B —Back
C —Save/Enter
D —Cancel
E —Rename Implement
F —Lower Case
G —Special Letters
H —iTEC™ ON/OFF
I —Sequence Select
J —Sequence Select
K —Start/Stop Record Sequence
L —Upper Case/Lower Case Toggle
M —Standard Alphabet
N —Back Space
O —Standard Alphabet
P —Special Characters
Q —Clear Editing Box
R —Next Page
S —Previous Page
T —Learn Distance Only

OURX935,0000A6F-19-28FEB12-1/1

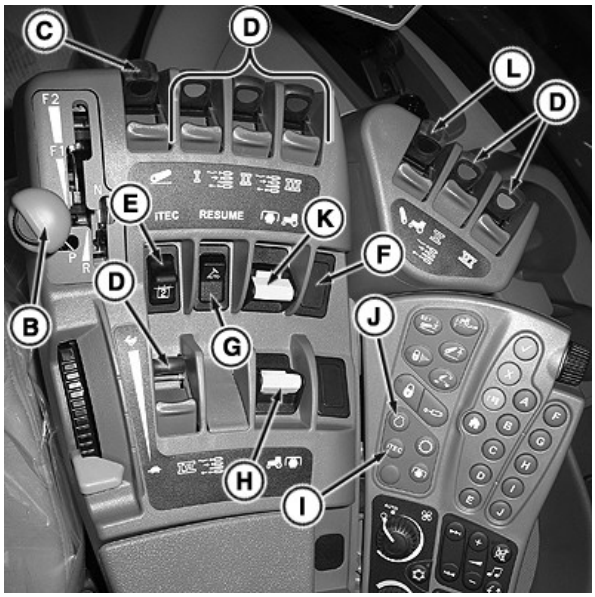
iTEC™ Operator Information

iTEC™ has two factory installed sequences in which learned functions are stored. A sequence is defined as the start of the first recorded function to completion of last recorded function. Example of two sequences would be, one sequence made up of a series of functions, operations and distances used at start of field and a second sequence used at a water way in the center of the field. Each program can include up to 20 functions. The programs remain in the memory until they are deleted or overwritten, even if the electrical current is switched off.

iTEC is a trademark of Deere & Company

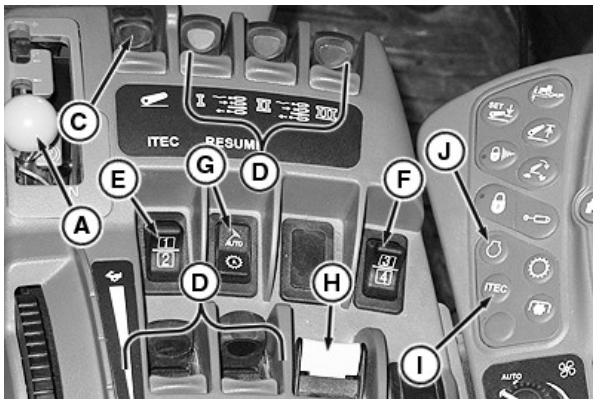
OURX935,0000A70-19-09APR12-1/1

Operator Station Functions



RXA0119977—UN—07SEP11

CommandARM™ Controls With IVT™ /AutoPowr™ Transmission And Six SCVs Shown

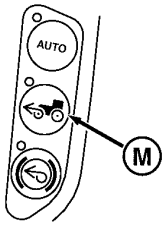


RXA0109051—UN—28JUL10

CommandARM™ Controls With PowerShift Transmission Shown

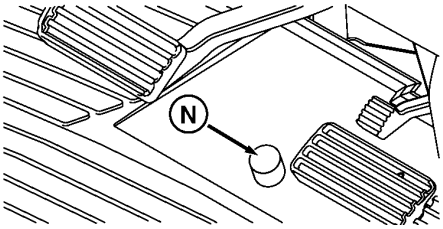
Intelligent Total Equipment Control, iTEC™ allows multiple reoccurring tasks to be performed with the touch of one switch (E) [1].

iTEC™ Functionality		
	Item	**Function(s)**
A	PowerShift Transmission Lever	Upshift or Downshift in Forward Gear for PowerShift Transmission
B	IVT™/AutoPowr™ Set Speed Adjuster	Change Set Speed
C	Rear Hitch Lever	Raise, Lower
D	SCV Levers	Extend/Retract/Float/Cancel
E	Sequence Switch	1 and 2
F	Sequence Switch	3 and 4
G	APS Resume Switch (PST Transmission Only)	Resume
H	Rear PTO	On/Off
I	iTEC™ Short Cut Button	Alternative Method Of Navigating To iTEC™ Pages
J	Engine Short Cut Button	Method Of Navigating To Engine Page To Set FieldCruise™
K	Front PTO	On/Off
L	Front Hitch	Raise, Lower
M	MFWD	On/Off/Auto/Brake Assist
N	Differential Lock Button	On/Off
O	FieldCruise™ Adjustment Page	Set FieldCruise™



RXA0119766—UN—17AUG11

MFWD Button



RXA0119767—UN—17AUG11

Differential Lock Button

RXA0119768—UN—12SEP11

Engine Page With FieldCruise™

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[1] Sequence 3 and 4 can be added when Field Installed Kit is installed through your John Deere dealer.

OURX935,0000A71-19-30JAN12-1/1

CommandCenter™ Pages Description And Functions

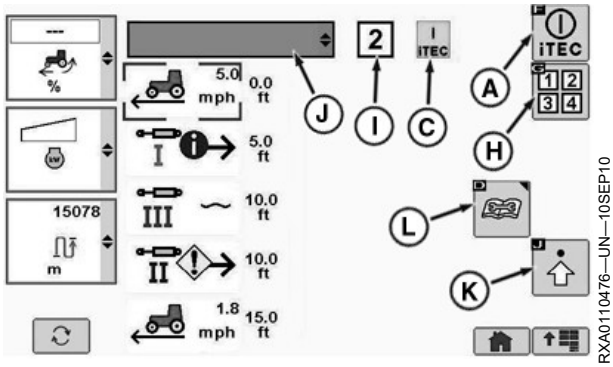
At the iTEC™ Operation page:

1. Select **CommandARM™ Menu button**.
2. Select **iTEC™ softkey.**
3. Select **iTEC™ On/Off softkey** to turn iTEC™ On.

A—iTEC™ ON/OFF Softkey
B—OFF Indicator
C—ON Indicator
D—Sequence Executing Indicator
E—Learning Mode Indicator
F—Learning Distance Mode Indicator
G—Sequence Softkey (1 and 2)
H—Sequence Softkey (3 and 4) [1]
I—Sequence In Process Indicator Box
J—Implement
K—Advanced Settings

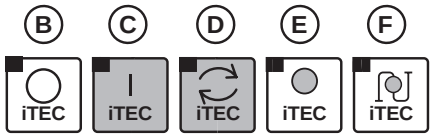
RXA0116589—UN—12MAY11

iTEC™ Shortcut Button



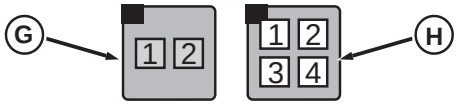
iTEC™ Operations Page With Factory Installed 1 And 2 Sequence Button

RXA0108636—UN—28JUL10



Application Status Options

RXA0107036—UN—16APR10



Factory Installed Sequence Softkey 1 And 2 And Field Installed Kit Option With Sequence Softkey 1 Through 4

[1] Sequence 3 and 4 can be added when Field Installed Kit is installed through your John Deere dealer.

Continued on next page

RX32825,0000434-19-03JUL12-1/6

At the iTEC™ Edit page:

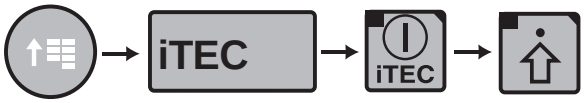
1. Select **iTEC™ softkey.**
2. Select **iTEC™ On/Off softkey** to turn iTEC™ On.
3. Select **Advanced Settings softkey.**

- A—Edit Implement Name Softkey navigates to edit implement name.
- B—Previous Page Softkey
- C—Sequence Softkey toggles between sequences 1—4.[1]
- D—Next Page Softkey
- E—Start/Stop Record Sequence
- F—Status Page Softkey
- G—Learn Distance Only Softkey[2]
- H—Enter/Save Softkey
- I— Cancel Softkey
- J— Distance Input Box (Distance at which function listed in left column is triggered after sequence execution.)
- K— Operation Drop Down Box
- L— Function Drop Down Box
- M— Implement Identification Box
- N—Sequence Box displays sequence 2 is active.
- O— iTEC™ is ON

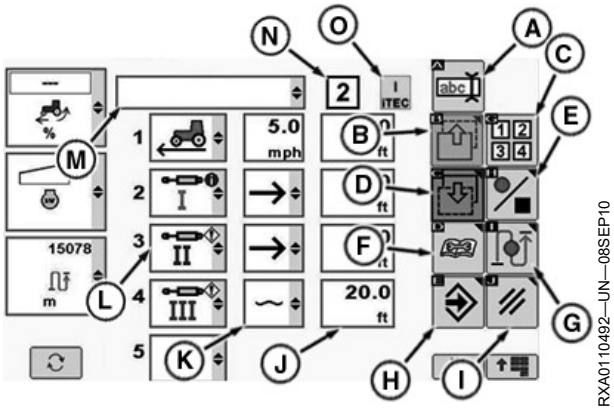
[1] *Factory installed softkey. 1 through 4 Softkey available with Optional Field Installed Kit, see your John Deere™ dealer.*

[2] *If only one function is in the sequence, Learn Distance Only softkey is grayed out (not functional)*

RXA0116590—UN—12MAY11



CommandARM™ Menu Button→iTEC™→ iTEC™→Advanced Settings



iTEC Edit Page With Factory Installed 1 through 4 Sequence Softkey

RX32825,0000434-19-03JUL12-2/6

At the iTEC™ Status Page:

1. Select **CommandARM™ Menu button**.
2. Select **iTEC™ softkey.**
3. Select **iTEC™ On/Off softkey** to turn iTEC™ On.
4. Select **Diagnostics softkey.**

- A—Information Alert
- B—Service Alert
- C—Status OK
- D—Reason Function May Not Be Automated

When an Information Alert (A) icon is present, the operator will have manual control of the function. When a Service Alert (B) icon is present, iTEC™ execution of function is not allowed.

The Status Page will display the current conditions of functions that are controlled by iTEC™. The Status column will display if a function has an alert. If there is an alert present, the cause will be displayed in the Automation Request/Reason column. The Automation Request/Reason column will display an OK or a reason for an alert. The Automation Request/Reason column will also display if the function is running under the control of iTEC™. Both the

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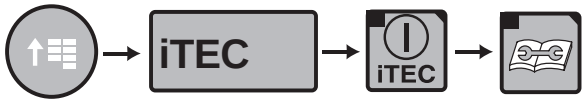
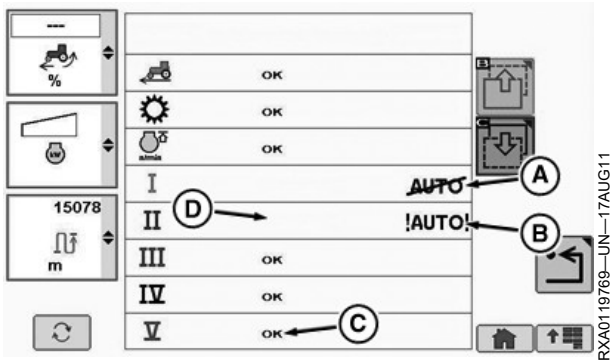


CommandARM™ Menu Button → iTEC™ → iTEC™ On/Off Softkey → Diagnostics Softkey



iTEC™ Status Page

Automation Request/Reason and the Status columns are updated automatically.

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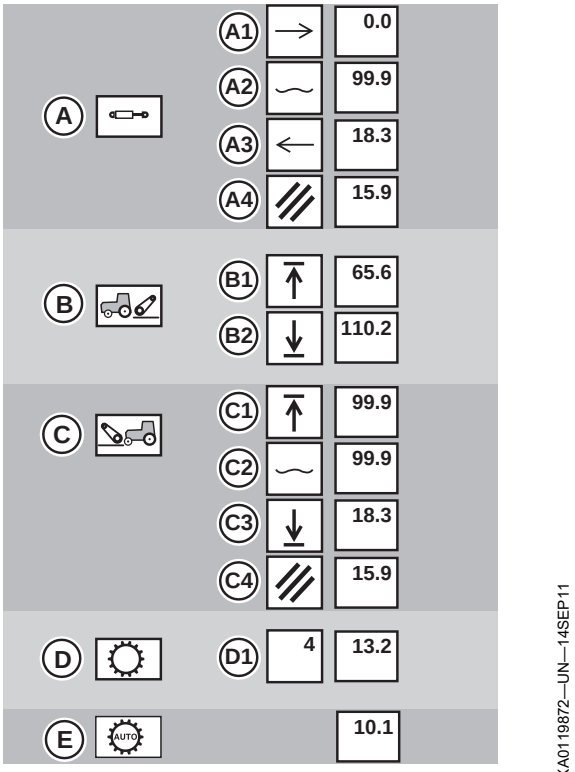
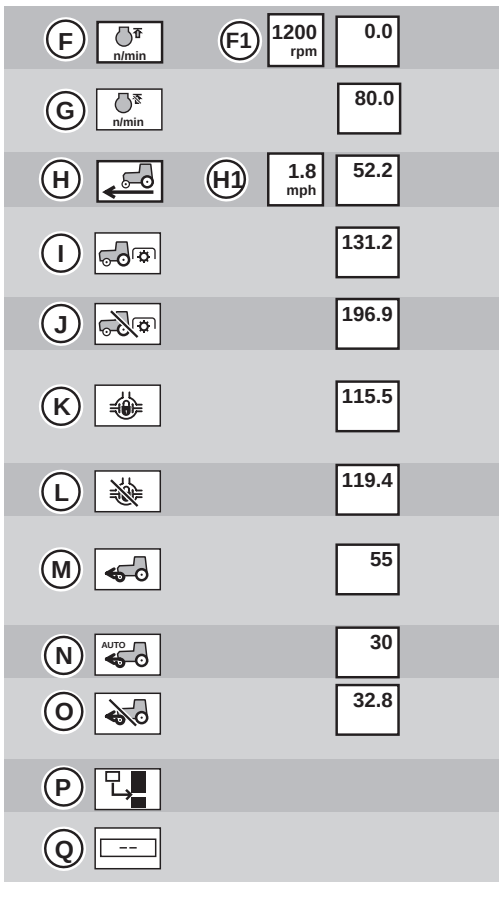
RX32825,0000434-19-03JUL12-3/6



First Column: Function, Second Column: Operation, Third Column: Distance



First Column: Function, Second Column: Operation, Third Column: Distance—Continued

All Function/Operation/Distance Options found in center region are indicated below.

- A—SCV's
  - A-1 Extend
  - A-2 Float
  - A-3 Retract
  - A-4 Cancel
-
- B—Rear Hitch
  - B-1 Raise
  - B-2 Lower
- C—Front Hitch
  - C-1 Raise
  - C-2 Float
  - C-3 Lower
  - C-4 Cancel
- D—Transmission[1]
  - D-1 Gear
- E—Automatic PowerShift (APS)
- F—FieldCruise™
  - F-1 RPM (1100—2200)
- G— FieldCruise™ Off
- H—Set Speed [2]
  - H-1 Speed
    (0.8—55 km/h (0.5—34.4 mph) both in increments of 0.1.
- I—Rear PTO
- J—Rear PTO Off
- K—Differential Lock
- L—Differential Lock Off
- M—MFWD On
- N—MFWD (Auto)
- O—MFWD (Brake Assist)
- P—Insert (Used to shift function down while in edit mode.)
- Q—MFWD (Brake Assist)

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[1] PST Transmission only
[2] For IVT™/AutoPowr™ transmission Set Speed. For PST transmission closest gear is displayed.

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Distance options are entered either in metric or US/Imperial distances and using either keypad or input box

Entering US/Imperial distances or when using TouchScreen:

1. Select Distance input box.

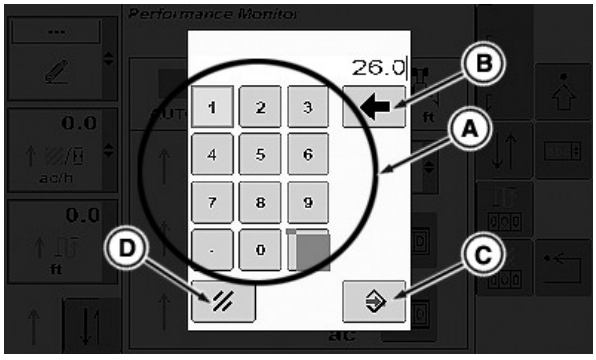
NOTE: To make a correction on keypad, select Backspace key (B).

2. When keypad displays, select desired distance by selecting appropriate keypad (A) numbers, then select enter button (C). Cancel by selecting cancel button (D).

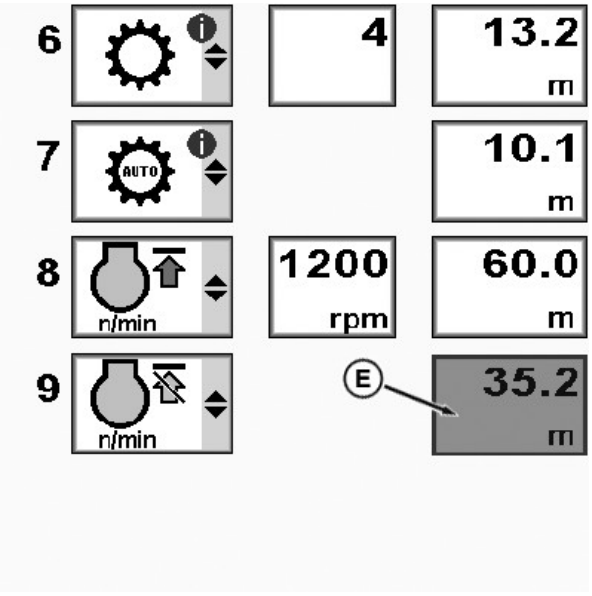
Entering metric units of measure or when using Thumb wheel:

1. Select Distance input box (E).
2. Input box highlights, then scroll forward to increase numbers or rearward to decrease value in input box.
3. Select CommandARM™ Confirm button.

A—Keypad
B—Backspace
C—Save/Enter
D—Cancel
E—Input Box



Keypad To Set Distance



Distance Input Box On iTEC™ Edit Page

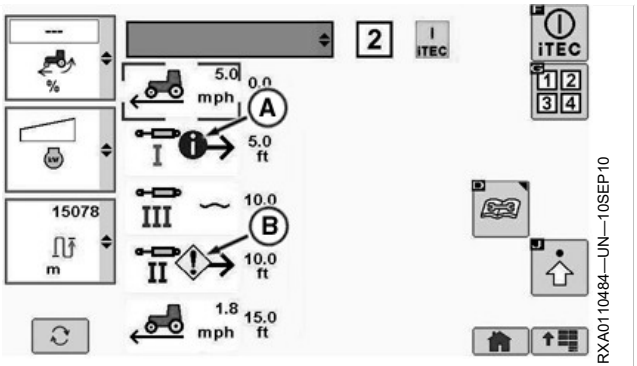
Continued on next page

RX32825,0000434-19-03JUL12-5/6

NOTE: A - Information Alert, Function Limited - will display if function is not in correct state when sequence is in passive mode, programmed, but not executing. (Ex: PTO Switch Off).

B - Service Alert, Function Limited - Function will not execute while in execution mode and some conditions may be related to a Service Alert for that function. (Ex: PTO Switch Fault).

Function Limited	Corrective Action
Differential Lock	Vehicle speed is above threshold to turn off differential lock.
PTO	Switch is not in the ON-position.
Vehicle Speed	Right Hand Reverser (if equipped) is in Reverse
	Current Set Speed < 0.8 km/h
APS	No Automatic PowerShift resume gear selected
Rear Hitch	Rear Hitch Locked



Function Limited Alerts

A—Information Alert—Function Limited

B—Service Alert—Function Limited

Front Hitch	Front Hitch Locked
	Front Hitch not in front hitch mode
SCV	SCV locked
	Valve is not in Float position
FieldCruise™	Access Manager has FieldCruise™ locked

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RX32825,0000434-19-03JUL12-7/6

Inhibit, Abort, Cancel, or Interrupt Conditions

Whenever a sequence execution or a new learning is not possible or is interrupted in the middle, iTEC™ system informs the operator about the new issue by displaying an Information Alert (B) or Service Alert (C) followed by a short text description (A) in the upper right corner of the displayed page.

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A—Text Description
B—Information Alert
C—Service Alert

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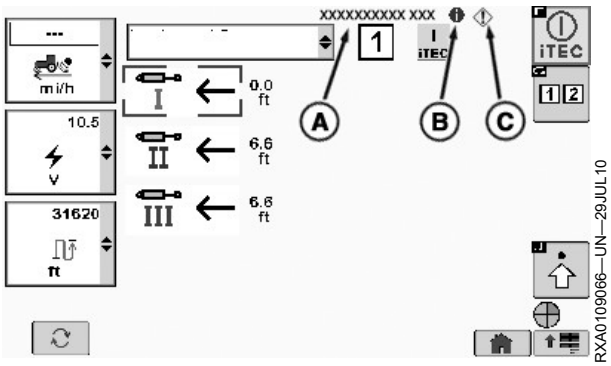
CommandARM™ Menu Button→ iTEC™ → iTEC™ On



Operation Page

Error or Information Description	Displayed Short Text Description	Displayed Alert Notification	Reset Condition
Abort Execution			
The transmission is shifted into Park OR Park information is not received any more. This condition shall only apply to tractors where the controller knows Park status.	PARK	Service Alert	5s after occurrence
Operator presence is FALSE for > 5 seconds and ground speed < 0.5 km/h OR Operator presence information is not received any more.	OPERATOR PRESENCE	Service Alert	5s after occurrence
SCV controller fails to respond to an iTEC command within 5 seconds.	SCV TIMEOUT	Service Alert	5s after occurrence
Hitch controller fails to respond to an iTEC command within 5 seconds.	HITCH TIMEOUT	Service Alert	5s after occurrence
A different sequence switch is actuated.	SEQ SWITCH	Service Alert	5s after occurrence
The sequence switch (see Sequence 1 and 2 Switch or Sequence 3 and 4 Switch) becomes faulted.	SEQ SWITCH	Service Alert	5s after occurrence
The amount of time to execute the sequence takes longer than 60 seconds.	TIMEOUT	Service Alert	5s after occurrence
The Engine Speed drops below 200 rpm or exceeds 3000 rpm.	ENGINE SPEED	Service Alert	5s after occurrence
A function included in the sequence has requested that the entire sequence be aborted (request made through IMS State = 9) due to a major fault which would also indicate a diagnostic trouble code for the specific function. Note: Not currently applicable for any functions.	FUNCTION REQUEST	Service Alert	5s after occurrence
On/Off softkey is pressed	None	None	None
Cancel Learn/Cancel Learn Distance			
Operator presence is FALSE for > 5 seconds and ground speed < 0.5 km/h	OPERATOR PRESENCE	Service Alert	5s after occurrence
A different sequence switch is actuated	SEQ SWITCH	Service Alert	5s after occurrence
The sequence switch (see Sequence 1 and 2 Switch or Sequence 3 and 4 Switch) becomes faulted	SEQ SWITCH	Service Alert	Seq. switch is not faulted any more
The Learn Start/Stop softkey is not pressed within 60 seconds of entering Learn mode	TIMEOUT	Service Alert	5s after occurrence
The Engine Speed drops below 200 rpm or exceeds 3000 rpm	ENGINE SPEED	Service Alert	5s after occurrence

Continued on next page

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Error or Information Description	Displayed Short Text Description	Displayed Alert Notification	Reset Condition
A function that is already learned has requested that the entire sequence be canceled (request made through IMS State = 9) due to a major fault which would also indicate a diagnostic trouble code for the specific function. Note: Not currently applicable for any functions	FUNCTION REQUEST	Service Alert	5s after occurrence
20 functions have been learned (Not available with Learn Distance)	MAX 20	Information Alert	5s after occurrence
The Cancel and Return softkey is pressed	None	None	
Distance starting to be counted when first function is learned exceeds 99.9 m (327 ft.)	>100 m	Service Alert	5s after occurrence
iTEC On			
iTEC™ ON – Passive: The Wheel speed is too low to start execution (shown upon sequence switch press).	WHEEL SPEED LOW	Information Alert	Wheel speed is > 0.5 km/h again
iTEC™ ON – Execution: The Wheel speed is too low to execute a function in Execution Mode (symbol is shown while wheel speed is < Minimum Execution Wheel speed).	WHEEL SPEED LOW	Information Alert	Wheel speed is > 0.5 km/h again
iTEC™ ON – Learn Distance: The Wheel speed is too low to execute a function in Learn Distance Mode (symbol is shown while wheel speed is < Minimum Execution Wheel speed).	WHEEL SPEED LOW	Information Alert	Wheel speed is > 0.5 km/h again
ALL pages: The sequence switch (see Sequence 1 and 2 Switch or Sequence 3 and 4 Switch) becomes faulted.	SEQ SWITCH	Service Alert	Seq switch is not faulted any more
iTEC™ ON – EDIT: The insert function is chosen but already 20 functions in the sequence.	MAX 20	Information Alert	5s after occurrence
Inhibit iTEC™ to be turned on			
The sequence switch (see Sequence 1 and 2 Switch or Sequence 3 and 4 Switch) has failed.	SEQ SWITCH	Service Alert	Seq. switch is not faulted any more

Abort Execution

OURX935,0000A73-19-17APR12-3/3

Entering Or Editing Equipment Name

1. Select **CommandArm™ Menu Button.**

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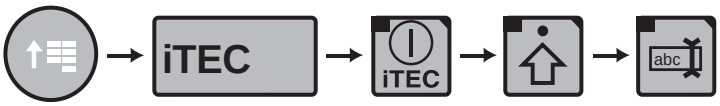
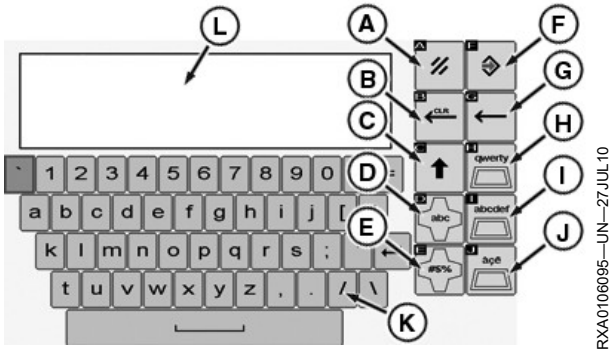


2. Select **iTEC**iTEC™
3. Select**iTEC™ ON/OFF softkey**.
4. Select **Advanced Settings softkey**.
5. Select **Edit Implement Name softkey**.
6. **At the editing page:**
   - A—Cancel Softkey allows operator to exit without making changes.
   - B—Clear Editing Box softkey clears editing box.
   - C—Toggles between upper and lower case editing keys.
   - D—Alpha/Numeric Character softkey changes special characters keypad into alpha/numeric keypad option.
   - E—Special Character softkey changes alphabet keypad into special characters keypad option.
   - F—Save/Enter softkey allows operator to enter data to operating page after entry is made in editing box.
   - G—Back Space softkey moves editing box curser back one space.
   - H—Standard English Keyboard softkey allows operator to choose standard English Keyboard.



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Editing Page

- I—ABC-Keyboard softkey allows operator to choose keyboard with alpha/numeric characters in alphabetical order.
- J—Numbers/Symbols softkey allows operator to input implement name in numbers or symbols.
- K—Keyboard.
- L—Editing Box.

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OURX935,0000A74-19-30JAN12-2/2

Manually Programming A Sequence While Stationary

NOTE: If implement name has not been loaded or requires editing, refer to Entering Or Editing Equipment Name in this section of the Operator's Manual.

1. Select **iTEC**.
2. Select **iTEC™ On/Off softkey**.
3. Select **Advanced Settings softkey**.

NOTE: For a complete list of functions available, see Description And Display in this section of Operators Manual. To delete a function, select Delete Function (H). To insert a function in a sequence, select Insert Function (I).

4. Select first function (A) drop down box.
5. Select function, PTO On for example.
6. Because PTO On does not have an operation available, select distance input box (B).
7. Select second Function drop down box (C) and select function, rear hitch for example.
8. Select Operation drop down box (D).
9. Select Distance input box (E).
10. Continue to load functions, operations and distances, up to 20 functions.

NOTE: To cancel a sequence, select Cancel softkey (F).

After selecting Save/Enter softkey, sequence is sorted by ascending distances, i.e. in the graphic to the right, the second function with a distance of 48 ft. will be listed as the first function. The depicted PTO On function beginning at 56. ft. will be the second function on the page.

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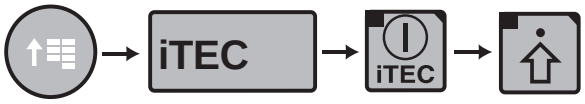
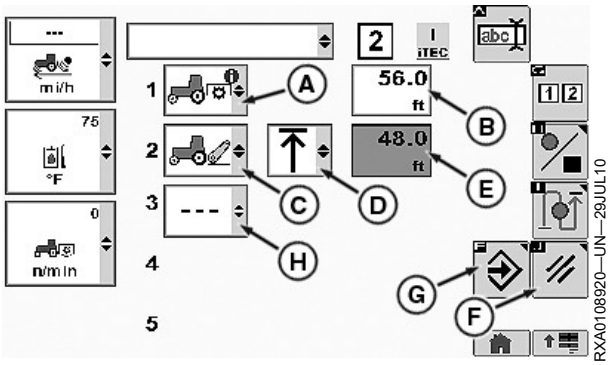


CommandCenter™ Main Menu → iTEC → iTEC On → Advanced Settings



Edit Page

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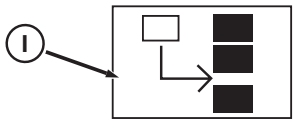

Insert Function

A—First Function
B—First Function Distance Input Box
C—Second Function
D—Operation
E—Second Function Distance Input Box
F—Cancel Softkey
G—Save/Enter Softkey
H—Delete Function
I—Insert Function

11. When sequence is complete, select Save/Enter softkey (G) to save program.

OURX935,0000A75-19-30JAN12-1/1

Recording A Sequence While Driving

*NOTE: The tractor can **not** be in park while learning a sequence. The forward/reverse lever must be in a forward position to begin learning or executing set speeds, gears, or Automatic Power Shift (APS).*

During Learn mode, the set speed may be changed more than once. iTEC™ will record the time of the first set speed change in the sequence. If additional changes occur at less than two second intervals, they will be combined with the first into a single event. The final set speeds in the two second intervals will be recorded.

1. Select **iTEC™**.
2. Select **iTEC™ softkey** .

NOTE: If iTEC™ is on and recording, iTEC ™ icon is highlighted and flashing. When sequence is selected, that sequence number is displayed on page.

3. Select Sequence softkey (A) for sequence 1 or 2.
4. Select Implement Name drop down box (B). Drop down opens displaying list of loaded implement names.

NOTE: If implement name has not been loaded or requires editing, refer to Entering Or Editing Equipment Name in this section of the Operator's Manual.

5. Select desired implement name in drop down box.
6. Select advanced settings softkey (C) to go to iTEC™ Edit page which allows modification to sequence, equipment, function, operation or distance.

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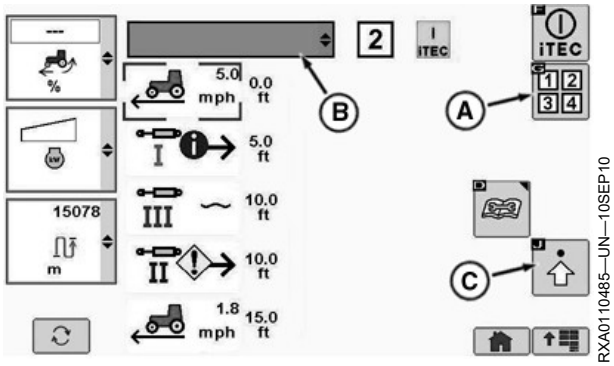
iTEC



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Operations Page

A—Sequence Softkey
B—Implement Name Drop Down Box
C—Advanced Settings Softkey

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OURX935,0000A76-19-17APR12-1/2

7. Select Start/Stop Record Sequence softkey (A).

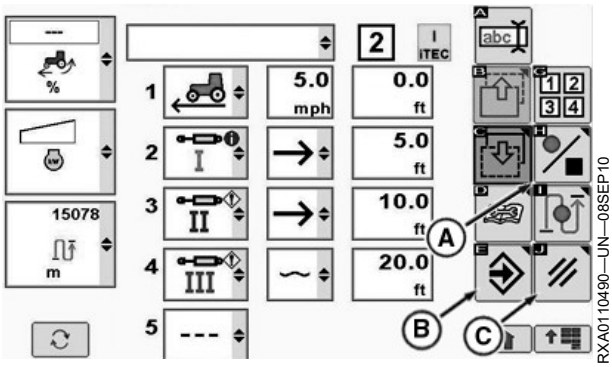
NOTE: For a complete list of functions available, see Description And Display in this section of Operators Manual.

Sequence can be aborted at anytime by selecting Cancel softkey (C).

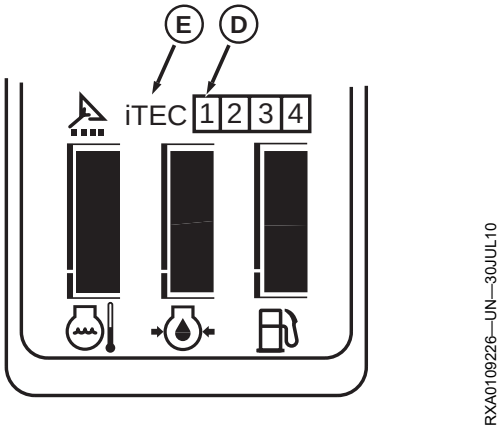
While recording sequence number (D) and iTEC™ (E) will display on corner post display.

8. Place tractor in motion and operate functions manually.
9. After all functions are loaded, select Save/Enter softkey (B).

A—Start/Stop Record Sequence Softkey
B—Save/Enter Softkey
C—Cancel Softkey
D—Sequence Number
E—iTEC™



iTEC™ Edit Page



Corner Post Display

OURX935,0000A76-19-17APR12-2/2

Learn Distance Only

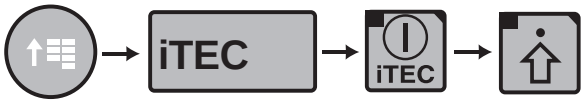
NOTE: Learn Distance can be used to either learn the distances for a sequence setup via EDIT or to just relearn distances for an existing sequence. The sequence needs to contain at least 2 functions to be able to start Learn Distance.

1. Select **iTEC™**.
2. Select **iTEC ™ ON/OFF softkey**.
3. Select **Advanced Settings softkey.**
4. For a sequence with at least 2 functions select Learn Distance softkey (A).
5. Drive a speed greater than 0.5 km/h (0.31mph) and select the associated sequence switch at the desired position where each function shall get executed.

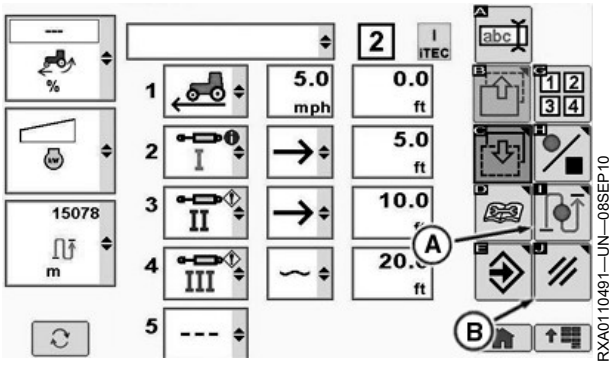
NOTE: By selecting the sequence switch the highlighted function and distance are learned and the highlight moves to the next step.

6. Learn Distance ends automatically when all distances are learned.
7. To cancel learn distance, select Cancel softkey (B).

RXA0116590—UN—12MAY11



CommandARM™ Menu Button → iTEC™ → iTEC On → Settings



Edit Page

A—Learn Distance Softkey **B—Cancel Softkey**

OURX935,0000A77-19-31JAN12-1/1

Executing Programmed Sequence

*NOTE: The tractor can **not** be in park while executing a sequence. The forward/reverse lever must be in a forward position when executing set speeds, gears, or Automatic Power Shift (APS). Tractor must be driven at a speed of at least 0.5 km/h (0.31 mph).*

iTEC™ indicator must show that iTEC is turned ON. iTEC cannot physically "turn on" relevant switches. Before sequences are performed that include selective control valve functions, the relevant levers must be in the neutral position.

1. Select **iTEC™**.
2. Select iTEC™ ON/OFF softkey.
3. Select CommandARM™ sequence switch[1] (A).
4. On the corner post display, the executing sequence number (B) and iTEC™ are both illuminated.
5. On the iTEC™ Page the iTEC™ status indicator changes and the frame is showing the function that gets executed next.
6. After a sequence has ended, the display is changing to the 'next' sequence. A manually intervention can be made in a running sequence at any time.

NOTE: To abort a sequence immediately, change to a different sequence by selecting switch, or select iTEC™ ON/OFF Softkey (D) to turn off sequence.

Manual interaction of the function during sequence execution will cause that function not to execute. Instead, the function in sequence is overridden by operator commands (manual interaction). The error/service icon will indicate this on the function.

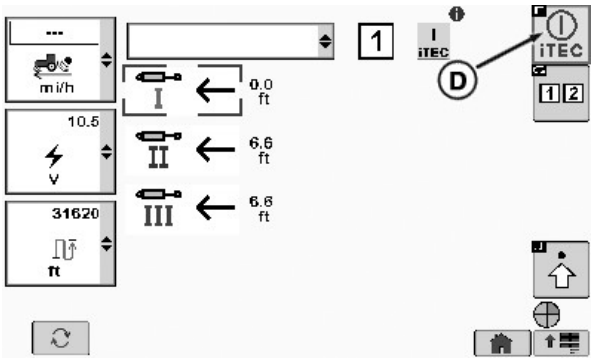
If there is no manual intervention when an abort occurs, commanded functions may be cancelled. For example, on the hitch or SCV hydraulic flow stops.

A—Sequence Switch (1 and 2)
B—Sequence Number
C—iTEC™
D—iTEC™ On/Off Softkey
E—Sequence Switch (3 and 4

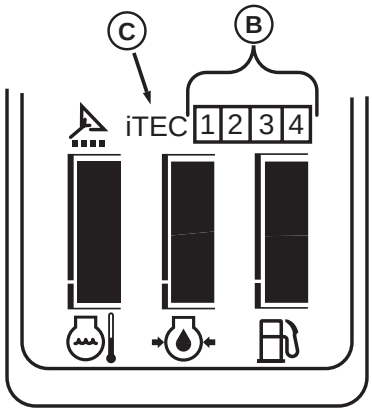
RXA0116589—UN—12MAY11

CommandARM™ Main Menu → iTEC™ → iTEC On

CommandArm™



iTEC™ Operation Page



Corner Post Display

iTEC is a trademark of Deere & Company

[1] Sequence Switch 3 and 4 added when Field installed is installed through your John Deere ™ dealer.

OURX935,0000A78-19-17APR12-1/1

Aborting and/or Clearing iTEC Sequence

1. Select **iTEC™**.

Continued on next page

OURX935,0000A79-19-30JAN12-1/2

2. Select **Advanced Settings softkey.**

   While on the iTEC™ Edit page, ensure iTEC™ is ON.

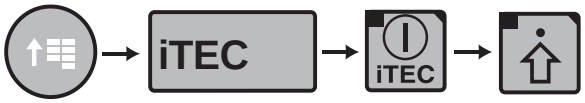
3. Select Start/Stop Record Sequence softkey. Select Start/Stop Record Sequence softkey again.

4. Select Save/Enter softkey (B). Sequence is now cleared.

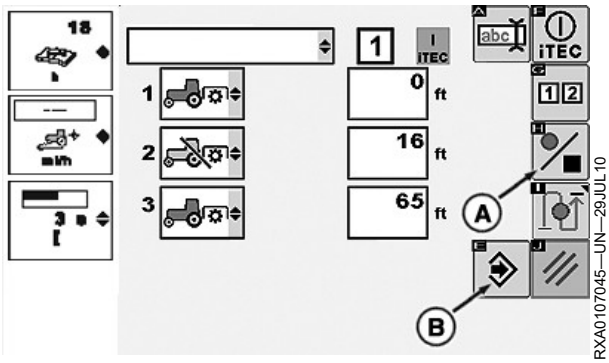
A—Start/Stop Record Sequence

B—Save/Enter Softkey

RXA0116590—UN—12MAY11



CommandCenter™ Main Menu → iTEC™ → iTEC™ On → Advanced Settings



iTEC™ Edit Page

OURX935,0000A79-19-30JAN12-2/2

iTEC ™ Functions—IVT™ and AutoPowr™ Transmission

A—Speed Band 1

B—Speed Band 2

IVT™ and AutoPowr™ Set Speed: The current forward set speed (FSS1 (A) or FSS2 (B)) can be changed up or down with the set speed adjuster or encoder during Learn mode. Transmission ratio 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 moving the lever during execution of a sequence will not cause iTEC™ to abort, but set speed changes will not be commanded for the remainder of the sequence.

If the set speed command via the iTEC™ sequence exceeds the maximum allowable speed in the range you are in, the set speeds will change, but be capped to the highest or lowest allowable set speed in that range. (Ex: You will get a maximum capped set speed if you were in speed range F1 and you execute a 50 km/h command). When a set speed is changed by iTEC™, the control unit will react just as if the operator changed the set speed, pushing other set speeds up or down as a result.

OURX935,0000A7A-19-30JAN12-1/1

Hitch Set-up and Use (Quick Reference)

Select desired page by pressing required shortcut button (A, B, C, or E).

- A—Load Depth shortcut button
- B—Upper Limit shortcut button
- C—Drop Rate shortcut button
- E—Depth Set shortcut button

Three options are available to navigate through CommandCenter pages. The operator can choose which method is most comfortable to make selections.

1. Rotate thumb wheel to a specific box or softkey and press Confirm button.
2. Use softkeys to quickly navigate through system to a page, then use thumb wheel to specific portion of a page.
3. For tractors equipped with Touchscreen CommandCenter touch specific softkey, button or icon to make a selection. To increase or decrease adjustments, glide finger along bar graph or select increase/decrease value button (R or S) respectively.

Set Operating Depth

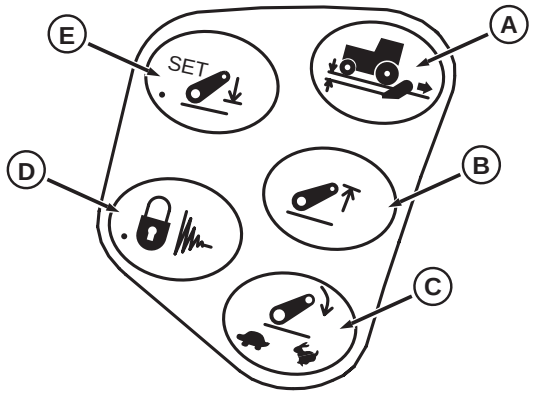
- Lower implement to desired operating depth using Hitch Command lever (K).
- Select Depth Set shortcut button (E) to save operating depth.

Turn at End

- At end of field, pull lever into raise detent and release. Hitch will raise to upper height limit.
- After turnaround, push lever into lower detent and release. Hitch will lower to saved depth setting.

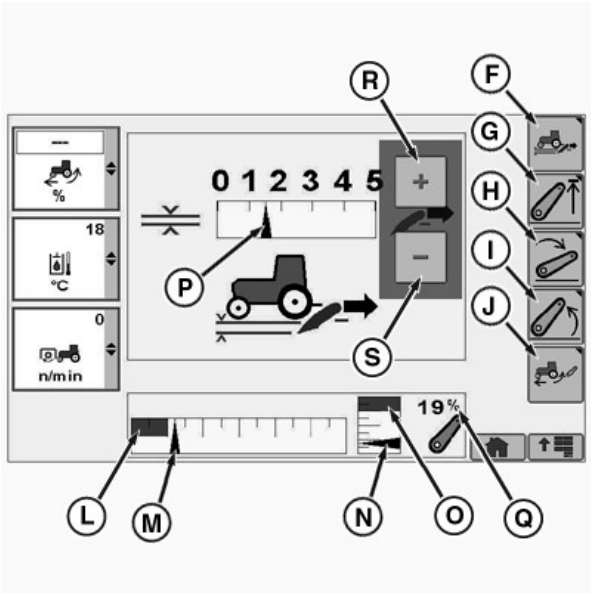
Hitch command information appears in lower portion of hitch pages. Commanded depth or lower set point is represented by commanded depth indicator (M). Hitch lower limit is represented by saved operating depth indicator (L). Pressing depth set button will move and align saved operating depth indicator with commanded depth indicator. Hitch position value (Q) represents actual hitch position in percentage while actual hitch position is displayed by hitch position indicator (N). When hitch is completely down, the hitch position value is 0%. When hitch is completely up, the hitch position value is 100%.

A—Load Depth Shortcut Button
B—Upper Limit Shortcut Button
C—Drop Rate Shortcut Button
D—Hitch Lock/Dampening Shortcut Button
E—Depth Set Shortcut Button
F—Load Depth Softkey
G—Upper Limit Softkey
H—Drop Rate Softkey
I—Raise Rate Softkey
J—Hitch Slip Softkey
K—Hitch Command Lever
L—Saved Operating Depth Indicator
M—Commanded Depth Indicator
N—Position Indicator
O—Hitch Upper Set Limit
P—Load Depth
Q—Hitch Position Value
R—Touchscreen Increase Value (If Equipped)
S—Touchscreen Decrease Value (If Equipped)



RXA0107323—UN—16APR10

Shortcut Buttons



RXA0113352—UN—11FEB11

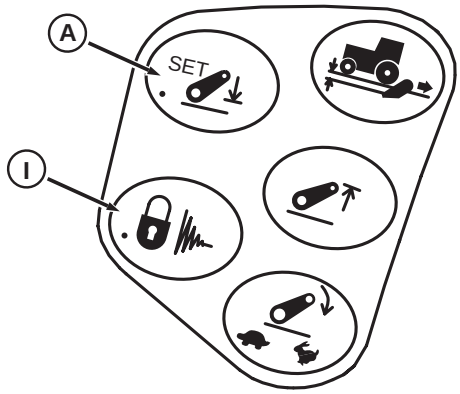
Softkeys

RXA0107248—UN—07APR10

Hitch Lever

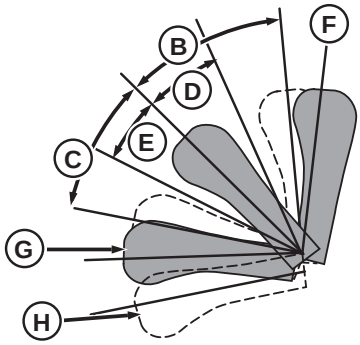
OURX935,000028C-19-09JUN11-1/1

Using Hitch Command Lever



RXA0101477—UN—31MAR09

CommandArm Controls



RXA0104294—UN—11AUG09

Hitch Lever

A—Depth Set Button
B—Hitch Raise—Fast
C—Hitch Lower—Fast
D—Hitch Raise—Slow
E—Hitch Lower—Slow
F—Detent Position, Raise
G—Detent Position, Lower
H—Float Position
I—Hitch Lock/Dampening Button

Lever movements within the proportional region (D and E), commands hitch to raise or lower. Raise or lower rate depends on how far the lever is moved from center position. Push lever down to lower hitch; pull lever up to raise hitch.

- Lever will not raise hitch above upper height limit, but will move hitch below the saved depth setting.
- A short duration ”flick” of the lever into proportional region will change depth command by a fixed amount.

Setting Depth

Use lever to move hitch to desired operating depth, then press Depth Set button (A) to store in memory.

- Each time Depth Set button is pressed, the previous depth setting is erased and the current depth is saved as the new setting.
- Operating depth can be pre-set before field operation. Hold lever forward until depth command reaches desired value, then store by pressing Depth Set button.

Lever Detents

When lever is pulled into detent (F) and released, hitch raises to upper height limit. When pushed into detent (G) and released, hitch lowers to stored depth.

- If lever is held in the forward detent while lowering, hitch will lower beyond saved depth setting. If tractor is moving, hitch will raise to stored depth when lever is released.
- Depth can be varied by moving lever in the proportional region. Pushing lever into forward detent and releasing will return hitch to saved depth setting.

Lever Float

Float position (H) holds hitch lower valve open continuously and is useful when detaching an implement. See Using Float Operation in this section for proper setup if implement requires that hitch floats during field operation.

Lock/Dampening

CAUTION: To prevent possible injury and equipment damage, set hitch lock and dampening ON before transporting.

Before transport or during operations when hitch is not used, raise hitch with lever then press Hitch Lock / Dampening button (I). This locks the hitch and enables hitch dampening.

- If hitch leaks down while tractor is stopped, hitch will return to locked height when tractor begins moving.
- Hitch command lever is disabled so hitch cannot be lowered (but can be raised back up to the locked position if lever held in detent).
- Hitch dampening interrupts tractor pitching/rocking that can occur when transporting hitch-mounted equipment.

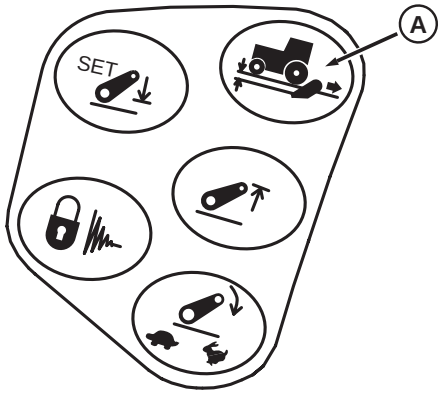
To unlock hitch and turn dampening off, press Hitch Lock /Dampening button again.

OURX935,000028D-19-05APR11-1/1

Adjusting Load/Depth Control (Draft Response)

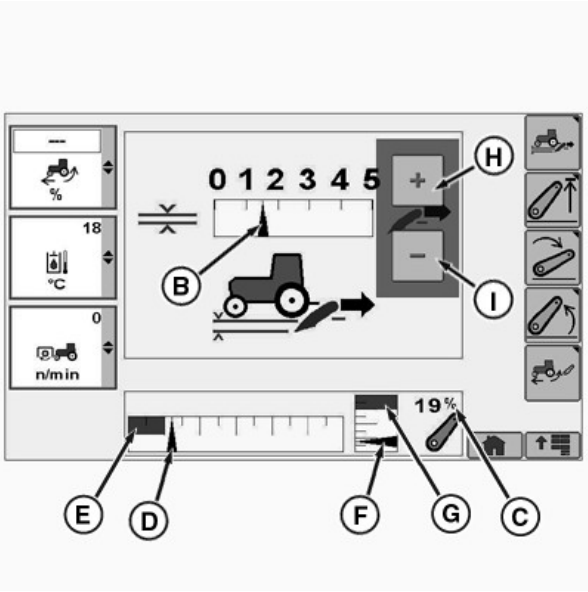
NOTE: Load/depth adjustment changes draft responsiveness only. Operating depth is set with hitch lever.

1. Select Load/Depth shortcut button (A).
2. Set Load Depth Indicator (B) to desired setting.
   - Zero draft response provides ”position” control (See Using Position Control.)
   - Higher settings are used for ”draft” control (See Using Draft Control.)
   - Changes to draft response setting take place immediately.



RXA0107324—UN—16APR10

A—Load Depth Settings Shortcut Button
B—Draft Response Settings Indicator
C—Hitch Position Value
D—Commanded Depth Indicator
E—Saved Operating Depth Indicator
F—Hitch Position Indicator
G—Hitch Upper Limit Setting
H—Touchscreen Increase Value (If Equipped)
I—Touchscreen Decrease Value (If Equipped)



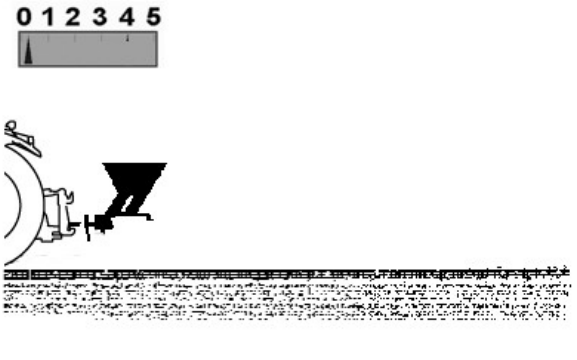
RXA0113353—UN—11FEB11

OURX935,000028E-19-09JUN11-1/1

Using Position Control

Use position control to operate non-ground engaging implements, and implements that fully rest on gauge wheels to control depth.

To adjust load/depth for position control, set draft response to zero.



RXA0107202—UN—07APR10

Hitch Held at Selected Position

OURX935,000028F-19-05APR11-1/1

Using Draft Control

Use draft control to help maintain operating depth of non-floating tillage equipment in rolling terrain, or if tractor attitude/pitch and rear wheel sinkage force implement deeper than desired. If soil density/resistance varies, higher response setting will cause more depth variation. The best setting depends on implement type and field conditions.

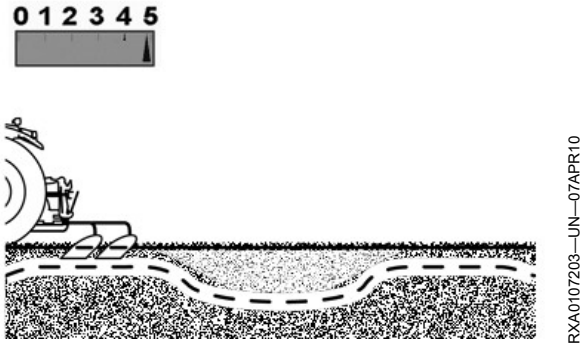
Higher values provide more/faster draft response. Lower values provide less/slower draft response.

Typical load/depth settings, by implement type, are:

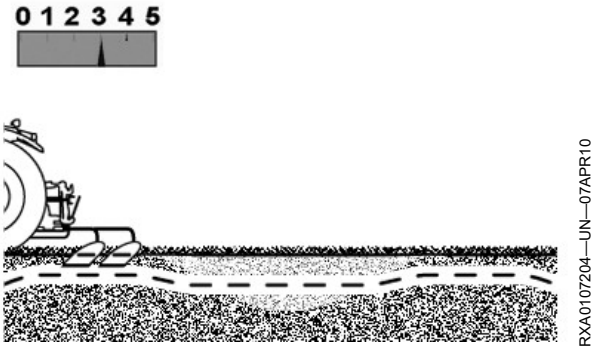
Integral Field Cultivator	4—5
Integral Moldboard Plow	3—5
Semi-Integral Moldboard Plow	2—4
Integral Chisel Plow	2—4
Integral Ripper/Subsoiler	1—3

Adjusting load/depth only changes draft responsiveness. Use hitch lever to control/change operating depth.

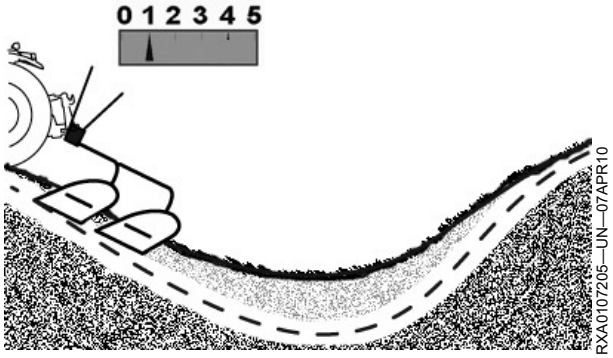
NOTE: Low draft response settings may slow the drop rate of some implements. To increase the speed at which the implement enters the ground, hold lever in forward detent. hitch will lower at the drop rate selected.



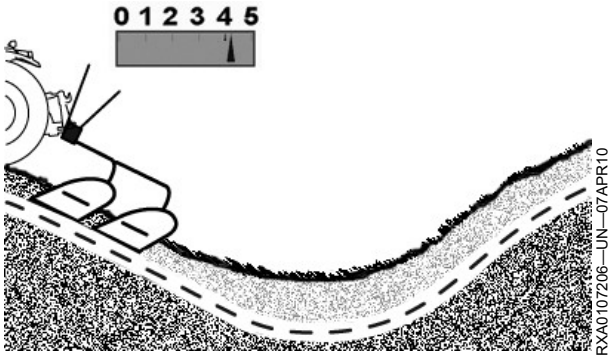
High Response Causes More Depth Variation If Soil Varies



Lower Response Controls Depth Better If Soil Varies



Lower Response Causes More Depth Variation In Rolling Terrain



Higher Response Controls Depth Better In Rolling Terrain

OURX935,0000290-19-05APR11-1/1

Adjusting Hitch Upper Limit

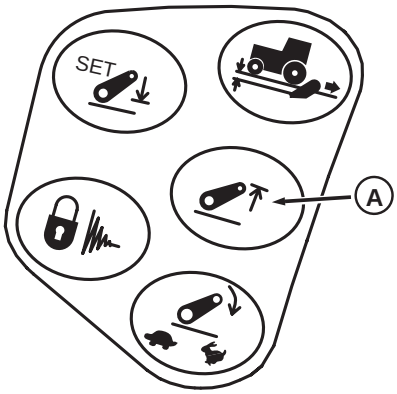
1. Select upper limit shortcut button (A).

NOTE: Changes to upper limit setting take place immediately.

**In this application, Position Indicator and Hitch Response Indicator move simultaneously.*

2. Move upper limit setting indicator (B) to desired position. Current hitch position is represented by position indicator (C).

A—Hitch Upper Limit Shortcut Button
B—Upper Set Limit
C—Position/Hitch Response Indicator*
D—Commanded Depth Indicator
E—Stored Operating Depth Indicator
F—Hitch Position Value
G—Touchscreen Increase Value (If Equipped)
H—Touchscreen Decrease Value (If Equipped)



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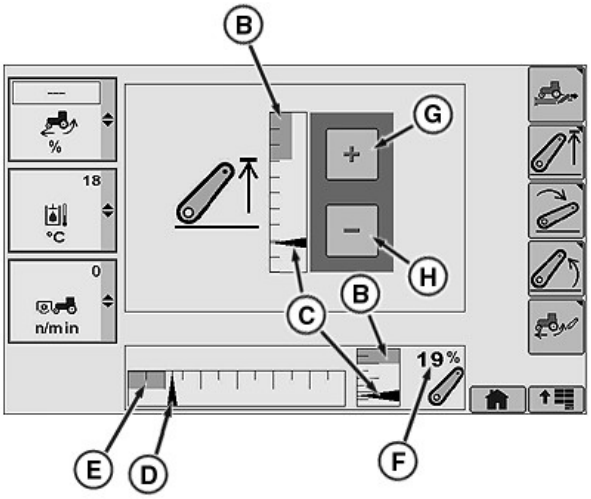
Hitch Upper Limit Shortcut Button



RXA0113355—UN—11FEB11

Hitch Load/Depth Page

OURX935,0000291-19-09JUN11-1/1

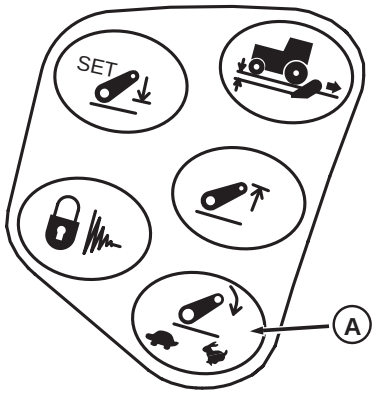
Adjusting Hitch Drop Rate

IMPORTANT: Excessive drop speed may cause injury or machine damage. Fully lowering implement should take at least two seconds.

1. Press drop rate shortcut button (A).
2. Observe display. Drop rate setting is represented by hitch response indictor (B).

NOTE: Changes to rate of drop setting take place immediately.

A—Hitch Drop Rate Shortcut Button
B—Hitch Response Indicator
C—Hitch Position Value
D—Position Indicator
E—Commanded Depth Indicator
F—Upper Set Limit
G—Stored Depth Indicator
H—Touchscreen Increase Value (If Equipped)
I—Touchscreen Decrease Value (If Equipped)



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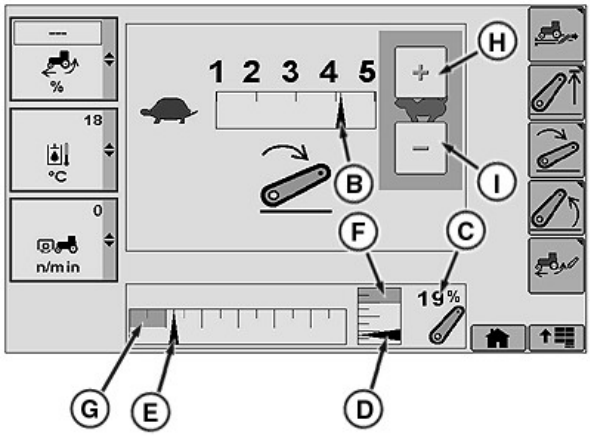


RXA0113357—UN—11FEB11

OURX935,0000292-19-09JUN11-1/1

Adjusting Hitch Raise Rate

IMPORTANT: Excessive raise speed may cause injury or machine damage. Fully raising implement should take at least two seconds.

Continued on next page

OURX935,0000293-19-09JUN11-1/2

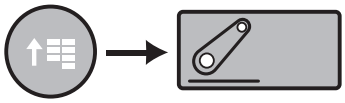
1. At the CommandCenter™ Main Menu select Hitch icon.

   Press raise rate softkey (A).

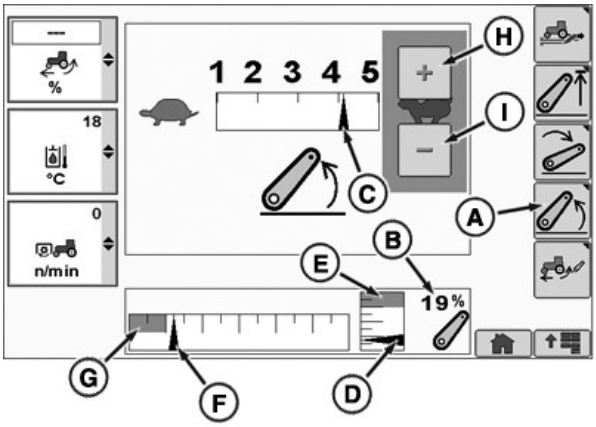
2. Observe display. Raise rate setting is indicated by Hitch Response Indicator (C).

NOTE: Changes to raise rate take place immediately.

RXA0116561—UN—16MAY11



CommandCenter Main Menu → Hitch



RXA0113359—UN—09MAY11

A—Hitch Raise Rate Softkey
B—Hitch Position Value
C—Hitch Response Indicator
D—Position Indicator
E—Upper Set Limit
F—Commanded Depth Indicator
G—Stored Depth Indicator
H—Touchscreen Increase Value (If Equipped)
I—Touchscreen Decrease Value (If Equipped)

OURX935,0000293-19-09JUN11-2/2

Setting Hitch Slip Response

*NOTE: Tractor must be equipped with **radar**, and load/depth control must be in **draft control** mode for hitch slip to function. See Using Draft Control in this section.*

Hitch can be operated with draft sensing only, or with draft sensing and hitch slip. Hitch slip adjustment is independent from draft response.

Response Setting Guidelines *	
Chisel Plow	2—4
Subsoiler	5—7
Moldboard Plow	7—9
V-Ripper	8—10
** Appropriate setting will depend on implement type, soil conditions and tractor setup*	

Hitch slip uses wheel slip data to supplement draft control system and help maintain uniform working depth. Hitch slip only functions if wheel slip is above 10%.

Continued on next page

OURX935,0000294-19-09JUN11-1/2

1. At the CommandCenter main menu select hitch icon.
2. Select Hitch Slip softkey (A).

NOTE: Changing slip response setting will only affect operation if wheel slip is above 10%.

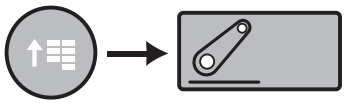
Changes to slip response take place immediately.

4. Make adjustments to hitch response indicator (B). As hitch slip response is adjusted, indicator adjusts in bar graph. Higher values provide more/faster response to slip variation. Lower values provide less/slower response to slip variation.

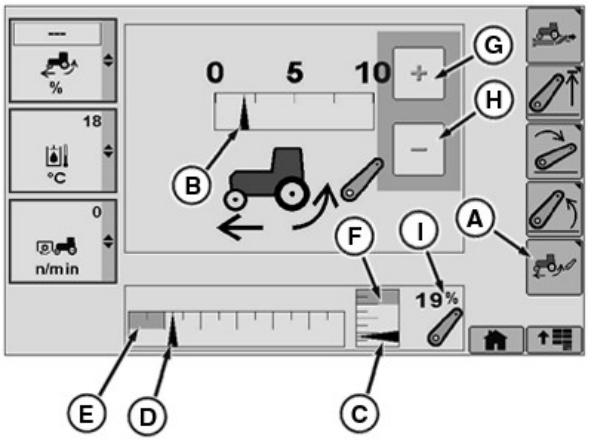
NOTE: Slip response automatically returns to zero during transport (speed above 20 km/h [12.4 mph]).

A—Hitch Slip Response Softkey
B—Hitch Response Indicator
C—Position Indicator
D—Commanded Depth Indicator
E—Stored Operating Depth Indicator
F—Upper Set Limit
G—Touchscreen Increase Value (If Equipped)
H—Touchscreen Decrease Value (If Equipped)
I—Hitch Position Value

RXA0116561—UN—16MAY11



CommandCenter Main Menu → Hitch



RXA0113362—UN—11FEB11

OURX935,0000294-19-09JUN11-2/2

Using Float Operation

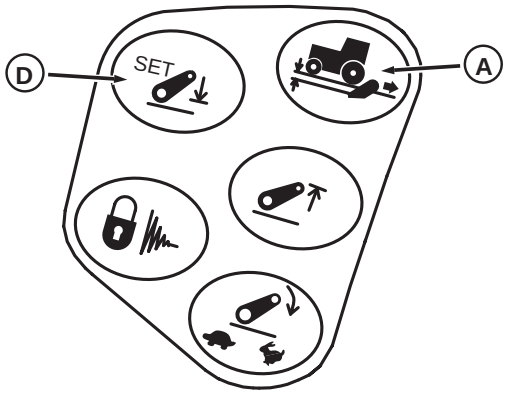
Implements that fully rest on gauge wheels to control depth, require that the hitch floats to follow ground contour.

1. Select Load/Depth shortcut button (A).
2. Set load/depth setting bar graph indicator (B) to far left position, minimum setting.
3. Hold hitch lever forward until commanded depth indictor (C) is in full down position.
4. Press Depth Set shortcut button (D) to save full down as stored depth setting.

NOTE: Position Indicator (E) indicates actual hitch position.

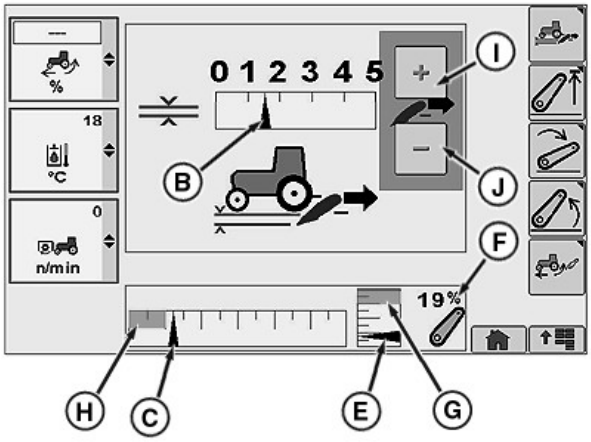
5. Lift links can be adjusted for lateral float. See Changing Lateral Float in this section.

A—Load/Depth Shortcut Button
B—Hitch Response Indicator
C—Commanded Depth Indicator
D—Depth Set Shortcut Button
E—Position Indicator
F—Hitch Position Value
G—Upper Set Limit
H—Stored Operating Depth Indicator
I—Touchscreen Increase Value (If Equipped)
J—Touchscreen Decrease Value (If Equipped)



RXA0107327—UN—16APR10

Hitch Load Depth

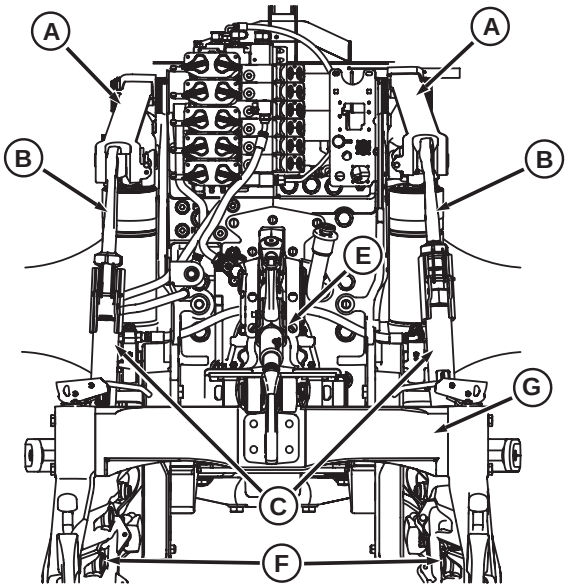


RXA0113364—UN—11FEB11

Hitch Load Depth

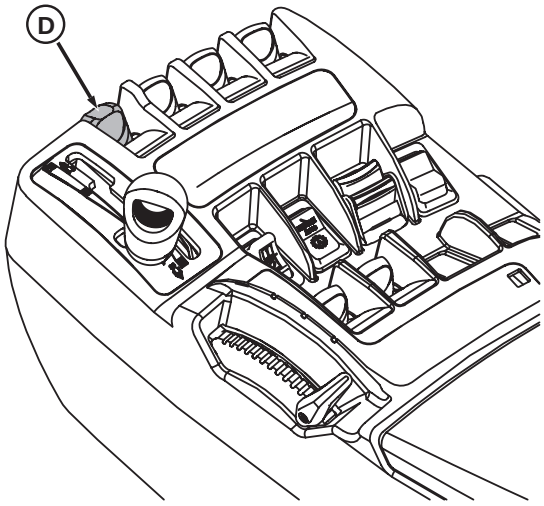
OURX935,0000295-19-09JUN11-1/1

Hitch Components



RXA0097040—UN—29AUG08

Hitch Components



RXA0099823—UN—24NOV08

Hitch Lever

A—Lift Arms
B—Lift Cylinders
C—Lift Links
D—Hitch Lever
E—Center Link
F—Draft Links
G—Quick Coupler

OURX935,0000731-19-22DEC08-1/1

Using External Raise and Lower Switches

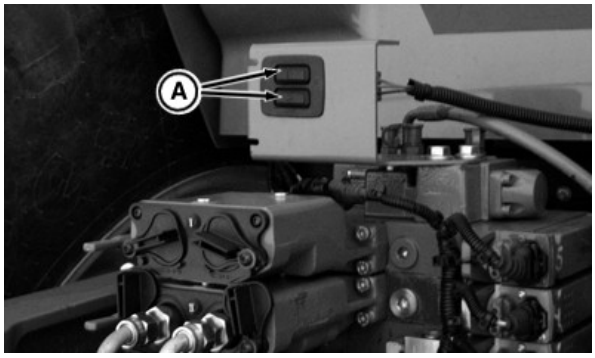
CAUTION: To prevent injury or damage caused by tractor movement, be sure transmission is in PARK position before using external raise and lower switches. Stay clear of interference points when using external raise and lower switches.

When external switches (A) are pressed hitch moves slowly, but slowly increases speed the longer hitch switch is held down.

Press and hold external switches (A) to raise or lower hitch. Hitch moves at slow speed when using external switches.

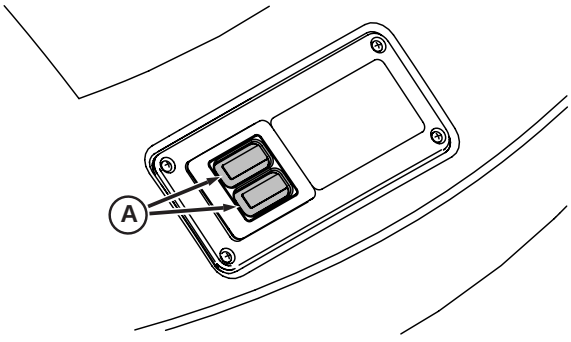
NOTE: Hitch command lever cannot be used simultaneously with external raise/lower switch.

A—External Raise/Lower Switches



RXA0097037—UN—19MAR09

Valve Stack Mounted Switches (If Equipped)



RXA0068228—UN—05AUG08

Fender Mounted Switches (If Equipped)

OURX935,0000006-19-25JUL08-1/1

Using Hitch Manual Lowering Feature

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.

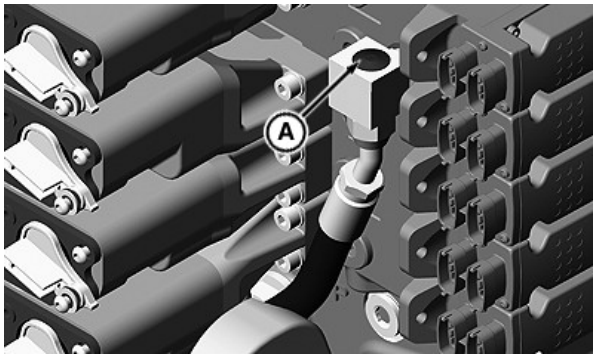
Remove plug (A) to access the manual lowering screw (B). Turn screw counterclockwise to lower the hitch.

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.

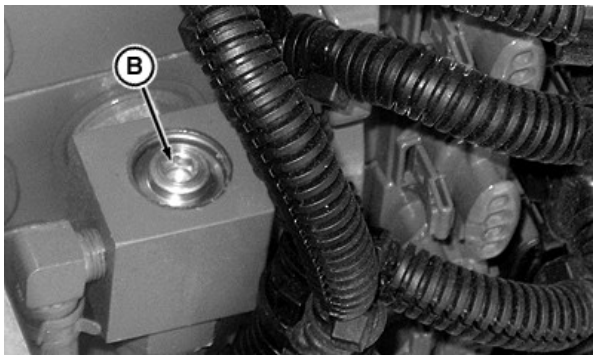
A—Plug

B—Manual Lowering Screw



RXA0096797—UN—10DEC07

Plastic Plug



RXA0096799—UN—10DEC07

Manual Lowering Screw

OURX935,0000078-19-16JUL08-1/1

Using Correct Center Link Position

IMPORTANT: Excessive power can damage an implement, and a too large implement can damage the tractor.

This tractor requires center link with recessed retaining mount (C) to prevent interference with SCV valve stack. Using a center link without a recessed retaining mount may result in damage to SCV stack.

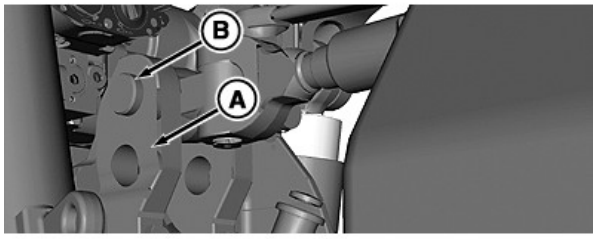
NOTE: Upper hole offers greater lift capacity. Lower hole offers greater ground clearance.

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 lift capacities in Specifications Section.

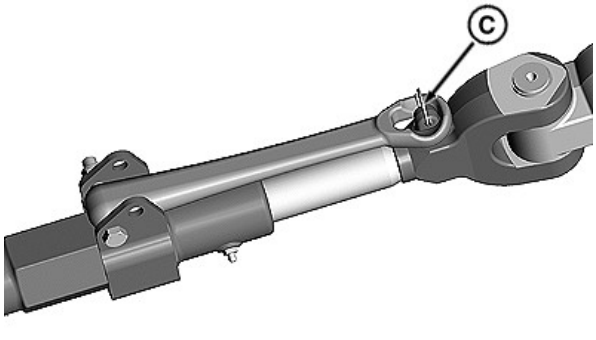
A—Lower Hole
B—Upper Hole

C—Recessed Retaining Mount



RXA0085781—UN—10JAN06

Use Correct Hitch Category



RXA0097299—UN—19FEB08

Recessed Retaining Mount Center Link

OURX935,0000090-19-13AUG08-1/1

Using Sway Blocks

Install sway blocks (A) in lower position to minimize side sway of hitch.

Adjust bumper (B) by loosening lock nut and sliding forward or rearward as needed to limit the amount of sway.

Mount sway blocks in upper position to allow side sway when hitch is lowered. Side sway is prevented when hitch is raised.

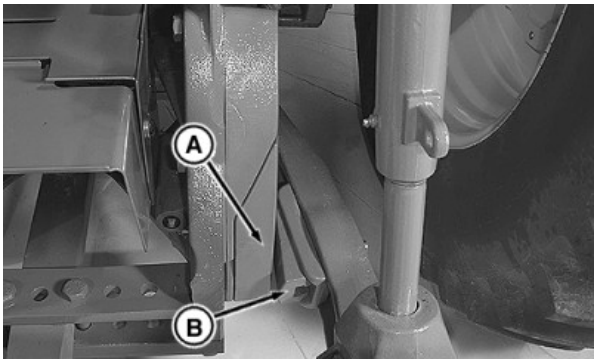
NOTE: Use shims as needed to provide desired sway control. Shims can be purchased from your John Deere dealer.

If there is not enough adjustment in bumper block to remove hitch sway, install shims as necessary between bumper block and spacer (F).

IMPORTANT: Tires must have at least 25 mm (1. in.) clearance distance (D) with fenders. To prevent draft link interference, be sure distance (E) between tires is:

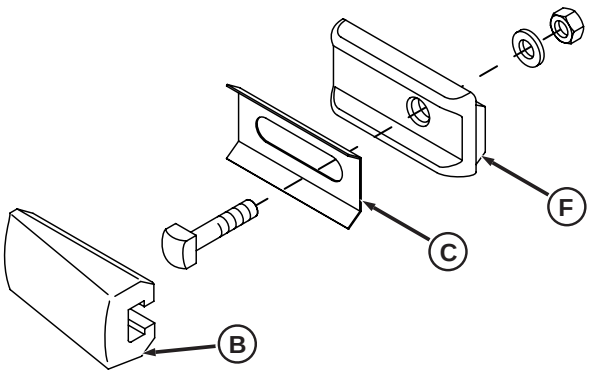
- **Category 3N Hitch—1.09 m (43 in.)**
- **Category 3 Hitch—1.17 m (46 in.)**
- **Category 4N Hitch—1.17 m (46 in.)**

A—Sway Blocks
B—Bumper
C—Shim
D—Distance Clearance Between Tires And Cab
E—Distance Between Tires
F—Spacer



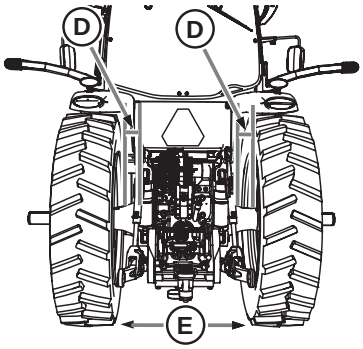
RXA0052493—UN—28MAR01

Sway Blocks in Lower Position



RXA0090041—UN—04AUG06

Install Shim Between Bumper block and Spacer



RXA0117508—UN—15JUN11

Distance Between Tires

OURX935,0000423-19-28JUL11-1/1

Attaching Implement to Quick Coupler

RXA0087968—UN—21MAR06

Coupler Latch Handle

RXA0101383—UN—01APR09

Lever

A—Coupler Latch Lever **B—Hitch Control Lever**

CAUTION: To avoid bodily injury or machine damage:

Put transmission in PARK position and check the full range of hitch for interference, binding, or PTO separation whenever an implement is attached.

Make sure implement is correctly attached. Incorrect attachment can allow implement to be pulled over the tractor wheel and onto the operator station.

Do not stand between tractor and implement.

1. Pull up on coupler latch levers (A).
2. Lower hitch until quick coupler hooks are lower than implement hitch pins.
3. Back up tractor to implement.
4. Raise hitch enough to engage implement pins in hooks.
5. Push coupler latch levers down to lock implement to quick coupler.
6. Connect hydraulic hoses and electrical connections.

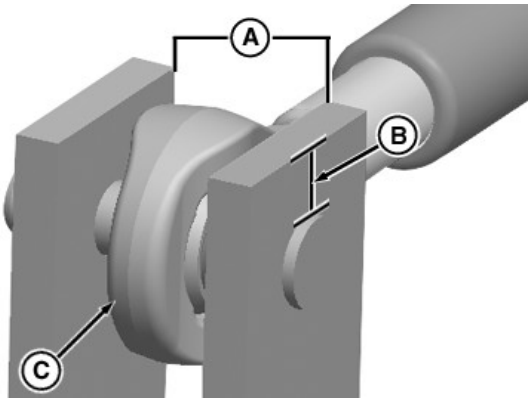
OURX935,0000480-19-24FEB12-1/2

IMPORTANT: Check for implement interference. Drawbar removal may be necessary.

7. Slowly pull hitch control lever (B) to raise implement. Lower implement to ground and adjust upper height limit control if necessary.

IMPORTANT: If center link is attached directly to implement, measure upper mast opening (A) and height above pin (B). 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 (C).

- **If connecting to a category 4N hitch, use a combination of shims on both sides of center link pivot.**



RXA0086593—UN—09FEB06

Equipment Mast

A—Distance **C—Yoke**
B—Distance

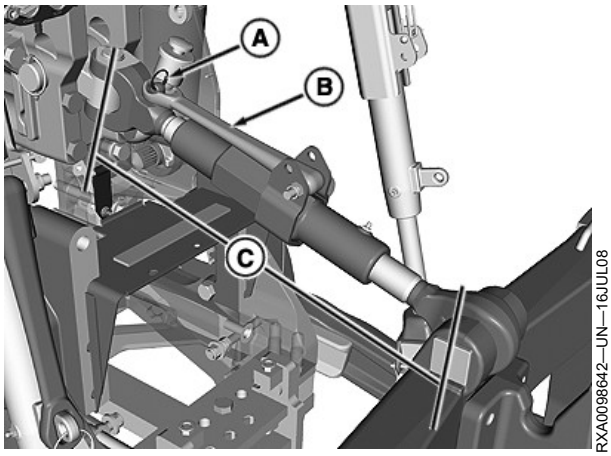
OURX935,0000480-19-24FEB12-2/2

Adjusting Implement Level

1. Adjust center link to level implement front-to-rear.
   - Remove Locking Ring (A).
   - Lift Handle (B).
   - Rotate center portion of center link to desired position.
2. Secure handle with locking ring.
3. Check distance between the center of pins which is the center link adjustment length (C).

Center Link Adjustment Length — Specification

Adjustment—Category 3 Length With Quick Coupler	627—790 mm (24.7—31.1 in.)
Category 3 Length Without Quick Coupler	698—861 mm (27.5—33.9 in.)
Category 4 Length With Quick Coupler	681—814 mm (26.8—32. in.)
Category 4 Length Without Quick Coupler	735—897 mm (28.9—35.3 in.)



RXA0098642—UN—16JUL08

A—Locking Ring
B—Handle
C—Center Link Adjustment Length

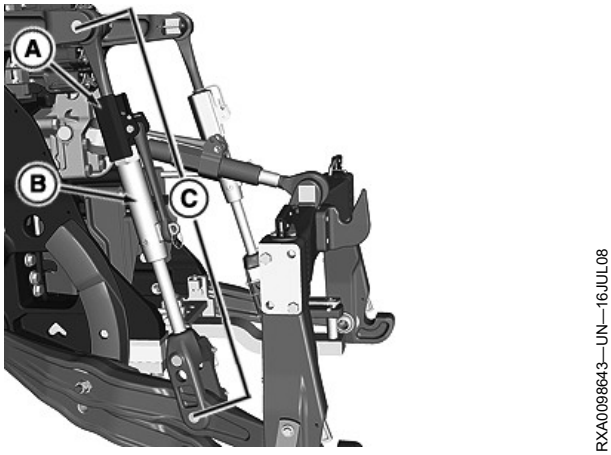
OURX935,0000B1B-19-02SEP09-1/2

4. Adjust lift links to level implement side-to-side. Slide collar (A) upward. Rotate center portion (B) of lift link to desired position.

Lift Link Adjustment Length — Specification

Adjustment—Category 3 Length (With or Without Quick Coupler)	966—1135 mm (38.— 44.7 in.)
Category 4 Length (With or Without Quick Coupler)	966—1135 mm (38.— 44.7 in.)

5. Check distance between the center of pins which is the lift link adjustment length (C).
6. Lock out lateral float.
7. Secure collar in position.



RXA0098643—UN—16JUL08

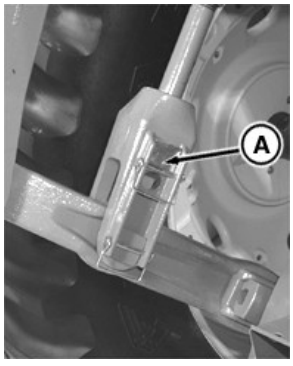
A—Collar
B—Center Portion
C—Lift Link Adjustment Length

OURX935,0000B1B-19-02SEP09-2/2

Changing Lateral Float

Put lateral float pins in lower holes (B) to hold implement rigidly.

Put lateral float pins in upper holes (A) to allow either draft link to raise slightly as implement follows ground surface.



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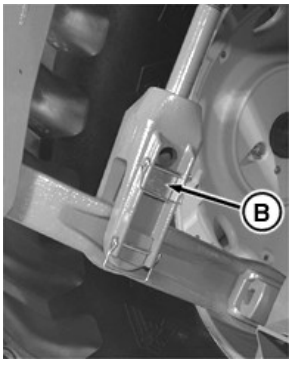


RXA0052503—UN—18OCT01

A—Upper Holes
B—Lower Holes

OURX935,00004BC-19-27FEB13-1/1

Detaching Implement from Quick Coupler

1. Raise both latch levers (A) with implement raised.
2. Disconnect hydraulic hoses and electrical connections.
3. Lower implement to ground. Continue lowering quick coupler until hooks clear implement hitch pins.

NOTE: For tractors equipped with Independent Link Suspension induce tractor leveling with engine operating:

- *Depress clutch*
- *Put transmission shift lever in gear for four seconds*
- *Move shift lever to NEUTRAL position*
- *Repeat until suspension is level*

4. Carefully drive tractor away from implement.

RXA0078885—UN—08FEB05

Coupler Latch Handle

A—Latch Lever

OURX935,000045A-19-20SEP07-1/1

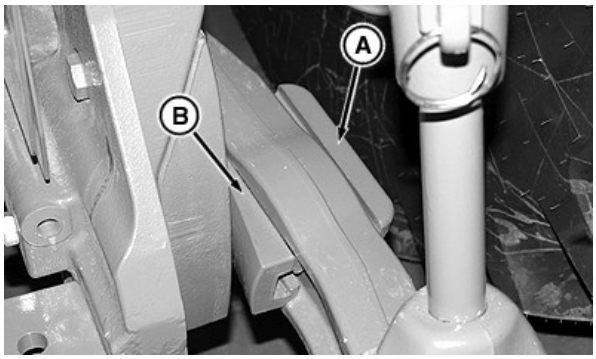
Hitch Conversion—Convertible Quick Coupler

1. Converting to category 3N is necessary for some narrow row/tread spacing operations. Quick coupler 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.

IMPORTANT: If coupler is converted to category 3N, sway block spacer (A) must be mounted on the outside of draft link to avoid damaging equipment.

2. Adjust bumper block (B) to minimize clearance.
3. Tighten nut securely.



RXA0085783—UN—10JAN06

Spacer and Bumper Block

A—Spacer **B—Bumper Block**

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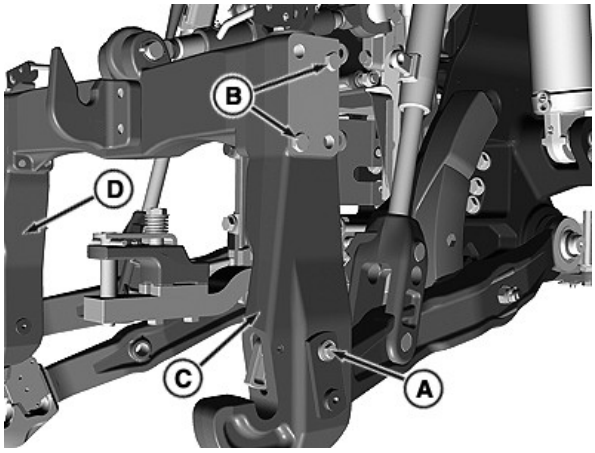
OURX935,00003DA-19-16JUL08-1/2

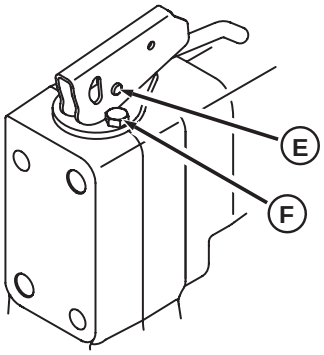
4. Support center of quick coupler. Remove pin retaining bolts (A) and pins from draft link. Remove side member cap screws (B).
5. Swap quick coupler side members, left-side member (C) to right end and right-side member (D) to left. Tighten cap screws to 320 +/-64 N·m.
6. Disconnect latch levers by removing C-clip and pin (E).
7. Remove cap screw (F) from wear plate and turn so tab is inward.
8. Install cap screws and tighten securely.
9. Reconnect levers.

A—Retaining Bolts
B—Cap Screws
C—Left Side Member
D—Right Side Member
E—C-Clip and Pin
F—Cap Screw



RXA0098644—UN—28JUL08

Quick Coupler



RXA0085782—UN—10JAN06

Quick Coupler

OURX935,00003DA-19-16JUL08-2/2

Converting Category 4 Convertible Quick Coupler 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.

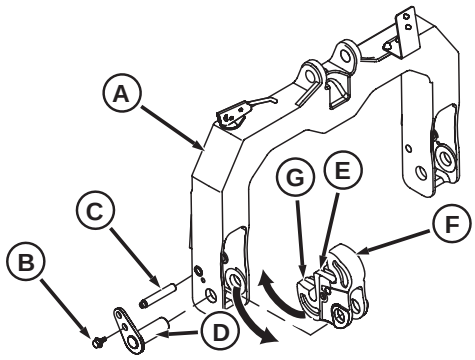
If category 4 lower hooks are to be used on category 3 implements, bushings are needed over the category 3 pins; these bushings can be purchased through your John Deere dealer.

NOTE: Lower hooks are not marked for left-hand or right-hand side. Do not move lower hooks from one side to the other.

1. Support quick coupler 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.



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Converting Lower Hooks

A—Quick Coupler Frame
B—Cap Screw
C—Retainer
D—Pin
E—Lower Hook
F—Category 3 Hook
G—Category 4N Hook

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 torque.

Specification

Lower Hook Cap Screws—Torque. . . . . 100 N·m (74 lb-ft)

OURX935,00004DD-19-18JUL11-1/1

Converting Category 3/4 Convertible Quick Coupler Upper Hook

CAUTION: Use proper lifting device when converting coupler. Failure to do so can result in personal injury.

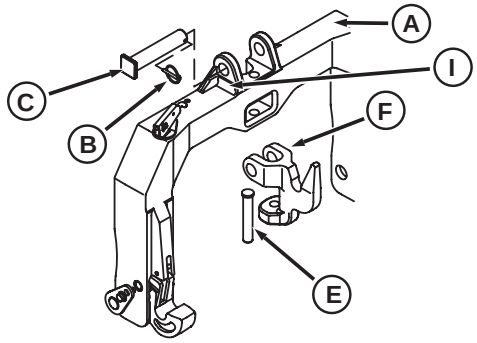
NOTE: A second person is recommended to align components during conversion.

When full power is to be used on 8335R or 8360R tractors with ground engaging implements it is recommended to use CAT 4 upper hook if implement set up allows. The CAT 3 upper hook may be overloaded with very high draft loads.

1. Support quick coupler frame (A).
2. Remove quick lock pin (B) and pin (C) to release center link (D).
3. Remove pin (E) and upper hook (F).
4. Remove pin (G) to remove stored upper hook (H) and replace with upper hook previously removed from quick coupler.

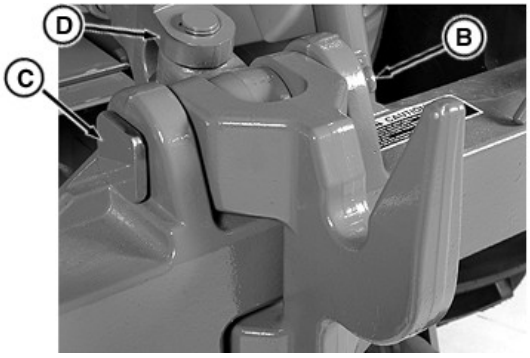
NOTE: Pin (C) must be installed left to right. Shoulder (I) will keep retaining pin (B) from being installed if pin (C) is installed incorrectly.

A—Quick Coupler Frame
B—Quick Lock Pin
C—Pin
D—Center Link
E—Pin
F—Upper Hook
G—Pin
H—Stored Upper Hook
I—Shoulder



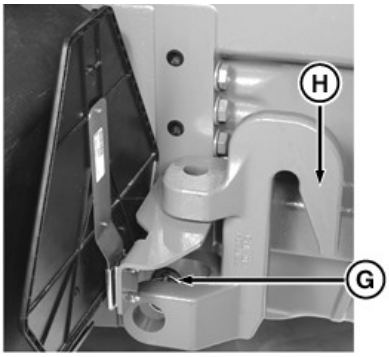
RXA0087383—UN—02MAR06

Coupler



RXA0081100—UN—02JUN05

Center Link



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Stored Upper Hook

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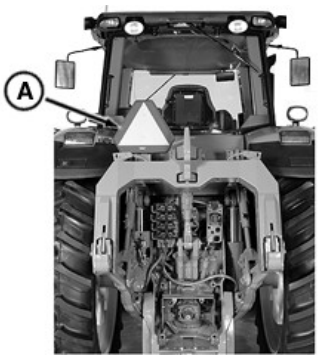

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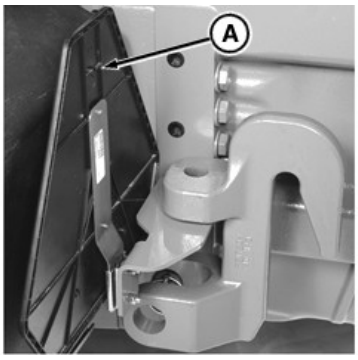
SMV On Quick Coupler



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SMV in Storage Location

5. Use reverse sequence of steps to remove upper hook from quick coupler. Install previously stored upper hook into quick coupler.

NOTE: When implements are mounted on the quick coupler in the raised transport position, cab SMV emblem is not visible from behind. A second SMV emblem must be mounted on the quick coupler mounting bracket provided ***and must be used when quick coupler is in raised position or implements are mounted on the quick coupler.***

When not in use, place the second SMV emblem in storage location on the right hand side of transmission.

OURX935,0001063-19-21APR10-2/2

Using Front Hitch (If Equipped)

CAUTION: Avoid possible 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.

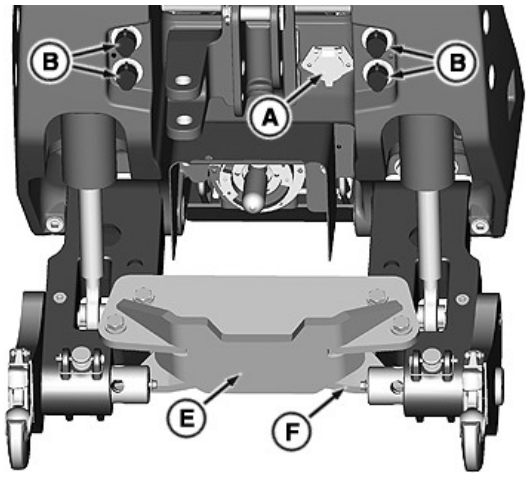
Seven terminal outlet (A) on front hitch mirrors functions of tractor rear seven terminal outlet. Seven terminal outlets are used to connect lights, turn signals, and remote electrical equipment on implements. Always use auxiliary light on towed implement when tractor rear signals and other lights are obscured.

Factory installed front SCV couplers (B) are connected through top two SCVs at rear of tractor and respond to CommandARM SCV levers. See Connecting Front Hitch SCVs in this section.

External 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 implements applications. It provides torsional support to keep lift arms timed 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.



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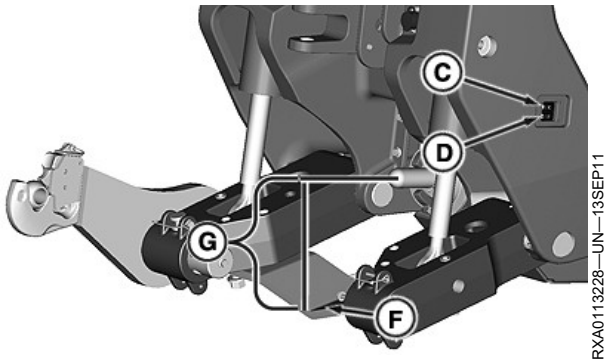
Factory Installed Upper And Lower Locking Plates On Front PTO Equipped Tractor



RXA0113228—UN—13SEP11

PTO Clearance And External Raise And Lower Switches

A—Seven-Pin Terminal Outlet
B—SCV Couplers
C—External Raise Switch
D—External Lower Switch
E—Upper Locking Plate
F—Lower Locking Plate
G—Drive Line Clearance

OURX935,00001B5-19-13SEP11-1/1

Using 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.

Continued on next page

OURX935,00001B6-19-27JAN11-1/2

1. Remove and retain four locking plate cap screws (A) and upper locking plate (B).
2. Install locking plate cap screws and torque to specification.

Specification

Locking Plate Cap Screws—Torque. . . . . 245 N·m (180 lb.-ft.)

3. Reverse procedure to install upper locking plate.

Lower Locking Plate

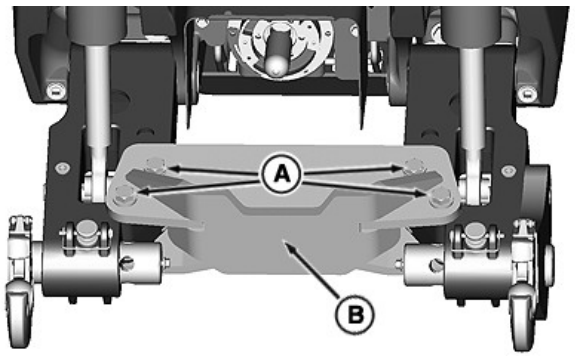
Lower locking plate provides torsional support to keep lift arms timed, but also allows front hitch to roll or float as lower plates flexes. This allows implements to follow contours. Although lower locking plate is factory installed with V pointed up for greater ground clearance, it must be inverted to provide PTO drive line clearance during front PTO operations.

1. Remove locking plate cap screws.
2. Remove lower locking plate (D) and rotate end for end, then flip locking plate over so that lower locking plate holes (C) are aligned with holes in front hitch casting. Locking plate V is now pointed down which provides drive line clearance for front PTO operations.
3. While holding lower locking plate with V pointed down (E) against bottom of front hitch, install previously removed cap screws.
4. Torque locking plate cap screws to specification.

Specification

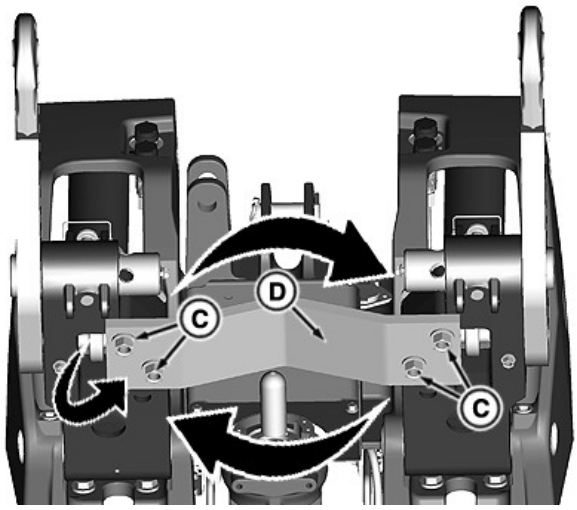
Locking Plate Cap Screws—Torque. . . . . 245 N·m (180 lb.-ft.)

