

Premium Tractors 7130, 7230, 7330, 7430 and 7530



JOHN DEERE



OPERATOR'S MANUAL

Premium Tractors 7130, 7230, 7330,
7430 and 7530

OMAL171429 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 GmbH & Co. KG
John Deere Werk Mannheim

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 the safety signs on your machine may also be available in other languages (see your John Deere dealer to order).

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

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

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

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

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

BEFORE DELIVERING THIS MACHINE, your dealer performed a predelivery inspection. After operating for the first 100 hours, schedule an after-sale inspection with your dealer to ensure best performance.

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

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

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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

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Identification Views



LX1041413

LX1041413—UN—21SEP06



LX1041414

LX1041414—UN—21SEP06

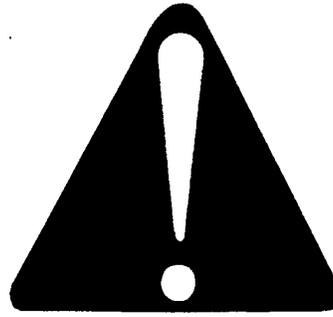
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Safety

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

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.



TS187—19—30SEP88

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.

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



TS201—UN—15APR13

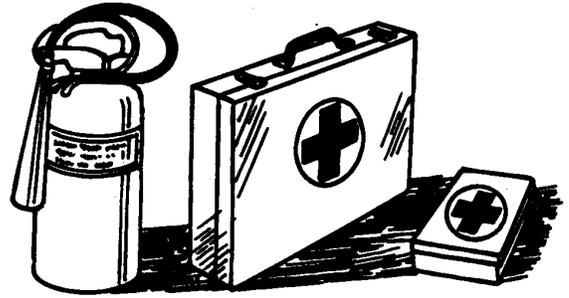
DX,READ-19-01AUG22-1/1

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.



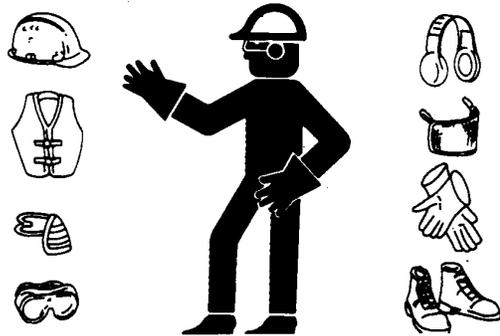
TS291—UN—15APR13

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,



TS202—UN—23AUG88

spark, or pilot light such as within a water heater or other appliance.

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

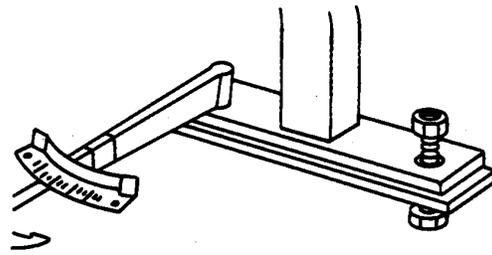
Keep ROPS Installed Properly

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



TS1729—UN—24MAY13

as soon as the machine is operated under normal conditions.

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.

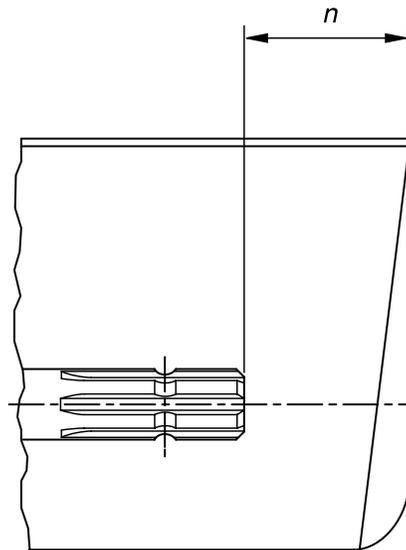
Do not raise implements high enough to damage the tractor master shield or guard of primary implement PTO driveshaft. Detach the PTO driveline shaft if it is necessary to increase implement height. (See Attching/Detaching PTO Driveline)

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	$n \pm 5 \text{ mm (0.20 in.)}$
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



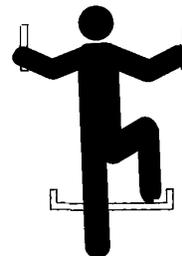
H96219—UN—29APR10

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



TS1729—UN—24MAY13

abrasion. Replace only with replacement parts approved for your machine. See your John Deere dealer.

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,VW,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.

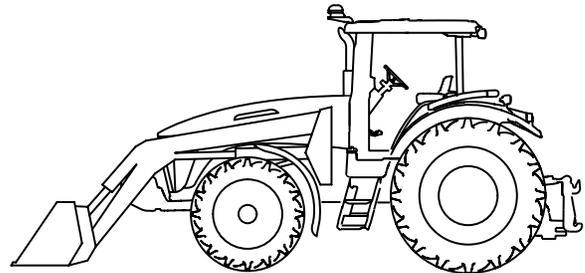
Never allow anyone to walk or work under a raised loader.

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



T51692—UN—09NOV09

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 clammers).

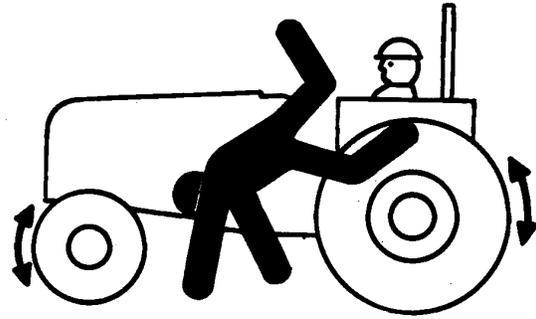
Ballast tractor in accordance to Ballast Recommendations in PREPARE TRACTOR section.

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.

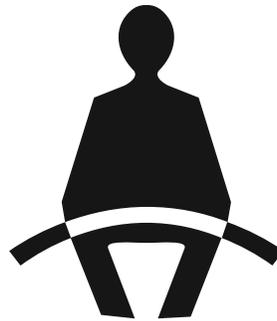


TS290—UN—23AUG88

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.