A—Cap Screws
B—Upper Locking Plate
C—Locking Plate Holes
D—Lower Locking Plate (V Up)
E—Lower Locking Plate (V Down)



RXA0113229—UN—24JAN11

Front Hitch With Front PTO, And Locking Plates in Factory Configuration



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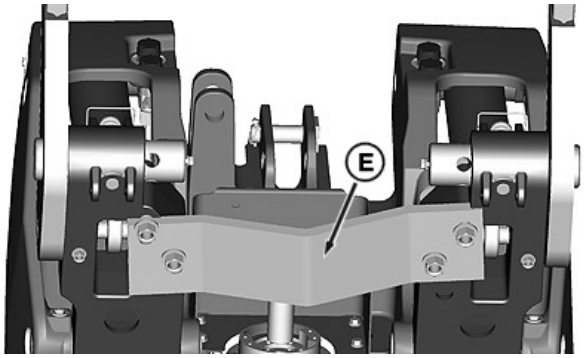
Remove And Rotate Lower Locking Plate End For End, Then Flip Plate Over



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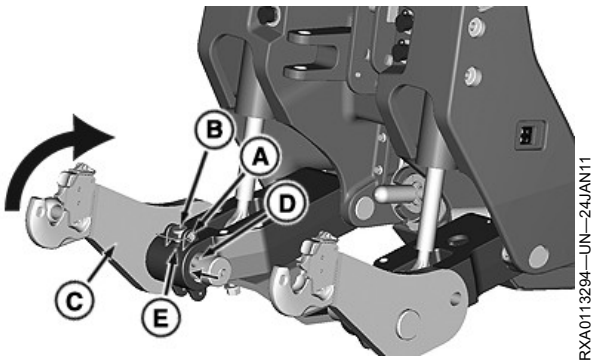
Install Lower Locking Plate With "V" Pointed Down

OURX935,00001B6-19-27JAN11-2/2

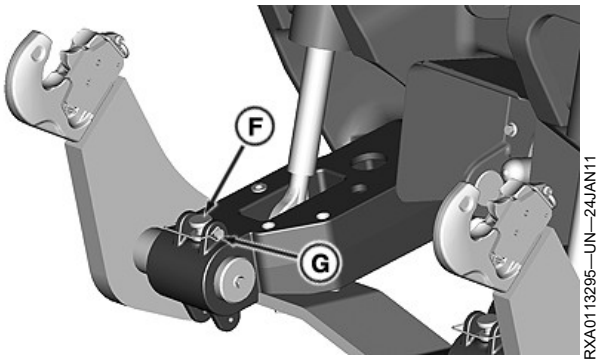
Placing Front Hitch Arms In Stowed or Extend Position

1. Remove retaining pin (A) and pin (B).
2. Slide arm (C) out and up aligning hole (D) with casting hole (E).
3. Install pin (F) and retaining pin (G). Arm is now in stowed position.
4. Repeat for opposite front hitch arm.
5. Reverse procedure to place arms in extend position.

A—Retaining Pin
B—Pin
C—Arm
D—Hole
E—Casting Hole
F—Pin
G—Retaining Pin



Front Hitch Arms In Extended Position



Front Hitch Arms In Stowed Position

OURX935,00001B7-19-27JAN11-1/1

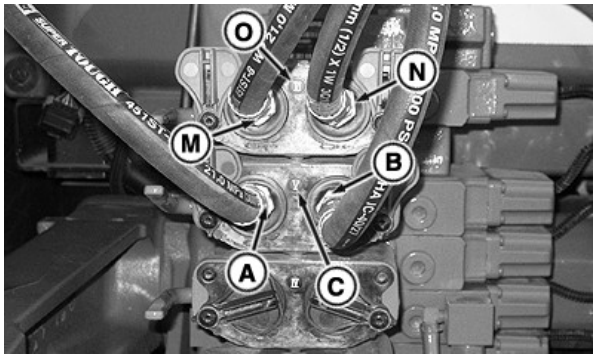
Connecting Front Hitch SCVS

Oil flow is routed through rear SCV hoses A, B and M, N to front SCV hoses (G, H, and S, T). see table. Factory installed front hitches are hydraulically connected to top two rear SCVs regardless of how many SCVs tractor is equipped with. Any rear SCV can be used for front SCV provided there is adequate hose length to make connection. 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.

NOTE: In applications in which all rear SCVs are required for rear implements, hoses connecting front hitch are disconnected at rear SCV stack and placed in stowed position.

	Rear SCV	Rear SCV Hose Bracket	Rear SCV Hose Bracket (Stored Position)	Front Hitch SCVs
SCV V Extend Hose	A	D	G	J
SCV V Retract	B	E	H	K
SCV V Numeral	C	F	I	L
SCV VI Extend Hose	M	P	S	V
SCV VI Retract Hose	N	Q	T	W
SCV VI Numeral	O	R	U	X

A—SCV V Extend Hose (Rear SCV)
B—SCV V Retract Hose (Rear SCV)
C—SCV V Number Button (Rear SCV)
D—SCV V Extend Hose (Rear SCV Hose Bracket)
E—SCV V Retract Hose (Rear SCV Hose Bracket)
F—SCV V Number Button (Rear SCV Hose Bracket)
G—SCV V Extend Hose (Front Hitch)
H—SCV V Retract Hose (Front Hitch)
I—SCV V Number Button (Front Hitch)
J—SCV V Extend Hose (Stored Position)
K—SCV V Retract Hose (Stored Position)
L—SCV V Number Button (Stored Position)
M—SCV VI Extend Hose (Rear SCV)
N—SCV VI Retract Hose (Rear SCV)
O—SCV V Number Button (Rear SCV)
P—SCV VI Extend Hose (Rear SCV Hose Bracket)
Q—SCV VI Retract Hose (Rear SCV Hose Bracket)
R—SCV VI Number Button (Rear SCV Hose Bracket)
S—SCV VI Extend Hose (Front Hitch)
T—SCV VI Retract Hose (Front Hitch)
U—SCV VI Number Button (Front Hitch)
V—SCV VI Extend Hose (Stored Position)
W—SCV VI Retract Hose (Stored Position)
X—SCV VI Number Button (Stored Position)



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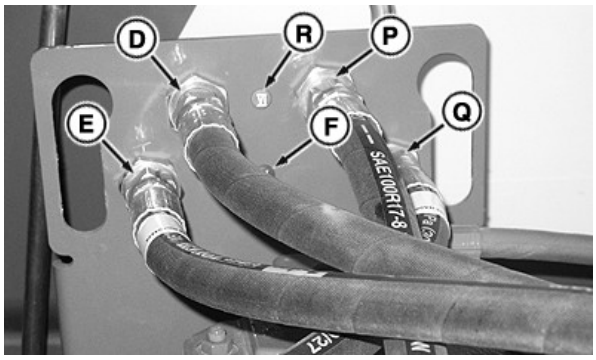
Rear SCV's



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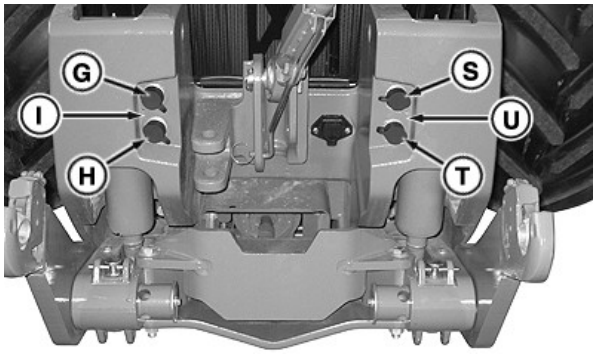
Rear SCV Hose Bracket



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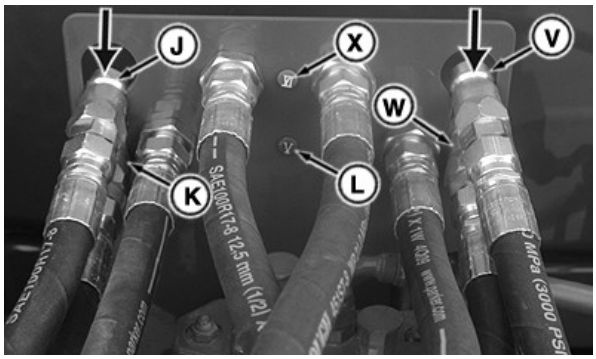
Front Hitch



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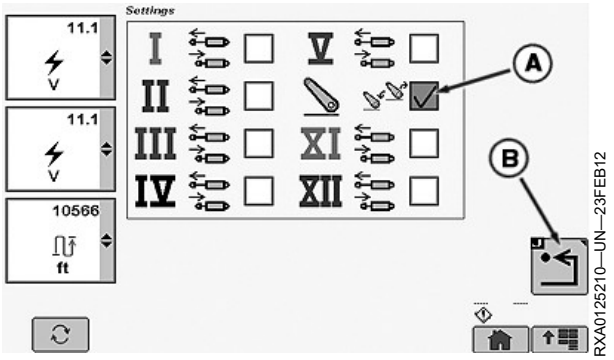
Rear SCV Hose Bracket (Hoses in Stored Position)

OURX935,00003DF-19-15SEP11-1/1

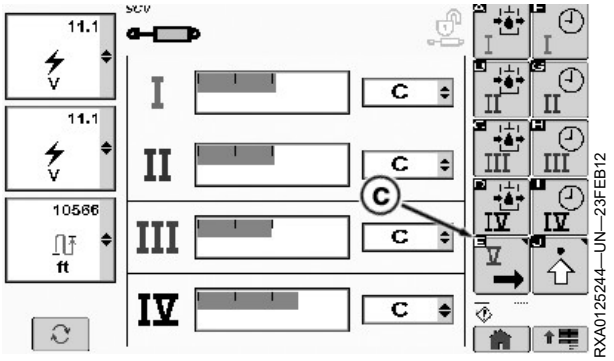
Front Hitch—*Adjust Raise And Lower Flow Rates*

RXA0117610—UN—10JUN11

CommandARM Menu Button → SCV Softkey→ Advanced Settings Softkey



Front Hitch Icon



Next Page

A—Front Hitch Differential Flow Box
B—Return Main Page
C—Next Page

NOTE: The flow rates for the front hitch are not selectable using the softkeys on the right side of the display.

The softkeys are only to set the upper and lower position limits for hitches with position sensors.

The front hitch settings are the same as for the SCVs.

The front hitch can also have different flow settings for hitch raise and lower function using Independent Mode settings. See **Independent Mode** in Selective Control Valve Section 61.

Hitch raise and lower speeds may be adjusted by selection of available flow rates. Reduce flow rate to slow raise or drop speed.

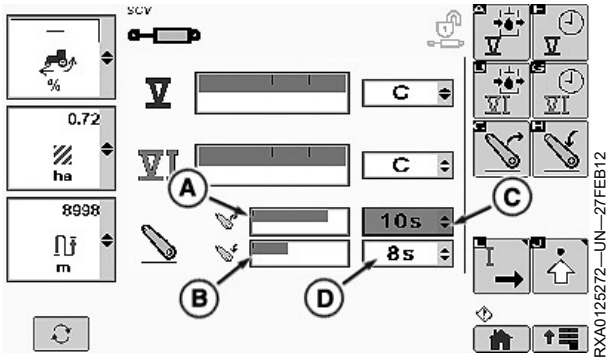
Once desired adjustments have been made, pressing detent of hitch control lever will operate hitch between upper and lower limits selected. Hitch system will control oil flow to slow hitch as it nears desired position.

1. To set different front hitch raise and lower flow rates, select CommandARM Menu button, SCV softkey, then Advanced Settings softkey “J”.
2. Check front hitch selectable flow rate box (A) icon in SCV list.
3. Select softkey “J” (B) to return to SCV main page.
4. Select softkey “E” (C) for next screen to adjust flow rates.

RW29387,000018E-19-27FEB12-1/2

5. Adjust hitch raise flow rate (A) or hitch lower flow rate (B) by highlighting respective flow box and changing flow value.
6. Select hitch desired raise (C) and lower (D) time frames and desired time will appear in drop down box.
7. Return to main menu to exit screen.

A—Hitch Raise Flow Rate
B—Hitch Lower Flow Rate
C—Raise Detent Time
D—Lower Detent Time



Hitch Flow Rate and Time

RW29387,000018E-19-27FEB12-2/2

Tractor-Implement Automation (TIA)

CAUTION: Although the phrases ”transfer control” and ”withdraw control” are terms commonly used with TIA equipment, at NO time is implement in total control of an operation. The operator ALWAYS has the ability to override TIA implement. It is the 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 the ability to control certain individual tractor functions. Address any questions about TIA-compatible implements you have to your John Deere dealer. See implement Operator's Manual for implement operating procedures.

OURX935,0000309-19-15JUN11-1/1

Activating Tractor-Implement Automation Equipment

1. Copy full tractor serial number and implement make, model, and serial number before requesting activation code from Stellar Support through dealer.
2. Give dealer tractor serial number and equipment make, model, and serial number so request can be made to Stellar Support.
3. When dealer responds with 24—26 character activation code from Stellar Support, on CommandCenter select **Main Menu button**.
4. Select **TIA icon**.

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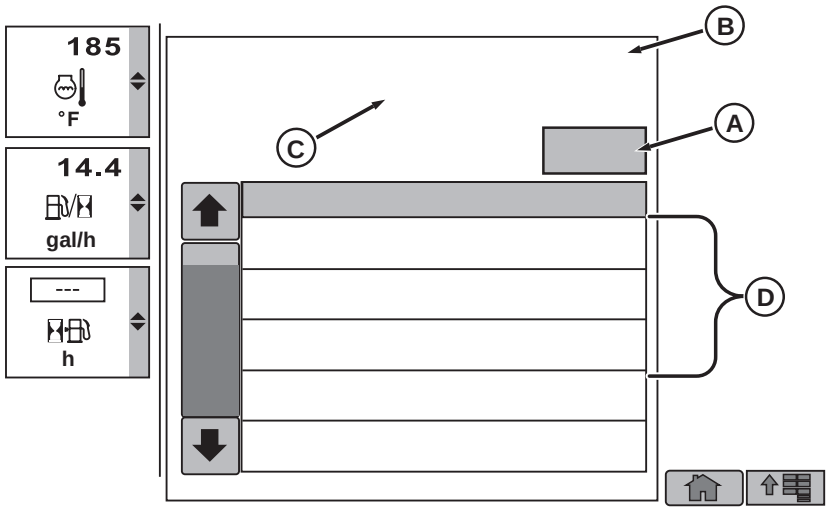
CommandCenter→Main Menu →TIA

Continued on next page

OURX935,000030A-19-18JUL11-1/2



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Tractor-Implement Automation Activation Page

A—Enter Code Box

B—Tractor Vehicle Identification Number Location

C—Confirmation Code Location

D—Component List

5. When Tractor-Implement Automation Activation page displays, confirm tractor serial number (B) at top of page.
6. Select Enter Code box (A). See Entering Or Editing Equipment Name in Intelligent total Equipment Control (iTEC) Section of this Operator's Manual.

NOTE: Some Tractor-Implement Automation Activation page keyboard characters on keyboard are grayed out and are not used in activation codes. If received activation code includes any characters that are grayed out on Tractor-Implement Automation Activation page keyboard, request dealer reconfirm activation code.

7. Using keyboard, enter activation code, then select Save/Enter softkey.
8. If Activation Code is entered correctly, Confirmation Code appears at center top of page (C), and Code Accepted is displayed.

NOTE: If any response codes not covered in table are received after entering an Activation Code, double check the code, retry entering it and if that does not work, contact the dealer.

9. See table for common Response Codes and Text descriptions if there is an error in Activation Code.

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: Up to 5 implement names can be viewed on Tractor-Implement Automation Activation page at any given time. If additional pages are required, use Page Up and Page Down softkeys displayed in the Tractor-Implement Automation Activation page right region.

NOTE: At this point, the Tractor-Implement Automation Activation page component list (D) displays Unknown Implement #. (See also Operating Tractor Implement Automation in this section.)

OURX935,000030A-19-18JUL11-2/2

Requirements for PTO

Before transferring control to implement, prepare implement as indicated in implement Operator's Manual. Transfer control using AutoTracesume switch or TIA resume softkey as presented in the implement Operator's Manual.

The following preconditions have to be met before transferring implement control.

- Operator on seat.
- No PTO system malfunctions.
- PTO remote control off.
- PTO engaged (PTO switch On).

While operating, implement has the ability to engage/disengage PTO.

To withdraw control, turn PTO switch off.

NOTE: Unless the implement is authorized to engage the PTO when the tractor is stationary, the tractor will prevent engagement of the PTO when stationary. The implement is however, allowed to disengage PTO.

OURX935,00004A2-19-05JUL11-1/1

Requirements for E-SCVs

Before transferring control to implement, prepare implement as indicated in implement Operator's Manual. Transfer control using AutoTrac resume switch or TIA resume softkey as presented in the implement Operator's Manual.

The following preconditions have to be met before transferring implement control.

- Operator sitting on seat.
- SCVs are functional.
- SCV control levers in neutral position.
- SCVs are not locked (transport lock).
- SCV flow limit set by operator

NOTE: Using tractor's CommandCenter, operator sets SCV flow limit which cannot be exceeded by implement.

While operating, implement has the ability to:

- Control SCVs during operations.
- Change SCV flow rate up to operator set limit.

To withdraw control:

- Actuate specific SCV lever.
- Lock SCVs (transport lock).
- Actuate remote control switch on the fender.

NOTE: Unless the implement is authorized to adjust SCV flow when the tractor is stationary, the tractor will prevent SCV flow adjustments when stationary. The implement is however, allowed to stop oil flow.

OURX935,00004A3-19-05JUL11-1/1

Requirements for IVT and AutoPowr

Before transferring control to implement, prepare implement as indicated in implement Operator's Manual. Transfer control using AutoTrac™ resume switch or TIA resume softkey as presented in the implement Operator's Manual.

The following preconditions have to be met before transferring implement control.

NOTE: The limit is determined by the maximum speed setting and the position of the speed control lever. This operator set limit cannot be exceeded by the implement.

- Operator sitting on seat.
- No malfunctions present at IVT and AutoPowr transmission.
- Reverser lever must be in Scroll (E), power zero (D), or forward position (F or G).

While operating, implement has the ability to:

- Adjust speed up to operator set limit.
- Stop tractor.
- Drive tractor again after stopping (implement must request tractor motion).
- Drive tractor again after stopping (operator approves by cycling the reverser lever through scroll position).

NOTE: An example of when it would be necessary to cycle reverser lever through scroll position is when a round baler stops tractor to eject full bale.

- Cycle reverser lever by moving lever from forward to scroll then to forward position again.
- Actuate clutch pedal or brake pedal while the tractor rolls to a stop and hold the pedal while the tractor is stationary. Releasing the pedal causes the tractor to start moving.

To withdraw control using the reverser lever:

- When driving: Move lever out of forward position.
- When stopped: Move lever to reverse position, neutral position or park position.

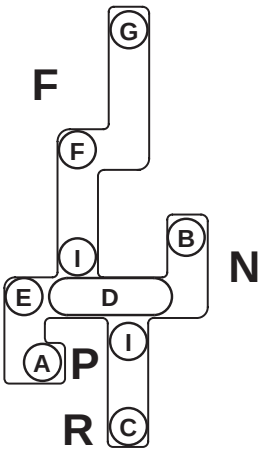
To withdraw control using the speed control lever or the speed wheel:

- If the implement commands stopping the tractor and the speed is increased the travel speed Auto Mode will be ended.
- Increasing the speed **can** 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).

NOTE: Reducing the speed is always allowed.

It is allowed to increase the limit set by the operator within 2 seconds after starting the travel speed Auto Mode.

AutoTrac is a trademark of Deere & Company



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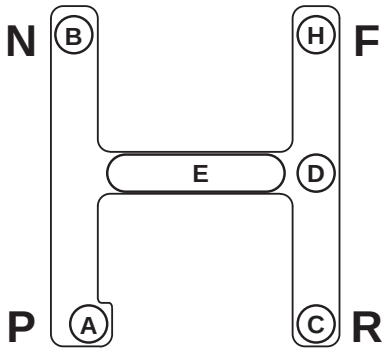
Right-Hand Reverser



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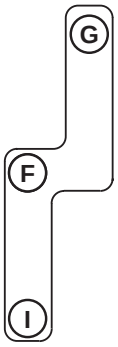
Left-Hand Reverser



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Left-Hand Reverser Speed Lever

A—Park
B—Neutral
C—Reverse
D—Power Zero
E—Scroll Position
F—Forward Speed Band 1
G—Forward Speed Band 2
H—Forward
I—Minimum Speed

The current travel speed can be limited by other processes (e.g. iTEC). This limit will be observed, however, it will not be considered as an intervention by the operator.

OURX935,00004A4-19-05JUL11-1/1

Requirements For Guidance

Before transferring control to implement, prepare implement as indicated in implement Operator's Manual. Transfer control using AutoTrac resume switch or TIA resume softkey as presented in the implement Operator's Manual.

The following preconditions have to be met before transferring implement control.

- Operator sitting in seat.
- Steering system must be functional.
- AutoTrac is **OFF.**
- Steering wheel is not moving.
- Vehicle speed is below maximum automated speed.
- Transmission is not in Park.

While operating, implement has the ability to automatically steer tractor.

To withdraw control:

- Turn steering wheel.
- Place tractor in Park.

OURX935,00004A5-19-05JUL11-1/1

Requirements For Rear Hitch

Before transferring control to implement, prepare implement as indicated in implement Operator's Manual. Transfer control using AutoTrac resume switch or TIA resume softkey as presented in the implement Operator's Manual.

Implement can automatically control hitch depth.

The following preconditions have to be met before transferring implement control.

NOTE: Operator sets raise limit using tractor CommandCenter. This limit cannot be exceeded by implement.

The following preconditions must be met:

- Operator sitting in seat.
- Hitch must be functional.
- Hitch control lever in neutral position.
- Hitch is not locked.

While operating, implement has the ability to control hitch depth.

To withdraw control:

- Actuate hitch control lever.
- Lock hitch (transport lock.)
- Actuate fender switch (if equipped).

NOTE: Unless the implement is authorized to adjust hitch depth when the tractor is stationary, the tractor will prevent hitch depth adjustments when stationary.

OURX935,00004A6-19-05JUL11-1/1

Requirements For Drive Strategy

Before transferring control to implement, prepare implement as indicated in implement Operator's Manual. Transfer control using AutoTrac resume switch or TIA resume softkey as presented in the implement Operator's Manual.

The following preconditions have to be met before transferring implement control.

- Operator sitting in seat.
- Transmission must be functional.
- Transmission not in Park.

While operating, implement has the ability to change drive strategy mode. See IVT and AutoPowr Custom Settings in Operating IVT and AutoPowr Transmission section of this Operator's Manual.

To withdraw control:

- Manually select a drive strategy.
- Place transmission in Park.

OURX935,00004A7-19-05JUL11-1/1

Operating Tractor Implement Automation

1. Connect TIA equipment to tractor via ISO connection.
2. Select **Main Menu** button.

NOTE: See Configuring Home Page to display TIA softkey on Tractor-Implement Automation Activation page.

3. At CommandCenter main menu, **Select TIA Icon**.
4. Select either **TIA softkey (A)** or AutoTrac **switch (B)**.
5. Unknown Implement # previously displayed in Tractor-Implement Automation Activation page component list changes to the specific Implement name.
6. Follow implement Operator's Manual instructions to operate implement.

A—TIA Softkey **B—AutoTrac Switch**

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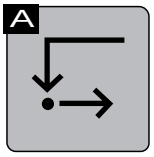
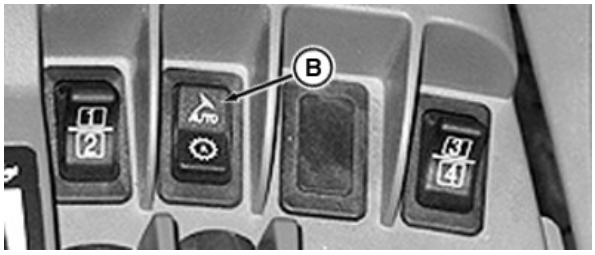
Main Menu

RXA0109713—UN—18AUG10



TIA Softkey



RXA0110017—UN—14SEP10

AutoTrac Switch

OURX935,000030B-19-25JUL13-1/1

Using 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, may cause unexpected movement. Stay clear of implement when starting engine.

Tractor selective control valve (SCV I) is used to electronically control raising, lowering, and setting of implement depth, without leaving the cab.

1. Connect implement to tractor.

NOTE: When using TouchSet, SCV must be set for feature mode. See Hydraulics and Selective Control Valves Section.

Height setting is the upper edge of grayed area, implement range (B). The lower limit (depth setting) is the bottom portion of the implement range. Actual implement position is depicted by indicator (C).

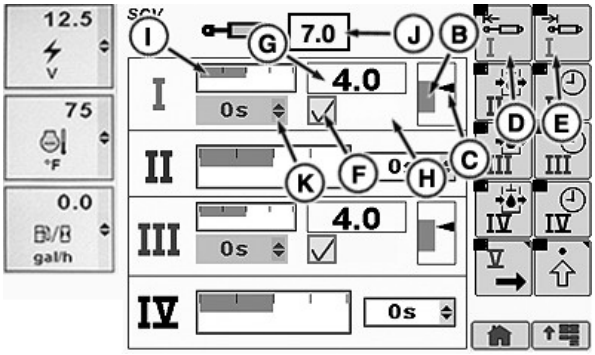
Moving SCV 1 lever (A) into extend or retract detent position with TouchSet in AUTO (H) will command the implements's position to the respective established set point.

Rapidly moving SCV I lever into extend or retract region and returning to center position with TouchSet in AUTO will adjust the implement's position up or down by a fixed amount. Repeated lever "flick" movements will be summed.

2. Using SCV I lever, lower implement to desired depth while watching implement and CommandCenter Implement Position (G).
3. When implement is at desired depth, rotate thumb wheel to extend softkey (D) and select by pressing Confirm button.
4. Using SCV I lever, raise implement to desired height while watching implement and CommandCenter implement range.
5. When implement is at desired height, rotate thumb wheel to retract softkey (E) and select by pressing Confirm button.
6. Rotate thumb wheel to bar graph (I). Press Confirm button to highlight. Rotate thumb wheel to adjust flow. Press Confirm button again.

NOTE: Bar graph (I) depicts detent flow and amount of detent flow will be shown in box (J). Detent time drop down box (K) cannot be adjusted when feature mode check box (F) is checked. See Standard Mode in Hydraulics and Selective Control Valves Section.

RXA0099916—UN—08DEC08



RXA0107016—UN—02AUG10

A—SCV I Control Lever
B—Implement Range
C—Implement Indicator
D—Extend Set Softkey
E—Retract Set Softkey
F—Feature Mode Check Box
G—Implement Position
H—Feature Mode Status
I—Detent Flow Bar Graph
J—Detent Flow Box
K—Detent Time Drop Down Box

OURX935,0000261-19-18JUL11-1/1

Attaching Implement and Control System

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 may result.

IMPORTANT: Be sure to correctly connect remote hydraulic hoses to couplers. If hose connections are reversed, machine will not respond to system controls. Extend hose always goes in coupler left-hand port. Retract hose always goes in coupler right-hand port.

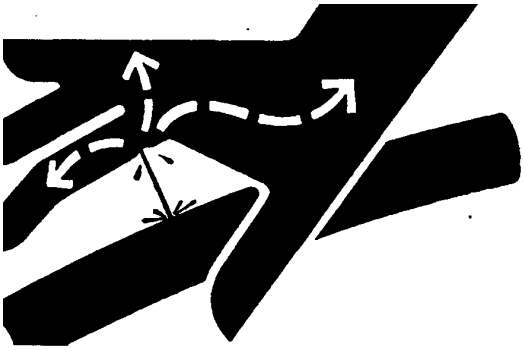
- **Extend = Left Side**
- **Retract = Right Side**

NOTE: Hose identification kits are available from your John Deere Dealer.

1. Identify extend hose (B) and retract hose (C).
2. Back tractor into position and attach hitch link to drawbar. Be sure hitch pin is locked into position.

IMPORTANT: Always shut engine off before connecting/disconnecting implement position sensor. Connect/disconnect with engine running will cause system faults. Shut engine off then restart to restore correct function.

3. Shut off tractor engine.
4. Connect implement hydraulic hoses according to Hydraulics and Selective Control Valves in this Operator's Manual.
5. Install implement position sensor to tractor wiring harness connector (D).



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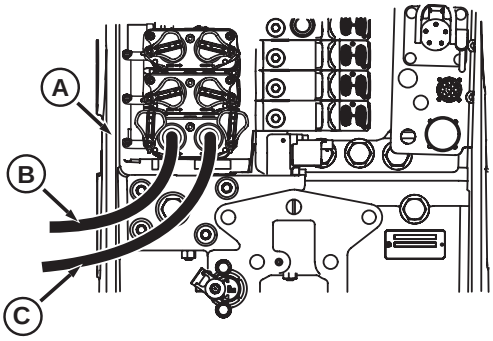

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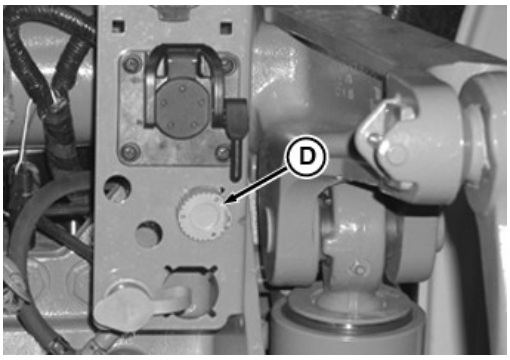


RXA0097019—UN—15JAN08

A—SCV handle
B—Extend Hose
C—Retract Hose
D—Wiring Harness Connector

OURX935,0000FE4-19-23MAR10-1/1

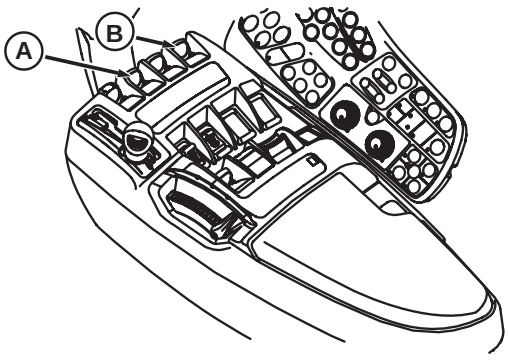
TouchSet Scraper Control—for Scrapers Equipped with Scraper Control Unit

NOTE: To configure SCV page, See Using TouchSet Depth Controls in this section.

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.

Tractor selective control valves (SCV I and/or SCV III) are used to electronically control raising, lowering, and setting of implement depth, without leaving the cab. (Used primarily in areas requiring automated laser guidance system for scraper applications.)

Control lever (A) is used to manually control SCV I and activate an automatic scraper control system.



RXA0099925—UN—04DEC08

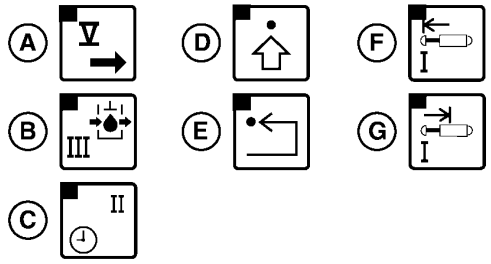
A—SCV I Control Lever **B—SCV III Control Lever**

Control lever (B) is used to manually control SCV III and activate a second automatic scraper control system.

OURX935,0000262-19-08MAR11-1/1

CommandCenter Right Region Softkeys Displayed In This Section

A —Next
B —Detent Flow
C —Detent Time
D —Settings
E —Back
F —Extend
G —Retract



RXA0116483—UN—17AUG11

CommandCenter Softkeys

OURX935,0000558-19-25AUG11-1/1

Configuring Selective Control Valves On CommandCenter™ - Access Settings

CAUTION: Do not operate front loaders in conjunction with Intelligent Total Equipment Control (iTEC™) to avoid sudden movements and possible accidents.

1. Select **Menu button.**
2. Select **SCV softkey.**

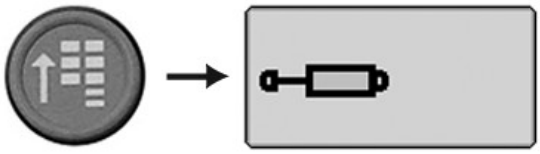
Each SCV can be configured to three different modes: standard mode displayed in SCV I (A), independent mode displayed in SCV II (B) or feature mode displayed in SCV III (C).

NOTE: Current estimated SCV flow is indicated by current flow bar graph indictor (F).

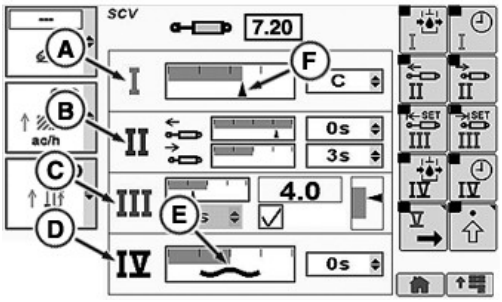
Additionally when SCV is set to float as in SCV IV (D) the CommandCenter display for that individual SCV will show float symbol (E).

A—SCV I—Standard Mode
B—SCV II—Independent Mode
C—SCV III—Feature Mode
D—SCV IV—Float Operation
E—Float Symbol
F—Current Flow Bar Graph Indicator

RXA0117606—UN—10JUN11



CommandARM Menu Button → SCV Softkey



RXA0121755—UN—27OCT11

SCV Homepage

RX32825,000041C-19-27JUN12-1/1

Configuring Selective Control Valves On CommandCenter™ - Standard Mode

SCV I in standard mode has flow and detent time setting which adjusts both extend and retract.

1. Select **Menu button.**
2. Select **SCV softkey.**
3. Press Detent Flow softkey (A) to highlight flow bar graph (B).

NOTE: Current flow bar graph indicator depicts amount of flow. Flow is displayed in increments of 0.04 beginning at 0.04 through 10 in box (C).

4. Rotate CommandARM controls thumb wheel forward or rearward while watching current flow bar graph indictor move right or left respectively. Value in detent flow box (C) increases or decreases as thumb wheel is rotated.

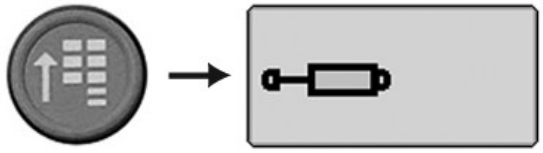
NOTE: When selected, detent time drop down box (D) will display amount of time in 1 second increments up to 10, then increments of every 2 seconds; 12, 14, 16, 18, up to 20, then 25, 30, 40, 50, 60, 90, 120, 180 seconds or C for continuous.

5. Select detent time softkey (E) to navigate to detent time drop down box (D). Open drop-down box displaying available detent time selections (F).
6. Press Confirm button to select desired time. Desired time will now appear in drop-down box.

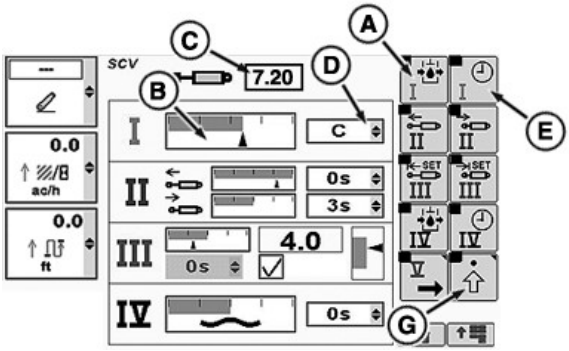
NOTE: To set any SCV in independent mode select advanced settings softkey (G).

A—Detent Flow Softkey
B—Flow Bar Graph
C—Detent Flow Box
D—Detent Time Drop Down Box
E—Detent Time Softkey
F—Detent Time Selections
G—Advanced Settings Softkey

RXA0117606—UN—10JUN11

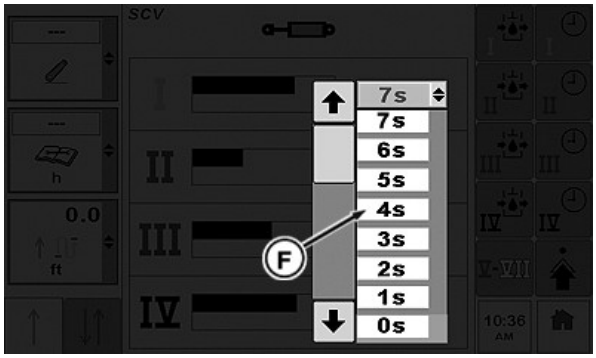


CommandARM Menu Button → SCV Softkey



RXA0121756—UN—27OCT11

SCV Homepage



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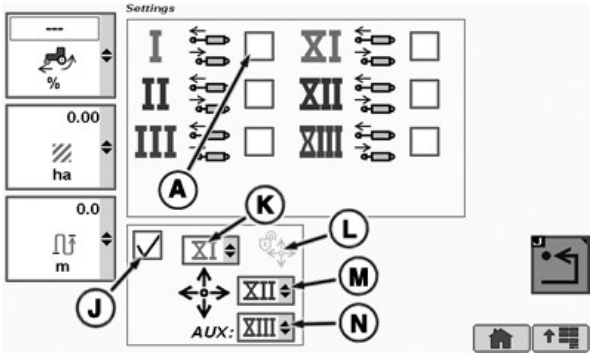
RX32825,000041D-19-27JUN12-1/1

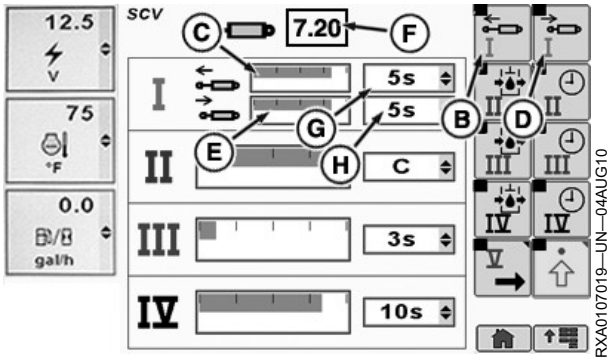
Configuring Selective Control Valves On CommandCenter™ - Independent Mode

RXA0117610—UN—10JUN11

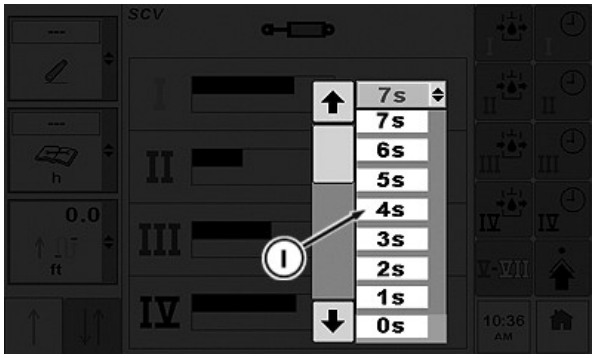
CommandARM Menu Button → SCV Softkey → Advanced Settings Softkey



SCV Advanced Settings Page



SCV Homepage



A—Independent Mode Check Box
B—Extend Softkey
C—Extend Flow Bar Graph
D—Retract Flow Softkey
E—Retract Flow Bar Graph
F—Detent Flow Box
G—Extend Detent Time Drop Down Box
H—Retract Detent time Drop Down Box
I—Detent Time Selections
J—Single Lever Control Check Box
K—Fore/Aft SCV Drop Down Box
L—Lock (Single Lever Control)
M—Side to Side SCV Drop Down Box
N—Aux SCV Drop Down Box

1. Select **Menu button.**
2. Select **SCV softkey.**
3. Select **Advanced Settings softkey.**
4. At advanced settings page, place check in independent mode check box (A).
5. SCV I now has unique flow and detent times on SCV homepage. They are adjusted by selecting extend softkey (B), highlighting extend flow bar graph (C). Selecting retract softkey (D) highlights retract flow bar graph (E).

NOTE: Bar graph depicts amount of flow. Flow is displayed in increments of 0.04 beginning at 0.04 through 10 in detent flow box (F).

6. Rotate thumb wheel forward or rearward while watching specified bar graph indicator move right or left respectively. Value in detent flow box increases or decreases as thumb wheel is rotated.

NOTE: Detent time drop down box (G for extend or H for retract) will display amount of time in 1 second increments up to 10, then increments of every 2 seconds; 12, 14, 16, 18, up to 20, then 25, 30, 40, 50, 60, 90, 120, 180 seconds or C for continuous flow.

7. Using thumb wheel, navigate to drop down box (G or H), then press Confirm button.
8. When drop-down box opens, rotate thumb wheel to detent time selections (I) and press Confirm button.
9. Desired detent time now appears in respective drop-down box (G or H).

Advanced Settings Page—Single Lever Control

NOTE: When activating/deactivating single lever control (J) assigned SCVs detent times are zeroed.

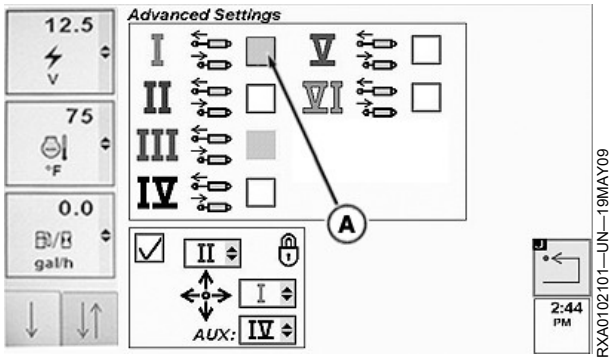
Checking single lever control check box (J) gives control of SCV to single lever control. When unchecked, SCV is controlled by SCV lever. Fore/Aft (K), Side to Side (M), and Aux SCV (N) drop-down boxes allow any SCV I through SCV V to be selected. Lock (L) indicates lock/unlock state of single lever control.

RX32825,000041E-19-27JUN12-1/1

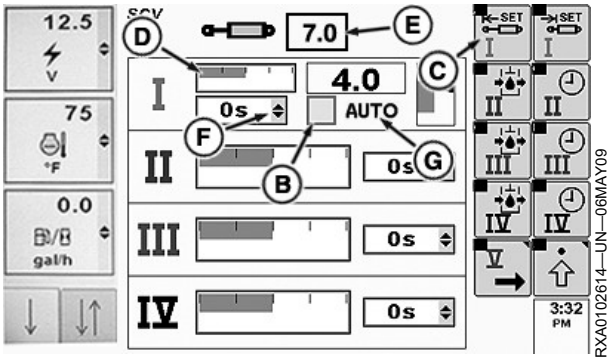
Configuring Selective Control Valves On CommandCenter™ - Feature Mode

RXA0117610—UN—10JUN11

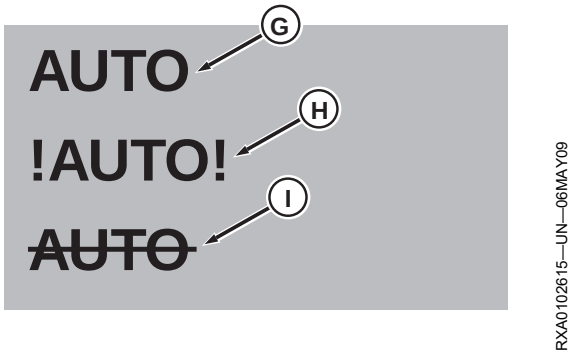
CommandARM Menu Button → SCV Softkey → Advanced Settings Softkey



SCV Advanced Settings Page



SCV Homepage



A—Independent Mode Check Box
B—Feature Mode Check Box
C—Extend Set Softkey
D—Detent Flow Bar Graph
E—Detent Flow Value Box
F—Detent Time Drop Down Box
G—Feature Status Indicator (Normal Operation)
H—Feature Status Indicator (Fault Identified)
I—Feature Status Indicator (Turned Off)

NOTE: To use feature mode, connect implement to tractor. When connected through CAN Bus or implement connector, SCV(s) will automatically enter feature mode. SCV page with feature option will be displayed for selected SCVs. On advanced page, specified SCV independent mode check box (A) is grayed out.

Available feature modes are:

- *TouchSet depth control*
- *AccuDepth control*
- *Laser Scraper control*
- *ISOBUS control*

1. Connect tractor to implement.
2. Select **Menu button.**
3. Select **SCV softkey.**
4. Select **Advanced Settings softkey.**
5. Select Extend Set softkey (C) to navigate to detent flow bar graph (D). Press Confirm button to highlight. Rotate thumb wheel to adjust flow, then press Confirm button again.

NOTE: Bar graph (D) depicts detent flow. Amount of detent flow is shown in box (E).

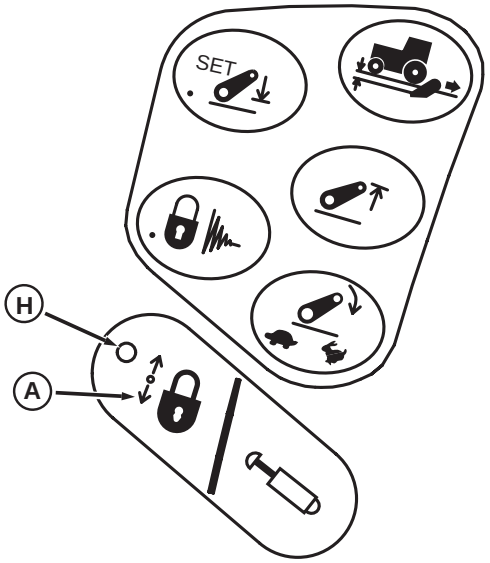
AUTO (G) indicates normal feature operation. !AUTO! (H) indicates a fault and feature mode is inoperable. AUTO with a strike through it (I) indicates feature is not active.

NOTE: Detent time drop down box (F) can only be adjusted when feature mode check box (B) is unchecked. See Configuring Selective Control Valves On CommandCenter™ - Standard Mode. If feature mode check box is checked, detent time cannot be adjusted. Use Standard Mode when adjusting detent time.

6. To adjust detent, rotate thumb wheel to check box (B) to left of AUTO (G), then press Confirm button. AUTO will have a strike through it, check box will be unchecked.

RX32825,000041F-19-27JUN12-1/1

Connecting Hydraulic Hoses



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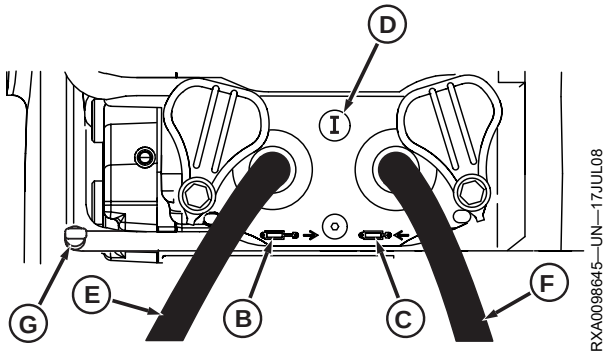
TouchSet Monitor



RXA0098645—UN—17JUL08

A—Transport Lock Button
B—Extend Icon
C—Retract Icon
D—SCV Identifier Number
E—Extend Hose
F—Retract Hose
G—Handle
H—Transport Lock Light

IMPORTANT: Steam cleaning or use high pressure washer in the area around the SCV connections and electronics may damage equipment. Any pressure washer exceeding 1000 psi (75 bar). should be kept a minimum of 200 mm (8 in.) away from connections.

NOTE: SCVs are color coded for easier identification.

SCV Numbers And Corresponding Colors	
SCV Number	**Color**
SCV I	Green
SCV II	Blue
SCV III	Brown
SCV IV	Black
SCV V	Violet
SCV VI	Gray (Front Hitch)
SCV VII	White (Grapple)

1. Back tractor up to implement and connect hitch.

CAUTION: Make sure no oil flow is commanded before connecting or disconnecting hydraulic hoses. Failure to perform one of these steps prior to connecting or disconnecting SCV hoses may result in personal injury or damage to equipment.

- **Turn off tractor engine**
- **Push Transport Lock button**
- **SCV lever is in neutral.**

2. Push Transport Lock button (A) to engage transport lock.

NOTE: When transport lock is engaged, transport lock light (H) will be on.

3. Check CommandARM Controls to ensure transport lock is engaged.

4. Clean tractor SCVs and area around SCVs and hose ends.

NOTE: When connecting couplers, ensure you are connecting to the correct SCV port by noting the number indicated on the identifier (D) on each SCV. If hose connections are reversed, machine will not respond to system controls. Couplers are designated I through V with I being the bottom coupler. Always connect one-way cylinders to the extend side as indicated by the extend icon (B). When connecting two-way cylinders, the extend side will be the left side. The retract side is the right side as indicated by the retract icon (C). Lever (G) is only pushed down when couplers are disconnected. Disconnect both couplers at the same time.

5. Push extend hose (E) and retract hose (F) firmly into receptacle.

6. Push Transport Lock button again to disengage transport lock. Padlock light is no longer displayed.

OURX935,00004DE-19-18JUL11-1/1

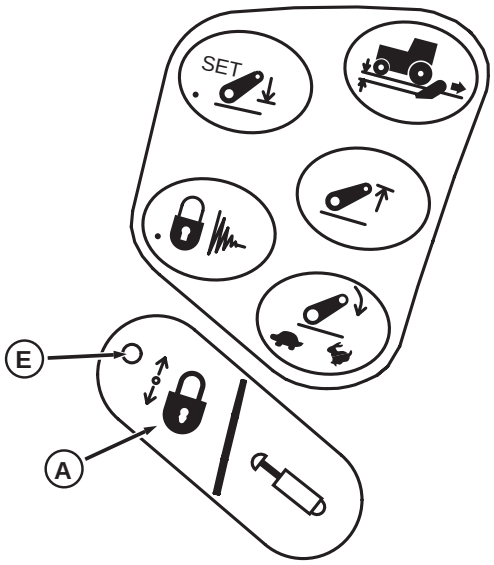
Disconnecting Hydraulic Hoses

IMPORTANT: Steam cleaning or use high pressure washer in the area around the SCV connections and electronics may damage equipment. Any pressure washer exceeding 1000 psi (75 bar). should be kept a minimum of 200 mm (8 in.) away from connections.

CAUTION: Push Transport Lock button (A) before detaching implements to prevent implement movement and possible personal injury.

1. Lower implement to ground.
2. Push Transport Lock button to engage transport lock.
3. Observe CommandARM Controls to ensure transport lock light (E) is displayed.
4. Push lever (D) down to release both extend hose (B) and retract hose (C).

A—Transport Lock Button
B—Extend Hose
C—Retract Hose
D—Lever
E—Transport Lock Light



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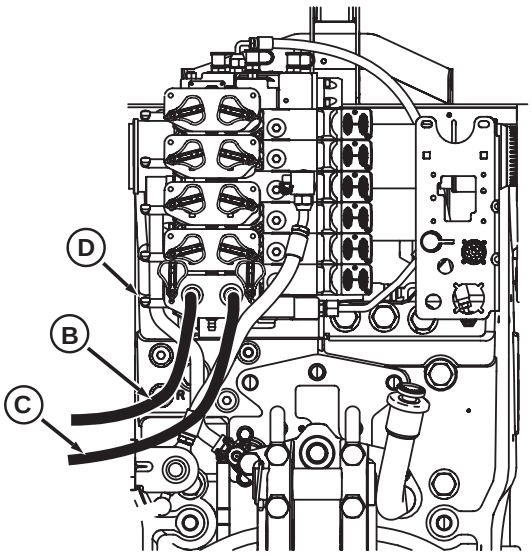

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Determining Total Flow Demand

1. Check flow setting for each function, independently. (See implement operator's manual, applications section, to determine correct motor flow settings.)

   Examples of functions which may cause the pump to operate at high pressure:

   - Down pressure systems (drills, air seeders, disks)—usually can be considered to be zero flow demand after completion of raise or lower cycle. See Remote Hydraulic Connections section, Implement Connection Example 1— Pressure Control Valve Applications (Grain Drills Or Air Seeders With Constant Down-Pressure System) in this Operator's Manual.
   - Auxiliary flow control valves (vacuum flow control)—Completely open implement flow control valve and adjust tractor flow rate to desired setting. See Remote Hydraulic Connections section, Implement Connection Example 4— Planter with Vacuum Motor and Return Line to SCV Using Motor Return Tip in this Operator's Manual.
   - Cylinder functions, where line or orifice restrictions control flow—Adjust tractor flow control to point where function speed begins to decrease. See Remote Hydraulic Connections section, Implement Connection Example 2—Motor Application Using Motor Case Drain in this Operator's Manual.
   - 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 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 there is performance concern. (See your John Deere dealer.)
   - Flow demand exceeds pump flow:
     - Increase engine rpm if possible
     - Decrease flow setting on non critical functions
     - Convert implement open-center valves to closed-center operation, if implement is so equipped.

NOTE: Flow measurements are made without steering or hitch being used.

MAIN HYDRAULIC PUMP FLOW (APPROXIMATE)		
Engine rpm	**Pump**	**Pump Flow**
1000	63 cc	80 L/min (21 gpm)
2000	63 cc	160 L/min (42 gpm)
1000	85 cc	108 L/min (28.5 gpm)
1500	85 cc	162 L/min (43 gpm)
2000	85 cc	216 L/min (57 gpm)

SCV FLOW OUTPUT (APPROX.[a])	
SCV Flow Settings	**Flow**
0.1 [b]	—
1.0	3.4 L/min (0.9 gpm)
2.0	7.5 L/min (2.0 gpm)
3.0	12.5 L/min (3.3 gpm)
4.0	17.4 L/min (4.6 gpm)
5.0	20.8 L/min (5.5 gpm)
6.0	27.6 L/min (7.3 gpm)
7.0	40 L/min (10.6 gpm)
8.0	75 L/min (19.8 gpm)
9.0	110 L/min (29.3 gpm)
10.0	131.7 L/min (34.8 gpm)

[a] at 2100 rpm
[b] 0.1 = Minimum Flow Setting

Hitch Flow		
Hitch Cylinder	**Flow**	
Diameter (mm)	L/min	gpm
90/90	59.5	15.7
90/100	66.4	17.5
100/100	73.4	19.4
100/112	82.6	21.9
112/112	92.1	24.3

OURX935,00004EF-19-28JUL11-1/1

SCV Lever—Neutral Position

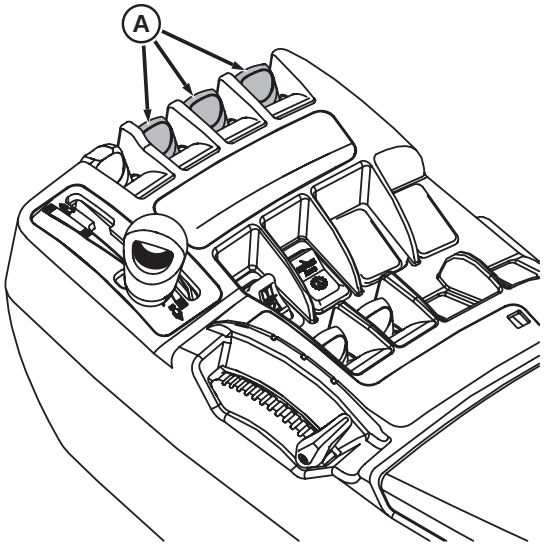
Neutral (A) allows flow to continue until timed detent has expired. If no timed detent was "commanded", then both extend and retract valves will be off.

NOTE: SCV control lever should be in neutral position at tractor start up.

Levers in extend or retract positions automatically return to neutral when released. Float position will remain detented.

Any position other than neutral or float will be ignored, until lever is cycled to neutral after engine start up.

A—Neutral Position



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OURX935,000070F-19-10APR09-1/1

SCV Lever—Extend and Extend Detent Position

Extend

Pull lever slightly to rear of neutral. This slowly extends cylinder at a variable flow rate. (See Adjusting SCV Flow Rate in this section.)

Pull the lever all the way rearward to extend the remote cylinder at maximum rate. Detent operation mode depends on the SCV detent selected.

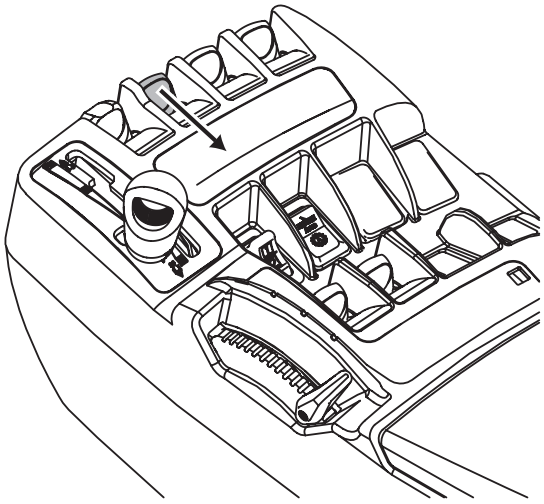
NOTE: Time setting is ignored in extend position.

Extend Detent

Pull lever rearward to "click" detent position and release. Lever will return to neutral position, but flow will continue at rate set on TouchSet panel. (See Adjusting SCV Flow Rate and Adjusting Timed Detent in this section.)

Flow timing begins when lever is moved into detent. SCV flow time should be adjusted so cylinder will be fully extended when time has elapsed.

NOTE: If lever is not returned from detent to neutral in less than 0.8 seconds, detent cancels.



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Detent can be cancelled by moving SCV lever forward or rearward from neutral.

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SCV Lever—Retract and Retract Detent Position

Retract Position

Push lever slightly forward of neutral. This slowly retracts cylinder at a variable flow rate. (See Adjusting SCV Flow Rate in this section.) Lever returns to neutral and flow stops when released.

Push the lever forward to the first detent notch to retract the remote cylinder at maximum rate.

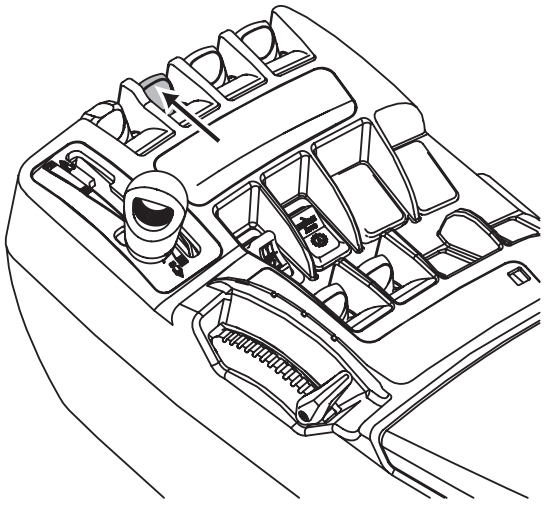
NOTE: Time setting is ignored in retract position.

Retract Detent Position

Push lever forward to "click" detent position and release. Lever will return to neutral position, but flow will continue at rate. (See Adjusting SCV Flow Rate and Adjusting Timed Detent in this section.)

Flow timing begins when SCV lever is first moved into detent. SCV flow time should be adjusted so cylinder will be fully retracted when time has elapsed.

Detent can be cancelled by moving SCV lever slightly forward or rearward from neutral after lever has returned to neutral or by holding lever in retract position for more than 0.8 seconds after lever is released from detent.



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NOTE: Detent positions are ignored at start up until lever is cycled to NEUTRAL.

OURX935,0000711-19-10APR09-1/1

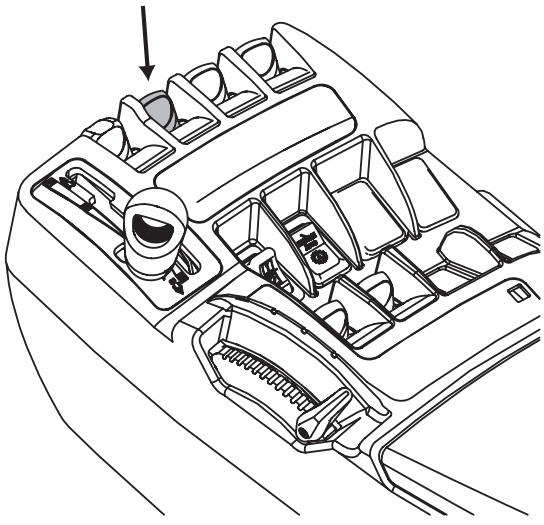
SCV Lever—Float Position

Push SCV lever all the way forward and down to lock in float position. Lever and SCV will remain in float position until lever is manually returned to neutral. Cylinder is free to extend or retract, letting implement follow ground contour.

NOTE: Time setting is ignored in Float position.

If lever is in float position at engine start up, float function will operate if lever was moved to float position at least 10 seconds before engine was stopped and had not moved out of float position. If lever was not operated in this manner, float function will be disabled until lever is cycled to neutral.

Cycle cylinder fully in both directions after being used in the float position to insure cylinder is filled with oil.



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OURX935,0000712-19-10APR09-1/1

Operator Presence Sensor

Service Alert indicator light will flash with an audible warning signal if operator leaves seat with transmission in PARK or NEUTRAL and SCV control in ”Continuous” or ”Timed Detent” modes.

After 5 seconds, Service Alert indicator and audible warning signal will stop, and Information indicator light will come on with an associated message appearing on the CommandCenter.

NOTE: SCV does not disengage when operator leaves seat.

OURX935,00004F0-19-28JUL11-1/1

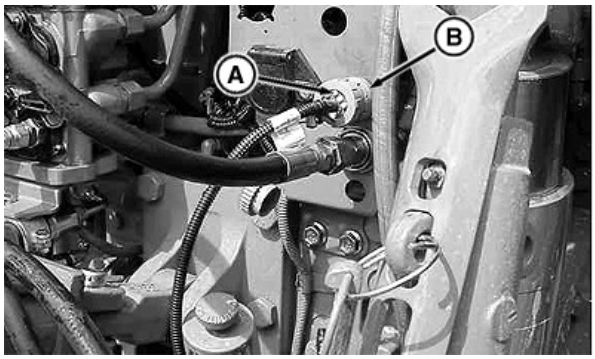
Hydraulic Option Configuration

If tractor is equipped with 9-pin connector (B), install implement single lever harness (A).

This allows optional hydraulic functions.

See table below for optional hydraulic functions:

Hydraulic Function	Jumper Harness Part Number *
Normal SCV Operation Mode	No jumper harness required
TouchSet™ Depth Control	RE58827
SCV Controlled Hitch *NOTE: Jumper harness disables hitch valve and allows hitch valve to be operated with an SCV.*	AA39951
AccuDepth™	Implement Dependent
* Part numbers may vary see parts system additions and substitutions.	
NOTE: Additional parts may be required.	



RXA0126910—UN—19JUN12

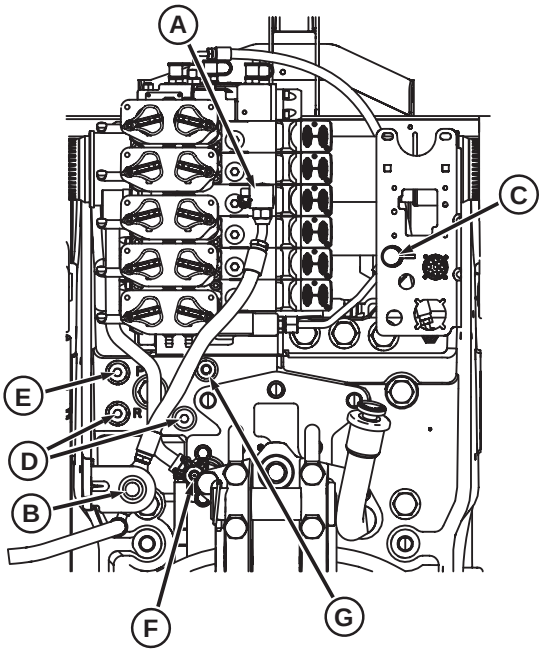
9-Pin Connector

A—Implement Single Lever Control Jumper Harness

B—9-Pin Connector

RW29387,00001AF-19-22JUN12-1/1

Hydraulic Component Identification



RXA0096590—UN—13AUG08

A—Hitch Valve
B—Auxiliary Hitch Valve Port (If Equipped)[1]
C—Power Beyond Load-Sense Coupler (If Equipped)
D—Return Ports
E—Pressure Port (Primary)
F—Drain Port (To Sump)
G—Pressure Port (Limited Access)

[1] Field installed kit available through your John Deere dealer.

OURX935,000008B-19-13AUG08-1/1

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:

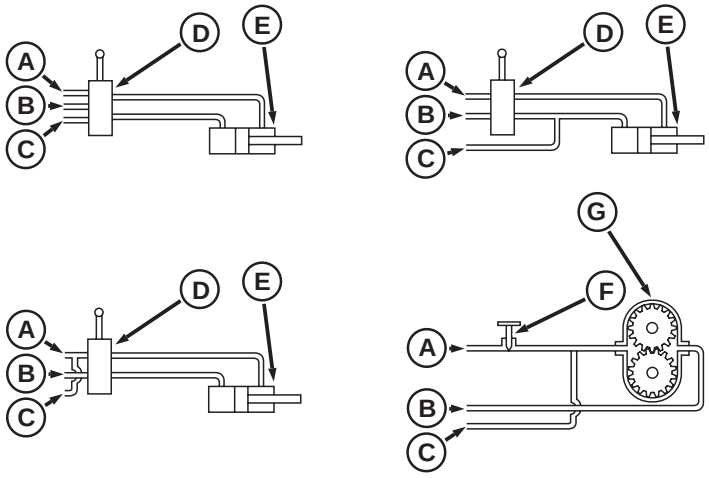
- Tractor SCV control is not needed
- Implement control valve requires external load sense signal to prevent pump operation at high pressure
- No other SCV outlet is available

Power Beyond functions require a ”load-sense” signal to regulate pump pressure, therefore, a ”load-sense” hydraulic line is used. Certain equipment may require modification. Special hydraulic couplers are available from your John Deere dealer.

NOTE: The available flow to power-beyond is limited when using a load-sense connection to the implement.

OURX935,00004F1-19-28JUL11-1/1

Examples Using Load-Sensing Hydraulic System—*Power-Beyond*



RXA0085800—UN—10JAN06

Four Examples of Load-Sensing Hydraulic System — Power Beyond

A—Pressure Line
B—Return Line
C—Load-Sense Line
D—Control Valve
E—Cylinder
F—Pressure-Compensated Flow Valve
G—Hydraulic Motor

Upper Left —Control valves with a load-sense provide a load-sense signal to hydraulic system and can be operated manually or by solenoids.

Upper Right —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 not needed.

IMPORTANT: Circuit allows cylinder "leak-down" through load-sense line (C). If leakage is not acceptable for operation, use Example 3.

Lower Left—Control valve directs oil into extend or retract circuits, either requiring high pressure. Connect load-sense line to pressure line before control valve.

NOTE: 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.

Lower Right—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.

OURX935,000008D-19-15JAN08-1/1

Using Hydraulic Spray Pumps

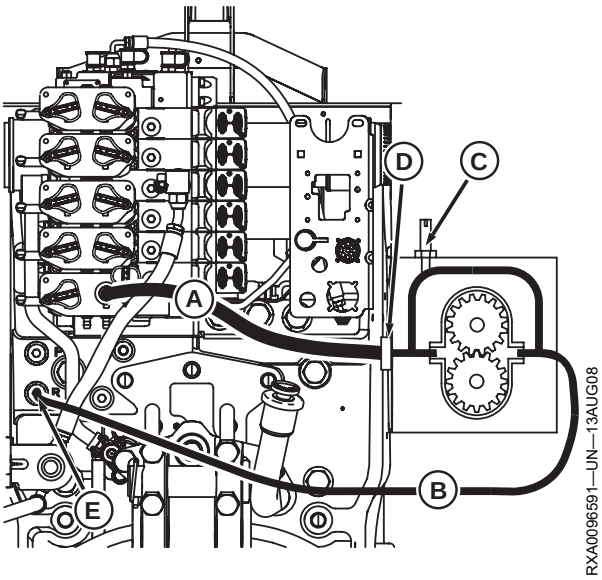
1. Follow spray pump manufacturers recommendations for pump model selection, setup and operation.

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.

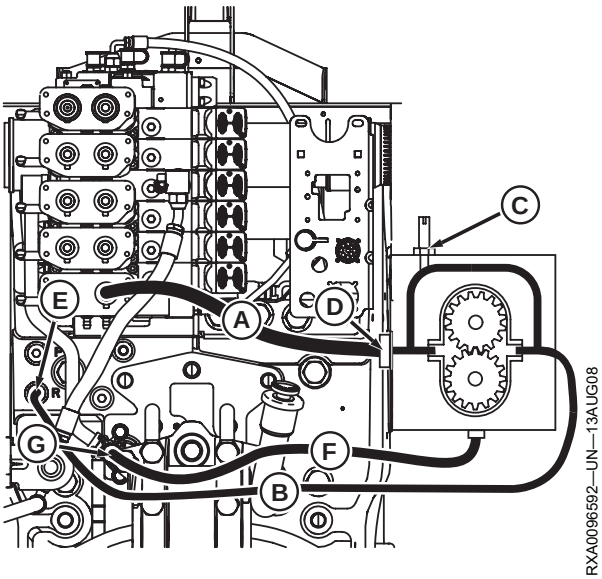
3. Connect motor pressure line (A) to retract port of SCV (right-hand side).
4. Connect return line (B) to power beyond return coupler (E).
5. Some hydraulic motors have a separate case drain line for internal leakage. The case drain line (F) must be routed to the hitch frame drain port (G) to direct oil to sump (zero back pressure.)
6. Activate SCV by moving lever forward to retract detent position and adjust hydraulic flow rate per pump manufacturers guidelines.
7. 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.

A—Pressure Line
B—Return Line
C—Needle Line (Closed)
D—Inlet Line Orifice (Remove)
E—Power Beyond Return Coupler
F—Case Drain Line
G—Drain Port (To Sump)



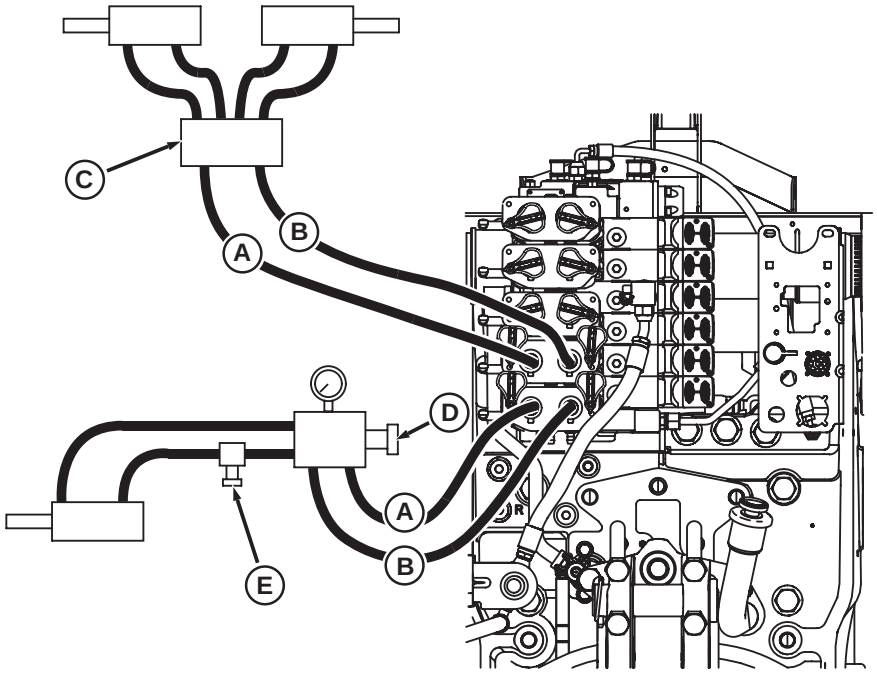
Spray Pump



Spray Pump with Drain Directly to Sump (Zero Back Pressure)

OURX935,000008E-19-15JAN08-1/1

Implement Connection, Example 1—Pressure Control Valve Applications (Grain Drills or Air Seeders with Constant Down-Pressure System)



RXA0096593—UN—13AUG08

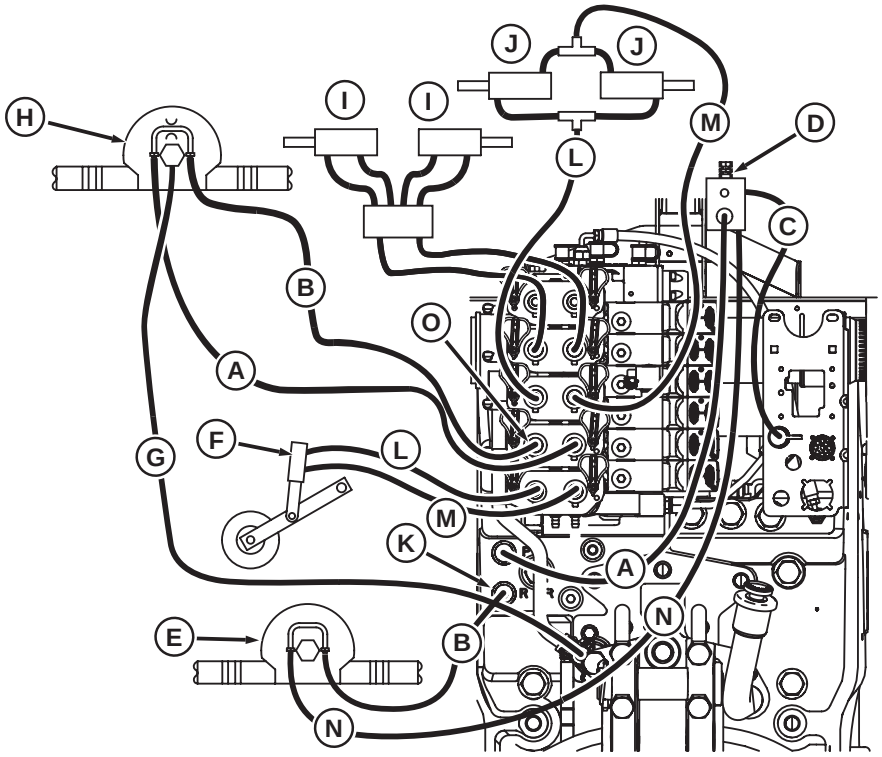
A—Extend Coupler Line
B—Retract Coupler Line
C—Selector Valve
D—Pressure Control Valve
E—Transport Lock Valve

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.

OURX935,000008F-19-15JAN08-1/1

Implement Connection, Example 2—Motor Application Using Motor Case Drain



RXA0096594—UN—29AUG08

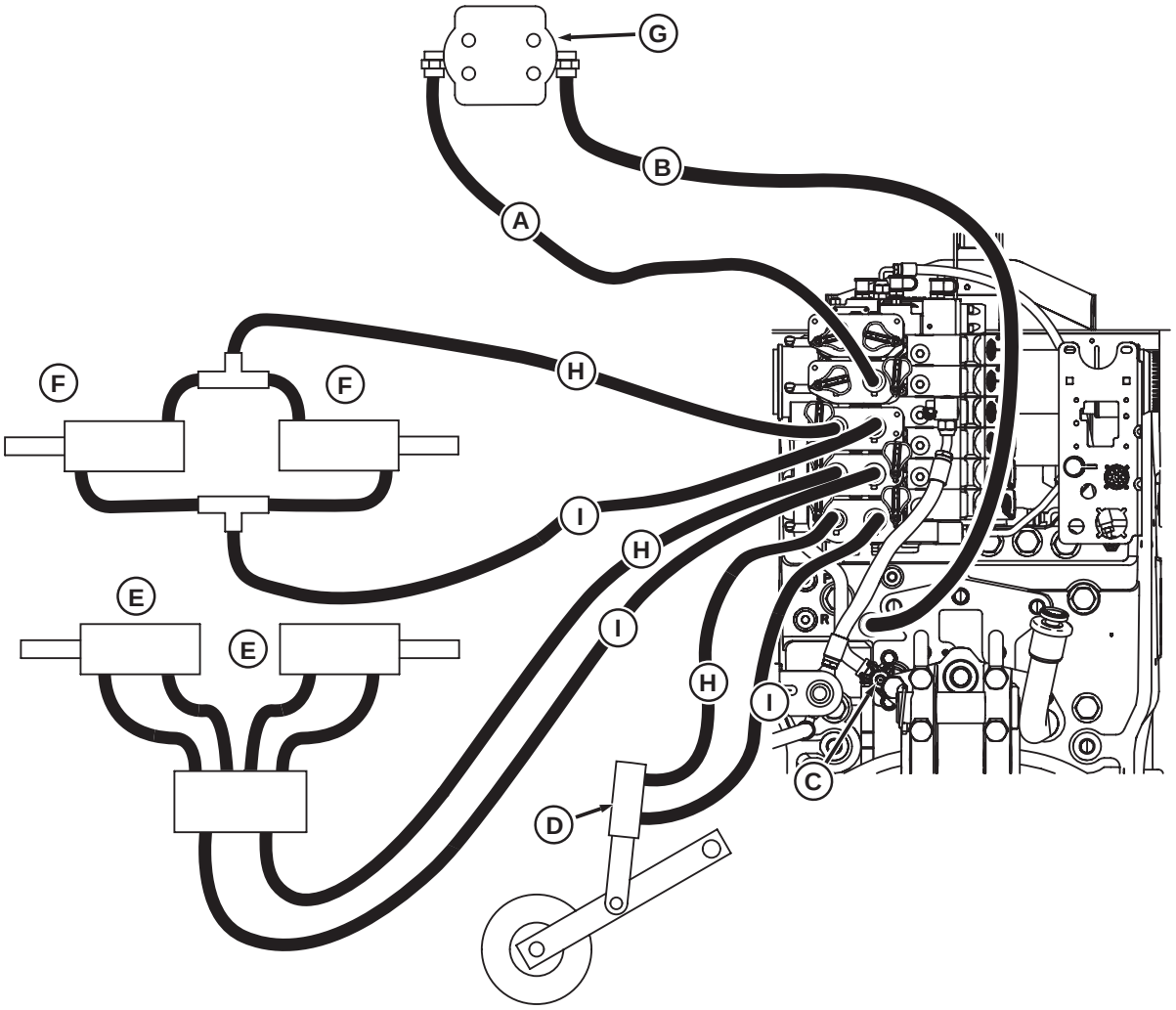
A—Pressure Line
B—Return Line
C—Load Sense Line
D—Control Valve
E—Vacuum Motor
F—Raise/Lower Cylinder
G—Motor Seal Drain Line
H—Second Motor
I—Marker
J—Fold
K—Power Beyond Return Port
L—Extend Coupler Line
M—Retract Coupler Line
N—Controlled Flow Line

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.

OURX935,0000090-19-15JAN08-1/1

Implement Connection, Example 3—Closed Center Valve with Pump at High Pressure



RXA0096595—UN—13AUG08

A—Pressure Line
B—Return Line
C—Drain Port To Sump
D—Raise/Lower cylinder
E—Markers
F—Fold
G—Hydraulic Motor
H—Extend Coupler Line
I—Retract Coupler Line

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.

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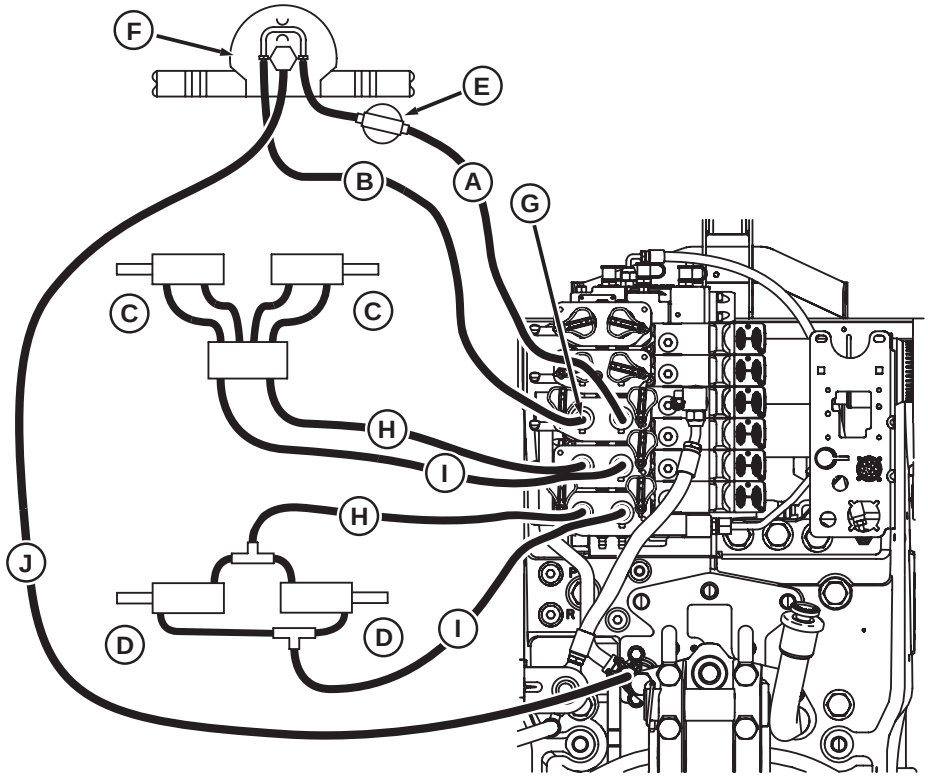
Implement Connection, Example 4—Planter with Vacuum Motor and Return Line to SCV Using Motor Return Tip



RXA0096596—UN—13AUG08

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[1]

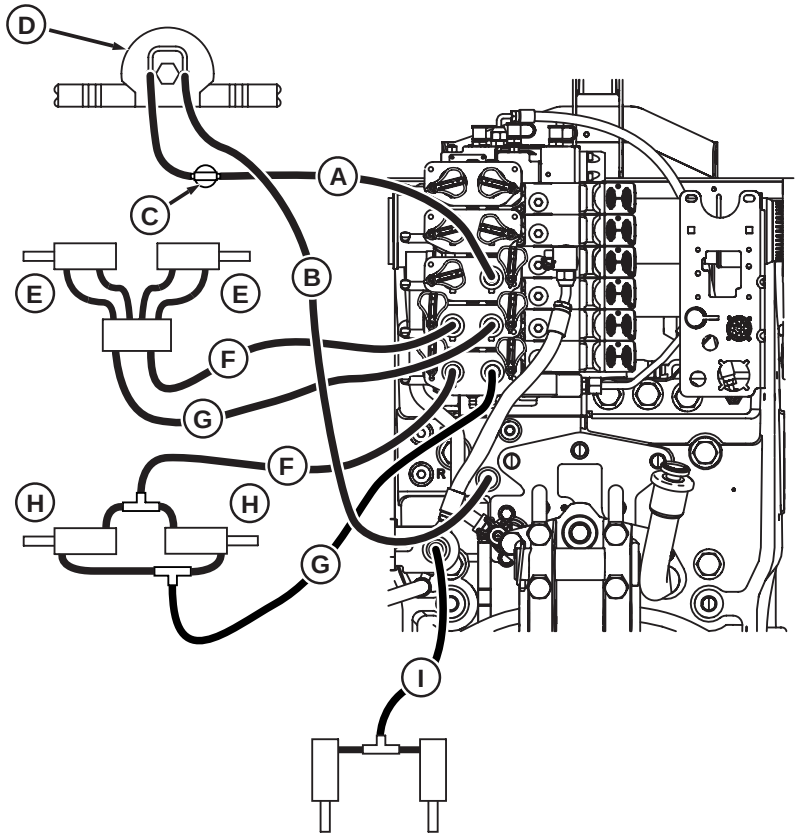
In this application vacuum motor (F), similar to a planter blower, receives pressure oil from the retract port on SCV. Since return oil is routed to an SCV, a special return hose tip (G) with check valve is required to prevent high pressure oil from moving back toward the motor and possibly damaging 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.

[1] For motor returns equipped with case drain only

OURX935,0000092-19-15JAN08-1/1

Implement Connection, Example 5—Planter with Vacuum Motor, Return Line to Motor Return and Lift Assist



RXA0096597—UN—13AUG08

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

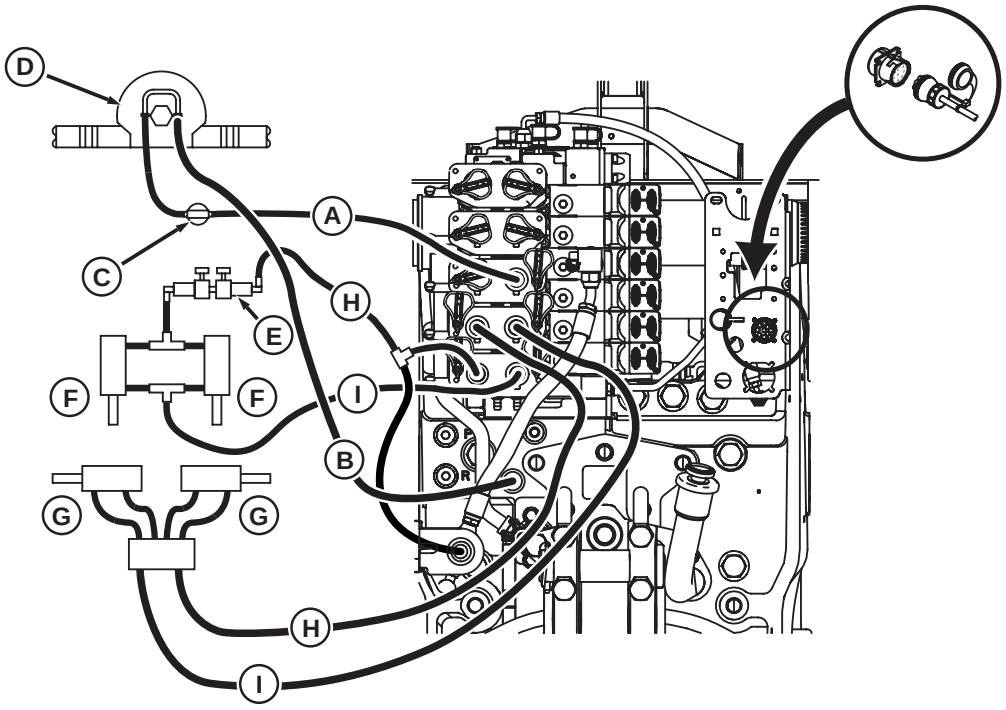
In this application vacuum motor (D) receives pressure oil from the SCV retract port. Return oil is routed to power beyond return port. If return hose is equipped with special return hose tip, it can be connected directly to SCV #3 extend port. When the motor is shut off, the SCV lever is moved to float 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.

OURX935,0000093-19-15JAN08-1/1

Implement Connection, Example 6—Planter with Vacuum Motor and Return Line to Motor Return



RXA0096598—UN—13AUG08

Implement Connection Example 6 (SCV Controlled)

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

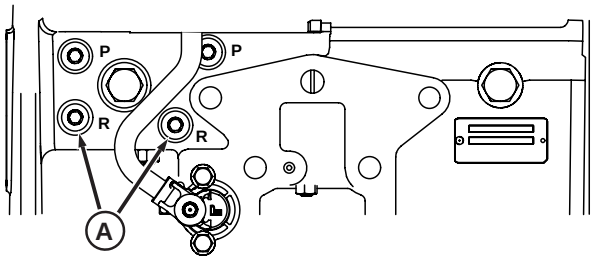
In this application vacuum motor (D) receives pressure oil from the retract port of SCV. Return oil is routed to power beyond return port. If return hose is equipped with special planter return hose tip, it can be connected directly to SCV #3 extend port. When the motor is shut off, the SCV lever is 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.

OURX935,0000094-19-15JAN08-1/1

Using Hydraulic Motor Return



RXA0085801—UN—10JAN06

A—Return Port Plug

Hydraulic motor return kit provides a convenient port to access the tractor low pressure return circuit.

Remove one of the two return port plugs (A) and install hydraulic motor return coupler. If routing two return lines through a single coupler results in excessive return line pressure, install an additional connector in the second return port. Always make sure hose end and coupler are clean.

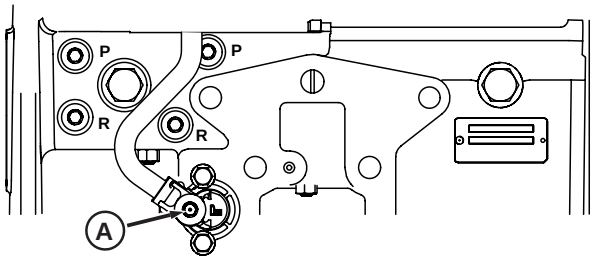
Using the motor return coupler will prevent:

- 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.

OURX935,0000095-19-15JAN08-1/1

Using Hydraulic Motor Case Drain *(Sump)*



RXA0085802—UN—10JAN06

A—Plug

Remove 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.

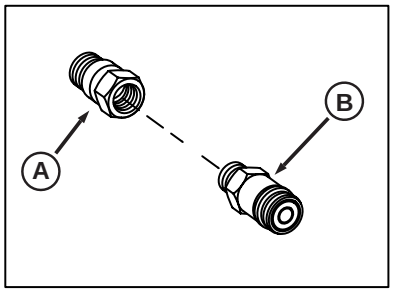
Allows oil to drain directly to reservoir (differential case) from hydraulic motor, by-passing remote coupler, SCV and filter.

Continued on next page

OURX935,00004F2-19-28JUL11-1/2

NOTE: Couplers may vary depending on equipment. Older equipment uses a standard coupler while newer seeding equipment may require a Flush Face coupler (B) and adapter (A) for the drain.

A—Adapter **B—Flush Face Coupler**



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OURX935,00004F2-19-28JUL11-2/2

Using Implement Requiring Large Volumes of Oil

NOTE: Do not add oil to reservoir with engine running.

If additional oil capacity is needed for large one way cylinders, an optional field installed auxiliary reservoir is available. See yourJohn Deere™ dealer.

IMPORTANT: Removing too much oil can result in malfunction when raising the hitch or using the ”extend” function of SCVs.

Cycle all implement cylinders after starting tractor.

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Check the transmission-hydraulic oil level. (See Checking Transmission-Hydraulic Oil Level in the Lubrication Section.)

Add oil if required.

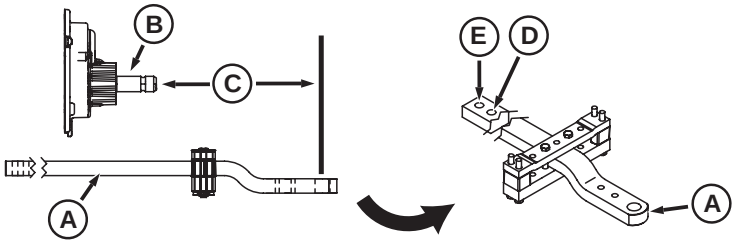
Lower the implement to return the oil to the reservoir.

Recheck oil level when implement is removed.

Drain excess oil if necessary.

OURX935,0000097-19-15SEP09-1/1

Observing Drawbar Load Limitations



RXA0090815—UN—14SEP06

Drawbar

IMPORTANT: Heavy implements together with 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, as indicated in the following table.

IMPORTANT: Heavy duty drawbar support must be used when maximum static vertical load exceeds 2245 kg (4950 lb).

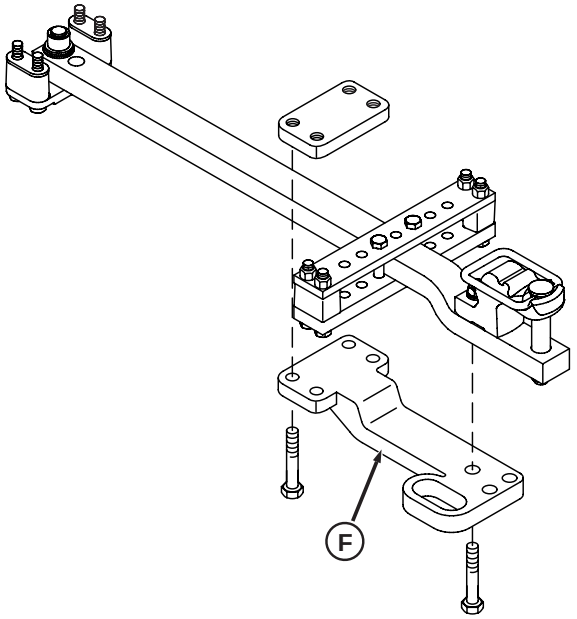
NOTE: Special cap screws are used on drawbars. See your John Deere dealer if cap screws must be replaced.

When vertical load exceeds 2245 kg (4950 lb), attach heavy duty support (F) on Category 4 drawbar and tighten special cap screws to torque specification.

Heavy Duty Drawbar Support — Specification

Support Cap Screws—Torque. . . . . 430 N·m (318 lb-ft)

A—Drawbar
B—PTO Shaft
C—Dimension
D—Short Position
E—Long Position
F—Heavy Duty Support



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Heavy Duty Drawbar with Support

Drawbar Load Limits Based on Drawbar Position, Length and PTO Type				
Tractor Model and Drawbar Category	**PTO Shaft (B)**	**End of PTO Shaft to Draw Pin Hole Distance (C)**	**Drawbar Position**	**Maximum Vertical Drawbar Load**
8235, 8260, 8285, and 8310 with Cat 3 Drawbar	Standard 45 mm (1-3/4 in.) Diameter shaft w/20 splines 1000 rpm	508 mm (20 in.)	Front Hole (E) Long Position	1837 kg (4050 lb)
8235, 8260, 8285, and 8310 with Cat 3 Drawbar	Optional 35 mm (1-3/8 in.) Diameter shaft w/6 splines 540 rpm	350 mm (14 in.)	Rear Hole (D) Short Position	2700 kg (6000 lb)
8235, 8260, 8285, and 8310 with Cat 3 Drawbar	Optional 35 mm (1-3/8 in.) Diameter shaft w/21 splines 1000 rpm	400 mm (16 in.)	Front Hole (E) Long Position	1837 kg (4050 lb)
8335 and 8360 with Cat 4 Drawbar	Standard 45 mm (1-3/4 in.) Diameter shaft w/20 splines 1000 rpm	508 mm (20 in.)	Single Hole Drawbar	2245 kg (4950 lb)
8335 and 8360 with Cat 4 Drawbar	Optional 35 mm (1-3/8 in.) Diameter shaft w/6 splines 540 rpm	N/A	N/A	N/A
8335 and 8360 with Cat 4 Drawbar	Optional 35 mm (1-3/8 in.) Diameter shaft w/21 splines 1000 rpm	400 mm (16 in.)	Single Hole Drawbar	2245 kg (4950 lb)
8235, 8260, 8285, 8310, 8335 and 8360 with Cat 4 Drawbar and Heavy Duty Drawbar Support	Standard 45 mm (1-3/4 in.) Diameter shaft w/20 splines 1000 rpm	508 mm (20 in.)	Single Hole Drawbar	4990 kg (11,000 lb)

Continued on next page

Drawbar Load Limits Based on Drawbar Position, Length and PTO Type				
Tractor Model and Drawbar Category	**PTO Shaft (B)**	**End of PTO Shaft to Draw Pin Hole Distance (C)**	**Drawbar Position**	**Maximum Vertical Drawbar Load**
8235, 8260, 8285, 8310, 8335 and 8360 with Cat 4 Drawbar and Heavy Duty Drawbar Support	Optional 35 mm (1-3/8 in.) Diameter shaft w/6 splines 540 rpm	**Not Recommended**		
8235, 8260, 8285, 8310, 8335 and 8360 with Cat 4 Drawbar and Heavy Duty Drawbar Support	Optional 35 mm (1-3/8 in.) Diameter shaft w/21 splines 1000 rpm	400 mm (16 in.)	Single Hole Drawbar	4990 kg (11,000 lb)
Category 3 drawbar uses a 38 mm (1.5 in.) draw pin. Category 4 uses a 51 mm (2.0 in.) draw pin.				

OURX935,0001139-19-20FEB13-2/2

Adjusting Drawbar Length, Height and Side-to-Side

Adjusting Drawbar Length

IMPORTANT: For PTO-driven implement, drawbar (A) must be positioned as instructed in Attaching PTO Driven Implement in this section.

Loosen drawbar locking bolts (D).

Remove cap screw (B), retaining pin (C) and retaining strap.

Slide drawbar to desired position.

Install drawbar retaining strap and pin.

Retaining Cap Screws — Specification

Cap Screw—Torque. . . . . 70 N·m (50 lb-ft)

Tighten drawbar locking bolts to torque specification.

Drawbar Locking Bolts — Specification

Locking Bolts—Torque. . . . . 200 N·m (148 lb-ft)

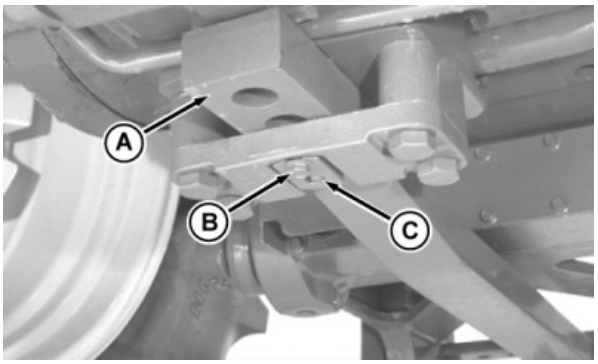
Adjusting Drawbar Height

Height of drawbar is adjustable by turning offset (E) up or down. Proceed as in length adjustment. Slide drawbar all the way out and turn drawbar over.

IMPORTANT: Clevis assembly must always be on top of drawbar if used.

Heavy duty support cannot be used with drawbar offset positioned upward.

Adjusting Drawbar Side-To-Side



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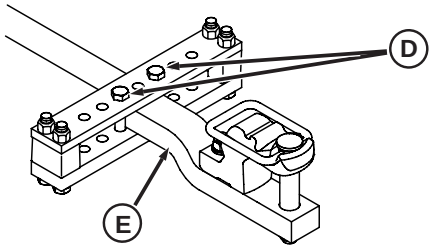


RXA0085803—UN—10JAN06

A—Drawbar
B—Cap Screw
C—Retaining Pin
D—Locking Bolts
E—Offset

Remove drawbar locking bolts.

Slide drawbar to desired position.

Install a locking bolt against each side of drawbar. Tighten bolts to torque specification.

OURX935,0000665-19-08APR13-1/1

Installing and Using Clevis Assembly

IMPORTANT: Remove clevis assembly, before using PTO shaft, or whenever PTO shaft might cause interference.

Clevis assembly (A) must be attached ONLY to top of drawbar.

Install clevis assembly and tighten cap screws (B).

Clevis Assembly Retaining Cap Screws — Specification

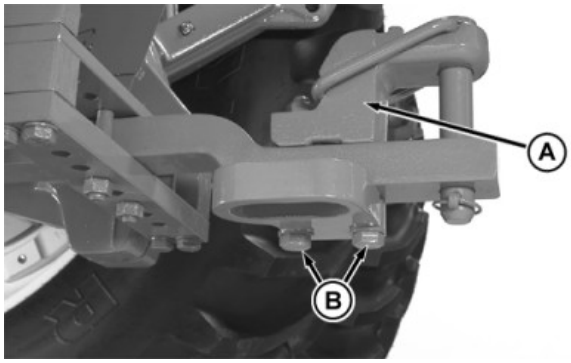
Category 3—Torque. . . . . 750 N·m (553 lb-ft)
Category 4—Torque. . . . . 430 N·m (320 lb-ft)

Remove lock pin (D). Lift pin with handle (C) and position in notch of clevis assembly.

Attach implement.

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.

A—Clevis Assembly
B—Cap Screw
C—Lift Pin with Handle
D—Lock Pin



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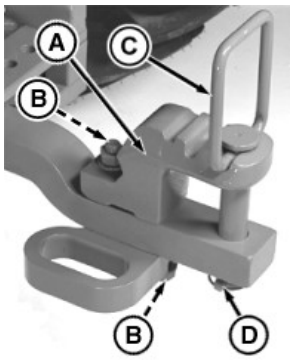

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OURX935,0000666-19-08APR13-1/1

Attaching PTO-Driven Implement

CAUTION: Entanglement in rotating driveline can cause serious injury or death. STOP THE 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.

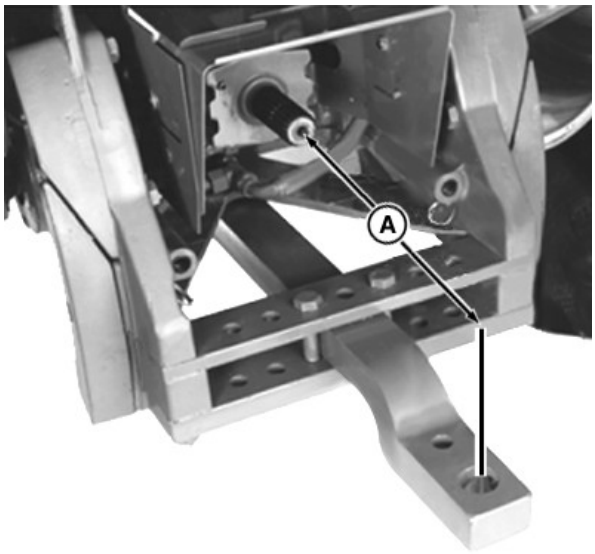
TS1644—UN—22AUG95

Lock drawbar in center position and remove clevis assembly.

PTO Shaft	PTO Shaft End to Hitch Pin Hole (A)
540 rpm - 6 Splines *	350 mm (14 in.)
1000 rpm - 21 Splines *	400 mm (16 in.)
1000 rpm - 20 Splines **	508 mm (20 in.)

** 35 mm (1-3/8 in.) Shaft Diameter*

*** 45 mm (1-3/4 in.) Shaft Diameter*



RXA0058071—UN—29OCT01

Attach implement to drawbar before connecting PTO driveline. If implement will be connected to quick coupler, be sure drawbar will not interfere.

Connect driveline to PTO shaft. Turn shaft slightly by hand, to line up splines. Be sure yoke is in correct position and firmly locked.

Move PTO shield into position for size PTO shaft being used.

A—PTO Shaft to Pin Hole Distance

OURX935,0000667-19-20FEB13-1/1

Using PTO Shield

CAUTION: Avoid personal injury. Put the PTO shield in correct position at all times. Do not use shield as a step.

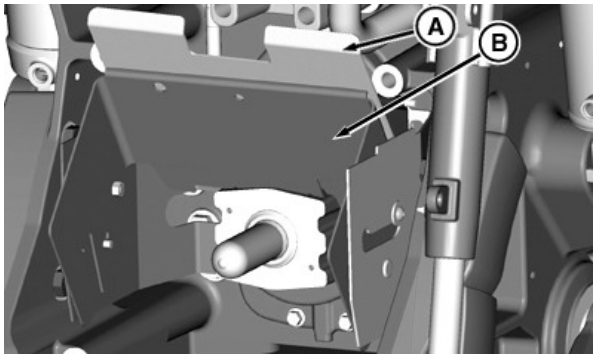
Move main support (B) into correct position.

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 the PTO shaft.

To connect an implement with an old-style tunnel shield, cut slot in the PTO shield. Cut from the edge of the main support to the small slot (D).

A—Upper Support
B—Main Support
C—Lock Position
D—Slot



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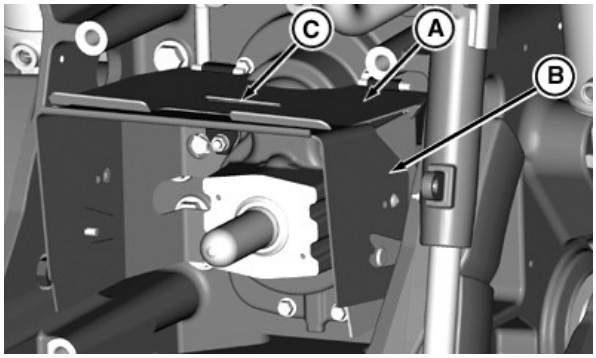

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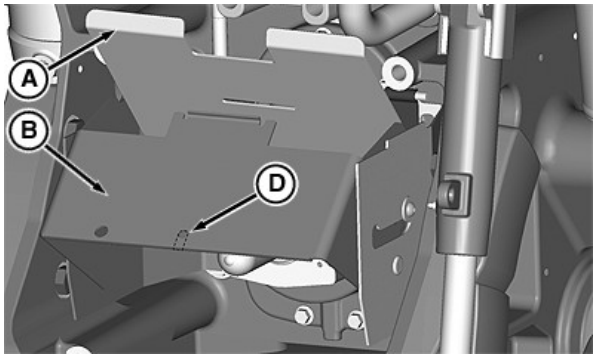

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OURX935,0000668-19-25NOV08-1/1

Using Correct Engine Speed

Correct engine speed is very important. Run engine at 2000 engine rpm for 1000 rpm PTO speed operation with the 45 mm (1-3/4 in.) 20 spline shaft or the 35 mm (1-3/8 in.) 21 spline shaft.

Run engine at 1800 engine rpm for 540 rpm PTO speed operation with the 35 mm (1-3/8 in.) 6 spline shaft.

OURX935,000066A-19-22AUG12-1/1

Operating Rear PTO

CAUTION: Avoid personal injury. Stop engine and allow PTO driveline to stop before adjusting, connecting, or cleaning PTO-driven equipment.

Always disengage the PTO when not in use.

PTO can be engaged or disengaged without operating the clutch.

NOTE: Service Alert indicator light will flash, a message appears on the CommandCenter display and an audible warning signal sounds if operator leaves seat with PTO engaged. PTO does not disengage when operator is off the seat.

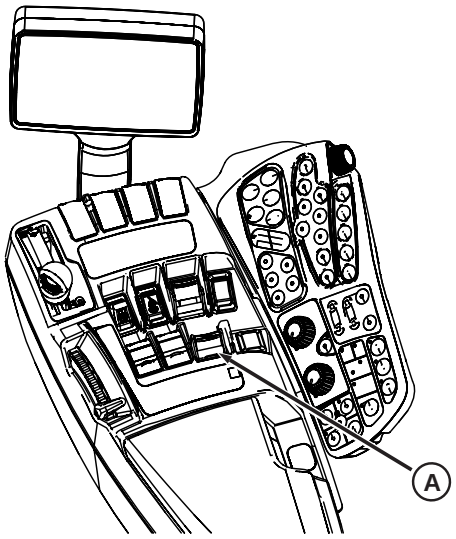
Push down and forward on PTO switch (A) to engage PTO clutch. PTO indicator on corner post monitor will light.

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 startup. 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 back PTO switch to disengage clutch and PTO brake will engage automatically.

NOTE: If engine is stopped and then restarted while PTO is running, PTO will not operate. Disengage PTO control switch and then engage the PTO again.



Rear PTO

A—Rear PTO Switch

For tractor equipped with Independent Link Suspension, suspension will automatically level when tractor is stationary with PTO switch ON.

OURX935,00004F3-19-03JUL12-1/1

Using External Rear PTO Switch (If Equipped)

NOTE: The external rear PTO switch is equipped only on tractors with rear fender extensions.

Continued on next page

RW29387,00001A7-19-05JUL12-1/2

Rear PTO can be operated from outside of cab.

1. Select CommandARM™ **Controls PTO Shortcut button**.

NOTE: When softkey H is selected, the Rear PTO Engagement check box (D) is checked. Each time ignition key is cycled, Rear PTO Engagement check box must be selected (checked) again.

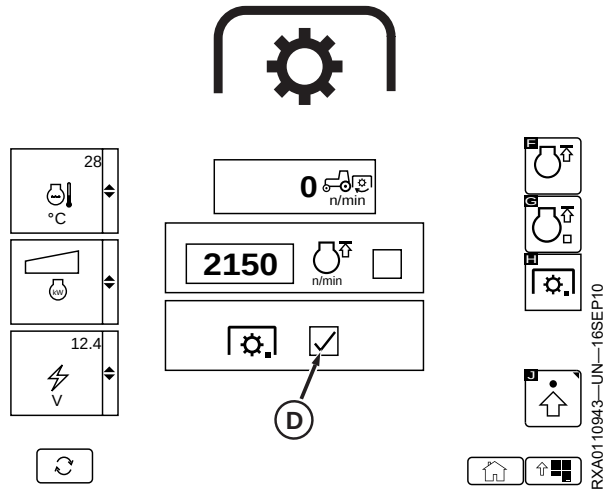
2. Select Rear PTO Engagement **softkey H**.
3. Push down and forward on PTO switch (A). Rear PTO and Service Alert indicators will appear on corner post display, audible alarm sounds 5 times, hazard warning lights (C) flash, and REAR PTO EXTERNAL CONTROL SWITCH ACTIVE displays on CommandCenter™. Rear PTO is not engaged yet.
4. To continuously engage rear PTO, press and hold external rear PTO switch (B) until hazard warning lights (C) stop flashing. Cornerpost and CommandCenter service alert will disappear.

   To engage the rear PTO for only a short period of time, for example, to align the splines with the splines on the implement, press and release external PTO switch (B) while hazard warning lights are flashing. Cornerpost and CommandCenter service alert appear. Hazard warning lights continue to flash.

To disengage rear PTO, press and release external PTO switch or pull back Rear PTO switch at any time. Cornerpost and CommandCenter service alert will appear. Hazard warning lights begin flashing.

A—External PTO Switch
B—Rear PTO Switch
C—Hazard Warning Light
D—Rear PTO Engagement Check Box

RXA0104058—UN—22JUL09



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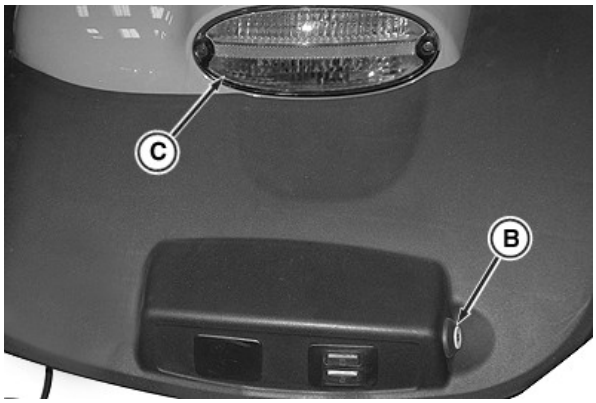

RXA0126123—UN—27APR12

Right-Hand Side Fender

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CommandCenter is a trademark of Deere & Company

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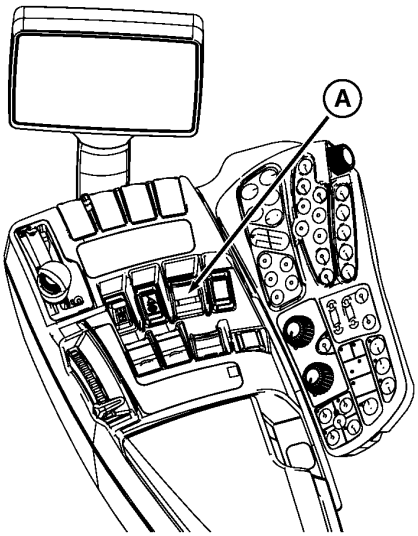
Operating Front PTO (If Equipped)



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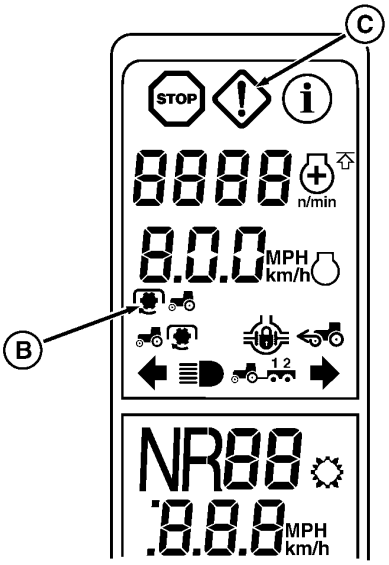
CommandARM



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Corner Post Display

A—Front PTO Switch (If Equipped)
B—Front PTO Indicator
C—Service Alert Indicator

CAUTION: Avoid personal injury. Stop engine and allow PTO 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 the clutch.

NOTE: Service Alert indicator (C) light will flash, a message appears on CommandCenter display, and an audible warning signal sounds if operator leaves seat with PTO engaged. PTO does not disengage when operator is out of seat.

Push down and forward on front PTO switch (A) to engage clutch. PTO indicator (B) on corner post monitor will light.

Front PTO is equipped with Active Load Limiting logic which limits front PTO to 112 kw. When connected to a snow blower for example and confronted with an excessive amount of packed snow, ease into the load. In such a situation, if excessive amounts of torque are being demanded, Corner Post Display Information Indicator flashes and CommandCenter displays **Excessive front PTO load**. If condition exists for 1 minute, front PTO will shut down. Disengage front PTO, then wait 15 seconds before reengaging. See Front PTO (PTF) Diagnostic Trouble Codes in Diagnostic trouble Codes Section for list of codes.

Pull back PTO switch to disengage clutch and PTO brake will engage automatically.

NOTE: If engine is stopped and then restarted while PTO is running, PTO will not operate. Disengage PTO switch and then engage the PTO again.

Operating Front PTO in Cold Weather

CAUTION: Avoid personal injury. Keep PTO area clear of bystanders. PTO shaft or attached implement may rotate prior to engine start in cold weather

IMPORTANT: If PTO disengages during startup in cold-weather operation, wait 5 minutes before re-engaging PTO to avoid damage.

When air temperatures are expected to drop below -5° C (23° F), use John Deere Low Viscosity Hy-Gard oil.

Other oils can be used if they meet John Deere Standard JDM J20D.

OURX935,00004E5-19-22AUG13-1/1

Setting Front And Rear PTO Engagement Rates

1. Select CommandArm **Menu Button**.

Continued on next page

OURX935,00004E8-19-25AUG11-1/2

2. Select **PTO.**

NOTE: When FieldCruise setting soft key (A) is selected FieldCruise settings drop down box (B) is highlighted and engine speed can be adjusted.

3. Select **Settings softkey.**

4. To change Rear PTO Engagement rate, select double arrow in Rear PTO Engagement Rate drop down box (A).

   To change Front PTO Engagement Rate drop down box (B).

   Engagement rate options are

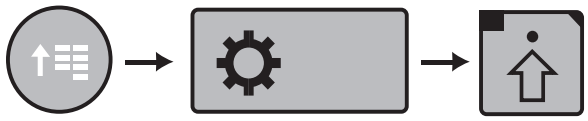
   - Auto
   - Low Rate
   - High Rate

5. Select rate required.

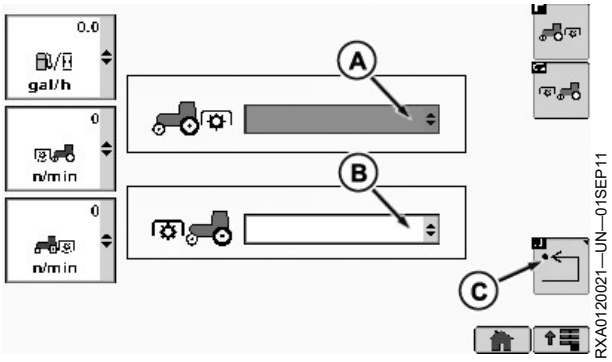
6. Select Back softkey to return to PTO page when finished.

A—Rear PTO Engagement Rate Drop Down Box
B—Front PTO Engagement Rate Drop Down Box
C—Back Softkey

RXA0116587—UN—12MAY11



PTO Short Cut Button



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PTO Advanced Page

OURX935,00004E8-19-25AUG11-2/2

Changing Optional Front PTO Shafts

Front PTO is factory equipped with one of three optional front PTO shafts:

- 1/3/4 20 Spline Shaft
- 1/3/8 21 Spline Shaft
- 1/3/8 6 Spline Shaft

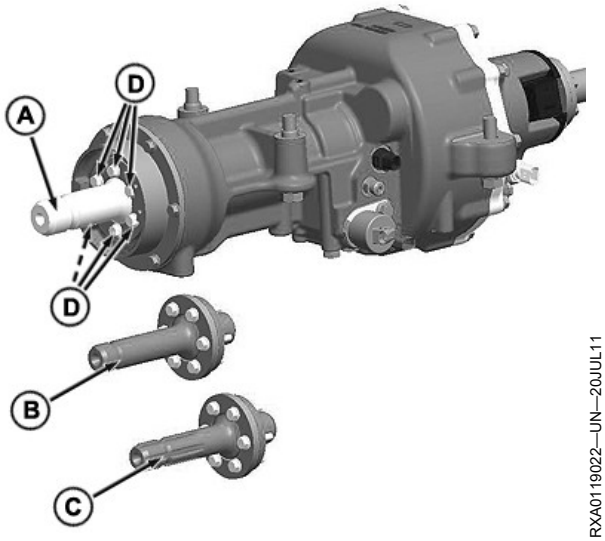
Additional optional shafts are available through your John Deere dealer.

To change shaft, remove six M8 cap screws (D) remove factory installed shaft and install new shaft. Install six cap screws and torque to specification.

Specification

Front PTO Cap Screws—Torque. . . . . 40 N·m (30 lb.-ft.

A—1/3/4 20 Spline Shaft
B—1/3/8 21 Spline Shaft
C—1/3/8 6 Spline Shaft
D—Cap Screws



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Front PTO With Three Optional PTO Shafts

OURX935,00004E6-19-21JUL11-1/1

Using Correct PTO Shaft

Diameter of the standard PTO shaft is 45 mm (1-3/4 in.). High power, heavy PTO loads require the strength of this large 20 spline shaft. Use this size whenever possible.

The 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*.

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 the 35 mm (1-3/8 in.) 1000 rpm PTO shaft only on implements requiring less than 112 kW (150 PTO horsepower).

Use the 35 mm (1-3/8 in.) 540 and 1000 rpm PTO option for light-duty farm use only. Use the 45 mm (1-3/4 in.) 1000 rpm PTO shaft if heavier loads are expected.

RW55321A—UN—22OCT99

A—1000 RPM Stub Shaft
B—1000 RPM End
C—540 RPM End

OURX935,000066D-19-25NOV08-1/1

Changing PTO Stub Shaft

CAUTION: Avoid personal injury. PTO shaft may be hot from operation. Allow shaft to cool before changing.

1. Remove snap ring (A), which retains the 45 mm (1-3/4 in.) 20 spline, 1000 rpm PTO stub shaft. Carefully clean surrounding areas.

NOTE: Rotate the ends of the snap ring to align with flat surface of the shaft.

2. Remove PTO stub shaft (B) from housing.
3. Clean stub shaft thoroughly, coat splines with John Deere SD Polyurea grease or other grease as specified in Fuel, Lubricants and Coolant section.
4. Select the 540 (C) or 1000 (D) rpm shaft end of the PTO adapter.
5. Install splined collar (E) on shaft and insert adapter into PTO housing.

   540 rpm shaft - Rotate collar back and forth while installing, to ensure shaft is correctly seated in housing.

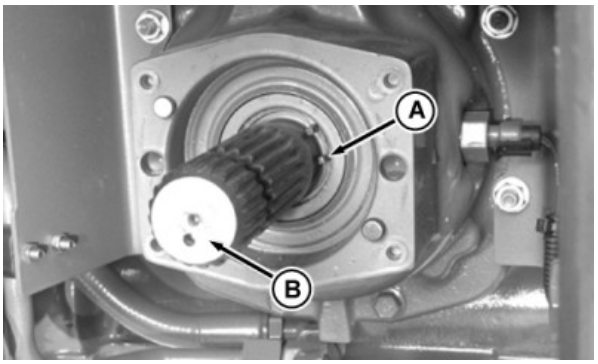
   1000 rpm shaft - Rotate collar back and forth while installing until engagement is felt.

   Shaft is correctly engaged when shaft turns with high effort.

6. Retain adapter with four cap screws.

PTO Adapter Cap Screws — Specification

Cap Screw—Torque. . . . . 52 N·m (70 lb-ft)



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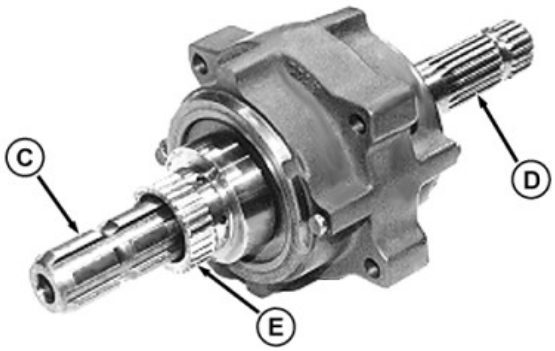

RW55488A—UN—22JUN99

A—Snap Ring
B—Stub Shaft
C—540 End
D—1000 End
E—Collar

IMPORTANT: Prevent PTO damage. Clean bore in end of shaft thoroughly when installing six-spline PTO shaft for 1000 rpm use.

OURX935,000066E-19-25NOV08-1/1

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. The 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 the front axle and by the rear axle. For example, if the front axle supports 40% of the total static tractor weight, the tractor has a 40/60 weight split. The percentage of weight supported by the 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

Type of implement—integral/semi-integral or towed

Travel speed—slow or fast

Tractor power output—partial or full load

Tires—small or large

Type of front axle (MFWD, or Independent Link Suspension)

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 the 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 the tractor.
- Correct ballast allows most efficient use of tractor available power. Ballast will not make up for an implement which is too big for the tractor. Adding ballast will not improve performance, if engine speed falls below rated speed and/or wheel slip is not in the 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 the field and on the 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 Independent Link Suspension tractors.
5. Ensure that rear axle carries sufficient weight for traction, braking, and stability when an implement is attached to front of the 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 the 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.

OURX935,000022F-19-29JUL11-1/1

General Guidelines for Tractor Weight Based on PTO Power Rating

The total tractor weight needed to efficiently deliver power through wheels to ground for field draft applications depends on travel speed. The table shows recommended weight per PTO power rating for three draft speed ranges.

	Light	Medium	Heavy
Ground Speed	8.7 km/h (5.4 mph) and faster	7.2 - 8.7 km/h (4.5 - 5.4 mph)	7.2 km/h (4.5 mph) and slower
Kg/PTO-HP	55	60	64
Lb/PTO-HP	120	130	140

Travel Speeds

Wheel slip should normally be in the range of 8-12% for MFWD/Independent Link Suspension optimum power delivery efficiency at these field speeds. Wheel slip may briefly rise above this range when tractor encounters a higher draft area in the field, but it should not stay there continuously. Add more weight to drive wheels if slip is excessive. If there is less than minimum percent slip, ballast should be removed, unless needed for stability.

NOTE: It is recommended to use the radar to continually monitor wheel slip. Checking wheel slip manually is possible but will only show slip in one area of the field.

IMPORTANT: To extend drive train life, tractor should never be operated with continuous full-power loads below 6.4 km/h (4.0 mph). Ground speed may briefly drop below that level in hard pull situations, but it must recover to higher levels during normal operations. This applies to tractors with all types of transmissions. For tractors equipped with IVT/AutoPowr transmission operating in automatic mode, the engine will not labor in extremely high draft situations, but the minimum ground speed guideline must still be followed.

OURX935,0000230-19-30JUL12-1/1

General Weight Split Guidelines

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.

IMPORTANT: The weight split will vary depending on the application. If heavy drawbar load or hitch-mounted implements are being used, INCREASE the weight on the front to insure stability and steering security.

Light Implements

Drawn planters, air seeders, and PTO operated equipment that place small vertical loads on the tractor drawbar.

MFWD	No more than 35% of total tractor weight on front axle. This is required for power hop control. (See Power Hop Control section for details.)
Independent Link Suspension	40% of total tractor weight up to approximately 55% of 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 Implements

Implements that place higher vertical loads on the drawbar such as disks, chisel plows and field cultivators.

MFWD	No more than 35% of total tractor weight on front axle. This is required for power hop control. (See Power Hop Control section for details.)
Independent Link Suspension	Up to approximately 55% of total tractor weight on front axle to insure steering security and stability with implements that place a HIGH VERTICAL LOAD on the drawbar or are connected to a high hitch point. It may be practical to have a lower front percentage with heavy trailers, but steering security and stability must still be insured.

Heavy Implements

Implements that place large vertical loads on the hitch or drawbar such as rippers or hitch mounted planters.

MFWD	No more than 35% of total tractor weight on front axle. This is required for power hop control. (See Power Hop Control section for details.)
Independent Link Suspension	Up to approximately 55% of total tractor weight on front axle.

CAUTION: Do not exceed front tire carrying capacities when using high percentages of front weight. See Maximum Load Per Wheel in this section.

OURX935,0000FEB-19-31JUL12-1/1

Ballast Types

Support

Quik-Tatch Weights on Standard Support

Cast iron wheel weights and Quik-Tatch™ weights are the preferred form of ballast. Liquid ballast in tires should be avoided if possible since it has a stiffening effect that causes rough ride and makes the tractor more susceptible to power hop. If liquid is used in rear tires, all tires on the axle must be filled to the same level which should not exceed 40% (4 o'clock valve stem position). Specific information on use of liquid ballast is given later in this section.

In some cases it may be necessary or desirable to remove either front or rear ballast. A Quik-Tatch weight facilitates this for front ballast. Installation and removal of rear weights on outside of wheels require the use of a hoist or forklift. Removal of inner rear wheel weights should not be required after initial installation at factory or dealership.

Standard Front Weight Support

The front weight support weighs 173 kg (382 lbs).

Independent Link Suspension

The front weight support mounted on a tractor equipped with Independent Link Suspension effectively ADDS 147% of its weight to the front axle and SUBTRACTS 47% of its weight from the rear axle due to leverage.

Front Axle Multiplier = 1.47 Rear Axle Multiplier = -0.47

The front weight support ADDS 1.47 x 173 kg (382 lb) = 250 kg (551 lb) to the front axle and SUBTRACTS -0.47 x 170 kg (375 lb) = -80 kg (176 lb) from the rear axle.

MFWD

The front weight support mounted on a tractor equipped with MFWD effectively ADDS 145% of its weight to the front axle and SUBTRACTS 45% of its weight from the rear axle due to leverage.

Front Axle Multiplier = 1.45 Rear Axle Multiplier = -0.45

The front weight support ADDS 1.45 x 173 kg (382 lb) = 247 kg (544 lb) to the front axle and SUBTRACTS -0.45 x 170 kg (375 lb) = -77 kg (169 lb) from the rear axle.

Quik-Tatch Weights

NOTE: Depending on the mounting position used (standard front support or support on front hitch), the effective weight added to the front axle will be greater due to leverage caused by the weight distance in front of the axle.

NOTE: When adding front weights, some weight is transferred from the rear of the tractor to the front. Use following guidelines to figure tractor weight when front weights are added.

Quik-Tatch Weights weigh 47 kg (104 lb) each. Up to 22 weights can be installed on the front weight support or on a support on a front hitch. These combinations can be limited by the front axle option.

Standard Front Weight Support (Independent Link Suspension)

Quik-Tatch weights mounted on a standard front weight support on an Independent Link Suspension tractor effectively ADD 157% of their weight to front axle and SUBTRACT 57% from rear axle due to leverage.

Front axle multiplier = 1.57 Rear axle multiplier = -0.57

Each 47 kg (104 lb) Quik-Tatch weight ADDS 1.57 x 47 kg (104 lb) = 74 kg (163 lb) to the front axle and SUBTRACTS -0.57 x 47 kg (104 lb) = -27 kg (59 lb) from the rear axle.

Standard Front Weight Support (MFWD)

Quik-Tatch weights mounted on a standard front weight support on an MFWD tractor effectively ADD 155% of their weight to front axle and SUBTRACT 55% from rear axle due to leverage.

Front axle multiplier = 1.55 Rear axle multiplier = -0.55

Each 47 kg (104 lb) Quik-Tatch weight ADDS 1.55 x 47 kg (104 lb) = 73 kg (161 lb) to the front axle and SUBTRACTS -0.55 x 47 kg (104 lb) = 26 kg (57 lb) from the rear axle.

Front Weight Support on Front Hitch (Independent Link Suspension)

NOTE: A front hitch is only available on tractors equipped with Independent Link Suspension.

Front axle multiplier = 1.69 Rear axle multiplier = -0.69

Each 47 kg (104 lb) Quik-Tatch weight ADDS 1.69 x 47 kg (104 lb) = 80 kg (177 lb) to the front axle and SUBTRACTS -0.69 x 47 kg (104 lb) = 32 kg (71 lb) from the rear axle.

Continued on next page

	MFWD	**Independent Link Suspension**
Front Weight Support:		
.. Front Axle kg (lb)	+247 (+544)	+250 (+551)
.. Rear Axle kg (lb)	-77 (-169)	-80 (-176)
.. Total Weight kg (lb)	+173 (+382)	+173 (+382)
One Quik-Tatch Weight:		
.. Front Axle kg (lb)	+73 (+161)	+74 (+163)
.. Rear Axle kg (lb)	-26 (-57)	-27(-59)
.. Total Weight kg (lb)	+47 (+104)	+47 (+104)
22 Quik-Tatch Weights:		
.. Front Axle kg (lb)	+1608 (+3546)	+1629 (+3592)
.. Rear Axle kg (lb)	-571 (-1258)	-592 (-1305)
.. Total Weight kg (lb)	+1038 (+2288)	+1038 (+2288)

Weight Transfer Effect of Quik-Tatch Weights on Standard Front Weight Support

Quik-Tatch is a trademark of Deere & Company

Rear Wheel Weights

Rear wheel weights are available in 75 kg (165 lb), 205 kg (450 lb), and 635 kg (1400 lb) sizes.

Each weight applies total weight to rear axle and none to front axle.

Front Hitch

When tractor has a front hitch, additional front axle and rear axle loads due to its weight must be included in calculating total axle loads. The front and rear axle weights shown in Unballasted Tractor Weight Charts are based on tractors with a front weight support. With a front hitch installed instead of a front weight support the NET amounts of weight changes are used in determining axle loads.

NET Weight ADDED to front axle	696 kg (1534 lb)
NET Weight SUBTRACTED from rear axle	216 kg (476 lb)

NOTE: The front hitch REMOVES 216 kg (476 lb) from rear axle due to leverage.

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Ballasting Suggestions for Specific Types of Implements

These recommendations are offered as starting points when ballasting for operations with several common types of implements. Some deviations may be needed for specific circumstances.

Light Implements

Drawn planters, air seeders, and PTO operated equipment that place small vertical loads on the tractor drawbar.

1300 MFWD

		8235R	8260R	8285R	8310R		
Quik-Tatch Weights		None	None (support only)	None (support only)	8		
Rear Weights	**Inside Wheel**	None	None	1 pair 635 kg (1400 lb)	1 pair 635 kg (1400 lb)		
	Outside Wheel	None	None	None	1 pair 205 kg (450 lb) and 1 pair 75 kg (165 lb)		

1500 MFWD Axle

		8235R	8260R	8285R	8310R	8335R	8360R
Quik-Tatch Weights		None	None	None	None (Support Only)	4	8
Rear Weights	**Inside Wheel**	None	None	1 pair 205 kg (450 lb)	1 pair 635 kg (1400 lb)	1 pair 635 kg (1400 lb)	1 pair 635 kg (1400 lb)
	Outside Wheel	None	None	1 pair 205 kg (450 lb) and 1 pair 75 kg (165 lb)	1 pair 205 kg (450 lb) and 1 pair 75 kg (165 lb)	2 pair 205 kg (450 lb) and 1 pair 75 kg (165 lb)	2 pair 205 kg (450 lb) and 1 pair 75 kg (165 lb)

Independent Link Suspension

		8235R	8260R	8285R	8310R	8335R	8360R
Quik-Tatch Weights		None	None	None (support only)	4	4	8
Rear Weights	**Inside Wheel**	None	None	1 pair 205 kg (450 lb)	1 pair 635 kg (1400 lb)	1 pair 635 kg (1400 lb)	1 pair 635 kg (1400 lb)
	Outside Wheel	None	None	1 pair 75 kg (165 lb)	1 pair 75 kg (165 lb)	1 pair 205 kg (450 lb) and 1 pair 75 kg (165 lb)	2 pair 205 kg (450 lb) and 1 pair 75 kg (165 lb)

Medium Implements

Implements that place higher vertical loads on the drawbar such as disks, chisel plows and field cultivators.

1300 MFWD

		8235R	8260R	8285R	8310R		
Quik-Tatch Weights		None (support only)	None (support only)	4	16		
Rear Weights	**Inside Wheel**	None	1 pair 205 kg (450 lb)	1 pair 635 kg (1400 lb)	1 pair 635 kg (1400 lb)		
	Outside Wheel	None	None	1 pair 205 kg (450 lb) and 1 pair 75 kg (165 lb)	3 pair 205 kg (450 lb) and 1 pair 75 kg (165 lb)		

1500 MFWD Axle

		8235R	8260R	8285R	8310R	8335R	8360R
Quik-Tatch Weights		None	None	None (support only)	8	8	8
Rear Weights	**Inside Wheel**	None	1 pair 205 kg (450 lb)	1 pair 635 kg (1400 lb)	1 pair 635 kg (1400 lb)	1 pair 635 kg (1400 lb)	1 pair 635 kg (1400 lb)
	Outside Wheel	None	None	1 pair 205 kg (450 lb) and) 1 pair 75 kg (165 lb)	3 pair 205 kg (450 lb) and 1 pair 75 kg (165 lb)	3 pair 205 kg (450 lb) and 1 pair 75 kg (165 lb)	3 pair 205 kg (450 lb) and 1 pair 75 kg (165 lb)

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Independent Link Suspension							
		8235R	**8260R**	**8285R**	**8310R**	**8335R**	**8360R**
Quik-Tatch Weights		None	None (support only)	4	8	8	16
Rear Weights	**Inside Wheel**	None	None	1 pair 635 kg (1400 lb)	1 pair 635 kg (1400 lb)	1 pair 635 kg (1400 lb)	1 pair 635 kg (1400 lb)
	Outside Wheel	None	None	1 pair 75 kg (165 lb)	2 pair 205 kg (450 lb) and 1 pair 75 kg (165 lb)	3 pair 205 kg (450 lb) and 1 pair 75 kg (165 lb)	3 pair 205 kg (450 lb) and 1 pair 75 kg (165 lb)

Heavy Implements							
Implements that place large vertical loads on the hitch or drawbar such as rippers or hitch mounted planters.							
1300 MFWD							
		8235R	**8260R**	**8285R**	**8310R**		
Quik-Tatch Weights		None (support only)	4	16	16		
Rear Weights	**Inside Wheel**	1 pair 205 kg (450 lb)	1 pair 635 kg (1400 lb)	1 pair 635 kg (1400 lb)	1 pair 635 kg (1400 lb)		
	Outside Wheel	1 pair 75 kg (165 lb)	1 pair 75 kg (165 lb)	3 pair 205 kg (450 lb) and 1 pair 75 kg (165 lb)	3 pair 205 kg (450 lb) and 1 pair 75 kg (165 lb)		
1500 MFWD							
		8235R	**8260R**	**8285R**	**8310R**	**8335R**	**8360R**
Quik-Tatch Weights		None	None	4	8	8	8
Rear Weights	**Inside Wheel**	1 pair 205 kg (450 lb)	1 pair 635 kg (1400 lb)	1 pair 635 kg (1400 lb)	1 pair 635 kg (1400 lb)	1 pair 635 kg (1400 lb)	1 pair 635 kg (1400 lb)
	Outside Wheel	1 pair 75 kg (165 lb)	1 pair 75 kg (165 lb)	2 pair 205 kg (450 lb) and 1 pair 75 kg (165 lb)	3 pair 205 kg (450 lb) and 1 pair 75 kg (165 lb)	3 pair 205 kg (450 lb) and 1 pair 75 kg (165 lb)	3 pair 205 kg (450 lb) and 1 pair 75 kg (165 lb)
Independent Link Suspension							
		8235R	**8260R**	**8285R**	**8310R**	**8335R**	**8360R**
Quik-Tatch Weights		None (support only)	4	8	16	16	16
Rear Weights	**Inside Wheel**	None	1 pair 635 kg (1400 lb)	1 pair 635 kg (1400 lb)	1 pair 635 kg (1400 lb)	1 pair 635 kg (1400 lb)	1 pair 635 kg (1400 lb)
	Outside Wheel	None	None	3 pair 205 kg (450 lb) and 1 pair 75 kg (165 lb)	2 pair 205 kg (450 lb) and 1 pair 75 kg (165 lb)	3 pair 205 kg (450 lb) and 1 pair 75 kg (165 lb)	3 pair 205 kg (450 lb) and 1 pair 75 kg (165 lb)

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Determining Ballasted Tractor Weight, Weight Split, Axle Loads and Required Tire Inflation Pressures

The Unballasted Tractor Weight Charts provides front axle, rear axle and total weights for all power train and tire size options. Considering this and the information previously provided on weights of various ballast elements (Quik-Tatch weights and wheel weights), front ballast multipliers and front hitch axle loads (if used), the ballasted tractor weight and axle loads can be calculated. These are needed to determine if total weight and weight split recommendations are met and to look up required tire inflation pressures from Recommended Pressure Charts in Wheels, Tires, and Treads section.

8260R PST with Independent Link Suspension and Front Weight Support — 200 PTO-HP

Front Tires	420/90 R30
Dual Rear Tires	480/80 R46
Front Ballast	Weight Support
Rear Ballast	None

According to the Unballasted Tractor Weight Charts on following pages, the front axle weight is 4534 kg (9995 lb) and the rear axle weight is 6674 kg (14713 lb). Note that these charts do not assume that a front weight support is mounted.

Front Axle Weight ADDED by Front Weight Support: 170 kg (375 lb) x 1.47 = 250 kg (551 lb)

Rear Axle Weight REMOVED by Front Weight Support: 170 kg (375 lb) x -0.47 = -80 kg (176 lb)

Combine all of these as shown

	Front Axle	Rear Axle	Total
Base Tractor Weight	4534 kg (9995 lb)	6674 kg (14713 lb)	11208 kg (24708 lb)
Front Weight Support	250 kg (551 lb)	-80 kg (176 lb)	170 kg (375 lb)
Total	4784 kg (10546 lb)	6594 kg (14537 lb)	11378 kg (25083 lb)

Example 1

So the tractor is ballasted to the level of 11378 kg (25083 lb) / 200 PTO-HP = 56.9 kg (125 lb) per PTO-HP (Medium).

The percentage of weight on the front axle is 4784 kg / 11378 kg (10546 lb / 25083 lb) x 100% = 42%.

From the Table of Recommended Inflation Pressures in Wheels, Tires, Treads (section 80) for calculated axle loads, the required inflation pressures are:

Front Inflation Pressure 140 kPa (1.4 bar; 21 psi)

Rear Inflation Pressure 60 kPa (0.6 bar; 9 psi) but **only if tractor is towing an implement that places very little load on drawbar (planter or air seeder).**

For **implements that generate high weight transfer** add approximately 50 kPa (0.5 bar; 7 psi) for a total of 110 kPa (1.1 bar; 16 psi) for rear tires. With the aid of an assistant, visually check tire deflection when tractor is pulling hard in the field to confirm that tires are not under-inflated with these pressures.

For **trailers, tankers, or any heavy integral implement** the rear inflation pressures MUST be increased substantially to support the extra weight at transport speeds. The exact amount depends on the extra load. Usually it will be MORE THAN DOUBLE the base amount or 130 - 150 kPa (1.3 - 1.5 bar; 19 - 22 psi) for this example. To determine rear axle load exactly, weigh rear axle of loaded tractor on a platform scale.

8285R PST with MFWD and Standard Front Weight Support — 225 PTO-HP

Front Tires	420/90 R30
Rear Tires	480/80 R46
Front Ballast	4 Quik-Tatch Weights on Front Support
Rear Ballast	1 pair - 635 kg (1400 lb) Wheel Weights and 1 pair - 75 kg (165 lb) Wheel Weights

According to the Unballasted Tractor Weight Charts, the front axle weight is 3899 kg (8595 lb) and the rear is 6674 kg (14713 lb). Note that these charts do not assume that a front weight support is mounted. The weight for the weight support and transfer effect is found in the section on attaching front weights.

Front Axle Weight ADDED by Front Weight Support: 170 kg (375 lb) x 1.45 = 247 kg (544 lb)

Rear Axle Weight REMOVED by Front Weight Support: 170 kg (375 lb) x -0.45 = -77 kg (169 lb)

Front Axle Weight ADDED by 4 Quik-Tatch Weights: 47 kg (104 lb) x 4 x 1.55 = 292 kg (644 lb)

Rear Axle Weight REMOVED by 4 Quik-Tatch Weights: 47 kg (104 lb) x 4 x -0.55 = -104 kg (228 lb)

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The pair of rear 635 kg (1400 lb) wheel weights and 75 kg (165 lb) wheel weights add nothing to the front axle and 1420 kg (3130 lb) to the rear axle.

Combine all of these as shown

	Front Axle	Rear Axle	Total
Base Tractor Weight	3899 kg (8595 lb)	6674 kg (14713 lb)	10573 kg (23310 lb)
Weight Support	247 kg (544 lb)	- 77 kg (169 lb)	170 kg (375 lb)
4 Quik-Tatch Weights	292 kg (644 lb)	- 104 kg (228 lb)	188 kg (416 lb)
1 Pair 635 kg (1400 lb) Wheel Weights	0 kg (lb)	1270 kg (2800 lb)	1270 kg (2800 lb)
1 Pair 75 kg (165 lb) Wheel Weights	0 kg (lb)	150 kg (330 lb)	150 kg (330 lb)
Total	4438 kg (9783 lb)	7913 kg (17446 lb)	12351 kg (27231 lb)

Example 2

So the tractor is ballasted to the level of 12351 kg (27231 lb) / 225 = 55 kg (121 lb) per PTO-HP (Medium).

The percentage of weight on the front axle is 4438 kg (9783 lb) / 12351 kg (27231 lb) x 100% = 36%

From the Table of Recommended Inflation Pressures in Wheels, Tires, and Treads for the calculated axle loads, the required inflation pressures are:

Front Inflation Pressure 120 kPa (1.2 bar; 18 psi)

Rear Inflation Pressure 80 kPa (0.8 bar; 12 psi) but **only if the tractor is towing an implement that places very small load on the drawbar (planter or air seeder).**

This is the ideal configuration for a 8285R MFWD tractor when it is used with towed implements such as planters or air seeders. The front weight percentage should be approximately 35% or less to help prevent power hop. Although this tractor is slightly over 35%, it is close enough. Power hop can still occur, but it can be controlled using the procedures given in this section of the manual. If the percentage is much higher, control may not be possible.

When this tractor is used to tow large trailers, the rear inflation pressure must be increased as outlined in Example 1.

If this tractor is used with heavy integral or semi-integral implements, additional front ballast and higher rear inflation pressures will be required.

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Unballasted Tractor Weight Chart for 8235R-8310R 1300 MFWD

Unballasted Tractor Weight Chart for 8235R						
Rear Tires	**Singles**	**Duals**	**Triples**	**Singles**	**Duals**	**Triples**
Front Tires	**Singles**	**Singles**	**Singles**	**Singles**	**Singles**	**Singles**
	IVT			**PowerShift**		
NOTE: Unballasted weights are calculated by averaging and are figured based on tractor with quick coupler, Cat 3 drawbar, 3 SCV's, and Group 42 front tire size (see "Front Wheels, Tires, and Treads"). Base tractors assume a half tank of fuel, full hydraulic oil, full coolant system, full engine oil, and no fluid in tires.						
320/90R54 (Group 47)						
Front kg (lb)	4484 (9886)	4484 (9886)	4484 (9886)	4245 (9359)	4245 (9359)	4245 (9359)
Rear	6095 (13437)	7025 (15487)	7955 (17537)	6071 (13383)	7001 (15434)	7931 (17484)
Total	10579 (23323)	11509 (25373)	12439 (27423)	10316 (22743)	11246 (24793)	12176 (26843)
Front %	42.4	39	36	41.2	37.7	34.9
Rear %	57.6	61	64	58.8	62.3	65.1
380/90R50 (Group 47)						
Front kg (lb)	4514 (9952)	4514 (9952)	4514 (9952)	4275 (9425)	4275 (9425)	4275 (9425)
Rear	6025 (13283)	6915 (15245)	7805 (17207)	6001 (13229)	6891 (15191)	7781 (17153)
Total	10539 (23234)	11429 (25196)	12319 (27159)	10276 (22655)	11166 (24617)	12056 (26579)
Front %	42.8	39.5	36.6	41.6	38.3	35.5
Rear %	57.2	60.5	63.4	58.4	61.7	64.5
480/80R46 (Group 47)						
Front kg (lb)	4428 (9762)	4428 (9762)	4428 (9762)	4189 (9236)	4189 (9236)	4189 (9236)
Rear	6039 (13313)	6919 (15253)	7799 (17194)	6015 (13260)	6895 (15200)	7775 (17140)
Total	10467 (23076)	11347 (25016)	12227 (26956)	10204 (22496)	11084 (24436)	11964 (26376)
Front %	42.3	39	36.2	41.1	37.8	35
Rear %	57.7	61	63.8	58.9	62.2	65
520/85/R42 (Group 47)						
Front kg (lb)	4494 (9908)	4494 (9908)	4494 (9908)	4255 (9381)	4255 (9381)	4255 (9381)
Rear	6105 (13459)	7085 (15619)	8065 (17780)	6081 (13405)	7061 (15566)	8041 (17726)
Total	10599 (23367)	11579 (25527)	12559 (27688)	10336 (22787)	11316 (24947)	12296 (27108)
Front %	42.4	38.8	35.8	41.2	37.6	34.6
Rear %	57.6	61.2	64.2	52.8	62.4	65.4
620/70R42 (Group 47)						
Front kg (lb)	4534 (9996)	4534 (9996)	4534 (9996)	4295 (9470)	4295 (9470)	4295 (9470)
Rear	6293 (13873)	7439 (16400)	8585 (18926)	6269 (13820)	7415 (16346)	8561 (18873)
Total	10827 (23869)	11973 (26396)	13119 (28922)	10564 (23289)	11710 (25816)	12856 (28342)
Front %	41.9	37.9	34.6	40.7	36.7	33.4
Rear %	58.1	62.1	65.4	59.3	63.3	66.6
650/75R38 (Group 47)						
Front kg (lb)	4534 (9996)	—	—	4295 (9470)	—	—
Rear	6327 (13948)	—	—	6303 (13895)	—	—
Total	10861 (23944)	—	—	10598 (23364)	—	—
Front %	41.7	—	—	40.5	—	—
Rear %	58.3	—	—	59.5	—	—
710/70R38 (Group 47)						
Front kg (lb)	4574 (10084)	4574 (10084)	4574 (10084)	4335 (9558)	4335 (9558)	4335 (9558)
Rear	6333 (13962)	7505 (16545)	8677 (19129)	6309 (13908)	7481 (16492)	8653 (19076)
Total	10907 (24046)	12079 (26629)	13251 (29213)	10644 (23466)	11816 (26050)	12988 (28633)
Front %	41.9	37.9	34.5	40.7	36.7	33.4
Rear %	58.1	62.1	65.5	59.3	63.3	66.6
380/90/R54 (Group 48)						
Front kg (lb)	4514 (9952)	4514 (9952)	4514 (9952)	4275 (9425)	4275 (9425)	4275 (9425)
Rear	6055 (13349)	6975 (15377)	7895 (17405)	6031 (13295)	6951 (15323)	7871 (17352)

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Unballasted Tractor Weight Chart for 8235R						
Rear Tires	**Singles**	**Duals**	**Triples**	**Singles**	**Duals**	**Triples**
Front Tires	**Singles**	**Singles**	**Singles**	**Singles**	**Singles**	**Singles**
	IVT			**PowerShift**		
Total	10569 (23301)	11489 (25329)	12409 (27357)	10306 (22721)	11226 (24749)	12146 (26777)
Front %	42.7	39.3	36.4	41.5	38.1	35.2
Rear %	57.3	60.7	63.6	58.5	61.9	64.8
480/80/R50 (Group 48)						
Front kg (lb)	4428 (9762)	4428 (9762)	4428 (9762)	4189 (9236)	4189 (9236)	4189 (9236)
Rear	6135 (13525)	7045 (15531)	7955 (17537)	6111 (13472)	7021 (15478)	7931 (17484)
Total	10563 (23287)	11473 (25293)	12383 (27300)	10300 (22707)	11210 (24714)	12120 (26720)
Front %	41.9	38.6	35.8	40.7	37.4	34.6
Rear %	58.1	61.4	64.2	59.3	62.6	65.4
520/85R46 (Group 48)						
Front kg (lb)	4494 (9908)	4494 (9908)	4494 (9908)	4255 (9381)	4255 (9381)	4255 (9381)
Rear	6195 (13657)	7265 (16016)	8335 (18375)	6171 (13604)	7241 (15963)	8311 (18322)
Total	10689 (23565)	11759 (25924)	12829 (28283)	10426 (22985)	11496 (25344)	12566 (27703)
Front %	42	38.2	35	40.8	37	33.9
Rear %	58	61.8	65	59.2	63	66.1
620/70R46 (Group 48)						
Front kg (lb)	4534 (9996)	4534 (9996)	4534 (9996)	4295 (9470)	4295 (9470)	4295 (9470)
Rear	6255 (13790)	7385 (16281)	8515 (18772)	6231 (13736)	7361 (16227)	8491 (18719)
Total	10789 (23786)	11919 (26277)	13049 (28768)	10526 (23206)	11656 (25697)	12786 (28188)
Front %	42	38	34.7	40.8	36.9	33.6
Rear %	58	62	65.3	59.2	63.1	66.4
650/85R38 (Group 48)						
Front kg (lb)	4534 (9996)	4534 (9996)	4534 (9996)	4295 (9470)	4295 (9470)	4295 (9470)
Rear	6355 (14010)	7565 (16678)	8775 (19345)	6331 (13957)	7541 (16624)	8751 (19292)
Total	10889 (24006)	12099 (26674)	13309 (29341)	10626 (23426)	11836 (26094)	13046 (28761)
Front %	41.6	37.5	34.1	40.4	36.3	32.9
Rear %	58.4	62.5	65.9	59.6	63.7	67.1
710/70R42 (Group 48)						
Front kg (lb)	4574 (10084)	4574 (10084)	4574 (10084)	4335 (9558)	4335 (9558)	4335 (9558)
Rear	6435 (14186)	7763 (17114)	9091 (20042)	6411 (14133)	7739 (17061)	9067 (19988)
Total	11009 (24271)	12337 (27198)	13665 (30126)	10746 (23691)	12074 (26618)	13402 (29546)
Front %	41.5	37.1	33.5	40.3	35.9	32.3
Rear %	58.5	62.9	66.5	59.7	64.1	67.7
800/70R38 (Group 48)						
Front kg (lb)	4574 (10084)	4574 (10084)	4574 (10084)	4335 (9558)	4335 (9558)	4335 (9558)
Rear	6565 (14473)	7975 (17582)	9385 (20690)	6541 (14420)	7951 (17528)	9361 (20637)
Total	11139 (24557)	12549 (27666)	13959 (30774)	10879 (23977)	12286 (27086)	13696 (30194)
Front %	41.1	36.4	32.8	39.9	35.3	31.7
Rear %	58.9	63.6	67.2	60.1	64.7	68.3

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Unballasted Tractor Weight Chart for 8235R-8360R 1500 MFWD

Unballasted Tractor Weight Chart for 8235R-8360R 1500 MFWD						
Rear Tires	**Singles**	**Duals**	**Triples**	**Singles**	**Duals**	**Triples**
Front Tires	**Singles**	**Singles**	**Singles**	**Singles**	**Singles**	**Singles**
	IVT			**PowerShift**		
NOTE: Unballasted weights are calculated by averaging and are figured based on tractor with quick coupler, Cat 3 drawbar, 3 SCV's, and Group 42 front tire size (see "Front Wheels, Tires, and Treads"). Base tractors assume a half tank of fuel, full hydraulic oil, full coolant system, full engine oil, and no fluid in tires.						
Front kg (lb)	5012 (11050)	5012 (11050)	5012 (11050)	4853 (10700)	4853 (10700)	4853 (10700)
Rear	6014 (13258)	6944 (15309)	7874 (17359)	5920 (13050)	6850 (15101)	7780 (17151)
Total	11026 (24308)	11956 (26358)	12886 (28409)	10779 (23750)	11703 (25801)	12633 (27851)
Front %	45.5	41.9	38.9	45.1	41.5	38.4
Rear %	54.5	58.1	61.1	54.9	58.5	61.6
380/90R50 (Group 47)						
Front kg (lb)	5042 (11116)	5042 (11116)	5042 (11116)	4883 (10766)	4883 (10766)	4883 (10766)
Rear	5944 (13104)	6834 (15066)	7724 (17028)	5850 (12896)	6740 (14858)	7630 (16820)
Total	10986 (24220)	11876 (26182)	12766 (28144)	10733 (23662)	11623 (25624)	12513 (27586)
Front %	45.9	42.5	39.5	45.5	42	39
Rear %	54.1	57.5	60.5	54.5	58	61
480/80R46 (Group 47)						
Front kg (lb)	4956 (10926)	4956 (10926)	4956 (10926)	4797 (10576)	4797 (10576)	4797 (10576)
Rear	5958 (13135)	6838 (15075)	7718 (17015)	5864 (12927)	6744 (14867)	7624 (16807)
Total	10914 (24061)	11794 (26001)	12674 (27941)	10661 (23503)	11541 (25443)	12421 (27383)
Front %	45.4	42	39.1	45	41.6	38.6
Rear %	54.6	58	60.9	55	58.4	61.4
520/85/R42 (Group 47)						
Front kg (lb)	5022 (11072)	5022 (11072)	5022 (11072)	4863 (10722)	4863 (10722)	4863 (10722)
Rear	6024 (13280)	7004 (15441)	7984 (17601)	5930 (13073)	6910 (15233)	7890 (17394)
Total	11046 (24352)	12026 (26513)	13006 (28673)	10793 (23794)	11779 (25955)	12753 (28115)
Front %	45.5	41.8	38.6	45.1	41.3	38.1
Rear %	54.5	58.2	61.4	54.9	58.7	61.9
620/70R42 (Group 47)						
Front kg (lb)	5062 (11160)	5062 (11160)	5062 (11160)	4903 (10810)	4903 (10810)	4903 (10810)
Rear	6212 (13695)	7358 (16221)	8504 (18748)	6118 (13487)	7264 (16013)	8410 (18540)
Total	11274 (24855)	12420 (27381)	13566 (29908)	11021 (24297)	12167 (26824)	13313 (29350)
Front %	44.9	40.8	37.3	44.5	40.3	36.8
Rear %	55.1	59.2	62.7	55.5	59.7	63.2
650/75R38 (Group 47)						
Front kg (lb)	5062 (11160)	—	—	4903 (10810)	—	—
Rear	6246 (13770)	—	—	6152 (13562)	—	—
Total	11308 (24930)	—	—	11055 (24372)	—	—
Front %	44.8	—	—	44.4	—	—
Rear %	55.2	—	—	55.6	—	—
710/70R38 (Group 47)						
Front kg (lb)	5102 (11248)	5102 (11248)	5102 (11248)	4943 (10898)	4943 (10898)	4943 (10898)
Rear	6252 (13783)	7424 (16367)	8596 (18951)	6158 (13575)	7330 (16159)	8502 (18743)
Total	11354 (25031)	12526 (27615)	13698 (30199)	11101 (13575)	12273 (27057)	13445 (29641)
Front %	44.9	40.7	37.2	44.5	40.3	36.8
Rear %	55.1	59.3	62.8	55.5	59.7	63.2
380/90/R54 (Group 48)						
Front kg (lb)	5042 (11116)	5042 (11116)	5042 (11116)	4883 (10766)	4883 (10766)	4883 (10766)
Rear	5974 (13170)	6894 (15198)	7814 (17227)	5880 (12962)	6800 (14991)	7720 (17019)
Total	11016 (24286)	11936 (26314)	12856 (28342)	10763 (23728)	11683 (25756)	12603 (27785)

Continued on next page

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Unballasted Tractor Weight Chart for 8235R-8360R 1500 MFWD						
Rear Tires	**Singles**	**Duals**	**Triples**	**Singles**	**Duals**	**Triples**
Front Tires	**Singles**	**Singles**	**Singles**	**Singles**	**Singles**	**Singles**
	IVT			**PowerShift**		
Front %	45.8	42.2	39.2	45.4	41.8	38.7
Rear %	54.2	57.8	60.8	54.6	58.2	61.3
480/80/R50 (Group 48)						
Front kg (lb)	4956 (10926)	4956 (10926)	4956 (10926)	4797 (10576)	4797 (10576)	4797 (10576)
Rear	6054 (13346)	6964 (15353)	7874 (17359)	5960 (13139)	6870 (15145)	7780 (17151)
Total	11010 (24273)	11920 (26279)	12830 (28285)	10757 (23715)	11667 (25721)	12577 (27727)
Front %	45	41.6	38.6	44.6	41.1	38.1
Rear %	55	58.4	61.4	55.4	58.9	61.9
520/85R46 (Group 48)						
Front kg (lb)	5022 (11072)	5022 (11072)	5022 (11072)	4863 (10722)	4863 (10722)	4863 (10722)
Rear	6114 (13479)	7184 (15838)	8254 (18197)	6020 (13271)	7090 (15630)	8160 (17989)
Total	11136 (24551)	12206 (26909)	13276 (29268)	10883 (23993)	11953 (26352)	13023 (28711)
Front %	45.1	41.1	37.8	44.7	40.7	37.3
Rear %	54.9	58.9	62.2	55.3	59.3	62.7
620/70R46 (Group 48)						
Front kg (lb)	5062 (11160)	5062 (11160)	5062 (11160)	4903 (10810)	4903 (10810)	4903 (10810)
Rear	6174 (13611)	7304 (16102)	8434 (18593)	6080 (13403)	7210 (15894)	8340 (18368)
Total	11236 (24771)	12366 (27262)	13496 (29753)	10983 (24213)	12113 (26704)	13243 (29196)
Front %	45.1	40.9	37.5	44.6	40.5	37
Rear %	54.9	59.1	62.5	55.4	59.5	63
650/85R38 (Group 48)						
Front kg (lb)	5062 (11160)	5062 (11160)	5062 (11160)	4903 (10810)	4903 (10810)	4903 (10810)
Rear	6274 (13831)	7484 (16499)	8694 (19167)	6180 (13624)	7390 (16291)	8600 (18959)
Total	11336 (24991)	12546 (27659)	13756 (30327)	11083 (24434)	12293 (27101)	13503 (29769)
Front %	44.7	40.3	36.8	44.2	39.9	36.3
Rear %	55.3	59.7	63.2	55.8	60.1	63.7
710/70R42 (Group 48)						
Front kg (lb)	5102 (11248)	5102 (11248)	5102 (11248)	4943 (10898)	4943 (10898)	4943 (10898)
Rear	6354 (14008)	7682 (16936)	9010 (19863)	6260 (19800)	7588 (16728)	8916 (19656)
Total	11456 (25256)	12784 (28184)	14112 (31111)	11203 (24698)	12531 (27626)	13859 (30554)
Front %	44.5	39.9	36.2	44.1	39.4	35.7
Rear %	55.5	60.1	63.8	55.9	60.6	64.3
800/70R38 (Group 48)						
Front kg (lb)	5102 (11248)	5102 (11248)	5102 (11248)	4943 (10898)	4943 (10898)	4943 (10898)
Rear	6484 (14294)	7894 (17403)	9304 (20511)	6390 (14087)	7800 (17195)	9210 (20304)
Total	11586 (25543)	12996 (28651)	14406 (31760)	11333 (24985)	12743 (28093)	14153 (31202)
Front %	44	39.3	35.4	43.6	38.8	34.9
Rear %	56	60.7	64.6	56.4	61.2	65.1

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Unballasted Tractor Weight Chart for 8235R-8360R Independent Link Suspension

Unballasted Tractor Weight Chart for 8235R-8360R Independent Link Suspension						
Rear Tires	**Singles**	**Duals**	**Triples**	**Singles**	**Duals**	**Triples**
Front Tires	**Singles**	**Singles**	**Singles**	**Singles**	**Singles**	**Singles**
	IVT			**PowerShift**		
NOTE: Unballasted weights are calculated by averaging and are figured based on tractor with quick coupler, Cat 3 drawbar, 3 SCV's, and Group 42 front tire size (see "Front Wheels, Tires, and Treads"). Base tractors assume a half tank of fuel, full hydraulic oil, full coolant system, full engine oil, and no fluid in tires.						
320/90R54 (Group 47)						
Front kg (lb)	5310 (11706)	5310 (11706)	5310 (11706)	5263 (11602)	5263 (11602)	5263 (11602)
Rear	5995 (13217)	6925 (15267)	7855 (17317)	5660 (12479)	6590 (14529)	7520 (16579)
Total	11305 (24923)	12235 (26973)	13165 (29024)	10923 (24081)	11853 (26131)	12783 (28182)
Front %	47	43.4	40.3	48.2	44.4	41.2
Rear %	53	56.6	59.7	51.8	55.6	58.8
380/90R50 (Group 47)						
Front kg (lb)	5340 (11772)	5340 (11772)	5340 (11772)	5293 (11669)	5293 (11669)	5293 (11669)
Rear	5925 (13062)	6815 (15025)	7705 (16987)	5590 (12324)	6480 (14286)	7370 (16248)
Total	11265 (24835)	12155 (26797)	13045 (28759)	10883 (23993)	11773 (25955)	12663 (27917)
Front %	47.4	43.9	40.9	48.6	45	41.8
Rear %	52.6	56.1	59.1	51.4	55	58.2
480/80R46 (Group 47)						
Front kg (lb)	5254 (11583)	5254 (11583)	5254 (11583)	5207 (11479)	5207 (11479)	5207 (11479)
Rear	5939 (13093)	6819 (15033)	7699 (16973)	5604 (12355)	6484 (14295)	7364 (16235)
Total	11193 (24676)	12073 (26616)	12953 (28556)	10811 (23834)	11691 (25774)	12571 (27714)
Front %	46.9	43.5	40.6	48.2	44.5	41.4
Rear %	53.1	56.5	59.4	51.8	55.5	58.6
520/85/R42 (Group 47)						
Front kg (lb)	5320 (11728)	5320 (11728)	5320 (11728)	5273 (11624)	5273 (11624)	5273 (11624)
Rear	6005 (13239)	6985 (15399)	7965 (17560)	5670 (12501)	6650 (14661)	7630 (16822)
Total	11325 (24967)	12305 (27128)	13285 (29288)	10943 (24125)	11923 (26286)	12903 (28446)
Front %	47	43.2	40	48.2	44.2	40.9
Rear %	53	56.8	60	51.8	55.8	59.1
620/70R42 (Group 47)						
Front kg (lb)	5360 (11817)	5360 (11817)	5360 (11817)	5313 (11713)	5313 (11713)	5313 (11713)
Rear	6193 (13653)	7339 (16180)	8485 (18706)	5858 (12915)	7004 (15442)	8150 (17968)
Total	11553 (25470)	12699 (27996)	13845 (30523)	11171 (24628)	12317 (27154)	13463 (29681)
Front %	46.4	42.2	38.7	47.6	43.1	39.5
Rear %	53.6	57.8	61.3	52.4	56.9	60.5
650/75R38 (Group 47)						
Front kg (lb)	5360 (11817)	—	—	5313 (11713)	—	—
Rear	6227 (13728)	—	—	5892 (12990)	—	—
Total	11587 (25545)	—	—	11205 (24703)	—	—
Front %	46.3	—	—	47.4	—	—
Rear %	53.7	—	—	52.6	—	—
710/70R38 (Group 47)						
Front kg (lb)	5400 (11905)	5400 (11905)	5400 (11905)	5353 (11801)	5353 (11801)	5353 (11801)
Rear	6233 (13742)	7405 (16325)	5400 (11905)	5898 (13003)	7070 (15587)	8242 (18171)
Total	11633 (24646)	12805 (28230)	8577 (18909)	11251 (24804)	12423 (27388)	13595 (29972)
Front %	46.4	42.2	38.6	47.6	43.1	39.4
Rear %	53.6	57.8	61.4	52.4	56.9	60.6
380/90/R54 (Group 48)						
Front kg (lb)	5340 (11772)	5340 (11772)	5340 (11772)	5293 (11669)	5293 (11669)	5293 (11669)
Rear	5955 (13129)	6875 (15157)	7795 (17185)	5620 (12390)	6540 (14419)	7460 (16447)

Continued on next page

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Unballasted Tractor Weight Chart for 8235R-8360R Independent Link Suspension						
Rear Tires	**Singles**	**Duals**	**Triples**	**Singles**	**Duals**	**Triples**
Front Tires	**Singles**	**Singles**	**Singles**	**Singles**	**Singles**	**Singles**
	IVT			**PowerShift**		
Total	11295 (24901)	12215 (12929)	13135 (28958)	10913 (24059)	11833 (26087)	12753 (28115)
Front %	47.3	43.7	40.7	48.5	44.7	41.5
Rear %	52.7	56.3	59.3	51.5	55.3	58.5
480/80/R50 (Group 48)						
Front kg (lb)	5254 (11583)	5254 (11583)	5254 (11583)	5207 (11479)	5207 (11479)	5207 (11479)
Rear	6035 (13305)	6945 (15311)	7855 (17317)	5700 (12567)	6610 (14573)	7520 (16579)
Total	11289 (24888)	12199 (26894)	13109 (28900	10907 (24046)	11817 (26052)	12727 (28058)
Front %	46.5	43.1	40.1	47.7	44.1	40.9
Rear %	53.5	56.9	59.9	52.3	55.9	59.1
520/85R46 (Group 48)						
Front kg (lb)	5320 (11728)	5320 (11728)	5320 (11728)	5273 (11624)	5273 (11624)	5273 (11624)
Rear	6095 (13437)	7165 (15796)	8235 (18155)	5760 (12699)	6830 (15058)	7900 (17417)
Total	11415 (25166)	12485 (27525)	13555 (29884)	11033 (24323)	12103 (26682)	13173 (29041)
Front %	46.6	42.6	39.2	47.8	43.6	40
Rear %	53.4	57.4	60.8	52.2	56.4	60
620/70R46 (Group 48)						
Front kg (lb)	5360 (11817)	5360 (11817)	5360 (11817)	5313 (11713)	5313 (11713)	5313 (11713)
Rear	6155 (13570)	7285 (16061)	8415 (18552)	5820 (12831)	6950 (15322)	8080 (17814)
Total	11515 (25386)	12645 (27877)	13775 (30369)	11133 (24544)	12263 (27035)	13393 (29526)
Front %	46.5	42.4	38.9	47.7	43.3	39.7
Rear %	53.5	57.6	61.1	52.3	56.7	60.3
650/85R38 (Group 48)						
Front kg (lb)	5360 (11817)	5360 (11817)	5360 (11817)	5313 (11713)	5313 (11713)	5313 (11713)
Rear	6255 (13790)	7465 (16458)	8675 (19125)	5920 (13052)	7130 (15719)	8340 (18387)
Total	11615 (25607)	12825 (28274)	14035 (30942)	11233 (24764)	12443 (27432)	13653 (30100)
Front %	46.1	41.8	38.2	47.3	42.7	38.9
Rear %	53.9	58.2	61.8	52.7	57.3	61.1
710/70R42 (Group 48)						
Front kg (lb)	5400 (11905)	5400 (11905)	5400 (11905)	5353 (11801)	5353 (11801)	5353 (11801)
Rear	6335 (13966)	7663 (16894)	8991 (19822)	6000 (13228)	7328 (16156)	8656 (19084)
Total	11735 (25871)	13063 (28799)	14391 (31727)	11353 (25029)	12681 (27957)	14009 (30884)
Front %	46	41.3	37.5	47.1	42.2	38.2
Rear %	54	58.7	62.5	52.9	57.8	61.8
800/70R38 (Group 48)						
Front kg (lb)	5400 (11905)	5400 (11905)	5400 (11905)	5353 (11801)	5353 (11801)	5353 (11801)
Rear	6465 (14253)	7875 (17362)	9285 (20470)	6130 (13515)	7540 (16623)	8950 (19732)
Total	11865 (26158)	13275 (29266)	14685 (32375)	11483 (25316)	12893 (28424)	14303 (31533)
Front %	45.5	40.7	36.8	46.6	41.5	37.4
Rear %	54.5	59.3	63.2	53.4	58.5	62.6

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Maximum Load Per Wheel

Front Wheels 40 km/h (25 mph)		
Tire Size	**Load Index**	**Load**
Group 42		
320/85 R38	138A8	2360 kg (5200 lb)
380/85R34	137A8	2300 kg (5080 lb)
420/90 R30	142A8	2650 kg (5840 lb)
480/70 R30	152A8	3550 kg (7850 lb)
600/65 R28	147A8	2360 kg (5200 lb)
Group 43		
320/80 R42	141A8	2575 kg (5680 lb)
380/80 R38	142A8	2650 kg (5840 lb)
420/85 R34	147A8	3075 kg (6800 lb)
480/70 R34	143A8	2725 kg (6000 lb)
480/70 R34	146A8	3000 kg (6600 lb)
480/70 R34	155A8	3875 kg (8550 lb)
540/65 R34	152A8	3550 kg (7850 lb)
600/70 R30	152A8	3550 kg (7850 lb)

Rear Wheels 40 km/h (25 mph)		
Tire Size	**Load Index**	**Load**
Group 47		
320/90 R54	149A8	3250 kg (7150 lb)
380/90 R50	151A8	3450 kg (7600 lb)
480/80 R46	158A8	4250 kg (9350 lb)
520/85 R42	157A8	4125 kg (9100 lb)
620/70 R42	169A8	4500 kg (9900 lb)
710/70 R38	166A8	5300 kg (11700 lb)
Group 48		
380/90 R54	152A8	3550 kg (7850 lb)
480/80 R50	158A8	4250 kg (9350 lb)
520/85 R46	158A8	4250 kg (9250 lb)
620/70 R46	167A8	5450 kg (12000 lb)
710/70 R42	168A8	5600 kg (12300 lb)
710/70 R42	173A8	6500 kg (14300 lb)
800/70 R38	173A8	6500 kg (14300 lb)

IMPORTANT: Maximum loads per wheel shown assume tire is inflated to rated pressure.

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Worksheet to Calculate Ballast Changes

IMPORTANT: Ballast should not exceed weight required to result in recommended percent slip at 6.6 km/h (4.1 mph) MINIMUM.

NOTE: Complete this entire worksheet before adding or changing any ballast or air pressures.

	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 Un ballasted 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 Measuring Wheel Slip—Manually in this section.

OURX935,0000232-19-28FEB11-1/1

Controlling Power Hop—MFWD Tractors

Power hop causes tractor bouncing and/or jumping at field working speeds under 16 km/h (10 mph). It can occur when the tractor is pulling towed implements at medium to high draft loads in loose, dry soil on top of a firm base and/or when climbing hills.

Make adjustments ONLY after making sure the following performance guidelines have been followed.

- Front axle weight split is within guidelines for front axle type (MFWD, ILS™) and implement load (light, medium, or heavy)
- If liquid ballast is used in rear tires, it should not exceed 40% (4 o'clock valve stem position)
- Front and rear inflation pressures set correctly based on static loads. See section 80 Wheels, Tires, and Treads.

Then if Power Hop Occurs:

1. Increase front inflation pressures by 40 kPa (0.4 bar; 6 psi).

If Power Hop Still Occurs:

2. Increase front inflation pressures by another 40 kPa (0.4 bar; 6 psi) and operate tractor.
3. Continue to increase front inflation pressures in 10 kPa (0.1 bar; 2 psi) increments up to a maximum of 40 kPa (0.4 bar; 6 psi) ABOVE maximum pressure rating for the tires (imprinted on tire sidewall).

IMPORTANT: Front tire pressure should not exceed 40 kPa (0.4 bar; 6 psi) more than the maximum rated inflation pressure shown on tire side wall.

If Power Hop Still Occurs:

4. Install up to 75% liquid fill in the front tires and remove an equivalent amount of front cast weight to maintain recommended weight split. Re-inflate the front tires to the maximum pressure rating for the tires and operate the tractor. See Using Liquid Ballast in this section to determine exact amount of weight that will be added.

NOTE: In most cases step 4 will not be required to control power hop.

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Using Quik-Tatch Weights

Up to 22 Quik-Tatch weights can be installed on tractors.

Install Quik-Tatch weights, balanced on each side of center (A). The first two weights must be installed as a pair.

Run retaining bolts (B) through holes and secure with a nut to hold six weights or fewer in position. Tighten bolts.

Weight Attaching Bolts — Specification

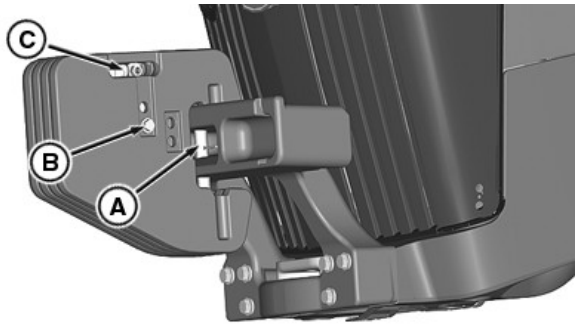
Bolt—Torque. . . . . 230 N·m (170 lb-ft)

Insert retainers between weights, one with threaded hole upward (C) and the other with threaded hole downward when eight or more weights are installed. Tighten bolts.

Weight Attaching Bolts — Specification

Bolt—Torque. . . . . 230 N·m (170 lb-ft)

A—Center
B—Retaining Bolts
C—Retainer with Hole Up



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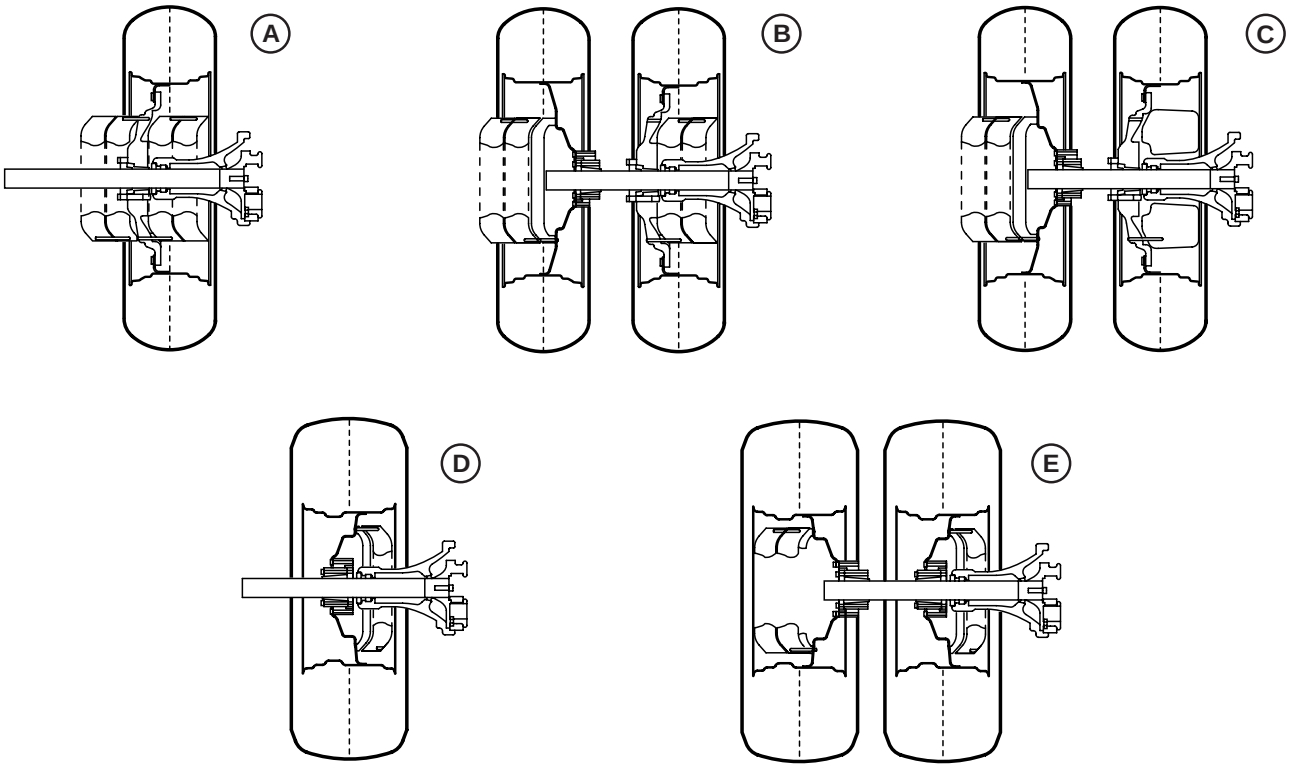
Using Rear Wheel Weights



Rear Wheel Weights

A—Single Cast Wheel

B—Cast Inner with Steel Outer Wheel

C—Cast Inner wheel with 635 kg (1400 lb) Weight

D—Single Steel Wheel

E—Dual Steel Wheels

CAUTION:

Cast wheel weights are extremely heavy. Avoid injury by using proper lifting devices.

NOTE: Not all tread settings are possible when adding wheel weights.

See your John Deere Dealer to order, install, or remove weights.

When using one or more 205 kg (450 lb) weights on steel wheels, a 75 kg (165 lb) starter weight must be installed first. 864 mm (34 in.) steel wheels will not accept 635 kg (1400 lb) weights.

Type of Weight	Steel Inner Wheel	Cast Inner Wheel	Steel Outer Wheel
635 kg (1400 lb)	No	Yes	No
205 kg (450 lb)	Yes	Yes	Yes
75 kg (165 lb)	Yes	Yes	Yes

Continued on next page

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CAUTION: When installing weights, use appropriate equipment or have the job performed by your John Deere Dealer.

NOTE: When using 1524 mm (60 in.) tread setting, maximum of two 205 kg (450 lb) or one 635 kg (1400 lb) weight can be installed on inside of wheel.

Install weights (A) on wheel.

Weight Attaching Bolts — Specification

M16-Bolt—Torque. . . . . 310 N·m (230 lb-ft)
M20-Bolt—Torque. . . . . 610 N·m (450 lb-ft)

For additional weights, install bolts in previous weight. Rotate alternate weight to align bolts with weight holes.

Tighten bolts and then retighten after driving approximately 100 meters (100 yd).

Retighten bolts after working **3 HOURS** and again after **10 HOURS**.

Check tightness every 250 hours.

IMPORTANT: The clearance between inside wheel weights and tractor components must be at least 25 mm (1 in.).

RXA0080173—UN—08APR05

A—Weight

OURX935,0000FF9-19-24MAR10-2/2

Using Liquid Ballast

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.

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 because it results in harsh ride, difficulty in handling, spills if flats occur, and when used in rear tires can result in greater susceptibility to power hop.

Liquid ballast should be avoided in rear tires since it has a stiffening effect that causes the tractor to give a rough ride and generally reduces ability to control power hop. If liquid is used in the rear tires, *all tires on the axle must be filled to the same level* which should not exceed 40 percent.

A calcium chloride mixture of 420 grams per liter (3.5 lb per gal) of water will not freeze solid above -45°C (-50°F) or a mixture of 600 grams per liter (5.0 lb per gal) will not freeze solid above -50°C (-60°F).

NOTE: Use of alcohol as liquid ballast is not recommended.

Up to 75 percent fill may be used in MFWD front tires for weight or to provide stiffness to assist in power hop control. *Do this as a last alternative.*

Fill FRONT tires to 40 or 75 percent full for needed ballast. Fill REAR tires to maximum of 40 percent. More solution could result in harsh ride. Chart shows how much each size holds if filled to 40 or 75 percent.

Liquid Ballast Charts

Liquid Ballast PER Front Tire				
Tire Size	**40% Fill**		**75% Fill**	
	420 g/L (3.5 lb/gal)	**600 g/L (5.0 lb/gal)**	**420 g/L (3.5 lb/gal)**	**600 g/L (5.0 lb/gal)**
Group 42				
290/90 R38	83 kg (183 lb)	90 kg (198 lb)	156 kg (344 lb)	169 kg (373 lb)
320/85 R38	92 kg (203 lb)	97 kg (214 lb)	172 kg (379 lb)	181 kg (399 lb)
420/90 R30	178 kg (392 lb)	190 kg (419 lb)	334 kg (735 lb)	357 kg (787 lb)
480/70 R30	182 kg (400 lb)	194 kg (427 lb)	340 kg (750 lb)	363 kg (800 lb)
600/65 R28	231 kg (509 lb)	246 kg (543 lb)	433 kg (954 lb)	462 kg (1019 lb)
Group 43				
380/80 R38	138 kg (304 lb)	148 kg (326 lb)	258 kg (569 lb)	278 kg (613 lb)
420/85 R34	175 kg (386 lb)	187 kg (412 lb)	328 kg (723 lb)	351 kg (774 lb)
480/70 R34	203 kg (448 lb)	216 kg (476 lb)	381 kg (840 lb)	405 kg (893 lb)
540/65 R34	226 kg (498 lb)	239 kg (527 lb)	156 kg (344 lb)	169 kg (373 lb)
600/70 R30	307 kg (677 lb)	326 kg (719 lb)	575 kg (1268 lb)	611 kg (1347 lb)

Liquid Ballast PER Rear Tire		
Tire Size	**40% Fill**	
	420 g/L (3.5 lb/gal)	**600 g/L (5.0 lb/gal)**
Group 47		
380/90 R50	195 kg (430 lb)	206 kg (455 lb)
320/90 R54	138 kg (305 lb)	258 kg (569 lb)
520/85 R42	349 kg (770 lb)	371 kg (818 lb)
710/70 R38	493 kg (1086 lb)	526 kg (1159 lb)
480/80 R46	292 kg (644 lb)	313 kg (690 lb)
620/70 R42	411 kg (905 lb)	439 kg (967 lb)
Group 48		
520/85 R46	375 kg (827 lb)	400 kg (882 lb)
710/70 R42	523 kg (1154 lb)	558 kg (1230 lb)
620/70 R46	421 kg (929 lb)	451 kg (995 lb)
800/70 R38	663 kg (1462 lb)	707 kg (1559 lb)
480/80 R50	288 kg (634 lb)	308 kg (678 lb)

OURX935,0000FFA-19-24MAR10-1/1

Implement Codes

IMPORTANT: Use a scale to check static weight, especially with heavy implements. Static weight remaining on the front wheels with the implement lifted should always be at least 50 percent of the weight with the implement resting on the ground.

Determine the following:

- MFWD or Independent Link Suspension
- Front tires with or without liquid

Find implement code in John Deere implement operator's manual.

To find implement code for non-John Deere implements use the following procedure:

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 by Step 3. Divide by 1000.
5. Resulting number is the implement code.

Use the prior information and refer to the appropriate chart to determine how many Quik-Tatch™ weights are required.

CAUTION: Do not attempt to transport an implement without adequate front ballast. Loss of steering control may result. With maximum front ballast, do not attempt to transport an implement whose code exceeds:

- **650 for MFWD**
- **835 for 8235R, 8230, and 8330 with Independent Link Suspension**
-
- **865 for 8335 and 8530 with Independent Link Suspension**

NOTE: If no quick coupler is used, add 15 to code.

Quik-Tatch Weights Required

Tractor Code	8235R-8335R MFWD	8235R-8360R Independent Link Suspension
0—320	—	—
321—335	—	—
336—350	—	—
351—365	—	—
366—380	—	—
381—395	0	—
396—410	S	—
411—425	2	—
426—440	4	—
441—455	6	0
456—470	8	S
471—485	10	2
486—500	12	4
501—515	14	6
516—530	16	8
531—545	18	10
546—560	20	12
561—575	22	14
576—590	—	16
591—610	—	18
611—625	—	20
626—640	—	22
641—655	—	—

Continued on next page

Tractor Code	8235R-8335R MFWD	8235R-8360R Independent Link Suspension
656—670	—	—
S=Weight Support Only		
Add to tractor code when:		
.. Fluid is added to front inners	60	60
.. Front duals are used	—	60
.. Fluid is added to front outer duals	—	60
.. Quick coupler is removed	15	15
Maximum obtainable tractor code	650	835

IMPORTANT: Tractor code must be greater than or equal to the implement code.

Quik-Tatch is a trademark of Deere & Company

OURX935,0000239-19-29JUL11-2/2

Weight Added to Rear Axle with Hitch Mounted Implements

This chart applies to an implement whose center of gravity is at 24 in. (610 mm) behind the hook points.

NOTE: Implements with a center of gravity greater than 24 in. (610 mm) will have a higher implement code and will require additional weight on the rear axle. (See Using Implement Codes in this section for more details.)

Implement Weight in kg (lb)	907 (2000)	1133 (2500)	1361 (3000)	1588 (3500)	1814 (4000)	2041 (4500)	2268 (5000)	2495 (5500)	2722 (6000)	2948 (6500)	3175 (7000)	3402 (7500)	3629 (8000)
Approximate Implement Code Rating	120	155	185	215	245	275	305	335	365	395	425	460	490
Approximate Weight Added to Rear Axle by Mounted Implement in kg (lb)	1474 (3250)	1837 (4050)	2223 (4900)	2585 (5700)	2948 (6500)	3311 (7300)	3697 (8150)	4060 (8950)	4423 (9750)	4808 (10600)	5171 (11400)	5534 (12200)	5897 (13000)
Implement Weight in kg (lb)	3856 (8500)	4082 (9000)	4309 (9500)	4536 (10000)	4763 (10500)	4990 (11000)	5216 (11500)	5443 (12000)	5670 (12500)	5897 (13000)	6123 (13500)	6350 (14000)	
Approximate Implement Code Rating	520	550	580	610	640	670	700	730	765	795	825	855	
Approximate Weight Added to Rear Axle by Mounted Implement in kg (lb)	6282 (13850)	6645 (14650)	7008 (15450)	7371 (16250)	7756 (17100)	8119 (17900)	8482 (18700)	8868 (19550)	9231 (20350)	9593 (21150)	9956 (21950)	10342 (22800)	

OURX935,0000FFC-19-24MAR10-1/1

Measuring Wheel Slip—Manually

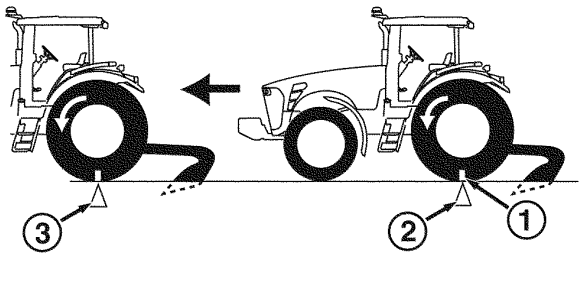
NOTE: Tractors equipped with optional radar unit can automatically determine the percentage of wheel slip. Radar must be calibrated correctly. (See CommandCenter section).

1. Mark a rear tire.
2. Mark a starting point on the ground with the tractor moving and implement lowered in the ground.
3. Follow tractor and mark the ground again where marked tire completes 10 full revolutions.
4. Repeat procedure with implement raised at the 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.



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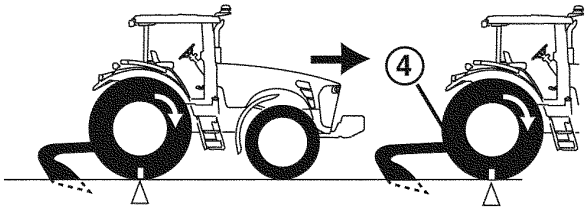

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Wheel Slippage Chart

Wheel Revolutions (Step 4)	% Slip	Result
10	0	Remove Ballast
9-1/2	5	Remove Ballast
9	10	Correct Ballast
8-1/2	15	Add Ballast
8	20	Add Ballast
7-1/2	25	Add Ballast
7	30	Add Ballast

OURX935,000030D-19-17MAY11-1/1

Service Tires Safely

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.

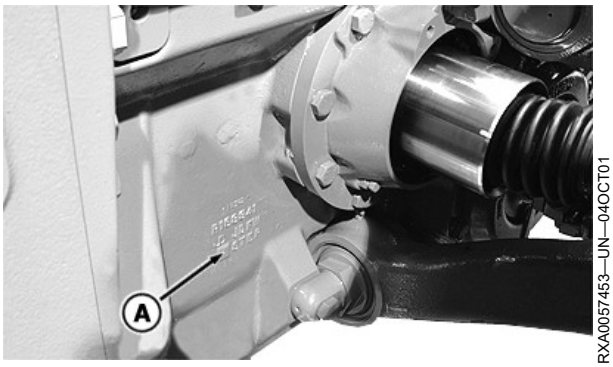
Check wheels for low pressure, cuts, bubbles, damaged rims, or missing lug bolts and nuts.

RXA0103438—UN—11JUN09

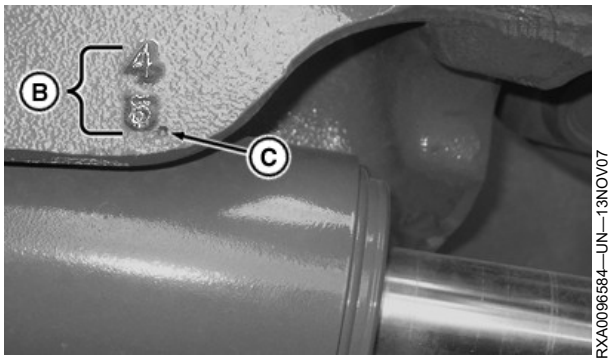
Wheels and tires are heavy. When handling wheels and tires use a safe lifting device or get an assistant to help lift, install, or remove.

DX,WW,RIMS-19-28FEB17-1/1

Tire Combinations



Step Identification (Independent Link Suspension)



Step Identification (1500 MFWD Axle)

A—Marking Location, Independent Link Suspension

B—Marking Location, 1500 MFWD Axle

C—Divot

IMPORTANT: Avoid excessive drive train wear. Do not mix worn and new tires, bias and radial, or tires of different diameters. Do not use R2 tires in combination with R1.

Tires are placed into groups by their Rolling Circumference Index (RCI). Rolling circumference is the distance a tire travels in one revolution. Tires within a group, regardless of rim size, are the same or nearly the same diameter. Knowing and understanding RCI group sizes makes choosing front and rear tire combinations easier.

RCI is important for proper MFWD and Independent Link Suspension tractor setup. With both types of front axles, front and rear tires do the work. Since front tires are smaller than rear tires, front tires have to rotate faster to cover the same distance as the rear. Therefore it is important to select the correct size to optimize efficiency and ensure longer tire life.

Tractors equipped with 1300 MFWD axle always have front tires that are five group sizes smaller than the rear tire group. Tractors equipped with Independent Link Suspension have a ”4” or ”5” marking (A) stamped on the right side of front differential housing. Tractors equipped with 1500 MFWD axle, have a ”4” and a ”5” marking (B) stamped on the right-hand side (B) of the front axle above the steering cylinder. A divot (C) is stamped beside the appropriate number for that tractor. This marking identifies axle gear ratio and the difference in tire group size required.

The front tire must be from a group that is four or five group sizes smaller than the rear tire group. For example, if the rear tires are group 47, and the front differential is stamped with ”5”, then the front tires must be group 42. The rim size is of no consequence. Different rim size tires such as 18.4R46 and 20.8R42 have the same rolling circumference, which is 47. Tire sizes are found in the table on the following page.

MFWD front tire size combinations must be matched with the rear tires. It is not recommended tire combinations be changed without consulting your dealer. Mismatched tire sizes effect electronic transmission control, which may vary tractor ground speed. Mismatched tires may also increase wear on tires and drive train components.

If you have any questions or need assistance in choosing the correct combination, see your John Deere dealer.

OURX935,00004F7-19-17JUL12-1/1

Tire Combinations Tables

	Tire Combination Group Sizes							
	Minimum Recommended Row Width							
	508 mm (20 in.)	558.8 mm (22 in.)	660.4 mm (26 in.)	762 mm (30 in.)	812.8 mm (32 in.)	1016+ mm (40 + in.)		
Tire Section Width								
Group Size	320 mm (12.4 in.)	380 mm (14.9 in.)	420 mm (16.9 in.)	480 mm (18.4 in.)	520 mm (20.8 in.)	620 mm (24.5 in.)	710 mm (28 in.)	800 mm (30.5 in.)
48		380/90R54		480/80R50	520/85R46	620/70R46 650/85R38 IF650/85R38	710/70R42 IF 710/70R42	800/70R38 IF 800/70R38
47	320/90R54	380/90R50		480/80R46	520/85R42	620/70R42 650/75R38	710/70R38 IF710/70R38	
	Front Tire Group Sizes							
	Minimum Recommended Row Width							
	508 mm (20 in.)	558.8 mm (22 in.)	660.4 mm (26 in.)	762 mm (30 in.)	812.8 mm (32 in.)	1016+ mm (40 + in.)		
Tire Section Width								
Group Size	320 mm (12.4 in.)	380 mm (14.9 in.)	420 mm (16.9 in.)	480 mm (18.4 in.)	520 mm (20.8 in.)	620 mm (24.5 in.)		
44					540/75R34	620/75R30		
43	320/80R42	380/80R38	420/85R34 IF420/85R34	480/70R34	540/65R34	600/70R30 IF 600/70R30		
42	320/85R38	380/85R34	420/90R30	480/70R30	540/65R30	600/65R28		

OURX935,0000878-19-17APR12-1/1

Tire Inflation Pressure Guidelines

Check tire inflation pressure *at least* weekly 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 will show a deflection of the sidewall. This is normal and will not harm the tire.

Inflation pressures less than 80 kPa (0.8 bar) (12 psi) should be monitored frequently because of the increased risk of low pressure air leaks.

NOTE: Bead slip can be experienced in high-traction conditions. Increasing the inflation pressure will help but will reduce traction.

Maximum tire pressure is specified on tire sidewall.

Determine correct tire pressure by weighing tractor using the following procedure:

Front axle weight with implement lowered

Rear axle weight with implement raised

Set tire inflation pressures according to weight measured. *Ballasting and tire inflation pressure may need to be adjusted when operating conditions change.*

NOTE: If tractor is equipped with front-mounted implement, raise implement when determining front axle weight and lower implement when determining rear axle weight. If tractor is equipped with both a front and rear-mounted implement, raise both implements.

Managing Tire Inflation Pressures

IMPORTANT: Integral implements transfer significant weight to rear axle. Include this added weight when determining correct inflation pressures.

Tractors operating with a loader should increase front tire pressures 30 kPa (0.3 bar) (4 psi) above the 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 the 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 percent.

Tractors with heavy hitch-mounted implements require increased rear tire inflation pressures to carry the increased weight during transport.

Reduce pressures to correct pressure for towed implement operation

Tractors with heavy hitch-mounted implements that require additional front cast-weights to maintain steering stability also require increased front tire inflation pressure to carry the increased weight.