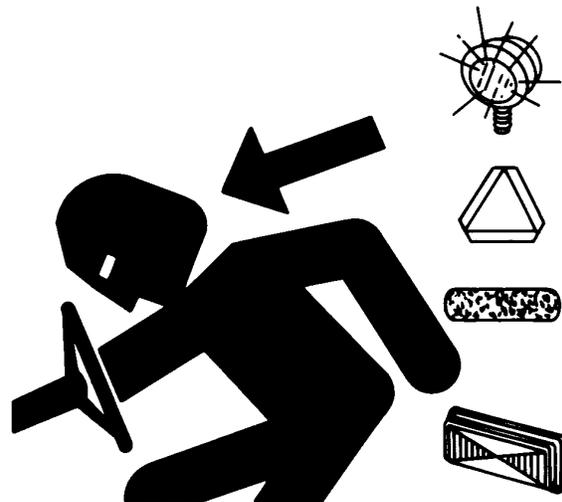
TS1730—UN—24MAY13

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

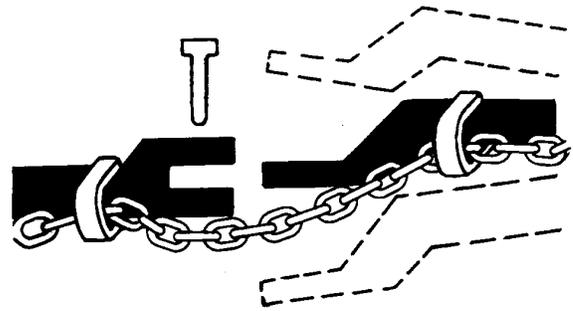
DX,FLASH-19-07JUL99-1/1

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

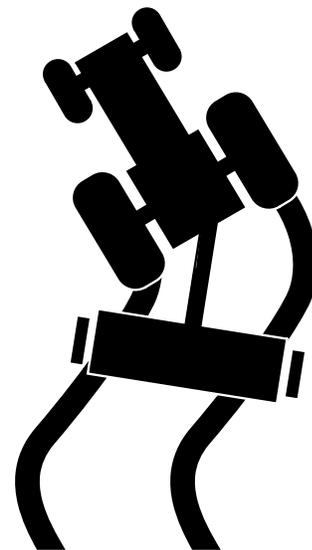
Implements shall be equipped with brakes if the maximum fully loaded weight is greater than 1500 kg (3307 lbs) and greater than 1.5 times the weight of the towing unit.

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.

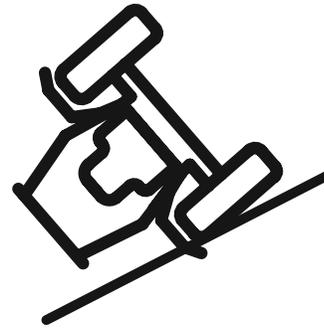
Danger of overturn increases greatly with narrow tread setting, at high speed.

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



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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

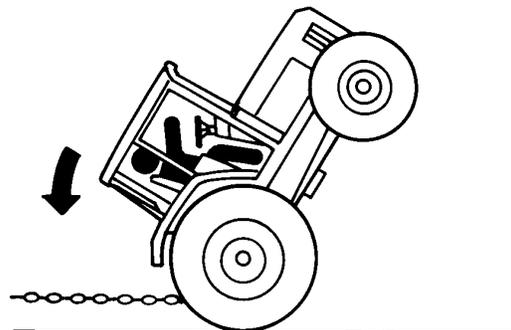
Freeing a Mired Machine

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

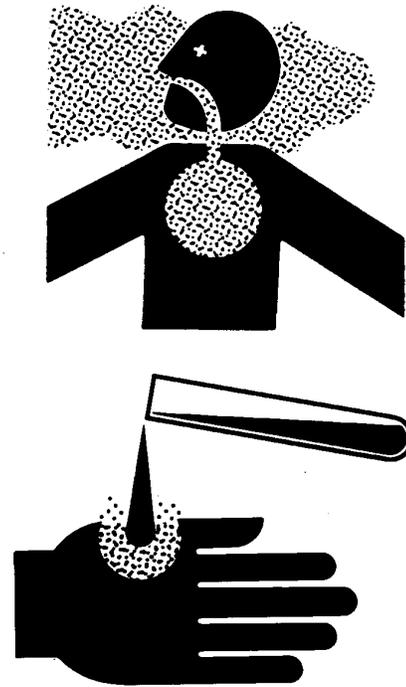
DX,MIRED-19-07JUL99-1/1

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



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chemicals to unmarked containers or to containers used for food or drink.

- Store chemicals in a secure, locked area away from human or livestock food. Keep children away.
- Always dispose of containers properly. Triple rinse empty containers and puncture or crush containers and dispose of properly.

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

TS220—UN—15APR13

A34471—UN—11OCT88

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.

Avoid hazards by:

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

If acid is spilled on skin or in eyes:

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

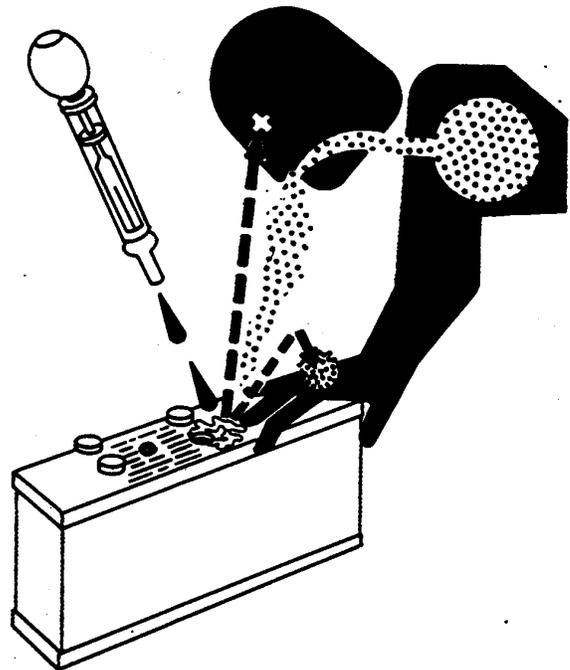
If acid is swallowed:

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

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



TS204—UN—15APR13



TS203—UN—23AUG88

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

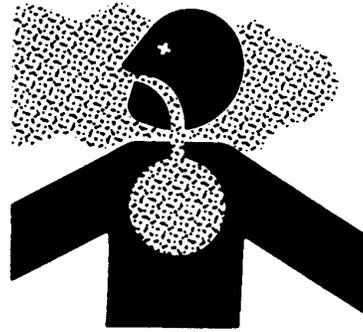
Avoid potentially toxic fumes and dust.