OURX935,0000660-19-03JAN08-1/1

Recommended Pressures—*Bias Single Front Tires*

Axle Load kg (lb)	16.5L-16.1 8PR kPa(bar)(psi)	11.00-24 12PR kPa(bar)(psi)
2270(5000)	170(1.7)(25)	170(1.7)(25)
2490(5500)	170(1.7)(25)	200(2.0)(29)
2720(6000)	170(1.7)(25)	230(2.3)(34)
2950(6500)	190(1.9)(28)	260(2.6)(38)
3180(7000)	210(2.1)(30)	—
3400(7500)	—	—
3630(8000)	—	—
3860(8500)	—	—

OURX935,00002E6-19-07JUN11-1/1

Recommended Pressures—*Group 42*

Axle Load kg (lb)	320/85R38 Single 143 Load Index kPa(bar)(psi)	320/85R38 Dual 143 Load Index kPa(bar)(psi)	380/85R34 Single 145 Load Index kPa(bar)(psi)	380/85R34 Dual 137 Load Index kPa(bar)(psi)
1814(4000)	55(0.55)(8)	40(0.4)(6)	55(0.55)(8)	40(0.4)(6)
2041(4500)	60(0.6)(9)	40(0.4)(6)	55(0.55)(8)	40(0.4)(6)
2268(5000)	80(0.80)(12)	40(0.4)(6)	55(0.55)(8)	40(0.4)(6)
2495(5500)	95(0.95)(14)	40(0.4)(6)	60(0.6)(9)	40(0.4)(6)
2721(6000)	105(1.05)(15)	40(0.4)(6)	70(0.7)(10)	40(0.4)(6)
2948(6500)	120(1.2)(17)	40(0.4)(6)	90(0.90)(13)	40(0.4)(6)
3180(7000)	125(1.25)(18)	50(0.5)(7)	97(0.97)(14)	40(0.4)(6)
3400(7500)	145(1.45)(21)	55(0.55)(8)	110(1.1)(16)	40(0.4)(6)
3630(8000)	160(1.6)(23)	70(0.7)(10)	117(1.17)(17)	55(0.55)(8)
3860(8500)	180(1.85)(26)	75(0.75)(11)	131(1.31)(19)	55(0.55)(8)
4080(9000)	200(2.0)(29)	80(0.8)(12)	138(1.38)(20)	55(0.55)(8)
4310(9500)	(230)(2.3)(34)	90(0.9)(13)	152(1.52)(22)	55(0.55)(8)
4540(10000)	250(2.5)(38)	95(0.95)(14)	159(1.59)(23)	60(0.6)(9)
4760(10500)	280(2.8)(41)	105(1.05)(15)	179(1.79(26)	70(0.7)(10)
4990(11000)	303(3.0)(44)	110(1.1)(16)	200(2.0)(29)	80(0.8)(12)
5220(11500)	324 (3.2)(47)	120(1.2)(17)	234(2.34)(34)	90(0.9)(13)
5440(12000)	359(3.6)(52)	120(1.2)(17)	255(2.55)(37)	90(0.9)(13)
5670(12500)	—	130(1.3)(19)	276(2.76(40)	105(1.05)(15)
5900(13000)	—	140(1.4)(20)	—	110(1.1)(16)
6120(13500)	—	145(1.45)(21)	—	110(1.1)(16)
6350(14000)	—	160(1.6)(23)	—	120(1.2)(17)
6580(14500)	—	165(1.65)(24)	—	125(1.25)(18)
6800(15000)	—	180(1.8)(26)	—	130(1.3)(19)
7030(15500)	—	190(1.9)(28)	—	140(1.4)(20)
7260(16000)	—	210(2.1)(30)	—	145(1.45)(21)
7480(16500)	—	225(2.25)(33)	—	145(1.45)(21)
7950(17000)	—	250(2.5)(36)	—	150(1.5)(22)
8170(17500)	—	255(2.55)(37)	—	160(1.6)(23)
8400(18000)	—	270(2.7)(39)	—	160(1.6)(23)
8391(18500)	—	290(2.9)(42)	—	—
8618(19000)	—	296(2.9)(43)	—	—
8845(19500)	—	310(3.1)(45)	—	—
9071(20000)	—	317(3.1)(46)	—	—
9298(20500)	—	338(3.38(49)	—	—
9525(21000)	—	359(3.5)(52)	—	—
9752(21500)	—	—	—	—

OURX935,000040B-19-22AUG11-1/1

Recommended Pressures—*Group 42 — Continued*

Axle Load	420/90R30 Single 142 Load Index	420/90R30 Single 145 Load Index	420/90R30 Single 147 Load Index	480/70R30 Single 152 Load Index	600/65R28 Single 147 Load Index
kg (lb)	kPa(bar)(psi)	kPa(bar)(psi)	kPa(bar)(psi)	kPa(bar)(psi)	kPa(bar)(psi)
1814(4000)	62(0.62)(9)	55(0.55)(8)	50(0.55)(8)	50(0.55)(8)	50(0.55)(8)
2041(4500)	62(0.62)(9)	55(0.55)(8)	50(0.55)(8)	50(0.55)(8)	50(0.55)(8)
2268(5000)	62(0.62)(9)	55(0.55)(8)	50(0.55)(8)	50(0.55)(8)	50(0.55)(8)
2495(5500)	62(0.62)(9)	6.)(0.6)(9)	50(0.55)(8)	50(0.55)(8)	50(0.55)(8)
2721(6000)	62(0.62)(9)	70(0.7) (10)	50(0.55)(8)	60(0.6)(9)	50(0.55)(8)
2948(6500)	62(0.62)(9)	80(0.80)(12)	60(0.6)(9)	70(0.7)(10)	50(0.55)(8)
3180(7000)	75(0.75)(11)	95(0.95)(14)	75(0.75)(11)	75(0.75)(11)	50(0.55)(8)
3400(7500)	85(0.85)(12)	105(1.05)(15)	90(0.9)(13)	90(0.9)(13)	60(0.6)(9)
3630(8000)	95(0.95)(14)	120(1.2)(17)	95(0.95)(14)	95(0.95)(14)	70(0.7)(10)
3860(8500)	105(1.05)(15)	130(1.3)(19)	110(1.1)(16)	110(1.1)(16)	75(0.75)(11)
4080(9000)	110(1.1)(16)	145(1.45)(21)	120(1.2)(17)	120(1.2)(17)	80(0.8)(12)
4310(9500)	120(1.2)(17)	160(1.6)(23)	120(1.2)(17)	125(1.25)(18)	90(0.9)(13)
4540(10000)	130(1.3)(19)	165(1.65)(24)	130(1.3)(19)	130(1.3)(19)	95(0.95)(14)
4760(10500)	145(1.45)(21)	185(1.85)(27)	140(1.4)(20)	145(1.45)(21)	110(1.1)(16)
4990(11000)	150(1.5)(22)	200(2.0)(29)	145(1.45)(21)	150(1.5)(22)	110(1.1)(16)
5220(11500)	160(1.6)(23)	215(2.15(31)	160(1.6)(23)	165(1.65)(24)	120(1.2)(17)
5440(12000)	—	235(2.35)(35)	160(1.6)(23)	180(1.8)(26)	125(1.25)(18)
5670(12500)	—	—	190(1.9)(28)	190(1.9)(28)	140(1.4)(20)
5900(13000)	—	—	215(2.15)(31)	215(2.15)(31)	145(1.45)(21)
6120(13500)	—	—	240(2.4)(35)	240(2.4)(35)	160(1.6)(23)
6350(14000)	—	—	—	270(2.7)(39)	—
6580(14500)	—	—	—	275(2.75)(40)	—
6800(15000)	—	—	—	295(2.95)(43)	—
7030(15500)	—	—	—	320(3.2)(46)	—
7257(16000)	—	—	—	—	—
7480(16500)	—	—	—	—	—
7711(17000)	—	—	—	—	—
7937(17500)	—	—	—	—	—
8164(18000)	—	—	—	—	—
8391(18500)	—	—	—	—	—
8618(19000)	—	—	—	—	—
8845(19500)	—	—	—	—	—
9071(20000)	—	—	—	—	—
9298(20500)	—	—	—	—	—
9525(21000)	—	—	—	—	—
9752(21500)	—	—	—	—	—

OURX935,000040C-19-23AUG11-1/1

Recommended Pressures—*Group 43*

Axle Load kg (lb)	320/80R42 Single 141 Load Index kPa(bar)(psi)	320/80R42 Dual 141 Load Index kPa(bar)(psi)	380/80R38 Single 142 Load Index kPa(bar)(psi)	380/80R38 Dual 142 Load Index kPa(bar)(psi)	420/85R34 Single 147 Load Index kPa(bar)(psi)	420/85R34 Dual 147 Load Index kPa(bar)(psi)
1814(4000)	50(0.55)(8)	40(0.4)(6)	50(0.55)(8)	40(0.4)(6)	55(0.55)(8)	40(0.4)(6)
2041(4500)	60(0.6)(9)	40(0.4)(6)	50(0.55)(8)	40(0.4)(6)	55(0.55)(8)	40(0.4)(6)
2268(5000)	75(0.75)(11)	40(0.4)(6)	50(0.55)(8)	40(0.4)(6)	55(0.55)(8)	40(0.4)(6)
2495(5500)	90(0.90)(13)	40(0.4)(6)	60(0.6)(9)	40(0.4)(6)	55(0.55)(8)	40(0.4)(6)
2721(6000)	105(1.05)(15)	40(0.4)(6)	70(0.7)(10)	40(0.4)(6)	55(0.55)(8)	40(0.4)(6)
2948(6500)	120(1.2)(17)	40(0.4)(6)	90(0.90)(13)	40(0.4)(6)	60(0.6)(9)	40(0.4)(6)
3180(7000)	125(1.25)(18)	48(4.8)(7)	95(0.95)(14)	55(0.55)(8)	75(0.75)(11)	55(0.55)(8)
3400(7500)	140(1.4)(20)	55(5.5)(8)	110(1.1)(16)	55(0.55)(8)	90(0.9)(13)	55(0.55)(8)
3630(8000)	150(1.5)(22)	62(6.2)(9)	120(1.2)(17)	55(0.55)(8)	95(0.95)(14)	55(0.55)(8)
3860(8500)	170(1.7)(25)	76(7.6)(11)	125(1.25)(18)	55(0.55)(8)	105(1.05)(15)	55(0.55)(8)
4080(9000)	200(2.0)(29)	83(8.3)(12)	140(1.4)(20)	55(0.55)(8)	110(1.1)(16)	55(0.55)(8)
4310(9500)	230(2.3)(34)	90(9.0(13)	150(1.5)(22)	60(0.6)(9)	120(1.2)(17)	55(0.55)(8)
4540(10000)	260(2.6)(38)	97(9.7)(14)	160(1.6)(23)	70(0.7)(10)	130(1.3)(19)	55(0.55)(8)
4760(10500)	275(2.75)(40)	103(1.03)(15)	180(1.8)(26)	70(0.7)(10)	140(1.4)(20)	55(0.55)(8)
4990(11000)	300(3.0)(44)	110(1.1)(16)	200(2.0)(29)	80(0.8)(12)	145(1.45)(21)	60(0.6)(9)
5220(11500)	—	117(1.17)(17)	230(2.3)(34)	90(0.9)(13)	160(1.6)(23)	70(0.7)(10)
5440(12000)	—	117(1.17)(17)	—	90(0.9)(13)	160(1.6)(23)	75(0.75)(11)
5670(12500)	—	131(1.31)(19)	—	105(1.05)(15)	190(1.9)(28)	75(0.75)(11)
5900(13000)	—	138(1.38)(20)	—	110(1.1)(16)	215(2.15)(31)	80(0.8)(12)
6120(13500)	—	145(1.45)(21)	—	110(1.1)(16)	230(2.3)(34)	90(0.9)(13)
6350(14000)	—	152(1.52)(22)	—	120(1.2)(17)	—	95(0.95)(14)
6580(14500)	—	159(1.59)(23)	—	120(1.2)(17)	—	105(1.05)(15)
6800(15000)	—	165(1.65(24)	—	125(1.25)(18)	—	105(1.05)(15)
7030(15500)	—	179(1.79)(26)	—	130(1.3)(19)	—	110(1.1)(16)
7260(16000)	—	200(2.0)(29)	—	145(1.45)(21)	—	110(1.1)(16)
7480(16500)	—	228(2.28)(33)	—	145(1.45)(21)	—	120(1.2)(17)
7950(17000)	—	248(2.48)(36)	—	150(1.5)(22)	—	125(1.25)(18)
8170(17500)	—	255(2.55)(37)	—	160(1.6)(23)	—	125(1.25)(18)
8400(18000)	—	269(2.69)(39)	—	165(1.65)(24)	—	130(1.3)(19)
8630(18500)	—	276(2.76)(40)	—	170(1.7)(25)	—	140(1.4)(20)
8640(19000)	—	290(2.90)(42)	—	185(1.85)(27)	—	145(1.45)(21)
8865(19500)	—	303(3.03)(44)	—	210(2.1)(30)	—	150(1.5)(22)
9090(20000)	—	317(3.17)(46)	—	225(2.25)(33)	—	160(1.6)(23)
9530(21000)	—	—	—	—	—	180(1.8)(26)
9990(22000)	—	—	—	—	—	195(1.95)(29)
10440(23000)	—	—	—	—	—	215(2.15)(33)
10900(24000)	—	—	—	—	—	—

OURX935,00003E4-19-18AUG11-1/1

Recommended Pressures—*Group 43 — Continued*

Axle Load	480/70R34 Single 143 Load Index	480/70R34 Dual 143 Load Index	480/70R34 Single 146 Load Index	480/70R34 Dual 146 Load Index
kg (lb)	kPa (bar) (psi)	kPa (bar) (psi)	kPa(bar)(psi)	kPa (bar) (psi)
2041(4500)	50(0.55)(8)	40(0.4)(6)	50(0.55)(8)	40(0.4)(6)
2268(5000)	50(0.55)(8)	40(0.4)(6)	50(0.55)(8)	40(0.4)(6)
2495(5500)	50(0.55)(8)	40(0.4)(6)	50(0.55)(8)	40(0.4)(6)
2721(6000)	50(0.55)(8)	40(0.4)(6)	50(0.55)(8)	40(0.4)(6)
2948(6500)	60(0.6)(9)	40(0.4)(6)	60(0.6)(9)	40(0.4)(6)
3180(7000)	70(0.7)(10)	40(0.4)(6)	70(0.7)(10)	40(0.4)(6)
3400(7500)	75(0.75)(11)	40(0.4)(6)	75(0.75)(11)	40(0.4)(6)
3630(8000)	90(0.9)(13)	40(0.4)(6)	90(0.9)(13)	40(0.4)(6)
3860(8500)	95(0.95)(14)	40(0.4)(6)	95(0.95)(14)	40(0.4)(6)
4080(9000)	110(1.1)(16)	40(0.4)(6)	110(1.1)(16)	40(0.4)(6)
4310(9500)	120(1.2)(17)	40(0.4)(6)	120(1.2)(17)	40(0.4)(6)
4540(10000)	125(1.25)(18)	48(0.48)(7)	125(1.25)(18)	48(0.48)(7)
4760(10500)	130(1.3)(19)	55(0.55)(8)	130(1.3)(19)	55(0.55)(8)
4990(11000)	140(1.4)(20)	55(0.55)(8)	140(1.4)(20)	55(0.55)(8)
5220(11500)	150(1.5)(22)	60(0.6)(9)	150(1.5)(22)	60(0.6)(9)
5440(12000)	160(1.6)(23)	70(0.7)(10)	160(1.6)(23)	70(0.7)(10)
5670(12500)	—	75(0.75)(11)	170(1.7)(25)	75(0.75)(11)
5900(13000)	—	80(0.8)(12)	190(1.9)(28)	80(0.80(12)
6120(13500)	—	80(0.8)(12)	—	80(0.80(12)
6350(14000)	—	90(0.9)(13)	—	90(0.9)(13)
6580(14500)	—	95(0.95)(14)	—	95(0.95)(14)
6800(15000)	—	103(1.03)(15)	—	103(1.03)(15)
7030(15500)	—	103(1.03)(15)	—	103(1.03)(15)
7260(16000)	—	110(1.1)(16)	—	110(1.1)(16)
7480(16500)	—	120(1.2)(17)	—	120(1.2)(17)
7950(17000)	—	120(1.2)(17)	—	120(1.2)(17)
8170(17500)	—	125(1.25)(18)	—	125(1.25)(18)
8400(18000)	—	125(1.25)(18)	—	125(1.25)(18)
8630(18500)	—	130(1.3)(19)	—	130(1.3)(19)
8640(19000)	—	140(1.4)(20)	—	140(1.4)(20)
8865(19500)	—	145(1.45)(21)	—	145(1.45)(21)
9090(20000)	—	145(1.45)(21)	—	145(1.45)(21)
9530(21000)	—	160(1.6)(23)	—	160(1.6)(23)
9990(22000)	—	—	—	170(1.7)(25)
10440(23000)	—	—	—	190(1.9)(28)
10900(24000)	—	—	—	—

OURX935,000040E-19-23AUG11-1/1

Recommended Pressures—*Group 43 — Continued*

Axle Load kg (lb)	480/70R34 Single 155 Load Index kPa(bar)(psi)	480/70R34 Dual 155 Load Index kPa(bar)(psi)	540/65R34 Single 152 Load Index kPa(bar)(psi)	600/70R30 Single 152 Load Index kPa(bar)(psi)
2041(4500)	55(0.55)(8)	40(0.4)(6)	50(0.55)(8)	50(0.55)(8)
2268(5000)	55(0.55)(8)	40(0.4)(6)	50(0.55)(8)	50(0.55)(8)
2495(5500)	55(0.55)(8)	40(0.4)(6)	50(0.55)(8)	50(0.55)(8)
2721(6000)	55(0.55)(8)	40(0.4)(6)	50(0.55)(8)	50(0.55)(8)
2948(6500)	60(0.6)(9)	40(0.4)(6)	50(0.55)(8)	50(0.55)(8)
3180(7000)	70(0.7)(10)	40(0.4)(6)	60(0.6)(9)	55(0.55)(8)
3400(7500)	75(0.75)(11)	40(0.4)(6)	70(0.7)(10)	55(0.55)(8)
3630(8000)	90(0.9)(13)	40(0.4)(6)	75(0.75)(11)	55(0.55)(8)
3860(8500)	95(0.95)(14)	40(0.4)(6)	90(0.9)(13)	60(0.6)(9)
4080(9000)	110(1.1)(16)	40(0.4)(6)	90(0.9)(13)	70(0.7)(10)
4310(9500)	120(1.2)(17)	40(0.4)(6)	105(1.05)(15)	75(0.75)(11)
4540(10000)	125(1.25)(18)	48(0.48)(7)	110(1.1)(16)	80(0.8)(12)
4760(10500)	130(1.3)(19)	55(0.55)(8)	120(1.2)(17)	90(0.9)(13)
4990(11000)	140(1.4)(20)	55(0.55)(8)	120(1.2)(17)	95(0.95)(14)
5220(11500)	150(1.5)(22)	60(0.6)(9)	130(1.3)(19)	105(1.05)(15)
5440(12000)	160(1.6)(23)	70(0.7)(10)	140(1.4)(20)	110(1.1)(16)
5670(12500)	170(1.7)(25)	75(0.75(11)	150(1.5)(22)	120(1.2)(17)
5900(13000)	190(1.9)(28)	80(0.80)(12)	165(1.65)(24)	120(1.2)(17)
6120(13500)	215(2.15)(31)	80(0.80)(12)	180(1.8)(26)	125(1.25)(18)
6350(14000)	225(2.25)(33)	90(0.9)(13)	190(1.9)(28)	130(1.3)(19)
6580(14500)	255(2.55)(37)	97(0.97)(14)	215(2.15)(31)	140(1.4)(20)
6800(15000)	270(2.7)(39)	103(1.03)(15)	225(2.25)(33)	145(1.45)(21)
7030(15500)	280(2.8)(41)	103(1.03)(15)	240(2.4)(35)	160(1.6)(23)
7260(16000)	300(3.0)(44)	110(1.1)(16)	—	—
7480(16500)	310(3.1)(45)	120(1.2)(17)	—	—
7950(17000)	320(3.2)(46)	120(1.2)(17)	—	—
8170(17500)	—	125(1.25)(18)	—	—
8400(18000)	—	125(1.25)(18)	—	—
8630(18500)	—	130(1.3)(19)	—	—
8640(19000)	—	140(1.4)(20)	—	—
8865(19500)	—	145(1.45)(21)	—	—
9090(20000)	—	145(1.45)(21)	—	—
9530(21000)	—	160(1.6)(23)	—	—
9990(22000)	—	170(1.7)(25)	—	—
10440(23000)	—	190(1.9)(28)	—	—
10900(24000)	—	215(2.15)(31)	—	—

OURX935,000040D-19-23AUG11-1/1

Recommended Pressures—*Group 43 IF Tires*

Axle Load kg (lb)	IF380/80R38 Single 149 Load Index kPa(bar)(psi)	IF420/85R34 Single 152 Load Index kPa(bar)(psi)	IF600/70R30 Single 159 Load Index kPa(bar)(psi)
2041(4500)	85(0.85)(12)	85(0.85)(12)	85(0.85)(12)
2268(5000)	85(0.85)(12)	85(0.85)(12)	85(0.85)(12)
2495(5500)	85(0.85)(12)	85(0.85)(12)	85(0.85)(12)
2721(6000)	85(0.85)(12)	85(0.85)(12)	85(0.85)(12)
2948(6500)	85(0.85)(12)	85(0.85)(12)	85(0.85)(12)
3180(7000)	85(0.85)(12)	85(0.85)(12)	85(0.85)(12)
3400(7500)	85(0.85)(12)	85(0.85)(12)	85(0.85)(12)
3630(8000)	90(0.90)(13)	85(0.85)(12)	85(0.85)(12)
3860(8500)	105(1.05)(15)	85(0.85)(12)	85(0.85)(12)
4080(9000)	110(1.1)(16)	85(0.85)(12)	85(0.85)(12)
4310(9500)	120(1.2)(17)	95(0.95)(14)	85(0.85)(12)
4540(10000)	125(1.25)(18)	105(1.05)(15)	85(0.85)(12)
4760(10500)	130(1.3)(19)	110(1.1)(16)	85(0.85)(12)
4990(11000)	140(1.4)(20)	120(1.2)(17)	85(0.85)(12)
5220(11500)	150(1.5)(22)	120(1.2)(17)	85(0.85)(12)
5440(12000)	160(1.6)(23)	125(1.25)(18)	85(0.85)(12)
5670(12500)	175(1.75)(25)	140(1.4)(20)	85(0.85)(12)
5900(13000)	185(1.85)(27)	145(1.45)(21)	85(0.85)(12)
6120(13500)	214(2.14)(31)	150(1.5)(22)	90(0.9)(13)
6350(14000)	241(2.41)(35)	160(1.6)(23)	95(0.95)(14)
6580(14500)	—	180(1.8)(26)	100(1.0)(14)
6800(15000)	—	185(1.85)(27)	105(1.05)(15)
7030(15500)	—	195(1.95)(29)	110(1.1)(16)
7260(16000)	—	—	115(1.15)(17)
7480(16500)	—	—	120(1.2)(17)
7950(17000)	—	—	125(1.25)(18)
8170(17500)	—	—	138(1.38)(20)
8400(18000)	—	—	145(1.45)(21)
8630(18500)	—	—	152(1.52)(22)
8640(19000)	—	—	159(1.59)(23)
8865(19500)	—	—	—
9090(20000)	—	—	—
9530(21000)	—	—	—
9990(22000)	—	—	—
10440(23000)	—	—	—
10900(24000)	—	—	—

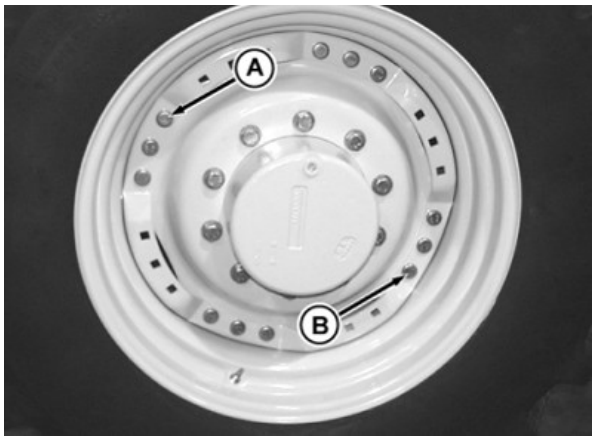
OURX935,00003E6-19-22AUG11-1/1

Recommended Pressures—*Group 44*

Axle Load	540/75R34 Single 157 Load Index	620/75R30 Single 163 Load Index
Kg(lb)	kPa(bar)(psi)	kPa(bar)(psi)
1814(4000)	55(0.55)(8)	55(0.55)(8)
2041(4500)	55(0.55)(8)	55(0.55)(8)
2268(5000)	55(0.55)(8)	55(0.55)(8)
2495(5500)	55(0.55)(8)	55(0.55)(8)
2721(6000)	55(0.55)(8)	55(0.55)(8)
2948(6500)	55(0.55)(8)	55(0.55)(8)
3180(7000)	55(0.55)(8)	55(0.55)(8)
3400(7500)	55(0.55)(8)	55(0.55)(8)
3630(8000)	60(0.6)(9)	55(0.55)(8)
3860(8500)	70(0.7)(10)	55(0.55)(8)
4080(9000)	75(0.75)(11)	55(0.55)(8)
4310(9500)	80(0.8)(12)	60(0.6)(9)
4540(10000)	90(0.9)(13)	70(0.7)(10)
4760(10500)	95(0.95)(14)	75(0.75)(11)
4990(11000)	105(1.05)(15)	75(0.75)(11)
5220(11500)	110(1.1)(16)	80(0.8)(12)
5440(12000)	110(1.1)(16)	90(0.9)(13)
5670(12500)	120(1.2)(17)	95(0.95)(14)
5900(13000)	125(1.25)(18)	105(1.05)(15)
6120(13500)	130(1.3)(19)	110(1.1)(16)
6350(14000)	145(1.45)(21)	110(1.1)(16)
6580(14500)	145(1.45)(21)	120(1.2)(17)
6800(15000)	150(1.5)(22)	125(1.25)(18)
7030(15500)	160(1.6)(23)	130(1.3)(19)
7260(16000)	180(1.8)(26)	140(1.4)(20)
7480(16500)	190(1.9)(28)	140(1.4)(20)
7950(17000)	200(2.)(29)	145(1.45)(21)
8170(17500)	220(2.2)(32)	150(1.5)(22)
8400(18000)	230(2.3)(34)	160(1.6)(23)
8630(18500)	—	165(1.65)(24)
8640(19000)	—	180(1.8)(26)
8865(19500)	—	190(1.9)(28)
9090(20000)	—	210(2.1)(30)
9298(20500)	—	215(2.15)(31)
9530(21000)	—	220(2.2)(32)
9752(21500)	—	240(2.4)(35)
9990(22000)	—	—
10205(22500)	—	—
10440(23000)	—	—
10659(23500)	—	—
10900(24000)	—	—

OURX935,00003E7-19-22JUN11-1/1

MFWD and Independent Link Suspension Front Wheel Bolts Tightening



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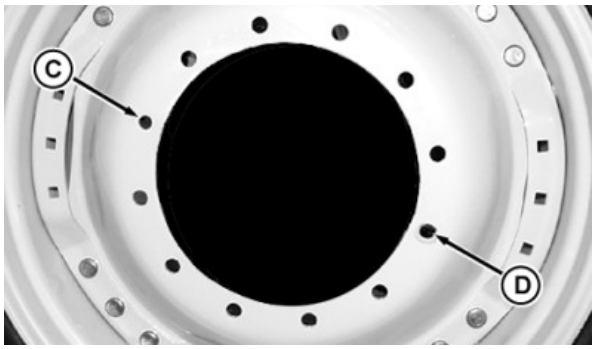


RXA0085840—UN—11JAN06

A—Disk-to-Rim Tight Fit Hole **B—Disk-to-Rim Slot Fit Hole** **C—Disk-to-Hub Tight Fit Hole** **D—Disk-to-Hub Slot Fit Hole**

CAUTION: Avoid the possibility of personal injury. 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.

*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

Install bolt in **tight fit** hole (A) and hand tighten bolt.

Install bolt in **slot fit** (B) and hand tighten bolt.

Install and hand tighten remaining wheel disk-to-rim bolts.

Using a star shaped pattern, torque disk to rim bolts as needed to maintain torque.

Specification

Disk To Rim Bolts—Torque. . . . . 310 N·m (230 lb-ft)

Drive tractor 100 meters (110 yd) and retighten bolts.

Tighten again at **3 HOURS** and **10 HOURS**.

Wheel Disk to Hub

Install cap screw in **tight fit** hole (C) and hand tighten cap screw.

Install cap screw in **slot fit** hole (D) and hand tighten cap screw.

Install and hand tighten remaining wheel disk-to-hub cap screws.

Using a star shaped pattern, torque disk-to-hub cap screws as needed to maintain torque.

Specification

Disk-To-Hub Cap Screws—Torque. . . . . 600 N·m (445 lb-ft)

Drive tractor 100 meters (110 yd) and retighten cap screws.

Tighten again at **3 HOURS**, **10 HOURS**, and **DAILY** for the first week of operation.

OURX935,0000460-19-03JAN08-1/1

Independent Link Suspension/ 1500 MFWD Front Dual Installation

NOTE: This procedure is for tractors equipped with Independent Link Suspension (ILS) or 1500 MFWD axle only. Installing front duals on 1300 MFWD axle is neither recommended nor approved.

For ILS tractors only, lift front wheel assembly by using a jack under the lower support arm of the front suspension.

Remove and retain ten bolts leaving two remaining bolts (A) 180° apart.

NOTE: For tractors equipped with 1500 MFWD axle, install two washers on each of the four bolts (C) and two washers each for the six bolts installed in holes (E).

Install spacer (B) and bolts (C) as illustrated.

CAUTION: Avoid the possibility of personal injury. 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.

Install dual hub (D) using correct lifting equipment.

Using ten previously removed bolts (F), install front dual wheel assembly.

Using a star shaped pattern, torque all bolts as needed to maintain torque.

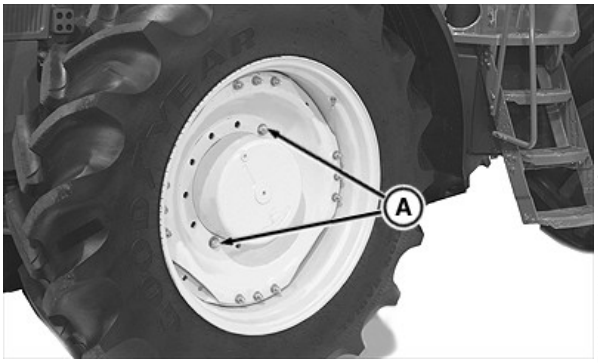
Specification

Front Dual Hub Bolts—Torque. . . . . 600 N·m (445 lb-ft)

Drive tractor 100 meters (110 yd) and retighten bolts.

Tighten again at **3 HOURS**, **10 HOURS**, and **DAILY** for the first week of operation.

A—Bolts
B—Spacer
C—Spacer Bolts
D—Dual Hub
E—Holes
F—Bolts



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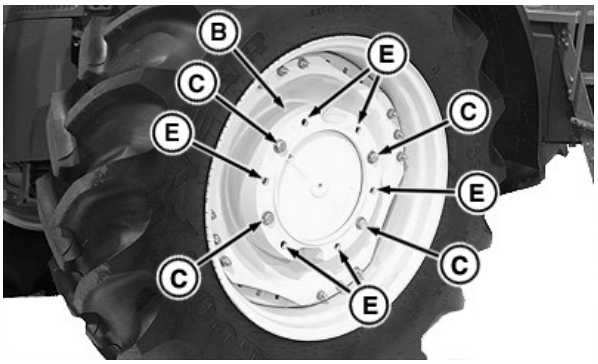

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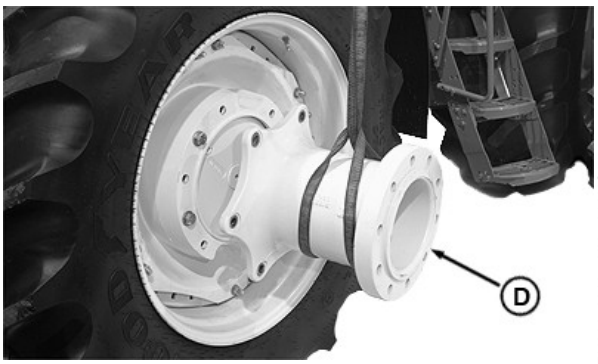

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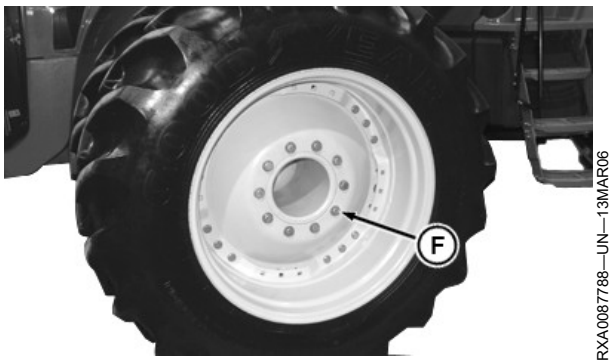

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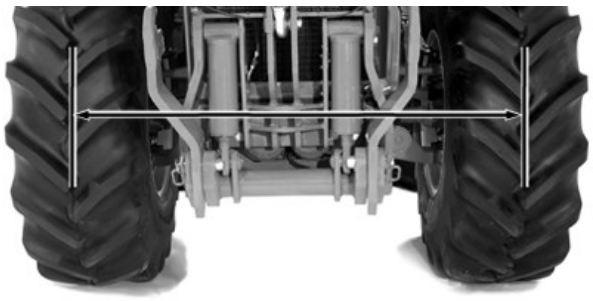
OURX935,00001A0-19-10DEC10-1/1

MFWD and Independent Link Suspension 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.
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.).



RXA0056533—UN—29AUG01

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.).

OURX935,000067B-19-03JAN08-1/1

1300 MFWD Axle Toe-In Adjustment

1. Check to make sure axle is centered.
2. Loosen jam nuts (A) on both ends of the tie rod tube.

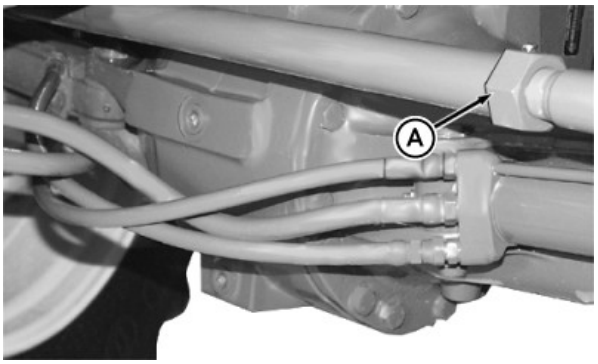
NOTE: Setting toe-in to 0.0 mm + or - 3 mm (1/8 in.) will provide least amount of tire wear on hard surfaced roads.

3. Rotate tube to lengthen or shorten tie rod, as needed 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.

Toe-in or Toe-out—Distance. . . . . 3 mm (1/8 in.)

Jam Nut — Specification

Nut—Torque. . . . . 200 N·m (150 lb-ft)



RW56646A—UN—22OCT99

Loosen Jam Nuts

A—Jam Nut

OURX935,000050E-19-06MAR13-1/1

1500 MFWD Axle Toe-In Adjustment

NOTE: Timing mark (B) on adjustment screw (A) is factory set at zero toe-in.

1. Loosen cap screws (E and F) on the split end (H) of the clamp (G).

NOTE: Turn Adjustment screw a maximum of 90° to adjust the toe-in up to 2 mm (3/32 in.). Considering set screw may be turned either left or right, total toe-in adjustment is a total of 4 mm (3/16 in.).

2. Adjust toe-in, then measure wheels as specified in MFWD And Independent Link Suspension Toe-In Check to verify toe-in is correct.

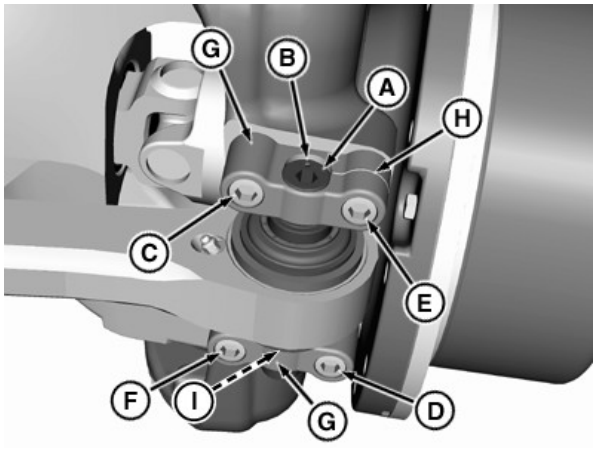
3. Tighten cap screws to torque.

Specification

Cap Screws—Torque. . . . . 310 N·m (229 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. Use a crisscross method to tighten cap screws. If all four screws are loosened:

- *Tighten clamp solid end cap screws (C and D).*
- *Tighten clamp split end cap screws (E and F).*



RXA0087842—UN—16MAR06

1500 MFWD Axle Toe-In Adjustment

A—Adjustment Screw
B—Timing Mark
C—Upper Clamp Cap Screw (Solid End)
D—Lower Clamp Cap Screw (Solid End)
E—Upper Clamp Cap Screw (Split End)
F—Lower Clamp Cap Screw (Split End)
G—Clamp
H—Split End
I—Lower Boot

OURX935,000050F-19-03JAN08-1/1

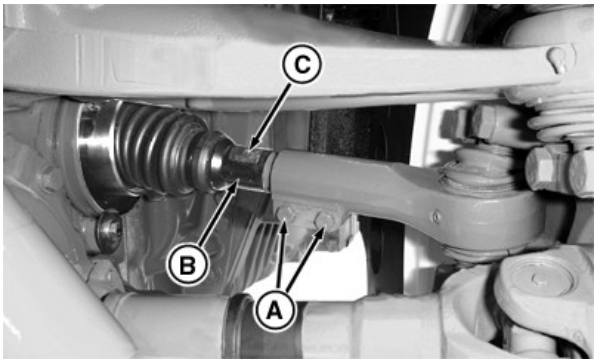
Independent Link Suspension Toe-In Adjustment

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. Check to make sure axle is centered.
2. Loosen clamp bolts (A) on both tie rods.
3. Rotate inboard pin (B) using the wrench flats (C). 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.

Clamp Bolt — Specification

Bolt—Torque. . . . . 125 N·m (90 lb-ft)



RXA0056534—UN—18OCT01

OURX935,0000662-19-06MAR13-1/1

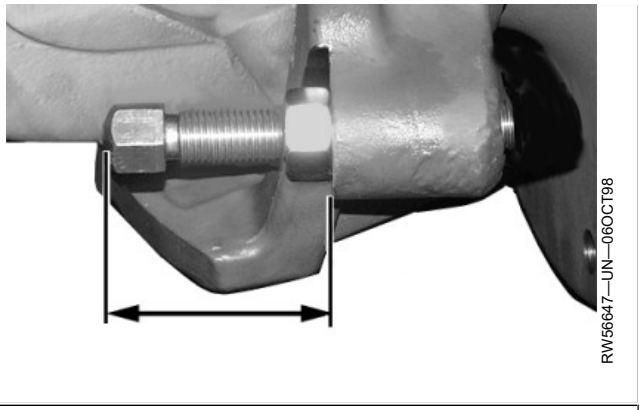
MFWD Steering Stop Settings

1. Adjust fenders before setting steering stop positions.
2. Select correct steering stop position for tire size and tread setting. See following chart.
3. Set steering stops to correct position as illustrated.
4. Tighten steering stop retaining bolts to 250 N·m (185 lb-ft).
5. Turn wheel fully to the right. Impact knuckle housing to steering stop five times. Repeat for left side.
6. 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.

7. Verify clearance by turning steering wheel fully to the left and then to the right.

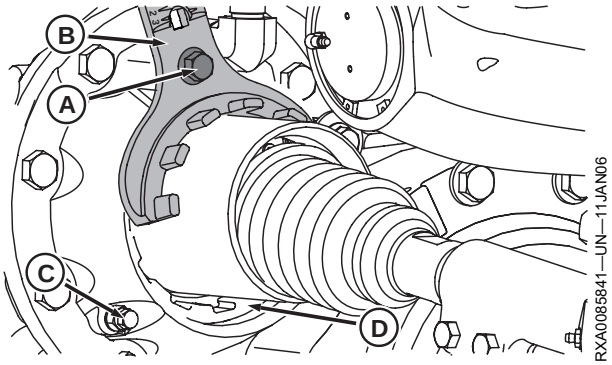
1300 MFWD STEERING STOP POSITIONS		
Position	**Turn Angle**	**Bolt Length**
0	52°	43.6 mm (1.72 in.)
1	47°	56.6 mm (2.23 in.)
2	42°	69.6 mm (2.74 in.)

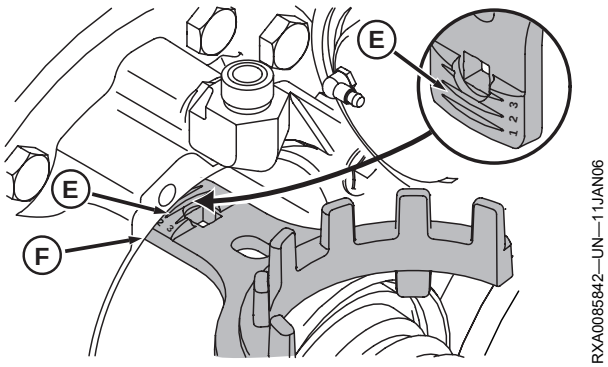


1300 MFWD STEERING STOP POSITIONS		
Position	**Turn Angle**	**Bolt Length**
3	37°	82.6 mm (3.25 in.)
1500 MFWD STEERING STOP POSITIONS		
Position	Turn Angle	Bolt Length
0	48°	42.5 mm (1.67 in.)
1	44°	56.6 mm (2.22 in.)
2	39°	75.0 mm (2.95 in.)
3	35°	89.3 mm (3.51 in.)
4	32°	100 mm (3.94 in.)

OURX935,0000409-19-22AUG12-1/1

Independent Link Suspension Steering Stop Settings





A—Retaining Cap Screw
B—Wrench
C—Bleed Screw
D—Rod Guide
E—Steering Stop Position Marks
F—Outer Flange

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.
2. Remove cap screw (A) and wrench (B) on axle housing.
3. Loosen bleed screw (C) and jam nut.

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).

4. Check current rod guide (D) position using position marks (E) on wrench.
5. Turn rod guide (D) using wrench (B) to adjust distance to correct steering position.
6. Adjust guide minimally to reinstall wrench and retaining cap screw (A).

Specification

Retaining Cap Screw—Torque. . . . . 125 N·m (90 lb-ft)

7. Tighten bleed screw (C) and jam nut.

Bleed Screw and Jam Nut — Specification

Screw—Torque. . . . . 40 N·m (30 lb-ft)
Jam Nut—Torque. . . . . 15 N·m (12 lb-ft)

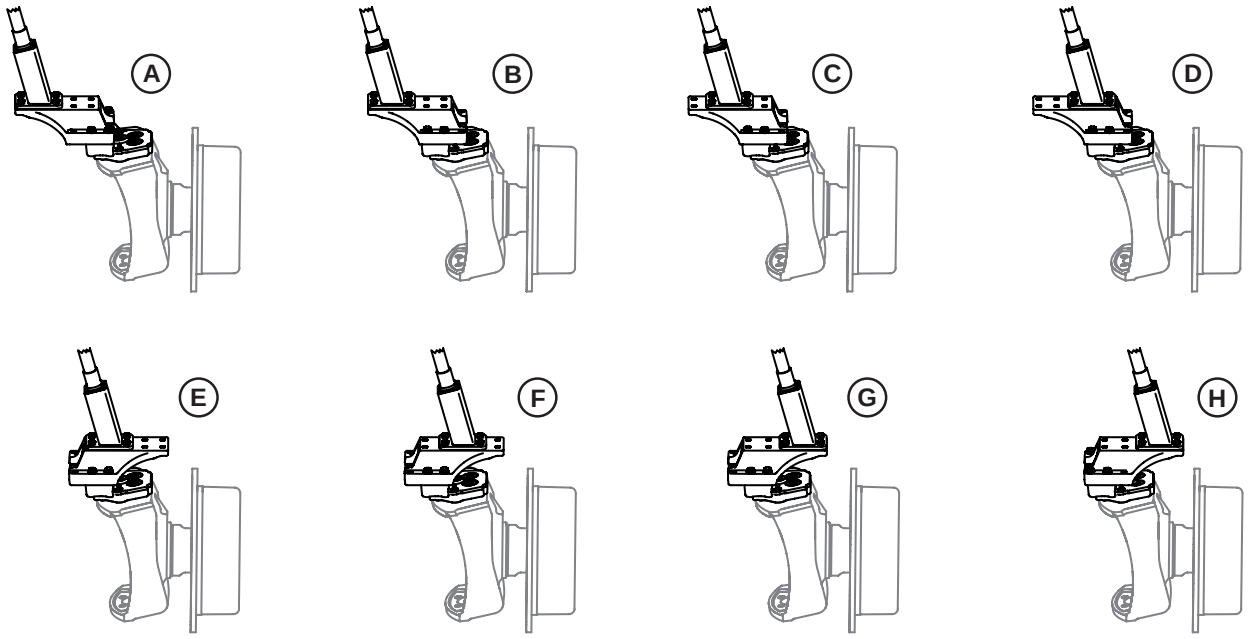
8. Repeat procedure on opposite side of axle housing.

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.

9. Verify clearance by turning fully left then fully right.

OURX935,0000461-19-03JAN08-1/1

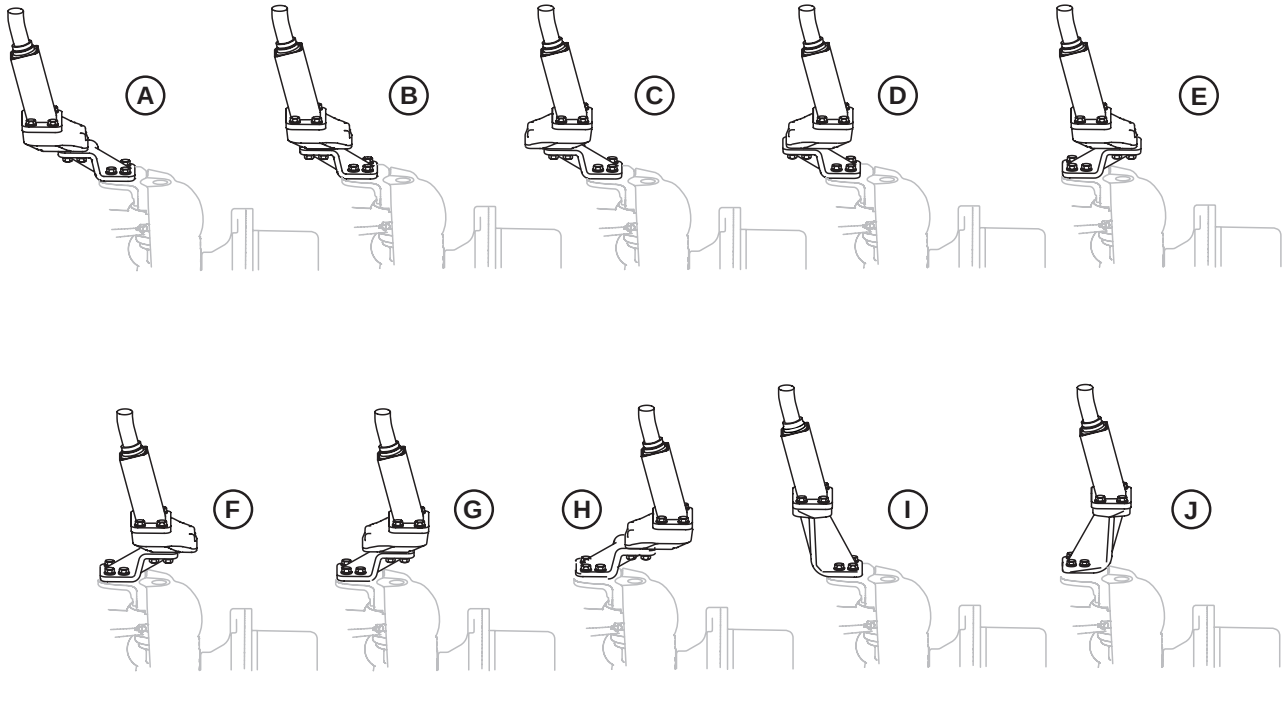
1300 MFWD Axle Fender Settings



Fender Settings for MFWD

OURX935,000037A-19-04AUG08-1/1

1500 MFWD and Independent Link Suspension Fender Settings



Fender Setting for 1500 MFWD and Independent Link Suspension

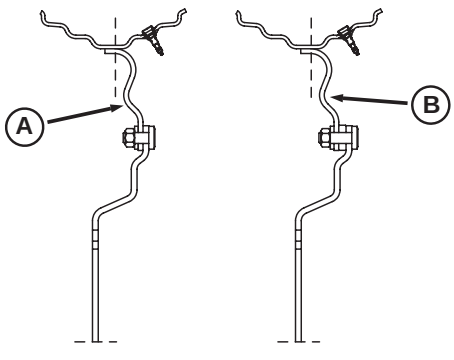
OURX935,0000451-19-05AUG08-1/1

Determining Rim Type—Front Tires

A sixteen position wheel can be identified by the use of a spacer in the rim to disk bolted joint. The spacer can be located either under the nut and washer or between the disk and rim flange.

NOTE: Eight position rim uses M16 hardware and sixteen position rim uses M22 hardware at the disk to rim flange joint. Torque specification for M16 hardware is 300 N·m (225 lb-ft) and 600 N·m (445 lb-ft) for M22 hardware.

A—Eight Position Rim **B—Sixteen Position Rim**



Identifying Rims

OURX935,0000462-19-03JAN08-1/1

Eight Position Wheel Settings

CAUTION: Avoid the possibility of personal injury. 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.

NOTE: A through H are used for all tires 540 mm (20.8 in.) or less.

Continued on next page

OURX935,0000AC8-19-19AUG09-1/3

NOTE: Tread settings are measured at bottom center line of tire.

Use diagram at the right to adjust rim and disk for desired tread setting.

Using a star shaped pattern, torque disk to rim bolts as needed to maintain torque.

Specification

Disk To Rim Bolts—Torque. . . . . 310 N·m (230 lb-ft)

Using a star shaped pattern, torque disk to hub nuts as needed to maintain torque.

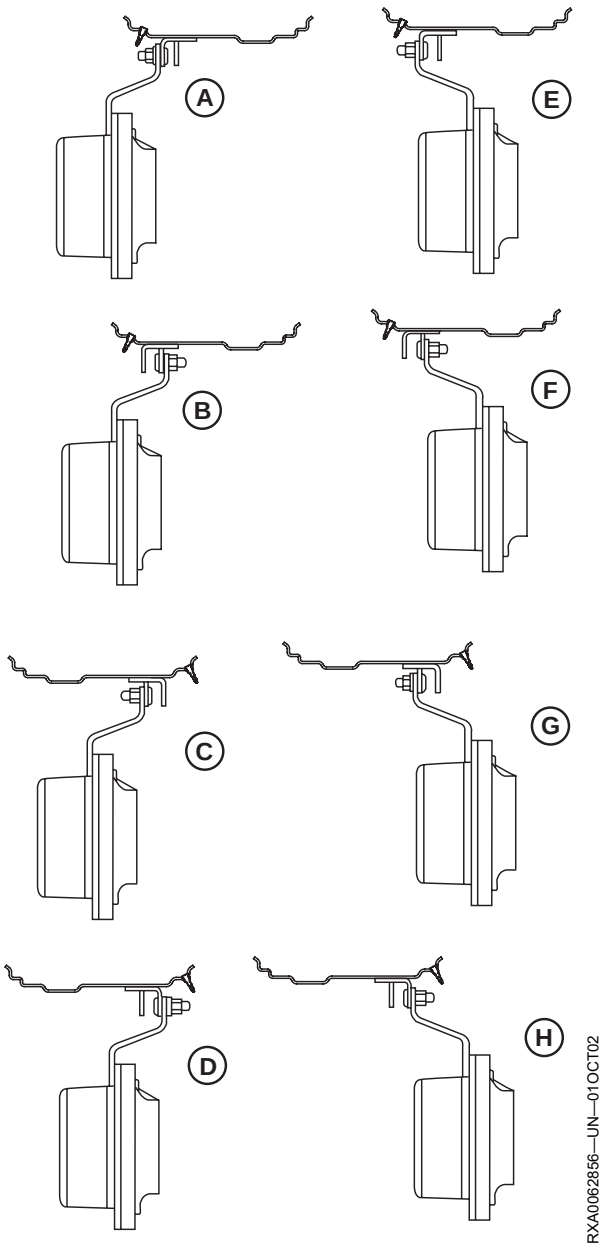
Specification

Disk To Hub Nuts —Torque. . . . . 600 N·m (450 lb-ft)

Retighten bolts after working 3 hours and again after 10 hours.

Tighten bolts daily for the first week of operation.

Adjust fenders and steering stops as required using the tables and diagrams on the following pages.



Rim Settings

Continued on next page

OURX935,0000AC8-19-19AUG09-2/3

CAUTION: Avoid the possibility of personal injury. 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.

NOTE: I through P are used for 600 and 620 mm tires.

NOTE: Tread settings are measured at bottom center line of tire.

Use diagram at the right to adjust rim and disk for desired tread setting.

Using a star shaped pattern, torque disk to rim bolts as needed to maintain torque.

Specification

Disk To Rim Bolts—Torque. . . . . 310 N·m (230 lb-ft)

Using a star shaped pattern, torque disk to hub nuts as needed to maintain torque.

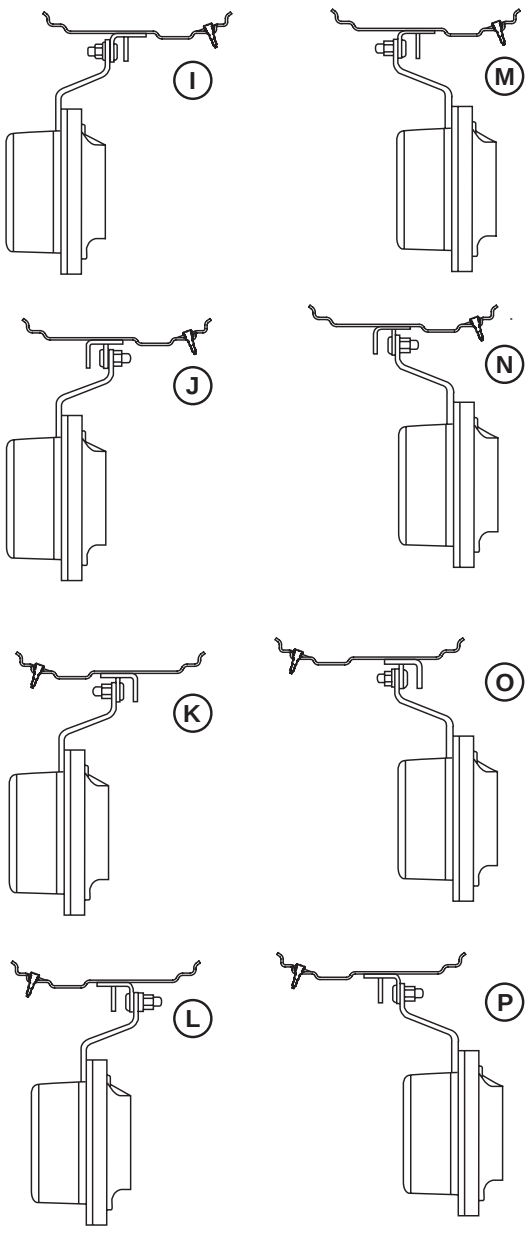
Specification

Disk To Hub Nuts —Torque. . . . . 600 N·m (450 lb-ft)

Retighten bolts after working 3 hours and again after 10 hours.

Tighten bolts daily for the first week of operation.

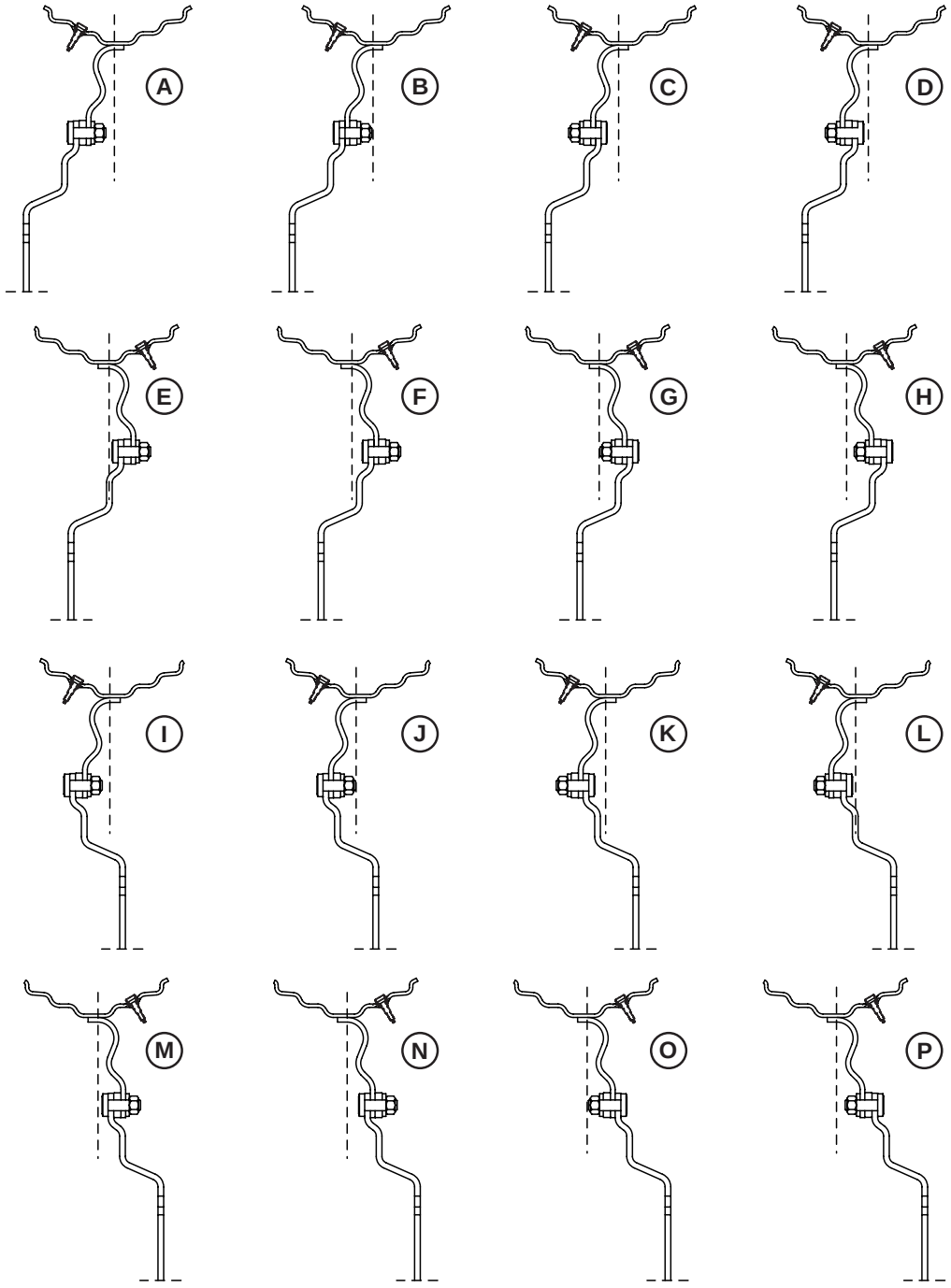
Adjust fenders and steering stops as required using the tables and diagrams on the following pages.



Wide Rim Settings

OURX935,0000AC8-19-19AUG09-3/3

Sixteen Position Front Wheel Settings



Sixteen position steel wheel as viewed from behind left tire.

OURX935,0000681-19-03JAN08-1/1

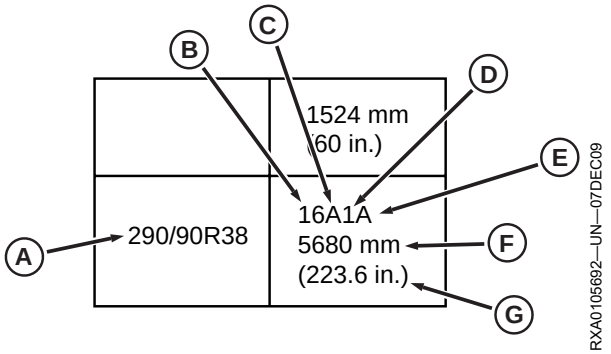
Front Tire, Fender and Steering Stop Settings Table Explanation

NOTE: This is an explanation of the tables in the next several pages.

The first row across the top of the page lists tread spacing in millimeters and inches.

Column one lists the tire size (A).

The first number (B) in column two identifies a sixteen position rim is used. The first letter (C) indicates which example to follow from either Eight Position Wheel Settings or Sixteen Position Wheel Settings. The next number (D) is the correct steering stop position. The last letter (E) is the fender setting, which is taken from either 1300 MFWD Axle Fender Settings or Independent Link Suspension Fender Settings. If a small “w” is attached after the letter used for the fender setting, it would indicate the setting listed is for wide fenders. The last two entries (F) and (G) indicates turning radius in millimeters and inches respectively.



Explanation of Tire Option Tables

A—Tire Size
B—Sixteen Position Rim
C—Tread Setting
D—Steering Stop
E—Fender Setting
F—Turning Radius in Millimeters
G—Turning Radius in Inches

* Tool Box must be removed from the side of the transmission.

OURX935,0000187-19-17JUL12-1/1

1300 MFWD Axle Front Tire, Fender and Steering Stop Settings

1300 MFWD Axle Front Tire, Fender and Steering Stop Settings							
Size	**1524 mm (60 in.)**	**1626 mm (64 in.)**	**1676 mm (66 in.)**	**1727 mm (68 in.)**	**1780 mm (70 in.)**	**1829 mm (72 in.)**	**1882 mm (74.1 in.)**
320/80/R42	16A3A 5990 mm (235.8 in)	16D3B 6250 mm (246.1 in.)	N/A	16E2C 5840 mm (229.9 in.)	N/A	16H1D 5550 mm (218.5 in.)	N/A
320/85R38 (R1W)	16A1A 5680 mm (223.6 in.)	16D0B 5750 mm (226.4 in.)	N/A	16E0C 5470 mm (215.4 in.)	N/A	16H0D 5320 mm (209.4 in.)	N/A
380/80R38	8A3A 5990 mm (235.8 in)	8B2B 6250 mm (246.1 in.)	N/A	8C1C 5840 mm (229.9 in.)	N/A	8D1D 5550 mm (218.5 in.)	N/A
380/80R38	16A3A 5990 mm (235.8 in)	16D2B 6250 mm (246.1 in.)	N/A	16E1C 5840 mm (229.9 in.)	N/A	16H1D 5550 mm (218.5 in.)	N/A
380/85R34	8A2A 5680 mm (223.6 in.)	8B1B 5750 mm (226.4 in.)	8B0C 5780 mm (227.6 in.)	8C0C 5470 mm (215.4 in.)	N/A	8D0D 5320 mm (209.4 in.)	N/A
420/85R34	8A3A 5990 mm (235.8 in.)	8B3B 6250 mm (246.1 in.)	8B2C 6110 mm (240.6 in.)	8C2C 5840 mm (229.9 in.)	N/A	8D1D 5550 mm (218.5 in.)	N/A
420/90R30	8A2A 5680 mm (223.6 in.)	8B1B 5750 mm (226.4 in.)	8B1C 5780 mm (227.6 in.)	8C0C 5470 mm (215.4 in.)	N/A	8D0D 5320 mm (209.4 in.)	N/A
480/70R30	8A2A 5680 mm (223.6 in.)	8B1B 5750 mm (226.4 in.)	8B1C 5780 mm (227.6 in.)	8C0C 5470 mm (215.4 in.)	N/A	8D0D 5320 mm (209.4 in.)	N/A
480/70R34	8A3A 5990 mm (235.8 in.)	8B3B 6250 mm (246.1 in.)	8B2C 6110 mm (240.6 in.)	8C2C 5840 mm (229.9 in.)	N/A	8D1D 5550 mm (218.4 in.)	N/A
540/65R34	N/A	N/A	8B2Aw 6500 mm (255.9 in.)	N/A	8C1Bw 6090 mm (239.8 in.)	N/A	8D0Cw 5770 mm (227.2 in.)
600/65R28	N/A	N/A	N/A	N/A	8K1Bw 6630 mm (261 in.)	N/A	8L0Cw 6690 mm (263.4 in.)
600/70R30	N/A	N/A	N/A	N/A	8K2Bw 6500 mm (255.9 in.)	N/A	8L1Cw 6100 mm (240.2 in.)

* Tool Box must be removed from the side of the transmission.

OURX935,0000425-19-22AUG11-1/1

1300 MFWD Axle Front Tire, Fender and Steering Stop Settings

1300 MFWD Axle Front Tire, Fender and Steering Stop Settings							
Size	**1930 mm (76 in.)**	**1979 mm (78 in.)**	**2032 mm (80 in.)**	**2080 mm (82 in.)**	**2134 mm (84 in.)**	**2182 mm (86 in.)**	**2235 mm (88 in.)**
320/80R42	16I0E 5360 mm (211.1 in.)	N/A	16L0F 5420 mm (213.4 in.)	N/A	16M0G 5450 mm (214.6 in.)	N/A	16P0H 5552 mm (218.6 in.)
320/85R38 (R1W)	16I0E 5350 mm (210.6 in.)	N/A	16L0F 5410 mm (213 in.)	N/A	16M0G 5440 mm (214.2 in.)	N/A	16P0H 5510 mm (216.9 in.)
380/80R38	8E0E 5360 mm (211.1 in.)	N/A	8F0F 5420 mm) (213.4 in.	N/A	8G0G 5450 mm (214.6 in.)	N/A	8H0H 5520 mm (217.3 in.)
380/80R38	16I0E 5360 mm (211.1 in.)	N/A	16L0F 5420 mm) (213.4 in.	N/A	16M0G 5450 mm (214.6 in.)	N/A	16P0H 5520 mm (217.3 in.)
380/85R34	8E0E 5350 mm (210.6 in.)	N/A	8F0F 5410 mm (213 in.)	N/A	8G0G 5440 mm (214.2 in.)	N/A	8H0H 5510 mm (216.9 in.)
420/85R34	8E0E 5360 mm (211.1 in.)	N/A	8F0F 5420 mm (213.4 in.)	N/A	8G0G 5450 mm (214.6 in.)	N/A	8H0H 5520 mm (217.3 in.)
420/90R30	8E0E 5350 mm (210.6 in.)	N/A	8F0F 5410 mm (213 in.)	N/A	8G0G 5440 mm (214.2 in.)	N/A	8H0H 5510 mm (216.9 in.)
480/70R30	8E0E 5350 mm (210.6 in.)	N/A	8F0F 5410 mm (213 in.)	N/A	8G0G 5440 mm) (214.2 in.	N/A	8H0H 5510 mm (216.9 in.)
480/70R34	8E0E 5360 mm (211.1 in.)	N/A	8F0F 5420 mm (213.4 in.)	N/A	8G0G 5450 mm (214.6 in.)	N/A	8H0H 5520 mm (217.3 in.)
540/65R34	N/A	8F0Dw 5460 mm (215 in.)	N/A	8G0Ew 5510 mm (216.9 in.)	N/A	8H0Fw 5560 mm (218.9 in.)	N/A
600/65R28	N/A	8N0Dw 6250 mm (246.1 in.)	N/A	8O0Ew 6020 mm (237 in.)	N/A	8P0Fw 5720 mm (225.2 in.)	N/A
600/70R30	N/A	8N1Dw 5770 mm (227.2 in.)	N/A	8O0Ew 5820 mm (229.1 in.)	N/A	8P0Fw 5860 mm (230.7 in.)	N/A

OURX935,0000426-19-22AUG11-1/1

1500 MFWD Front Axle, Tire, Fender and Steering Stop Settings

1500 MFWD Front Axle, Tire, Fender and Steering Stop Settings							
Size	**1524 mm (60 in.)**	**1626 mm (64 in.)**	**1676 mm (66 in.)**	**1727 mm (68 in.)**	**1780 mm (70 in.)**	**1829 mm (72 in.)**	**1882 mm (74.1 in.)**
380/80R38	8A3A 6370 mm (250.8 in.)	8B2B 5950 mm (234.3 in)	N/A	8C1C 5640 mm (222 in.)	N/A	8D1D 5690 mm (224 in.)	N/A
380/80R38	16A3A 6370 mm (250.8 in.)	16D2B 5950 mm (234.3 in)	N/A	16E1C 5640 mm (222 in.)	N/A	16HID 5690 mm (224 in.)	N/A
380/80R38	16A3A 6370 mm (250.8 in.)	16D2B 5950 mm (234.3 in)	N/A	16E1C 5640 mm (222 in.)	N/A	16HID 5690 mm (224 in.)	N/A
420/85R34	N/A	8B3B 6420 mm (252.8 in.)	8B3C 6500 mm (255.9 in.)	8C2C 6010 mm (236.6 in.)	N/A	8D1D 6060 mm (238.6 in.)	N/A
480/70R34	N/A	8B3B 6420 mm (252.8 in.)	8B3C 6500 mm (255.9 in.)	8C2C 6010 mm (236.6 in.)	N/A	8D2D 6060 mm (238.6 in.)	N/A
540/65R34	N/A	N/A	8B3Aw 6500 mm (255.9 in.)	N/A	8C2Bw 6090 mm (239.8 in.)	N/A	8D1Cw 5770 mm (227.2 in.)
540/75R34	N/A	N/A	N/A	N/A	N/A	N/A	N/A
600/70R30	N/A	N/A	N/A	N/A	N/A	N/A	8M3CW 6100 mm (240.1 in.)
620/75R30	N/A	N/A	N/A	N/A	N/A	N/A	N/A

1500 Front MFWD Axle, Tire, Fender and Steering Stop Settings							
Size	**1930 mm (76 in.)**	**1979 mm (78 in.)**	**2032 mm (80 in.)**	**2080 mm (82 in.)**	**2134 mm (84 in.)**	**2182 mm (86 in.)**	**2235 mm (88 in.)**
380/80R38	8E1E 5720 mm (225.1 in.)	N/A	8F1F 5720 mm (225.1 in.)[a]	N/A	8G1G 5720 mm (225.1 in.)[a]	N/A	8H0H 5520 mm (217.3 in.)[a]
380/80R38	16I1E 5720 mm (225.1 in.)	N/A	16L1F 5720 mm (225.1 in.)[a]	N/A	16M1G 5720 mm (225.1 in.)[a]	N/A	16P0H 5520 mm (217.3 in.)[a]
420/85R34	8E1E 5720 mm (225.1 in.)	N/A	8F0F 5720 mm (225.1 in.)[a]	N/A	8G0G 5720 mm (225.1 in.)[a]	N/A	8H0H 5520 mm (217.3 in.)[a]
480/70R34	8E1E 5370 mm (211.4 in.)	N/A	8F0F 5410 mm (213 in.)[a]	N/A	8G0G 5470 mm (215.4 in.)[a]	N/A	8H0H 5520 mm (217.3 in.)[a]
540/65R34	N/A	8F0Dw 5460 mm [a] (215 in.)	N/A	8G0Ew 5510 mm [a] (216.9 in.)	N/A	8H0Fw 5560 mm [a] (218.9 in.)	N/A
540/75R34	N/A	N/A	N/A	8G3Ew 6670 [a] 262.6 in.)	N/A	2H2Fw 6260 [a] (246.5 in.)	N/A
600/70R30	N/A	8N1Dw 5770 mm [a] (227.2 in.)	N/A	801Ew 5820 mm [a] (219.7 in.)	N/A	8P1F 5860 mm [a] (290.7 in.)	N/A
620/75R30	N/A	N/A	N/A	N/A	N/A	8P3Fw 6700 mm (263.8 in.)	N/A

[a] *Tool Box must be removed from the side of the transmission.*

OURX935,000053F-19-22AUG11-1/1

Independent Link Suspension Front Tire, Fender and Steering Stop Settings

Independent Link Suspension Front Tire, Fender and Steering Stop Settings							
Size	**1524 mm (60 in.)**	**1626 mm (64 in.)**	**1676 mm (66 in.)**	**1727 mm (68 in.)**	**1780 mm (70 in.)**	**1829 mm (72 in.)**	**1882 mm (74.1 in.)**
290/90R38	16A1A 5510 mm (216.9 in.)	16D0B 5230 mm (205.9 in.)	N/A	16E0C 5260 mm (207.1 in.)	N/A	16H0D 5320 mm (209.4 in.)	N/A
320/85R38 (R1W)	16A2A 5880 mm (231.5 in.)	16D1B 5570 mm (219.3 in.)	N/A	16E0C 5260 mm (207.1 in.)	N/A	16H0D 5320 mm (209.4 in.)	N/A
380/80R38	8A3A 6370 mm (250.8 in.)	8B2B 5950 mm (234.3 in.)	N/A	8C1C 5640 mm (222 in.)	N/A	8D1D 5690 mm (224 in.)	N/A
380/80R38	16A3A 6370 mm (250.8 in.)	16D2B 5950 mm (234.3 in.)	N/A	16E1C 5640 mm (222 in.)	N/A	16H1D 5690 mm (224 in.)	N/A
380/85R34	8A3A 5880 mm (231.5 in.)	8B2B 5930 mm (233.5 in.)	8B1C 5980 mm (235.4 in.)	8C0C 5620 mm (221.3 in.)	N/A	8D0D 5320 mm (209.4 in.)	N/A
420/85R34	8A3A 6370 mm (250.8 in.)	8B3B 6420 mm (252.8 in.)	8B2C 6500 mm (255.9 in.)	8C1C 6010 mm (236.6 in.)	N/A	8D1D 6060 mm (238.6 in.)	N/A
480/70R30	N/A	8B2B 5930 mm (233.5 in.)	8B1C 5980 mm (235.4 in.)	8C0C 5620 mm (221.3 in.)	N/A	8D0D 5320 mm (209.4 in.)	N/A
540/65R34	N/A	N/A	8B3Aw 6500 mm (255.9 in.)	N/A	8C2Bw 6090 mm (239.8 in.)	N/A	8D1Cw 5770 mm (227.2 in.)
540/75R34	N/A	N/A	N/A	N/A	N/A	N/A	N/A
600/65R28	N/A	N/A	N/A	N/A	8K2Bw 6040 mm (237.8 in.)	N/A	8L1Cw 5720 mm (225.2 in.)
600/70R30	N/A	N/A	N/A	N/A	8K3Bw 6500 mm (255.9 in.)	N/A	8L2Cw 6100 mm (240.2 in.)
620/75R30	N/A	N/A	N/A	N/A	N/A	N/A	N/A

OURX935,0000427-19-22AUG11-1/1

Independent Link Suspension Front Tire, Fender and Steering Stop Settings—Continued

Independent Link Suspension Front Tire, Fender and Steering Stop Settings							
Size	**1930 mm (76 in.)**	**1979 mm (78 in.)**	**2032 mm (80 in.)**	**2080 mm (82 in.)**	**2134 mm (84 in.)**	**2182 mm (86 in.)**	**2235 mm (88 in.)**
290/90R38	16I0E 5370 mm (211.4 in.)	N/A	16L0F * 5410 mm (213 in.)	N/A	16M0G * 5470 mm (215.4 in.)	N/A	16P0H * 5520 mm (217.3 in.)
320/85R38 (R1W)	16I0E 5370 mm (211.4 in.)	N/A	16L0F * 5410 mm (213 in.)	N/A	16M0G * 5470 mm (215.4 in.)	N/A	16P0H * 5520 mm (217.3 in.)
380/80R38	8E1E 5720 mm (225.2 in.)	N/A	8F1F * 5720 mm (225.2 in.)	N/A	8G1G * 5720 mm (225.2 in.)	N/A	8H0H * 5520 mm (217.3 in.)
380/80R38	16I1E 5720 mm (225.2 in.)	N/A	16L1F * 5720 mm (225.2 in.)	N/A	16M1G * 5720 mm (225.2 in.)	N/A	16P0H * 5520 mm (217.3 in.)
380/85R34	8E0E 5370 mm (211.4 in.)	N/A	8F0F * 5410 mm (213 in.)	N/A	8G0G * 5470 mm (215.4 in.)	N/A	8H0H * 5520 mm (217.3 in.)
420/85R34	8E1E 5720 mm (225.2 in.)	N/A	8F1F * 5720 mm (225.2 in.)	N/A	8G1G * 5720 mm (225.2 in.)	N/A	8H0H * 5520 mm (217.3 in.)
480/70R34	8E1E 5370 mm (211.4 in.)	N/A	8F0F * 5410 mm (213 in.)	N/A	8G0G * 5470 mm (215.4 in.)	N/A	8H0H * 5520 mm (217.3 in.)
540/65R34	N/A	8F0Dw 5460 mm (215 in.)	N/A	8G0Ew 5510 mm (216.9 in.)	N/A	8H0F * 5560 mm (218.9 in.)	N/A
540/75R34	N/A	8F3Dw* 6670 mm (262.6 in.)	N/A	8G3Ew* 6670 mm (262.6 in.)	N/A	8H2Fw* 6260 mm (245.5 in.)	N/A
600/65R28	N/A	8N0Dw 5770 mm (227.2 in.)	N/A	8O0Ew 5480 mm (215.7 in.)	N/A	8P0F * 5510 mm (216.9 in.)	N/A
600/70R30	N/A	8N1Dw 5770 mm (227.2 in.)	N/A	8O1Ew 5820 mm (229.1 in.)	N/A	8P1F * 5860 mm (230.7 in.)	N/A
620/75R30	N/A	N/A	N/A	803Ew* 6670 mm 262.6 in.)	N/A	8P2Fw* 6700 mm (263.8 in.)	N/A

OURX935,0000428-19-22AUG11-1/1

1500 MFWD Dual Front Tire, Fender and Steering Stop Settings

Maximum single wheel tread spacing is 2235 mm (88 in.).

Maximum dual outer setting is 3657 mm (144 in.).

Maximum static front axle weight, without liquid ballast or duals, is 10800 kg (23800 lbs).

Some wheel settings may exceed 2794 mm (110 in.) mean tread spacing. These settings are allowed, but at reduced axle loads as shown in the following table.

NOTE: To determine the mean tread spacing, add tread spacing for inner tire (center to center) and tread spacing for outer tire (center to center). Divide by two.

Axle Load Table	
Mean Tread Spacing	**Allowable Static Axle Weight**
2794 mm (110 in.)	10800 kg (23800 lbs)
2845 mm (112 in.)	10390 kg (22900 lbs)
2895 mm (114 in.)	10020 kg (22090 lbs)
2946 mm (116 in.)	9670 kg (21320 lbs)

NOTE: Listed below are instructions for using the 1500 MFWD Dual Front Tire, Fender and Steering Stop Settings Table.

The first row under heading gives the row spacing in millimeters and inches.

Column one lists the tire size.

The first number in column identifies either an eight or sixteen position rim is used. The first letter indicates which example to follow, either Eight or Sixteen Position Wheel Settings. The next number is the correct steering stop position. The last letter is the fender setting, which is taken from the 1500 MFWD and Independent Link Suspension Fender Settings block in this Operator's Manual.

	Row Spacing					
	508 mm (20 in.)		558.8 mm (22 in.)		762 mm (30 in.)	
Tire Size	Inner Tire 2032 mm (80 in.)	Dual Tire 3048 mm (120 in.)	Inner Tire 2235.2 mm (88 in.)	Dual Tire 3352.8 mm (132 in.)	Inner Tire 1524 mm (60 in.)[a]	Dual Tire 3048 mm (120 in.)
Mean Tread	2540 mm (100 in.)		2794 mm (110 in.)		2286 mm (90 in.)	
380/80R38	8F4F	8B4F *	8H4H	8E4H *	8A4A	8B4A*
380/80R38	16L4F	16D4F *	16P4H *	16I4H *	16A4A	16D4A*
420/85R34	8F4F	8B4F *	8H4H *	8E4H *	N/A	NA *
480/70R34	8F4F	8B4F *	8H4H *	8E4H *	N/A	NA *

[a] *To achieve a 1676 mm (66 In.) row spacing setting, use 1625mm (64 in.) row spacing and order one 25.4 mm (1") spacer set per side through your John Deere dealer.*

* Tool box must be removed to avoid hitting tires.

	Row Spacing					
	812 mm (32 in.)		914.4 mm (36 in.)		1016 mm (40 in.) Front duals for flotation not for row cultivation.	
Tire Size	Inner Tire 2032 mm (64 in.)	Dual Tire 3251.2 mm (128 in.)	Inner Tire 1828.8 mm (72 in.)	Dual Tire 3657 mm (144 in.)	Inner Tire 2032 mm (80 in.)	Dual Tire 3657 mm (144 in.) Tire not in row.
Mean Tread	2439 mm (96 in.)		2743 mm (108 in.)		2845 mm (112 in.)	
380/80R38	8B4B	8D4B *	8D4D	8H4D *	8F4F	8H4F *
380/80R38	16D4B	16H4B *	16H4D	16P4D *	16L4F *	16P4F *
420/85R34	8B4B	8D4B *	8D4D	8H4D *	8F4F *	8H4F *
480/70R34	8B4B	8D4B *	8D4D	8H4D *	8F4F *	8H4F *

* Tool box must be removed to avoid hitting tires.

OURX935,0000540-19-22AUG11-1/1

Independent Link Suspension Dual Front Tire, Fender and Steering Stop Settings

Maximum single wheel tread spacing is 2235 mm (88 in.).

Maximum dual outer setting is 3657 mm (144 in.).

Maximum static front axle weight, without liquid ballast or duals, is 10800 kg (23800 lbs).

Some wheel settings may exceed 2794 mm (110 in.) mean tread spacing. These settings are allowed, but at reduced axle loads as shown in the following table.

NOTE: To determine the mean tread spacing, add tread spacing for inner tire (center to center) and tread spacing for outer tire (center to center). Divide by two.

Axle Load Table	
Mean Tread Spacing	**Allowable Static Axle Weight**
2794 mm (110 in.)	10800 kg (23800 lbs)
2845 mm (112 in.)	10390 kg (22900 lbs)
2895 mm (114 in.)	10020 kg (22090 lbs)
2946 mm (116 in.)	9670 kg (21320 lbs)

NOTE: Listed below are instructions for using the Independent Link Suspension Dual Front Tire, Fender and Steering Stop Settings Table.

The first row under heading gives the row spacing in millimeters and inches.

Column one lists the tire size.

The first number in column identifies either an eight or sixteen position rim is used. The first letter indicates which example to follow, either Eight or Sixteen Position Wheel Settings. The next number is the correct steering stop position. The last letter is the fender setting, which is taken from the 1500 MFWD and Independent Link Suspension Fender Settings block in this Operator's Manual.

	Row Spacing					
	508 mm (20 in.)		558.8 mm (22 in.)		762 mm (30 in.)	
Tire Size	Inner Tire 2032 mm (80 in.)	Dual Tire 3048 mm (120 in.)	Inner Tire 2235.2 mm (88 in.)	Dual Tire 3352.8 mm (132 in.)	Inner Tire 1524 mm (60 in.)[a]	Dual Tire 3048 mm (120 in.)
320/85R38	16L0F	16D0F *	16P1H	16I2H*	16A2A	16D2A
380/85R34	8F0F	8B1F *	8H1H	8E2H *	8A2A	8B2A
380/80R38	8F1F	8B2F *	8H2H	8E2H *	8A3A	8B3A
380/80R38	16L1F	16D2F *	16P2H	16I2H *	16A3A	16D3A
420/85R34	N/A	N/A	N/A	N/A	8A3A	8B3A
480/70R34	N/A	N/A	N/A	N/A	N/A	N/A

[a] *To achieve a 1676 mm (66 In.) row spacing setting, use 1625mm (64 in.) row spacing and order one 25.4 mm (1") spacer set per side through your John Deere dealer.*

* Tool box must be removed to avoid hitting tires.

	Row Spacing					
	812 mm (32 in.)		914.4 mm (36 in.) Front duals for flotation.		1016 mm (40 in.) Front duals for flotation. Not for row cultivation.	
Tire Size	Inner Tire 2032 mm (64 in.)	Dual Tire 3251.2 mm (128 in.)	Inner Tire 1828.8 mm (72 in.)	Dual Tire 3651 mm (144 in.)	Inner Tire 2032 mm (80 in.)	Dual Tire 3651 mm (144 in.) Tire not in row.
320/85R38	16D1B	16H2B	16H3D	16P3D *	16L3F	16P3F *
380/85R34	8B2B	8D2B	8D3D	8H3D *	8F3F	8H3F *
380/80R38	8B2B	8D2B	8D3D	8H3D *	8F3F	8H3F *
380/80R38	16D2B	16H2B	16H3D	16P3D *	16L3F	16P3F*
420/85R34	8B3B	8D3B	8D3D	8H3D	8F3F	8H3F *
480/70R34	8B3A	8D3A	8D3C	8H3C	8F3F	8H3F

* Tool box must be removed to avoid hitting tires.

OURX935,0000429-19-22AUG12-1/1

Service Tires Safely

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.

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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-19-28FEB17-1/1

Tire Combinations Tables

	Tire Combination Group Sizes							
	Minimum Recommended Row Width							
	508 mm (20 in.)	558.8 mm (22 in.)	660.4 mm (26 in.)	762 mm (30 in.)	812.8 mm (32 in.)	1016+ mm (40 + in.)		
Tire Section Width								
Group Size	320 mm (12.4 in.)	380 mm (14.9 in.)	420 mm (16.9 in.)	480 mm (18.4 in.)	520 mm (20.8 in.)	620 mm (24.5 in.)	710 mm (28 in.)	800 mm (30.5 in.)
48		380/90R54		480/80R50	520/85R46	620/70R46 650/85R38 IF650/85R38	710/70R42 IF 710/70R42	800/70R38 IF 800/70R38
47	320/90R54	380/90R50		480/80R46	520/85R42	620/70R42 650/75R38	710/70R38 IF710/70R38	
	Front Tire Group Sizes							
	Minimum Recommended Row Width							
	508 mm (20 in.)	558.8 mm (22 in.)	660.4 mm (26 in.)	762 mm (30 in.)	812.8 mm (32 in.)	1016+ mm (40 + in.)		
Tire Section Width								
Group Size	320 mm (12.4 in.)	380 mm (14.9 in.)	420 mm (16.9 in.)	480 mm (18.4 in.)	520 mm (20.8 in.)	620 mm (24.5 in.)		
44					540/75R34	620/75R30		
43	320/80R42	380/80R38	420/85R34 IF420/85R34	480/70R34	540/65R34	600/70R30 IF 600/70R30		
42	320/85R38	380/85R34	420/90R30	480/70R30	540/65R30	600/65R28		

OURX935,0000878-19-17APR12-1/1

Wheel tightening Stand—DFR219 or JDG10741

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.

A—Wheel Tightening Stand **B—Torque Wrench**

Wheel Tightening Stand

OURX935,00004F8-19-29JUL11-1/1

Wheel Torque Wrench Adapter—*JDG679*

The JDG679 Torque Wrench Adapter (A), 32 mm (3/4 in.) drive is designed for easy access to sleeve bolts on inner cast wheels with outside duals in place.

Torque wrench adapter should be at **90° angle** from torque wrench shaft for correct torque specification.

See your John Deere Dealer to order.

Specification

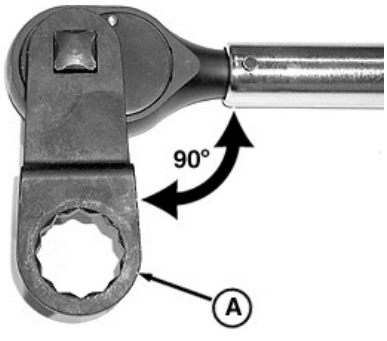
Cast Wheel Cap Screws—Torque. . . . . 610 N·m (450 lb-ft)

When unable to use Adapter at 90° angle from torque wrench shaft, use this formula to calculate correct torque setting.

Tw	=	Torque setting on the torque wrench
Ta	=	Torque actually being applied to the nut or cap screw
L	=	Length from the point of force (center of the wrench handle) to the center of head of torque wrench
A	=	Application distance from center of torque wrench head to the center of adapter which is 95 mm (3.75 in.)

Example: Torque wrench length = 0.91 m (36 in.), wrench adapter = 0.1 m (4 in.), so new Tw for torque wrench setting is 549 N·m (405 lb-ft).

A—JDG679 Torque Wrench Adapter



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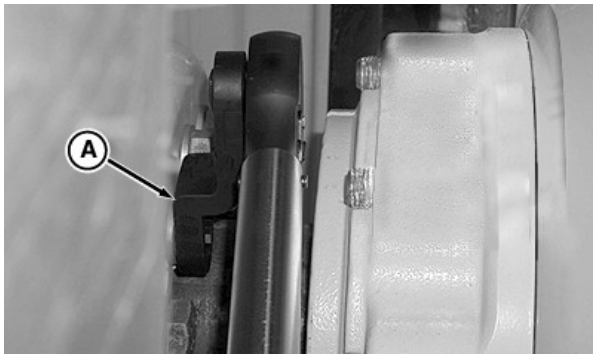

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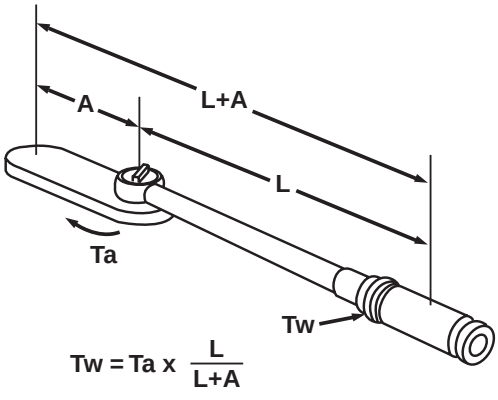

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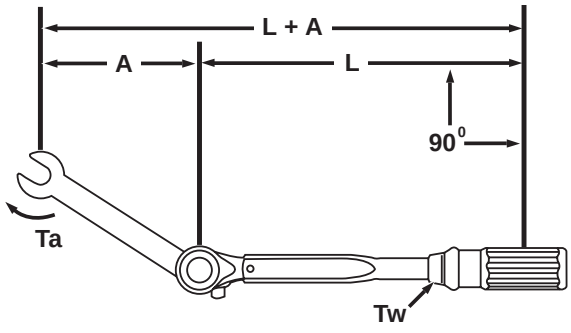

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Recommended Pressures—*Group 47*

Axle Load kg (lb)	320/90R54 Dual 149 Load Index kPa(bar)(psi)	320/90R54 Triple 149 Load Index kPa(bar)(psi)	380/90R50 Dual 151 Load Index kPa(bar)(psi)	380/90R50 Triple 151 Load Index kPa(bar)(psi)	480/80R46 Single 158 Load Index kPa(bar)(psi)	480/80R46 Dual 158 Load Index kPa(bar)(psi)	480/80R46 Triple 158 Load Index kPa(bar)(psi)
4540(10000)	70(0.7)(10)	40(0.4)(6)	40(0.4)(6)	40(0.4)(6)	90(0.9)(13)	40(0.4)(6)	40(0.4)(6)
4760(10500)	70(0.7)(10)	40(0.4)(6)	50(0.5)(7)	40(0.4)(6)	95(0.95)(14)	40(0.4)(6)	40(0.4)(6)
4990(11000)	75(0.75)(11)	40(0.4)(6)	50(0.5)(7)	40(0.4)(6)	105(1.05)(15)	40(0.4)(6)	40(0.4)(6)
5220(11500)	80(0.8)(12)	40(0.4)(6)	55(0.55)(8)	40(0.4)(6)	110(1.1)(16)	40(0.4)(6)	40(0.4)(6)
5440(12000)	90(0.9)(13)	50.0(0.5)(7)	60(0.6)(9)	40(0.4)(6)	120(1.2)(17)	40(0.4)(6)	40(0.4)(6)
5670(12500)	95(0.95)(14)	55(0.55)(8)	70(0.7)(10)	40(0.4)(6)	130(1.3)(19)	40(0.4)(6)	40(0.4)(6)
5900(13000)	100(1.0.)(15)	55(0.55)(8)	70(0.7)(10)	40(0.4)(6)	145(1.45)(21)	50(0.5)(7)	40(0.4)(6)
6120(13500)	110(1.1)(16)	60(0.6)(9)	75(0.75)(11)	40(0.4)(6)	150(1.5)(22)	50(0.5)(7)	40(0.4)(6)
6350(14000)	110(1.1)(16)	70(0.7)(10)	80(0.8)(12)	40(0.4)(6)	160(1.6)(23)	55(0.55)(8)	40(0.4)(6)
6580(14500)	120(1.2)(17)	70(0.7)(10)	90(0.9)(13)	50(0.5)(7)	165(1.65)(24)	55(0.55)(8)	40(0.4)(6)
6800(15000)	120(1.2)(17)	75(0.75)(11)	90(0.9)(13)	50(0.5)(7)	175(1.75)(25)	60(0.6)(9)	40(0.4)(6)
7030(15500)	125(1.25)(18)	80(0.8)(12)	95(0.95)(14)	50(0.5)(7)	180(1.8)(26)	70(0.7)(10)	40(0.4)(6)
7260(16000)	130(1.3)(19)	80(0.8)(12)	105(1.05)(15)	55(0.55)(8)	190(1.9)(28)	70(0.7)(10)	40(0.4)(6)
7480(16500)	145(1.45)(21)	90(0.9)(13)	110(1.1)(16)	55(0.55)(8)	200(2.0)(29)	75(0.75)(11)	40(0.4)(6)
7720(17000)	145(1.45)(21)	95(0.95)(14)	110(1.1)(16)	60(0.6)(9)	215(2.15)(31)	75(0.75)(11)	40(0.4)(6)
7950(17500)	150(1.5)(22)	95(0.95)(14)	120(1.2)(17)	70(0.7)(10)	220(2.2)(32)	80(0.8)(12)	40(0.4)(6)
8170(18000)	160(1.6)(23)	105(1.05)(15)	120(1.2)(17)	70(0.7)(10)	235(2.35)(34)	90(0.9)(13)	50(0.5)(7)
8400(18500)	165(1.65)(24)	110(1.1)(16)	125(1.25)(18)	75(0.75)(11)	240(2.4)(35)	90(0.9)(13)	50(0.5)(7)
8630(19000)	170(1.7)(25)	110(1.1)(16)	125(1.25)(18)	75(0.75)(11)	—	95(0.95)(14)	50(0.5)(7)
8850(19500)	185(1.85)(27)	110(1.1)(16)	130(1.3)(19)	80(0.8)(12)	—	105(1.05)(15)	55(0.55)(8)
9080(20000)	210(2.1)(30)	120(1.2)(17)	140(1.4)(20)	80(0.8)(12)	—	105(1.05)(15)	55(0.55)(8)
9530(21000)	240(2.4)(35)	120(1.2)(17)	145(1.45)(21)	90(0.9)(13)	—	110(1.1)(16)	60(0.6)(9)
9990(22000)	255(2.55)(37)	130(1.3)(19)	160(1.6)(23)	95(0.95)(14)	—	120(1.2)(17)	70(0.7)(10)
10440(23000)	280(2.8)(41)	140(1.4)(20)	170(1.7)(25)	105(1.05)(15)	—	125(1.25)(18)	70(0.7)(10)
10900(24000)	295(2.95)(43)	150(1.5)(22)	185(1.85)(27)	110(1.1)(16)	—	130(1.3)(19)	75(0.75)(11)
11350(25000)	320(3.2)(46)	160(1.6)(23)	215(2.15)(31)	120(1.2)(17)	—	140(1.4)(20)	80(0.8)(12)
11800(26000)	—	165(1.65)(24)	220(2.2)(32)	125(1.25)(18)	—	145(1.45)(21)	90(0.9)(13)
12260(27000)	—	180(1.8)(26)	—	130(1.3)(19)	—	145(1.45)(21)	95(0.95)(14)
12710(28000)	—	210(2.1)(30)	—	140(1.4)(20)	—	165(1.65)(24)	110(1.1)(16)
13170(29000)	—	230(2.3)(34)	—	145(1.45)(21)	—	180(1.8)(26)	110(1.1)(16)
13605(30000)	—	250(2.5)(36)	—	150(1.5)(22)	—	200(2.0)(29)	120(1.2)(17)
14060(31000)	—	260(2.6)(38)	—	160(1.6)(23)	—	215 (2.15)(31)	120(1.2)(17)
14510(32000)	—	275(2.75)(40)	—	165(1.65)(24)	—	220(2.2)(32)	125(1.25)(18)
14970(33000)	—	290(2.9)(42)	—	180(1.8)(26)	—	235(2.35)(35)	130(1.3)(19)
15420(34000)	—	300(3.0)(44)	—	200(2.0)(29)	—	—	140(1.4)(20)
15875(35000)	—	320(3.2)(46)	—	215(2.15)(31)	—	—	140(1.4)(20)
16330(36000)	—	—	—	220(2.2)(32)	—	—	145(1.45)(21)
16783(37000)	—	—	—	230(2.3)(34)	—	—	150(1.5)(22)
17236(38000)	—	—	—	—	—	—	160(1.6)(23)
17690(39000)	—	—	—	—	—	—	165(1.65)(24)
18143(40000)	—	—	—	—	—	—	180(1.8)(26)

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Recommended Pressures—*Group 47—Continued*

Axle Load kg (lb)	520/85R42 Dual 157 Load Index kPa(bar)(psi)	620/70R42 Single 160 Load Index kPa(bar)(psi)	620/70R42 Dual 160 Load Index kPa(bar)(psi)	650/75R38 Single 169 Load Index kPa(bar)(psi)	710/70R38 Single 166 Load Index kPa(bar)(psi)	710/70R38 Dual 166 Load Index kPa(bar)(psi)
4540(10000)	40(0.4)(6)	65(0.65)(9)	40(0.4)(6)	55(0.55)(8)	55(0.55)(8)	40(0.4)(6)
4760(10500)	40(0.4)(6)	65(0.65)(9)	40(0.4)(6)	55(0.55)(8)	55(0.55)(8)	40(0.4)(6)
4990(11000)	40(0.4)(6)	65(0.65)(9)	40(0.4)(6)	55(0.55)(8)	55(0.55)(8)	40(0.4)(6)
5220(11500)	40(0.4)(6)	70(0.7)(10)	40(0.4)(6)	60(0.6)(9)	55(0.55)(8)	40(0.4)(6)
5440(12000)	40(0.4)(6)	75(0.75)(11)	40(0.4)(6)	60(0.6)(9)	55(0.55)(8)	40(0.4)(6)
5670(12500)	40(0.4)(6)	75(0.75)(11)	40(0.4)(6)	70(0.7)(10)	60(0.6)(9)	40(0.4)(6)
5900(13000)	40(0.4)(6)	85(0.85)(12)	40(0.4)(6)	75(0.75)(11)	70(0.7)(10)	40(0.4)(6)
6120(13500)	40(0.4)(6)	90(0.9)(13)	40(0.4)(6)	80(0.8)(12)	70(0.7)(10)	40(0.4)(6)
6350(14000)	40(0.4)(6)	95(0.95)(14)	40(0.4)(6)	90(0.9)(13)	75(0.75)(11)	40(0.4)(6)
6580(14500)	50(0.5)(7)	95(0.95)(14)	40(0.4)(6)	90(0.9)(13)	80(0.8)(12)	40(0.4)(6)
6800(15000)	50(0.5)(7)	105(1.05)(15)	40(0.4)(6)	95(0.95)(14)	90(0.9)(13)	40(0.4)(6)
7030(15500)	50(0.5)(7)	110(1.1)(16)	40(0.4)(6)	105(1.05)(15)	90(0.9)(13)	40(0.4)(6)
7260(16000)	55(0.55)(8)	110(1.1)(16)	40(0.4)(6)	110(1.1)(16)	90(0.9)(13)	40(0.4)(6)
7480(16500)	55(0.55)(8)	120(1.2)(17)	50(0.5)(7)	110(1.1)(16)	95(0.95)(14)	40(0.4)(6)
7720(17000)	60(0.6)(9)	125(1.25)(18)	50(0.5)(7)	120(1.2)(17)	105(1.05)(15)	40(0.4)(6)
7950(17500)	70(0.7)(10)	125(1.25)(18)	55(0.55)(8)	120(1.2)(17)	110(1.1)(16)	40(0.4)(6)
8170(18000)	70(0.7)(10)	130(1.3)(19)	55(0.55)(8)	125(1.25)(18)	110(1.1)(16)	40(0.4)(6)
8400(18500)	70(0.7)(10)	130(1.3)(19)	60(0.6)(9)	130(1.3)(19)	120(1.2)(17)	40(0.4)(6)
8630(19000)	75(0.75)(11)	140(1.4)(20)	70(0.7)(10)	130(1.3)(19)	120(1.2)(17)	50(0.5)(7)
8850(19500)	80(0.8)(12)	160(1.6)(23)	70(0.7)(10)	140(1.4)(20)	125(1.25)(18)	50(0.5)(7)
9080(20000)	90(0.9)(13)	—	70(0.7)(10)	145(1.45)(21)	125(1.25)(18)	50(0.5)(7)
9530(21000)	90(0.9)(13)	—	75(0.75)(11)	160(1.6)(23)	140(1.4)(20)	55(0.55)(8)
9990(22000)	95(0.95)(14)	—	80(0.8)(12)	172(1.7)(25)	145(1.45)(21)	60(0.6)(9)
10440(23000)	105(1.05)(15)	—	90(0.9)(13)	186(1.9)(27)	160(1.6)(23)	70(0.7)(10)
10900(24000)	110(1.1)(16)	—	95(0.95)(14)	199(2.0)(29)	—	70(0.7)(10)
11350(25000)	120(1.2)(17)	—	105(1.05)(15)	234(2.3)(34)	—	75(0.75)(11)
11800(26000)	120(1.2)(17)	—	110(1.1)(16)	—	—	80(0.8)(12)
12260(27000)	125(1.25)(18)	—	120(1.2)(17)	—	—	90(0.9)(13)
12710(28000)	130(1.3)(19)	—	120(1.2)(17)	—	—	90(0.9)(13)
13170(29000)	140(1.4)(20)	—	125(1.25)(18)	—	—	95(0.95)(14)
13605(30000)	145(1.45)(21)	—	130(1.3)(19)	—	—	105(1.05)(15)
14060(31000)	150(1.5)(22)	—	140(1.4)(20)	—	—	110(1.1)(16)
14510(32000)	160(1.6)(23)	—	140(1.4)(20)	—	—	110(1.1)(16)
14970(33000)	—	—	150(1.5)(22)	—	—	120(1.2)(17)
15420(34000)	—	—	160(1.6)(23)	—	—	120(1.2)(17)
15875(35000)	—	—	—	—	—	125(1.25)(18)
16330(36000)	—	—	—	—	—	130(1.3)(19)
16783(37000)	—	—	—	—	—	140(1.4)(20)
17236(38000)	—	—	—	—	—	145(1.45)(21)
17690(39000)	—	—	—	—	—	150(1.5)(22)
18143(40000)	—		—	—	—	150(1.5)(22)

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Recommended Pressures—*Group 48*

Axle Load	380/90R54 Dual 152 Load Index	480/80R50 Single 159 Load Index	480/80R50 Dual 159 Load Index	480/80R50 Triple 159 Load Index	520/85R46 Single 158 Load Index	520/85R46 Dual 158 Load Index	620/70R46 Single 162 Load Index	620/70R46 Dual 162 Load Index
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)	40(0.4)(6)	85(0.85)(12)	40(0.4)(6)	40(0.4)(6)	65(0.65)(9)	40(0.4)(6)	65(0.65)(9)	40(0.4)(6)
4760(10500)	40(0.4)(6)	85(0.85)(12)	40(0.4)(6)	40(0.4)(6)	70(0.7)(10)	40(0.4)(6)	65(0.65)(9)	40(0.4)(6)
4990(11000)	50(0.5)(7)	90(0.9)(13)	40(0.4)(6)	40(0.4)(6)	75(0.75)(11)	40(0.4)(6)	65(0.65)(9)	40(0.4)(6)
5220(11500)	50(0.5)(7)	95(1.0)(14)	40(0.4)(6)	40(0.4)(6)	75(0.75)(11)	40(0.4)(6)	65(0.65)(9)	40(0.4)(6)
5440(12000)	55(0.55)(8)	105(1.1)(15)	40(0.4)(6)	40(0.4)(6)	85(0.85)(12)	40(0.4)(6)	65(0.65)(9)	40(0.4)(6)
5670(12500)	60(0.6)(9)	110(1.1)(16)	50(0.5)(7)	40(0.4)(6)	90(0.9)(13)	40(0.4)(6)	65(0.65)(9)	40(0.4)(6)
5900(13000)	70(0.7)(10)	110(1.1)(16)	50(0.5)(7)	40(0.4)(6)	95(0.95)(14)	40(0.4)(6)	65(0.65)(9)	40(0.4)(6)
6120(13500)	70(0.7)(10)	120(1.2)(17)	50(0.5)(7)	40(0.4)(6)	105(1.05)(15)	40(0.4)(6)	65(0.65)(9)	40(0.4)(6)
6350(14000)	75(0.75)(11)	125(1.25)(18)	50(0.5)(7)	40(0.4)(6)	105(1.05)(15)	40(0.4)(6)	70(0.7)(10)	40(0.4)(6)
6580(14500)	75(0.75)(11)	130(1.3)(19)	55(0.55)(8)	40(0.4)(6)	110(1.1)(16)	40(0.4)(6)	75(0.75)(11)	40(0.4)(6)
6800(15000)	80(0.8)(12)	140(1.4)(20)	55(0.55)(8)	40(0.4)(6)	110(1.1)(16)	40(0.4)(6)	85(0.85)(12)	40(0.4)(6)
7030(15500)	90(0.9)(13)	145(1.45)(21)	60(0.6)(9)	40(0.4)(6)	120(1.2)(17)	50(0.5)(7)	90(0.9)(13)	40(0.4)(6)
7260(16000)	90(0.9)(13)	150(1.5)(22)	70(0.7)(10)	40(0.4)(6)	125(1.25)(18)	50(0.5)(7)	95(0.95)(14)	40(0.4)(6)
7480(16500)	95(0.95)(14)	160(1.6)(23)	70(0.7)(10)	40(0.4)(6)	130(1.3)(19)	55(0.55)(8)	105(1.05)(15)	50(0.5)(7)
7720(17000)	105(1.05)(15)	180(1.8)(26)	70(0.7)(10)	40(0.4)(6)	140(1.4)(20)	60(0.6)(9)	110(1.1)(16)	50(0.5)(7)
7950(17500)	110(1.1)(16)	190(1.9)(28)	75(0.75)(11)	50(0.5)(7)	145(1.45)(21)	60(0.6)(9)	110(1.1)(16)	50(0.5)(7)
8170(18000)	110(1.1)(16)	200(2.0)(29)	80(0.8)(12)	50(0.5)(7)	150(1.5)(22)	70(0.7)(10)	120(1.2)(17)	50(0.5)(7)
8400(18500)	120(1.2)(17)	220(2.2)(32)	90(0.9)(13)	50(0.5)(7)	160(1.6)(23)	70(0.7)(10)	125(1.25)(18)	55(0.55)(8)
8630(19000)	120(1.2)(17)	235(2.35)(34)	90(0.9)(13)	50(0.5)(7)	—	75(0.75)(11)	130(1.3)(19)	55(0.55)(8)
8850(19500)	125(1.25)(18)	240(2.4)(35)	90(0.9)(13)	50(0.5)(7)	—	75(0.75)(11)	140(1.4)(20)	60(0.6)(9)
9080(20000)	125(1.25)(18)	—	95(0.95)(14)	50(0.5)(7)	—	75(0.75)(11)	150(1.5)(22)	70(0.7)(10)
9530(21000)	140(1.4)(20)	—	105(1.05)(15)	55(0.55)(8)	—	80(0.8)(12)	160(1.6)(23)	70(0.7)(10)
9990(22000)	150(1.5)(22)	—	110(1.1)(16)	60(0.6)(9)	—	90(0.9)(13)	165(1.65)(24)	75(0.75)(11)
10440(23000)	160(1.6)(23)	—	120(1.2)(17)	70(0.7)(10)	—	105(1.05)(15)	170(1.70)(25)	80(0.8)(12)
10900(24000)	170(1.70)(25)	—	125(1.25)(18)	70(0.7)(10)	—	110(1.1)(16)	180(1.8)(26)	90(0.9)(13)
11350(25000)	185(1.85)(27)	—	130(1.3)(19)	80(0.8)(12)	—	110(1.1)(16)	—	90(0.9)(13)
11800(26000)	200(2.0)(29)	—	140(1.4)(20)	90(0.9)(13)	—	120(1.2)(17)	—	105(1.05)(15)
12260(27000)	225(2.25)(33)	—	145(1.45)(21)	90(0.9)(13)	—	125(1.25)(18)	—	110(1.1)(16)
12710(28000)	—	—	150(1.5)(22)	95(0.95)(14)	—	130(1.3)(19)	—	110(1.1)(16)
13170(29000)	—	—	160(1.6)(23)	105(1.05)(15)	—	140(1.4)(20)	—	120(1.2)(17)
13605(30000)	—	—	180(1.85(26)	110(1.1)(16)	—	140(1.4)(20)	—	120(1.2)(17)
14060(31000)	—	—	190(1.9)(28)	110(1.1)(16)	—	145(1.45)(21)	—	125(1.25)(18)
14510(32000)	—	—	200(2.0)(29)	120(1.2)(17)	—	160(1.6)(23)	—	140(1.4)(20)
14970(33000)	—	—	225(2.25)(33)	120(1.2)(17)	—	—	—	145(1.45)(21)
15420(34000)	—	—	235(2.35)(35)	125(1.25)(18)	—	—	—	145(1.45)(21)
15875(35000)	—	—	—	130(1.3)(19)	—	—	—	150(1.5)(22)
16330(36000)	—	—	—	130(1.3)(19)	—	—	—	160(1.6)(23)
16783(37000)	—	—	—	140(1.4)(20)	—	—	—	—
17236(38000)	—	—	—	145(1.45)(21)	—	—	—	—
17690(39000)	—	—	—	150(1.5)(22)	—	—	—	—
18143(40000)	—	—	—	160(1.6)(23)	—	—	—	—

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Recommended Pressures—*Group 48 (continued)*

Axle Load	650/85R38 Single 173 Load Index	710/70R42 Single 168 Load Index	710/70R42 Dual 168 Load Index	710/70R42 Single 173 Load Index	710/70R42 Dual 173 Load Index	800/70R38 Single 173 Load Index	800/70R38 Dual 173 Load Index
kg (lb)	kPa(bar)(psi)	kPa(bar)(psi)	kPa(bar)(psi)	kPa(bar)(psi)	kPa(bar)(psi)	kPa(bar)(psi)	kPa(bar)(psi)
4540(10000)	55(0.55)(8)	55(0.55)(8)	40(0.4)(6)	55(0.55)(8)	40(0.4)(6)	55(0.55)(8)	40(0.4)(6)
4760(10500)	55(0.55)(8)	55(0.55)(8)	40(0.4)(6)	55(0.55)(8)	40(0.4)(6)	55(0.55)(8)	40(0.4)(6)
4990(11000)	55(0.55)(8)	55(0.55)(8)	40(0.4)(6)	55(0.55)(8)	40(0.4)(6)	55(0.55)(8)	40(0.4)(6)
5220(11500)	55(0.55)(8)	55(0.55)(8)	40(0.4)(6)	55(0.55)(8)	40(0.4)(6)	55(0.55)(8)	40(0.4)(6)
5440(12000)	55(0.55)(8)	55(0.55)(8)	40(0.4)(6)	55(0.55)(8)	40(0.4)(6)	55(0.55)(8)	40(0.4)(6)
5670(12500)	55(0.55)(8)	55(0.55)(8)	40(0.4)(6)	55(0.55)(8)	40(0.4)(6)	55(0.55)(8)	40(0.4)(6)
5900(13000)	60(0.6)(9)	60(0.6)(9)	40(0.4)(6)	60(0.6)(9)	40(0.4)(6)	55(0.55)(8)	40(0.4)(6)
6120(13500)	70(0.7)(10)	70(0.7)(10)	40(0.4)(6)	70(0.7)(10)	40(0.4)(6)	55(0.55)(8)	40(0.4)(6)
6350(14000)	70(0.7)(10)	70(0.7)(10)	40(0.4)(6)	70(0.7)(10)	40(0.4)(6)	55(0.55)(8)	40(0.4)(6)
6580(14500)	75(0.75)(11)	70(0.7)(10)	40(0.4)(6)	75(0.75)(11)	40(0.4)(6)	55(0.55)(8)	40(0.4)(6)
6800(15000)	75(0.75)(11)	75(0.75)(11)	40(0.4)(6)	75(0.75)(11)	40(0.4)(6)	60(0.6)(9)	40(0.4)(6)
7030(15500)	80(0.8)(12)	80(0.8)(12)	40(0.4)(6)	80(0.8)(12)	40(0.4)(6)	60(0.6)(9)	40(0.4)(6)
7260(16000)	90(0.9)(13)	90(0.9)(13)	40(0.4)(6)	90(0.9)(13)	40(0.4)(6)	70(0.7)(10)	40(0.4)(6)
7480(16500)	95(0.95)(14)	90(0.9)(13)	40(0.4)(6)	90(0.9)(13)	40(0.4)(6)	70(0.7)(10)	40(0.4)(6)
7720(17000)	105(1.05)(15)	95(0.95)(14)	40(0.4)(6)	95(0.95)(14)	40(0.4)(6)	75(0.75)(11)	40(0.4)(6)
7950(17500)	105(1.05)(15)	105(1.05)(15)	40(0.4)(6)	105(1.05)(15)	40(0.4)(6)	80(0.8)(12)	40(0.4)(6)
8170(18000)	110(1.1)(16)	110(1.1)(16)	40(0.4)(6)	110(1.1)(16)	40(0.4)(6)	80(0.8)(12)	40(0.4)(6)
8400(18500)	110(1.1)(16)	110(1.1)(16)	40(0.4)(6)	110(1.1)(16)	40(0.4)(6)	90(0.9)(13)	40(0.4)(6)
8630(19000)	120(1.2)(17)	120(1.2)(17)	40(0.4)(6)	120(1.2)(17)	40(0.4)(6)	90(0.9)(13)	40(0.4)(6)
8850(19500)	120(1.2)(17)	120(1.2)(17)	50(0.5)(7)	120(1.2)(17)	50(0.5)(7)	95(0.95)(14)	40(0.4)(6)
9080(20000)	125(1.25)(18)	125(1.25)(18)	50(0.5)(7)	125(1.25)(18)	50(0.5)(7)	105(1.05)(15)	40(0.4)(6)
9530(21000)	130(1.3)(19)	130(1.3)(19)	50(0.5)(7)	130(1.3)(19)	50(0.5)(7)	110(1.1)(16)	40(0.4)(6)
9990(22000)	140(1.4)(20)	140(1.4)(20)	55(0.55)(8)	140(1.4)(20)	55(0.55)(8)	120(1.2)(17)	40(0.4)(6)
10440(23000)	150(1.5)(22)	150(1.5)(22)	60(0.6)(9)	150(1.5)(22)	60(0.6)(9)	120(1.2)(17)	50(0.5)(7)
10900(24000)	160(1.6)(23)	160(1.6)(23)	70(0.7)(10)	160(1.6)(23)	70(0.7)(10)	125(1.25)(18)	50(0.5)(7)
11350(25000)	170(1.70)(25)	—	70(0.7)(10)	170(1.70)(25)	70(0.7)(10)	140(1.4)(20)	50(0.5)(7)
11800(26000)	190(1.9)(28)	—	75(0.75)(11)	185(1.85)(27)	75(0.75)(11)	145(1.45)(21)	60(0.6)(9)
12260(27000)	215(2.15)(31)	—	80(0.8)(12)	200(2.)(29)	80(0.8)(12)	150(1.5)(22)	70(0.7)(10)
12710(28000)	225(2.25)(33)	—	90(0.9)(13)	225(2.25)(33)	90(0.9)(13)	160(1.6)(23)	70(0.7)(10)
13170(29000)	—	—	90(0.9)(13)	—	90(0.9)(13)	—	70(0.7)(10)
13605(31000)	—	—	105(1.05)(15)	—	95(0.95)(14)	—	75(0.75)(11)
14060(31000)	—	—	110(1.1)(16)	—	105(1.05)(15)	—	80(0.8)(12)
14510(32000)	—	—	110(1.1)(16)	—	110(1.1)(16)	—	80(0.8)(12)
14970(33000)		—	120(1.2)(17)	—	120(1.2)(17)	—	90(0.9)(13)
15420(34000)		—	120(1.2)(17)	—	120(1.2)(17)	—	95(0.95)(14)
15875(35000)		—	125(1.25)(18)	—	125(1.25)(18)	—	105(1.05)(15)
16330(36000)		—	125(1.25)(18)	—	125(1.25)(18)	—	110(1.1)(16)
16783(37000)		—	130(1.3)(19)	—	130(1.3)(19)	—	110(1.1)(16)
17236(38000)		—	140(1.4)(20)	—	140(1.4)(20)	—	110(1.1)(16)
17690(39000)		—	145(1.45)(21)	—	145(1.45)(21)	—	120(1.2)(17)
18143(40000)		—	145(1.45)(21)	—	145(1.45)(21)	—	120(1.2)(17)

OURX935,0000410-19-14JUN11-1/1

Recommended Pressures—*Group 47 — IF Tires*

Axle Load kg (lb)	IF 710/70R38 Single 178 Load Index kPa(bar)(psi)	IF 710/70R38 Dual 178 Load Index kPa(bar)(psi)
4540(10000)	80(0.8)(12)	40(0.4)(6)
4760(10500)	80(0.8)(12)	40(0.4)(6)
4990(11000)	80(0.8)(12)	40(0.4)(6)
5220(11500)	80(0.8)(12)	40(0.4)(6)
5440(12000)	80(0.8)(12)	40(0.4)(6)
5670(12500)	80(0.8)(12)	40(0.4)(6)
5900(13000)	80(0.8)(12)	40(0.4)(6)
6120(13500)	80(0.8)(12)	40(0.4)(6)
6350(14000)	80(0.8)(12)	40(0.4)(6)
6580(14500)	80(0.8)(12)	40(0.4)(6)
6800(15000)	80(0.8)(12)	40(0.4)(6)
7030(15500)	80(0.8)(12)	40(0.4)(6)
7260(16000)	80(0.8)(12)	40(0.4)(6)
7480(16500)	80(0.8)(12)	40(0.4)(6)
7720(17000)	80(0.8)(12)	40(0.4)(6)
7950(17500)	80(0.8)(12)	40(0.4)(6)
8170(18000)	90(0.9)(13)	40(0.4)(6)
8400(18500)	90(0.9)(13)	40(0.4)(6)
8630(19000)	95(0.95)(14)	40(0.4)(6)
8850(19500)	105(1.05)(15)	40(0.4)(6)
9080(20000)	105(1.05)(15)	40(0.4)(6)
9530(21000)	110(1.1)(16)	40(0.4)(6)
9990(22000)	120(1.2)(17)	40(0.4)(6)
10440(23000)	120(1.2)(17)	50(0.5)(7)
10900(24000)	125(1.25)(18)	55(0.55)(8)
11350(25000)	130(1.3)(19)	60(0.6)(9)
11800(26000)	140(1.4)(20)	60(0.6)(9)
12260(27000)	150(1.5)(22)	70(0.7)(10)
12710(28000)	160(1.6)(23)	70(0.7)(10)
13170(29000)	175(1.75(25)	75(0.75)(11)
13605(31000)	180(1.8)(26)	75(0.75)(11)
14060(31000)	210 (2.1)(30)	80(0.8)(12)
14510(32000)	220(2.2)(32)	90(0.9)(13)
14970(33000)	235(2.35)(35)	90(0.9)(13)
15420(34000)	—	95(0.95)(14)
15875(35000)	—	95(0.95)(14)
16330(36000)	—	103(1.03)(15)
16783(37000)	—	110(1.10)(16)
17236(38000)	—	110(1.10)(16)
17690(39000)	—	117(1.17)(17)
18143(40000)	—	117(1.17)(17)

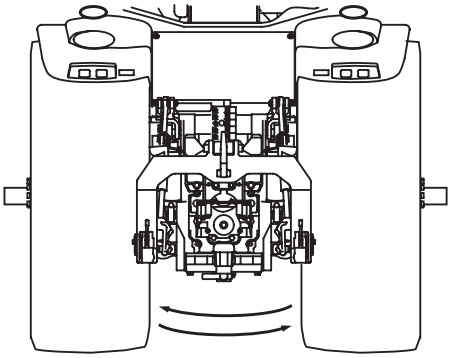
OURX935,0000412-19-23AUG11-1/1

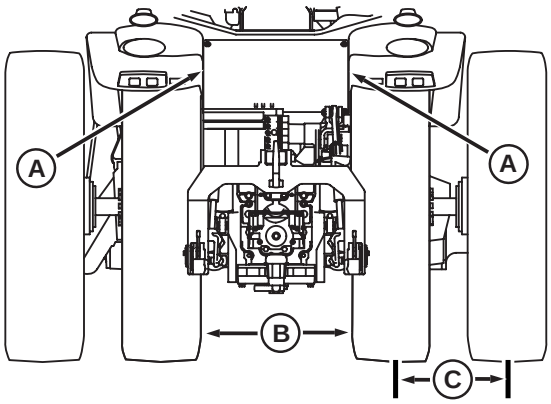
Recommended Pressures—*Group 48 — IF Tires*

Axle Load kg (lb)	IF 480/80R50 Single 166 Load Index kPa(bar)(psi)	IF 480/80R50 Dual 166 Load Index kPa(bar)(psi)	IF 650/85/R38 Single 179 Load Index kPa(bar)(psi)	IF 650/85/R38 Dual 179 Load Index kPa(bar)(psi)	IF 710/70R42 Single 179 Load Index kPa(bar)(psi)	IF 710/70R42 Dual 179 Load Index kPa(bar)(psi)	IF 800/70R38 Single 179 Load Index kPa(bar)(psi)	IF 800/70R38 Duals 179 Load Index kPa(bar)(psi)
4540(10000)	40(0.4)(6)	40(0.4)(6)	80(0.8)(12)	40(0.4)(6)	80(0.8)(12)	40(0.4)(6)	80(0.8)(12)	40(0.4)(6)
4760(10500)	40(0.4)(6)	40(0.4)(6)	80(0.8)(12)	40(0.4)(6)	80(0.8)(12)	40(0.4)(6)	80(0.8)(12)	40(0.4)(6)
4990(11000)	40(0.4)(6)	40(0.4)(6)	80(0.8)(12)	40(0.4)(6)	80(0.8)(12)	40(0.4)(6)	80(0.8)(12)	40(0.4)(6)
5220(11500)	40(0.4)(6)	40(0.4)(6)	80(0.8)(12)	40(0.4)(6)	80(0.8)(12)	40(0.4)(6)	80(0.8)(12)	40(0.4)(6)
5440(12000)	40(0.4)(6)	40(0.4)(6)	80(0.8)(12)	40(0.4)(6)	80(0.8)(12)	40(0.4)(6)	80(0.8)(12)	40(0.4)(6)
5670(12500)	40(0.4)(6)	40(0.4)(6)	80(0.8)(12)	40(0.4)(6)	80(0.8)(12)	40(0.4)(6)	80(0.8)(12)	40(0.4)(6)
5900(13000)	40(0.4)(6)	40(0.4)(6)	80(0.8)(12)	40(0.4)(6)	80(0.8)(12)	40(0.4)(6)	80(0.8)(12)	40(0.4)(6)
6120(13500)	40(0.4)(6)	40(0.4)(6)	80(0.8)(12)	40(0.4)(6)	80(0.8)(12)	40(0.4)(6)	80(0.8)(12)	40(0.4)(6)
6350(14000)	40(0.4)(6)	40(0.4)(6)	80(0.8)(12)	40(0.4)(6)	80(0.8)(12)	40(0.4)(6)	80(0.8)(12)	40(0.4)(6)
6580(14500)	40(0.4)(6)	40(0.4)(6)	80(0.8)(12)	40(0.4)(6)	80(0.8)(12)	40(0.4)(6)	80(0.8)(12)	40(0.4)(6)
6800(15000)	40(0.4)(6)	40(0.4)(6)	80(0.8)(12)	40(0.4)(6)	80(0.8)(12)	40(0.4)(6)	80(0.8)(12)	40(0.4)(6)
7030(15500)	40(0.4)(6)	40(0.4)(6)	80(0.8)(12)	40(0.4)(6)	80(0.8)(12)	40(0.4)(6)	80(0.8)(12)	40(0.4)(6)
7260(16000)	50(0.5)(7)	50(0.5)(7)	80(0.8)(12)	40(0.4)(6)	80(0.8)(12)	40(0.4)(6)	80(0.8)(12)	40(0.4)(6)
7480(16500)	50(0.5)(7)	50(0.5)(7)	80(0.8)(12)	40(0.4)(6)	80(0.8)(12)	40(0.4)(6)	80(0.8)(12)	40(0.4)(6)
7720(17000)	55(0.55)(8)	55(0.55)(8)	80(0.8)(12)	40(0.4)(6)	80(0.8)(12)	40(0.4)(6)	80(0.8)(12)	40(0.4)(6)
7950(17500)	60(0.6)(9)	60(0.6)(9)	80(0.8)(12)	40(0.4)(6)	80(0.8)(12)	40(0.4)(6)	80(0.8)(12)	40(0.4)(6)
8170(18000)	60(0.6)(9)	60(0.6)(9)	80(0.8)(12)	40(0.4)(6)	80(0.8)(12)	40(0.4)(6)	80(0.8)(12)	40(0.4)(6)
8400(18500)	60(0.6)(9)	60(0.6)(9)	80(0.8)(12)	40(0.4)(6)	80(0.8)(12)	40(0.4)(6)	80(0.8)(12)	40(0.4)(6)
8630(19000)	70(0.7)(10)	70(0.7)(10)	80(0.8)(12)	40(0.4)(6)	80(0.8)(12)	40(0.4)(6)	80(0.8)(12)	40(0.4)(6)
8850(19500)	70(0.7)(10)	70(0.7)(10)	90(0.9)(13)	40(0.4)(6)	90(0.9)(13)	40(0.4)(6)	90(0.9)(13)	40(0.4)(6)
9080(20000)	70(0.7)(10)	70(0.7)(10)	95(0.95)(14)	40(0.4)(6)	95(0.95)(14)	40(0.4)(6)	95(0.95)(14)	40(0.4)(6)
9530(21000)	75(0.75)(11)	75(0.75)(11)	105(1.05)(15)	40(0.4)(6)	105(1.05)(15)	40(0.4)(6)	105(1.05)(15)	40(0.4)(6)
9990(22000)	80(0.8)(12)	80(0.8)(12)	110(1.1)(16)	40(0.4)(6)	110(1.1)(16)	40(0.4)(6)	110(1.1)(16)	40(0.4)(6)
10440(23000)	90(0.9)(13)	90(0.9)(13)	120(1.2)(17)	40(0.4)(6)	120(1.2)(17)	40(0.4)(6)	120(1.2)(17)	40(0.4)(6)
10900(24000)	95(0.95)(14)	95(0.95)(14)	120(1.2)(17)	50(0.5)(7)	120(1.2)(17)	50(0.5)(7)	120(1.2)(17)	40(0.4)(6)
11350(25000)	105(1.05)(15)	105(1.05)(15)	130(1.3)(19)	50(0.5)(7)	130(1.3)(19)	50(0.5)(7)	130(1.3)(19)	40(0.4)(6)
11800(26000)	110(1.1)(16)	110(1.1)(16)	140(1.4)(20)	55(0.55)(8)	140(1.4)(20)	55(0.55)(8)	140(1.4)(20)	40(0.4)(6)
12260(27000)	120(1.2)(17)	120(1.2)(17)	145(1.45)(21)	55(0.55)(8)	145(1.45)(21)	55(0.55)(8)	145(1.45)(21)	50(0.5)(7)
12710(28000)	120(1.2)(17)	120(1.2)(17)	152 (1.5)(22)	60(0.6)(9)	152 (1.5)(22)	60(0.6)(9)	152 (1.5)(22)	50(0.5)(7)
13170(29000)	125(1.25)(18)	125(1.25)(18)	159 (1.6)(23)	70(0.7)(10)	159 (1.6)(23)	70(0.7)(10)	159 (1.6)(23)	50(0.5)(7)
13605(31000)	130(1.3)(19)	130(1.3)(19)	165 (1.7)(24)	70(0.7)(10)	165 (1.7)(24)	70(0.7)(10)	165 (1.7)(24)	55(0.55)(8)
14060(31000)		140(1.4)(20)	179 (1.8)(26)	75(0.75)(11)	179 (1.8)(26)	75(0.75)(11)	179 (1.8)(26)	55(0.55)(8)
14510(32000)		140(1.4)(20)	200 (2.0)(29)	80(0.8)(12)	200 (2.0)(29)	80(0.8)(12)	200 (2.0)(29)	60(0.6)(9)
14970(33000)		145(1.45)(21)	221 (2.2)(32)	80(0.8)(12)	221 (2.2)(32)	80(0.8)(12)	221 (2.2)(32)	70(0.7)(10)
15420(34000)		152 (1.5)(22)	241 (2.4)(35)	90(0.9)(13)	241 (2.4)(35)	90(0.9)(13)	241 (2.4)(35)	70(0.7)(10)
15875(35000)		165 (1.7)(24)	—	90(0.9)(13)	—	90(0.9)(13)	—	75(0.75)(11)
16330(36000)		—	—	—	—	—	—	—
16783(37000)		—	—	—	—	—	—	—
17236(38000)		—	—	—	—	—	—	—
17690(39000)		—	—	—	—	—	—	—
18143(40000)		—	—	—	—	—	—	—

OURX935,0000413-19-12JUL11-1/1

Rear Wheel, Tire, and Tread Guidelines





RXA0105827—UN—28JAN10

A—Clearance Between Inner Wheel and Fender

B—Distance between inside wall of Drive Wheel

C—Minimum Spacing between Duals

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.

IMPORTANT: Tires must have at least 25 mm (1 in.) clearance with fenders (A). Distance between tires (B) must be at least 1015 mm (40 in.) with tires equal distances from tractor centerline.

With sway blocks in upper position (sway allowed), minimum distance between tires must be 1090 mm (43 in.) to prevent interference.

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 the same axle should all be inflated to the same pressure.

Cast wheels are used inside and steel wheels on the outside on tractors with duals.

Over inflating a radial tire reduces machine performance. Using the correct inflation pressures will result in optimum tractive performance.

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.

Recommended Minimum Spacing for Dual Tires (C)
Tread setting is measured between center of tires

Tire Section	Minimum Spacing
320 mm (12.4 in.)	334 mm (17.1 in.)
380 mm (14.9 in.)	507 mm (20. in.)
420 mm (16.9 in.)	552 mm (21.7 in.)
480 mm (18.4 in.)	626 mm (24.6 in.)
520 mm (20.8 in.)	670 mm (26.4 in.)
620 mm (24.5 in.)	801 mm (31.5 in.)
650 mm (25.5 in.)	825 mm (32.5 in.)
710 mm (28.0 in.)	890 mm (35 in.)
800 mm (30.5 in.)	1008 mm (39.7 in.)

OURX935,0000318-19-23MAY11-1/1

Dual Wheel to Hub Installation

CAUTION: Avoid the possibility of personal injury. 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.

*NOTE: Check the hole sizes on duals, the wheel rim may have one **tight fit** hole smaller than the other holes and one **slot fit** hole 180° from the tight fit hole for improved wheel centering.*

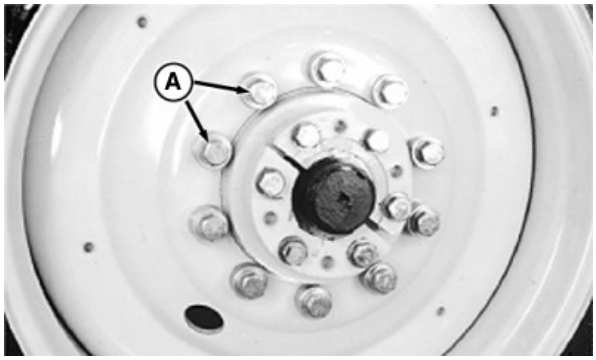
Install and hand tighten bolts (A).

Using a star shaped pattern, torque all bolts as needed to maintain torque.

Specification

All Bolts—Torque. . . . . 600 N·m (445 lb-ft)

Drive tractor 100 meters (110 yd) and retighten bolts.



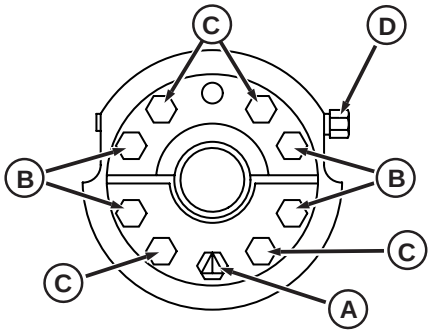
Standard Hub Shown

A—Wheel to Hub Bolts

Tighten again at **3 HOURS**, **10 HOURS**, and **DAILY** for the first week of operation.

OURX935,0000687-19-03JAN08-1/1

Rear Drive Wheel with Standard Hubs— Adjusting and Tightening



RXA0059686—UN—11MAR02

A—Lower Hub Center Bolt **B—Outer Hub Sleeve Bolts** **C—Inner Jack Screws** **D—Adjusting Screw**

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.

1. Raise tractor on level ground and turn wheels so rack on axle is on top.
2. Loosen lower hub center bolt (A) against retaining nut and loosen outer hub sleeve bolts (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 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 screw (D) to slide wheel to desired position.
5. Loosen the jack screws (C) all the way against stop.

CAUTION: Avoid the possibility of personal injury. 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.

IMPORTANT: Keep face of hub sleeves even to prevent hub breakage or bolt loosening.

6. Beginning with center bolt in lower sleeve (B) and using a star shaped pattern, torque sleeve bolts to initial torque and then intermediate torque.

Specification

Initial Sleeve Bolts—Torque. . . . . 204 N·m (150 lb-ft)

Intermediate Sleeve Bolts—Torque. . . . . 410 N·m (300 lb-ft)

IMPORTANT: Some sleeve bolts may loosen as sleeve is tightened. Repeat star shaped torquing 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.

7. Drive tractor a minimum of 100 meters (110 yd) and using previously described method torque bolts.

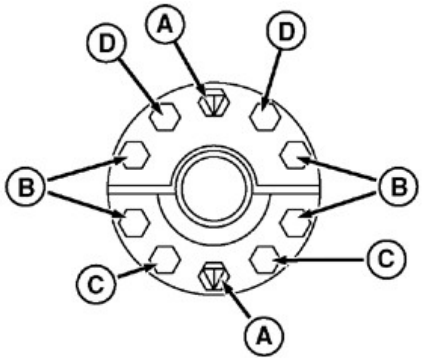
Specification

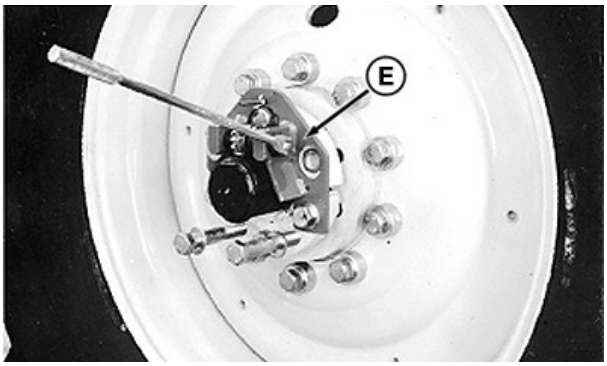
Final Sleeve Bolts—Torque. . . . . 600 N·m (445 lb-ft)

8. Torque bolts after working **3 HOURS**, **10 HOURS**, and **DAILY** during the first week of operation.

OURX935,0000688-19-03JAN08-1/1

Rear Dual Wheels with Standard Hubs— Adjusting and Tightening





RXA0059705—UN—21AUG02

A—Hub Center Bolts
B—Outer Hub Sleeve Bolts
C—Lower Jack Screw Bolts
D—Upper Jack Screw Bolts
E—JDG667A Wheel Adjusting Tool

CAUTION: Avoid personal injury. Never run engine with transmission in gear and rear wheels off 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.

1. Raise tractor on level ground and turn wheel so rack on axle is on top.
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.
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.

CAUTION: Avoid the possibility of personal injury. 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.

9. Beginning with center bolt (A) in lower sleeve and using a star shaped pattern, torque sleeve bolts to initial torque and then intermediate torque.

Specification

Initial Sleeve Bolts—Torque. . . . . 204 N·m (150 lb-ft)
Intermediate Sleeve Bolts—Torque. . . . . 410 N·m (300 lb-ft)

10. Drive tractor a minimum of 100 meters (110 yd) and re-torque bolts using previously described method.

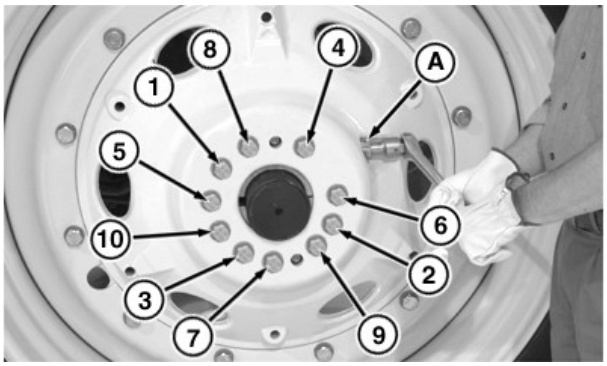
Specification

Final Sleeve Bolts—Torque. . . . . 600 N·m (445 lb-ft)

11. Torque bolts after working **3 HOURS**, **10 HOURS**, and **DAILY** during the first week of operation.

OURX935,0000689-19-03JAN08-1/1

Rear Drive and Dual Wheels With Heavy Duty Hubs—Adjusting and Tightening



RXA0087611—UN—13MAR06

Drive Wheel Shown

A—Pinion Gear

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.

IMPORTANT: Carefully follow procedure. Failure to do so could lead to wheel hub damage.

1. Raise the tractor on level ground with rack upward on the axle.
2. Loosen (without removing) sleeve bolts (1—10) just enough to move wheel.

IMPORTANT: Do not loosen or remove the two allen head screws. Doing so could result in wheel jamming or damage.

3. Turn pinion gear (A) to move wheel to desired position.

NOTE: Dual hub does not have pinion gear.

CAUTION: Avoid the possibility of personal injury. Failure to follow torquing sequence and procedure will result in damage to wheel sleeves and may result in personal injury. Wheel bolts are critical and require repeated torquing.

4. Tighten sleeve bolts (1—10) in numerical order to initial torque and then (1—10) in numerical order tighten to intermediate torque.

Specification

Sleeve Bolts—Initial Torque. . . . . 204 N·m (150 lb-ft)
Sleeve Bolts—Intermediate Torque. . . . . 410 N·m (300 lb-ft)

IMPORTANT: Some sleeve bolts may loosen as sleeve is tightened. Repeat star shaped torquing 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.

5. Drive tractor a minimum of 100 meters (110 yd) and using previously described method tighten to final torque.

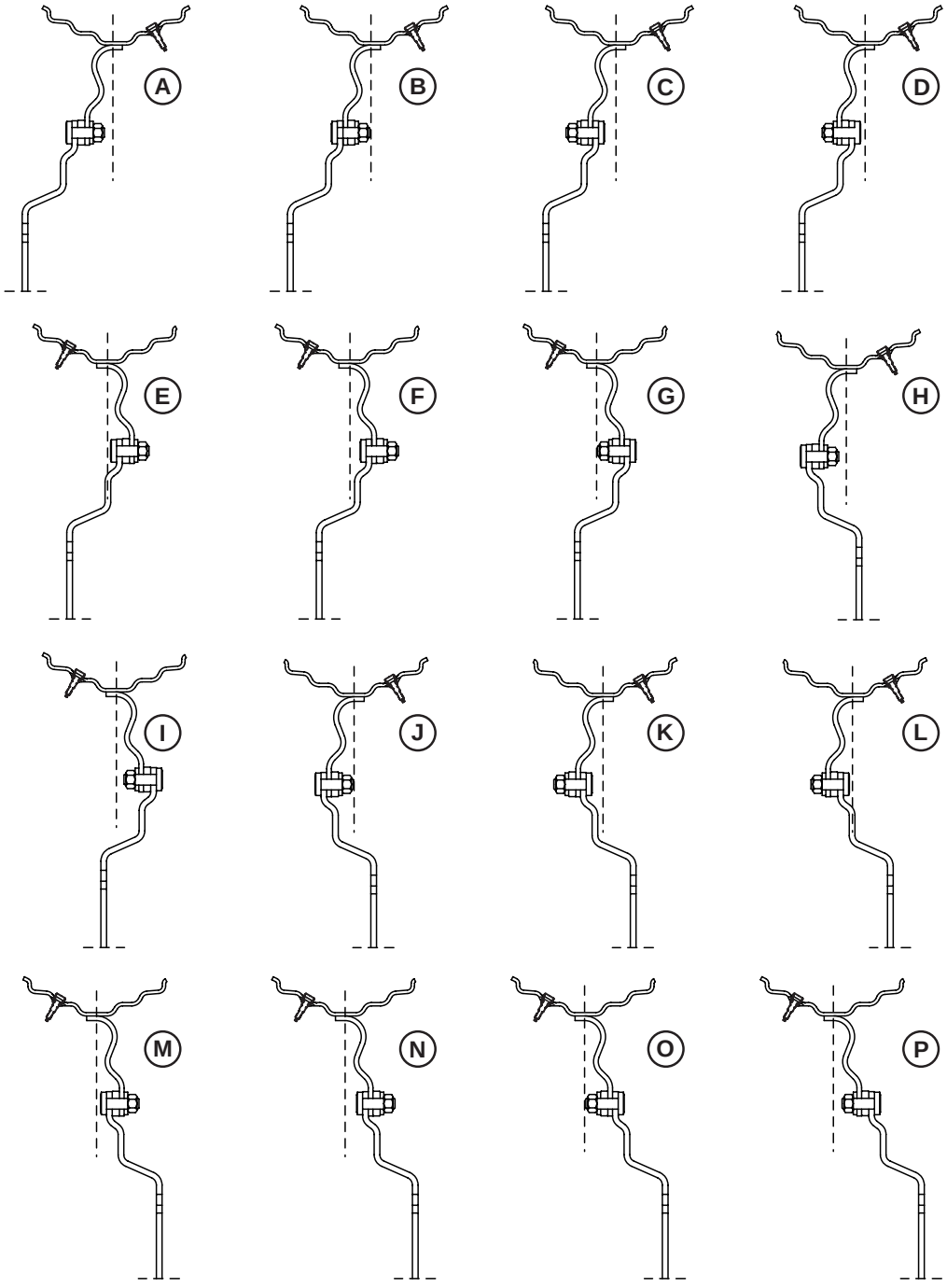
Specification

Sleeve Bolts—Final Torque. . . . . 600 N·m (445 lb-ft)

6. Torque bolts after working **3 HOURS**, **10 HOURS**, and **DAILY** during the first week of operation.

OURX935,0000487-19-03JAN08-1/1

Sixteen Position Rear Dual Wheel Settings



Sixteen position steel wheel as viewed from behind left tire.

OURX935,0000742-19-03JAN08-1/1

Rear Drive Wheel Tread Settings for Single Wheels

320, 380, 420, 18.4, 480 Tire		
	Single Tire	
Position	Minimum	3015 mm (118.5 in.) Axle Maximum
IN	1524 mm (60 in.)	2406 mm (94.7 in.)
OUT	1806 mm (71.1 in.)	2710 mm (106.7 in.)

520, 20.8 and 620 Tire		
	Single Tire	
Position	Minimum	3015 mm (118.5 in.) Axle Maximum
IN	1638 mm (64.5 in.)	2406 mm (94.7 in.)
OUT	1806 mm (71.1 in.)	2710 mm (106.7 in.)

650 Tire		
	Single Tire	
Position	Minimum	3015 mm (118.5 in.) Axle Maximum
IN	1670 mm (65.7 in.)	2406 mm (94.7 in.)
OUT	1806 mm (71.1 in.)	2710 mm (106.7 in.)

710 Tire		
	Single Tire	
Position	Minimum	3015 mm (118.5 in.) Axle Maximum
IN	1732 mm (68.2 in.)	2406 mm (94.7 in.)
OUT	1806 mm (71.1 in.)	2710 mm (106.7 in.)

800 Tire		
	Single Tire	
Position	Minimum	3015 mm (118.5 in.) Axle Maximum
IN	1826 mm (71.9 in.)	2558 mm (100.7 in.)
OUT	N/A	N/A

OURX935,000026A-19-17MAR11-1/1

Rear Dual Wheel Tread Settings—320 and 380 Tire, 3015 mm (118.5 in.) Axle

320 Tire							
	Single Tire				Dual Tire		
Position	Minimum	Maximum[a]	Maximum	Maximum[a]	Position	Minimum	Maximum
IN	1524 mm (60 in.)	1774 mm (69.8 in.)	1896 mm (74.6 in.)	1978 mm (77.9 in.)	D	2290 mm (90.2 in.)	2662 mm (104.8 in.)
OUT	1810 mm (71.3 in.)	2078 mm (81.8 in.)	1896 mm (74.6 in.)	2282 mm (89.8 in.)	D	2952 mm (116.2 in.)[a]	2662 mm (104.8 in.)
OUT	1810 mm (71.3 in.)	2078 mm (81.8 in.)	1896 mm (74.6 in.)	2282 mm (89.8 in.)	D	2576 mm (101.4 in.)	2662 mm (104.8 in.)
IN	1524 mm (60 in.)	1774 mm (69.8 in.)	1978 mm (77.9 in.)	1978 mm (77.9 in.)	G	2462 mm (96.9 in.)	2915 mm (114.8 in.)
OUT	1810 mm (71.3 in.)	2078 mm (81.8 in.)	2150 mm (84.6 in.)	2282 mm (89.8 in.)	G	2576 mm (101.4 in.)	2915 mm (114.8 in.)
IN	1524 mm (60 in.)	1774 mm (69.8 in.)	1978 mm (77.9 in.)	1978 mm (77.9 in.)	L	2614 mm (102.9 in.)	3068 mm (120.8 in.)
OUT	1810 mm (71.3 in.)	2078 mm (81.8 in.)	2282 mm (89.8 in.)	2282 mm (89.8 in.)	L	2596 mm (102.2 in.)	3068 mm (120.8 in.)
IN	1524 mm (60 in.)	1774 mm (69.8 in.)	1978 mm (77.9 in.)	1978 mm (77.9 in.)	O	2868 mm (112.9 in.)	3322 mm (130.8 in.)
OUT	1810 mm (71.3 in.)	2078 mm (81.8 in.)	2282 mm (89.8 in.)	2282 mm (89.8 in.)	O	2850 mm (112.2 in.)	3322 mm (130.8 in.)
IN	1524 mm (60 in.)	1774 mm (69.8 in.)	1978 mm (77.9 in.)	1978 mm (77.9 in.)	P	2920 mm (115 in.)	3372 mm (132.8 in.)
OUT	1810 mm (71.3 in.)	2078 mm (81.8 in.)	2282 mm (89.8 in.)	2282 mm (89.8 in.)	P	2900 mm (114.2 in.)	3372 mm (132.8 in.)

[a] *with 15 in. extension*

380 Tire							
	Single Tire				Dual Tire		
Position	Minimum	Maximum[a]	Maximum	Maximum[a]	Position	Minimum	Maximum
IN	1524 mm (60 in.)	1770 mm (69.7 in.)	1974 mm (77.7 in.)	1974 mm (77.7 in.)	G	2414 mm (95 in.)	2915 mm (114.8 in.)
OUT	1806 mm (71.1 in.)	2074 mm (81.7 in.)	2026 mm (79.8 in.)	2278 mm (89.7 in.)	G	2698 mm (106.2 in.)	2915 mm (114.8 in.)
IN	1524 mm (60 in.)	1770 mm (69.7 in.)	1974 mm (77.7 in.)	1974 mm (77.7 in)	L	2618 mm (103.1 in.)	3068 mm (120.8 in.)
OUT	1806 mm (71.1 in.)	2074 mm (81.7 in.)	2178 mm (85.7 in.)	2278 mm (89.7 in.)	L	2698 mm (106.2 in.)	3068 mm (120.8 in.)
IN	1524 mm (60 in.)	1770 mm (69.7 in.)	1974 mm (77.7 in.)	1974 mm (77.7 in.)	O	2872 mm (113.1 in.)	3322 mm (130.8 in.)
OUT	1806 mm (71.1 in.)	2074 mm (81.7 in.)	2278 mm (89.7 in.)	2278 mm (89.7 in.)	O	2850 mm (112.2 in.)	3322 mm (130.8 in.)
IN	1524 mm (60 in.)	1770 mm (69.7 in.)	1974 mm (77.7 in.)	1974 mm (77.7 in.)	P	2922 mm (115 in.)	3372 mm (132.8 in.)
OUT	1806 mm (71.1 in.)	2074 mm (81.7 in.)	2278 mm (89.7 in.)	2278 mm (89.7 in.)	P	2900 mm (114.2 in.)	3372 mm (132.8 in.)

[a] *with 15 in. extension*

OURX935,000026B-19-22MAR11-1/1

Rear Dual Wheel tread Settings—420 and 480 Tires, 3015 mm (118.5 in.) Axle

420 Tire							
	Single Tire				Dual Tire		
Position	Minimum	Maximum[a]	Maximum	Maximum[a]	Position	Minimum	Maximum2
IN	1524 mm (60 in.)	1770 mm (69.7 in.)	1942 mm (76.5 in.)	1974 mm (77.7 in.)	G	2498 mm (98.3 in.)	2916 mm (114.8 in.)
OUT	1806 mm (71.1 in.)	2074 mm (81.7 in.)	1942 mm (76.5 in.)	2278 mm (89.7 in.)	G	3206 mm (126.2 in.)[a]	3678 mm (144.8 in.)[a]
OUT	1806 mm (71.1 in.)	2074 mm (81.7 in.)	1942 mm (76.5 in.)	2278 mm (89.7 in.)	G	2780 mm (109.5 in.)	3678 mm (144.8 in.) [a]
IN	1524 mm (60 in.)	1770 mm (69.7 in.)	1974 mm (77.7 in.)	1974 mm (77.7 in.)	L	2618 mm (103.1 in.)	3068 mm (120.8 in.)
OUT	1806 mm (71.1 in.)	2074 mm (81.7 in.)	2094 mm (82.4 in.)	2278 mm (89.7 in.)	L	2780 mm (109.5 in.)	3068 mm (120.8 in.)
IN	1524 mm (60 in.)	1770 mm (69.7 in.)	1974 mm (77.7 in.)	1974 mm (77.7 in.)	O	2872 mm (113.1 in.)	3322 mm (130.8 in.)
OUT	1806 mm (71.1 in.)	2074 mm (81.7 in.)	2278 mm (89.7 in.)	2278 mm (89.7 in.)	O	2850 mm (112.2 in.)	3322 mm (130.8 in.)
IN	1524 mm (60 in.)	1770 mm (69.7 in.)	1974 mm (77.7 in.)	1974 mm (77.7 in.)	P	2922 mm (115.1 in .)	3372 mm (132.8 in.)
OUT	1806 mm (71.1 in.)	2074 mm (81.7 in.)	2278 mm (89.7 in.)	2278 mm (89.7 in.)	P	2900 mm (114.2 in.)	3372 mm (132.8 in.)

[a] with 15 in. extension

480 Tire							
	Single Tire				Dual Tire		
Position	Minimum	Maximum[a]	Maximum	Maximum[a]	Position	Minimum	Maximum
IN	1524 mm (60 in.)	1770 mm (69.7 in.)	1508 mm (59.4 in.)	1974 mm (77.7 in.)	IN	2918 mm (114.9 in.)[a]	2606 mm (102.6 in.)
IN	1524 mm (60 in.)	1770 mm (69.7 in.)	1508 mm (59.4 in.)	1974 mm (77.7 in.)	IN	2622 mm (103.2 in.)	2606 mm (102.6 in.)
OUT	1806 mm (71.1 in.)	2066 mm (81.3 in.)	N/A	2270 mm (89.4 in.)	IN	2906 mm (114.4 in.)	3368 mm (132.6 in.) [a]
IN	1524 mm (60 in.)	1770 mm (69.7 in.)	1974 mm (77.7 in.)	1974 mm (77.7 in.)	OUT	2822 mm (111.1 in.)	3272 mm (128.9 in.)
OUT	1806 mm (71.1 in.)	2074 mm (81.7 in.)	2174 mm (85.6 in.)	2278 mm (89.7 in.)	OUT	2906 mm (114.4 in.)	3272 mm (128.9 in.)

[a] with 15 in. extension

OURX935,000026C-19-22MAR11-1/1

Rear Dual Wheel Tread Settings—520 and 620 Tires, 3015 mm (118.5 in.) Axle

520 Tire							
	Single Tire				Dual Tire		
Position	Minimum	Maximum[a]	Maximum	Maximum[a]	Position	Minimum	Maximum
IN	1535 mm (60.4 in.)	1770 mm (69.7 in.)	N/A	1974 mm (77.7 in.)	IN	2826 mm (111.3 in.)[a]	3266 mm (128.6 in.)[a]
OUT	1806 mm (71.18 in.)	1880 mm (74 in.)	N/A	2084 mm (82 in.)	IN	2988 mm (117.6 in.)[a]	3266 mm (128.6 in.) [a]
IN	1534 mm (60.4 in.)	1770 mm (69.7 in.)	1974 mm (77.7 in.)	1974 mm (77.7 in.)	OUT	2935 mm (115.6 in.)	3374 mm (132.8 in.)
OUT	1806 mm (71.1 in.)	2074 mm (81.7 in.)	2192 mm (86.3 in.)	2278 mm (89.7 in.)	OUT	2988 mm (117.6 in.)	3374 mm (132.8 in.)

[a] with 15 in. extension

620/70R46 Tire							
	Single Tire				Dual Tire		
Position	Minimum	Maximum[a]	Maximum	Maximum[a]	Position	Minimum	Maximum
IN	1638 mm (64.5 in.)	N/A	N/A	1758 mm (69.2 in.)	IN	3028 mm (119.2 in.)[a]	3148 mm (123.9 in.)[a]
OUT	1806 mm (71.1 in.)	N/A	N/A	1758 mm (69.2 in.)	IN	3196 mm (125.8 in.)[a]	3148 mm (123.9 in.)[a]
IN	1638 mm (64.5 in.)	1770 mm (69.7 in.)	1974 mm (77.7 in.)	1974 mm (77.7 in.)	OUT	3170 mm (124.8 in.)	3506 mm (138 in.)
OUT	1806 mm (71.1 in.)	2074 mm (81.7 in.)	2116 mm (83.3 in.)	2278 mm (89.7 in.)	OUT	3196 mm (125.8 in.)	3506 mm (138 in.)

[a] with 15 in. extension

620/70R42 Tire							
	Single Tire				Dual Tire		
Position	Minimum	Maximum[a]	Maximum	Maximum[a]	Position	Minimum	Maximum
IN	1638 mm (64.5 in.)	N/A	N/A	1718 mm (67.6 in.)	IN	3028 mm (119.2 in.)	3108 mm (122.3 in.)
OUT	N/A	N/A	N/A	N/A	IN	N/A	N/A
IN	1638 mm (64.5 in.)	1770 mm (69.7 in.)	1974 mm (77.7 in.)	1974 mm (77.7 in.)	OUT	3210 mm (126.4 in.)	3545 mm (139.6 in.)
OUT	1806 mm (71.1 in.)	2074 mm (81.7 in.)	2156 mm (84.9 in.)	2278 mm (89.7 in.)	OUT	3196 mm (125.8 in.)	3545 mm (139.6 in.)

[a] with 15 in. extension

OURX935,000026D-19-09OCT13-1/1

Rear Dual Wheel Tread Settings—650 Tires, 3015 mm (118.5 in.) Axle

650/85R38 Tire							
	Single Tire				Dual Tire		
Position	Minimum	Maximum[a]	Maximum	Maximum[a]	Position	Minimum	Maximum
IN	N/A	N/A	N/A	N/A	IN	N/A	N/A
OUT	N/A	N/A	N/A	N/A	IN	N/A	N/A
IN	1670 mm (65.8 in.)	1770 mm (69.7 in.)	1974 mm (77.7 in.)	1974 mm (77.7 in.)	OUT	3242 mm (127.6 in.)	3545 mm (139.6 in.)
OUT	1806 mm (71.1 in.)	2074 mm (81.7 in.)	2094 mm (82.4 in.)	2278 mm (89.7 in.)	OUT	3258 mm (128.3 in.)	3545 mm (139.6 in.)

[a] with 15 in. extension

OURX935,000026E-19-22MAR11-1/1

Rear Dual Wheel Tread Settings—710 and 800 Tires, 3015 mm (118.5 in.) Axle

710/70R42 Tire							
	Single Tire				Dual Tire		
Position	Minimum	Maximum[a]	Maximum	Maximum[a]	Position	Minimum	Maximum
IN	N/A	N/A	N/A	N/A	IN	N/A	N/A
OUT	N/A	N/A	N/A	N/A	IN	N/A	N/A
IN	1732 mm (68.2 in.)	1756 mm (69.1 in.)	1974 mm (77.7 in.)	1974 mm (77.7 in.)	OUT	3380 mm (133.1 in.)	3621 mm (142.6 in.)
OUT	1806 mm (71.1 in.)	2060 mm (81.1 in.)	2044 mm (80.5 in.)	2278 mm (89.7 in.)	OUT	3384 mm (133.2 in.)	3621 mm (142.6 in.)

[a] *with 15 in. extension*

710/70R38 Tire							
	Single Tire				Dual Tire		
			3015 mm (118.5 in.) Axle				3015 mm (118.5 in.) Axle
Position	Minimum	Maximum[a]	Maximum	Maximum[a]	Position	Minimum	Maximum
IN	N/A	N/A	N/A	N/A	IN	N/A	N/A
OUT	N/A	N/A	N/A	N/A	IN	N/A	N/A
IN	1732 mm (68.1 in.)	1770 mm 69.7 in.)	1968 mm (77.5 in.)	1974 mm (77.7 in.)	OUT	3310 mm (130.3 in.)	3545 mm (139.6 in.)
OUT	1806 mm (71.1 in.)	2074 mm (81.7 in.)	1968 mm (77.5 in.)	2278 mm (89.7 in.)	OUT	3384 mm (133.2 in.)	3545 mm (139.6 in.)

[a] *with 15 in. extension*

800 Tire							
	Single Tire				Dual Tire		
Position	Minimum	Maximum[a]	Maximum	Maximum[a]	Position	Minimum	Maximum
IN	N/A	N/A	N/A	N/A	IN	N/A	N/A
OUT	N/A	N/A	N/A	N/A	IN	N/A	N/A
IN	1826 mm (71.9 in.)	1922 mm (75.7 in.)	N/A	2126 mm (83.7 in.)	OUT	3958 mm (155.8 in.)[a]	4260 mm (167.7 in.)[a]
OUT	N/A	N/A	N/A	N/A	OUT	N/A	N/A

[a] *with 15 in. extension*

OURX935,000026F-19-22MAR11-1/1

Rear Triple Wheel Tread Settings—320 Tires

320 Triple Tire Table										
Triple Rear Wheel Tread Settings (Assumes HD Wheel and 118.5 Axle)										
Single Tire				Dual Tire				Triple Tire		
Posi-tion	Minimum	Maximum	Maximum[a]	Position	Minimum	Maximum	Maximum[a]	Position	Minimum	Maximum
IN	1524 mm (60 in.)	N/A	1704 mm (67.1 in.)	E	2290 mm (90.2 in.)	N/A	2468 mm (97.2 in.)	F	3452 mm (135.9 in.)	3632 mm (143 in.)
OUT	N/A	N/A	N/A	E	N/A	N/A	N/A	F	N/A	N/A
IN	1524 mm (60 in.)	N/A	1734 mm (68.3 in.)	F	3210 mm (126.4 in.)	N/A	2520 mm (99.2 in.)	F	3422 mm (134.7 in.)	3632 mm (143 in.)
OUT	N/A	N/A	N/A	F	N/A	N/A	N/A	F	N/A	N/A
IN	1524 mm (60 in.	N/A	1734 mm (68.3 in.)	L	2512 mm (98.9 in.)	N/A	2722 mm (107.2 in.)	F	3422 mm (134.7 in.)	3632 mm (143 in.)
OUT	1818 mm (71.6 in.)	N/A	1906 mm (75 in.)	L	2582 mm (101.6 in.)	N/A	2722 mm (107.2 in.)	F	3544 mm (139.5 in.)	3632 mm (143 in.)
IN	1524 mm (60 in.)	N/A	1726 mm (67.9 in.)	M	2666 mm (105 in.)	N/A	2866 mm (112.8 in.)	F	3430 mm (135 in.)	3632 mm (143 in.)
OUT	1818 mm (71.6 in.)	N/A	1956 mm (77 in.)	M	2654 mm (104.5 in.)	N/A	2866 mm (112.8 in.)	F	3492 mm (137.5 in.)	3632 mm (143 in.)
IN	1524 mm (60 in.)	N/A	1704 mm (67.1 in.)	E	2290 mm (90.2 in.)	2306 mm (90.8 in.)	2468 mm (97.2 in.)	L	3056 mm (120.3 in.)	3072 mm (120.9 in.)
OUT	N/A	N/A	N/A	E	N/A	N/A	N/A	F	N/A	N/A
IN	1524 mm (60 in.)	N/A	1734 mm (68.3 in.)	K	2460 mm (96.8 in.)	N/A	2670 mm (105.1 in.)	L	3624 mm (142.7 in.)	3834 mm (150.9 in.)
OUT	1818 mm (71.6 in.)	N/A	1906 mm (75 in.)	K	2582 mm (101.6 in.)	N/A	2670 mm (105.1 in.)	L	3746 mm (147.5 in.)	3834 mm (150.9 in.)

[a] *with 15 in. extension*

320 Tire										
Triple Rear Wheel Tread Settings (Assumes HD Wheel and 118.5 Axle) continued										
Single Tire				Dual Tire				Triple Tire		
Posi-tion	Minimum	Maximum	Maximum[a]	Position	Minimum	Maximum	Maximum[a]	Position	Minimum	Maximum
IN	1524 mm (60 in.)	N/A	1734 mm (68.3 in.)	M	2666 mm (105 in.)	N/A	2876 mm (113.2 in.)	L	3624 mm (142.7 in.)	3834 mm (150.9 in.)
OUT	1818 mm (71.6 in.)	N/A	2040 mm (80.3 in.)	M	2654 mm (104 in.)	N/A	2876 mm (113.2 in.)	L	3612 mm (142.2 in.)	3834 mm (150.9 in.)
IN	1524 mm (60 in.)	N/A	1734 mm (68.3 in.)	P	2816 mm (110.9 in.)	N/A	3026 mm (119.1 in.)	L	3624 mm (142.7 in.)	3834 mm (150.9 in.)
OUT	1818 mm (71.6 in.)	N/A	2040 mm (80.3 in.)	P	2804 mm (110.4 in.)	N/A	3026 mm (119.1 in.)	L	3612 mm (142.2 in.)	3834 mm (150.9 in.)
IN	1524 mm (60 in.)	1704mm (67.1 in.)	1704 mm (67.1 in.)	E	2290 mm (90.2 in.)	2468 mm (97.2 in.)	2468 mm (97.2 in.)	N	3096 mm (121.9 in.)	3276 mm (129 in.)
OUT	N/A	N/A	N/A	E	N/A	N/A	N/A	F	N/A	N/A
IN	1524 mm (60 in.)	1726 mm (67.9 in.)	1736 mm	F	2310 mm (90.9 in.)	2512 mm (98.9 in.)	2520 mm (99.2 in.)	N	3046 mm (119.9 in.)	3276 mm (129 in.)
OUT	N/A	N/A	N/A	E	N/A	N/A	N/A	F	N/A	N/A
IN	1524 mm (60 in.)	1524 mm (60 in.)	1736 mm (68.3 in.)	L	2512 mm (98.9 in.)	2512 mm (98.9 in.)	2722 mm (107.2 in.)	N	3276 mm (129 in.)	3276 mm (129 in.)
OUT	1818 mm (71.6 in.)	N/A	1956 mm (77 in.)	L	2582 mm (101.6 in.)	N/A	2722 mm (107.2 in.)	N	3900 mm (153.5 in.)	4038 mm (159 in.)
IN	1524 mm (60 in.)	N/A	1736 mm (68.3 in.)	N	2716 mm (106.9 in.)	N/A	2926 mm (115.2 in.)	N	3828 mm (150.7 in.)	4038 mm (159 in.)
OUT	1818 mm (71.6 in.)	N/A	2040 mm (80.3 in.)	N	2704 mm 106.4 in.)	N/A	2626 mm (103.4 in.)	N	3816 mm (150.2 in.)	4038 mm (159 in.)

[a] *with 15 in. extension*

Continued on next page

OURX935,000044D-19-14AUG08-1/2

The table on the next page is a continuation of the 320 tire rear triple wheel tread settings.

320 Tire										
Triple Rear Wheel Tread Settings (Assumes HD Wheel and 118.5 Axle) continued										
Single Tire				Dual Tire				Triple Tire		
Position	Minimum	Maximum	Maximum[a]	Position	Minimum	Maximum	Maximum[a]	Position	Minimum	Maximum
IN	1524 mm (60 in.)	N/A	1736 mm 68.3 in.)	P	2816 mm (110.9 in.)	N/A	3026 mm (119.1 in.)	N	3828 mm (150.7 in.)	4038 mm (159 in.)
OUT	1818 mm (71.6 in.)	N/A	2040 mm (80.3 in.)	P	2804 mm (110.4 in.)	N/A	3026 mm (119.1 in.)	N	3816 mm (150.2 in.)	4038 mm (159 in.)
IN	1524 mm (60 in.)	1704 mm (67.1 in.)	1704 mm (67.1 in.)	E	2290 mm (90.2 in.)	2468 mm (97.2 in.)	2468 mm (97.2 in.)	P	3198 mm (125.9 in.)	3376 mm 132.9 in.)
OUT	N/A	N/A	N/A	E	N/A	N/A	N/A	F	N/A	N/A
IN	1524 mm (60 in.)	1734 mm (68.3 in.)	1734 mm (68.3 in.)	F	2310 mm (90.9 in.)	2520 mm (99.2 in.)	2520 mm (99.2 in.)	P	3166 mm 124.6 in.)	3376 mm 132.9 in.)
OUT	N/A	N/A	N/A	E	N/A	N/A	N/A	F	N/A	N/A
IN	1524 mm (60 in.)	1624 mm (63.9 in.)	1734 mm (68.3 in.)	L	2512 mm (98.9 in.)	2610 mm (102.8 in.)	2722 mm (107.2 in.)	P	3276 mm (129 in.)	3376 mm (132.9 in.)
OUT	1818 mm (71.6 in.)	1846 mm (72.7 in.)	1956 mm (77 in.)	N	2582 mm (101.6 in.)	2610 mm (102.8 in.)	2722 mm (107.2 in.)	P	3348 mm (131.8 in.)	3376 mm (132.9 in.)
IN	1524 mm (60 in.)	N/A	1734 mm (68.3 in.)	N	2716 mm (106.9 in.)	N/A	2926 mm (115.2 in.)	P	3928 mm (154.6 in.)	4138 mm (162.9 in.)
OUT	1818 mm (71.6 in.)	N/A	2040 mm (80.3 in.)	N	2704 mm (106.45 in.)	N/A	2626 mm (103.4 in.)	P	3916 mm (154.2 in.)	4138 mm (162.9 in.)
IN	1524 mm (60 in.)	N/A	1734 mm (68.3 in.)	P	2816 mm (110.9 in.)	N/A	3026 mm (119.1 in.)	P	3928 mm (154.6 in.)[a]	4138 mm (162.9 in.)[a]
OUT	1818 mm (71.6 in.)	N/A	2040 mm (80.3 in.)	P	2804 mm (110.4 in.)	N/A	3026 mm (119.1 in.)	P	3916 mm (154.2 in.)[a]	4138 mm (162.9 in.)[a]

[a] *with 15 in. extension*

OURX935,000044D-19-14AUG08-2/2

Rear Triple Wheel Tread Settings—380 Tires

380 Tire										
Triple Rear Wheel Tread Settings (Assumes HD Wheel and 118.5 Axle) continued										
Single Tire				Dual Tire				Triple Tire		
Position	Minimum	Maximum	Maximum[a]	Position	Minimum	Maximum	Maximum[a]	Position	Minimum	Maximum
IN	1524 mm (60 in.)	N/A	1534 mm (60.4 in.)	OUT	3338 mm (131.4 in.)	N/A	3348 mm (131.8 in.)	OUT	4450 mm (175.2 in.)	4460 mm (175.6 in.)
OUT	2012 mm (79.2 in.)	N/A	2234 mm (87.9 in.)	OUT	3126 mm (123.1 in.)	N/A	3348 mm (131.8 in.)	OUT	4238 mm (166.8 in.)	4460 mm (175.6 in.)

[a] *with 15 in. extension*

OURX935,000044E-19-13AUG08-1/1

Rear Triple Wheel Tread Settings—420 Tires

420 Tire										
Triple Rear Wheel Tread Settings (Assumes HD Wheel and 118.5 Axle)										
Single Tire				Dual Tire				Triple Tire		
Position	Minimum	Maximum	Maximum[a]	Position	Minimum	Maximum	Maximum[a]	Position	Minimum	Maximum
IN	1524 mm (60 in.)	N/A	1684 mm (66.3 in.)	K	2498 mm (98.3 in.)	N/A	2658 mm (104.6 in.)	F	3472 mm 136.7 in.)[a]	3632 mm (143 in.)[a]
OUT	N/A	N/A	N/A	K	N/A	N/A	N/A	F	N/A	N/A
IN	1524 mm (60 in.)	N/A	1698 mm (66.9 in.)	K	2498 mm (98.3 in.)	N/A	2670 mm (105.1 in.)	L	3658 mm (144 in.)[a]	3834 mm (150.9 in.)[a]
OUT	N/A	N/A	N/A	K	N/A	N/A	N/A	L	N/A	N/A
IN	1524 mm (60 in.)	N/A	1732 mm (68.2 in.)	L	2514 mm (99 in.)	N/A	2722 mm (107.2 in.)	L	3626 mm (142.8 in.)[a]	3834 mm (150.9 in.) [a]
OUT	N/A	N/A	N/A	L	N/A	N/A	N/A	L	N/A	N/A
IN	1524 mm (60 in.)	N/A	1716 mm (67.6 in.)	M	2668 (105 in.)	N/A	2860 mm (112.6 in.)	L	3642 mm (143.4 in.)[a]	3834 mm (150.9 in.)
OUT	1814 mm (71.4 in.)	N/A	1886 mm (64.3 in.)	M	2788 mm (109.8 in.)	N/A	2860 mm (112.6 in.)	L	3762 mm (148.1 in.) [a]	3834 mm (150.9 in.)
IN	1524 mm (60 in.)	N/A	1698 mm (66.9 in.)	K	2498 mm (98.3 in.)	N/A	2670 mm (105.1 in.)	N	3866 mm (152.2 in.)[a]	4038 mm (159 in.)
OUT	N/A	N/A	N/A	K	N/A	N/A	N/A	N	N/A	N/A
IN	1524 mm (60 in.)	N/A	1732 mm (68.2 in.)	L	2514 mm (99 in.)	N/A	2722 mm (107.2 in.)	N	3832 mm (150.9 in.)[a]	4038 (159 in.)
OUT	N/A	N/A	N/A	L	N/A	N/A	N/A	N	N/A	N/A

[a] *with 15 in. extension*

420 Tire										
Triple Rear Wheel Tread Settings (Assumes HD Wheel and 118.5 Axle) continued										
Single Tire				Dual Tire				Triple Tire		
Position	Minimum	Maximum	Maximum[a]	Position	Minimum	Maximum	Maximum[a]	Position	Minimum	Maximum
IN	1524 mm (60 in.)	N/A	1732 mm (68.2 in.)	M	2668 mm (105 in.)	N/A	2876 mm (113.2 in.)	N	3832 mm (150.9 in.)[a]	4038 mm (159 in.)
OUT	1814 mm (71.4 in.)	N/A	N/A	M	2788 mm (109.8 in.)	N/A	2876 mm (113.2 in.)	N	3950 mm (155.5 in.)[a]	4038 mm (159 in.)
IN	1524 mm (60 in.)	N/A	1732 mm (68.2 in.)	P	2820 mm (111 in.)	N/A	3026 mm (119.1 in.)	N	3832 mm (150.9 in.)[a]	4038 mm (159 in.)
OUT	1814 mm (71.4 in.)	N/A	2036 mm (80.2 in.)	P	2804 mm (110.4 in.)	N/A	3026 mm (119.1 in.)	N	3816 mm (150.2 in.)[a]	4038 mm (159 in.)
IN	1524 mm (60 in.)	N/A	1698 mm (66.9 in.)	K	2498 mm (98.3 in.)	N/A	2670 mm (105.1 in.)	P	3866 mm (152.2 in.)[a]	4140 mm (163 in.)[a]
OUT	N/A	N/A	N/A	K	N/A	N/A	N/A	P	N/A	N/A
IN	1524 mm (60 in.)	N/A	1732 mm (68.2 in.)	L	2514 mm (99 in.)	N/A	2722 mm (107.2 in.)	P	3832 mm (150.9 in.)	4140 mm (163 in.)
OUT	N/A	N/A	N/A	L	N/A	N/A	N/A	P	N/A	N/A
IN	1524 mm (60 in.)	N/A	1732 mm (68.2 in.)	N	2720 mm (107.1 in.)	N/A	2876 mm (113.2 in.)	P	3832 mm (150.9 in.)	4140 mm (163 in.)
OUT	1814 mm (71.4 in.)	N/A	1952 mm (76.9 in.)	N	2788 mm (109.8 in.)	N/A	2876 mm (113.2 in.)	P	4000 mm (157.5 in.)	4140 mm (163 in.)
IN	1524 mm (60 in.)	N/A	1732 mm (68.2 in.)	P	2818 mm (110.9 in.)	N/A	3026 mm (119.1 in.)	P	3832 mm (150.9 in.)	4140 mm (163 in.)
OUT	1814 mm (71.4 in.)	N/A	2036 mm (80.2 in.)	P	2804 mm (110.4 in.)	N/A	3026 mm (119.1 in.)	P	3916 mm (154.2 in.)	4140 mm (163 in.)

[a] *with 15 in. extension*

OURX935,0000478-19-13AUG08-1/1

480 and 520 mm Triple Rear Wheel Tread Settings

480/80R50 and 480/80R46 Tire										
Triple Rear Wheel Tread Settings (Assumes HD Wheel and 118.5 Axle)										
Single Tire				Dual Tire				Triple Tire		
Position	Minimum	Maximum	Maximum[a]	Position	Minimum	Maximum	Maximum[a]	Position	Minimum[a]	Maximum[a]
IN	1524 mm (60 in.)	N/A	1732 mm (68.2 in.)	OUT	2824 mm (111.2 in.)	N/A	3032 mm (119.4 in.)	OUT	4240 mm (166.9 in.) mm	4546 mm (179 in.)
OUT	1814 mm (71.4 in.)	N/A	1932 mm (76.1 in.)	OUT	2912 mm (114.6 in.)	N/A	3032 mm (119.4 in.)	OUT	4428 mm (174.3 in.)	4546 mm (179 in.)

[a] *with 15 in. extension*

520/20.8 Tire										
Triple Rear Wheel Tread Settings (Assumes HD Wheel and 118.5 Axle)										
Single Tire				Dual Tire				Triple Tire		
Position	Minimum	Maximum	Maximum[a]	Position	Minimum	Maximum	Maximum[a]	Position	Minimum[a]	Maximum[a]
IN	1524 mm (60 in.)	N/A	1732 mm (68.2 in.)	OUT	2832 mm (111.5 in.)	N/A	3028 mm (119.2 in.)	OUT	4014 mm (158 in.)	4140 mm (163 in.)
OUT	N/A	N/A	N/A	OUT	N/A	N/A	N/A	OUT	N/A	N/A

[a] *with 15 in. extension*

OURX935,000068F-19-03JAN08-1/1

Rear Dual Wheel Row Crop Settings

320 mm, 14.9 inch or 380 mm Section Dual Rear Tire and Hub Extensions								
Row Spacing - inch	20	22	30	32	34	36	38	40
Drive Wheel - inch	80	88	60	64	68	72	76	80
Dual Wheels - inch	120	132	120	128	136	144	152	160
Dual Ext.[a] (110.5 in. Axle)	N/R	N/A	N/R	5”	10”	10”	15”	N/A
Dual Ext.[a] (118.5 in. Axle)	N/R	N/R	N/R	N/R	5”	10”	10”	15”
420 mm, 18.4 in. or 480 mm Section Dual Rear Tire and Hub Extension								
Row Spacing - inch	20	22	30	32	34	36	38	40
Drive Wheel - inch	N/A	N/A	60	64	68	72	76	80
Dual Wheels - inch	N/A	N/A	120	128	136	144	152	160
Dual Ext.[a] (110.5 in. Axle)	N/A	N/A	N/R	5”	10”	10”	15”	N/A
Dual Ext.[a] (118.5 in. Axle)	N/A	N/A	N/R	N/R	5”	10”	10”	15”
For 18.4R42 Rear Dual use a 13 inch Extension For 18.4R42 Rear Dual 40 inch row spacing is NOT available								
520mm and 20.8 in. Section Dual Rear Tire and Hub Extension								
Row Spacing - inch	20	22	30	32	34	36	38	40
Drive Wheel - inch	N/A	N/A	N/A	64	68	72	76	80
Dual Wheels - inch	N/A	N/A	N/A	128	136	144	152	160
Dual Ext.[a] (110.5 in. Axle)	N/A	N/A	N/A	5”	10”	10”	15”	N/A
Dual Ext.[a] (118.5 in. Axle)	N/A	N/A	N/A	N/A	5”	10”	10”	15”
620 mm, 650 mm, and 710mm Section Dual Rear Tire and Hub Extension								
Row Spacing - inch	20	22	30	32	34	36	38	40
Drive Wheel - inch	N/A	N/A	N/A	N/A	N/A	N/A	N/A	80
Dual Wheels - inch	N/A	N/A	N/A	N/A	N/A	N/A	N/A	160
Dual Ext.[a] (110.5 in. Axle)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	15”
Dual Ext.[a] (118.5 in. Axle)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	13”
800 mm Section Dual Rear Tire and Hub Extension								
Row Spacing - inch	20	22	30	32	34	36	38	40
Drive Wheel - inch	N/A	N/A	N/A	N/A	N/A	N/A	N/A	80
Dual Wheels - inch	N/A	N/A	N/A	N/A	N/A	N/A	N/A	160
Dual Ext. (110.5 in. Axle)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Dual Ext.[a] (118.5 in. Axle)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	13”

[a] *Ext is abbeviation for Extenstion in this table*

OURX935,0000488-19-03JAN08-1/1

Rear Triple Wheel Row Crop Settings

Normal Operation with Hitch Between the Crop Rows			
Tire Section – mm	320	380	480
Row Spacing - cm (inch)	50.80 (20)	55.88 (22)	76.20 (30)
Drive Wheel - inch	80	88	60
Dual Wheels - inch	120	132	120
Dual Extension (118.5 in Axle)	7.5 mm washer	None	None
Triple Wheels - inch	160	176	180
Triple Extension (118.5 in Axle)	15”	15” plus 6.4 mm washer	15” & 10” plus 7.5 mm washer
Off Set Operation with Hitch Over the Crop Rows			
Tire Section – mm	320	380	
Row Spacing - cm (inch)	50.80 (20)	55.88 (22)	
Drive Wheel - inch	80	88	
Dual Wheels - inch	120	132	
Dual Extension (118.5 in Axle)	7.5 mm washer	None	
Triple Wheels - inch	160	176	
Triple Extension (118.5 in Axle)	15”	15” plus 6.4 mm washer	

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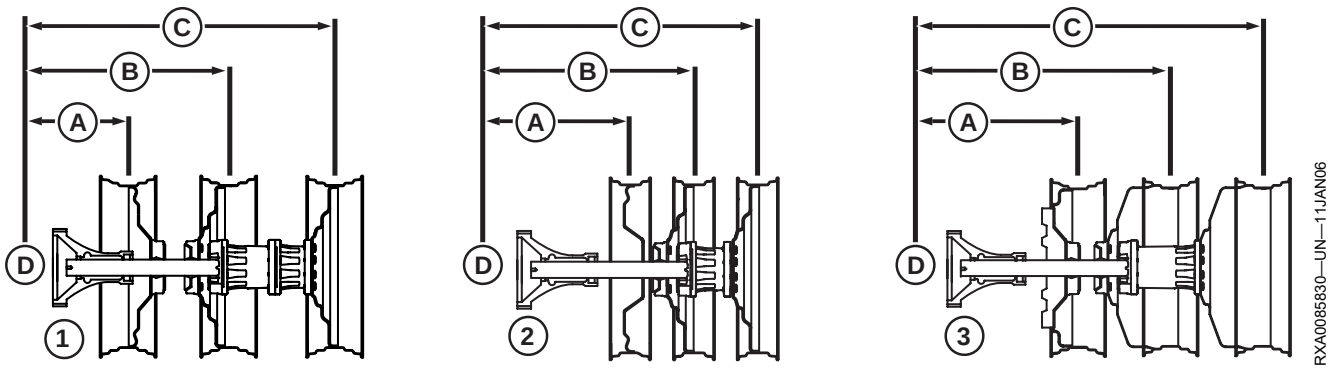
OURX935,00005AD-19-14SEP11-1/2



480 mm Rear Tire Triple Tread Setting

A—Single
B—Dual
C—Triple
D—Tractor Centerline
1—480 mm Rear Tires
2—380 mm Rear Tires
3—320 mm Rear Tires

Normal Operation	Single	Dual	Triple
480 mm Rear Tires (1)			
	A	B	C
	1524 mm (60 in.)	3048 mm (120 in.)	4572 mm (180 in.)
Tire Size	Rim Position	Rim Position	Rim Position
480/80R50	In	Out	Out
480/80R46	In	Out	Out
18.4R46	In	Out	Out

380/90R50 Rear Tires (2)			
Normal Operation	**Single**	**Dual**	**Triple**
	A	B	C
Normal Operation	2235 mm (88 in.)	3352 mm (132 in.)	4470 mm (176 in.)
Offset Operation	1676 mm (66 in.)	2794 mm (110 in.)	3912 mm (154 in.)
Tire	Rim Position	Rim Position	Rim Position
Normal Operation	Out	Out	Out
Offset Operation	In	Position L[a]	Out

[a] *See Sixteen Position Wheel Settings.*

320/90R54 Rear Tires (3)			
Normal Operation	**Single**	**Dual**	**Triple**
	A	B	C
Normal Operation	2032 mm (80 in.)	3048 mm (120 in.)	4064 mm (160 in.)
Offset Operation	1524 mm (60 in.)	2540 mm (100 in.)	3556 mm (140 in.)
Tire	Rim Position	Rim Position	Rim Position
Normal Operation	Out	Position P[a]	Position O[a]
Offset Operation	In	Position L[a]	Position P[a]

[a] *See Sixteen Position Wheel Settings.*

OURX935,00005AD-19-14SEP11-2/2

Driving 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**
- **Couple brake pedals together**
- **If equipped, use foot throttle instead of hand throttle**
- **Reduce speed when driving on icy, wet, or graveled surfaces**
- **Ballast tractor correctly (See Performance Ballasting section)**
- **Prevent wheels from locking and skidding on tractors equipped with IVT/AutoPowr transmission. (See Downhill Operation In Slippery Conditions, in Operating IVT Transmission section.)**
- **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.

Brakes—Tap brake pedal to ensure differential lock is NOT engaged. **Couple brake pedals together before driving on a road**. Avoid hard application of brakes.

MFWD—Disengage front wheel drive when transporting tractor. When driving on roads, engage AUTO or BRAKE ASSIST position of MFWD switch to provide four wheel braking.

Remote Cylinders—Position transport lock switch(es) to eliminate possibility of lowering an implement during transport by inadvertently bumping the extend/retract lever (s). (See procedure in Hydraulics and Selective Control Valves or TouchSet Depth Control section.)

Front or Rear Hitch—Position or lock hitch in transport position to eliminate possibility of lowering an implement during transport by inadvertently bumping the raise/lower lever. (See procedure in Hitch section.)

OURX935,00004F9-19-29JUL11-1/1

Transporting 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.

OURX935,0001034-19-07APR10-1/1

Towing 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 Operating IVT/ AutoPowr Transmission section.)

Never transport at speeds exceeding the implement's maximum transport speed. Before transporting a towed implement, refer to the implement operator's manual and implement decals to determine the maximum transport speed. This tractor is capable of operating at transport speeds exceeding the maximum allowable transport speed for most towed implements. Use implement code in implement operator's manual to determine the minimum number of front weights required. Failure to adhere to the implement's maximum transport speed or to have correct ballast can result in:

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

Guidelines for Towing Equipment without Brakes:

- **Do not transport at speeds greater than 32 km/h (20 mph).**
- **Must weigh less than 1.5 times the tractor weight or less than 1.5 t (3300 lb) when fully loaded.**

Guidelines for Towing Equipment with Brakes:

- **If manufacturer does not specify a maximum transport speed, do not transport at speeds above 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 tractor weight.**
- **When transporting at speeds between 40 km/h (25 mph) to 50 km/h (31 mph), the fully loaded implement must weigh less than 3 times the tractor weight.**

The tractor must be heavy and powerful enough with adequate braking power for the towed load. Add ballast to tractor or lighten the 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.

OURX935,00004FA-19-29JUL11-1/1

Using a Safety Chain

CAUTION: Avoid possible accident and injury by using a safety chain on drawn equipment. Use a safety chain with a strength rating equal to or greater than the gross weight of equipment. Provide only enough slack in the chain to permit turning.

Attach the safety chain (A) to the drawbar support or other specified anchor locations.

IMPORTANT: DO NOT use safety chain for towing or possible damage to tractor, implement, and drawbar may result. Safety chain is provided only for transport.

Do not use intermediate support (B) as an attaching point, load may break free. As shown, intermediate support is used to keep safety chain from dragging.

Attach and check operation of trailer brakes if equipped.

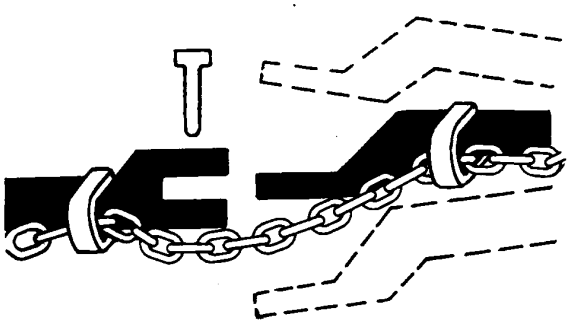
IMPORTANT: SLOW DOWN when transporting heavy implements.

Drive slowly enough to maintain safe control. Shift to a lower gear for hillsides, rough ground, and sharp turns, especially when transporting heavy equipment.

On icy or graveled grades, be alert for skids which could result in loss of steering control.

Never coast down hill.

Use caution when operating tractor at transport speeds. Reduce speed if towing heavy loads. Heavy towed or rear mounted implements may start swaying in transport. Consult towed equipment operator's manual for recommended transport speeds.



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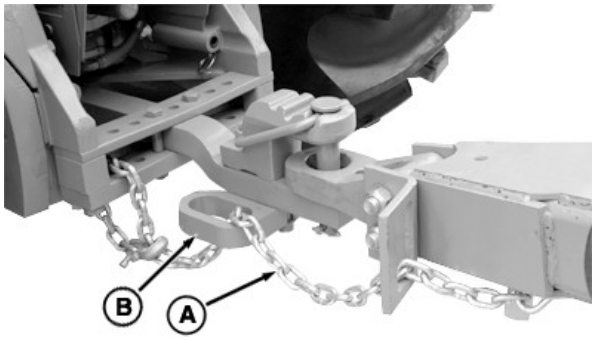
Use Safety Chain Correctly



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Correct Safety Chain Connection

A—Safety Chain **B—Intermediate Support**

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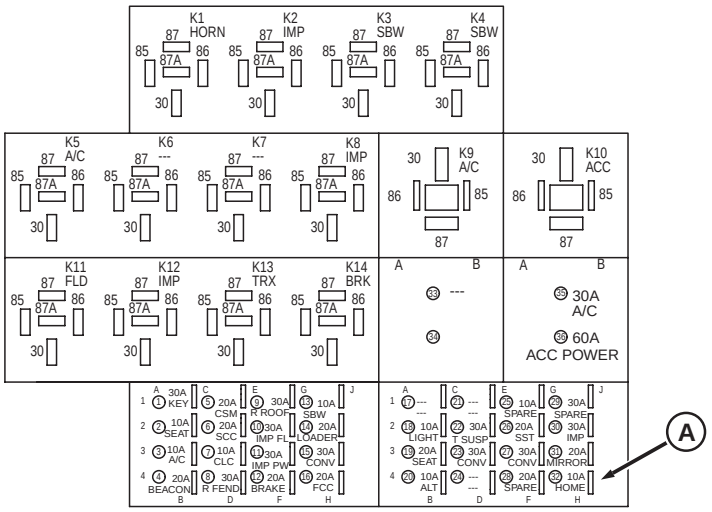
Tow Mode



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Move Fuse #32 And Retain

A—Fuse # 32

NOTE: ***Tow Mode allows a tractor, without engine operation, to be moved with steering and braking capabilities.***

If tractor needs to be moved ***immediately****, towing tractor a short distance while tractor is in Park will not damage system.*

If tractor looses electrical power, park brake may reengage. If tractor has no electrical power, a 100 Amp electrical source must be connected. See Using a Battery Booster Or Charger in Operating the Engine Section of this Operator's Manual.

NOTE: Removing #32 fuse (A) enables electric hydraulic pump supplying oil for braking and steering. Enabling electric hydraulic pump allows tractor to be operated at a maximum of 8 km/h (5 mph) forward speed and 3 km/h (1.8 mph) reverse speed.

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.

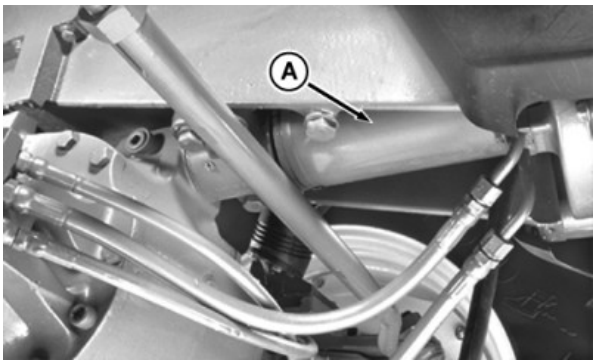
1. Remove fuse # 32 (A) and retain.
2. Turn ignition key to “Run”.

NOTE: When drive lever is removed from the Park position, any movement of brake pedals or steering wheel will engage electric hydraulic pump to supply hydraulic oil as needed.

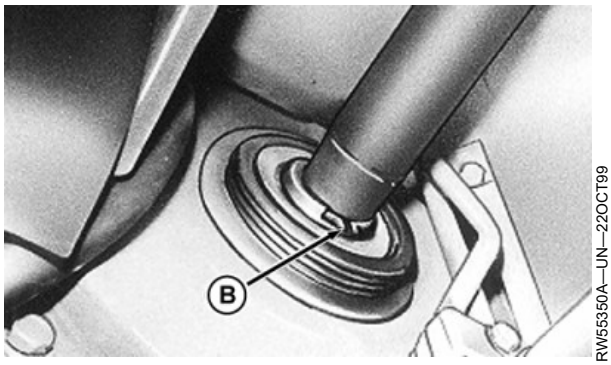
3. Place tractor in Neutral.
4. Verify transmission is in Neutral. Corner post display will display "N" when transmission is in Neutral.

OURX935,0000071-19-09SEP10-1/1

Towing Tractor



A—Drive Shaft Shield



Standard MFWD

B—Snap Ring

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 the MFWD and pull tractor off carrier, even with switch in the DISENGAGED position.

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 the first ten 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 the 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 the ground. Do not raise wheels more than 305 mm (12 in.). Drain excess oil after transporting.

MFWD AXLE:

- 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.

OURX935,00004FB-19-29JUL11-1/2

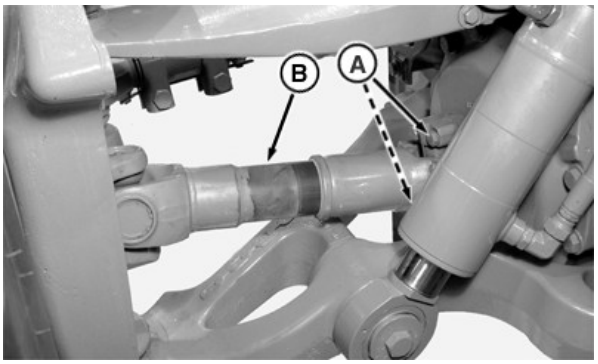
INDEPENDENT LINK SUSPENSION:

- Remove top and bottom cap screws (A) from each side of the drive shaft yoke.
- Collapse each drive shaft (B) to minimum length.
- Suspend each drive shaft using a sling.

Momentarily depress brake pedals to make sure differential lock is not engaged.

A—Cap Screws

B—Drive Shaft



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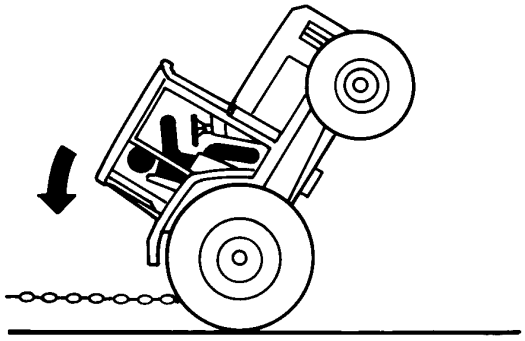
Freeing a Mired Machine

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.



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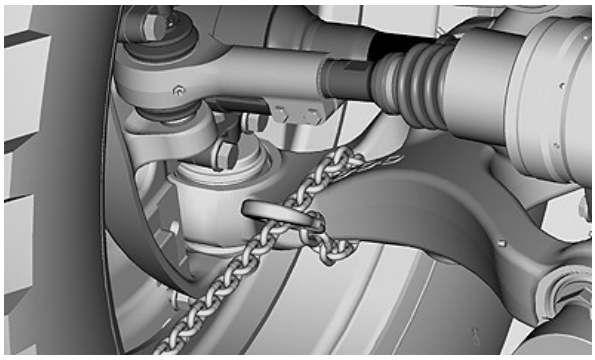
Transporting on Flat-Bed Carrier

Standard MFWD Axle



Independent Link Suspension Axle

CAUTION: To avoid accident or injury, securely chain the tractor to carrier. DO NOT chain to tractor components other than those areas listed. 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 Towing Tractor in this section.

Wrap chain around front axle bottom support and secure to carrier.

MFWD Axle:

Attach chain to tie-down loops on each side of the axle and secure to carrier.

ILS (Independent Link Suspension) Axle:

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 the outer lower support arm on each side of the axle and secure to carrier.

OURX935,00004FD-19-21AUG12-1/1

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 or ASTM D975 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 43 minimum. Cetane number greater than 47 is preferred, especially for temperatures below –20° C (–4°F) or elevations above 1500 m (5000 ft.).

Cold Filter Plugging Point (CFPP) should be at least 5°C (9°F) below the expected lowest temperature or **Cloud Point** below the expected lowest ambient temperature.

Fuel lubricity should pass a maximum scar diameter of 0.45 mm as measured by ASTM D6079 or ISO 12156-1.

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).

Sulfur content for Interim Tier 4 and Stage III B engines

- Use ONLY ultra low sulfur diesel (ULSD) fuel with a maximum of 15 mg/kg (15 ppm) sulfur content.

Sulfur Content for Tier 2 and Stage II Engines

- Use of diesel fuel with sulfur content less than 500 mg/kg (500 ppm) is RECOMMENDED.
- Use of diesel fuel with sulfur content 500–5000 mg/kg (500–5000 ppm) REDUCES the oil and filter change interval
- 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 intervals.

IMPORTANT: Do not mix used diesel engine oil or any other type of lubricating oil with diesel fuel.

IMPORTANT: Improper fuel additive usage may cause damage on fuel injection equipment of diesel engines.

OURX935,00004A8-19-05JUL11-1/1

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,FUEL5-19-07FEB14-1/1

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 (A) at the end of each day's operation to prevent water condensation and freezing during cold weather.

Comply with label (B) attached to cab.

Keep all storage tanks as full as practicable 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.

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 and prevent water condensation. Contact your fuel supplier for recommendations.

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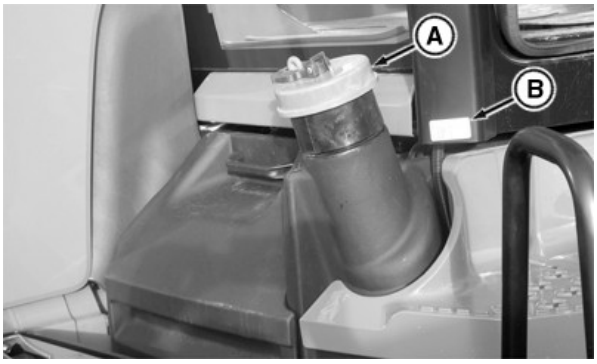

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A—Fill Fuel Tank **B—Label**

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John Deere Break-In™ Plus Engine Oil

To confirm which engine your tractor is equipped with, See Section 145 Record Engine Serial Number in this Operator's Manual.

Initial Service Intervals

The initial break-in service interval of a new or rebuilt wet sleeve engine with Break-In Plus must go at least 100 hours to assure the surface mating of the rings and liners has had an opportunity to occur. The 100 hour minimum applies to all new or rebuilt engines. The maximum service interval is the same as the service interval recommendations for Plus-50 II.

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.

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 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

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Biodiesel Fuel

Biodiesel fuel is comprised of monoalkyl esters of long 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

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(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.

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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.

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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 information below 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 will begin to form in the fuel and 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 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) 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.

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Diesel Engine Oil for U. S. EPA Tier 2/EU Stage II Emission Requirements

To confirm which engine your tractor is equipped with, see Record Engine Serial Number in Identification Numbers section of this Operator's Manual.

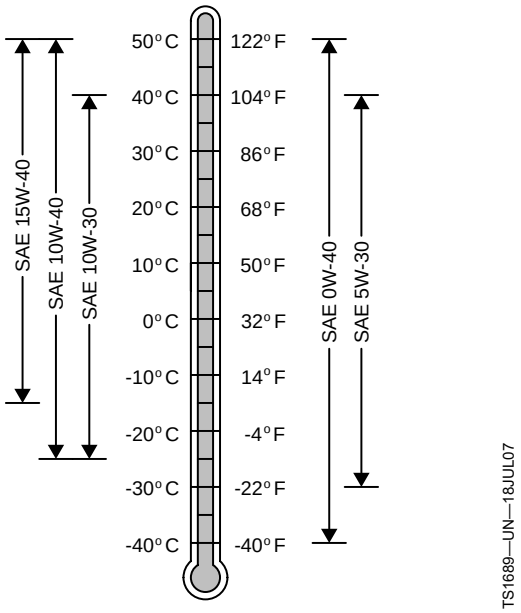
Use oil viscosity based on the expected air temperature range during the period between oil changes.

John Deere Plus-50™ II oil is preferred.

John Deere Plus-50™ is also recommended.

Other oils may be used if they meet one or more of the following:

- John Deere Torq-Gard™
- API Service Category CJ-4
- API Service Category CI-4 PLUS
- API Service Category CI-4
- API Service Category CH-4
- ACEA Oil Sequence E9
- ACEA Oil Sequence E7
- ACEA Oil Sequence E6
- ACEA Oil Sequence E5
- ACEA Oil Sequence E4
- ACEA Oil Sequence E3



Oil Viscosities for Air Temperature Ranges

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.

DO NOT use diesel fuel with sulfur content greater than 10 000 mg/kg (10 000 ppm).

Plus-50 is a trademark of Deere & Company
Torq-Gard is a trademark of Deere & Company

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Engine Oil and Filter Service Intervals — Tier 2 and Stage II Engines

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 diesel fuel. Actual service intervals also depend on operation and maintenance practices.

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.

- 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.
- BEFORE using diesel fuel with sulfur content greater than 5000 mg/kg (5000 ppm), contact your John Deere dealer or qualified service provider .

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.**

Approved Oil Types:

- “Plus-50 Oils” include John Deere Plus-50™ II and John Deere Plus-50™
- “Other Oils” include John Deere Torq-Gard™, API CK-4, API CJ-4, API CI-4 PLUS, API CI-4, API CH-4, ACEA E9, ACEA E7, ACEA E6, ACEA E5, and ACEA E4

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 2000 mg/kg (2000 ppm).*
- *Use of John Deere Plus-50™ II or John Deere Plus-50™ oil.*
- *Use of an approved John Deere oil filter.*

Engine Oil and Filter Service Intervals	
Fuel Sulfur	Less than 2000 mg/kg (2000 ppm)
Plus-50 Oils	500 hours
Other Oils	250 hours
Fuel Sulfur	2000—5000 mg/kg (2000—5000 ppm)
Plus-50 Oils	400 hours
Other Oils	150 hours
Fuel Sulfur	5000—10 000 mg/kg (5000—10 000 ppm)
Plus-50 Oils	250 hours (see John Deere dealer)
Other Oils	125 hours (see John Deere dealer)
Oil analysis may extend the service interval of “Other Oils”, to a maximum not to exceed the interval for Plus-50 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 oils is reached.	

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Diesel Engine Oil—Interim Tier 4 and Stage III B Engines

To confirm which engine your tractor is equipped with, see Record Engine Serial Number in Identification Numbers section of this Operator's Manual.

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, engine oil meeting one or more of the following may be used:

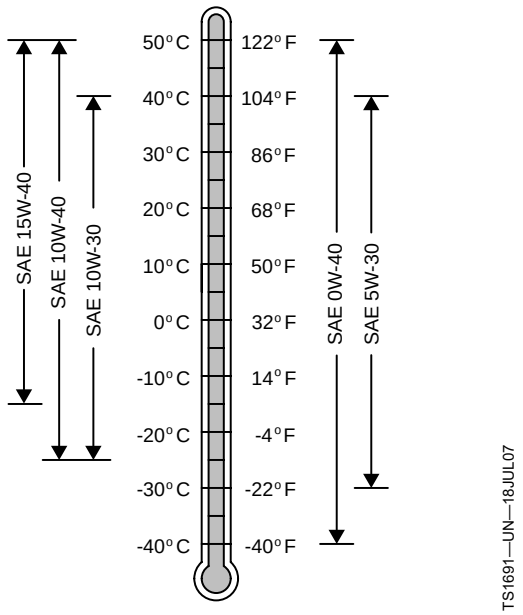
- API Service Category CJ-4
- ACEA Oil Sequence E9
- ACEA Oil Sequence E6

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.

Plus-50 is a trademark of Deere & Company



Oil Viscosities for Air Temperature Ranges

IMPORTANT: Use only ultra low sulfur diesel (ULSD) fuel with a maximum sulfur content of 15 mg/kg (15 ppm).

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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.

Plus-50 is a trademark of Deere & Company

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.**

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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

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
- Is formulated with a 2-ethylhexanoic acid (2-EHA) free additive package
- 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
- Is formulated with a 2-ethylhexanoic acid (2-EHA) 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.

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[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.

DX,COOL3-19-25AUG20-1/1

Drain Intervals for Diesel Engine Coolant

Drain and flush the cooling system and refill with fresh coolant at the indicated interval, which varies with the coolant used.

John Deere COOL-GARD™ II Premix, COOL-GARD II PG Premix and COOL-GARD II Concentrate are maintenance free coolants for up to six years or 6000 hours of operation, provided that the cooling system is topped off using only John Deere COOL-GARD II Premix or COOL-GARD II PG Premix.

Test the coolant condition annually with Coolant Test Strips designed for use with John Deere COOL-GARD II coolants. If the test strip chart indicates that additive is required, add John Deere COOL-GARD II Coolant Extender as directed.

If John Deere COOL-GARD™ II Premix, COOL-GARD II PG Premix, or COOL-GARD II Concentrate is used, but the coolant is not tested OR additives are not replenished by adding John Deere COOL-GARD II Coolant Extender, the drain interval is four years or 4000 hours of operation. This drain interval only applies to COOL-GARD II coolants that have been maintained within a 40—60% mixture of concentrate with quality water.

If a coolant other than COOL-GARD II, or COOL-GARD II PG is used, reduce the drain interval to two years or 2000 hours of operation.

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DX,COOL11-19-14APR11-1/1

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 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.

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DX,COOL16-19-15MAY13-1/1

Additional Information About Diesel Engine Coolants and John Deere COOL-GARD™ II Coolant Extender

Engine coolants are a combination of three chemical components: ethylene glycol (EG) or propylene glycol (PG) antifreeze, inhibiting coolant additives, and quality water.

Coolant Specifications

John Deere COOL-GARD™ II Premix either EG or PG, are fully formulated coolants that contain all three components in their correct concentrations. DO NOT add an initial charge of John Deere COOL-GARD II Coolant Extender to COOL-GARD II Premix. DO NOT add any other supplemental coolant additive or water to COOL-GARD II Premix.

John Deere COOL-GARD II Concentrate contains both ethylene glycol and inhibiting coolant additives. Mix this product with quality water, but DO NOT add an initial charge of John Deere COOL-GARD II Coolant Extender or any other supplemental coolant additive.

Replenish Coolant Additives

Some coolant additives will gradually deplete during engine operation. Periodic replenishment of inhibitors is required, even when John Deere COOL-GARD II Premix or COOL-GARD II Concentrate is used. Follow the recommendations in this manual for the use of John Deere COOL-GARD II Coolant Extender.

Why use John Deere COOL-GARD II Coolant Extender?

Operating without proper coolant additives will result in increased corrosion, cylinder liner erosion and pitting, and other damage to the engine and cooling system. A simple mixture of ethylene glycol or propylene glycol and water will not give adequate protection.

John Deere COOL-GARD II Coolant Extender is a chemically matched additive system designed to fortify the proprietary additives used in John Deere COOL-GARD II Premix and COOL-GARD II Concentrate and to provide optimum protection for up to six years or 6000 hours of operation.