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

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

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

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

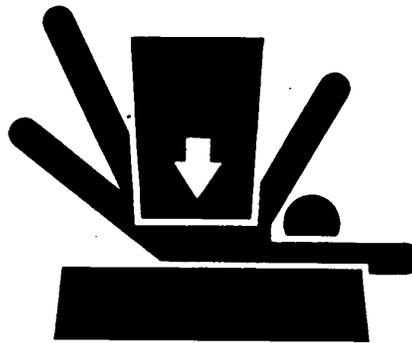
DX,AIR-19-17FEB99-1/1

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.



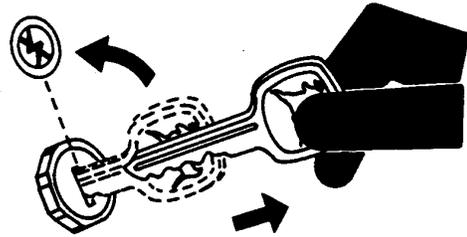
TS177—UN—11JAN89

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

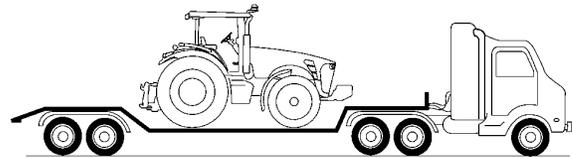
DX,PARK-19-04JUN90-1/1

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.



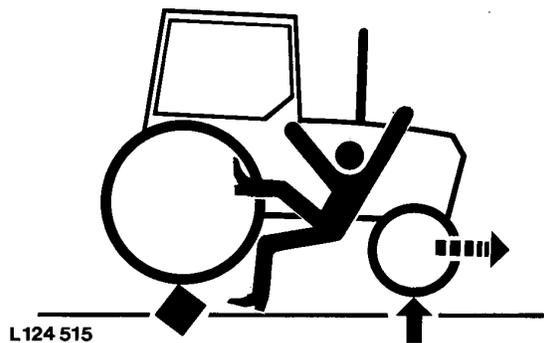
RXA0103438—UN—11JUN09

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.



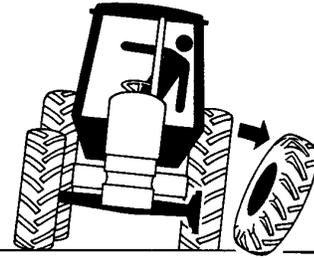
L124 515

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.



L124 516

L124516—UN—03JAN95

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.

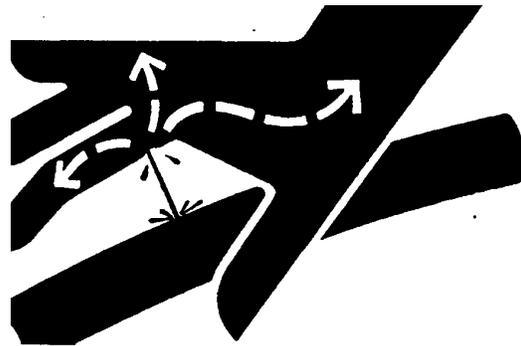
Replace worn or damaged hose assemblies immediately with John Deere approved replacement parts.

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



X9811—UN—23AUG88

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.)



TS1343—UN—18MAR92

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.



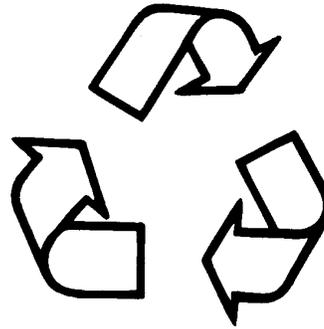
TS219—UN—23AUG88

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);



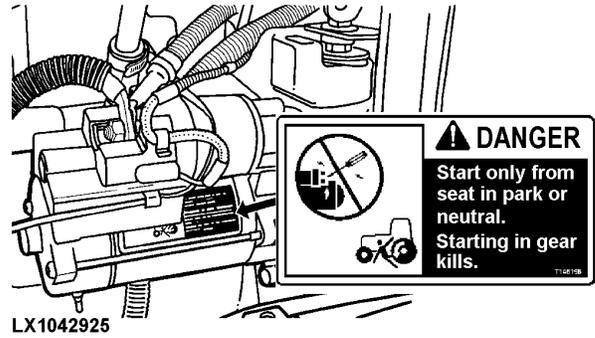
TS 1133—UN—15APR13

- 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

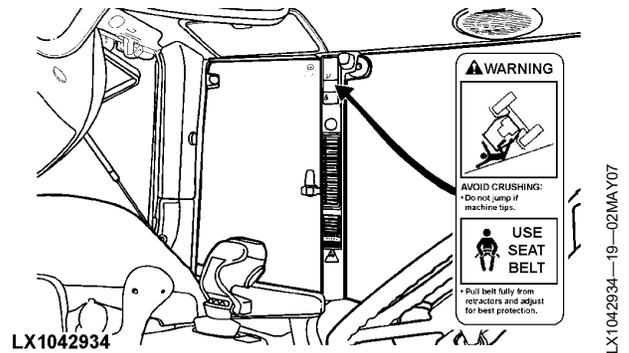
Safety Decals

Prevent Machine Runaway



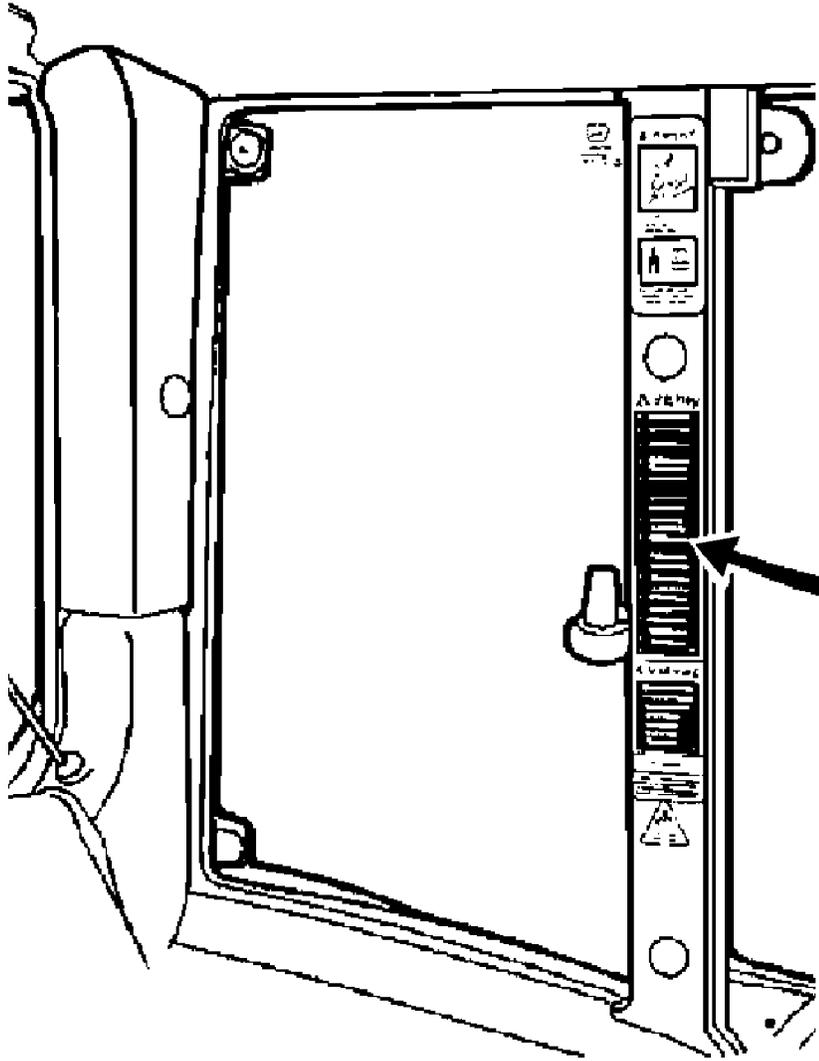
OU12401,0001736-19-23APR07-1/1

Use Seat Belt



OU12401,000174D-19-02MAY07-1/1

Operate the Tractor Safely



! CAUTION

1. Read Operator's Manual before operating this tractor.
2. Keep all shields in place.
3. Hitch towed loads only to drawbar to avoid rearward upset.
4. Make certain everyone is clear of machine before starting engine or operation.
5. Keep all riders off tractor and equipment.
6. Keep hands, feet and clothing away from power-driven parts.
7. Reduce speed when turning or applying individual brakes or operating around hazards, on rough ground or steep slopes.
8. Couple brake pedals together for road travel.
9. Use flashing warning lights on highway unless prohibited by law.
10. Stop engine, lower implement to ground and shift to "PARK" or set handbrake securely before dismounting.
11. Wait for all movement to stop before servicing machinery.
12. Remove key if leaving tractor unattended.

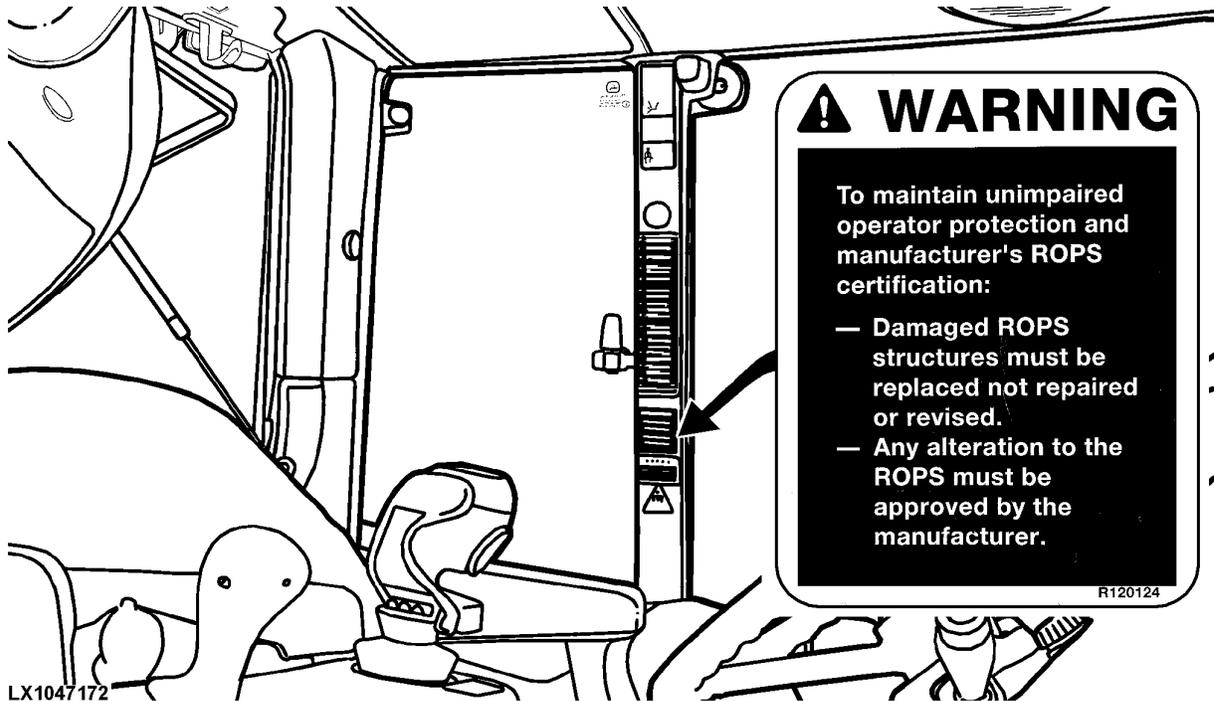
R186020A

LX1047165

LX1047165—19—15DEC08

OU12401,0001B0F-19-25JAN09-1/1

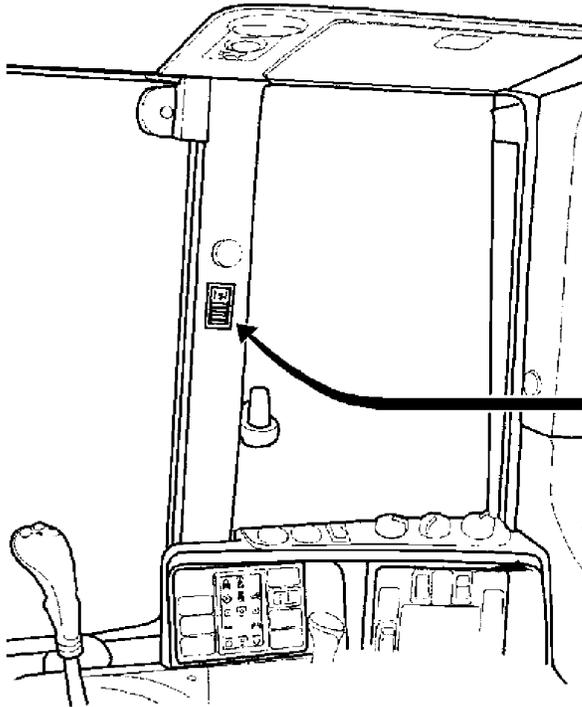
Do Not Modify ROPS



LX1047172-19-15DEC08

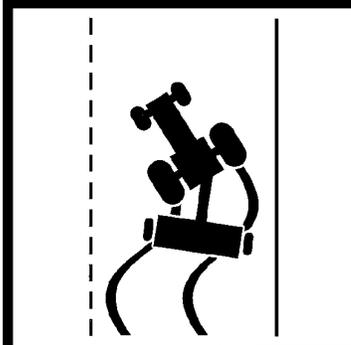
OU12401.0001B0A-19-14JAN09-1/1

Tow Loads Safely



LX1047166

⚠ WARNING



Avoid serious injury or death resulting from loss of control during transport or braking of a towed implement.