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Avoid Automotive-type Coolants

Never use automotive-type coolants (such as those meeting ASTM D3306). These coolants do not contain the correct additives to protect heavy-duty diesel engines. Do not treat an automotive engine coolant with supplemental coolant additives because the high concentration of additives can result in additive fallout.

Water Quality

Water quality is important to the performance of the cooling system. Distilled, 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 dissolved solids	<340 mg/L
Total hardness	<170 mg/L
pH	5.5 to 9.0

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,COOL17-19-20APR11-1/1

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,COOL6-19-17FEB20-1/1

Supplemental Coolant Additives

Some coolant additives will gradually deplete during engine operation. For nitrite-containing coolants, replenish coolant additives between drain intervals by adding a supplemental coolant additive as determined necessary by coolant testing.

John Deere Liquid Coolant Conditioner is recommended as a supplemental coolant additive for nitrite-containing coolants.

John Deere Liquid Coolant Conditioner is not designed for use with John Deere COOL-GARD™ II Premix, COOL-GARD II PG Premix, or COOL-GARD II Concentrate.

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**

If other coolants are used, consult the coolant supplier and follow the manufacturer's recommendation for use of supplemental coolant additives.

The use of non-recommended supplemental coolant additives may result in additive drop-out and gelation of the coolant.

Add the manufacturer's recommended concentration of supplemental coolant additive. DO NOT add more than the recommended amount.

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DX,COOL4-19-14APR11-1/1

Testing Diesel Engine Coolant

Maintaining adequate concentrations of glycol and inhibiting additives in the coolant is critical to protect the engine and cooling system against freezing, corrosion, and cylinder liner erosion and pitting.

Test the coolant solution at intervals of 12 months or less and whenever excessive coolant is lost through leaks or overheating.

Coolant Test Strips

Coolant test strips are available from your John Deere dealer. These test strips provide a simple, effective method to check the freeze point and additive levels of your engine coolant.

When Using John Deere COOL-GARD II

John Deere COOL-GARD II Premix™ , COOL-GARD II PG Premix and COOL-GARD II Concentrate are maintenance free coolants for up to six years or 6000 hours of operation, provided that the cooling system is topped off using only John Deere COOL-GARD II Premix or COOL-GARD II PG premix. Test the coolant condition annually with coolant test strips designed for use with John Deere COOL-GARD II coolants. If the test strip chart indicates that additive is required, add John Deere COOL-GARD II Coolant Extender as directed.

Add only the recommended concentration of John Deere COOL-GARD II Coolant Extender. DO NOT add more than the recommended amount.

When Using Nitrite-Containing Coolants

Compare the test strip results to the supplemental coolant additive (SCA) chart to determine the amount of inhibiting additives in your coolant and whether more John Deere Liquid Coolant Conditioner should be added.

Add only the recommended concentration of John Deere Liquid Coolant Conditioner. DO NOT add more than the recommended amount.

Coolant Analysis

For a more thorough evaluation of your coolant, perform a coolant analysis. The coolant analysis can provide critical data such as freezing point, antifreeze level, pH, alkalinity, nitrite content (cavitation control additive), molybdate content (rust inhibitor additive), silicate content, corrosion metals, and visual assessment.

Contact your John Deere dealer for more information on coolant analysis.

COOL-GARD is a trademark of Deere & Company

DX,COOL9-19-11APR11-1/1

Transmission and Hydraulic Oil

Use oil viscosity based on the expected air temperature range during the period between oil changes.

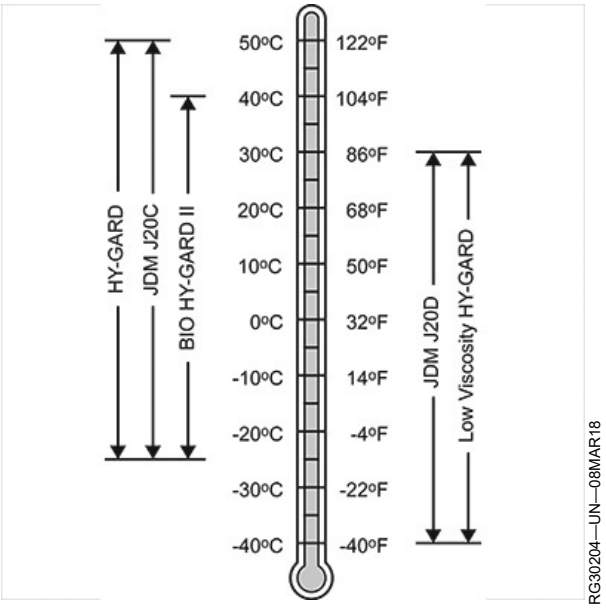
The following oils are preferred:

- 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.[1]



Oils for Air Temperature Ranges

Hy-Gard is a trademark of Deere & Company
Bio Hy-Gard is a trademark of Deere & Company

[1] *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.*

DX,ANTI-19-01JAN18-1/1

Gear Oil

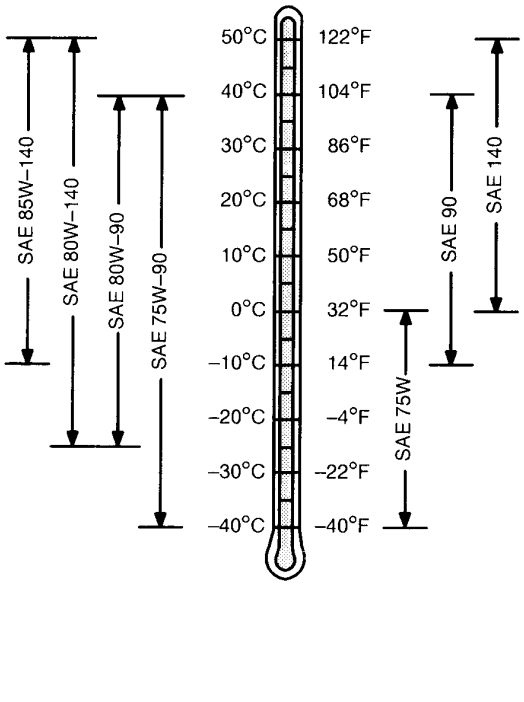
Use oil viscosity based on the expected air temperature range during the period between oil changes.

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



Oil Viscosities for Air Temperature Ranges

EXTREME-GARD is a trademark of Deere & Company

DX,GEOIL-19-14APR11-1/1

Multipurpose Extreme Pressure (EP) Grease

IMPORTANT: For automated lubrication systems different ambient air temperatures need to be considered.

Use grease based on NLGI consistency numbers and the expected air temperature range during the service interval.

John Deere SD Polyurea Grease is preferred.

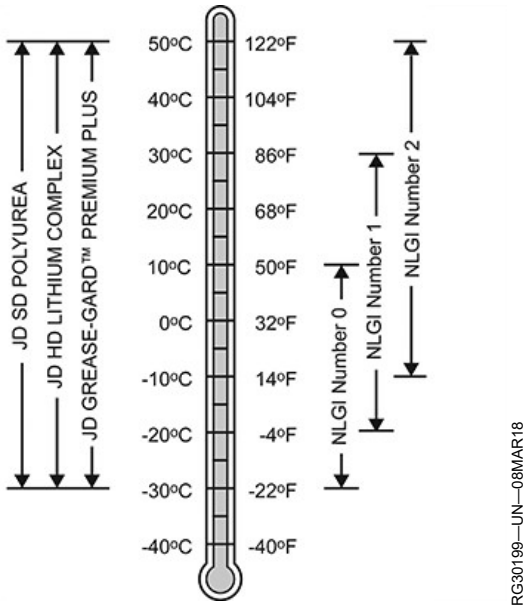
The following greases are also recommended:

- 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.



Greases for Air Temperature Ranges

Grease-Gard is a trademark of Deere & Company

DX,GREA1-19-13JAN18-1/1

Powershift Transmission Recalibration

Your tractor's transmission is factory filled with John Deere HY-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.

HY-GARD is a trademark of Deere & Company

OURX935,000042D-19-11JAN08-1/1

Independent Link Suspension Differential Case Oil

NOTE: The Independent Link Suspension differential case is connected to the transmission case and operates using the same oil. There is no fill location.

OURX935,000042F-19-11JAN08-1/1

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-19-11APR11-1/1

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,FILT1-19-11APR11-1/1

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,FILT2-19-14APR11-1/1

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-19-13JAN18-1/1

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-19-11APR11-1/1

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-19-18MAR96-1/1

Transmission, Steering, Brake, Hydraulic, and Gear Case Oil

Use oil viscosity based on the expected air temperature range during the period between oil changes.

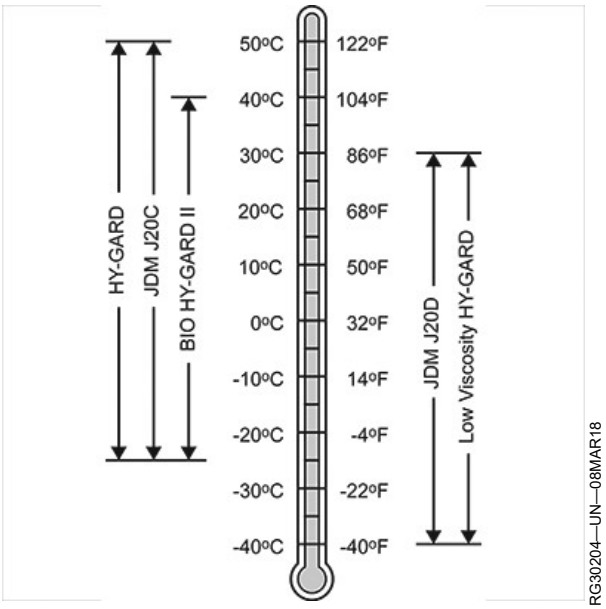
The following oils are preferred:

- 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.[1]



Oils for Air Temperature Ranges

Hy-Gard is a trademark of Deere & Company
Bio Hy-Gard is a trademark of Deere & Company

[1] *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.*

DX,OIL1-19-13JAN18-1/1

Observe Service Intervals

IMPORTANT: Recommended service intervals are for average conditions. Service MORE OFTEN if tractor is operated under adverse conditions.

When looking for details on any service listed in this section, go to either the Table of Contents or the Index of this Operator's Manual. Look for the same title that is listed in the left hand column of the tables on the following pages.

Perform all services at the hourly intervals indicated on the following pages. Record the service performed in Lubrication and Maintenance Records section.

When scheduled service at any hourly level is performed, also perform all subordinate hourly level services. Chart provides list of main and subordinate services.

Main Service	**Subordinate Services And Sections**:					
	10 Hours Section 100	50 Hours Section 102	250 Hours Section 103	500 Hours Section 104	1000 Hours Section 105	1500 Hours Section 106
Annual [a]	No Subordinate Services Required					
50 Hours	X					
250 Hours	X	X				
500 Hours	X	X	X			
1000 Hours	X	X	X	X	X	
1500 Hours	X	X	X	X		
2000 Hours	X	X	X	X	X	
3000 Hours	X	X	X	X	X	X
5000 Hours	X	X	X	X	X	
6000 Hours	X	X	X	X	X	X

[a] *Annual Services are listed in section 101.*

OURX935,0001062-19-13SEP11-1/1

Service Interval Chart—*Daily or 10 Hour—Annual—50 Hour—250 Hour And 500 Hour*

Item	Daily or 10 Hour Section 100	Annual Section 101	50 Hour Section 102	250 Hour Section 103	500 Hour Section 104
Checking Engine Oil	•				
Draining Water Separator	•				
Checking Tire Inflation [a]	•				
Checking Transmission/Hydraulic Oil Level	•				
Draining Air Brake Tank (If Equipped)	•				
Servicing Batteries [b] and Connections		•			
Checking Seat Belts		•			
Checking Independent Link Suspension Upper And Lower Rod And Head End Accumulator Charge Pressure [c]		•			
Inspecting, Cleaning or Replacing Primary and Secondary Engine Air Filter [d]		•			
Replacing Cab Fresh Air Filters [e]		•			
Replacing Cab Recirculation Filters [e]		•			
Changing Engine Oil and Filter [f]		•			•
Replacing Fuel Filter Elements [g] (Both Fuel Filters)		•			•
Checking Tires			•		
Lubricating rear Hitch Components			•		
Checking Neutral Start System (PST or IVT™/AutoPowr™ Transmissions)				•	
Checking Transmission PARK Position				•	
Lubricating MFWD King Pins, Tie Rod ends, Axle Pivot Fittings and U-Joints				•	
Lubricating Independent Link Suspension External Fittings And Axle U-Joints				•	
Lubricating ActiveCommand Steering Arm				•	
Checking MFWD Differential Case Oil Level				•	
Checking MFWD or Independent Link Suspension Wheel Hub Oil Level				•	
Draining Fuel Tank Sump				•	
Lubricating Front Hitch				•	
Cleaning Optional Fuel Water Separator Filter Element — If Equipped					•
Checking Wheel and Wheel Weight Bolts					•
Checking Air Intake System					•
Checking Dual beam Radar Sensor					•
Lubricating Front PTO Drive Shaft (If Equipped)					•

[a] *Check tire inflation at least once a week*
[b] *For replacement batteries, follow manufacturer's recommendations.*
[c] *See your John Deere™ dealer to answer any questions you may have.*
[d] *Replace every 1000 hours, annually or as indicated whichever comes first.*
[e] *Replace every 1000 hours, annually or as required whichever comes first.*
[f] *Replace at 500 hours or annually whichever comes first. Perform oil change in accordance with Changing Engine Oil and Filter in section 104 of this Operator's Manual.*
[g] *Replace at 500 hours, annually or as indicated whichever comes first.*

OURX935,00003E0-19-31JUL12-1/1

Service Interval Chart—*1000 Hour—1500 Hour—3000 Hour—5000 Hour and 6000 Hour*

Item	1000 Hour Section 105	1500 Hour Section 106	2000 Hour Section 107	3000 Hour Section 108	5000 Hour Section 109	6000 Hour Section 110
Cleaning Fuel Tank Vent Filter [a]	•					
Replacing Cab Fresh Air Filter [b]	•					
Replacing Recirculation Filter [b]						
Replacing Primary and Secondary Engine Air Filters [c]	•					
Testing Coolant	•					
Cleaning MFWD Axle Breather [a]	•					
Draining Differential and Clean Oil Reservoir		•				
Draining PowerShift (PST) Transmission and Cleaning Filter		•				
Draining IVT/AutoPowr Transmission and Cleaning Filter [c]		•				
Draining Independent Link Suspension (If Equipped)		•				
Cleaning Hydraulic Oil Suction Screen		•				
Replacing Transmission/Hydraulic Filters And Refilling Transmission/Hydraulic Oil [c]		•				
Changing MFWD Or Independent Link Suspension Wheel Hub Oil		•				
Changing MFWD Differential Case Oil		•				
Lubricating Independent Link Suspension Axle—Internal Tie Rod Ball Joints		•				
Lubricating Draft Link Support Shaft Bushing		•				
Checking Auxiliary Drive Belt		•				
Service Fan Drive[d]		•				
Adjusting Engine Valve Clearance [e,] (Tier 2/Stage II only)[f]).			•			
Adjusting Engine Valve Clearance [e,] (IT4/Stage IIIB engines only). [f]).				•		
Replace Engine Crankshaft Torsional Damper [e]					•	
Replace Transmission Torsional Damper [e]					•	
Draining, Flushing, and Refilling Engine Cooling System [g]						•
Checking De-aeration Cap And De-aeration Tank						•

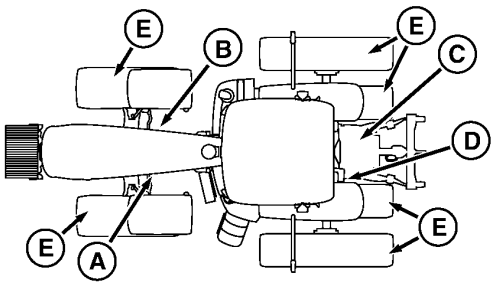
[a] *Interval can vary according to operating conditions.*
[b] *Replace every 1000 hours, annually or as required whichever comes first.*
[c] *Replace every 1000 hours, annually or as indicated whichever comes first.*
[d] *See your John Deere™ dealer to schedule service.*
[e] *See your John Deere dealer to schedule service.*
[f] *To confirm which engine your tractor is equipped with, see Record Engine Serial Number in Identification Numbers section of this Operator's Manual.*
[g] *INITIAL: change interval is 6 years or 6000 hours, provided cooling system is topped off using only John Deere Cool-GARD II and premix and coolant is tested at recommended intervals. SCHEDULED: interval (2 years or 2000 hours) can be extended up to 6 years or 6000 hours depending on coolant used and if coolant is tested at recommended intervals (Reference "Drain Intervals for Diesel Engine Coolant" in Fuels, Lubricants and Coolant section of Operator Manual).*

OURX935,00002B7-19-31JUL12-1/1

Services Included In Daily or 10 Hour Service

NOTE: Normally filters are changed at 1000 hours, annually and either as indicted by CommandCenter™ notification or as required by periodic inspection by the operator. Operating conditions vary greatly and have a large impact on filter condition.

- A — Checking Engine Oil
- B — Draining Water Separator
- C — Checking Transmission/Hydraulic Oil Level
- D — Draining Air Brake Tank
- E — Check Tire Pressure (weekly)



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Daily Or 10 Hour Services — Overhead View

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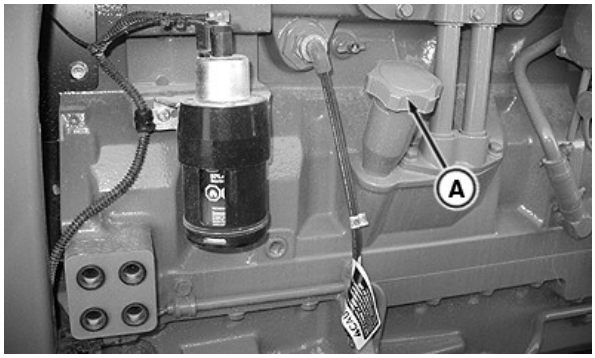
Checking Engine Oil



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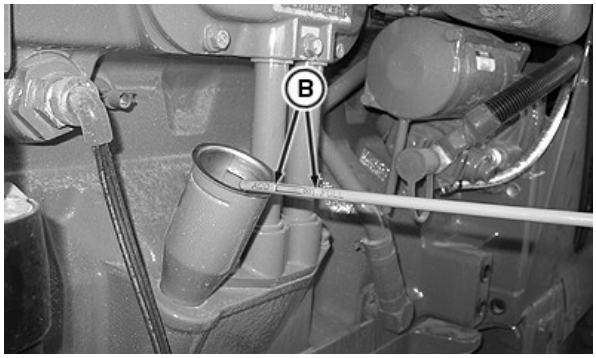
Remove Dipstick



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Safe Operating Rectangle

A—Dip Stick **B—Cross-Hatch Area**

With tractor on level ground and before starting tractor, remove dipstick (A) to check oil level. Oil level should be in the rectangle (B) on dipstick.

IMPORTANT: Do not operate engine with oil level above the top or below the bottom of rectangle on dipstick. Oil levels anywhere within rectangle are considered in the acceptable operating range.

If oil is below rectangle on dipstick, add oil.

OURX935,0000313-19-16AUG11-1/1

Draining Water Separator

IMPORTANT: Tractor warranty is void if power level is changed from factory specifications.

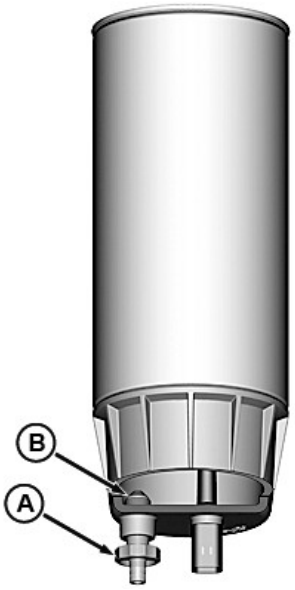
Do not attempt to service injection pump or fuel injectors yourself. Special training and special tools are required. See your John Deere dealer.

NOTE: When separator sensor identifies water in the fuel system, the service alert indicator will flash on the corner post display. An alarm will sound for five seconds and a corresponding message appears on the CommandCenter display.

NOTE: Water in fuel collects in the bottom of the fuel filters. Loosening drain valve nut (A) causes tabs (B) to drop down allowing water to drain.

Turn drain valve nut counterclockwise all the way open to drain water.

A—Drain Valve Nut **B—Tabs**



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Water Separator

OURX935,0000477-19-30JUN11-1/1

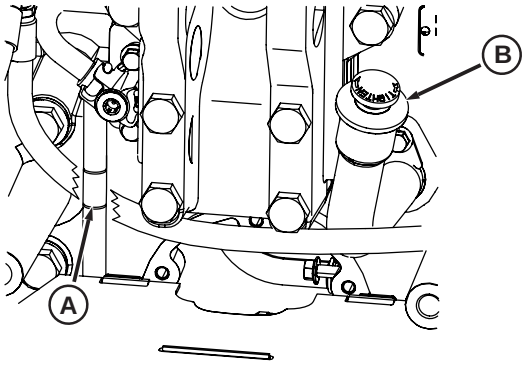
Checking Tire Inflation

IMPORTANT: Keep tires at maximum allowable pressure to insure maximum performance. For front tires, see recommended inflation tables in section 80 of this Operator's Manual. For rear tires, see recommended inflation tables in section 81 of this Operator's Manual.

Check inflation 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.

OURX935,00003E1-19-02JUN11-1/1

Checking Transmission/Hydraulic Oil Level



RXA0098554—UN—16JUN08

Observ Site Glass, Remove Filler Cap And Add Oil As Required

A—Sight Glass **B—Filler Cap**

Park tractor on level ground.

Operate engine at approximately 1000 rpm for at least one minute. Before checking oil level, stop engine and wait an additional three minutes for oil to settle back into differential case.

IMPORTANT: Change oil in clean oil reservoir immediately if oil is contaminated with water.

NOTE: Oil temperature should be approximately 45° C. See Changing Display Functions in the CommandCenter section to determine oil temperature.

Tractor should be on level ground with hitch in the lowered position and engine stopped when checking oil level.

Sight glass observations will be significantly higher with hotter oil temperatures and lower with colder oil or if engine has not run long enough.

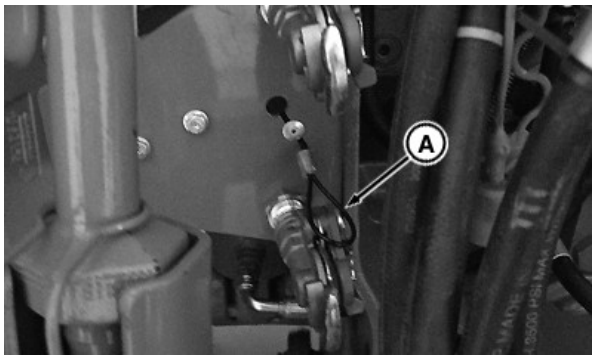
Observe oil level in sight glass (A). Oil level should be between the marks on the glass. Optimum level is at the top mark.

IMPORTANT: Oil level above the top mark on sight glass can result in power loss and heat generation during transport.

If oil level is below the lower mark, remove filler cap (B) and add hydraulic oil.

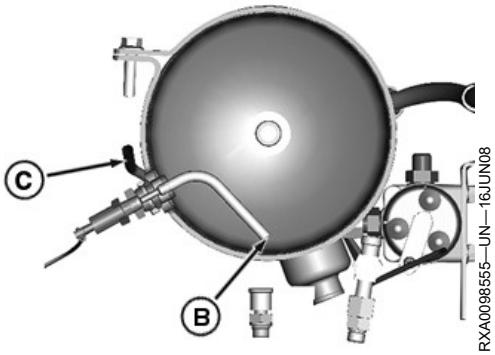
OURX935,000053A-19-16AUG11-1/1

Draining Air Brake Tank



RXA0097298—UN—19FEB08

Pull Cable To Drain Air Tank



RXA0098555—UN—16JUN08

Cross View Of Tube In Tank

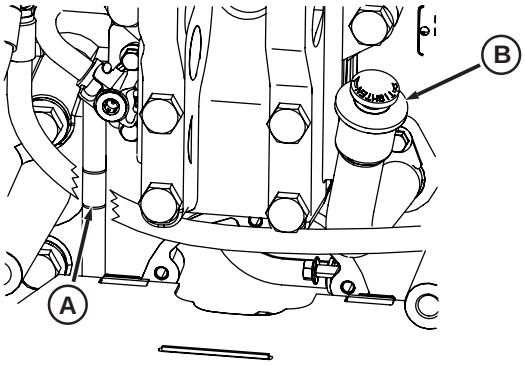
A—Air Tank Drain Cable **B—Tube** **C—Lever**

NOTE: Air brake tank should be drained before beginning daily operations. Air tank is designed in such a way that when air tank drain cable is pulled, lever (C) opens valve allowing water to drain. Tank is designed with tube (B) near the bottom of tank to drain water that accumulates.

Pull Air Tank Drain Cable (A) at the back of tractor to drain air brake tank.

OURX935,000053B-19-16AUG11-1/1

Checking Transmission/Hydraulic Oil Level



RXA0098554—UN—16JUN08

A—Sight Glass **B—Filler Cap**

Park tractor on level ground.

Operate engine at approximately 1000 rpm for at least one minute. Before checking oil level, stop engine and wait an additional three minutes for oil to settle back into differential case.

IMPORTANT: Change oil in clean oil reservoir immediately if oil is contaminated with water.

NOTE: Oil temperature should be approximately 45° C. See Changing Display Functions in the CommandCenter section to determine oil temperature.

Tractor should be on level ground with hitch in the lowered position and engine stopped when checking oil level.

Sight glass observations will be significantly higher with hotter oil temperatures and lower with colder oil or if engine has not run long enough.

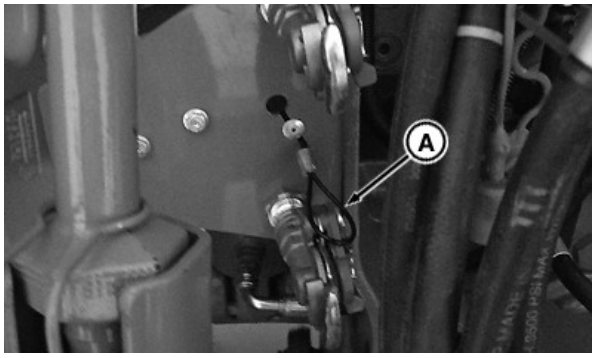
Observe oil level in sight glass (A). Oil level should be between the marks on the glass. Optimum level is at the top mark.

IMPORTANT: Oil level above the top mark on sight glass can result in power loss and heat generation during transport.

If oil level is below the lower mark, remove filler cap (B) and add hydraulic oil.

OURX935,0000C3B-19-04NOV09-1/1

Draining Air Brake Tank



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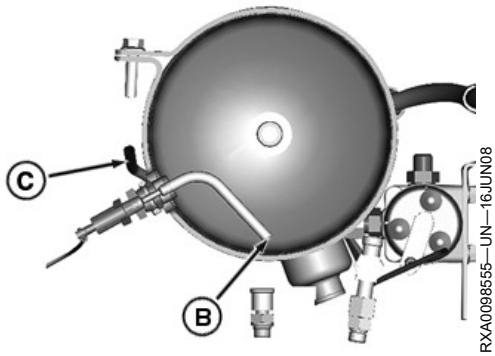


RXA0098555—UN—16JUN08

A—Air Tank Drain Cable **B—Tube** **C—Lever**

NOTE: Air brake tank should be drained before beginning daily operations. Air tank is designed in such a way that when air tank drain cable is pulled, lever (C) opens valve allowing water to drain. Tank is designed with tube (B) near the bottom of tank to drain water that accumulates.

Pull Air Tank Drain Cable (A) at the back of tractor to drain air brake tank.

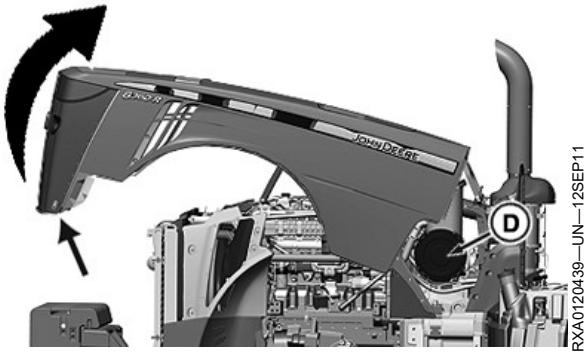
OURX935,0000BBA-19-13OCT09-1/1

Services Included In Annual Service

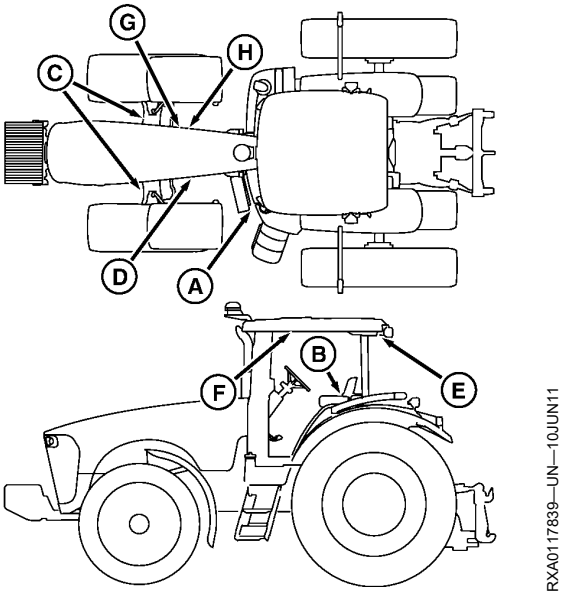
Grasp ring at lower front corner of hood, pull out ring to release latch and swing hood open.

Annual services indicated on tractor silhouette:

- A — Servicing Batteries And Connections
- B — Checking Seat Belts
- C — Checking Independent Link Suspension Upper and Lower Rod and Head End Accumulator Charge Pressure[1]
- D — Inspecting, Cleaning Or Replacing Primary And Secondary Engine Air Filters [2]
- E — Replacing Cab Fresh Air Filter [3]
- F — Replacing Cab Recirculation Filter [3]
- G — Changing Engine Oil and Filter
- H — Replacing Fuel Filters [4]



Annual Services—Side View With Hood Open



Annual Services—Tractor Overhead View

[1] See your John Deere dealer.
[2] Replace at 1000 hours, annually, or as indicated whichever comes first.
[3] Replace at 1000 hours, annually, or as required whichever comes first.
[4] Replace at 500 hours or annually, whichever comes first.

OURX935,00002B8-19-12SEP11-1/1

Handling Batteries Safely

CAUTION: 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.

CAUTION: 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 jump-start procedure**

If acid is spilled on skin or in eyes:

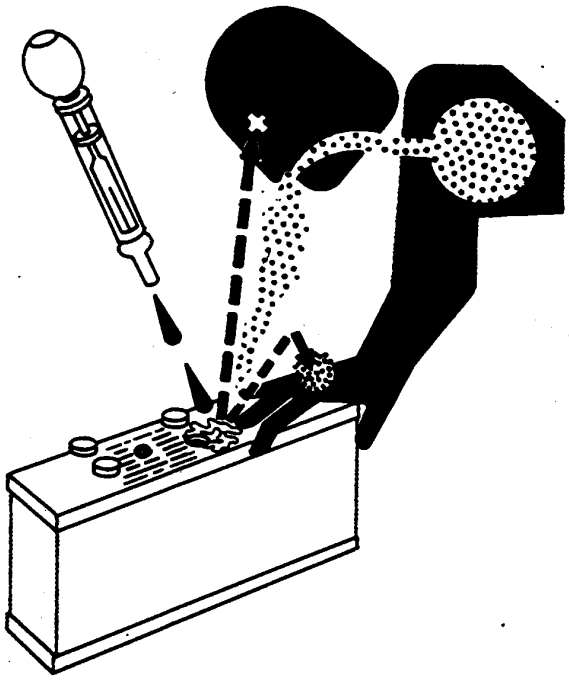
1. **Flush skin with water.**
2. **Apply baking soda or lime to help neutralize the acid.**
3. **Flush eyes with water for 15—30 minutes. Get medical attention immediately.**

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.**

TS204—UN—15APR13

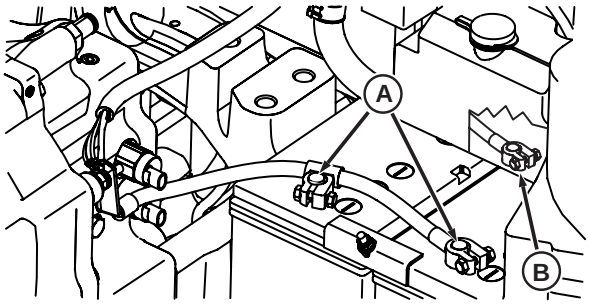


TS203—UN—23AUG88

ZE59858,0000686-19-11JAN11-1/1

Servicing Batteries And Connections

RXA0086786—UN—14FEB06



RXA0086787—UN—14FEB06

Disconnect Negative Battery Cables Before Positive Cables

A—Negative Battery Cables **B—Positive Battery Cables**

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.

CAUTION: Never use compressed air to clean batteries. It can cause a build up of static charge leading to potential injury.

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 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: For optimum battery performance, keep battery terminals clean and tight.

For replacement batteries, follow manufacturer's recommendations.

1. Remove battery compartment cover.
2. Remove battery hold down clamp and slide batteries forward.
3. **Disconnect negative battery cables (A), then positive battery cables (B).**
4. Remove any corrosion with a terminal brush, then clean terminals and battery posts using a baking soda and water solution.
5. Rinse with clean water and air dry.
6. Connect positive battery terminals, then connect negative battery terminals.
7. Apply thin coat of grease to cable ends.
8. Slide batteries back into compartment and install battery hold down clamp.
9. Install battery compartment cover.

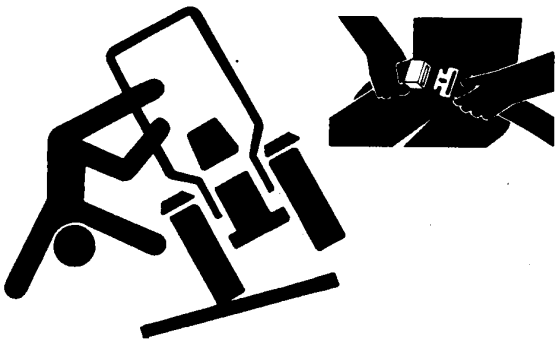
OURX935,0000C53-19-21SEP10-1/1

Checking Seat Belts

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.

Inspect seat belts (A) and mounting hardware. If seat belts need to be replaced, see your John Deere dealer.

A—Seat Belts



TS205—UN—23AUG88

RXA0110197—UN—26AUG10

Check Seat Belts

OURX935,0000460-19-16AUG11-1/1

Checking Independent Link Suspension Upper and Lower Rod and Head End Accumulator Charge Pressure

See your John Deere dealer for details.

OURX935,0000461-19-30JUN11-1/1

Inspecting, Cleaning Or Replace Primary And Secondary Engine Air Filters

Inspecting Or Cleaning Filters

Continued on next page

OURX935,00003D1-19-03JAN12-1/2

NOTE:

Replace both primary and secondary at 1000 hours, annually or as indicated whichever comes first.

1. Unfasten plastic clips (A), and remove filter cover. Interval can vary according to operating conditions.
2. Turn and pull to remove primary filter (B).
3. Clean filter using compressed air. Hold nozzle next to **inner** surface and move up and down pleats.
4. Hold a bright light inside filter and check carefully for damage. Discard filter if (mesh) screen is damaged or filter shows the slightest rupture or hole.

IMPORTANT: Do not attempt to clean secondary filter (C).

5. Make sure that gasket is in good condition.

NOTE: When installing cover, position plastic clips (A) at two, four, eight, and ten o'clock to ensure good seal and to allow easy access.

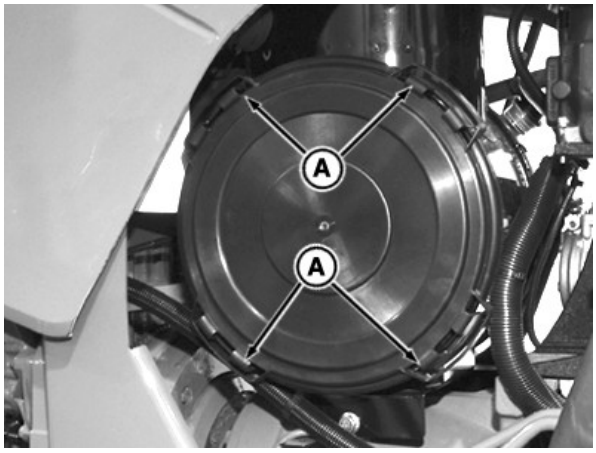
6. Replace filter elements and install cover.

Replacing Filters

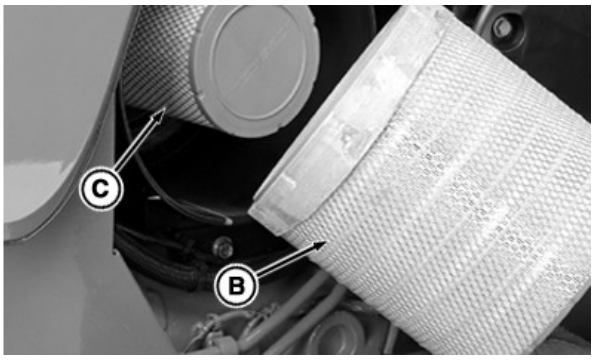
NOTE: Replace both primary and secondary at 1000 hours, annually or as indicated whichever comes first.

1. Unfasten plastic clips (A), and remove filter cover. Interval can vary according to operating conditions.
2. Turn and pull to remove primary filter (B).
3. Make sure that gasket is in good condition.
4. Install new filter elements, then install cover.

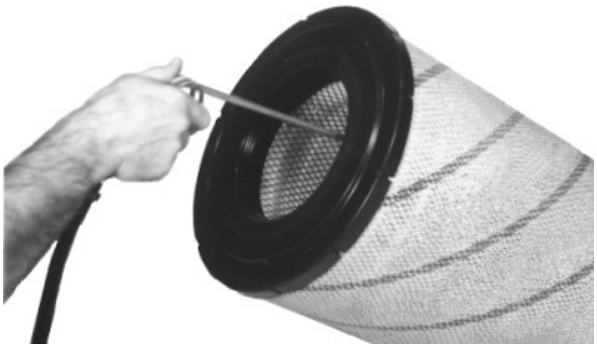
A—Clips
B—Primary Filter
C—Secondary Filter



Position Plastic Clips At Two, Four, Eight, and Ten o'clock to ensure good seal and easy access



Secondary Filter



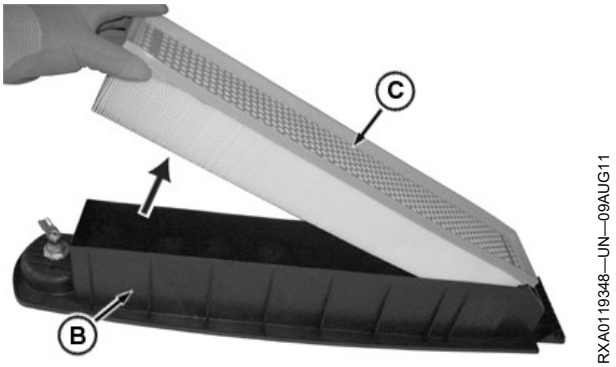
Clean And Inspect Primary Filter

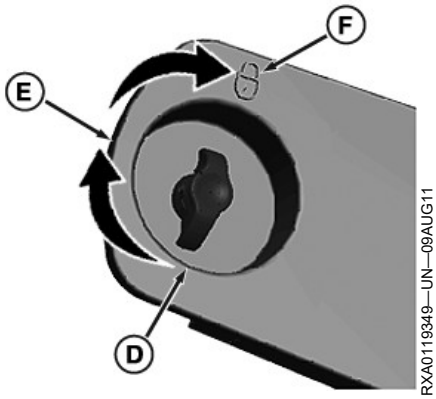
OURX935,00003D1-19-03JAN12-2/2

Replacing Cab Fresh Air Filters

Turn Knob While Supporting Cover

Let Cover Swing Down Toward Rear Of Tractor, Then Cover Can Be Removed





Three Position Filter Cover

A—Knob
B—Cover
C—Filter
D—Open Position
E—Latched Position
F—Locked Position

1. While supporting cover, turn knob (A) counter clockwise allowing cab air filter in cover (B) to swing down toward tractor rear. Although filter is normally removed from cover at this point, entire cover can be removed by rotating filter cover rear forward as indicated.
2. Remove old filter (C).
3. Inspect filter condition. Replace if dirty, ripped, damaged, at 1000 hours, annually or as required whichever comes first.
4. Using a clean cloth, wipe down inside and outside filter cover before installing new filter.

NOTE: Filter cover has three positions; open (D), latched (E) and locked (F).

5. Close cover and turn knob clockwise 180° so that latch is locked.

OURX935,00003D3-19-18AUG11-1/1

Replacing Cab Recirculation Filters

CAUTION: Cab air filters are not designed to filter out harmful chemicals. Follow the instructions in the implement operator's manual and those given by the chemical manufacturer when using agricultural chemicals. ** Interval may vary according to operating conditions*

1. Remove upholstery cover (A) in the headliner by grabbing outer edges and pulling down.

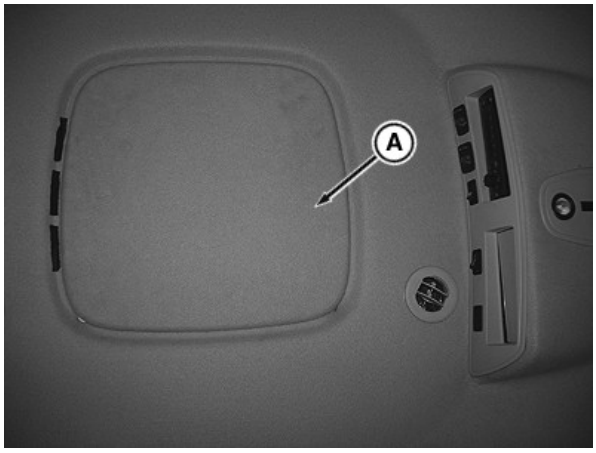
NOTE: When removing fasteners (B), hold cover (C) in place with one hand.

2. Remove fasteners allowing cover to be lowered.

NOTE: Using a clean cloth, wipe down inside and outside filter cover before installing new filter.

3. Remove and inspect condition of filter.
4. Replace filter (D) at 1000 hours, annually or as required whichever comes first.
5. Re-install cover (C).
6. Re-install cover panel by lining up ball studs (E) with clip nuts (F) and pushing up.

A—Upholstery Cover
B—Fasteners
C—Cover
D—Filter
E—Ball Stud
F—Clip Nuts



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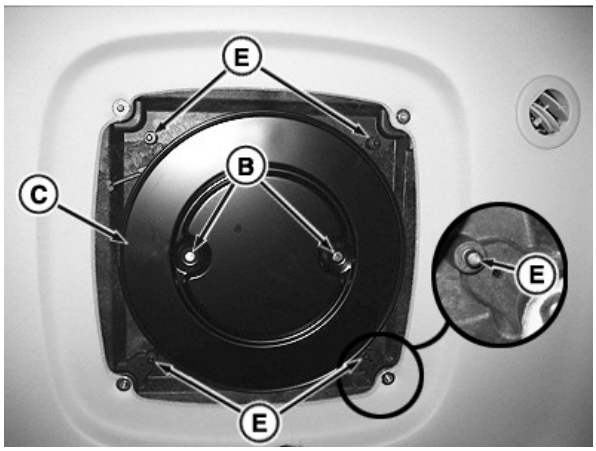
Remove Roof Upholstery



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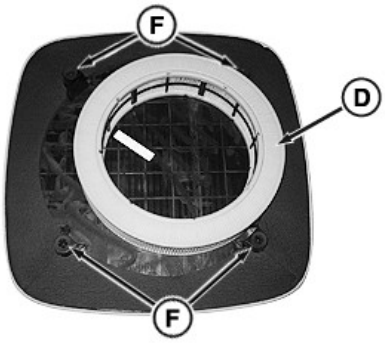
Remove Cover

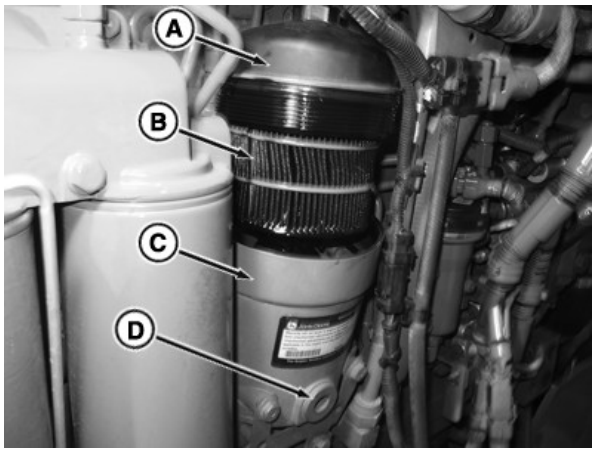


RXA0100959—UN—17MAR09

Remove Filter

OURX935,00003D2-19-18AUG11-1/1

Changing Engine Oil and Filter



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Drain Oil and Replace Filter

A—Filter Cover **B—Filter** **C—Oil Filter Housing** **D—Plug**

NOTE: Replace at 500 hours or annually whichever comes first. Perform oil change in accordance with Changing Engine Oil and Filter in section 104 of this Operator's Manual.

R Series Tractors are equipped with either IT4/Stage IIIB or Tier 2/Stage II engine. See Record Engine Serial Number in Identification Numbers section to determine which engine is applicable.

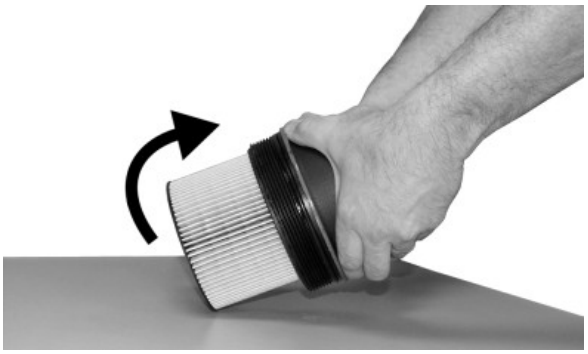
The initial break-in service interval of a new or rebuilt wet sleeve engine with Break-In Plus must go at least 100 hours to assure the surface mating of the rings and liners has had an opportunity to occur. The 100 hour minimum applies to all new or rebuilt engines. The maximum service interval is the same as the service interval recommendations listed in Engine Oil and Filter Service Intervals locted in section 90 of this Operator's Manual.

For subsequent oil changes, see Engine Oil and Filter Service Intervals located in section 90 of this Operator's Manual.

1. Operate engine approximately 5 minutes to warm oil, then stop engine.
2. Remove engine fill cap (at dipstick).

NOTE: Drain plug location may vary slightly depending on application.

3. Remove engine oil drain plug and drain crankcase oil while engine is warm.



RG11628—UN—01FEB01

While Holding Cover, Strike Filter Against Solid Surface

NOTE: Do not remove plug (D) on the base of the oil filter housing. Oil will automatically drain back into crankcase when filter is removed.

4. Using a 32 mm wrench, unscrew oil filter cover (A) and lift as shown to allow oil filter (B) to drain into crankcase.
5. Remove filter cover with oil filter attached.
6. While holding cover, strike filter against solid surface to remove. Discard used filter.
7. Remove old O-ring and replace with new O-ring provided with new filter element.
8. Press new filter into cover until it snaps into place.
9. Insert cover and filter into oil filter housing, then tighten cover to torque specification.

Oil Filter Cover — Specification

Cover—Torque. . . . . 40 Nm (30 lb-ft)

10. Install drain plug after oil has been drained from crankcase.
11. Refill crankcase with seasonal viscosity grade oil.

Crankcase Fill Capacity		
	8235R, 8260R, 8285R	8310, 8335R and 8360R
1300 MFWD Axle	25L (26.4 Qt.)	N/A
1500 MFWD Axle	28L (29.5 Qt.)	
ILS Axle	27.5L (29.1 Qt.)	

12. Start engine and check for leaks.
13. Stop engine. Recheck oil level.

OURX935,0000434-19-25AUG11-1/1

Replacing Fuel Filters

IMPORTANT: Replace fuel filter elements anytime audible alarm sounds and diagnostic trouble codes indicate plugged fuel filters (low fuel pressure). If no alarm sounds during operations, replace elements at 500 hours or annually whichever comes first.

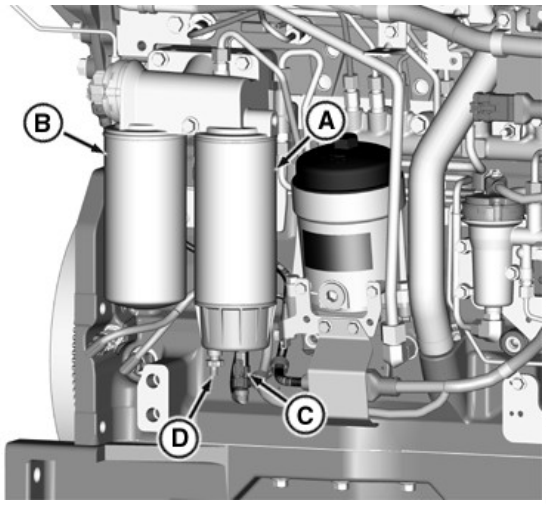
1. Thoroughly clean exterior of fuel filters and surrounding area.
2. Place catch pan under drain valve (D) of primary fuel filter (A), then open valve to drain water and contaminants into suitable container.
3. Disconnect the water-in-fuel (WIF) sensor connector (C) from primary filter.

IMPORTANT: Always replace both filters at the same time.

4. Remove the final fuel filter (B) 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.



Fuel Filters

A—Primary Fuel Filter
B—Final Fuel Filter
C—Water-In-Fuel (WIF) Sensor Connector
D—Drain Valve

IMPORTANT: Key must be turned to ON position for 60 seconds before starting engine to provide time to prefill fuel filters. Fuel system is self-bleeding.

9. Turn key switch to ON position for 60 seconds 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.

OURX935,00003DB-19-28JUL11-1/1

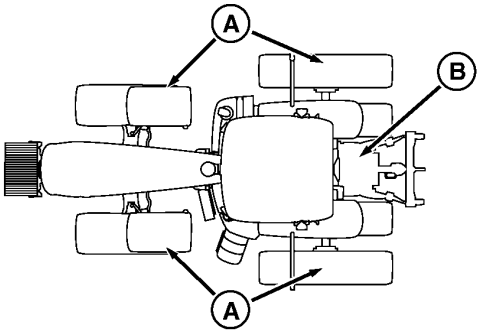
Included In 50 Hour Service

When scheduled service at any hourly level is performed, also perform all subordinate hourly level services. See Section 95, Observe Service Intervals for table listing main and subordinate services.

OURX935,00003D0-19-10SEP11-1/2

50 hour services indicated on tractor silhouette:

- A — Checking Tires
- B — Lubricating Rear Hitch Components



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50 Hour Services—Overhead View

OURX935,00003D0-19-10SEP11-2/2

Checking Tires

IMPORTANT: Keep tires at maximum allowable pressure to insure maximum performance. For front tires, see tables in section 80 of this Operator's Manual. For rear tires, see tables in section 81 of this Operator's Manual.

Inspect tires for cuts or breaks and repair. If tires contain liquid ballast, use a special air-water gauge, and measure with valve stem positioned at bottom. Check pressure of each tire at least once a week.

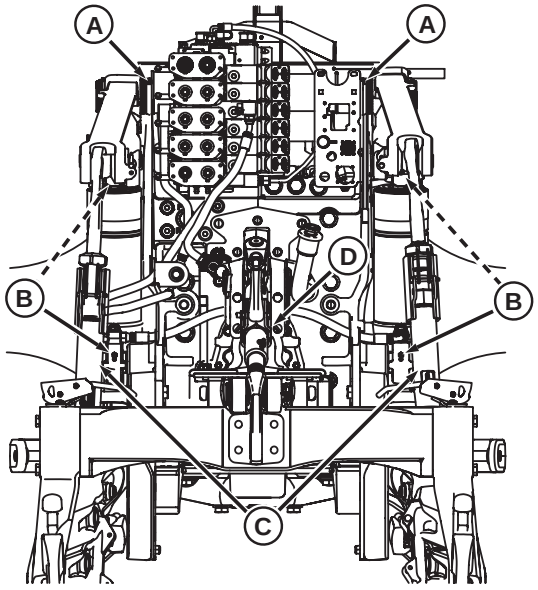
OURX935,0000C3A-19-05NOV09-1/1

Lubricating Rear Hitch Components

Use John Deere SD Polyurea grease or other grease as specified in Fuel, Lubricants and Coolant section.

Lubricate hitch components (A—D).

A—Rockshaft
B—Lift Cylinders
C—Lift Links
D—Center Link



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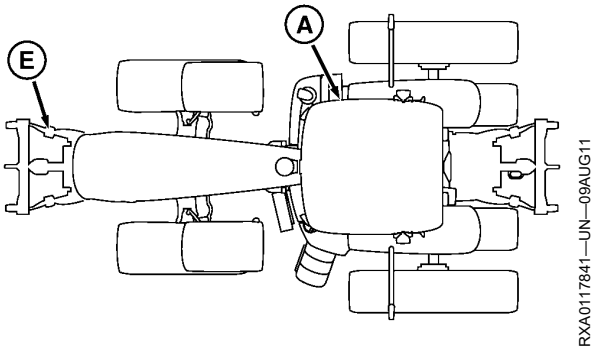
OURX935,0000462-19-30JUN11-1/1

Services Included In 250 Hour Service

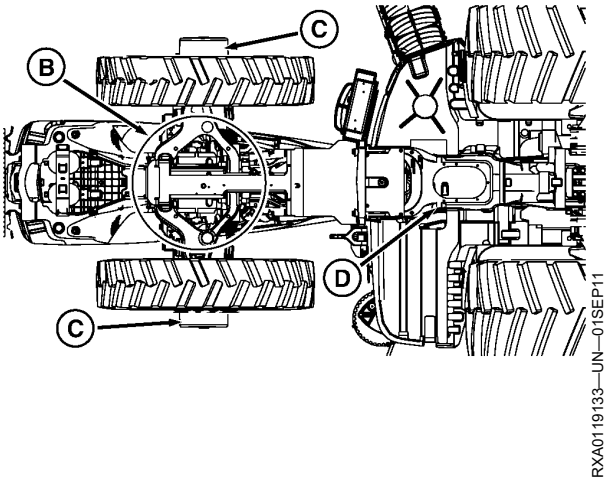
250 hour services are listed:

- A — Checking Neutral Start System—IVT™/AutoPowr™ Transmission
  Checking Neutral Start System—PowerShift Transmission
  Checking Transmission PARK Position
- B — Lubricating MFWD King Pins, Tie Rod Ends, Axle Pivot Fittings And U-Joints
  Lubricating Independent Link Suspension King Pins, Tie Rod Ends, Axle Pivot Fittings And U-Joints (If Equipped)
  Lubricating ActiveCommand Steering Arm
  Checking MFWD Differential Case Oil Level
  Lubricating Two Wheel Drive Front Axle—If Equipped
- C — Checking MFWD or Independent Link Suspension Wheel Hub Oil Level
- D — Draining Fuel Tank Sump
- E — Lubricating Front Hitch (If Equipped)

When scheduled service at any hourly level is performed, also perform all subordinate hourly level services. See Section 95, Observe Service Intervals for table listing main and subordinate service tasks.



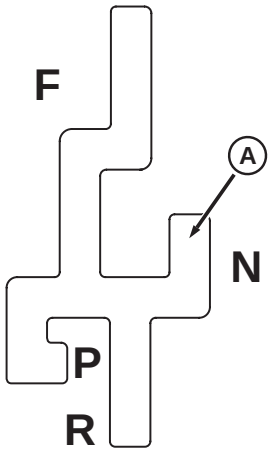
250 Hour Services-Overhead View



250 Hour Service-Underside View

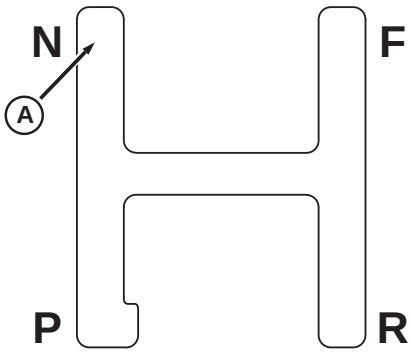
OURX935,000030E-19-02AUG12-1/1

Checking Neutral Start System—IVT/AutoPowr Transmission



RXA0082370—UN—21JUL05

IVT/AutoPowr Transmission Right-Hand Reverser in Neutral



RXA0082368—UN—21JUL05

IVT/AutoPowr Transmission Left-Hand Reverser in Neutral

A—Reverser Lever in Neutral

1. Make sure that everyone is clear of tractor.
2. Fully depress clutch and brake pedals.
3. Move left-hand reverser to any position except NEUTRAL or PARK position.
4. Start engine. If engine starts in any of these positions, neutral start system should be repaired. See your John Deere dealer **immediately.**

For IVT/AutoPowr tractors equipped with left-hand reverser, engine will start in NEUTRAL or PARK positions.

For IVT/AutoPowr tractors equipped with right-hand reverser, engine will only start in PARK.

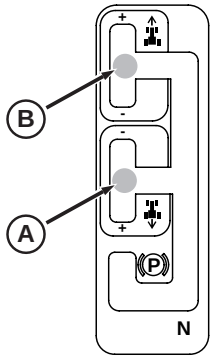
OURX935,0000463-19-03AUG11-1/1

Checking Neutral Start System—PowerShift Transmission

Fully depress clutch and brake pedals. Move shift lever (B) from PARK to a forward gear. Attempt to start engine. Starter should NOT engage.

If starter engages, neutral start system should be repaired by your John Deere dealer **immediately**.

Repeat this step by placing shift lever (A) into a reverse gear.



RXA0082674—UN—15AUG05

A—Shift Lever (In Reverse Gear)

B—Shift Lever (In Forward Gear)

OURX935,0000464-19-30JUN11-1/1

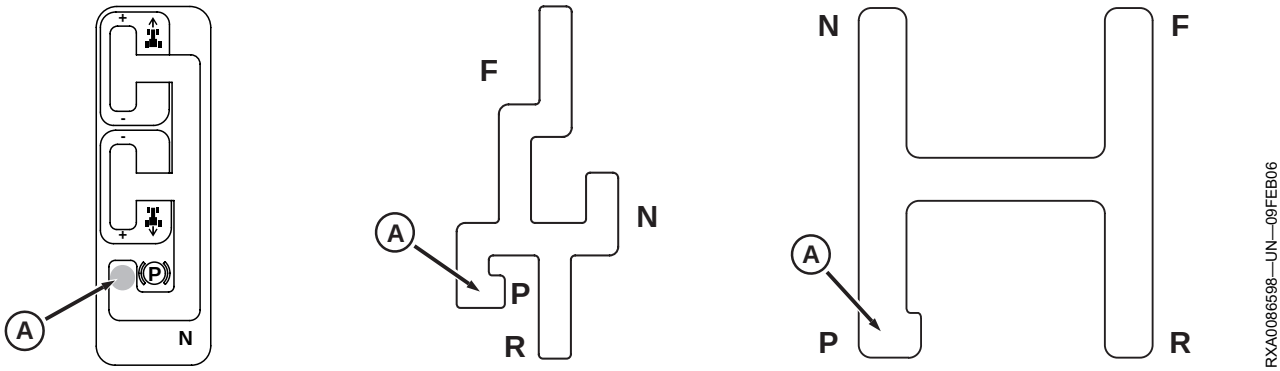
Checking Transmission PARK Position

NOTE: For tractors equipped with PowerShift transmission, shift lever must be in PARK.

For tractors equipped with IVT/AutoPowr transmission, reverser lever must be in PARK.

Continued on next page

OURX935,0000465-19-30JUN11-1/2



PowerShift Transmission Shift Lever, IVT/AutoPowr Left-Hand And Right-Hand Reversers In PARK position

A—Shift/Reverser Lever in PARK

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.

Move shift/reverser lever (A) to PARK position.

If tractor does not hold on incline with shift/reverser lever in PARK position, see your John Deere dealer to have transmission repaired **immediately**.

OURX935,0000465-19-30JUN11-2/2

Lubricating MFWD King Pins, Tie Rod Ends, Axle Pivot Fittings And U-Joints

Use John Deere SD Polyurea grease or other grease as specified in Fuel, Lubricants and Coolant section.

When AutoTrac is used, service daily or every 10 Hours.

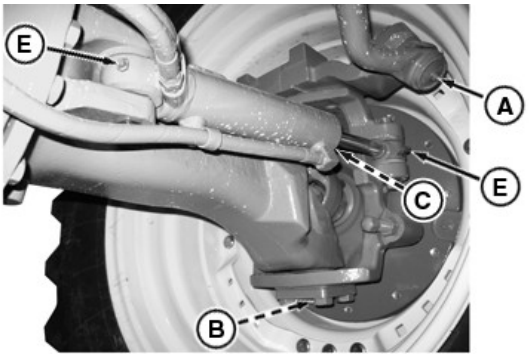
Kingpins—Lubricate fittings (B and C) until grease appears at orifice on bottom end of each kingpin bearing.

Tie Rods—Lubricate fittings (A).

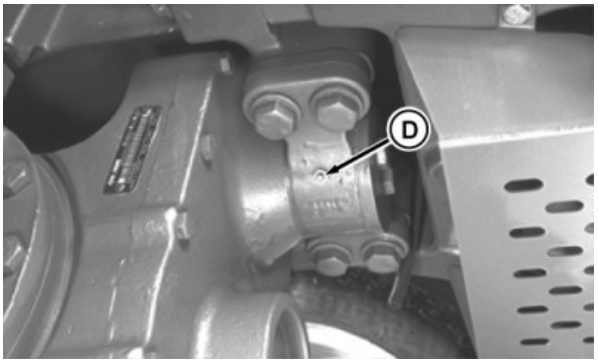
Steering Cylinder—Lubricate fittings (E).

Axle Pivot—Lubricate front and rear fittings (D).

A—Tie Rod Fittings
B—Kingpin Fittings, Bottom
C—Kingpin Fitting, Top
D—Axle Pivot Fittings
E—Steering Cylinder Fittings
F—Kingpin Fittings, Top, Left Side



Kingpins, Tie Rods and Steering Cylinder



Kingpins, Tie Rods and Steering Cylinder

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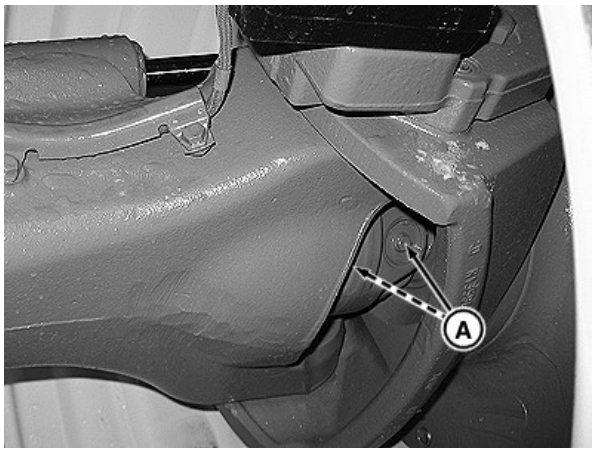
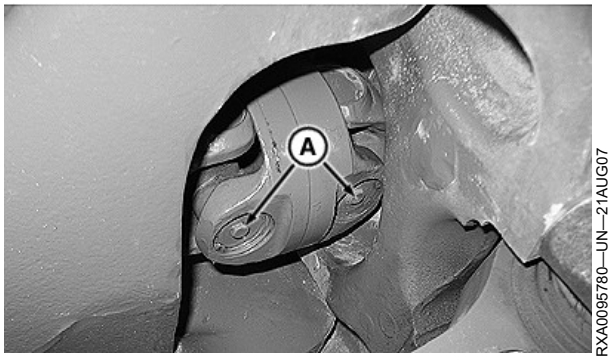


1300 MFWD Axle



1500 MFWD Axle

A—Plug

Use John Deere SD Polyurea grease or other grease as specified in Fuel, Lubricants and Coolant section. *In extremely wet conditions service daily or every 10 Hours.*

Apply grease to both U-joints, using fitting (A).

Drilled passages in the cross 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:

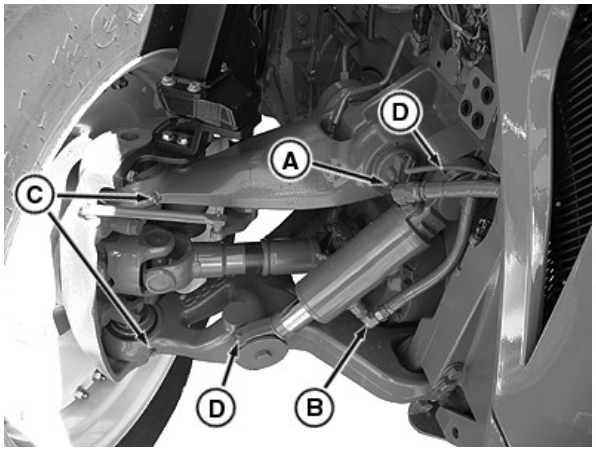
1. Replace plugs (A) with M10 thread 90° grease fittings, part number 58M5580.
2. Lubricate U-joints.
3. Replace grease fitting with plug and tighten to torque specification.

Specification

Plug—Torque. . . . . 0.904 Nm (8 lb-in)

OURX935,0000466-19-30JUN11-2/2

Lubricating Independent Link Suspension King Pins, Tie Rod Ends, Axle Pivot Fittings And U-Joints (If Equipped)



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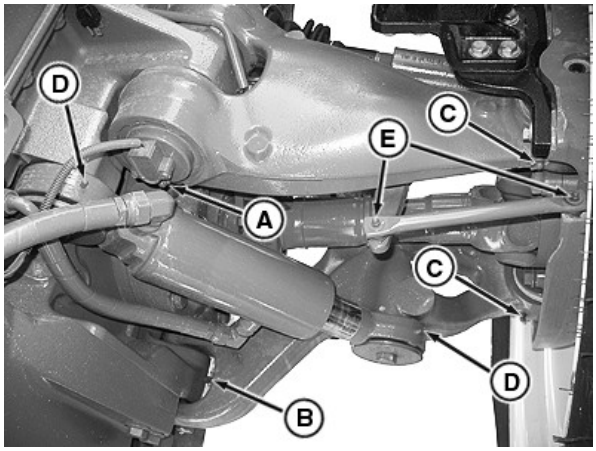

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A—Upper Control Arm Fittings
B—Lower Control Arm Fittings
C—Kingpin Fittings
D—Suspension Cylinder Fittings
E—Tie Rod Fittings

Use John Deere SD Polyurea grease or other grease as specified in Fuel, Lubricants and Coolant section.

Upper Control Arms—Lubricate fittings (A) on each side of suspension.

Lower Control Arms—Lubricate fittings (B) on each side of suspension.

Kingpins—Lubricate fittings* (C) for each kingpin bearing.

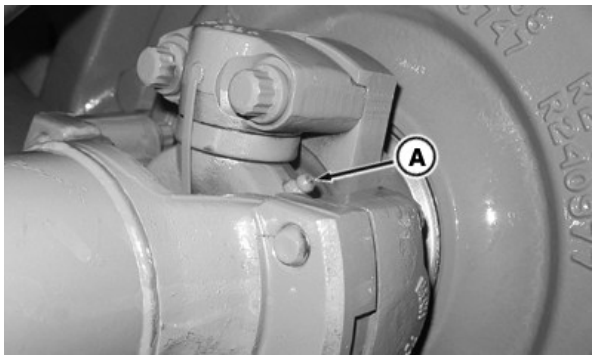
Continued on next page

OURX935,0000467-19-26FEB13-1/2

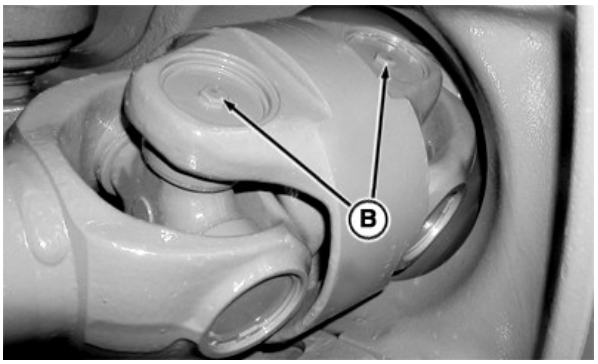
Suspension Cylinders—Lubricate fittings (D) for both ends of each suspension cylinder.

Tie Rods—Lubricate fittings* (E) for each tie rod.

* Daily or 10 Hours in extremely wet conditions or where AutoTrac is used



Inboard U-joint



Outboard U-joint

A—Grease Fitting **B—Plug**

Lubricating Axle U-Joints Use John Deere SD Polyurea grease or other grease as specified in Fuel, Lubricants and Coolant section. *Daily or 10 Hours in extremely wet conditions or where* AutoTrac is used.

Apply grease to both inboard U-joints, using fitting* (A).

Drilled passages in the cross 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:

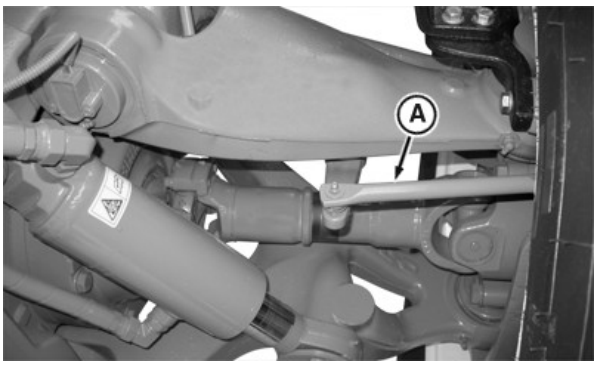
1. Replace plugs (B) with M10 thread 90° grease fittings, part number 58M5580.
2. Lubricate U-joints.
3. Replace grease fitting with plug and tighten to torque specification.

Item	Measurement	Specification
Plug	Torque	0.904 Nm (8 lb-in)

OURX935,0000467-19-26FEB13-2/2

Lubricating ActiveCommand Steering Arm

Tractors equipped with ActiveCommand Steering (ACS™) are equipped with steering arm (A) on the left front. Make sure to lube both fittings on steering arm.



Steering Arm

OURX935,0000468-19-30JUN11-1/1

Checking MFWD Axle Housing Oil Level

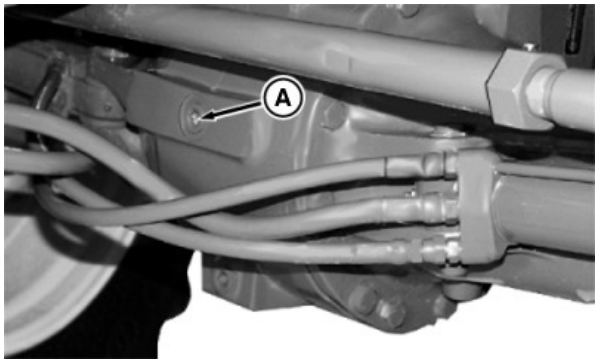
NOTE: MFWD differential case on Independent Link Suspension equipped tractors is connected to tractor transmission case and operates using the same system oil. There is no separate oil level check. Checking hydraulic oil level also checks level of MFWD differential case oil on these tractors.

Continued on next page

OURX935,000054E-19-06NOV12-1/2

Remove axle housing fill plug (A). Oil level should be at bottom of fill hole. If oil level is low, fill to bottom of fill hole with John Deere™ Hy-Gard™ oil as specified in Transmission and Hydraulic Oil in Fuel, Lubricants and Coolant section of this Operator's Manual. Install and tighten fill plug.

A— Fill Plug



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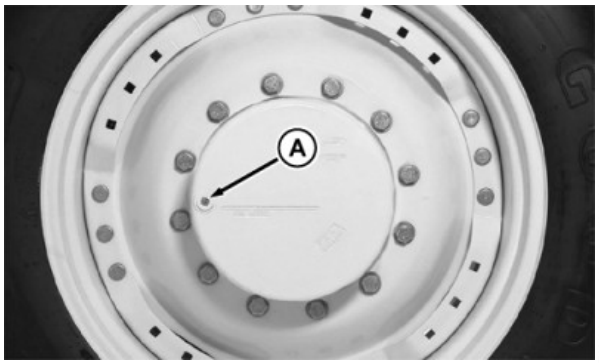
Hy-Gard is a trademark of Deere & Company

OURX935,000054E-19-06NOV12-2/2

Checking MFWD or Independent Link Suspension Wheel Hub Oil Level

Park tractor on level ground. Maneuver tractor forward or backward until the words OIL LEVEL cast into wheel hub are horizontal. Remove wheel hub drain/fill plug (A). Oil level should be at bottom of fill hole. If oil level is low, fill to bottom of fill hole withJohn Deere™ GL-5 Gear Lubricant as specified in Gear Lube in Fuel, Lubricants and Coolant section of this Operator's Manual. Install and tighten drain/fill plug. Repeat procedure with other wheel hub.

A— Drain/Fill Plug



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OURX935,0000469-19-06NOV12-1/1

Draining Fuel Tank Sump

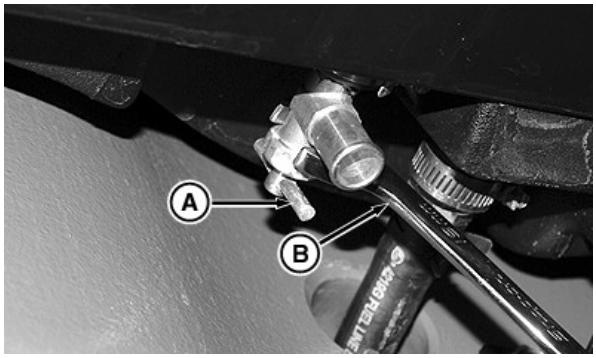
IMPORTANT: Use wrench to hold drain fitting before opening tee or damage to tank threads can occur.

Open drain tee (A) while holding drain fitting with wrench (B).

Drain fuel from tanks until clean fuel appears from tank.

Hold fitting with wrench to close drain tee.

A—Drain Tee **B—Wrench**



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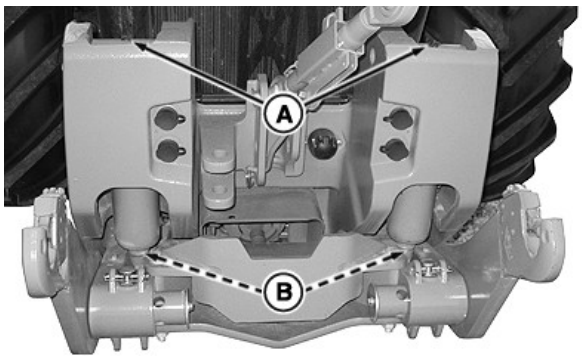
OURX935,0000C47-19-20OCT09-1/1

Lubricating Front Hitch (If Equipped)

Use John Deere SD Polyurea grease or other grease as specified in Fuel, Lubricants and Coolant section to lubricate front hitch fittings (A and B). Daily or 10 Hours in extremely wet conditions.

A—Front Hitch Cylinder Upper Fittings

B—Front Hitch Cylinder Lower Fittings



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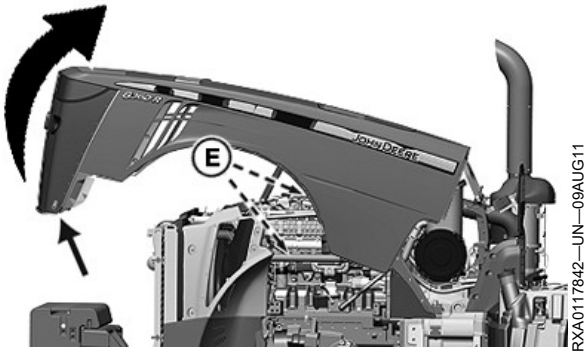
OURX935,000046C-19-30JUN11-1/1

Services Included In 500 Hour Service

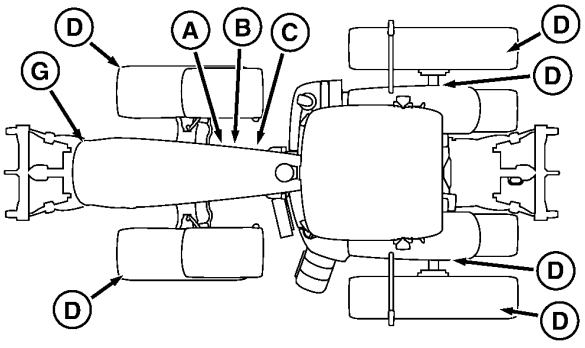
When scheduled service at any hourly level is performed, also perform all subordinate hourly level services. See Section 95, Observe Service Intervals for table listing main and subordinate service tasks.**500 hour services are located on tractor silhouette and are listed:**

To open hood, grasp ring, pull out and swing hood open.

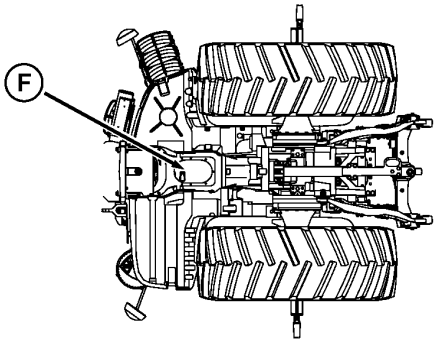
- A — Changing Engine Oil and Filter [1]
- B — Replacing Fuel Filters
- C — Cleaning Optional Fuel Water Separator
- D — Checking Wheel and Wheel Weight Bolts
- E — Checking Air Intake System
- F— Checking Dual Beam Radar
- G — Lubricating Front PTO Drive Shaft



500 Hour Services-Side View With Hood Open



500 Hour Services-Overhead View



500 Hour Services-Underside View

[1] Replace at 500 hours or annually, whichever comes first. See Annual Services section of this Operator's Manual.

OURX935,00003DE-19-15SEP11-1/1

Changing Engine Oil and Filter

NOTE: R Series Tractors are equipped with either IT4/Stage IIIB or Tier 2/Stage II engine. See Record Engine Serial Number in Identification Numbers section to determine which engine is applicable.

The initial break-in service interval of a new or rebuilt wet sleeve engine with Break-In Plus must go at least 100 hours to assure the surface mating of the rings and liners has had an opportunity to occur. The 100 hour minimum applies to all new or rebuilt engines. The maximum service interval is the same as the service interval recommendations listed in Engine Oil and Filter Service Intervals locted in section 90 of this Operator's Manual. Replace at 500 hours or annually whichever comes first. Perform oil change in accordance with Changing Engine Oil and Filter in section 104 of this Operator's Manual.

OURX935,00003DD-19-25AUG11-1/1

Replacing Fuel Filters

See Replacing Fuel Filters in the Annual Section of this Operator's Manual.

OURX935,00003DC-19-02JUN11-1/1

Cleaning Optional Fuel Water Separator Filter Element—If Equipped

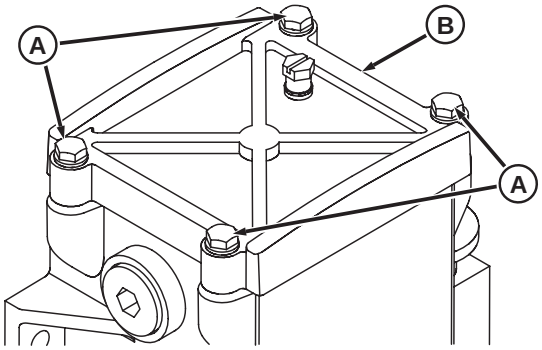
NOTE: To replace filter element and filter housing gasket, see your John Deere dealer.

1. Turn off engine.

NOTE: Drain fuel into an appropriate container and dispose of properly.

2. Open drain valve and drain fuel from bowl.
3. Remove cap screws (A) and lid (B).
4. Remove spring cassette (C).
5. Lift out filter element by the handle (D).
6. Wash filter in clean diesel fuel or mineral spirits.
7. Inspect filter for damage. If damaged, replace with new filter.
8. Install filter element.
9. Install spring cassette.
10. Inspect lid gasket (E) and replace if necessary.

A—Cap Screws
B—Cover
C—Spring Cassette
D—Handle
E—Gasket



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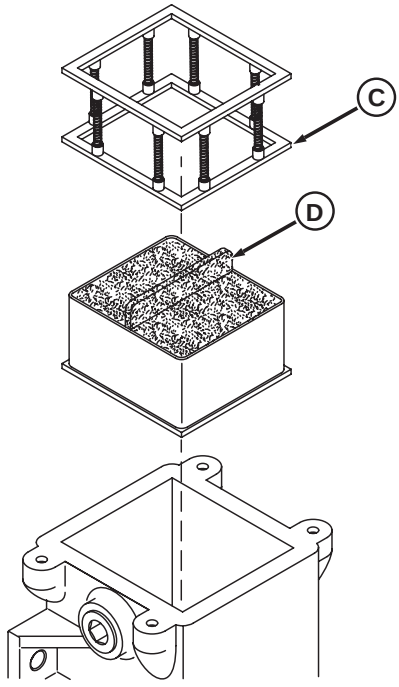
Remove Cap Screws



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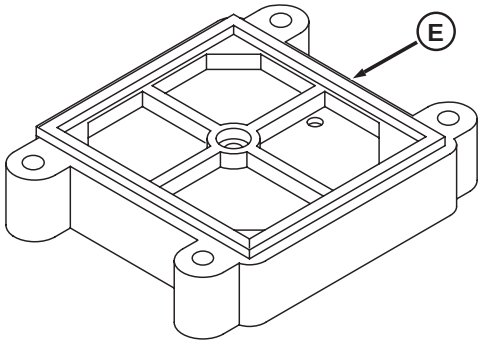
Remove Spring Cassette and Filter Element



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Gasket

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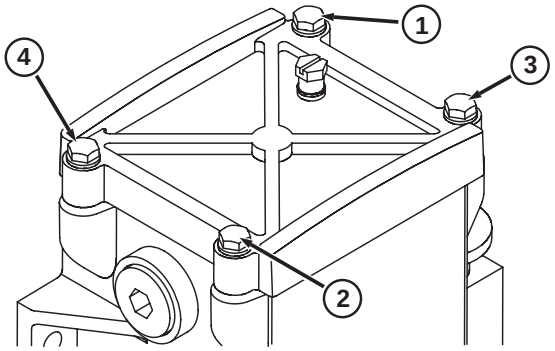
OURX935,000046D-19-30JUN11-1/2

11. Install new filter, spring cassette, lid and four cap screws. Leave cap screws finger tight.
12. Tighten cap screws in sequence as shown.
13. Prime fuel system and check for leaks.



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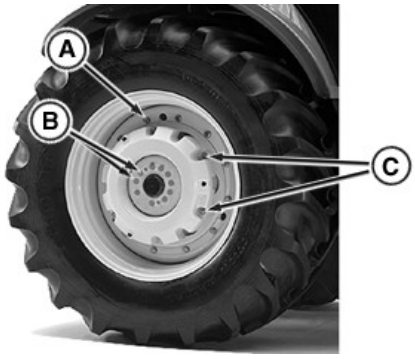
Install Cap Screws

OURX935,000046D-19-30JUN11-2/2

Checking Wheel and Wheel Weight Bolts

Torque rim to wheel bolts (A) and hub bolts (B) per torquing procedure listed in the Wheels, Tires and Treads section. Torque weight bolts (C) per torquing procedure listed in the Performance Ballasting section. For front wheels, see section 80 of this Operator's Manual. For rear wheels, see section 81 of this Operator's Manual.

A—Rim to Wheel Bolts
B—Hub Bolts
C—Weight Bolts



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OURX935,0000C4B-19-31AUG10-1/1

Checking Dual Beam Radar Sensor

Check and clean radar sensor depending on operating conditions.

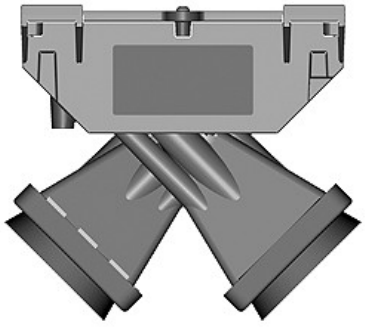
IMPORTANT: Inspect radar sensor horns for dirt or debris build up, which may affect accuracy performance.

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.

Clean radar sensor horns with warm water and mild soap.

Dry with clean soft cloth.



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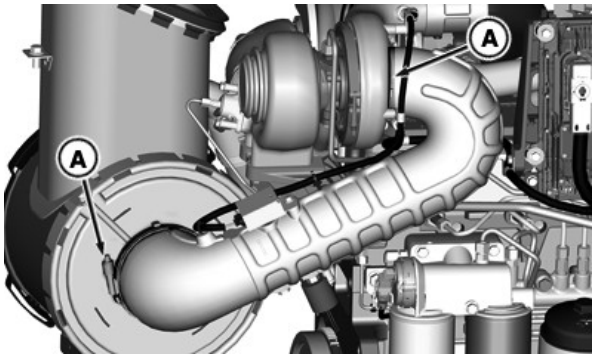
Dual Beam Radar

OURX935,0000C4C-19-21SEP10-1/1

Checking Air Intake System

Check all air intake system joints to make sure that they are not damaged and have tight connections with no air leaks.

A—Air Cleaner Pipe, Constant Tension Hose Clamps (2 Used)
B—Aspirator Pipe, Hose Clamps (4 Used)
C—Band Clamps (2 Used)
D—Hose Clamps (2 Used)
E—Charge Air Pipe, Hose Clamps (2 Used)
F—Charge Air Pipe, Flange Clamps (2 Used)



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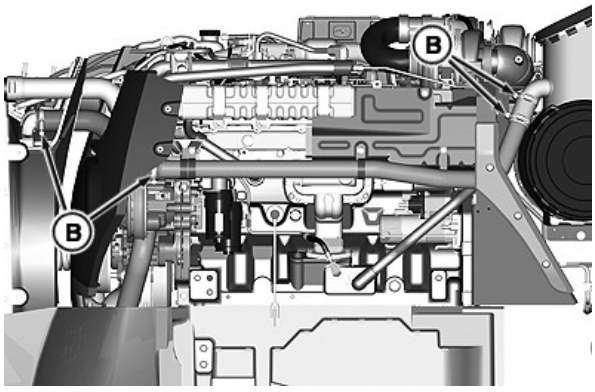

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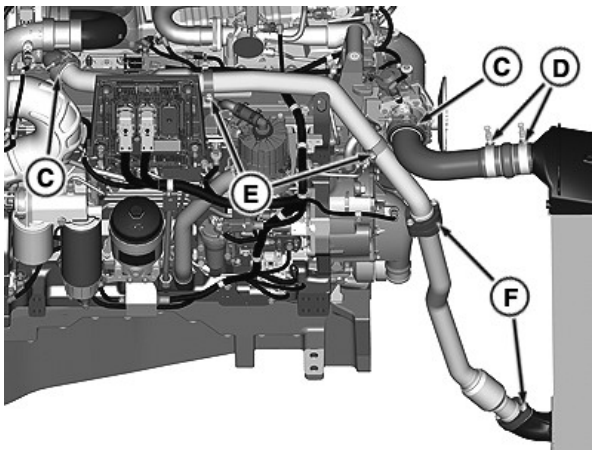

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OURX935,0000C4D-19-21SEP10-1/1

Lubricating Front PTO Drive Shaft (If Equipped)

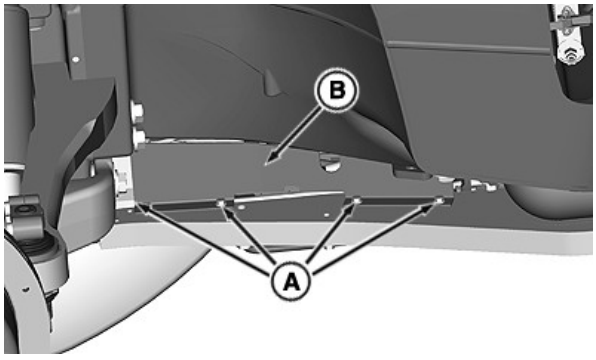
1. Remove and retain four cap screws (A) and panel (B).

NOTE: Use John Deere SD Polyurea grease or other grease as specified in Fuel, Lubricants and Coolant section to lubricate front PTO drive shaft.

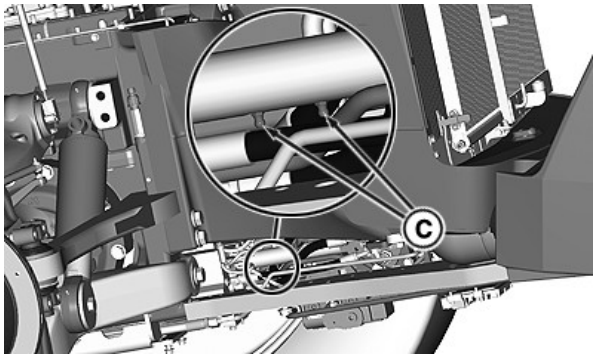
2. Grease two grease fittings (C) on drive shaft.

3. Install panel, four cap screws and torque to specification.

A—Cap Screws
B—Panel
C—Grease Fittings



Remove Cap Screws and Panel. For Illustration Purposes, Front Wheel Removed To Clarify Location.



Lube Front PTO Drive Shaft Fittings

Item	Measurement	Specification
Front PTO Panel Cap Screws	Torque	11.5 N·m (102 lb.-in.

OURX935,000046E-19-30JUN11-1/1

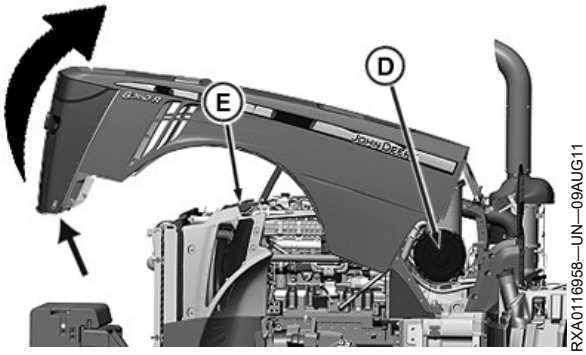
Services Included In 1000 Hour Service

When scheduled service at any hourly level is performed, also perform all subordinate hourly level services. See Section 95, Observe Service Intervals for table listing main and subordinate service tasks.

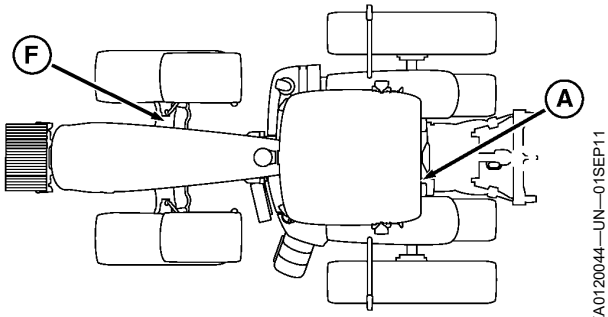
Grasp ring, pull out and swing hood open

Annual services are indicated on tractor silhouette.

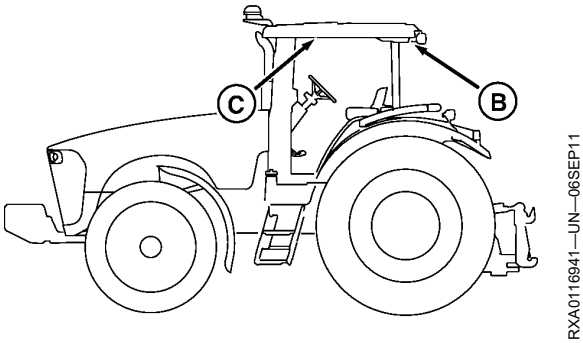
- A — Cleaning Fuel Tank Vent Filter
- B — Replacing Cab Fresh Air Filter [1]
- C — Replacing Cab Recirculation Filter [1]
- D — Replacing Primary And Secondary Engine Air Filters [2]
- E — Testing The Coolant
- F — Cleaning MFWD Axle Filter



500 Hour Services-Side View With Hood Open



1000 Hour Services — Overhead View



1000 Hour Services — Side View

[1] Replace at 1000 hours, annually, as Required, whichever comes first. See Annual Services Section in this Operator's Manual.

[2] Replace at 1000 hours, annually, as indicated, whichever comes first. See Annual Services Section in this Operator's Manual.

OURX935,00003D5-19-15SEP11-1/1

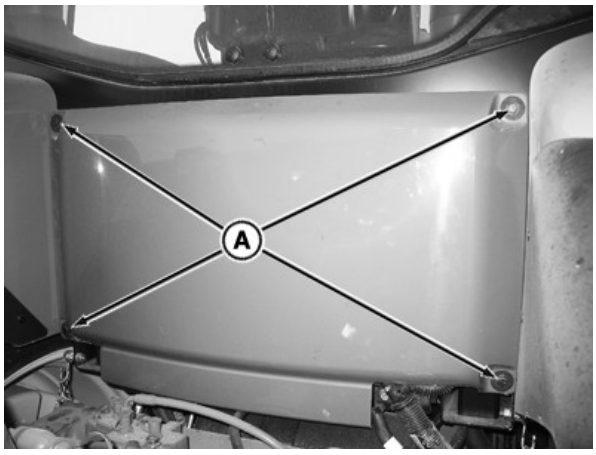
Cleaning Fuel Tank Vent Filter

Remove four cap screws (A) and lift off cab back panel.

Fuel tank vent filter is located under back panel on tractor left-side. Remove fuel tank vent filter (B) and clean in soapy detergent solution.

Blow dry with compressed air and replace.

A—Cap Screws **B—Fuel Tank Vent Filter**



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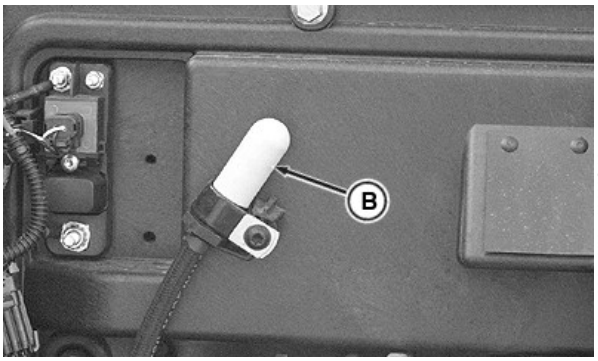
Remove Cap Screws And Lift Off Back Panel



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Remove Fuel Tank Vent Filter

OURX935,00002AC-19-29JUL11-1/1

Replacing Cab Fresh Air Filters

For specifics on cab air filter replacement, See Annual Services section in this Operator's Manual.

OURX935,0000553-19-25AUG11-1/1

Replacing Cab Recirculation Filters

For replacing cab recirculation filter instructions, see Annual Services Section in this Operator's Manual.

OURX935,00003D6-19-02JUN11-1/1

Inspecting, Cleaning Or Replacing Primary And Secondary Engine Air Filters

See Inspecting, Cleaning or Replacing Primary and Secondary Engine Air Filters in Annual Services section.

OURX935,0000555-19-25AUG11-1/1

Inspecting, Cleaning Or Replacing Primary And Secondary Engine Air Filters

See Inspecting, Cleaning or Replacing Primary and Secondary Engine Air Filters in Annual Services section.

OURX935,00003D4-19-11JUL11-1/1

Testing Coolant

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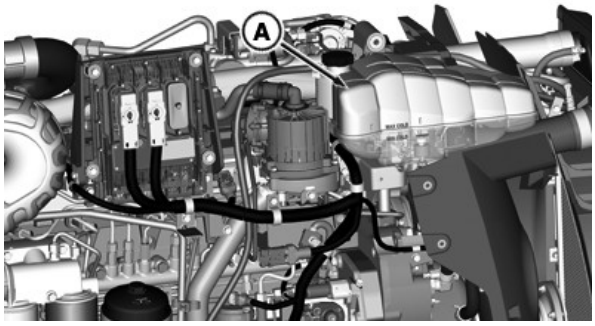


RXA0106925—UN—31MAR10

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.

1. Raise hood.
2. Slowly turn de-aeration tank cap to relieve pressure. Remove cap.

NOTE: De-aeration tank will not be full of coolant when cap is removed. When inspecting tank, if it is at least half full, do not add additional coolant.

3. Test coolant using COOL-GARD™II 3-way test strips available from your John Deere™ dealer.

NOTE: Follow instructions on back of reader card in test strip pack when testing coolant.

4. Add COOL-GARD II Coolant Extender available from your John Deere dealer as indicated by the 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. Install de-aeration tank cap and lower hood.

OURX935,00002AD-19-02MAY11-1/1

Cleaning MFWD Axle Vent Filter

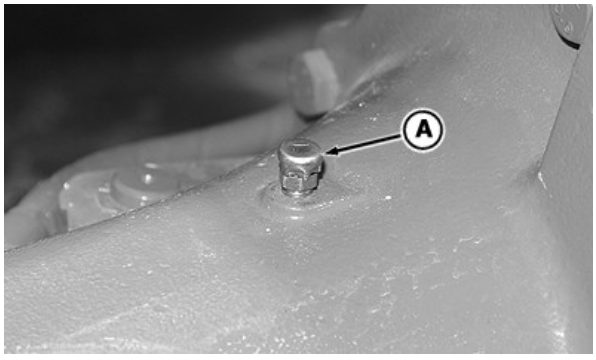
NOTE: If axle breather is packed with dirt, soak in solvent before blowing air through breather vent. Interval may vary according to operating conditions.

IMPORTANT: Allowing excess dirt and foreign material to build up in vent filter may cause damage to axle seals.

Remove axle vent filter. Clean by blowing air through vent filter (bottom to top).

A—MFWD Axle Vent Filter (1300 Axle)

B—MFWD Axle Vent Filter (1500 Axle)



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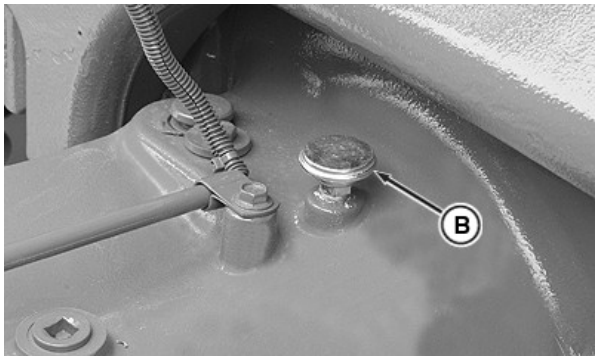

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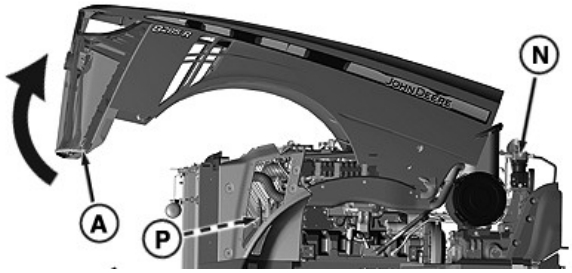
OURX935,0000554-19-25AUG11-1/1

Services Included In 1500 Hour Service

Drive tractor to warm oil, then park tractor on level ground perform daily, 50 hour, 250 hour, 500 hour services. Then perform 1500 hour service sequentially. Drain each tractor component and replace drain plug before proceeding to next sequential task. Refill reservoirs before operating tractor.