This tractor is capable of operating at transport speeds that may exceed the maximum allowable transport speed for towed implements. If implement manufacturer does not specify maximum transport speed, observe these transport speed limits:

- implements without brakes:
32 km/h (20mph)
- implements with brakes:
40 km/h (25mph)

Do not exceed the implement's maximum transport speed.

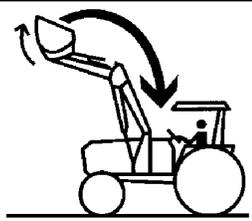
R195575

LX1047166—19—15DEC08

OU12401,0001B10-19-25JAN09-1/1

Caution with Front Loader Operation

⚠ WARNING



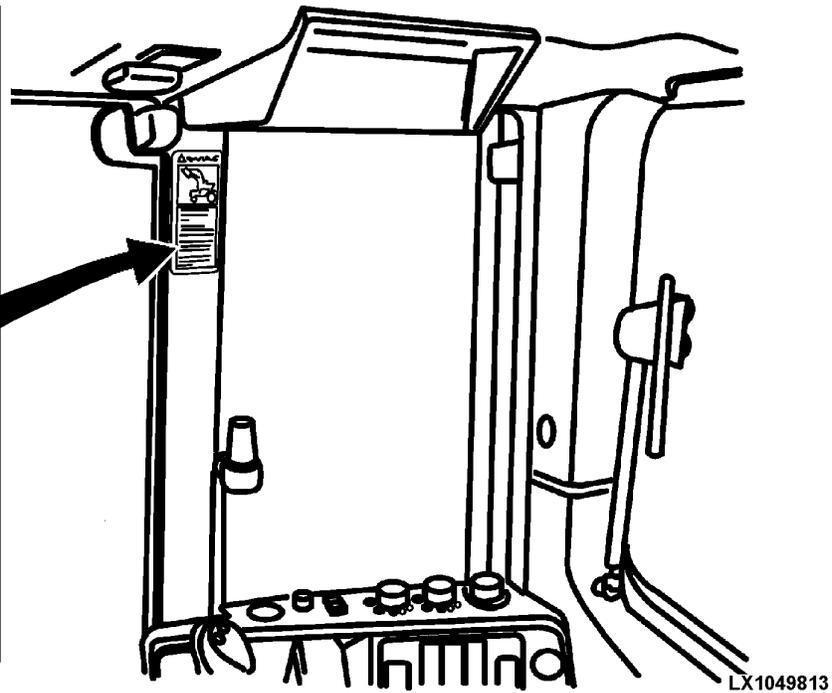
AVOID INJURY OR DEATH CAUSED BY FALLING LOADS.

When using loader
ALWAYS put SCV selector knobs in loader position.

If you do not, loader will continue to move after controls are released.

See operators manual for use of other knob positions.

R117493

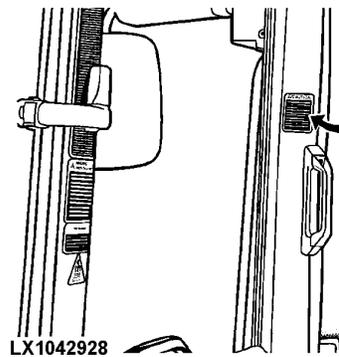


Tractor with Operator's Cab

LX1049813—19—16SEP10

OULXBER,0001986-19-17SEP10-1/1

Use of 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 your seat belt

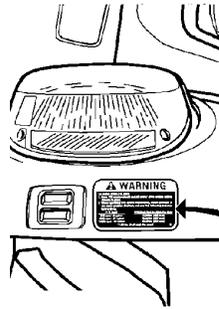
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LX1042928

LX1042928—19—06NOV07

OUI2401,0001739-19-25APR07-1/1

Stay Clear of PTO



LX1042929

⚠ WARNING

TO AVOID BODILY INJURY:

1. Keep PTO master shield and all power drive system safety shields in place
2. When operating PTO driven implements, install drawbar in the down position if offset, and use the following drawbar instructions:

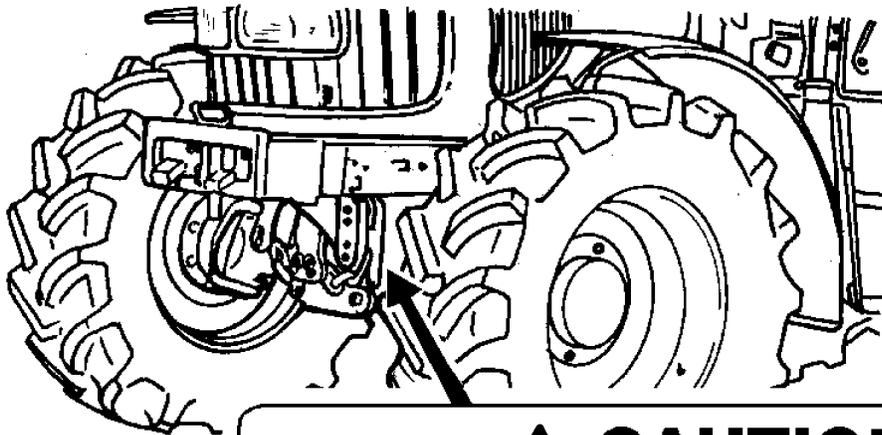
PTO Shaft	PTO Shaft End to hitch Pin Hole
543 rpm - 6 spline	14.00 in. (356 mm)
1003 rpm - 21 spline	16.00 in. (407 mm)
*1000 rpm - 20 spline	20.00 in. (508 mm)

*1.75 in. (44,5 mm) dia. shaft

LX1042929-19-06NOV07

OU12401,000173A-19-23APR07-1/1

Suspension System (e.g. TLS Front Axle and/or Cab)



⚠ CAUTION

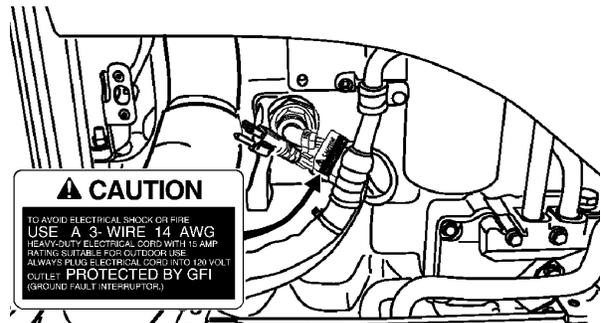
To avoid injury from machine movement and exposure to fluid under pressure, see dealer for instruction on relieving pressure before servicing suspension hydraulic system.