1500 Hour services are listed and identified on tractor silhouette:

- A — Hood Release
- B — Draining Differential
- C — Draining Clean Oil Reservoir
- D — Draining PowerShift (PST Transmission and Cleaning Filter
- E — Draining IVT/AutoPowr Transmission And Cleaning Transmission Filter
- F — Draining Independent Link Suspension
- G — Cleaning Hydraulic Oil Suction Screen
- H — Replacing Transmission/Hydraulic Filters [1]
- I — Refill Transmission/Hydraulic Oil [1]
- J — Changing MFWD or Independent Link Suspension Wheel Hub Oil
- K — Changing MFWD Differential Case Oil
- L — Lubricating Independent Link Suspension Axle—Tie Rod Internal Ball Joints
- M— Lubricating Draft Link Support Shaft Bushing
- N — Inspecting Auxiliary Drive Belt
- O— Service Variable Fan Drive



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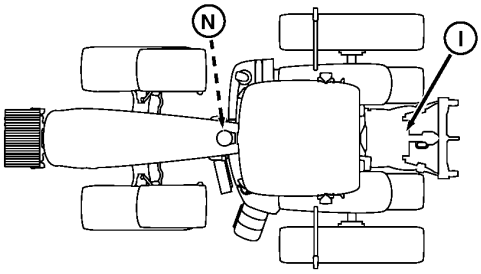
1500 Hour Service— Side View



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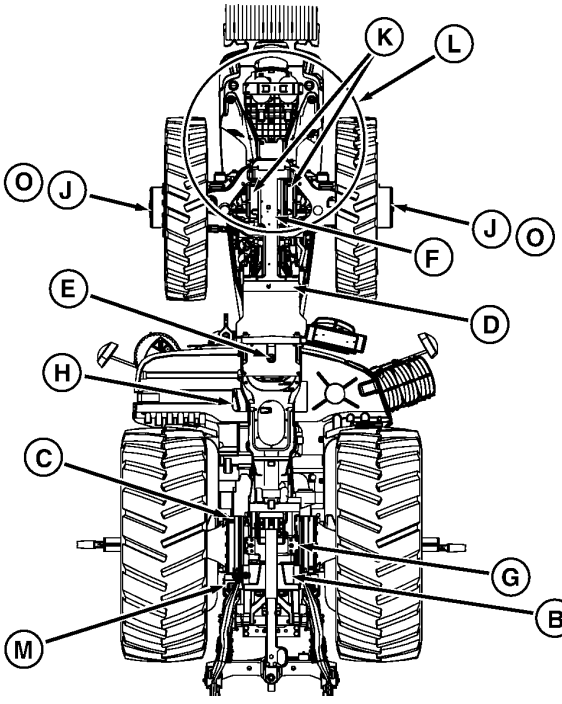
1500 Hour Service—Overhead View



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1500 Hour Service—Underside View

[1] *Replace at 1500 hours or as indicated, whichever comes first.*

OURX935,00003D9-19-02AUG12-1/1

Draining Differential And Clean Oil Reservoir

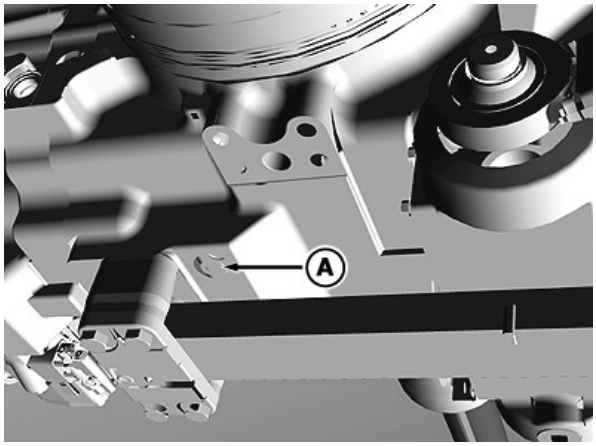
IMPORTANT: Change oil in clean oil reservoir immediately if oil is contaminated with water.

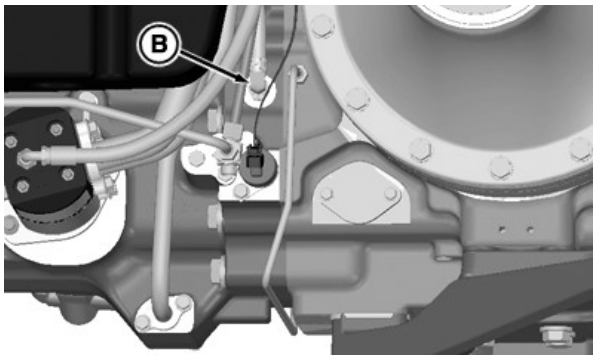
1. Park tractor on level ground (in a shop) with hitch lowered.
2. Place drain pan under differential case.
3. Remove drain plug (A) on bottom of rear differential case. Retain drain plug for reinstallation.
4. After used oil is completely drained, reinstall drain plug.
5. Dispose of used oil in accordance with local laws and ordinances.

NOTE: If tractor is equipped with ActiveSeat disconnect elbow and a return oil line to drain clean oil reservoir.

6. Place drain pan under clean oil reservoir drain plug.
7. Remove clean oil reservoir drain plug (B) to drain oil in catch pan.
8. Place drain plug in a safe place so that it can be reinstalled before refilling.
9. After oil is completely drained, reinstall drain plug.
10. Dispose of used oil in accordance with local laws and ordinances.
11. For tractors with PowerShift (PST) transmission, proceed to Draining PST Transmission in this section.

    For tractors with IVT/AutoPowr transmission, proceed to Draining IVT/AutoPowr Transmission and Screen in this section.





A—Differential Drain Plug **B—Clean Oil Reservoir Drain Plug**

OURX935,000046F-19-30JUN11-1/1

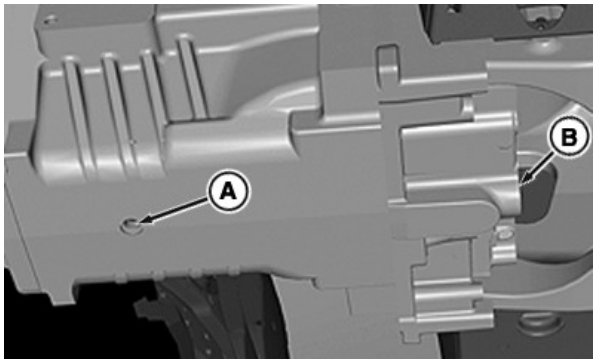
Draining PowerShift (PST) Transmission and Cleaning Filter

1. Place drain pan under transmission drain plug.

OURX935,0000049-19-20SEP10-1/2

2. Remove drain plug (A).
3. Retain drain plug for reinstallation.
4. Remove large transmission filter screen plug (B).
5. Remove filter screen and wash carefully in solvent. Blow dry with compressed air before reinstalling screen.
6. Replace transmission screen and drain plug.
7. Dispose of used oil in accordance with local laws and ordinances.
8. For tractors equipped with Independent Link Suspension, proceed to Draining Independent Link Suspension (If Equipped).

   For tractors not equipped with Independent Link Suspension, proceed to Cleaning Hydraulic Oil Suction Screen in this section.

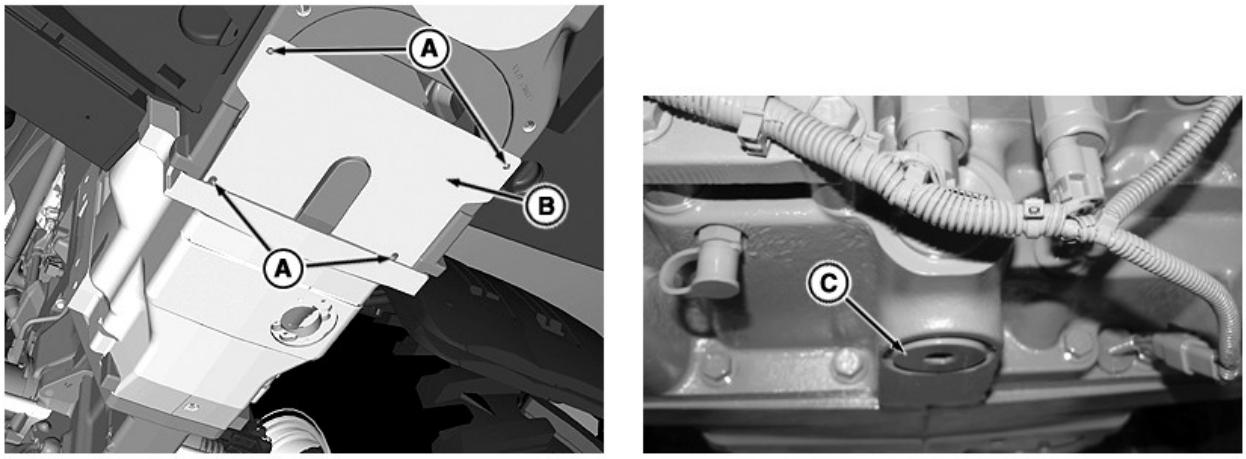


PST Transmission and Filter Screen

A—Drain Plug **B—Filter Screen Plug**

OURX935,0000049-19-20SEP10-2/2

Draining IVT/AutoPowr Transmission And Cleaning Transmission Filter



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Remove IVT/AutoPowr Transmission Cover, Drain Plug and Drain Transmission

A—Cap Screws **B—Cover** **C—Drain Plug**

1. Remove four cap screws (A) and cover (B).
2. Place drain pan under transmission drain plug.
3. Remove drain plug (C).
4. Retain drain plug for reinstallation.
5. Using a work light, inspect the filter through the bottom drain plug opening.
6. If the filter screen appears clean, reinstall plug, and dispose of oil in accordance with local laws and ordinances.

   If screen appears dirty, remove screen as described below.

IMPORTANT: Do not remove screen unless it is dirty. Refer to your John Deere dealer with any question you have on removing hydro control valve and/or transmission filter screen.

When working with hydraulic components, cleanliness is essential and ANY FOREIGN MATERIAL (DIRT) can damage equipment! Clean area around the hydro control valve thoroughly with steam cleaner prior to removing it, then make sure valve is clean before installing it.

IMPORTANT: Make sure wiring harness is disconnected and kept out of the way of any dripping oil before removing screen access plug. Oil in wiring harness connectors will damage equipment.

Continued on next page

OURX935,0000470-19-30JUN11-1/2

7. Remove connectors (A) on control valves then tuck wiring harness (B) out of the way.

IMPORTANT: Removing hydro control valve requires a 1 1/4 in. (deep broach) deep well socket (C) to avoid damaging control valve.

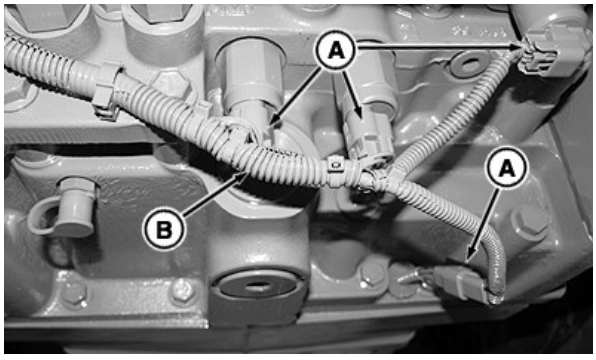
8. Remove hydro control valve (D).

NOTE: For tractors with Independent Link Suspension, remove screen carefully avoiding Independent Link Suspension tube (G).

9. Remove screen access plug (E) at front of transmission, then remove screen (F).
10. Remove filter screen and wash carefully in solvent. Blow dry with compressed air before reinstalling screen.
11. Install screen in transmission, front screen plug, and bottom drain plug.
12. Reinstall control valve and wiring harness connectors.
13. Reinstall drain plug.
14. Dispose of used oil in accordance with local laws and ordinances.
15. For tractors equipped with Independent Link Suspension, proceed to Draining Independent Link Suspension (If Equipped).

    For tractors not equipped with Independent Link Suspension, proceed to Cleaning Hydraulic Oil Suction Screen in this section.

A—Connectors
B—Wiring harness
C—Deep Well Deep Broach Socket
D—Hydro Control Valve
E—Screen Access Plug
F—Screen
G—Independent Link Suspension Tube



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Remove Connectors

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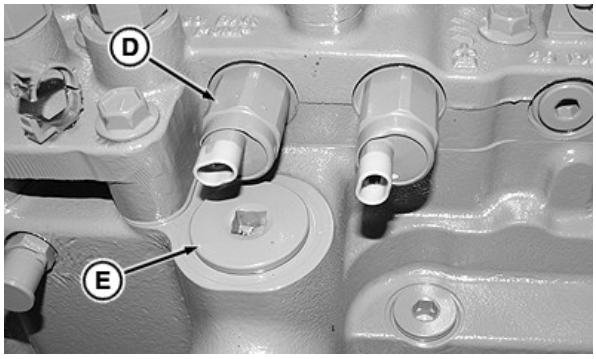
1 1/4 in. Deep Well Deep Broach Socket



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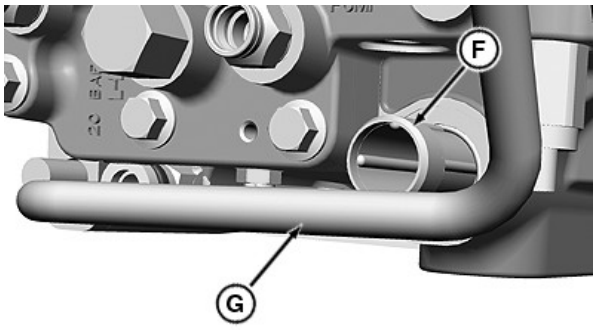
Remove Plug



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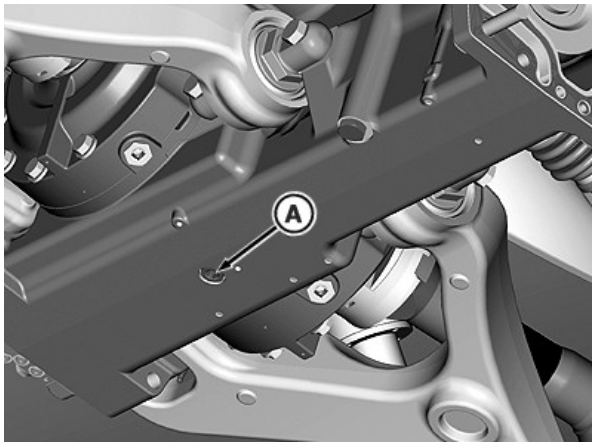
OURX935,0000470-19-30JUN11-2/2

Draining Independent Link Suspension (If Equipped)

1. Place drain pan under Independent Link Suspension drain plug.
2. Remove drain plug (A).
3. Retain drain plug for reinstallation.
4. After oil is completely drained, reinstall drain plug.
5. Dispose of used oil in accordance with local laws and ordinances.
6. Proceed to Cleaning Hydraulic Oil Suction Screen in this section.

A—Drain Plug



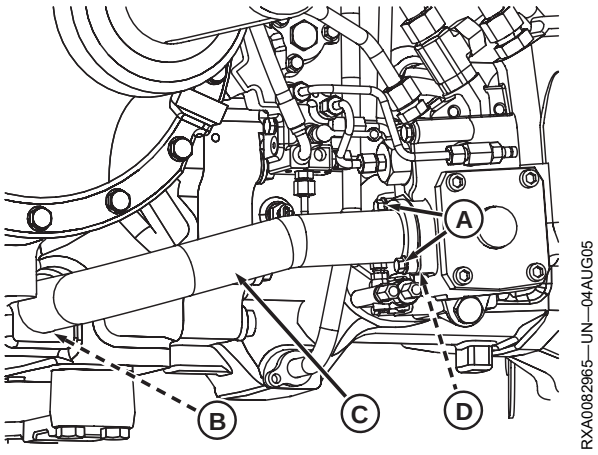
Drain Independent Link Suspension

OURX935,000004F-19-20SEP10-1/1

Cleaning Hydraulic Oil Suction Screen

1. Place drain pans under both ends of oil suction tube.
2. Remove cap screws (A) and tube (C) 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-ring (D) is correctly positioned.
6. Dispose of any oil that may have leaked into catch pans in accordance with local laws and ordinances.
7. Proceed to Replacing Transmission/Hydraulic Filters And Refill Transmission/Hydraulic Oil.

A—Cap Screws
B—Suction Screen
C—Tube
D—O-Ring



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Replacing Transmission/Hydraulic Filters And Refill Transmission/Hydraulic Oil.

1. Place drain pan under transmission/hydraulic filters.

Continued on next page

OURX935,000004E-19-31JUL12-1/3

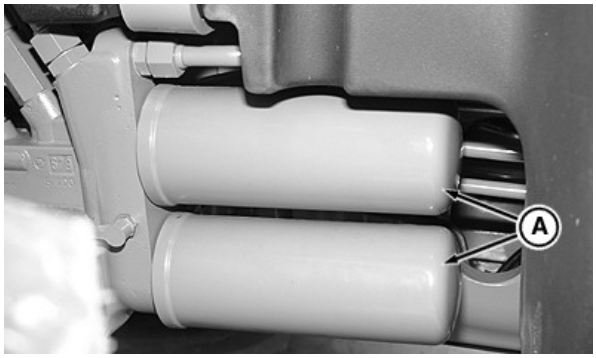
2. Remove **both** filters (A).
3. Lubricate the new filter packing with hydraulic oil only.

IMPORTANT: Make sure old packings are removed before installing new filters.

4. Install and hand tighten both new filter elements.
5. Before refilling transmission/hydraulic oil, check all drain plugs to be sure they are correctly installed.
6. Refill with Transmission/Hydraulic oil specified in Fuels, Lubricants, and Coolant section.

IMPORTANT: Fill differential housing with oil. Start engine and run at 900 rpm until clean oil reservoir level indicator light goes off (approximately 2 minutes). Refilling clean oil reservoir will take a few minutes.

NOTE: Oil temperature should be approximately 45° C. See Changing Display Functions in the CommandCenter section to determine oil temperature.



Transmission/Hydraulic Filters

A—Transmission/Hydraulic Filters

Sight glass observations will be significantly higher with hotter oil temperatures and lower with colder oil or if engine has not run long enough.

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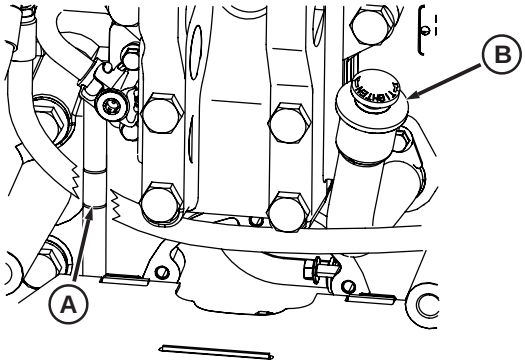


A—Sight Glass **B—Filler Cap**

7. Operate engine at approximately 1000 rpm for at least one minute.
8. Stop engine and wait an additional three minutes for oil to settle back into differential case.
9. Ensure rear hitch is in lowered position.
10. Observe oil level in sight glass (A). Oil level should be between the marks on the glass. Optimum level is at the top mark.

IMPORTANT: Oil level above the top mark on sight glass can result in power loss and heat generation during transport.

If oil level is below the lower mark, remove filler cap (B) and add hydraulic oil.

11. Start and operate engine several minutes, then check for leaks.
12. Stop engine and recheck oil level after a minimum of five minutes.
13. Add oil as necessary.

Drain and Fill Capacity *	
MFWD Axle:	
.. System	165 L (43 gal)
Independent Link Suspension Axle:	
.. System	175 L (46 gal)

** Capacities are average values and can vary between oil changes*

OURX935,000004E-19-31JUL12-3/3

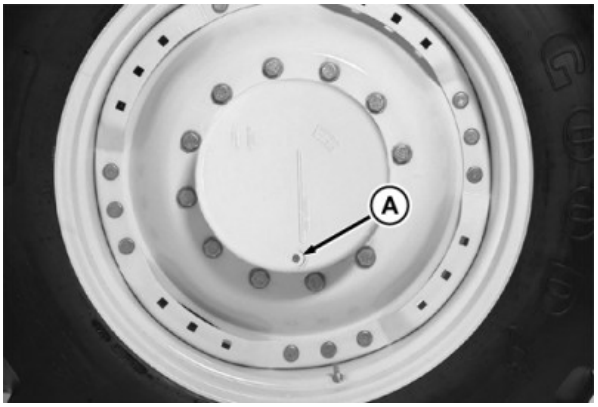
Changing MFWD Or Independent Link Suspension Wheel Hub Oil

1. Park tractor on level ground.
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 completely drained, maneuver tractor so that words OIL LEVEL cast into wheel hub are horizontal.
5. Fill MFWD wheel hub with John Deere™ GL-5 Gear Lubricant oil as specified in Gear Oil in Fuel, Lubricants and Coolant section of this Operator's Manual through drain/fill hole until oil is even with bottom of hole.

Specification

MFWD/Independent Link
Suspension Wheel Hub—Capacity. . . . . 3.8 L (4 qt.)

6. Install and tighten drain/fill plug.



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7. Repeat procedure with other wheel hub.

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Changing MFWD Axle Housing Oil

NOTE: MFWD differential case on Independent Link Suspension equipped tractors is connected to tractor transmission case and operates using the same system oil. There is no separate drain or fill procedure. Draining or filling hydraulic oil system also drains or fills MFWD differential case on these tractors.

1. Park tractor on level ground.
2. Remove axle housing drain plug (A) (1300 or 1500 axle) and drain oil. After oil has completely drained, replace drain plug and tighten to specification.
3. Fill MFWD axle housing with John Deere™ Hy-Gard™ oil as specified in Fuel, Lubricants and Coolant section of this Operator's Manual.

   For 1300 axle, remove fill plug (B) and add oil through fill hole until oil level is even with bottom of fill hole. Install fill plug.

   For 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. Install fill and check plugs.

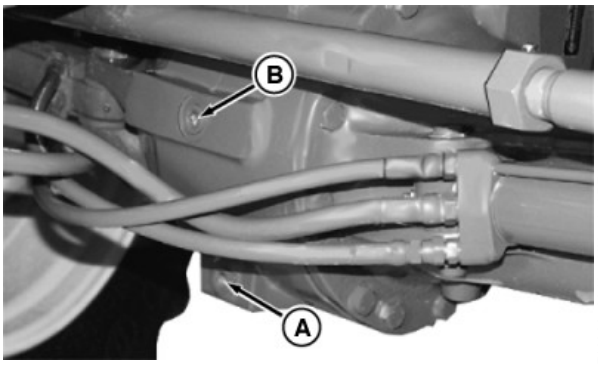
MFWD Axle Housing Capacity	
1300 Axle Oil Capacity	13.6 L (14.2 qt)
1500 Axle Oil Capacity	18.7 L (19.74 qt)

4. Start and run tractor for several minutes, then remove fill plug and recheck oil level. Add additional oil as necessary. Operate tractor and recheck oil level until level is correct.
5. When oil level is correct, install fill plug and tighten to specifications.

MFWD Drain Plugs — Specification

Drain Plug—Torque. . . . . 70 Nm (52 lb-ft)

John Deere is a trademark of Deere & Company
Hy-Gard is a trademark of Deere & Company



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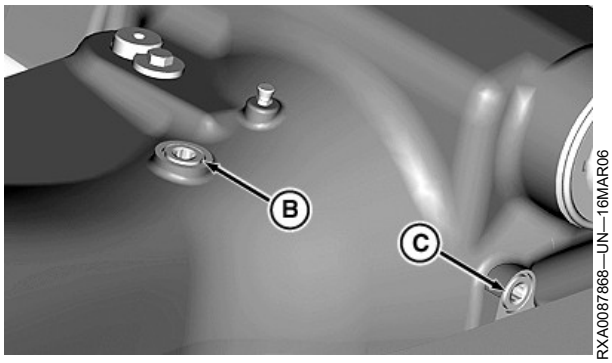
MFWD Axle Housing Drain and Fill Plugs (1300 Axle)



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MFWD Axle Housing Check and Fill Plugs (1500 Axle)

A— Drain Plug (1300 and 1500 Axle)
B— Fill Hole
C— Check Plug

OURX935,0000472-19-06NOV12-1/1

Lubricating Independent Link Suspension Axle—Tie Rod Internal Ball Joints

NOTE: Contact your John Deera dealer for questions or assistance in lubricating the tie rod internal ball joints.

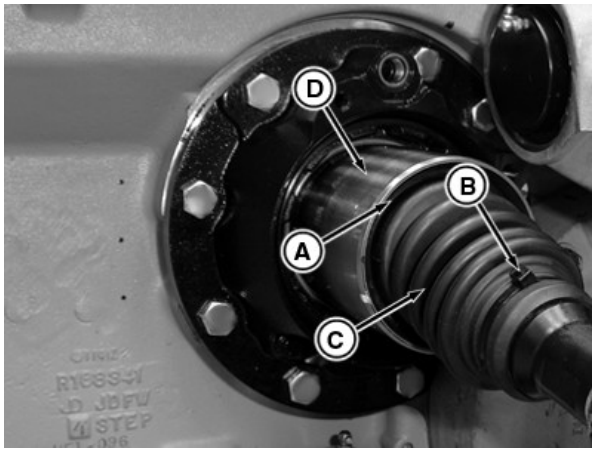
1. Remove boot retaining snap ring (A).
2. Remove tie band (B).
3. Slide boot (C) from inside steering rod (D) exposing ball joint.
4. Remove outer snap ring (E) from steering rod.

IMPORTANT: Remove any burrs in snap ring grooves using fine sand paper or Emery cloth. If not removed, damage to components will result. Thoroughly clean area inside steering rod removing all dirt and filings. If not, damage to components will result.

5. Remove snap ring retainer (F).

NOTE: Do not remove inner snap ring. Grease may push ball joint from guide resulting in disassembling and reassembling components.

A—Boot Retaining Snap Ring
B—Tie Band
C—Boot
D—Steering Rod
E—Outer Snap Ring
F—Snap Ring Retainer



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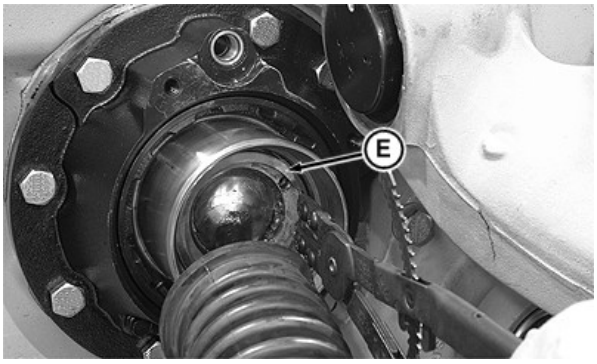

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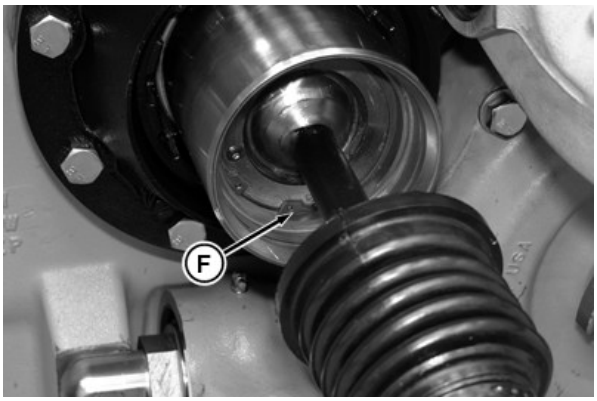

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OURX935,0000473-19-30JUN11-1/2

6. Compress snap ring enough to rotate in slot until it aligns with grease fitting hole.
7. Remove plug from hole (H) and install grease fitting (A).

IMPORTANT: Too much grease may damage O-ring (B).

NOTE: Use John Deere SD Polyurea grease or other grease as specified in Fuel, Lubricants and Coolant section.

8. Grease inner ball joint until grease (C) is visible around ball joint.
9. Remove grease fitting, install original hex. socket head plug and tighten to torque.

Specification

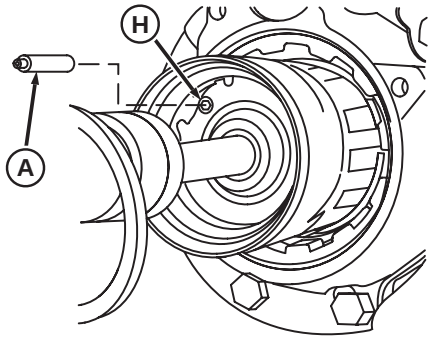
Hex. Socket Head Plug—Torque. . . . . 0.904 Nm (8 lb-in)

10. Install snap ring retainer.
11. Install outer snap ring.
12. Slide boot (G) back into steering rod (F).
13. Replace boot retaining snap ring (D).

IMPORTANT: If tie band is not pulled tight, dirt and other foreign material will damage components.

14. Attach tie band (E) to boot, then pull tight.

A—Grease fitting
B—O-ring
C—Grease
D—Boot Retaining Snap Ring
E—Tie Band
F—Steering Rod
G—Boot
H—Hole



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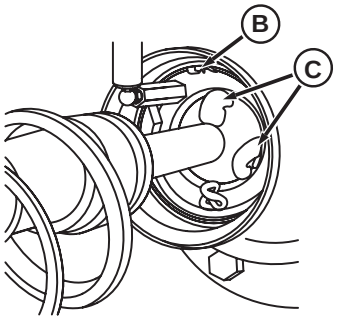
Grease Fitting



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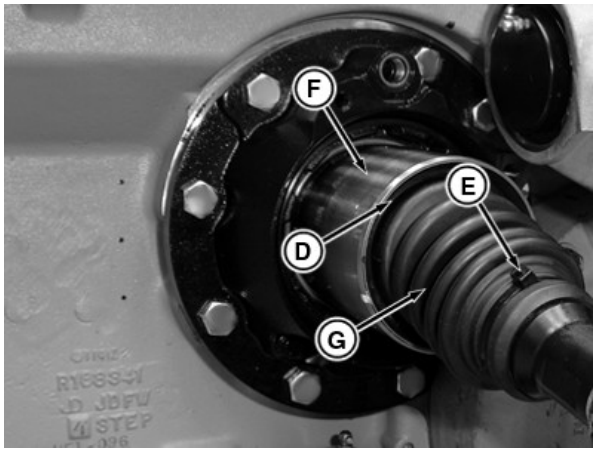
Install Grease Fitting



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Re-install Boot

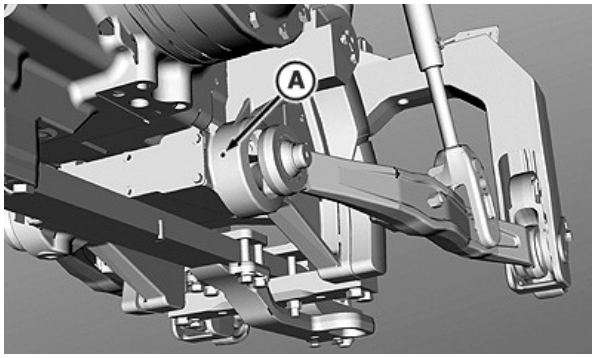
OURX935,0000473-19-30JUN11-2/2

Lubricating Draft Link Support Shaft Bushing

Use John Deere SD Polyurea grease or other grease as specified in Fuel, Lubricants and Coolant section.

Apply one or two shots of grease to support shaft bushing (A).

A—Support Shaft Bushing



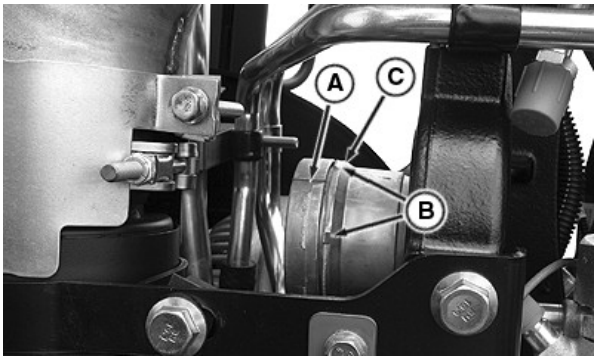
OURX935,0000474-19-30JUN11-1/1

Inspecting Auxiliary Drive Belt

Inspect auxiliary drive belt as outlined below.

1. Inspect auxiliary drive belt indicator.
2. If indicator (A) is within normal operating band (B), do NOT change auxiliary drive belt. If indicator (A) is within stretch indicator band (C), change auxiliary drive belt.
3. Release belt, then check to see that tensioner pulley turns smoothly without binding. See Replacing Auxiliary Drive Belt in this section.
4. If tensioner pulley appears damaged or worn, replace it.

A—Indicator
B—Normal Operating Band
C—Stretch Indicator Band



OURX935,0000003-19-21SEP10-1/1

Service Variable Fan Drive

See your John Deere dealer to perform service.

OURX935,0000476-19-30JUN11-1/1

2000 Hour Service

Perform Service And All Subordinate Services

When scheduled service at any hourly level is performed, also perform all subordinate hourly level services. See Section 95, Observe Service Intervals for table listing main and subordinate service tasks.

OURX935,00005A8-19-13SEP11-1/1

Check Engine Valve Clearance—Tier 2/Stage II Engines Only

To confirm which engine your tractor is equipped with, see Record Engine Serial Number in Identification Numbers section of this Operator's Manual.

See your John Deere ™ dealer for correct engine valve clearance.

OURX935,00000AA-19-13SEP11-1/1

Perform Service And All Subordinate Services

When scheduled service at any hourly level is performed, also perform all subordinate hourly level services. See Section 95, Observe Service Intervals for table listing main and subordinate service tasks.

OURX935,0001072-19-26APR10-1/1

Check Engine Valve Clearance—IT4/Stage IIIB Engines Only

To confirm which engine your tractor is equipped with, see Record Engine Serial Number in Identification Numbers section of this Operator's Manual.

See your John Deere ™ dealer for correct engine valve clearance.

OURX935,00005AB-19-13SEP11-1/1

Perform Service And All Subordinate Services

When scheduled service at any hourly level is performed, also perform all subordinate hourly level services. See Section 95, Observe Service Intervals for table listing main and subordinate service tasks.

OURX935,0001072-19-26APR10-1/1

Replace Engine Torsional Crankshaft Damper

See your John Deere dealer to replace engine torsional crankshaft damper.

OURX935,00004FF-19-29JUL11-1/1

Replace Transmission Torsional Damper

See your John Deere dealer to replace transmission torsional damper.

OURX935,0000500-19-29JUL11-1/1

Perform Service And All Subordinate Services

When scheduled service at any hourly level is performed, also perform all subordinate hourly level services. See Section 95, Observe Service Intervals for table listing main and subordinate service tasks.

OURX935,0001072-19-26APR10-1/1

Draining, Flushing and Refilling Cooling System

TS281—UN—15APR13

Safety—Explosive Release of Fluids

IMPORTANT: Thermostat, thermostat gasket, and deaeration tank cap should be replaced whenever system is flushed.

INITIAL *change interval is 6 years or 6000 hours, provided cooling system is topped off using only John Deere Cool-GARD II and premix and coolant is tested at recommended intervals.* After initial service, the ***SCHEDULED*** *interval (2 years or 2000 hours) can be extended up to 6 years or 6000 hours depending on coolant used and if coolant is tested at recommended intervals. Follow recommendations in "Drain Intervals for Diesel Engine Coolant" in Fuels, Lubricants and Coolant section of this manual.*

NOTE: When service is performed on cooling system, make sure to check coolant daily for the next three days of operation. The most effective way to check coolant level is when the tractor is cool. If coolant is low, fill deaeration tank to mark on tank.

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.

1. Park tractor, turn ignition key to off and allow radiator to cool.

NOTE: Throughout the draining, flushing and filling procedure, turn temperature knob to highest setting and leave set to the highest setting to ensure that fluids are drained from heating/air conditioning unit. If either temperature knob is not set to highest setting or ignition key is not turned to Run, system will not completely drain.

See your John Deere dealer for recommendations on cleaning solutions.

2. Turn key to Run (A), then turn temperature knob (B) to highest setting.

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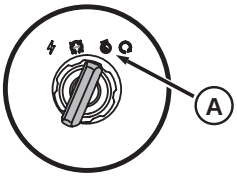

Turn Key To Run

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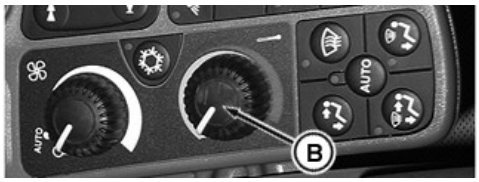

Turn Temperature Knob To Highest Setting—ClimaTrak

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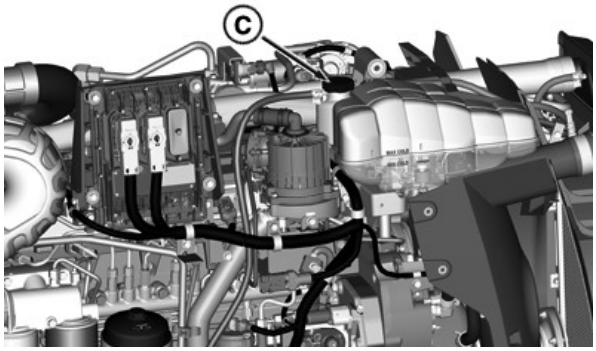
Turn Temperature Knob To Highest Setting—Standard HVAC



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Remove Deaeration Cap

A—Run
B—Temperature knob
C—Deaeration Cap

3. Open hood.
4. Remove deaeration tank cap (C).

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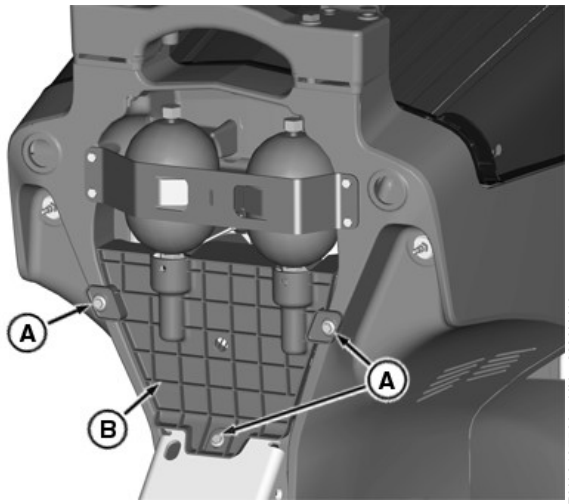
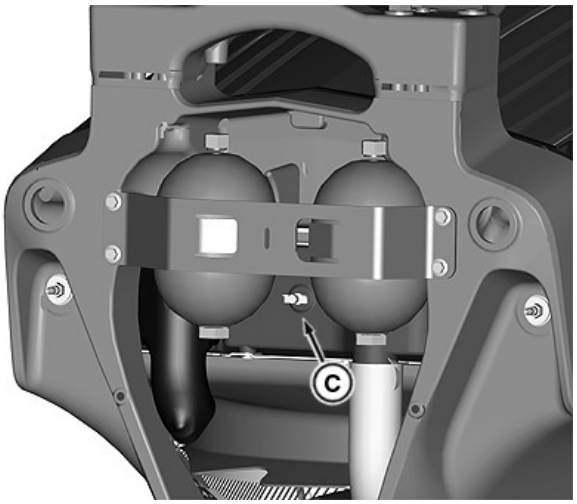


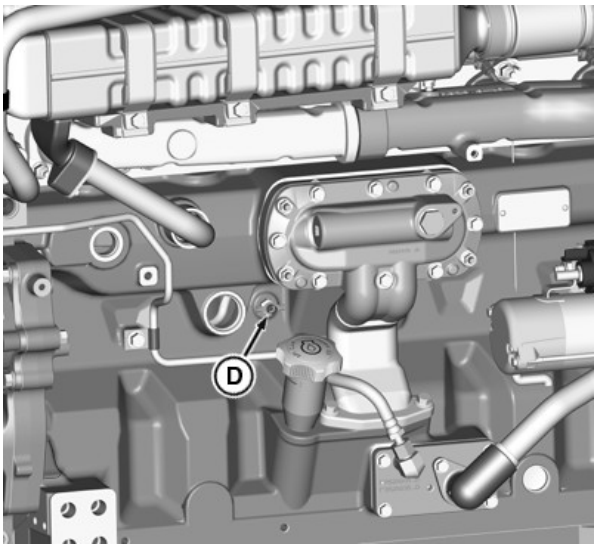
Remove Cap Screws and Deflector



Open Radiator Drain Valve And Drain

5. Remove three cap screws (A), then remove deflector (B) beneath radiator drain valve.
6. Place catch pan under radiator drain valve.
7. Open radiator drain valve (C) and drain coolant into catch pan.
8. Place catch pan under engine drain valve.
9. Open engine drain valve (D) and drain coolant into catch pan.

A—Cap Screws
B—Deflector
C—Radiator Drain Valve
D—Engine Drain Valve



Open Engine Drain Valve And Drain

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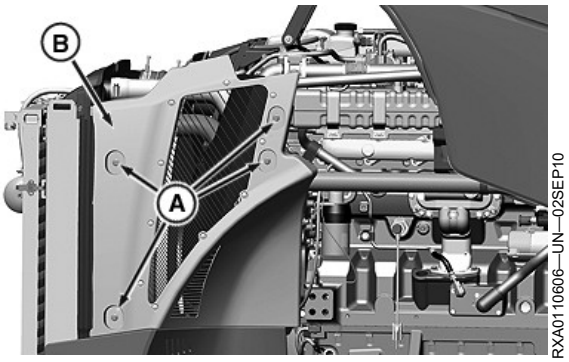
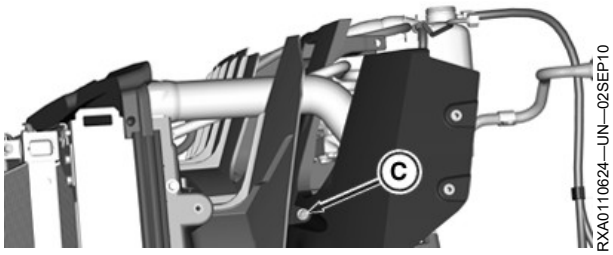


Remove Side Panels



Remove Cap Screws

10. Allow radiator and engine to drain.
11. Remove cap screws (A) and left front side panel (B).
12. Remove cap screws (C).
13. Remove diverter (D).

A—Cap Screws
B—Cap Screw
C—Cap Screws
D—Diverter

Remove Diverter

Continued on next page

OURX935,0000205-19-29JUL11-3/5

14. Loosen hose clamp (A) and slide hose (B) off of thermostat cover.
15. Remove three cap screws (C) and thermostat cover (D).
16. Remove old thermostat (E) and clean sealing area.

NOTE: During draining, filling, and flushing, coolant system will not have thermostat installed.

17. Install new gasket, cover and csp screws. Tighten cap screws to specifications.

Specification	
Thermostat Cover Cap Screws—Torque	48 N·m (35 lb-ft)

18. Replace previously removed radiator hose and clamp, diverter and side panel.
19. Close engine drain valve, and radiator drain valve.
20. 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.

21. Fill high pressure coolant system at deaeration tank with cooling system cleaning solution.
22. Install deaeration cap and close hood.

IMPORTANT: Make sure side panel is installed and hood is closed before starting engine.

23. Start engine and run at a minimum of 1500 rpm for 15 minutes.
24. Shut off engine and allow cleaning solution to cool.
25. Make sure temperature knob is turned to highest setting, then turn key to Run position.

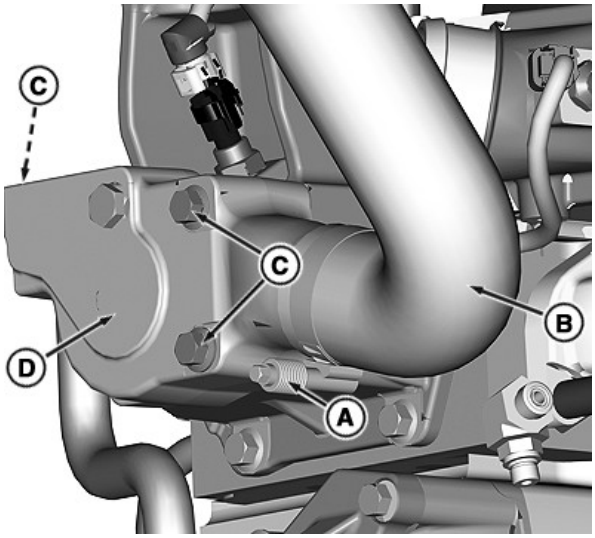
CAUTION: Explosive release of fluids from pressurized cooling system can cause serious burns.

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

26. Open hood, remove deaeration cap, put drain pans in place, then open radiator and engine drain valves.
27. Allow cooling system to completely drain.

TS281—UN—15APR13

Safety—Explosive Release of Fluids



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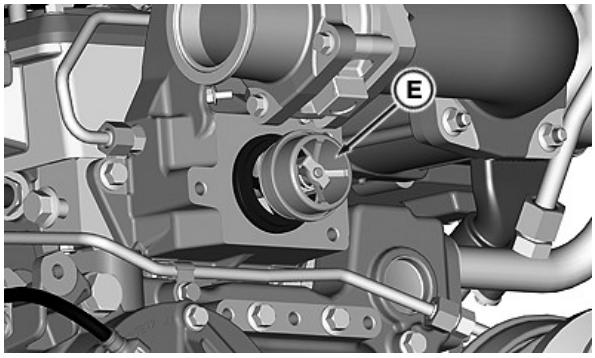
Loosen Hose Clamp And Slide Hose Off Thermostat Cover



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Remove Thermostat

A—Hose Clamp
B—Hose
C—Cap Screws
D—Thermostat Cover
E—Thermostat

Continued on next page

OURX935,0000205-19-29JUL11-4/5

28. Close engine drain valve, and radiator drain valve.

IMPORTANT: Never pour cold water or coolant into hot engine.

29. Dispose of cleaning solution in accordance with local laws and ordinances.
30. Fill high pressure coolant system at deaeration tank with clean water.
31. Install deaeration cap and close hood.
32. Start engine and run at a minimum of 1500 rpm for 15 minutes.
33. Shut off engine and allow water to cool.
34. Make sure temperature knob is turned to highest setting, then turn key to Run position.

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.

35. Open hood, remove deaeration cap, put drain pans in place, then open radiator and engine drain valves.
36. Allow radiator to drain, then remove left side panel and diverter.
37. Loosen hose clamp and slide hose back, remove three cap screws, thermostat cover, and gasket.
38. Inspect sealing area to ensure it is clean.
39. Apply light coat of RTV silicone sealant to new gasket.
40. Install **new thermostat, new gasket,** cover and cap screws. Tighten cap screws to specifications.

Specification	
Thermostat Cover Cap Screws—Torque	48 N·m (35 lb-ft)

TS281—UN—15APR13

41. Replace previously removed hose, clamps, diverter and left front side panel.
42. Close engine drain valve and radiator drain valve.
43. Dispose of drained water in accordance with local laws and ordinances.
44. Fill high pressure coolant system at deaeration tank with new coolant solution.

CAUTION: Make sure side panel is installed and hood is closed before starting engine.

45. Install deaeration cap, install front side panels, close hood, start engine and run at a minimum of 1500 rpm for 15 minutes.

NOTE: Coolant may seep out of the deaeration tank overflow vent as air is purged from the coolant system.

Coolant level may change when tractor is running or during the next few cycles.

It is highly recommended the cooling system is checked for leaks after draining, flushing and refilling to ensure tractor performance. Consult your John Deere dealer for procedure and appropriate tools.

46. Monitor coolant level for next several hours/overnight. Refill deaeration tank as required.

OURX935,0000205-19-29JUL11-5/5

Checking Deaeration Cap And Deaeration Tank

See your Joh Deere dealer for appropriate tools to check deaeration cap pressure and system pressure.

OURX935,0000206-19-29JUL11-1/1

Servicing and Connecting Snap to Connect STC® Fittings

CAUTION: Do not disconnect STC fitting when under pressure. Failure to relieve pressure before disconnecting fitting may result in personal injury, damage to equipment or both.

NOTE: Snap to Connect fittings are used on steel lines, hose connections and come in a variety of sizes. JDG1885 STC tool (A) is designed as a spacer to move release ring (B) inward which releases retaining ring (C). JDG1885 STC tool can be purchased through your John Deere dealer.

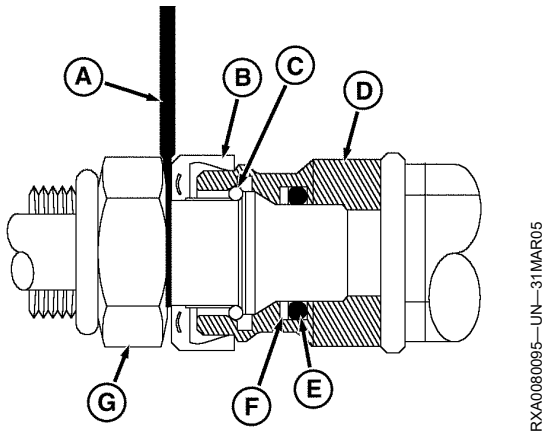
IMPORTANT: Do not use tool to pry fittings apart. Prying with tool may damage fitting and tool.

1. Insert correct STC tool between release ring and fitting.
2. Remove hose or line from connector.

NOTE: If retaining ring (C), backup ring (F) or O-ring (E) are damaged, see your John Deere dealer for replacement kit and replace all three parts.

Before connecting Snap to Connect Fitting:

1. Check mating surfaces for nicks, scratches or flat spots.
2. Check O-ring, backup ring and retaining ring for wear or damage.



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A—JDG1885 STC Tool
B—Release Ring
C—Retaining Ring
D—Female End (STC Fitting)
E—O-Ring
F—Backup Ring
G—Male End (STC Fitting)

3. Make sure female end (D) and male end (G) are clean and free of contaminates.
4. Make sure release ring (B) is on male end fitting.
5. Push fitting halves together until a definite snap and solid stop is felt.
6. Pull back on hose to make sure fitting halves are locked together.

STC is a registered trademark of Aeroquip Corporation

OURX935,0000C02-19-05DEC11-1/1

Welding Near Electronic Control Units

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.

TS953—UN—15MAY90

DX,WW,ECU02-19-14AUG09-1/1

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,ECU04-19-11JUN09-1/1

Diesel Particulate Filter Maintenance and Service

The Exhaust Filter includes the Diesel Oxidation Catalyst and Diesel Particulate Filter (DPF). The DPF is designed to retain residual ash, which is a noncombustible result of additives used in crankcase lubrication oils and the fuel. The DPF provides many hours of maintenance free operation. At some point the DPF will require professional service to remove the accumulated ash. The exact number of hours of operation before service is required will vary depending upon the 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 the engine owner, you are responsible for performing the required maintenance described in your Operator's Manual. During normal equipment operation the DPF maintenance requirements will depend on the rate at which ash accumulates in it. Generally, DPFs on engines below 175 hp / 130 kW will require servicing at about 3,000 hours while engines at or above 175 hp / 130 kW will require servicing at about 4,500 hours. As ash levels rise in the DPF the capacity for soot storage is reduced and the back pressure of the exhaust system will rise more frequently. The Exhaust Filter's dash lamp indicator or the diagnostic gauge will indicate when the DPF needs servicing.

The removal of DPF ash must be done by removing the DPF from the 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.

RXA0110756—UN—16SEP10

DPF Filter At Base Of Exhaust Pipe

Failure to follow the approved ash removal methods may violate U.S. federal, state and local hazardous waste laws, along with damage to the DPF resulting in potential denial of the Diesel Exhaust Filter emissions warranty. It is strongly recommended you take the DPF to an authorized John Deere service location or other qualified service provider for servicing.

OURX935,0000065-19-15OCT10-1/1

Exhaust Filter / Diesel Particulate Filter Ash Handling and Disposal

CAUTION: Under federal, state, and/or local laws or regulations, Diesel Particulate Filter 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.

OURX935,0000066-19-04SEP10-1/1

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.

OURX935,0000067-19-04SEP10-1/1

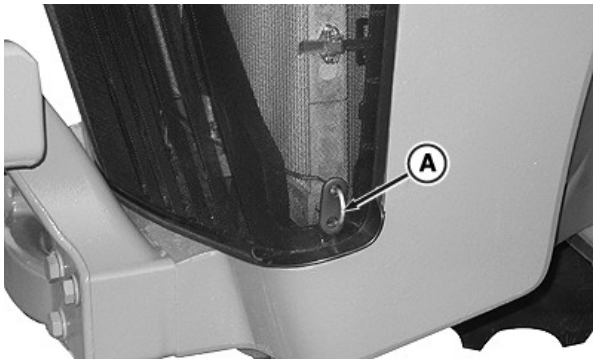
Cleaning Radiator, Coolers and Air Conditioning Condenser

1. Pull hood release (A) and raise hood.
2. Release two spring latches (B) per side.

NOTE: Using an air hose, clean radiator and cooler units by blowing out any foreign material from back to front.

3. Swing out fuel/hydraulic cooler (C) on the left side of the tractor or condenser, on right side of tractor.
4. To clean, blow air through fuel/hydraulic cooler and condenser from back to front.
5. When finished cleaning components, swing condenser and coolers back to original position and latch in place.

A—Hood Release
B—Spring Latches
C—Fuel/Hydraulic Cooler



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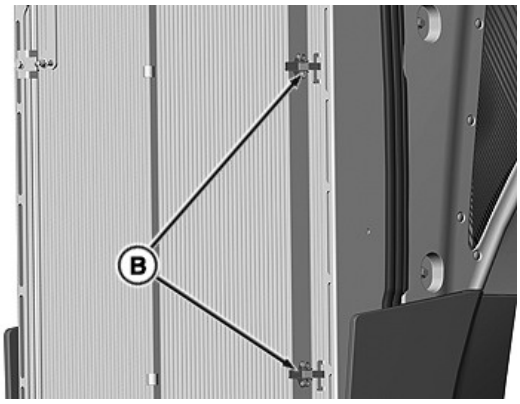

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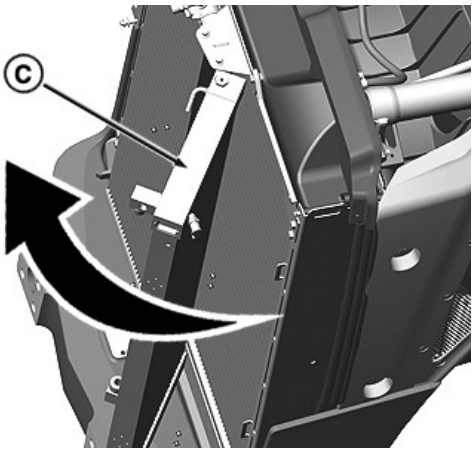


RXA0107196—UN—07APR10

OURX935,0001113-19-30AUG10-1/1

Remove and Install VARI-COOL Fan Belt

NOTE: Tier 2/Stage II engines have driven portion of fan drive mounted on the right-hand side of engine. Although procedure is the same regardless of engine type, the graphics in this OM will appear to be a mirror image to those performing fan drive replacement on Tier2/Stage II engine.

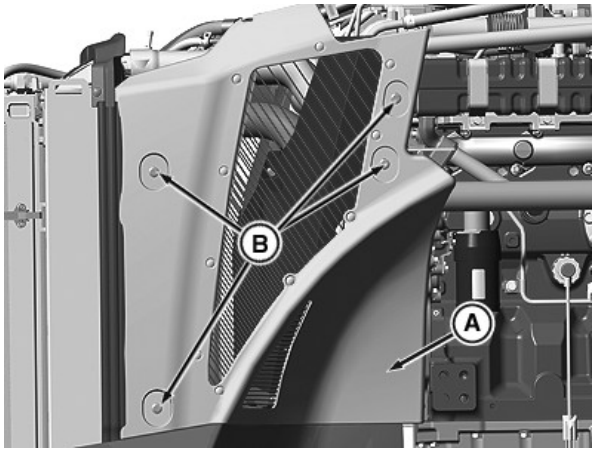
1. Raise hood.
2. For tractors equipped with Tier 2/Stage II engines, remove cap screws (B) and left-hand front side panel (A). Remove right-hand front side panel.

   For tractors equipped with IT4/Stage IIIB engines, remove cap screws and left-hand front side panel.
3. Remove cap screws (C) and diverter panel (D).

IMPORTANT: Removing bleed screw will drain oil. Loosen bleed screw only enough so the oil flows back into reservoir (a maximum of two full turns).

4. Loosen jam nut (E) and bleed screw (F).

A—Side Panel
B—Cap Screws 4 used
C—Cap Screws 3 used
D—Diverter Panel
E—Jam Nut
F—Bleed Screw



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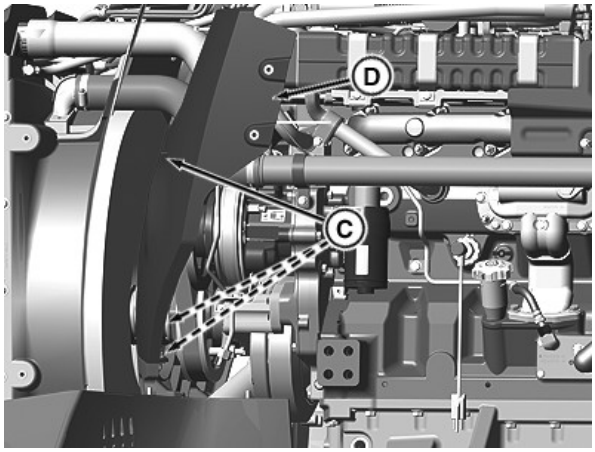

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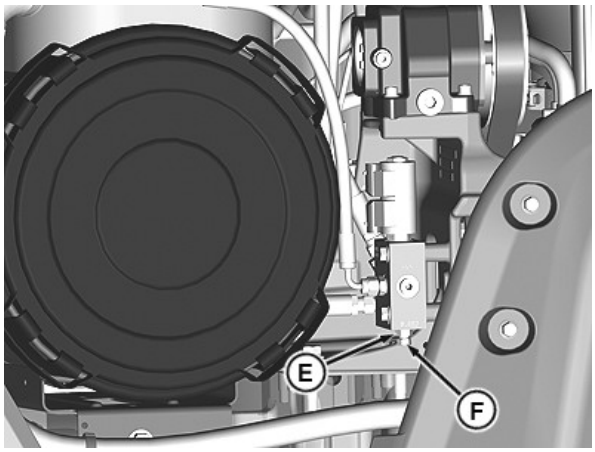

RXA0107865—UN—28MAY10

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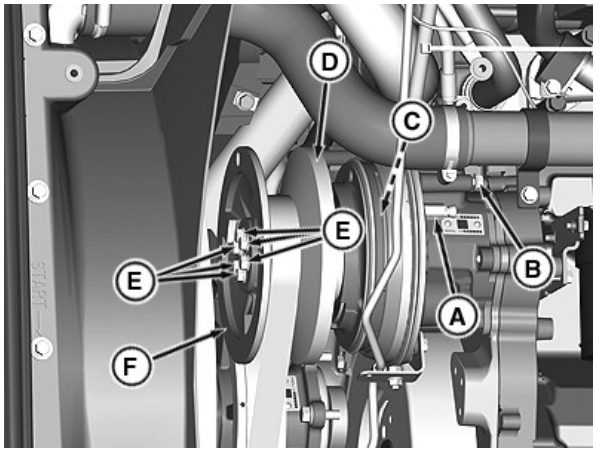
OURX935,00004B4-19-13JUL11-1/4

5. Remove vent adapter (A) from housing.
6. Remove cap screw (B) and install into vent adapter hole in piston plate (C).
7. Tighten cap screw (B) to pull inner sheave (D) inward.
8. Hold front pulley (F) and remove cap screws (E).
9. Pull front pulley evenly off shaft.

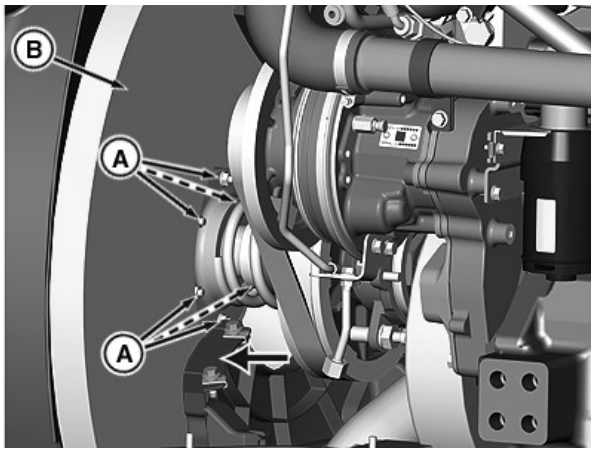
A—Vent Adapter
B—Cap Screw
C—Piston Plate
D—Inner Sheave
E—Cap Screws (6 used)
F—Front Pulley

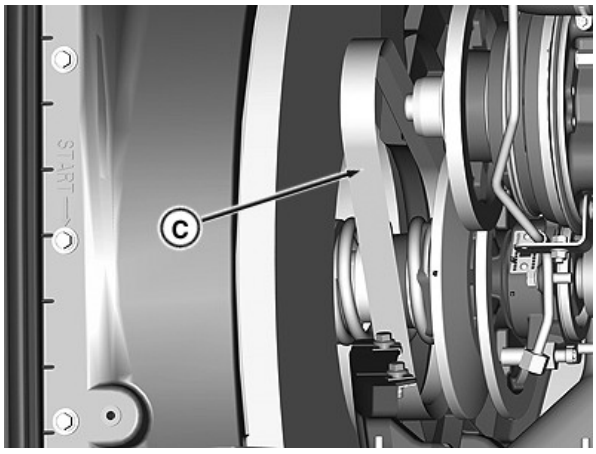


OURX935,00004B4-19-13JUL11-2/4

10. Remove six nuts (A) and carefully position fan (B) against radiator.
11. Remove belt (C) through opening between fan and hub.
12. Discard old belt.

A—Nuts (6 used)
B—Fan
C—Belt





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OURX935,00004B4-19-13JUL11-3/4

13. Install new fan belt between fan and hub so that it is positioned between lower pulley halves.
14. Slide fan into place, install nuts and torque to specification.

Fan-to-Drive Assembly — Specification

Nut—Torque. . . . . 25 N·m (221 lb-in.)

15. Pull belt (A) onto drive shaft (B) and against rear pulley.

IMPORTANT: When installing front pulley (C), make sure that belt remains loose and is not pinched between pulleys.

Clean mating surfaces of front pulley and shaft.

16. Install front pulley (C).
17. Hold front drive pulley and tighten cap screws (D) to specification.

Drive Pulley-to-Drive — Specification

Cap Screw—Torque. . . . . 37 N·m (27 lb-ft)

18. Remove cap screw and install vent adapter, then reinstall cap screw to original position.

Vent Adapter And Cap Screw — Specification

Vent Adapter—Torque. . . . . 24 N·m (212 lb-in.)

Cap Screw—Torque. . . . . 13 N·m (115 lb-in.)

NOTE: Bleed screw must be closed for proper tension to be applied to belt once tractor is started.

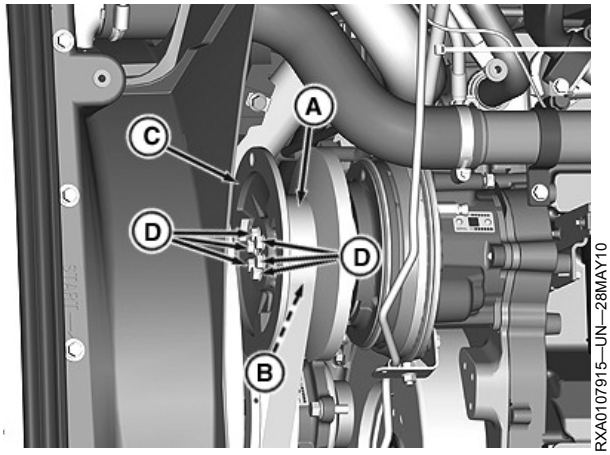
19. Close bleed screw and tighten to specification and tighten jam nut to make sure it is closed and belt is loose between pulleys.

Specification

Bleed Screw—Torque. . . . . 25 N·m (221 lb-in.)

Jam Nut—Torque. . . . . 25 N·m (221 lb-in.)

20. For Tier2/Stage II engines, install diverter panel, torque to specifications, then install right-hand side front shield.



RXA0107915—UN—28MAY10

A—Belt
B—Drive Shaft
C—Front Pulley
D—Cap Screw (6 used)

For IT4/Stage IIIB, install diverter panel, torque to specifications, then install both side front shields.

Diverter Panel Cap Screws — Specification

Cap Screw—Torque. . . . . 20 N·m (177 lb.-in.)

NOTE: Starting engine with belt loose between pulleys allows belt to climb out of groove between pulleys. 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 pulleys.

CAUTION: Keep hands away from exposed fan blades. Blades have sharp edges which may result in personal injury.

23. Install right-hand side front shield.

OURX935,00004B4-19-13JUL11-4/4

Checking Air Conditioning System

CAUTION: Avoid possible injury. Improper servicing may cause refrigerant to penetrate eyes and skin or cause burns.

IMPORTANT: R134a refrigerant must be used. This requires special equipment and procedures. See your John Deere dealer.

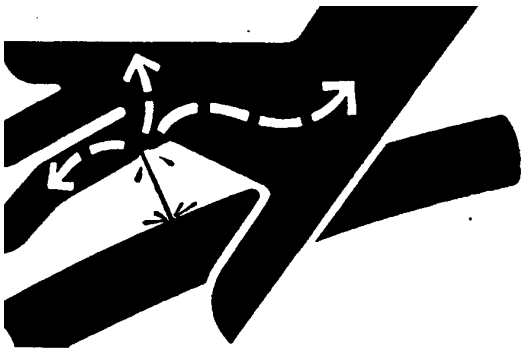
NOTE: Some oil seepage from compressor shaft seal is normal.

Check the following if air conditioner will not cool, or cooling is intermittent:

- Clean grille, radiator, and refer to Cleaning Radiator, Coolers and Air Conditioning Condenser in this section.
- Inspect and clean cab air filters. Replace filters if required. Refer to Cleaning or Replacing Cab Air Filters in this section.
- For ClimaTrak turn temperature control button (A), operate engine at 2000 rpm and rotate fan control knob (B) clockwise to maximum HIGH position.
- For HVAC turn temperature control button (E), operate engine at 2000 rpm and rotate fan control knob (F) clockwise to maximum HIGH position.
- For ClimaTrak, temperature indicator arrow (C) will be all the way to the left.
- For ClimaTrak, fan indicator arrow (D) will be all the way to the right.

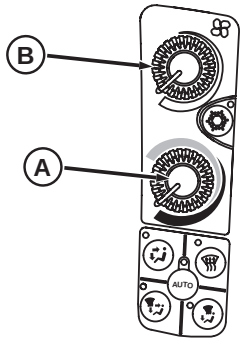
If problems persist, see your John Deere dealer.

A—Fan Control Knob (ClimaTrak)
B—Temperature Control Knob (ClimaTrak)
C—Temperature Indicator Arrow
D—Fan Indicator Arrow
E—Temperature Control Knob (Standard)
F—Fan Control Knob (Standard)



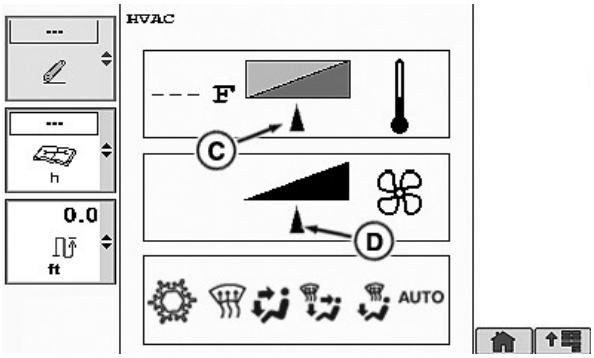
X9811—UN—23AUG88

Caution for Escaping Fluid



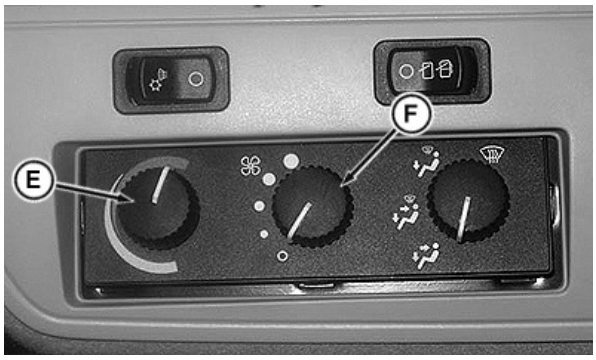
RXA0099460—UN—16OCT08

CommandARM Controls (ClimaTrak)



RXA0117855—UN—10JUN11

HVAC Page



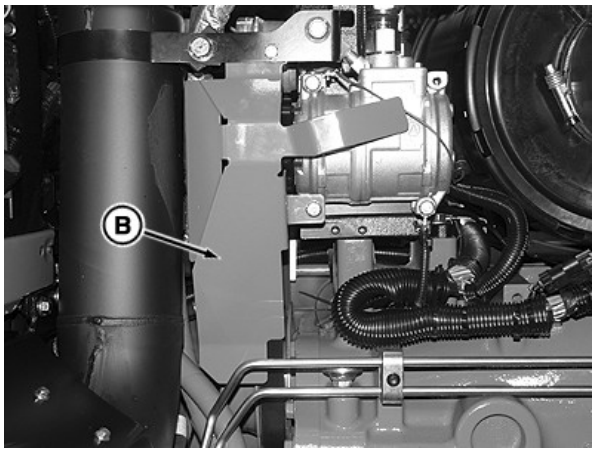
RXA0099873—UN—29JAN09

OURX935,0000414-19-29JUL11-1/1

Replacing Auxiliary Drive Belt

RXA0078781—UN—01FEB05

Auxiliary Drive Left-Hand Shield



RXA0081517—UN—13JUN05

Auxiliary Drive Right-Hand Shield

A—Left-Hand Shield **B—Right-Hand Shield**

1. Open hood. Remove left-hand shield (A) and right-hand shield (B).

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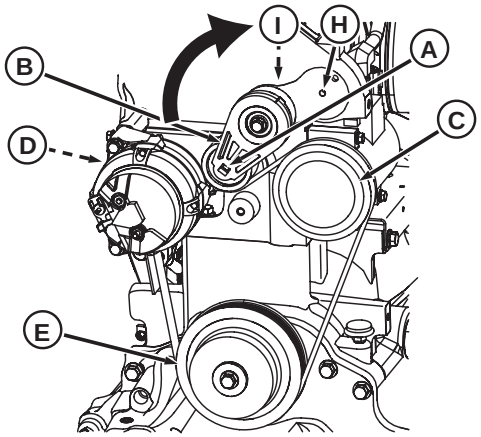
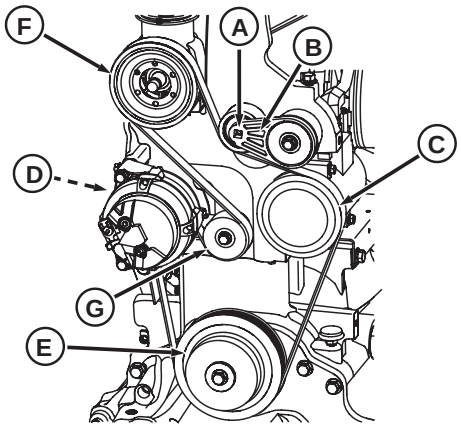
OURX935,0000C05-19-19OCT09-1/2



RXA0085936—UN—18JAN06

Auxiliary Drive Belt Installed on Tractor Without Air Brake



RXA0085937—UN—18JAN06

Auxiliary Drive Belt Installed on Tractor With Air Brake

A—Square Hole
B—Tensioner Arm
C—Air Conditioner Pulley
D—Alternator Pulley
E—Auxiliary Drive Pulley
F—Air Brake Pulley
G—Idler
H—Tension Arm Mounting Hole
I—Tension Arm Mounting Hole

IMPORTANT: Keep tension off belt during removal.

2. Insert 1/2 in. drive tool into square hole (A) in tensioner arm (B).
3. Push up on tool handle to relieve tension on drive belt.
4. Remove belt from air conditioner pulley (C).

NOTE: Tractors with air brake have tension arm installed in tension arm hole (H). Tractors without air brake have tension arm installed in tension arm hole (I).

5. For tractors with air brake only, remove belt from air brake pulley (F) and idler (G).
6. Remove belt from alternator pulley (D).

NOTE: Clearance between transmission auxiliary drive pulley and tractor frame is minimal.

7. Remove belt from auxiliary drive pulley (E).
8. Discard old belt.

NOTE: There is minimal clearance between transmission auxiliary drive pulley and tractor frame. Do not damage new belt when installing.

9. Install new belt to auxiliary drive pulley, then on the alternator pulley.
10. For tractors with air brake, install belt on air brake pulley and idler.
11. Install belt on air conditioner pulley.
12. Remove 1/2 in drive tool restoring tension on new belt.
13. Install shield and close hood.

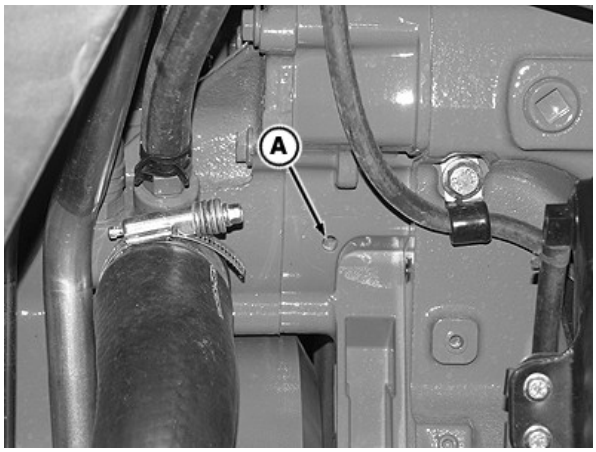
OURX935,0000C05-19-19OCT09-2/2

Checking Weep Hole

1. Remove left-hand side panel.
2. Inspect weep hole (A) 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 to replace complete coolant pump assembly (repair parts are not available).

A—Weep Hole

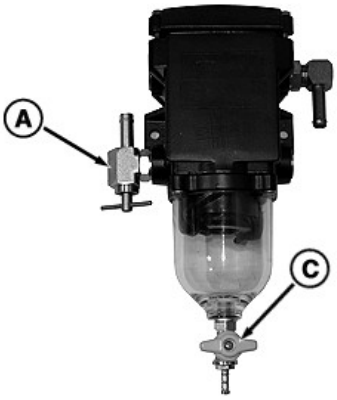


RXA0082662—UN—28JUL05

Coolant Pump Weep Hole

OURX935,0000C07-19-19OCT09-1/1

Back Flushing the Optional Fuel Water Separator—If Equipped



RXA0084314—UN—26SEP05

RXA0084316—UN—26SEP05

A—Fuel Shut-Off Valve **B—Bleed Screw** **C—Drain Valve**

NOTE: Optional fuel water separator should be back flushed whenever bowl is half full of water or when diagnostic trouble code ECU 94.17 appears. If trouble code is still displayed, wash filter element, see CLEANING FILTER ELEMENT. If code persists, change both fuel filters.

1. Close fuel shut-off valve (A).
2. Open bleed screw (B) on top of water separator lid. Allow water and dirt to be released from filter element and settle in bottom of bowl.
3. Push IN on drain valve (C) and turn COUNTERCLOCKWISE to drain out water and dirt from bowl.

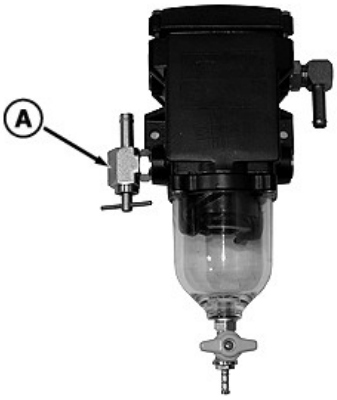
NOTE: As fuel, water, and dirt is drained from bowl in step 3, more water and dirt will be flushed from filter element and collect in bottom of bowl.

4. Close drain valve (C) and allow water and dirt to settle again.
5. Repeat steps 3 and 4 until all dirt and water is removed.
6. Close bleed screw (B) and open fuel shut-off valve (A).
7. Start and run engine at fast idle for 2 minutes. If engine won't start or dies, see REPLACING FUEL FILTER ELEMENTS in tractor Operator's Manual and follow instructions for priming the engine.

NOTE: Filter element in water separator can be back flushed up to five times before being cleaned replaced.

OURX935,0000C08-19-19OCT09-1/1

Maintaining Optional Fuel Water Separator Filter Element—If Equipped



RXA0084318—UN—26SEP05

RXA0084320—UN—26SEP05

A—Fuel Shut-Off Valve

NOTE: After filter element has been back flushed up to five time, clean filter. Replace filter when light is no longer visible while holding filter up to the light.

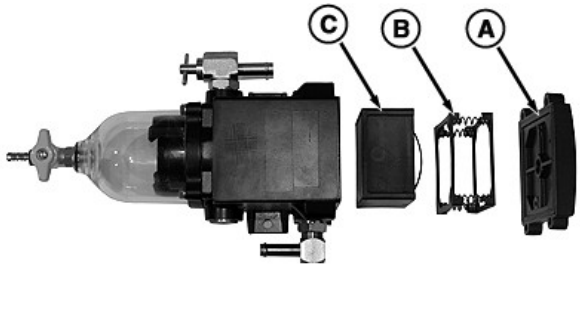
1. Close fuel shut-off valve (A).
2. Loosen lid screws evenly in sequence shown.

Continued on next page

OURX935,0000C09-19-19OCT09-1/2

3. Remove lid (A), spring cassette (B), and filter element (C). Save lid and spring cassette.
4. Install new filter element and spring cassette (B) from step 3.
5. Inspect lid gasket (D) condition and replace if necessary.
6. Install lid (A) and tighten in sequence shown.
7. Open fuel shut-off valve.
8. Start and run engine at fast idle for 2 minutes. If engine won't start or dies, see REPLACING FUEL FILTER ELEMENTS in tractor Operator's Manual and follow instructions for priming engine.

A—Lid
B—Spring Cassette
C—Filter Element
D—Lid Gasket



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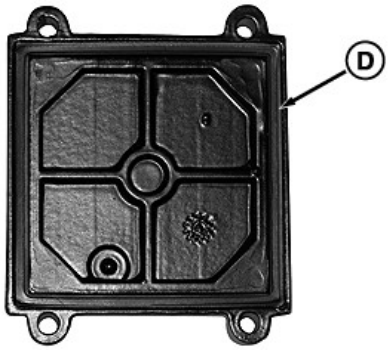


RXA0084324—UN—26SEP05

RXA0084320—UN—26SEP05

OURX935,0000C09-19-19OCT09-2/2

Introduction to Electrical System Section

In addition to the fuses and relays mounted in the fuse panel (behind the operators seat), these tractors are also equipped with solid state load centers located in two of the electronic controllers.

These solid-state load centers replace fused relay circuits previously used. The primary function is to control the majority of high current loads such as fender flood lights and the horn. This electronic circuitry will monitor loads and voltages to provide fast reaction time and the ability to alert the operator if a circuit overloads or if voltage is out of specifications, i.e. open circuit (undercurrent) or short circuit (over-current).

If circuit is faulty and a diagnostic trouble code is generated, the circuit will stay in the OFF state and diagnostic trouble code will remain active until the circuit is shut off by the operator. If the circuit or one of its components is turned back ON and the problem is not present, the system will function normally.

As an example, if a light circuit is determined to have an over-current condition, it will shut off. If the operator turns the light switch off and then back on to clear the fault, and the current sense reading is zero amps with the light off, the logic circuit will turn back on.

If the total current load of the solid state load center exceeds a preset level, the software will begin to shut down the system, turning off one circuit at a time. The logic circuit will wait a few seconds between circuit shutdowns to determine if the 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 any additional electrical devices need to be added to the tractor, we 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 the circuit to overload and shut the circuit down.

If extra implement lights and controls, such as switches are needed, contact your John Deere dealer. He can provide information on methods to tie in the light switch with one of the accessory wires located in the 7 pin terminal on the back of the tractor.

OURX935,0000BF2-19-13OCT09-1/1

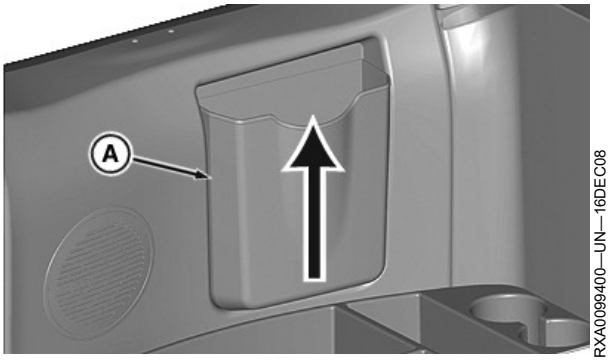
Load Center Fuses

NOTE: Fold seat backrest down to allow easier access, and allow cab lighting to shine on load center when fuses are being inspected or replaced.

OURX935,0000F91-19-15APR14-1/5

Load center is found directly behind the operator's seat and just below the cab rear window. To access load center, lift up on Operator's Manual holder (A).

A—Operator's Manual Holder



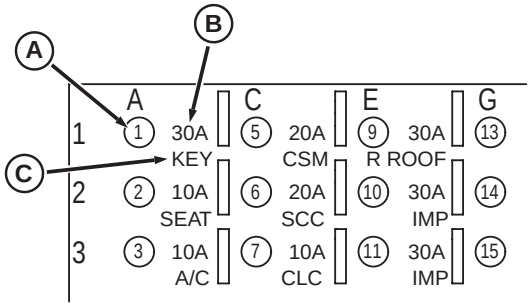
Operator's Manual Holder

Continued on next page

OURX935,0000F91-19-15APR14-2/5

The illustration to the right explains how to read the load center diagram.

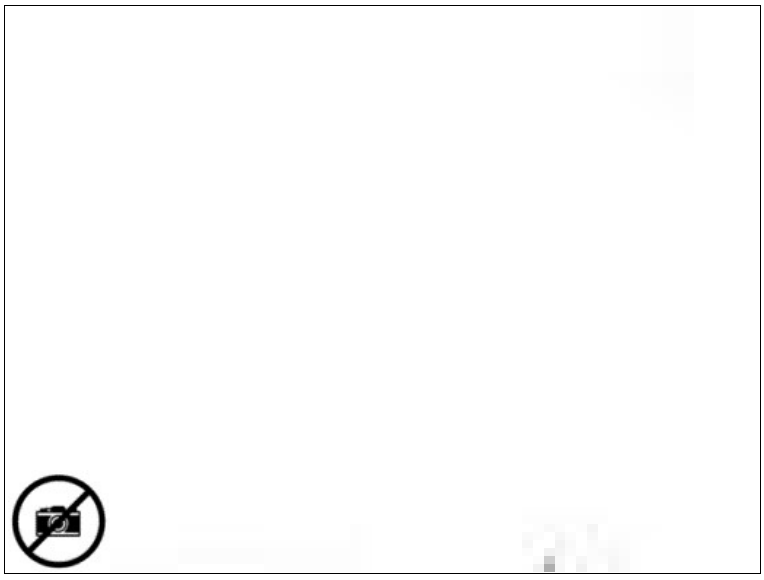
A—Fuse Location Number
B—Fuse Size
C—Fuse Use/Description



RXA0099397—UN—24NOV08

Load Center — Legend

OURX935,0000F91-19-15APR14-3/5



RXA0140500—UN—

1—Key Switch
2—Seat
3—Air Conditioner
4—Beacon
5—CSM
6—SCC
7—CLC
8—Fenders
9—Roof
10—Implement Flood
11—Implement Power
12—Brake
13—SBW
14—Loader
15—Convenience
16—FCC
17—Modular Wireless Gateway
18—Light
19—Seat
20—Alt.
21—Spare
22—Suspension
23—Convenience
24—Video (If Equipped)
25—Spare
26—SST (Track Tractors Only)
27—Convenience
28—Spare
29—Spare
30—Implement Power
31—Mirror
32—Come Home Mode— IVT Only

IMPORTANT: Fuse replacement must be the same rating as the original.

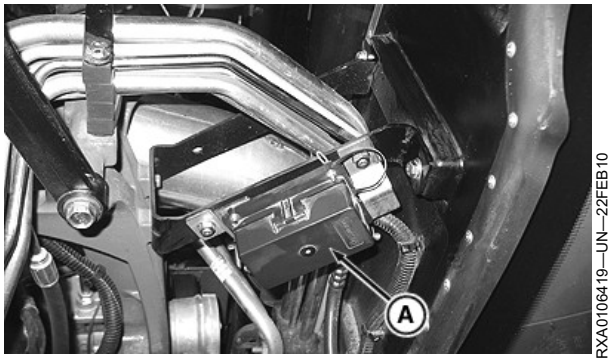
Ensure both negative (—) and positive (+) battery connections are disconnected from both batteries prior to fuse inspection or replacement.

Continued on next page

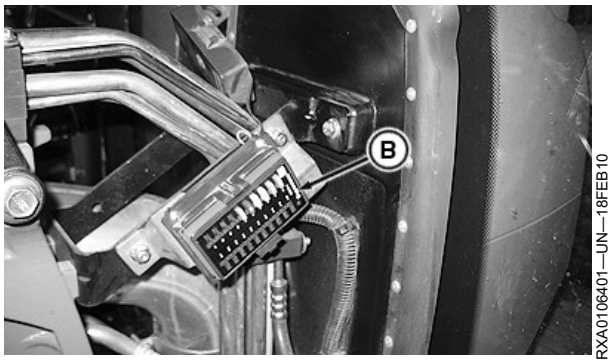
OURX935,0000F91-19-15APR14-4/5

Open hood to locate front load center located in front of cowl. Remove cover (A).

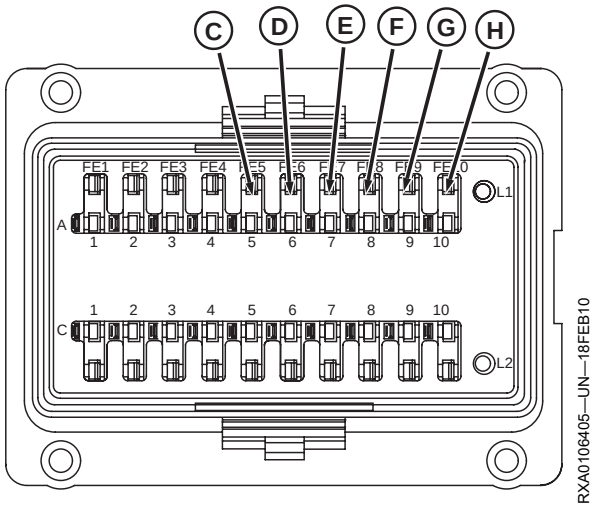
A—Cover
B—Front Load center Panel
C—Steering Control Unit (15 Amp)
D—Key Switch (10 Amp)
E—Engine Control Unit (20 Amp)
F—Engine Control Unit (20 Amp)
G—Dosing Pump (15 Amp) (Interim Tier 4 and Stage IIIB Engine Tractors Only)
H—Fuel Transfer Pump (15 Amp) (Interim Tier 4 and Stage IIIB Engine Tractors Only)



Remove Cover



Fuses



Fuses

OURX935,0000F91-19-15APR14-5/5

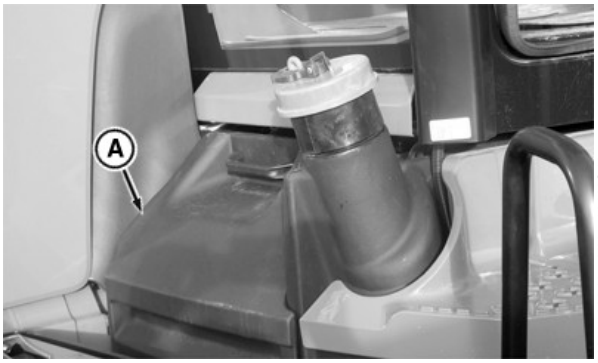
Power Module

IMPORTANT:

Do not attempt to disassemble fuses unless instructed by your John Deere dealer.

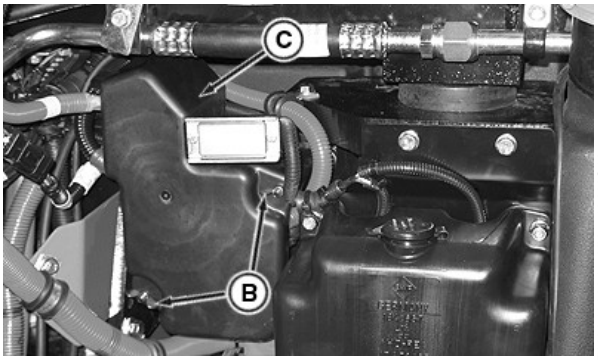
The Power Module can be accessed through the battery compartment cover (A). Remove wing nuts (B) and Power Module cover (C) to locate fuses.

A—Battery Compartment Cover
B—Wing Nuts
C—Power Module Cover
D—Hydraulic Backup Pump—175 Amp Fuse
E—Alternator/Battery Relay—250 Amp Fuse
F—Master Fuse—250 Amp Fuse



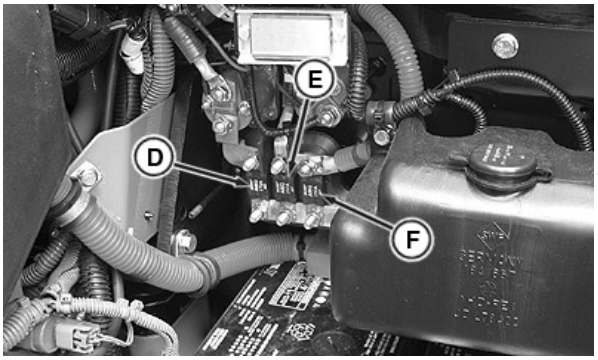
RXA0109842—UN—18AUG10

Remove Battery Compartment Cover



RXA0109384—UN—16AUG10

Remove Power Module Cover



RXA0109334—UN—16AUG10

Power Module located in Battery Compartment

OURX935,0000501-19-29JUL11-1/1

Implement Power Relay Module

Remove four cap screws (A) and cab rear cover. Implement Power Relay Module is located in upper left corner, routes power to implement Bus Breakaway Connector.

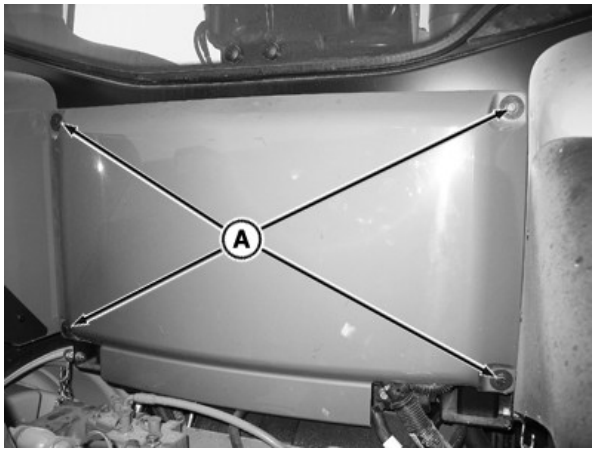
Top left module stud is switched power lug (B) protected by a 60 Amp fuse (F). Top right module stud is unswitched power lug (C) protected by a 30 Amp fuse (G).

Bottom center is the battery power input stud (H).

To Change Fuses

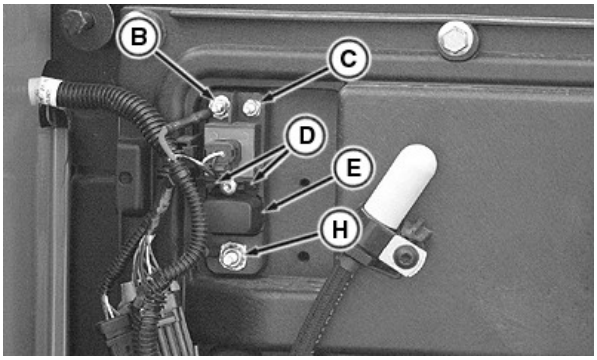
1. Press down on fuse cover tabs (D) and remove fuse cover (E).
2. To remove, pull fuse straight back.
3. Replace with new fuse.
4. Replace cover and slide tabs over cover edge to hold in place.

A—Cap Screws
B—Switched Power Lug
C—Unswitched Power Lug
D—Fuse Cover Tabs
E—Fuse Cover
F—60 Amp Fuse
G—30 Amp Fuse
H—Battery Input Stud



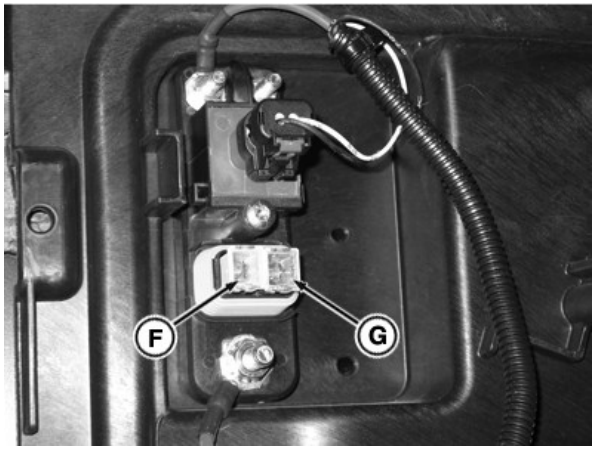
RXA01110047—UN—26AUG10

Remove Rear Cover



RXA01109345—UN—16AUG10

Implement Power Relay Module



RXA01100356—UN—03FEB09

Remove Cover To Access Implement Power Relay Module

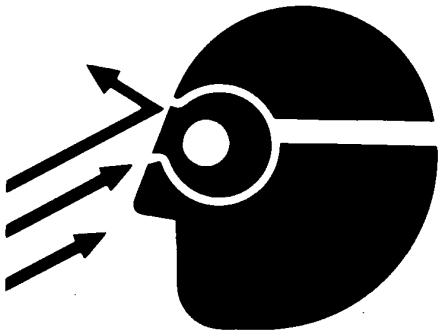
OURX935,0000BF4-19-31AUG10-1/1

Handling Halogen Light Bulbs Safely

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.**

A—Halogen Bulb



TS266—UN—23AUG88

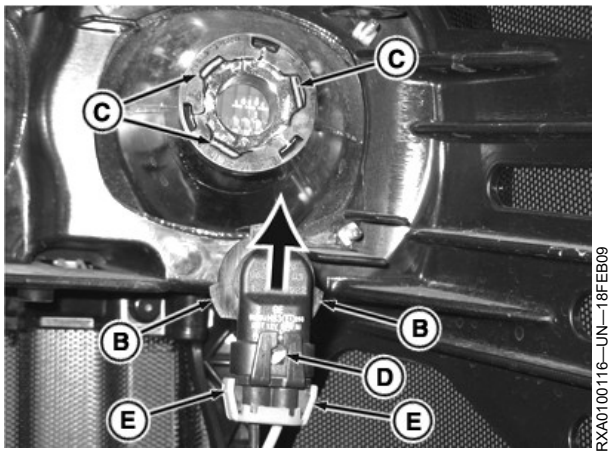
H39474—UN—30JUN00

OURX935,0000BF5-19-13OCT09-1/1

Replacing Front Grille Flood Light Bulb—Standard Lighting

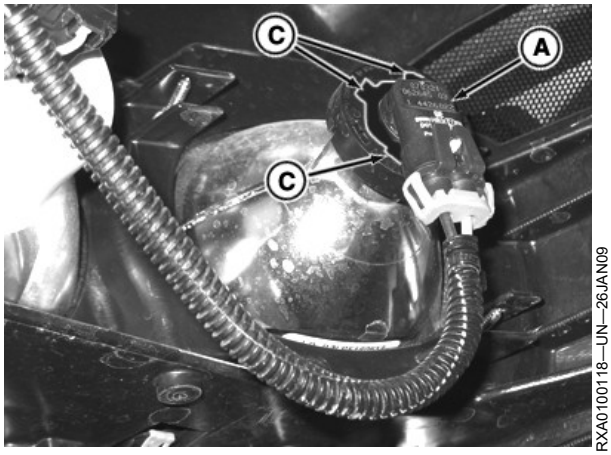
1. Raise hood.
2. Rotate light Bulb (A) counterclockwise so that bulb flanges (B) align with light assembly notches (C), then pull bulb rearward from light assembly.
3. Pull keepers (E) out to the sides, make sure pin (D) is aligned with slot, and remove light bulb from harness.
4. Install new bulb in harness. Make sure pin is aligned and that keepers seat on bulb.
5. Align bulb flanges with light assembly notches and rotate bulb 1/4 turn so that wiring harness is pointed down.
6. Close hood and check to make sure new bulb works.

A—Bulb
B—Bulb Flanges
C—Light Assembly Notches
D—Pin
E—Keepers



RXA0100116—UN—18FEB09

Right-Hand Side Shown



RXA0100118—UN—26JAN09

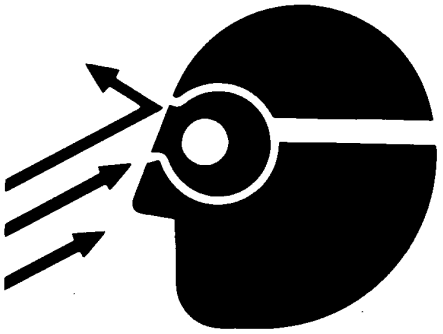
Right-Hand Side Shown

OURX935,0000BF6-19-13OCT09-1/1

Handling HID Light Bulbs Safely

CAUTION: Handling a bulb improperly could cause it to shatter into flying fragments. To avoid possible injury:

- **High voltage is conducted by electrical connection between worklights and ballast unit; this connection must never be disconnected without first disconnecting vehicle wiring harness to ballast.**
- **Handle bulb by its base. Keep bulb oil free; wear gloves to avoid touching glass. Use a clean cloth and alcohol to remove any fingerprints from the glass bulb before installing. Skin oil deposited on bulb will cause overheating and premature failure.**
- **Do not operate bulb outside of enclosure. When operating, HID bulbs have high internal pressure and if they are cracked or broken, they could explode and cause injury.**
- **Turn light switch off and allow bulbs to cool before changing. Leave switch off until bulb change is done.**



TS266—UN—23AUG88

- **Wear eye protection.**
- **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.**

OURX935,0000BF7-19-13OCT09-1/1

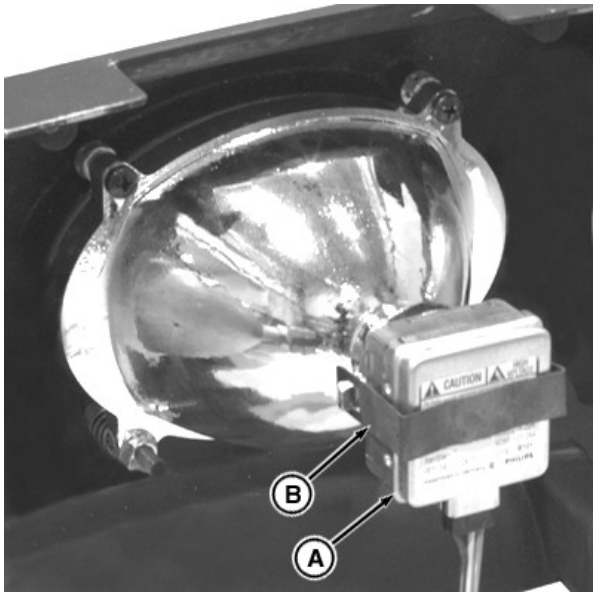
HID Bulbs

Front HID Bulb Replacement:

CAUTION: Wear gloves and safety glasses when handling bulbs. Dangerous voltage spark-over may occur and cause damage/injury at the connector. See manufacturer warning packaged with replacement bulb.

1. Disconnect wiring harness from HID assembly.
2. Press in on HID assembly (A) and remove retainer (B) using a screwdriver.

A—HID Assembly
B—Retainer



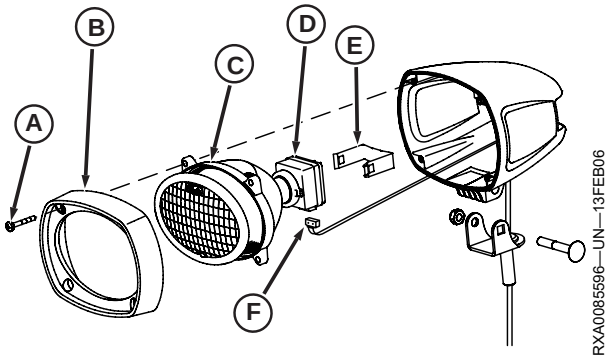
Front HID Bulb Replacement

OURX935,0000BF8-19-13OCT09-1/2

Rear Fender HID Bulb Replacement:

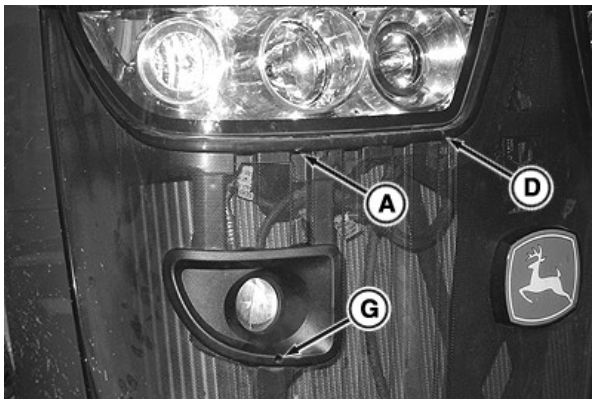
1. Remove cap screws (A) and bezel (B).
2. Carefully pull reflector (C) with lamp (D) out of cover far enough to unplug wiring harness (F).
3. Press in on HID light assembly and remove retainer (E) with a screw driver. Remove lamp from reflector.
4. Install new lamp in reflector and install retainer.
5. Connect wiring harness plug to new HID light assembly. Install HID light assembly in cover and install bezel and cap screws.