LX1047176

LX1047176-19-16DEC08

OU12401,0001B0E-19-14JAN09-1/1

Connect Coolant Preheater Correctly



LX1049821

⚠ CAUTION

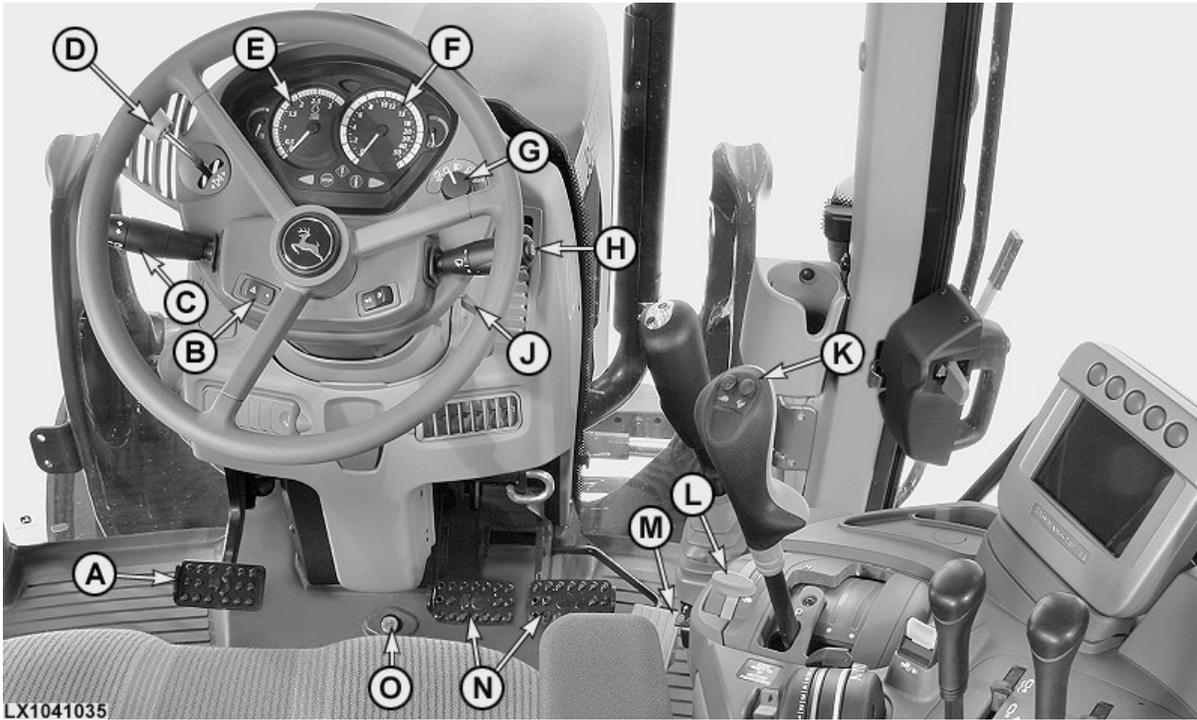
TO AVOID ELECTRICAL SHOCK OR FIRE
USE A 3-WIRE 14 AWG
 HEAVY-DUTY ELECTRICAL CORD WITH 15 AMP
 RATING SUITABLE FOR OUTDOOR USE
 ALWAYS PLUG ELECTRICAL CORD INTO 120 VOLT
 OUTLET PROTECTED BY GFI
 (GROUND FAULT INTERRUPTOR.)

LX1049821-19-14OCT10

OULXBER,0001997-19-14OCT10-1/1

Controls and Instruments

Vehicle Controls



- | | |
|-------------------------------|--|
| A—Clutch pedal | H—Wiper switch |
| B—Hazard warning light switch | J—Main (key) switch |
| C—Turn signal lever/horn | K—Range shift lever with speed buttons |
| D—Reverser lever | L—Hand throttle |
| E—Tachometer (engine rpm) | M—Accelerator pedal |
| F—Speedometer, km/h or mph | N—Left and right brake pedals |
| G—Light switch | O—Differential lock |



Tractors with CommandArm

Continued on next page

OU12401,0001727-19-19APR07-1/2

LX1041035—UN—14JUN06

LX1036605—UN—04OCT05

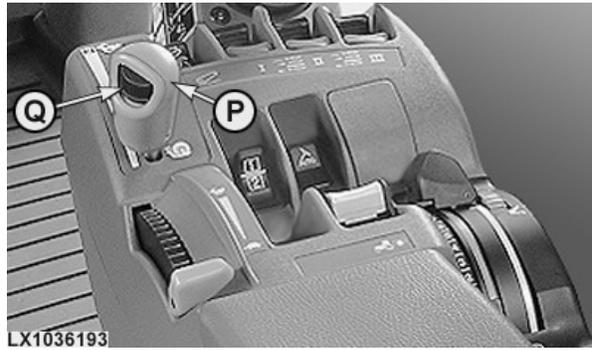
Different arrangement with IVT

D—Reverser lever
P—Speed control lever

Q—Speed wheel (for setting
maximum speed)



Reverser lever for IVT



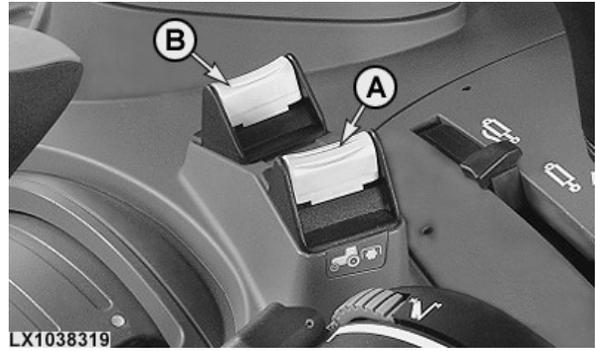
Speed control lever with IVT

OU12401,0001727-19-19APR07-2/2

PTO Controls

A—Rear PTO switch
B—Front PTO switch

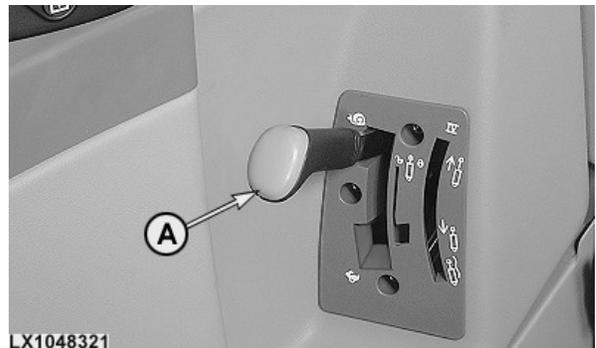
C—Rear PTO speed button



OULXE59,0010888-19-19APR06-1/1

Creeper Control

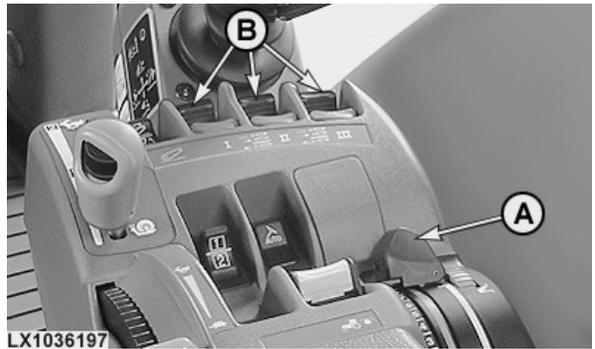
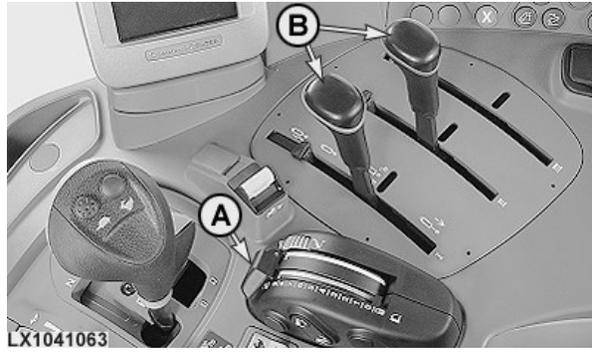
A—Creeper lever



OULXE59,0010889-19-19APR06-1/1

Attachment Controls

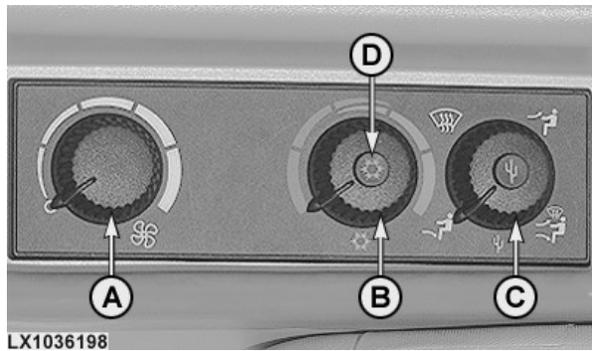
- A—Three-point hitch control unit
- B—Levers for selective control valves



OU12401,00014AF-19-04JUL06-1/1

Heater and Air-Conditioning Controls (Tractors without ClimaTrak System)

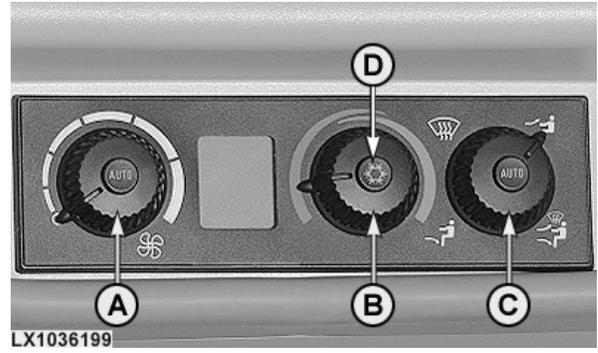
- A—Fan switch
- B—Heater and air-conditioning regulator
- C—Airflow regulator
- D—Air-conditioning switch



OU12401,0001401-19-13MAY06-1/1

Heater and Air-Conditioning Controls (Tractors with ClimaTrak System)

- A—Fan switch with automatic mode
- B—Heater and air-conditioning regulator
- C—Airflow regulator with automatic function
- D—Air-conditioning switch regulator



OU12401.0001658-19-05MAR07-1/1

Indicator Lights and Displays

Indicator lights



LX1041037

LX1041037—UN—08JAN10

1-The red STOP light flashes when a serious malfunction occurs. Switch off the engine IMMEDIATELY and determine the cause (review the error message in the CommandCenter).

2-The yellow CAUTION light flashes when a malfunction occurs (review the error message in the CommandCenter). This light also flashes if the park brake is applied with the engine running and the reverser lever set to any position other than neutral.

3-The blue INFO light comes on when there is a fault in an electrical component associated with the hydraulic system or transmission. See your John Deere dealer.

4-This light comes on when the main (key) switch is turned one position to the right. Wait till the light goes out before starting the engine.

5-This light comes on when the rear PTO is engaged.

6-These lights indicate which rear PTO speed is selected.

7-This light comes on when HMS Plus is selected.

8-This light comes on when front-wheel drive is engaged. When front-wheel drive is in its automatic mode, the letter A also lights up.

9-This light comes on when the differential lock is engaged.

10-The high beam indicator light comes on when the headlights are switched on at high beam.

11-With PowrQuad Plus or AutoQuad Plus transmission, this light comes on together with a number that indicates which gear is selected.

12-These illuminated sectors indicate the setting for highest possible gear (with AutoQuad Plus transmission).

13-This light comes on whenever the automatic mode of an AutoQuad Plus or AutoPowr / IVT transmission is activated.

14-This light comes on when the reverser lever is in forward position.

15-This light comes on when the reverser lever is in neutral position.

16-This light comes on when the reverser lever is in reverse position.

17-This light comes on when the transmission is in Park position.

18-With PowrQuad Plus or AutoQuad Plus transmission, figures 1-4 indicate which gear is selected.

19-This light comes on when the AutoPowr / IVT transmission is in creeper mode.

Continued on next page

OU12401,0001D82-19-28JUL10-1/4

20-This light comes on whenever the transport lock of the electrical multi-function lever is activated.

blown fuse may be the cause. Check and replace parts as necessary.