A—Cap Screw
B—Bezel
C—Reflector
D—Lamp
E—Retainer
F—Wiring Harness

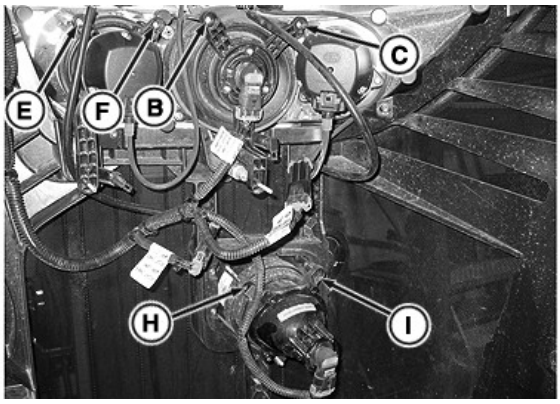


OURX935,0000BF8-19-13OCT09-2/2

Adjusting Front Grille Lights



RXA0106698—UN—26FEB10



RXA0106696—UN—26FEB10

A—High Beam Lowering Adjustment Screw
B—High Beam Tilt Up And Out Adjustment Screw
C—High Beam Tilt Up And In Adjustment Screw
D—Inner Hood Light Lowering Adjustment Screw
E—Inner Hood Light Tilt Up And Out Adjustment Screw
F—Inner Hood Light Tilt Up And In Adjustment Screw
G—Low Beam Lowering Adjustment Screw
H—Low Beam Tilt Up And Out Adjustment Screw
I—Low Beam Tilt Up And In Adjustment Screw

To adjust front grill lights, use the following steps as needed.

For High Beam Headlights:

1. To lower the high beam aim, turn high beam adjustment screw (A) clockwise.

   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 center spot adjustment screw (D) clockwise.

   To raise and tilt out inner hood light beam, turn center spot beam adjustment screw (E) clockwise.

   To raise and tilt in inner hood light beam, turn center spot beam adjustment screw (F) clockwise.

For Low Beam Headlights:

3. To lower the low beam aim, turn low beam adjustment screw (G) clockwise.

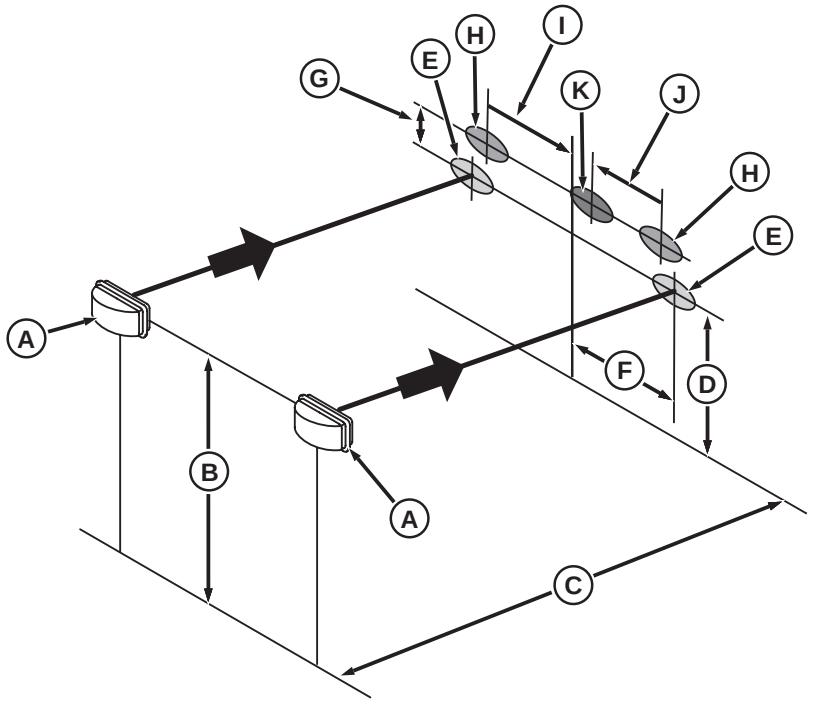
   To raise and tilt out low beam headlights, turn low beam adjustment screw (H) clockwise.

   To raise and tilt in low beam headlights, turn low beam adjustment screw (I) clockwise.

4. Repeat for opposite side of tractor.

OURX935,0000BF9-19-26FEB10-1/1

Aiming Headlights



RXA0107269—UN—03JUN10

A—Low Beam Road Lights
B—Distance, Road Light Low Beam Center To Ground
C—Distance, 7.5 meters (25 ft)
D—Horizontal Line on Wall
E—Road Light Low Beam Center
F—Distance, 914 mm (36 in.)
G—Distance, 355 mm (14 in.) (Road Light Low Beam Center To High Beam Center)
H—Road Light High Beam Center
I—Distance, 787 mm (31 in.) (Road Light High Beam Center To Tractor Center Line)
J—Distance, 635 mm (25 in.) (Road Light High Beam Center To Inner Hood Light Beam Center)
K—Inner Hood Light Beam Center

1. Park tractor on a level surface with low beam road lights (A) 7.5 meters (25 ft) (C) from a straight wall. Turn on low beam road lights.
2. Measure distance (B) from center of road light low beams to ground.
3. Mark a horizontal line on wall (D) at same height as center of road light low beams.
4. On wall, mark each road light low beam center (E).
5. On wall, determine and mark vertical center line between center of road light low beams (F).
6. Distance (F) between centers of road light low beams and center line should be 914 mm (36 in.).
7. Turn on road light high beam.
8. Adjust road light high beams so edge of bright area (H) is **at least** one tenth of distance (B) **above** road light low beam centers (E).
9. On wall, mark each road light high beam center (H), then mark a horizontal center line between center of road light high beams.
10. Distance (I) between center of road light high beams and center line should be 787 mm (31 in.).
11. Make sure inner hood lights are configured as ON, then turn on field lights. Inner hood light beam center (K) should be on horizontal line between center of road light high beams.
12. Distance (J) between inner hood light beam center (K) and light center line should be 635 mm (25 in.).

OURX935,0000BFA-19-14SEP12-1/1

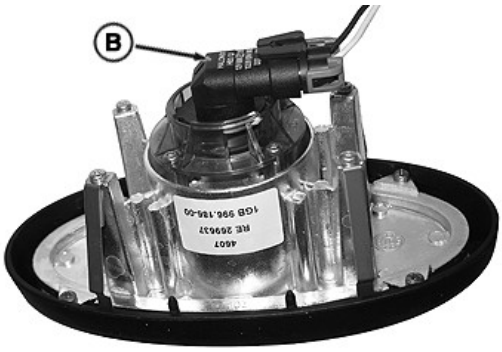
Replacing Front, Side And Rear Cab Roof Light Bulbs

1. Push down light fixture tab (A).
2. Turn bulb (B) 1/4 turn to remove bulb from fixture.
3. Insert bulb into fixture, then turn bulb 1/4 turn to lock in place.
4. Insert fixture into cab roof until it seats and tab is snapped into place.

A—Light Fixture Tab **B—Bulb**

RXA0099133—UN—19SEP08

Push Down On Tab To Remove Fixture



RXA0099135—UN—19SEP08

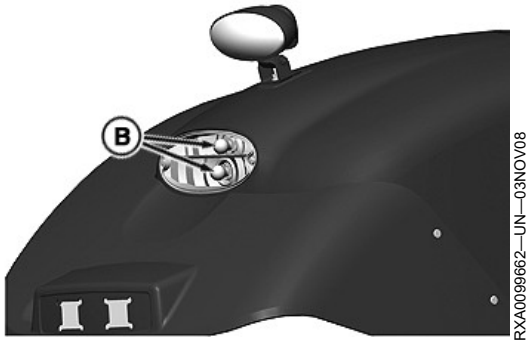
Remove Bulb

OURX935,0000BFB-19-13OCT09-1/1

Replacing Brake or Turn Signal Light Bulb

RXA0099661—UN—30OCT08

Remove Lens



RXA0099662—UN—03NOV08

Remove Light Bulb

A—Screws **B—Light Bulb**

1. Remove screws (A) and lens.
2. Turn bulb (B) counterclockwise 1/4 turn and pull out to remove.
3. Install new bulb in fixture and turn 1/4 turn clockwise.
4. Re-install lens and screws.

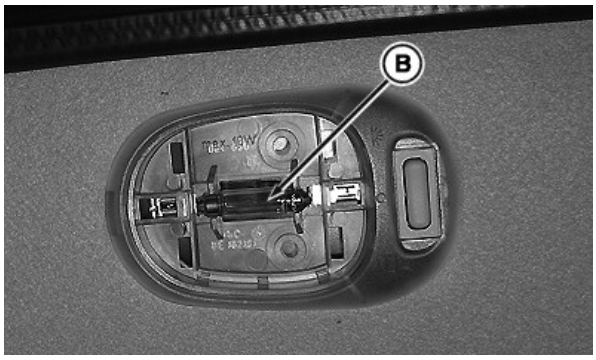
OURX935,0000BFC-19-13OCT09-1/1

Replacing Dome Light Bulb

1. Remove lens cover (A).
2. To remove light bulb (B), grasp bulb and pull straight down.
3. Gently push new bulb into fixture until it seats.
4. Re-install cover.

A—Cover **B—Light Bulb**

Remove Cover



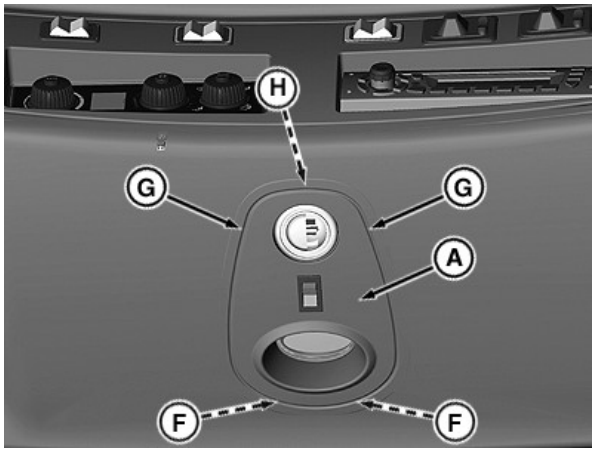
Remove And Replace Bulb

OURX935,0000BFD-19-13OCT09-1/1

Replacing Courtesy Light Bulb

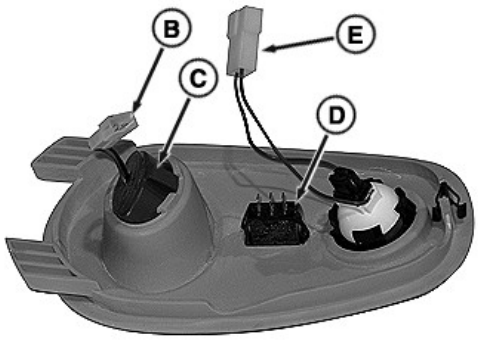
1. Carefully insert fingers under edges (G) of cover, then pull cover (A) down to expose bulbs.
2. Pull down on cover front disconnecting front clip (H).
3. Remove rear clips (F) by sliding cover toward cab center.
4. Unplug courtesy light connector (B).
5. Disconnect plug (D), courtesy light connector (B), and map light connector (E). Cover with bulb assembly is now free from cab roof.
6. Remove courtesy light bulb (C) from cover.
7. Install new bulb in cover.
8. Slide rear clips into roof.
9. Reconnect connectors (B and E), plug (D), then install rear clips before swinging cover front up and snapping front clip (H) into place.

A—Cover
B—Courtesy Light Connector
C—Courtesy Bulb
D—Plug
E—Map Light Connector
F—Rear clips
G—Edges of Cover
H—Front Clip



RXA0101058—UN—19MAR09

Carefully Pull Cover Down



RXA0099147—UN—18FEB09

RXA0099143—UN—19SEP08

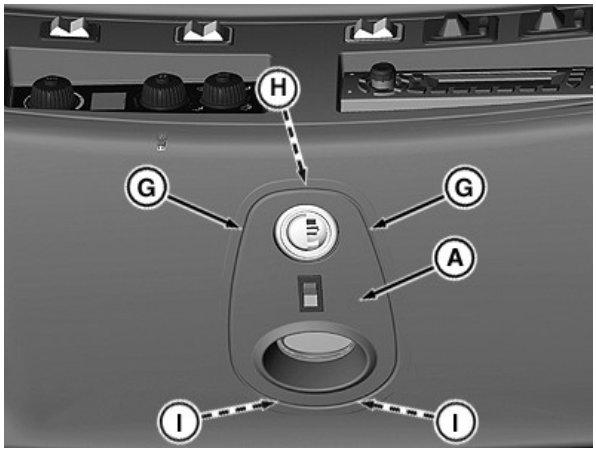
Remove Bulb From Retaining Ring

OURX935,0000BFE-19-13OCT09-1/1

Replacing Map Light bulb

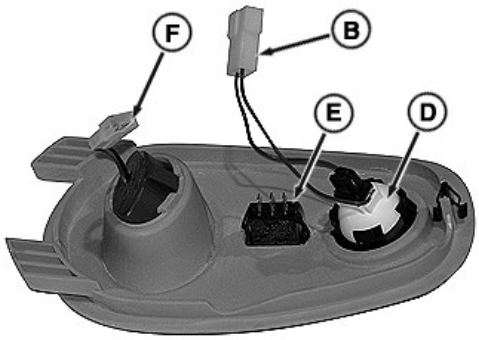
1. Carefully insert fingers under edges (G) of cover, then pull cover (A) down to expose bulbs.
2. Pull down on cover front disconnecting front clip (H).
3. Remove rear clips (I) by sliding cover toward cab center.
4. Disconnect plug (E), courtesy light connector (F), and map light connector (B). Cover with bulb assembly is now free from cab roof.
5. Remove bulb (D) from retaining ring (C).
6. Install new bulb in retaining ring.
7. Snap retaining ring with bulb into cover.
8. Slide rear clips into roof.
9. Reconnect connectors (B and F), plug (E), then install rear clips before swinging cover front up and snapping front clip into place.

A—Cover
B—Map Light Connector
C—Retaining Ring
D—Bulb
E—Plug
F—Courtesy Light Connector
G—Edges of Cover
H—Front Clip
I—Rear Clips



RXA0099148—UN—18FEB09

Carefully Pull Cover Down



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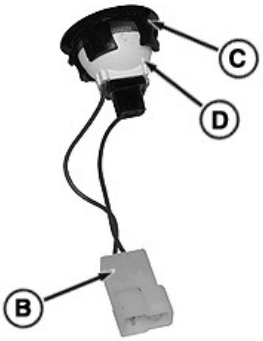
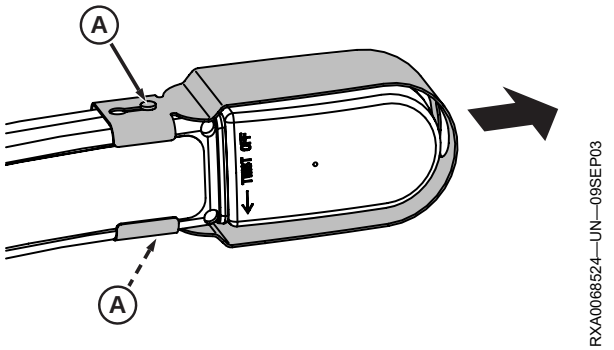


RXA0099141—UN—19SEP08

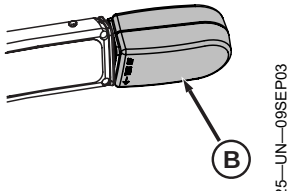
Remove Bulb From Retaining Ring

OURX935,0000BFF-19-13OCT09-1/1

Replacing Extremity Warning Light Bulb (if Equipped)



RXA0068524—UN—09SEP03



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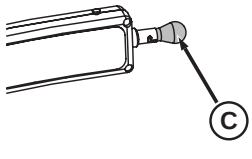

RXA0068526—UN—09SEP03

Remove Lens Cover *Remove Bulb*

A—Screws **B—Lens Cover** **C—Light Bulb**

1. Loosen screws (A).
2. Slide shield away from lens cover to remove.
3. Turn lens cover (B) counterclockwise to remove light bulb (C).
4. Install new bulb in reverse order of removal

OURX935,0000C00-19-13OCT09-1/1

Engine Troubleshooting

Symptom	Problem	Solution
Engine hard to start or will not start	Incorrect starting procedure	Review starting procedure
	Blown fuse	Check fuse 17
	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 Cranks Slowly
	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
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
	Vent on fuel tank obstructed	Clean vent under rear cab panel
	Dirty or faulty injectors	Have yourJohn 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

Continued on next page

OURX935,0000FCE-19-22MAR10-1/3

Symptom	Problem	Solution
Throttle does not allow full engine rpm	IVT load control knob may not be set properly	See section 42, Operating IVT (Infinitely Variable Transmission)™ Transmission
	Field Cruise may be on and limiting max engine rpm	Check the settings for Field Cruise in the CommandCenter™. Insure full rpm has been selected 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	Insure Field Cruise is set to max rpm
		Insure IVT is set correctly
		If problem persists, see your John Deere Dealer
	Intake air restriction	Service air cleaner
	Clogged fuel filters	Replace fuel filter elements
	Incorrect type of fuel	Use correct fuel
	Overheated engine	See Engine Overheats
	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 section 75, Performance Ballasting
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

Continued on next page

Symptom	Problem	Solution
	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
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 bleed screw under fan drive is fully closed
	Cooling system needs flushing	Flush cooling system
	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 section 75, Performance Ballasting

OURX935,0000FCE-19-22MAR10-3/3

Transmission Troubleshooting

Symptom	Problem	Solution
PST transmission vent between engine and transmission yoke leaks oil	Clogged transmission filter screen	Clean screen
IVT transmission external vent leaks oil	Clogged transmission filter screen	Clean screen
Transmission warning displays	Diagnostic trouble code has been stored	See PTI or PTP codes in the Diagnostic Trouble Codes section
PST Transmission skips gears	No problem	See Shifting the Transmission in Operating the Tractor section
Transmission shifts slowly and tractor steers hard	Cold oil	See Transmission/Hydraulic System Warm-Up in Operating the Tractor section
Transmission slips, shifts rough or abruptly (jerky) after oil change	Recalibrate transmission (PST only)	See Changing Transmission/Hydraulic Oil in the Lubrication section Have dealer recalibrate See your John Deere dealer
Transmission starts out too fast/slow	No problem	Start-up gear can be changed through the CommandCenter settings. See Shifting the PST Transmission in Operating the Tractor section. For IVT/AutoPowr tractors, see Adjusting Set Speeds. If problem persists, see your John Deere Dealer

OURX935,0000502-19-29JUL11-1/1

Hydraulic System Troubleshooting

Symptom	Problem	Solution
Entire hydraulic system fails to function	Low oil supply	Check sight glass, fill system with correct oil
	Clogged hydraulic filters	Replace BOTH hydraulic filters
	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
	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 Remote Hydraulic Connections.
	Clogged transmission oil filter element	Replace filter elements

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Hitch Troubleshooting

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 Hitch section
	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
	Independent Link Suspension 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
	Independent Link Suspension 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

Continued on next page

Symptom	Problem	Solution
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)	Fuse blown	Replace fuse 30
External raise/lower switch will not move hitch	Failure of raise/lower switch, connector, or wiring harness	See your John Deere Dealer
	Lever in transport lock	Move lever out of transport. Unlock hitch at CommandCenter

OURX935,0000504-19-29JUL11-2/2

Selective Control Valve Troubleshooting

Symptom	Problem	Solution
Remote cylinder will not lift load	Flow check	Cycle SCV levers
	Excessive load	Reduce load
	Hoses not completely installed	Attach hoses correctly
	Incorrect remote cylinder size	Use correct size cylinder
	SCV transport lock engaged	Release SCV transport 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	Release SCV lever from detent to neutral in less than 0.8 seconds
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

OURX935,0000FD2-19-26MAY10-1/1

TouchSet Depth Control Troubleshooting

Symptom	Problem	Solution
Depth control does not function correctly	Implement transport lock-up valve closed	Open valve
	Cylinders not ”rephased” (synchronized)	”Rephase” (synchronize) cylinders **IMPORTANT: Be sure all air is bled from depth control system**
	Machine operating at different depths	Hard ground or adverse operating conditions See implement operator's manual
	Cylinder leakage	Check for leakage Repair or replace cylinders; see your John Deere™ dealer
	Insufficient tractor hydraulic pressure	Check tractor hydraulic pressure; use correct size cylinders for tractor pressure
	Hydraulic hoses not connected correctly	Reconnect correctly

OURX935,0000FD3-19-22MAR10-1/1

Electrical System Troubleshooting

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
	Defective regulator	Have your John Deere Dealer check alternator
Chirping noise from side console	Noise is normal	The 8030 series tractors use solid-state electronic drivers instead of relays to control the turn signal lights. The tractor warning system provides a turn signal indicator beep replacing the 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

Continued on next page

Symptom	Problem	Solution
	Loose or corroded connections	Clean and tighten loose connections
	Low battery output	See your John Deere Dealer
	Blown fuse 1	Replace fuse
Starter cranks 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
Light system does not function; rest of electrical system functions	Blown fuse 18	Replace fuse
Entire electrical system does not function	Faulty battery connection	Clean and tighten connections
	Sulfated or worn out batteries	Check electrolyte level and specific gravity
	Blown master fuse	Replace master fuse (in battery compartment)
Blower malfunctioning	Blower does not work	Check for stored codes, total cab electrical load may be exceeding solid state load center capacity
	Blown fuse 3	Replace fuse
Blower operates only in PURGE	Blown blower resistance assembly	See your John Deere Dealer

OURX935,0000FD4-19-22MAR10-2/2

Operator Enclosure Troubleshooting

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
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 fuses 2 and 19	Replace fuse
Radio does not function	Blown fuse 5	Replace fuse
Tractor bounces or jumps	Power hop/wheel hop	Check weight split
		Check ballast
		Check inflation pressures
		See Controlling Wheel Hop in Performance Ballasting section
	Loose wheel hardware	Tighten hardware to correct torque

OURX935,000054D-19-25AUG11-1/1

Tractor Operation Troubleshooting

Symptom	Problem	Solution
Tractor bounces or jumps	Power hop/wheel hop	Check weight split
		Check ballast
		Check inflation pressures
		See Controlling Wheel Hop in the Performance Ballasting section
		See your John Deere™ dealer

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OURX935,0000FD6-19-22MAR10-1/1

Independent Link Suspension 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 22	Replace fuse
	Wheel speed less than 0.5 km/h (0.3 mph)	Increase speed
	Auto-leveling disabled	See your John Deere Dealer
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	Independent Link Suspension 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

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OURX935,0000FD7-19-22MAR10-1/1

Premium Radio Troubleshooting

Symptom	Problem	Solution
"NO CD" displayed	CD will not play	No CD has been loaded in the player
"NO PLAYABLE DISC" displayed	No playable files on media	Change media
"NO MUSIC FILES" displayed	No playable files on media	Include music files to media
"Front AUX UNPLUGGED" displayed	No Front Aux connected while iPod connected	Connect front Aux cable
"iPod NOT SUPPORTED" displayed	iPod connected not supported	Disconnect iPod
"USB NOT SUPPORTED" displayed	USB connected not supported	Disconnect USB
Sound quality, skipping, difficulty in finding tracks, and/or difficulty in loading or ejecting	CD-R may be affected by a CD-R's quality, the method of recording, the quality of the music that has been recorded or the way the CD-R has been handled.	Play CD you know is good to see if the error corrects itself. If an error occurs repeatedly or if an error cannot be corrected, contact your dealer. If the radio displays an error message, write it down and provide it to your dealer when reporting the problem.

OURX935,0000FD8-19-14SEP12-1/1

STOP, Service Alert and Information Indicators

NOTE: All STOP, Service Alert, and Information Indicators are accompanied by an informative message, diagnostic trouble code, and/or fault description shown on CommandCenter™.

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), malfunction (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 shuts down automatically if STOP signal is received when operator is out of the seat for longer than three seconds and the transmission control is in PARK. CommandCenter display can be reset by cycling key switch.

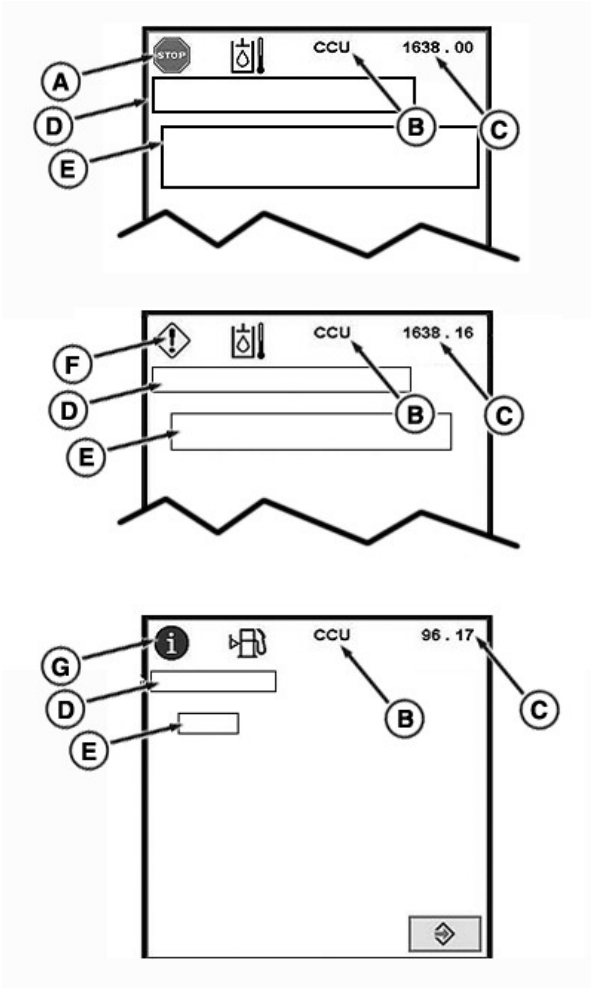
Immediately stop operations, reduce engine speed to idle, then shut down engine and turn key ”ON” to observe CommandCenter display for problem identification and solution. It may be necessary to access the stored codes, see Using Diagnostics, Stored Codes and CAN Statistics. Correct problem before restarting.

Follow solution on CommandCenter or if situation cannot be corrected contact your John Deere dealer.

When either a Service Alert or Information Indicator is displayed, place tractor in park and shut off engine.

Service Alert Indicator (F): Light flashes and alarm sounds five times indicating a performance or operational problem has been detected, which needs to be resolved as soon as possible. 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 machine damage to will occur.

Information (INFO) Indicator (G): Light comes on continuously and alarm sounds for two seconds, indicating a fault condition. Tractor operations can continue without damage; but, performance of some functions may be degraded. Operating in a different manner may correct and clear the out of range condition. Some Service Alerts and Information Indicators can be ”acknowledged” and cleared by pressing CommandArm Controls Confirm button. If condition still exists, the diagnostic trouble code may reappear later. Restart engine to verify active diagnostic trouble code still exists before contacting your John Deere dealer.



RXA0110757—UN—16SEP10

Corner Post Display

A—STOP Indicator
B—Control Unit
C—Diagnostic Trouble Code
D—Malfunction
E—Solution
F—Service Alert Indicator
G—Information Indicator

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OURX935,0000FC8-19-20SEP10-1/1

Accessing Diagnostic Trouble Codes

RXA0098156—UN—07NOV08

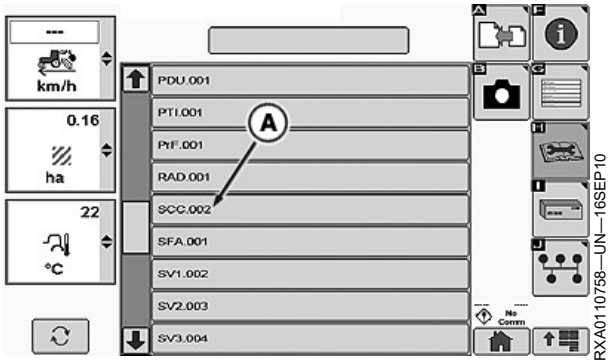
CommandCenter™ Main Menu

1. Select **Information icon** at CommandCenter™ main menu.
2. Select **Trouble Codes softkey.**
3. Select **specific controller** (A) desired.
4. Select **specific code** (B).

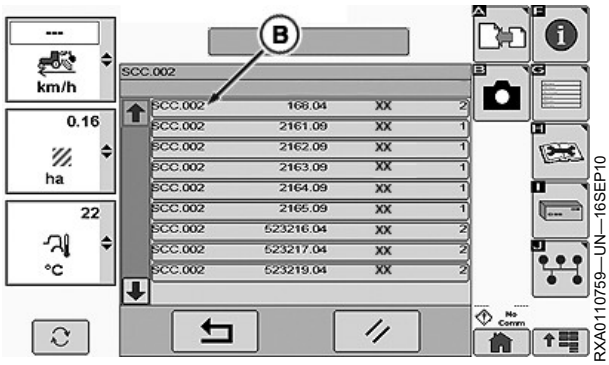
A—Controller **B—Code**

RXA0099746—UN—14JUL10

Information Icon



Select Diagnostic Trouble Codes Page



Select Code

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OURX935,0001124-19-20SEP10-1/1

Diagnostic Trouble Codes

Although the diagnostic codes listed in each of the following tables are not a complete list of the diagnostic trouble codes, they do reflect codes which may be observed while operating the tractor and have corrective action that the operator can take. Many codes which appear may be corrected simply by cycling key switch or by following the solution on the CommandCenter™ page, then cycling key switch.

In some cases there may be no trouble codes listed for that controller because there is no corrective action operator can take. If corrective action cannot be taken after cycling power to the tractor or if there are any questions, contact your John Deere™ dealer.

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OURX935,000022E-19-28FEB11-1/1

Armrest Control Unit (ACU) Diagnostic Trouble Codes

Diagnostic Trouble Code	Display	Solution
ACU 158.4	Rear PTO system	Reduce electrical load or increase engine RPM to attempt vehicle system recovery.
ACU 581.7	Transmission System	Return to Park to attempt vehicle system recovery.
ACU 523955.31	Transmission Load High	Change IVT™/AutoPowr™ to Auto Mode. Increase engine speed, reduce ground speed, or reduce load.
ACU 523960.17	Operator Not In Seat	Return to seated position.
ACU 523960.31	Operator Not In Seat	Return to operator's seat, depress brake or clutch, start vehicle. Engage transmission in forward gear/speed. Allow vehicle to move a few feet. Clear codes.
ACU 523961.2	Transmission system	Return to Park or restart engine to attempt vehicle system recovery.
ACU 524020.31	Lever not in park	Place transmission lever in Park.
ACU 524224.2	Operator Controls	Cycle PTO switch and restart engine to attempt vehicle system recovery.

OURX935,0000219-19-03MAR11-1/1

ActiveSeat Control Unit (ASU) Diagnostic Trouble Codes

There are no diagnostic codes listed for this controller because operator cannot correct codes which are displayed. If corrective action cannot be taken after cycling power to the tractor or if there are any questions, contact your John Deere dealer.

OURX935,000021A-19-28JUL11-1/1

Automatic Temperature Control Unit (ATC) Diagnostic Trouble Codes

IMPORTANT: Check the cleanliness of the condenser at the front of the tractor and make sure the cab recirculation air filter is not plugged for all ATC diagnostic trouble codes. If the codes return, contact your John Deere dealer as soon as possible.

OURX935,000021B-19-03MAR11-1/1

Cab Control Unit (CAB) Diagnostic Trouble Codes

Cab Control Unit (CAB) Diagnostic Trouble Codes		
Diagnostic Trouble Code	**Display**	**Solution**
CAB 158.4	Electrical System Voltage Low	Reduce electrical load or increase engine RPM to attempt vehicle system recovery.
CAB 523841.3	Operator Controls	Cycle brake or restart engine to attempt vehicle system recovery.
CAB 523841.4	Operator Controls	Cycle brake or restart engine to attempt vehicle system recovery.
CAB 523908.2	Operator Controls	Cycle PTO switch or restart engine to attempt vehicle system recovery.
CAB 523922.31	Secondary Brake On	Disengage brake or return vehicle to Neutral or Park.
CAB 524016.4	Operator Controls	Reduce electrical load or increase engine RPM to attempt vehicle system recovery.
CAB 524020.31	Lever not in park	Return lever to Park or Neutral.
CAB 524021.31	Operator Controls	Return to Park. Restart engine to attempt vehicle system recovery.
CAB 524169.14	Operator Controls	Brakes not depressed since tractor startup. Please depress brake pedal.

OURX935,000021D-19-03MAR11-1/1

Chassis Control Unit (CCU) Diagnostic Trouble Codes

Central Control Unit (CCU) Diagnostic Trouble Codes		
Diagnostic Trouble Code	**Display**	**Solution**
CCU 96.17	Fuel Level Low	Refuel.
CCU 1086.18	Air Brake Pressure Low	Allow pressure to increase. Bleed moisture from system.
CCU 1638.0	Hydraulic Oil Temperature High	Reduce load. Check cooling system for debris.
CCU 1638.16	Hydraulic Oil Temperature High	Check cooling system for debris. Check hydraulic oil level.
CCU 1713.0	Hydraulic Oil Filter Restricted	Replace hydraulic filters.
CCU 1883.0	Rear PTO Speed High	Check engine RPM.
CCU 1883.1	Rear PTO System	Check engine speed. Cycle PTO switch to attempt vehicle system recovery.
CCU 2602.1	Hydraulic oil level low	Check oil level.
CCU 2602.18	Hydraulic oil level low	Check oil level.
CCU 522384.14	Rear PTO System	Reduce ground speed.
CCU 523698.9	Implement Mgmt System	Check connection.
CCU 523749.16	Rear PTO System	Allow PTO clutch to cool for 15 seconds before attempting re-engagement.
CCU 523916.0	Hydraulic oil filter bypassed	Replace hydraulic filters.
CCU 523916.15	Hydraulic oil filter restricted	Replace hydraulic filters.
CCU 523916.16	Hydraulic oil filter bypassed	Replace hydraulic filters.
CCU 524016.4	Electrical system	Reduce electrical load or increase engine RPM to attempt vehicle system recovery.
CCU 524224.14	PTO Switch	Cycle PTO switch to attempt vehicle system recovery.
CCU 524236.31	MFWD Switch	Cycle MFWD control.
CCU 524251.31	Rear PTO on	Return to seated position.

OURX935,000021E-19-03MAR11-1/1

Cab Load Center (CLC) Diagnostic Trouble Codes

Cab Load Center (CLC) Diagnostic Trouble Codes		
Diagnostic Trouble Code	**Display**	**Solution**
CLC 2362.5	Lighting System	Check bulbs.
CLC 2364.5	Lighting System	Check bulbs.
CLC 2366.5	Lighting System	Check bulbs.
CLC 2368.5	Lighting System	Check bulbs.
CLC 2370.5	Lighting System	Check bulbs.
CLC 2372.5	Lighting System	Check bulbs.
CLC 2386.5	Lighting System	Check bulbs.
CLC 2394.5	Lighting System	Check implement harness connection or fuse.
CLC 2394.6	Lighting System	Check implement harness connection.
CLC 2407.5	Lighting System	Check bulbs.
CLC 2598.5	Lighting System	Check bulbs.
CLC 524259.0	Electrical System	Reduce electrical load.
CLC 524259.15	Electrical System	Reduce electrical load.
CLC 524259.16	Electrical System	Reduce electrical load.

OURX935,000021F-19-03MAR11-1/1

Cab Switch Module (CSM) Diagnostic Trouble Codes

Cab Switch Module (CSM) Diagnostic Trouble Codes		
Diagnostic Trouble Code	**Display**	**Solution**
CSM 168.4	Electrical System	Reduce electrical load or increase engine RPM. Shut down the engine and check fuse.

OURX935,0000220-19-03MAR11-1/1

Engine Control Unit (ECU) Diagnostic Trouble Codes

Engine Control Unit (ECU) Diagnostic Trouble Codes		
Diagnostic Trouble Code	**Display**	**Solution**
ECU 97.16	Engine Water Separator Full	Drain water.
ECU 100.1	Engine Oil Pressure Low	Check oil level.
ECU 100.18	Engine Oil Pressure Low	Check engine oil level.
ECU 103.0	Engine System	Reduce engine speed and load.
ECU 105.0	Engine Air Temperature High	Reduce engine load. Check cooling system for debris.
ECU 105.16	Engine Air Temperature High	Reduce engine speed and load.
ECU 107.0	Engine Air Filter Restricted	Clean or replace air filter.
ECU 110.0	Engine Coolant Temperature High	Reduce engine load. Check cooling system for debris.
ECU 110.15	Engine Coolant Temperature High	Check cooling system for debris.
ECU 110.16	Engine Coolant Temperature High	Reduce engine speed and load. Check cooling system for debris.
ECU 110.17	Engine Coolant Temperature Low	Allow coolant temperature to increase.
ECU 174.0	Fuel Temperature High	Check cooling system for debris.
ECU 174.16	Fuel Temperature High	Check cooling system for debris.
ECU 190.0	Engine Speed High	Reduce engine speed.
ECU 412.15	Engine System	Check cooling system for debris.
ECU 412.16	Engine System	Reduce engine speed and load.
ECU 629.12	Engine System	Restart engine to attempt vehicle system recovery.
ECU 641.16	Engine System	Reduce engine speed and load.
ECU 1180.0	Engine System	Reduce engine speed and load. Check cooling system for debris.
ECU 2630.0	Engine System	Reduce engine speed and load. Check cooling system for debris.
ECU 2630.15	Engine System	Check cooling system for debris.
ECU 2630.16	Engine System	Reduce engine speed and load. Check cooling system for debris.
ECU 2790.16	Engine System	Reduce engine speed and load.

OURX935,0000221-19-03MAR11-1/1

Hitch Control Center (HCC) Diagnostic Trouble Codes

Hitch Control Center (HCC) Diagnostic Trouble Codes		
Diagnostic Trouble Code	**Display**	**Solution**
HCC 158.4	Rear Hitch System	Reduce electrical load or increase engine RPM to attempt vehicle system recovery.
HCC 168.4	Electrical System	Reduce electrical load or increase engine RPM. Shut down the engine and check fuse. Restart engine to attempt vehicle system recovery.
HCC 2602.18	Hydraulic System	Limit hydraulic use to allow oil reservoir to refill. Check oil level according to Operator's Manual procedure.
HCC 523788.14	Rear Hitch System	Hydraulic option connector changed from startup. See Hydraulic Option Configuration in Hydraulics and Selective Control Valves Section in this Operator's Manual.
HCC 523788.2	Rear Hitch System	Hydraulic option connector changed from startup. See Hydraulic Option Configuration in Hydraulics and Selective Control Valves Section in this Operator's Manual.
HCC 523952.31	Rear Hitch Disabled	Rear hitch not enabled or available.
HCC 524016.4	Rear Hitch System	Reduce electrical load or increase engine RPM. Shut down the engine and check fuse. Restart engine to attempt vehicle system recovery.

OURX935,0000222-19-22JUN12-1/1

Hitch Valve (HV1) Diagnostic Trouble Codes

Hitch Valve (HV1) Diagnostic Trouble Codes		
Diagnostic Trouble Code	**Display**	**Solution**
HV1 158.4	Hydraulic System	Reduce electrical load or increase engine RPM to attempt vehicle system recovery.
HV1 4084.16	Hydraulic System	Cycle external control lever or restart engine to attempt vehicle system recovery.
HV1 4084.18	Hydraulic System	Cycle external control lever or restart engine to attempt vehicle system recovery.
HV1 4084.7	Hydraulic System	Cycle external control lever or restart engine to attempt vehicle system recovery.
HV1 4085.7	Hydraulic System	Cycle external control lever or restart engine to attempt vehicle system recovery.

OURX935,0000223-19-03MAR11-1/1

JDLink Control Unit (JDL) Diagnostic Trouble Codes

JDL Diagnostic Trouble Codes		
Diagnostic Trouble Code	**Display**	**Solution**
JDL 639.9	JDLink	Check wiring connections.

OURX935,0000224-19-28JUL11-1/1

PDU Diagnostic Trouble Codes

PDU Diagnostic Trouble Codes		
Diagnostic Trouble Code	**Display**	**Solution**
PDU 523791.14	Starting Aid Time	Wait until starting aid warms up before starting.

OURX935,0000225-19-28FEB11-1/1

Front PTO (PTF) Diagnostic Trouble Codes

PTF Diagnostic Trouble Codes		
Diagnostic Trouble Code	**Display**	**Solution**
PTF 1882.0	PTO System	Front PTO Over speed. Adjust engine speed.
PTF 1882.1	PTO System	Front PTO Under speed. Adjust engine speed.
PTF 1882.15	Front PTO System	Excessive front PTO load. continued operation will result in loss of front PTO availability
PTF 1882.16	Front PTO System	Excessive front PTO load. front PTO disabled. Allow front PTO to cool before attempting to reengage.
PTF 523904.31	Front PTO System	Operator out of seat.
PTF 523906.0	Front PTO System	Front PTO oil temperature high. System disabled. Check cooling system for debris or reduce load.
PTF 523906.15	Front PTO System	Front PTO oil temperature high. Check cooling system for debris or reduce load.
PTF 523749.16	Front PTO System	PTO clutch slipping. Allow front PTO to cool before attempting to reengage PTO.

OURX935,00004EA-19-21JUL11-1/1

IVT and AutoPowr Control Unit (PTI) Diagnostic Trouble Codes

PTI Diagnostic Trouble Codes		
Diagnostic Trouble Code	**Display**	**Solution**
PTI 127.1	Transmission oil pressure low	Return to Park to attempt vehicle system recovery.
PTI 158.1	Electrical system voltage low	Return vehicle to Park. Reduce electrical load or increase engine RPM to attempt vehicle system recovery.
PTI 168.1	Electrical system voltage low	Reduce electrical load or increase engine RPM. Shut down the engine and check fuse. Restart engine to attempt vehicle system recovery.
PTI 177.17	Transmission oil temperature low	Idle engine and allow temperature to increase.
PTI 190.0	Engine speed high	Reduce engine speed.
PTI 191.0	Transmission speed high	Reduce ground speed.
PTI 524226.8	Transmission system	Return to Park and restart engine to attempt vehicle system recovery.
PTI 524232.1	Park system	Return to Park to attempt vehicle system recovery.
PTI 524232.14	Park system	Stop vehicle. Repeat operator manual procedure.
PTI 524232.16	Park system	Return to Park to attempt vehicle system recovery.
PTI 524232.17	Park system	Return to Park to attempt vehicle system recovery.
PTI 524232.18	Transmission oil pressure low	Check hydraulic oil level.
PTI 524233.0	Transmission speed high	Reduce speed.
PTI 524233.7	Transmission electrical	Return to Park to attempt vehicle system recovery.
PTI 524237.31	Transmission lever	Return to Park to attempt vehicle system recovery.
PTI 524238.31	Transmission lever not in park	Return to Park or Neutral to attempt vehicle system recovery.
PTI 524239.31	Transmission system	Return to Park to attempt vehicle system recovery.
PTI 524240.14	Transmission system	Return to Park to attempt vehicle system recovery.
PTI 524241.2	Transmission system	Return to Park to attempt vehicle system recovery.
PTI 524242.0	Transmission oil pressure high	Return to Park to attempt vehicle system recovery.
PTI 524243.31	Transmission lever	Return to Park to attempt vehicle system recovery.
PTI 524244.31	Transmission lever	Return to Park to attempt vehicle system recovery.
PTI 524245.31	Transmission lever	Return to Park to attempt vehicle system recovery.
PTI 524248.31	Park system	Stop vehicle and cycle gear selector.
PTI 524249.31	Operator not in seat	Return to seated position.
PTI 524253.2	Transmission system	Return to Park to attempt vehicle system recovery.
PTI 524254.3	Transmission electrical	Return to Park to attempt vehicle system recovery.
PTI 524254.4	Transmission electrical	Return to Park to attempt vehicle system recovery.

OURX935,0000227-19-28JUL11-1/1

PowerShift Control Unit (PTP) Diagnostic Trouble Codes

PowerShift Control Unit (PTP) Diagnostic Trouble Codes		
Diagnostic Trouble Code	**Display**	**Solution**
PTP 84.7	Transmission system not calibrated	Return to Neutral or Park to attempt vehicle system recovery.
PTP 84.18	Transmission system	Return to Neutral or Park.
PTP 92.16	Transmission System	Reduce engine load or downshift.
PTP 123.18	Clutch Partially Engaged	Return to Neutral or Park to attempt vehicle system recovery.
PTP 123.3	Transmission electrical	Return to Park to attempt vehicle system recovery.
PTP 127.1	Transmission oil pressure low	Return to Park to attempt vehicle system recovery.
PTP 158.1	Transmission System	Return vehicle to Neutral or Park. Reduce electrical load or increase engine RPM to attempt vehicle system recovery.
PTP 168.3	Electrical system voltage high	Return vehicle to Neutral or Park to attempt vehicle system recovery.
PTP 168.4	Electrical system voltage low	Return vehicle to Neutral or Park to attempt vehicle system recovery.
PTP 190.18	Engine speed not compatible	Increase engine RPM or decrease wheel speed.
PTP 619.5	Park electrical	Return to Park to attempt vehicle system recovery.
PTP 810.2	Transmission speed	Return to Neutral or Park to attempt vehicle system recovery.
PTP 523953.2	Transmission lever	Return to Neutral or Park to attempt vehicle system recovery.
PTP 523960.31	Operator not in seat	Return to seated position.
PTP 524020.31	Transmission lever not in neutral	Return to Neutral or Park to attempt vehicle system recovery.
PTP 524232.16	Park system	Return to Park to attempt vehicle system recovery.
PTP 524232.17	Park system	Return to Park to attempt vehicle system recovery.
PTP 524239.31	Transmission system	Return to Neutral or Park to attempt vehicle system recovery.
PTP 524248.31	Park system	Stop vehicle and cycle gear selector.
PTP 524267.15	Clutch Partially Engaged	Return to Neutral or Park to attempt vehicle system recovery.
PTP 524267.16	Clutch Partially Engaged	Return to Neutral or Park to attempt vehicle system recovery.
PTP 524267.31	Clutch Partially Engaged	Return to Neutral or Park to attempt vehicle system recovery.
PTP 524271.5	Transmission system inoperable	Return to Neutral or Park to attempt vehicle system recovery.
PTP 524272.5	Transmission system inoperable	Return to Neutral or Park to attempt vehicle system recovery.
PTP 524273.5	Transmission system inoperable	Return to Neutral or Park to attempt vehicle system recovery.
PTP 524277.0	Engine Overspeed	Reduce engine RPM before performing downshift.
PTP 524279.31	Operator not in seat	Return to seated position.

OURX935,0000226-19-03MAR11-1/1

SCV Control Unit (SCC) Diagnostic Trouble Codes

SCV Control Unit (SCC) Diagnostic Trouble Codes		
Diagnostic Trouble Code	**Display**	**Solution**
SCC 158.4	Hydraulic System	Reduce electrical load or increase engine RPM to attempt vehicle system recovery.
SCC 168.4	Hydraulic System	Reduce electrical load or increase engine RPM. Shut down the engine and check fuse. Restart engine to attempt vehicle system recovery.
SCC 1079.3	Hydraulic System	Check implement wire harness and connector. Restart engine to attempt vehicle system recovery.
SCC 1079.4	Hydraulic System	Check implement wire harness and connector. Restart engine to attempt vehicle system recovery.
SCC 2602.18	Hydraulic System	Limit hydraulic use to allow oil reservoir to refill. Check oil level according to Operator's Manual procedure.
SCC 523216.4	Hydraulic System	Reduce electrical load or increase engine RPM. Shut down the engine and check fuse. Restart engine to attempt vehicle system recovery.
SCC 523217.4	Hydraulic System	Reduce electrical load or increase engine RPM. Shut down the engine and check fuse. Restart engine to attempt vehicle system recovery.
SCC 523219.4	Hydraulic System	Reduce electrical load or increase engine RPM. Shut down the engine and check fuse. Restart engine to attempt vehicle system recovery.
SCC 523786.7	Hydraulic System	Increase SCV max flow rate.
SCC 523788.14	Hydraulic System	Reference Hydraulic Option Configuration procedure in Operator's Manual.
SCC 523788.2	Hydraulic System	Reference Hydraulic Option Configuration procedure in Operator's Manual.
SCC 523788.31	Hydraulic System	Reference Hydraulic Option Configuration procedure in Operator's Manual.
SCC 523942.31	SCV VI On	Return to seated position.
SCC 523943.31	SCV V On	Return to seated position.
SCC 523944.31	SCV IV On	Return to seated position.
SCC 523945.31	SCV III On	Return to seated position.
SCC 523946.31	SCV II On	Return to seated position.
SCC 523947.31	SCV I On	Return to seated position.

OURX935,0000229-19-03MAR11-1/1

Suspended Front Axle (SFA) Diagnostic Trouble Codes

Suspended Front Axle (SFA) Diagnostic Trouble Codes		
Diagnostic Trouble Code	**Display**	**Solution**
SFA 158.4	Front Suspension System	Reduce electrical load or increase engine RPM to attempt vehicle system recovery.
SFA 168.4	Front Suspension System	Reduce electrical load or increase engine RPM. Shut down the engine and check fuse. Restart engine to attempt vehicle system recovery.
SFA 2602.18	Front Suspension System	Limit hydraulic use to allow oil reservoir to refill. Check oil level according to Operator's Manual procedure.
SFA 522290.2	Front Suspension System	Repeat calibration.
SFA 523950.2	Front Suspension System	Repeat calibration.
SFA 524016.4	Front Suspension System	Reduce electrical load or increase engine RPM to attempt vehicle system recovery.

OURX935,0000228-19-03MAR11-1/1

Steering System Control Unit (SSU) Diagnostic Trouble Codes

There are no diagnostic codes listed for this controller because operator cannot correct codes which are displayed. If corrective action cannot be taken after cycling power to the tractor or if there are any questions, contact your John Deere™ dealer.

OURX935,000022A-19-03MAR11-1/1

Selective Control Valve Units 1 - 7 (SV1 - 7) Diagnostic Trouble Codes

Codes displayed in the following table, although shown as being SV1XXX.X, may apply and be displayed on your CommandCenter™ for any SCV on your tractor.

SV1 - 7 Diagnostic Trouble Codes		
Diagnostic Trouble Code	**Display**	**Solution**
SV1 158.4	Hydraulic System	Reduce electrical load or increase engine RPM to attempt vehicle system recovery.
SV1 4084.16	Hydraulic System	Cycle external control lever or restart engine to attempt vehicle system recovery.
SV1 4084.18	Hydraulic System	Cycle external control lever or restart engine to attempt vehicle system recovery.
SV1 4084.7	Hydraulic System	Cycle external control lever or restart engine to attempt vehicle system recovery.
SV1 4085.7	Hydraulic System	Cycle external control lever or restart engine to attempt vehicle system recovery.

CommandCenter is a trademark of Deere & Company

OURX935,000022B-19-03MAR11-1/1

Tractor Equipment Control Unit (TEC) Diagnostic Trouble Codes

There are no diagnostic codes listed for this controller because operator cannot correct codes which are displayed. If corrective action cannot be taken after cycling power to the tractor or if there are any questions, contact your John Deere™ dealer.

John Deere is a trademark of Deere & Company

OURX935,000022C-19-03MAR11-1/1

Vehicle Load Center (VLC) Diagnostic Trouble Codes

Vehicle Load Center (VLC) Diagnostic Trouble Codes		
Diagnostic Trouble Code	**Display**	**Solution**
VLC 1550.5	A/C System	Check compressor.
VLC 1550.5	A/C System	Check compressor.
VLC 1550.6	A/C System	Check harness and compressor.
VLC 1550.6	A/C System	Check harness and compressor.
VLC 2348.5	Lighting System	Check bulbs.
VLC 2348.5	Lighting System	Check bulbs.
VLC 2350.5	Lighting System	Check bulbs.
VLC 2350.5	Lighting System	Check bulbs.
VLC 2354.5	Lighting System	Check bulbs.
VLC 2354.5	Lighting System	Check bulbs.
VLC 2356.5	Lighting System	Check bulbs.
VLC 2356.5	Lighting System	Check bulbs.
VLC 2388.5	Lighting System	Check bulbs.
VLC 2388.5	Lighting System	Check bulbs.

OURX935,000022D-19-03MAR11-1/1

Steering, Braking, And Backup Controller—A Box (TMA), (TSA), (XMA), and (XSA) Diagnostic Trouble Codes

TMA Diagnostic Trouble Codes		
Diagnostic Trouble Code	**Display**	**Solution**
TMA 522271.18	Steering System	Hydraulic filter restricted. Replace filter.
TMA 522836.5	Steering/Brake System	Open circuit on current driver 7. Check wiring harness.
TSA 522271.18	Steering System	Hydraulic filter restricted. Replace filter.
TSA 1504.14	Steering System	Operator out of seat. Guidance deactivated. Return to seated position.
TSA 1504.31	Steering System	Operator out of seat. Return to seated position.
XSC 1504.31	Steering System	Operator out of seat. Return to seated position.
XSC 522390.11	Steering System	Full stop commanded. Guidance deactivated.
XSC 522789.14	Steering/Brake System	Hydraulic oil is too cold. Warm oil and try again.
XSC 523839.14	Brake System	Secondary brake lever engaged during startup. Allow secondary brake lever to return to off position.

OURX935,0000240-19-03MAR11-1/1

Steering, Braking, And Backup Controller—B Box (TMB), (TSB), (XMB), and (XSB) Diagnostic Trouble Codes

Steering, Braking, And Backup Controller—B Box Diagnostic Trouble Codes		
Diagnostic Trouble Code	**Display**	**Solution**
TSB 522789.14	Steering/Brake System	Hydraulic oil is too cold. Warm oil and try again.
TSB 523839.14	Brake System	Secondary brake lever engaged during startup. Allow secondary brake lever to return to off position.
XSB 522789.14	Steering/Brake System	Hydraulic oil is too cold. Warm oil and try again.
XSB 523839.14	Brake System	Secondary brake lever engaged during startup. Allow secondary brake lever to return to off position.

OURX935,000024B-19-02MAR11-1/1

Steering, Braking, And Backup Controller—C Box (TMC), and (XSC) Diagnostic Trouble Codes

Steering, Braking, And Backup Controller—C Box Diagnostic Trouble Codes		
Diagnostic Trouble Code	**Display**	**Solution**
XSC 1504.31	Steering System	Operator out of seat. Return to seated position.
XSC 522390.11	Steering System	Full stop commanded. Guidance deactivated.
XSC 522789.14	Steering/Brake System	Hydraulic oil is too cold. Warm oil and try again.
XSC 523839.14	Brake System	Secondary brake lever engaged during startup. Allow secondary brake lever to return to off position.

OURX935,000024C-19-02MAR11-1/1

Placing 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 bio-diesel fuel if placing tractor in storage.

3. Drain fuel tank and add back approximately 19 L (5 gal) of fuel.
4. 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.
5. Remove and store batteries in a cool dry location—(keep batteries charged).[1]
6. Coat all exposed (machined) metal surfaces such as lift cylinders and steering cylinder rods with light coat of grease.
7. Lubricate all grease fittings.
8. Release tension on auxiliary drive belt and remove belt from air conditioner pulley.

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 off the ground and/or cover them to protect from heat and sunlight.

[1] *Disconnect battery ground cable for short-term storage periods (20 to 90 days)*

OURX935,0000445-19-10AUG05-1/1

Removing Tractor from Storage

1. Remove all coverings placed in or on tractor while preparing for storage.

IMPORTANT: To avoid engine damage, make sure crankcase vent tube is unsealed after storage.

2. Unseal all openings sealed during storage.
3. Remove any accumulated trash or debris.
4. Check auxiliary drive belt for cracking and if serviceable, install auxiliary drive belt on air conditioner pulley.
5. Check all fluid levels.
6. Fill fuel tank.
7. Check tire inflation pressures. (See Wheels, Tires and Treads section.)
8. Install batteries and connect cables.
9. Turn key to **RUN** position for one minute to allow fuel system to prime, then start engine.

NOTE: While operating engine at slow idle, visually check all instruments and indicators to ensure they function properly.

10. Operate engine at slow idle for several minutes.
11. Perform all daily/10 Hour services and any other scheduled services as required. (See Service sections.)
12. Warm up tractor before putting tractor under load.

OURX935,0000446-19-07DEC11-1/1

Paint Finish Care

Washing tractor regularly will preserve the finish. Wash tractor in indirect sunlight. All cleaning agents should be flushed promptly and not allowed to dry on the paint surface.

IMPORTANT: Do not use hot water, strong soaps or chemical detergents. Use liquid hand, dish or car washing (non detergent) soaps. Cleaning agents containing acid or abrasives should not be used.

Waxing tractor occasionally may be necessary to remove residue from paint finish. Do not use waxes containing abrasive compounds.

Inspect paint surface, during washing or waxing, for chips and scratches. Repaint any areas where paint has been removed. Paint materials are available from your John Deere dealer.

OURX935,0000447-19-20JAN05-1/1

Engine

	8235R	8260R	8285R	8310R	8335R	8360R
POWER:						
PTO power (hp SAE) at rated engine speed (2100 erpm)	143 kW (192 hp)	161 kW (216 hp)	178 kW (239 hp)	195 kW (261 hp)	211 kW (283 hp)	228 kW (305 hp)
Engine power PS[a,] at 2100 engine rpm (97/68EC[b])	173 kW (235 hp)	191 kW (260 hp)	210 kW (285 hp)	228 kW (310 hp)	246 kW (335 hp)	265 kW (360 hp)
Engine power PS[a] at 2100 engine rpm (ECE-R24)	166 kW (226 hp)	184 kW (250 hp)	201 kW (274 hp)	219 kW (298 hp)	237 kW (322 hp)	254 kW (346 hp)
Engine power PS[a,] (hp ISO) at 1900 engine rpm (97/68EC[b])	190 kW (259 hp)	210 kW (286 hp)	231 kW (314 hp)	251 kW (341 hp)	271 kW (369 hp)	291 kW (396 hp)
Engine power PS[a] at 1900 engine rpm (ECE-R24)	183 kW (248 hp)	202 kW (275 hp)	221 kW (301 hp)	241 kW (327 hp)	260 kW (354 hp)	280 kW (380 hp)
Intelligent Power Management: (Optional) (97/68EC	35 Additional Engine Horsepower PS (hp ISO) at 2,100 rpm (rated speed)					
Operating Speed Range in rpm	1500 - 2100 engine rpm					
ENGINE:						
Manufacturer (US EPA Interim Tier4/EU Stage IIIb)	John Deere™ PowerTech™ PSS (B20 Diesel Compatible)					
Aspiration (US EPA Interim Tier4)	Dual Series Turbocharger w/fixed geometry first stage-variable geometry second stage - air-to-air aftercooling and cooled exhaust gas recirculation					
Intelligent Power Management (IPM)	Optional, not available on Stage 2 emissions					
Manufacturer (Stage 2)	John Deere PowerTech 9.0 L Diesel engine					
Aspiration (Stage 2)	Turbo Charged (single w/fixed geometry and air -to-air aftercooled					
Rated Speed	2,100 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 (548 cu. in.)					
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: (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 replaceable cartridge w/water indication sensor and drain					
Filter, secondary	2 micron spin-on element					

[a] German term for horse power in which one PS is equivalent to .9863 horse power
[b] According to the Society of Automotive Engineering.

TO84419,0000270-19-08AUG12-1/1

Capacities

	8235R	8260R	8285R	8310R	8335R	8360R
CAPACITIES:						
Fuel Tank	695 L (184 gal.)					
Cooling System	41 L (43.3 qt.)					
Crankcase oil volume						
1300 MFWD	25.0 L (26.4 qt.)			N/A [a]		
1500 MFWD	28.0 L (29.5 qt.)					
ILS	27.50 L (29.1 qt.)					
Transmission, differential, hydraulic system (MFWD / ILS)	165 L (43 gal.) / 175 L (46 gal.)					
1300 MFWD axle housing	13.6 L (14.2 qt.)					
1500 MFWD axle housing	18.7 L (19.7 qt.)					
1300 MFWD / 1500 MFWD and ILS wheel hubs, each	3.8 L (4.0 qt.)					

[a] *N/A is the abbreviation for not available*

TO84419,0000271-19-30JUL12-1/1

Hydraulic

	8235R	8260R	8285R	8310R	8335R	8360R
HYDRAULIC: (type)	Closed-center, pressure/flow compensated					
Selective control valves						
Main pump, axial piston (displacement)	63cc Standard, 85cc Optional			85cc Standard		
Maximum pressure	20,400 +or- 300 kPa (2,958.1 psi +or- 4.4 psi)					
Rated flow, 63cc pump	166.6 lpm (44 gpm)			N/A [a]		
Rated flow, 85cc pump	227.1 lpm (60 gpm)					
Available flow at a single rear SCV	132 lpm (35 gpm)					
Available flow at a single front SCV (2 front SCVs available plumbed through 2 rear SCVs)	78 lpm (20 gpm)					
Take out oil capacity	Standard: Hydraulic Oil Take-out capacity is 25 liters @ 2 lps. Field Installed Option: Take out capacity is 50 liters @ 2 lps and requires auxiliary tank					

[a] *N/A is the abbreviation for not available*

TO84419,0000272-19-12JUL12-1/1

Electrical

	8235R	8260R	8285R	8310R	8335R	8360R
ELECTRICAL: (two batteries in parallel)						
Alternator/Battery	200 amps / 12 Volt					
Total cold cranking amps	1850 (2-925CCA grp 31 batteries)					

TO84419,0000273-19-11JUL12-1/1

Transmission and Power Train

		8235R	8260R	8285R	8310R	8335R	8360R
TRANSMISSION:							
16-speed PowerShift; (16F, 4R)		Standard					N/A[a]
John Deere IVT (Infinitely Variable Transmission)™/AutoPowr™ 0.050-42 km/h (0.030-26 mph)		Optional					Standard
REAR AXLE FINAL DRIVES:		Inboard planetary three pinion					
REAR WHEEL EQUIPMENT:		See section 81 in the Operator's Manual					
FRONT AXLES:							
1300 Series MFWD - tread range 1524 to 2235 mm (60 to 88 in.)		Standard			N/A [b]		
1500 Series MFWD - tread range 1524 to 3657 mm (60 to 144 in.)		Optional (Front Dual Tire Compatibility)					
ILS - tread range 1524 to 3657 mm (60 to 144 in.)		Optional (Front Dual Tire Compatibility)			Standard (Front Dual Tire Compatibility)		
ILS with front brakes (Optional on 40 km/h ((25 mph)) or Standard on 50 km/h ((31 mph)) tractors)							
STEERING:		Optional w/wo duals					
Hydraulic power-steering w/electric pump back-up		Standard: 406 mm (Tilt-telescope W/Memory) Steering Wheel					
1300 MFWD	Steering Wheel Ratios, Turns Lock to Lock, 14.2:1 /3.4	Optional					
1500 MFWD	Steering Wheel Ratios, Turns Lock to Lock, 20:1 /4.4	Optional					
ILS	Steering Wheel Ratios, Turns Lock to Lock, 17.8:1 /4.1	Optional					
ActiveCommand Steering (ACS) w/electric pump back-up		Optional: 345 mm (13.6 in.) Steering Wheel, Variable ratio 15:1 to 23:1 (3.1-5.0 turns lock to lock)					

[a] *N/A is the abbreviated for not available*
[b] *N/A is the abbreviation for not available*

IVT (Infinitely Variable Transmission) is a trademark of Deere & Company
AutoPowr is a trademark of Deere & Company

TO84419,0000274-19-26JUL12-1/1

Hitch, Drawbar and PTO

	8235R	8260R	8285R	8310R	8335R	8360R
3-POINT HITCH: (Rear)						
Category 3/3N with Quik-Coupler Standard	Standard: 6169 kg (13,600 lb.)			N/A [a]		
Category 3/3N with Quik-Coupler Optional- 120 mm Axle Required	Optional: 7983 kg (17,600 lb.)			N/A [a]		
Category 4N/3 with Quik-Coupler Optional - 120 mm Axle Required	N/A [a]			Optional: 6396 kg (14,100 lb.)		
Category 4N/3 with Quik-Coupler Optional - 120 mm Axle Required	Optional: 8482 kg (18,700 lb.)			Standard: 8482 kg (18,700 lb.)		
3-POINT HITCH: (Front) - Requires ILS – Category 3N	Optional: Cat. 3N Ground Engaging Hitch, 5,200 kg (11,464 lb.)[b] Lift Capacity					
DRAWBAR:						
Cat 3 Vertical Load dependent on drawbar position	1837 kg (4050 lb.) Standard			N/A [a]		
Cat 4 Vertical Load Capability	2245 kg (4950 lb.) Optional			2245 kg (4950 lb.) Standard		
Cat 4 With Heavy Duty Support Vertical Load Capability	4990 kg (11,000 lb.) Optional					
PTO (power take off):	Independent					
1-3/4 in., 20-spline, 1,000-rpm	Standard					
1-3/4-in., 20-spline, 1,000-rpm; capable of 1-3/8 in. 540/1000 rpm	Optional			N/A [a]		
1-3/4-in., 20-spline, 1,000-rpm with 1-3/8 in. 1000 rpm gear case	Optional					N/A [a]
PTO Speed @ Engine RPM	(1000 PTO rpm @ 2003 engine rpm and 540 PTO rpm @ 1818 engine rpm for PST) (1000 PTO rpm @ 2000 engine rpm and 540 PTO rpm @ 1815 engine rpm for IVT/AutoPowr)					
FRONT PTO (power take off):	Requires ILS axle and IVT/AutoPower Transmission					
1-3/4 in., 20-spline, 1,000-rpm, Clockwise Rotation (When facing PTO)	Optional					
1-3/8-in., 21-spline, 1,000-rpm; Clockwise Rotation (When facing PTO)	Optional					
PTO Speed @ Engine RPM (1:2 ratio)	1000 PTO rpm @ 2000 engine RPM					
PTO Power (SAE hp)	112 kw (150 HP) Maximum Output					

[a] N/A is the abbreviation for not available
[b] Sustained Lift capacity@610 mm (24 in.) behind coupler jaw center w/ Center link in top hole.

TO84419,00002C3-19-26JUL12-1/1

Tractor Dimensions

	8235R	8260R	8285R	8310R	8335R	8360R
WHEELBASE:						
MFWD / ILS	3050 mm (120.1 in.) / 3020 mm (118.9 in.)					
MFWD / ILS axle clearance	685.8 mm (27 in.) /590 mm (23.2 in.)					
AVERAGE STANDARD WEIGHT: (less front weights)						
PST/1400 lb inner weights/front weight support/Cat3 hitch w/ QC/30 gal fuel/480/80R46 singles/11.00-24 front	10489 kg (23124 Lb.)	N/A [a]				
MFWD/PST/1400 lb inner weights/front weight support/Cat3 hitch w/QC/30 gal fuel/480/80R46 duals/420/90R34 fronts	12346 kg (27218 Lb.)					
ILS/IVT/1400 lb inner weights/front weight support/Cat4 hitch w/QC/30 gal fuel/480/80R50 duals/380/80R38 fronts	13722 kg (30252 Lb.)					
TRACTOR DIMENSIONS:						
Height (Tractor equipped with Group 48 rear tires and measured from ground to top of rotary beacon)	3527 mm (138.85 in.)					
Width (Measured at rear axle ends with no duals)	Long Axle: 3012 mm (119 in.) Short Axle: 2438 mm (99 in.)					
Length (Weight Bracket to Drawbar)	5857 mm (230.57 in.)					

[a] *N/A is the abbreviation for not available*

TO84419,0000275-19-30JUL12-1/1

Ground Speeds With PST

		Group 47 710/70R38, 650/65R42, 650/75R38 and 620/70R42, 480/80R46 Tires		Group 48 800/70R38, 710/70R42, 520/85R46, 620/70R46, and 480/80R50, 380/90R54 Tires	
Engine rpm	**Gear**	**km/h**	**mph**	**km/h**	**mph**
2100	1	1.9	1.2	2	1.2
2100	2	2.5	1.5	2.6	1.6
2100	3	3.3	2.	3.5	2.2
2100	4	4.5	2.8	4.7	2.9
2100	5	5.	3.1	5.3	3.3
2100	6	5.8	3.6	6.1	3.8
2100	7	6.7	4.2	7.1	4.4
2100	8	7.8	4.8	8.2	5.
2100	9	9.	5.6	9.4	5.8
2100	10	10.3	6.4	10.9	6.8
2100	11	12.	7.5	12.6	7.8
2100	12	13.8	8.6	14.6	9.
2100	13	16.3	10.1	17.2	10.7
2100	14	21.8	13.5	23.	14.3
2100	15	29.	18.	30.6	19
	16	39.9 @ 2210 rpm	26	42 @ 2170 rpm	26
2100	R1	1.8	1.1	1.9	1.2
2100	R2	4.7	2.9	4.9	3.
2300	R3	5.9	3.7	6.2	3.9
1500	R4	10.9	6.8	11.5	7.1
2100	R5	15.25	9.4	16.1	10

OURX935,0000FC0-19-13MAR13-1/1

Ground Speeds—IVT™/AutoPowr™

Travel speed is infinitely variable from 0.050 to 42 km/h (0.030 to 26 mph[1]) moving forward or 0 to 20 km/h (0 to 12.4 mph) moving rearward.

IMPORTANT: It is not recommended that tractor be driven greater than 40km/h (25 mph) with dual wheel equipment.

Transmission	Tire Group Size	Minimum engine RPM	Engine Speed in Top gear	Mode	Displayed Speed ± 1 km/h (± 0.6 mph)
IVT™/AutoPowr™	47	2150	N/A	Manual	42 km/h (26.1 mph)
IVT™/AutoPowr™	47	1511	N/A	Automode	42 km/h (26.1 mph)
IVT™/AutoPowr™	48	2150	N/A	Manual	42 km/h (26.1 mph)
IVT™/AutoPowr™	48	1434	N/A	Automode	42 km/h (26.1 mph)
Speeds listed below reflect IVT™/AutoPowr™ transmission equipped with additional package to reach 50 km/h (31.1 mph)					
IVT™/AutoPowr™	47	2150	N/A	Manual	50 km/h (31.1 mph)
IVT™/AutoPowr™	47	1805	N/A	Automode	50 km/h (31.1 mph)
IVT™/AutoPowr™	48	2150	N/A	Manual	50 km/h (31.1 mph)
IVT™/AutoPowr™	48	1713	N/A	Automode	50 km/h (31.1 mph)
All values assume base tractor configuration on level ground, with specified tires groups above at manufacturer's recommended tire inflation pressure. All engine rpm values are load dependant.					

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

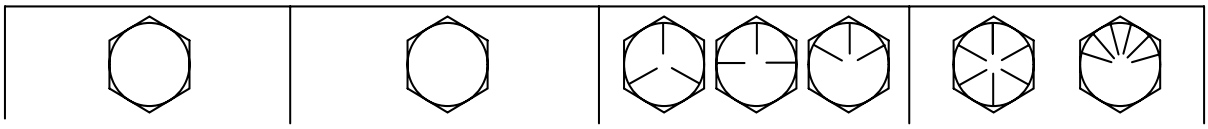
NOTE: Tire sizes used are group nominal. Actual tires sizes can vary up to 2%.

[1] IVT™/AutoPowr™ transmission must be equipped with additional package to reach 50 km/h (31.1 mph)

OURX935,0000FC1-19-21SEP10-1/1

Unified Inch Bolt and Screw Torque Values

TS1671—UN—01MAY03



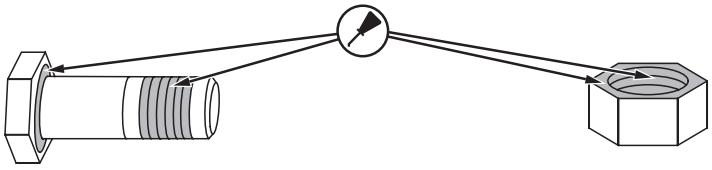
Bolt or Screw Size	SAE Grade 1[a]				SAE Grade 2[b]				SAE Grade 5, 5.1 or 5.2				SAE Grade 8 or 8.2			
	Hex Head[c]		Flange Head[d]		Hex Head[c]		Flange Head[d]		Hex Head[c]		Flange Head[d]		Hex Head[c]		Flange Head[d]	
	N·m	lb·in	N·m	lb·in	N·m	lb·in	N·m	lb·in	N·m	lb·in	N·m	lb·in	N·m	lb·in	N·m	lb·in
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.

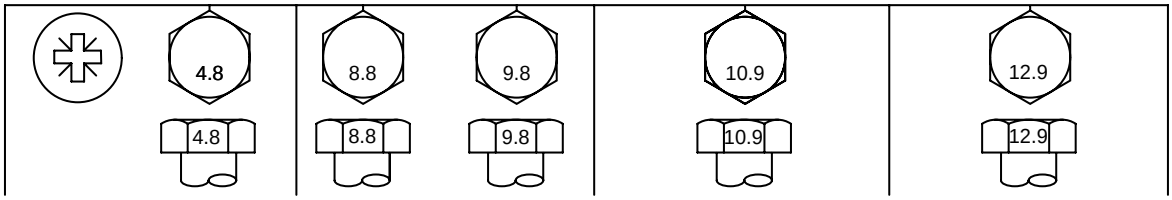
TS1741—UN—22MAY18



[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,TORQ1-19-09MAY22-1/1

Metric Bolt and Screw Torque Values



TS1742—UN—31MAY18

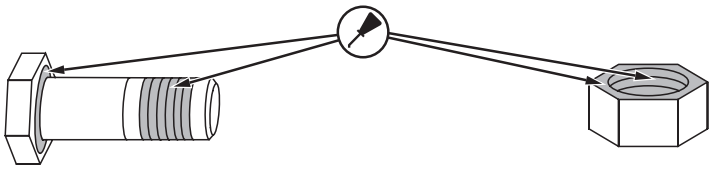
Bolt or Screw Size	Class 4.8				Class 8.8 or 9.8				Class 10.9				Class 12.9			
	Hex Head[a]		Flange Head[b]		Hex Head[a]		Flange Head[b]		Hex Head[a]		Flange Head[b]		Hex Head[a]		Flange Head[b]	
	N·m	lb·in	N·m	lb·in	N·m	lb·in	N·m	lb·in	N·m	lb·in	N·m	lb·in	N·m	lb·in	N·m	lb·in
M6	3.6	31.9	3.9	34.5	6.7	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,TORQ2-19-09MAY22-1/1

Identify Zinc-Flake Coated Fasteners

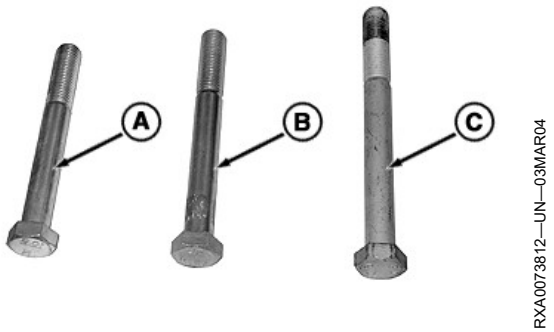
Standard cap screws (A) are a reflective silver color.

Zinc plated cap screws (B) are a reflective gold color.

Zinc-Flake Coated cap screws (C) are a dull silver color.

NOTE: Zinc-Flake Coated fasteners are tightened to lubricated specifications, unless otherwise noted. (See Torque Value Charts in this group.)

A—Standard Cap Screws
B—Zinc-plated Cap Screw
C—Zinc-Flake Cap Screw (20 mm and larger)



RXA0073812—UN—03MAR04

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EPA Non-road Emissions Control Warranty Statement—Compression Ignition

DXLOGOV1—UN—28APR09

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)

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DX,EMISSIONS,EPA-19-12DEC12-1/2

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-19-12DEC12-2/2

EPA Non-road Emissions Control Warranty Statement—Compression Ignition

DXLOGOV1 —UN—28APR09

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 compressionignition 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 compressionignition emission regulations", also refer to the "California Emission Control Warranty Statement."

Warranties stated on this certificate refer only to emissionsrelated parts and components of your engine. The complete engine warranty, less emissionsrelated parts and components, is provided separately. If you have any questions about your warranty rights and responsibilities, you should contact John Deere at 13192925400.

JOHN DEERE'S WARRANTY RESPONSIBILITY

John Deere warrants to the ultimate purchaser and each subsequent purchaser that this offroad diesel engine including all parts of its emissioncontrol 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 emissionrelated parts. Warranty coverage is subject to the limitations and exclusions set forth herein. Emissionrelated components include engine parts developed to control emissions related to the following:

AirInduction 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:

- Nonperformance 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 offroad 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 emissionrelated 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)

DX,EMISSIONS,EPA 1909MAR101/1

RXA01129880—UN—28NOV12

RD47322,00000AB-19-28NOV12-1/1

CARB Non-road Emissions Control Warranty Statement—Compression Ignition

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 2013 through 2015 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.

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RXA0129744—UN—15NOV12

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RD47322,00000AC-19-29NOV12-1/4

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 (19Sep12)

DX,EMISSIONS,CARBcb -19-12NOV12-2/2

RXA0129745—UN—15NOV12

Continued on next page

RD47322,00000AC-19-29NOV12-2/4

CARB Non-road Emissions Control Warranty Statement—Compression Ignition

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 2013 through 2015 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.

Continued on next page

DX,EMISSIONS,CARBcb -19-12NOV12-1/2

RXA0129881—19—27NOV12

Continued on next page

RD47322,00000AC-19-29NOV12-3/4

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 (19Sep12)

DX,EMISSIONS,CARBcb -19-12NOV12-2/2

RXA0129917—19—29NOV12

RD47322,00000AC-19-29NOV12-4/4

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.

Replacement

Any new battery which becomes unserviceable (not merely discharged) due to defects in material or workmanship will be eligible for warranty consideration.

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.

DX,BATWAR,NA-19-06AUG21-1/1

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.

OURX935,0000733-19-11JAN12-1/1

Record Product Identification Number

Identification data plate (A) is along right-hand tractor frame.

Product Identification Number

* _____ *

PRODUCT IDENTIFICATION NUMBER (PIN): consist of 17 positions without spaces, dashes or other interruptions as follows:

Positions 1-3: World Manufacturer Code (WMC) (e.g. 1RW.

Positions 4-7: is the numeric portion of the tractor model number.

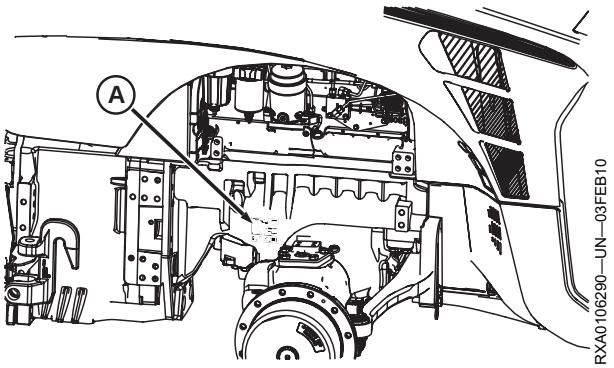
Position 8: Model Identifier suffix (Additional machine information).

Position 9: is a check letter calculated based on the values and positions of the other sixteen characters.

Position 10: Calendar Year of Manufacture may be a letter or a number which reflects the calendar year (not model year) of manufacture. The value of this character is specified in Table below.

Year	Code	Year	Code
2012	C	2013	D
2014	E	2015	F

Position 11: Transmission Option Code indicated in the table.



A— Identification Data Plate

Configuration and Transmission Option Codes Used in Position 11	
D	IVT/AutoPowr
P	POWERSHIFT

Positions 12: Additional Manufacturing or Product Information provide additional information about the product and when it was built. If the tractor is a track tractor, the character in position 12 will be a “9”. Otherwise the character in position 12 will be a numerical zero, “0”.

Positions 13-17: Sequential Serial Number will be a serialized number uniquely identifying individual tractors bearing the same model designation.

Additionally: An asterisk (*) shall immediately precede the first character and immediately follow the last character of the PIN to discourage tampering or altering of the PIN.

OURX935,00004A0-19-31AUG12-1/1

Record Engine Serial Number

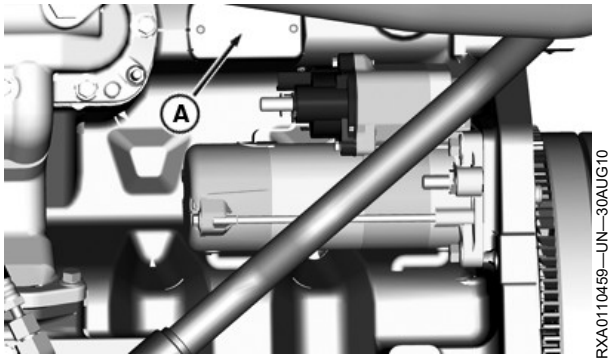
Identification plate location (A) is on left side of engine near starter.

Serial Number

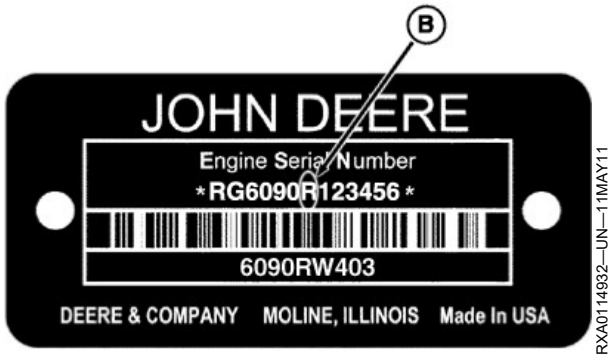
_____

Engine emission tier level is identified by seventh character of the engine the engine serial number.

Emission Tier Level	Seventh Character of Engine Serial Number
U.S. EPS Interim Tier 4 and EU Stage III B	**R**
U.S EPA Tier 2 and EU Stage II	**G**



RXA0110459—UN—30AUG10



RXA0114932—UN—11MAY11

A— Engine Serial Number Plate Location **B— Engine Serial Number Plate**

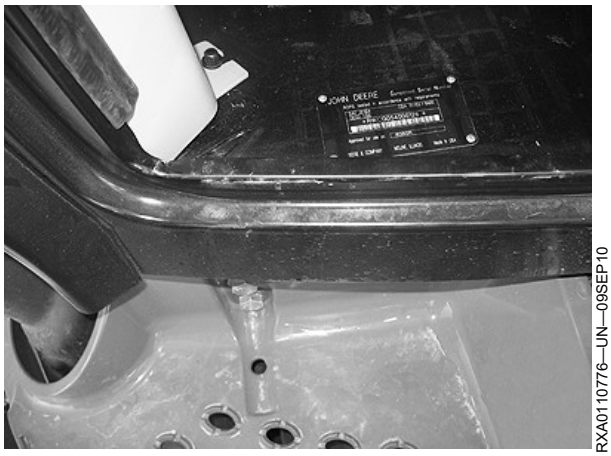
RD47322,000049F-19-27JUN12-1/1

Record Cab Serial Number

Identification plate is located under cab floor mat in front of door.

Serial Number

_____



RXA0110776—UN—09SEP10

OURX935,000101F-19-16SEP10-1/1

Record PST Transmission Serial Number

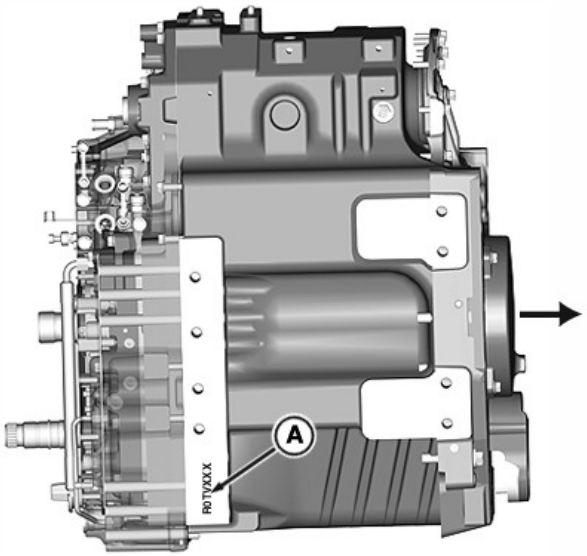
NOTE: Green paint covers the number.

Identification number location (A) is stamped vertically on right lower rear side of transmission housing.

Serial Number

_____

A—Identification Number (Stamped in Transmission Housing)



Record PowerShift™ Transmission Serial Number (Right Side View)

OURX935,000042F-19-04JUN12-1/1

Record IVT and AutoPowr Transmission Serial Number

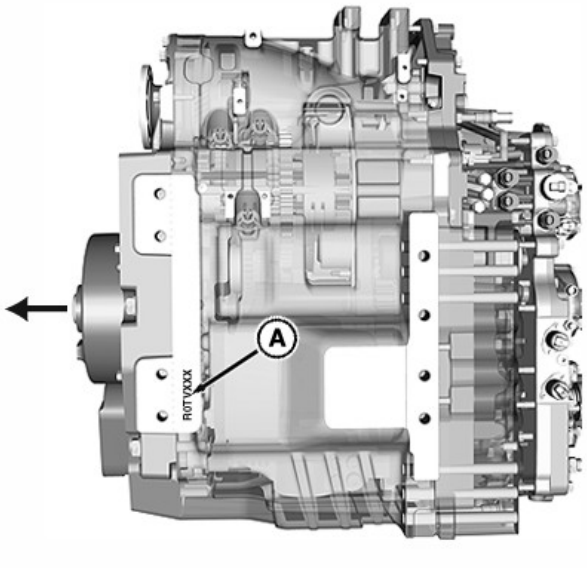
NOTE: Green paint covers the number.

Identification number location (A) is stamped vertically on left lower front side of transmission housing.

Serial Number

_____

A—Identification Number (Stamped in Transmission Housing)



Record Transmission Serial Number (Left Side View)

OURX935,00004A1-19-04JUN12-1/1

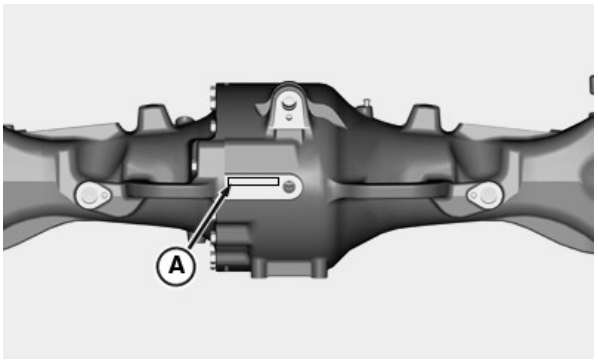
Record 1300 MFWD Axle Serial Number

Identification number (A) is stamped on front-side of the MFWD axle housing.

Serial Number

_____

A—MFWD Identification Number



Record MFWD Serial Number

OURX935,00004B2-19-06JUL11-1/1

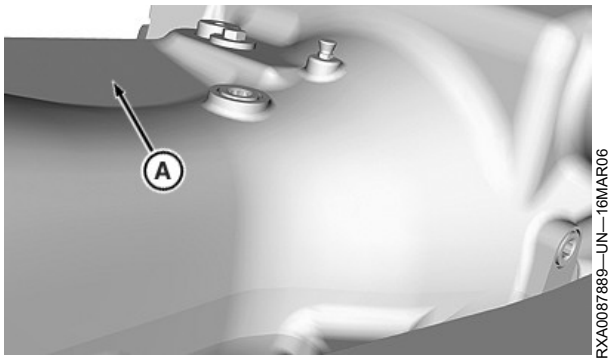
Record 1500 MFWD Axle Serial Number

Identification number (A) is stamped on right-side of the 1500 MFWD axle housing.

Serial Number

_____

A—Identification Number



Record MFWD Serial Number

OURX935,0001023-19-07APR10-1/1

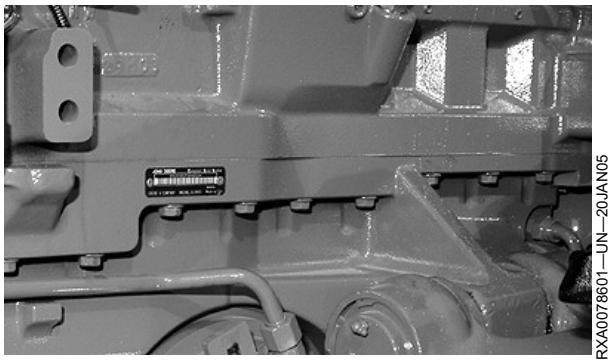
Record Independent Link Suspension Axle Serial Number

Identification number (A) is located on right side of the tractor.

Serial Number

_____

A—Identification Number



Record Independent Link Suspension Serial Number

OURX935,0001024-19-07APR10-1/1

Keep Proof of Ownership

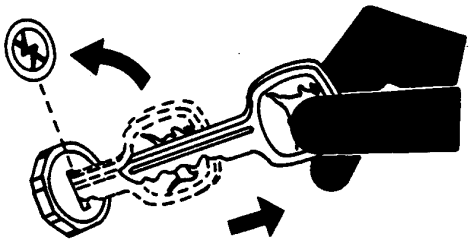
1. Maintain in a secure location an up-to-date inventory of all product and component serial numbers.
2. Regularly verify that identification plates have not been removed. Report any evidence of tampering to law enforcement agencies and order duplicate plates.
3. Other steps you can take:
   - Mark your machine with your own numbering system
   - Take color photographs from several angles of each machine

TS1680—UN—09DEC03

DX,SECURE1-19-18NOV03-1/1

Keep Machines Secure

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.



TS230—UN—24MAY89

DX,SECURE2-19-18NOV03-1/1

Lubrication and Maintenance Records

Daily Service Records

- Checking engine oil
- Draining water separator
- Checking Tire Inflation (Weekly)
- Checking transmission hydraulic and axle oil level
- Draining air brake tank (If Equipped)
-

Hours					Hours				
Date					Date				
Hours					Hours				
Date					Date				
Hours					Hours				
Date					Date				
Hours					Hours				
Date					Date				

OURX935,000048E-19-25AUG11-1/1

Annual Service Records

- Servicing batteries [1] and connections
- Checking seat belts
- Checking Independent Link Suspension upper and lower rod and head end accumulator charge pressure[2]
- Inspecting, cleaning or replacing primary and secondary engine air filters [3]
- Replacing cab fresh air filters[4]
- Replacing recirculation filters[5]
- Changing engine oil and filter [6]
  R Series Tractors are equipped with either IT4/Stage IIIB or Tier 2/Stage II engine. See Record Engine Serial Number in Identification Numbers section to determine which engine is applicable.
  The initial break-in service interval of a new or rebuilt wet sleeve engine with Break-In Plus must go at least 100 hours to assure the surface mating of the rings and liners has had an opportunity to occur. The 100 hour minimum applies to all new or rebuilt engines. The maximum service interval is the same as the service interval recommendations listed in Engine Oil and Filter Service Intervals locted in section 90 of this Operator's Manual.
- Replacing fuel filter elements [7] (Both Fuel Filters)

Hours					Hours				
Date					Date				
Hours					Hours				
Date					Date				
Hours					Hours				
Date					Date				
Hours					Hours				
Date					Date				

[1] For replacement batteries, follow manufacturer's recommendations.
[2] See your John Deere™ dealer to answer any questions you may have.
[3] Replace every 1000 hours, annually or as indicated whichever comes first.
[4] Replace every 1000 hours, annually or as required whichever comes first.
[5] Replace every 1000 hours, annually or as required whichever comes first.
[6] Replace at 500 hours or annually whichever comes first. Perform oil change in accordance with Changing Engine Oil and Filter in section 104 of this Operator's Manual.
[7] Replace at 500 hours, annually or as indicated whichever comes first.

OURX935,0000552-19-25AUG11-1/1

50 Hour Service Records

- Checking tires
- Lubricating rear hitch components

Hours					Hours				
Date					Date				
Hours					Hours				
Date					Date				
Hours					Hours				
Date					Date				
Hours					Hours				
Date					Date				

OURX935,0000490-19-14SEP11-1/1

250 Hour Service Records

- Checking NEUTRAL start system
- Checking transmission PARK position
- Lubricating MFWD king pins, tie rod ends, axles pivot fittings and U-joints
- Lubricating Independent Link Suspension king pins, tie rod ends, axles pivot fittings and U-joints
- Lubricating ActiveCommand steering arm
- Checking MFWD differential case oil level
- Checking MFWD and/or Independent Link Suspension wheel hub oil level
- Draining fuel tank and sump
- Lubricating front hitch (if equipped)
-

Hours					Hours				
Date					Date				
Hours					Hours				
Date					Date				
Hours					Hours				
Date					Date				
Hours					Hours				
Date					Date				

OURX935,000054F-19-02AUG12-1/1

500 Hour Service Records

- Changing engine oil and filter

NOTE: R Series Tractors are equipped with either IT4/Stage IIIB or Tier 2/Stage II engine. See Record Engine Serial Number in Identification Numbers section to determine which engine is applicable.

The initial break-in service interval of a new or rebuilt wet sleeve engine with Break-In Plus must go at least 100 hours to assure the surface mating of the rings and liners has had an opportunity to occur. The 100 hour minimum applies to all new or rebuilt engines. The maximum service interval is the same as the service interval recommendations listed in Engine Oil and Filter Service Intervals locted in section 90 of this Operator's Manual.

- Replacing BOTH fuel filters[1]
- Cleaning optional fuel water separator filter element (If Equipped)
- Checking wheel and wheel weight bolts
- Checking dual beam radar sensor
- Checking air intake system
- Lubricating front PTO drive shaft

Hours					Hours				
Date					Date				
Hours					Hours				
Date					Date				
Hours					Hours				
Date					Date				
Hours					Hours				
Date					Date				

[1] Or annually whichever comes first.

OURX935,0000550-19-14SEP11-1/1

1000 Hour Service Records

- Cleaning fuel tank vent filter
- Replacing cab fresh air filters[1]
- Replacing recirculation filters[2]
- Inspecting, cleaning or replacing primary and secondary engine air filters [3]
- Testing coolant
- Cleaning MFWD axle filter

Hours					Hours				
Date					Date				
Hours					Hours				
Date					Date				
Hours					Hours				
Date					Date				
Hours					Hours				
Date					Date				

[1] Replace every 1000 hours, annually or as required whichever comes first.
[2] Replace every 1000 hours, annually or as required whichever comes first.
[3] Replace every 1000 hours, annually or as indicated whichever comes first.

OURX935,0000551-19-25AUG11-1/1

1500 Hour Service Records

- Draining differential and clean oil reservoir
- Draining PowerShift (PST) transmission and cleaning filter
- Draining IVT/AutoPowr/ transmission and cleaning filter
- Draining Independent Link Suspension (If Equipped)
- Cleaning hydraulic oil suction screen
- Replacing transmission/hydraulic oil filters and refilling transmission/hydraulic oil
- Changing MFWD or Independent Link Suspension hub oil
- Changing MFWD hub and differential case oil
- Lubricating Independent Link Suspension internal ball joints
- Lubricating draft link support shaft bushing
- Inspecting auxiliary drive belt
- Service variable fan drive

Hours					Hours				
Date					Date				
Hours					Hours				
Date					Date				
Hours					Hours				
Date					Date				
Hours					Hours				
Date					Date				

OURX935,0000494-19-02AUG12-1/1

2000 Hour Service Records —Tier2/Stage II Engines Only

- Check engine valve clearance

Hours					Hours				
Date					Date				
Hours					Hours				
Date					Date				
Hours					Hours				
Date					Date				
Hours					Hours				
Date					Date				

OURX935,00005C6-19-20SEP11-1/1

3000 Hour Service Records—IT4/Stage IIIB Engines Only

- Check engine valve clearance

Hours					Hours				
Date					Date				
Hours					Hours				
Date					Date				
Hours					Hours				
Date					Date				
Hours					Hours				
Date					Date				

OURX935,0000495-19-20SEP11-1/1

5000 Hour Service Records

- Replace engine crankshaft torsional damper
- Replace transmission torsional damper

Hours					Hours				
Date					Date				
Hours					Hours				
Date					Date				
Hours					Hours				
Date					Date				
Hours					Hours				
Date					Date				

OURX935,0000496-19-30JUN11-1/1

6000 Hour Service Records

- Draining, flushing , and refilling cooling system (includes replacing thermostat and radiator cap)
- Checking de-aeration cap and de-aeration tank

Hours					Hours				
Date					Date				
Hours					Hours				
Date					Date				
Hours					Hours				
Date					Date				
Hours					Hours				
Date					Date				

OURX935,0000497-19-14SEP11-1/1

Glossary of Terms

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

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ITEM	ABBREVIATION	DESCRIPTION
Evacuation Diagnostic Receptacle	EVAC	Diagnostic receptacle port used for pre-lubrication of the pump drive gears
Forward-Neutral-Reverse	FNR	Abbreviation
Forward	FWD	Refers to direction of movement
Ground-Driven Pump	GDP	Pump used to operate steering and brakes during emergency conditions
Gallons Per Minute	gpm	Amount of fluid over a period of one minute
Global Positioning System	GPS	Abbreviation
GreenStar™ System	GSS	Part of John Deere Precision Farming Systems
Hitch Control Unit	HCU	Computerized system used to control hitch functions
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 Slip Command	HSC	System to compensate for traction changes
Housing	Hsg	Abbreviation
Heating-Ventilating and Air Conditioning	HVAC	Abbreviation
Instrument Control Unit	ICU	Computerized system controlling tractor warning functions
Inside Diameter	ID	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
International Standards Organization	ISO	Standards organization
Intelligent Total Equipment Control	iTEC™	Abbreviation
Infinitely Variable Transmission	IVT	A hydro-mechanical transmission with infinitely variable speeds
Joint Industry Council Organization	JIC	Standards organization
Liquid Crystal Display	LCD	A technology used for displaying information
Left-Hand	LH or L-H	Abbreviation
Lateral Hitch Position	LHP	Refers to hitch positioning for a row guidance hitch application
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
Outside Diameter	OD	Abbreviation
O-Ring Face Seal	ORFS or ORS	A type of seal used in making hydraulic connections
Performance Monitor	Perf Mon or PrF	Abbreviation
Product Identification Number	PIN	Serial number relating to tractor identification
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
Reverse	Rev	Refers to direction of movement
Revolutions Per Minute	rpm	Abbreviation
Right-Hand	RH or R-H	Abbreviation
Rockshaft	RS	Abbreviation
Society of Automotive Engineers	SAE	Engineering Standards Organization
Selective Control Option	SCo	Control unit for selective control valves 4 and 5

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ITEM	ABBREVIATION	DESCRIPTION
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
Suspended Front Axle	SFA	Front axle with an active suspension system that is electronically controlled
Slow Moving Vehicle	SMV	Warning sign on the rear of the tractor
Specification	SPEC	Abbreviation
Steering Control Unit	SSU	Computerized system controlling tractor steering
Setup Panel	SUP	Operator control panel used to set selective control valve function
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
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
Tail Light	TL	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
Without	W/O	Abbreviation
Warning Lamp	WL	Abbreviation
Wide-Open Throttle	WOT	Full throttle

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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:

DX,SERVLIT-19-07DEC16-1/5

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.

TS189—UN—17JAN89

DX,SERVLIT-19-07DEC16-2/5

OPERATOR'S MANUALS providing safety, operating, maintenance, and service information.

TS191—UN—02DEC88

DX,SERVLIT-19-07DEC16-3/5

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.

TS224—UN—17JAN89

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DX,SERVLIT-19-07DEC16-4/5

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.

TS1663—UN—10OCT97

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John Deere Service Keeps You on the Job

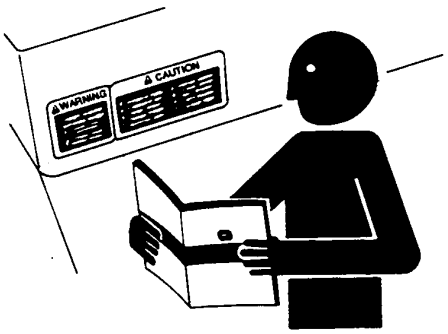
John Deere Is At Your Service

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.



TS201—UN—15APR13

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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