21-This light comes on whenever the transport lock of the E-SCV/E-ICV is activated.

The indicator lights should go out as soon as the engine is running.

22-This light comes on when front PTO is engaged.

NOTE: Travel speed can be displayed in km/h or MPH. This setting can be made at the CommandCenter. In this section, see the Units of measurement screen in CommandCenter settings.

Light test: As the engine is started, all the lights should come on for approx. 1 second. If not, a defective bulb or

OU12401,0001D82-19-28JUL10-2/4

Fuel gauge

The fuel gauge shows the amount of fuel in the tank, from full to empty (end of red). When the indicator needle enters the red, there are still approx. 35 liters (9.2 U.S. gal.) remaining.



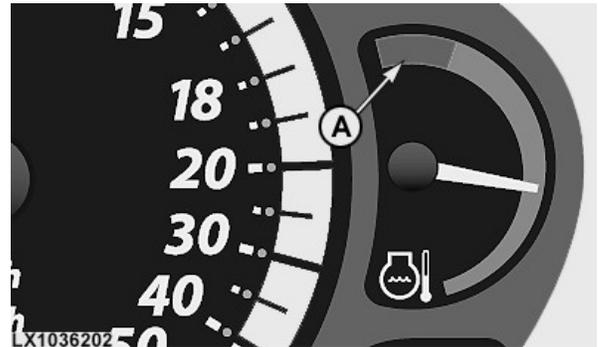
LX1036201

LX1036201—UN—31MAY06

OU12401,0001D82-19-28JUL10-3/4

Coolant temperature gauge

If the coolant gauge needle moves into the red (A), the engine is overheating. Immediately reduce load or shift to a lower gear. If the needle remains in the red, shut off engine and determine cause of overheating (coolant level low, dirty radiator or dirty radiator screen).



LX1036202

LX1036202—UN—31MAY06

OU12401,0001D82-19-28JUL10-4/4

Controls and Displays

CommandCenter

The CommandCenter is used to display various tractor functions; it allows the user to change the settings for these functions. In addition, it can display certain calculations (average fuel consumption, area worked, etc).

NOTE: The screens on the CommandCenter shown in this Operator's Manual are all in English. The language and units of measurement that actually appear on the tractor can be selected by the operator.

OU12401,0001D85-19-29NOV09-1/17

Operating the CommandCenter

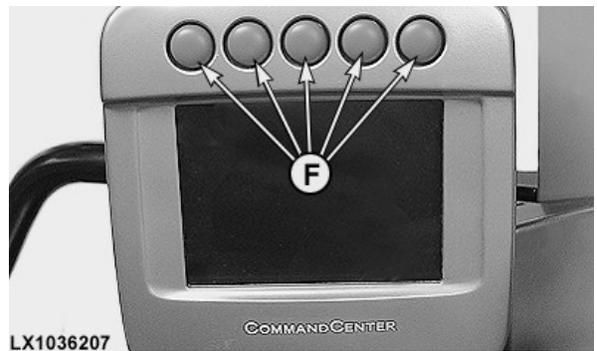
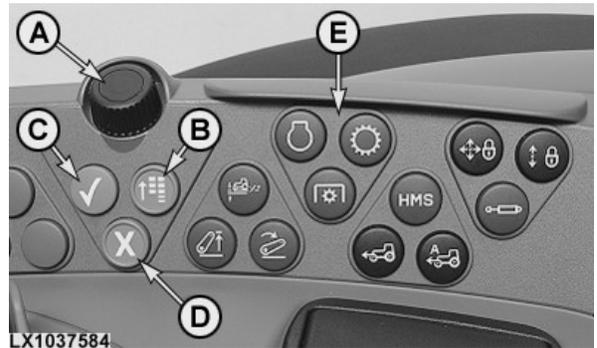
The CommandCenter can be operated as follows:

- With selection wheel (A), the main menu key (B), confirm key (C) and cancel key (D).
- With the 8 brown quick-access keys (E) (the ones that are assigned predefined functions).
- With the 5 hot keys (F), the functions of which are set by the user.

Selection wheel (A) allows you to scroll through the different screen cells. Key (B) gives access to the main menu of the CommandCenter. Key (C) is used to select or confirm an input. Key (D) is used to cancel an input.

The functions of keys (E) are explained in the relevant Sections (e.g. Hitch, Power Take-Off, Additional Equipment).

- | | |
|-------------------|---------------------|
| A—Selection wheel | D—Cancel key |
| B—Main menu key | E—Quick-access keys |
| C—Confirm key | F—Hot keys |

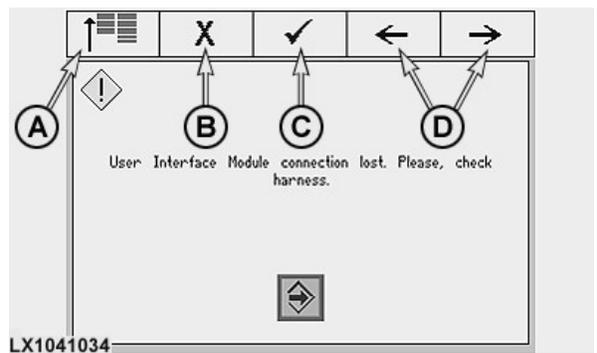


OU12401,0001D85-19-29NOV09-2/17

Emergency operation

If the connection between the CommandCenter and the regular keys is interrupted, the screen shown opposite appears. The CommandCenter can still be used via the 5 hot keys above the cells shown in the illustration.

- | | |
|----------------------|-----------------------|
| A—Cell for main menu | C—Cell for confirm |
| B—Cell for cancel | D—Cells for selection |



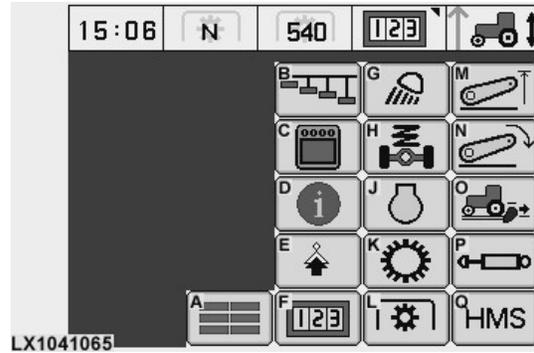
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OU12401,0001D85-19-29NOV09-3/17

Main menu

The content of this screen varies depending on how the tractor is equipped.

- | | |
|---|---|
| <p>A—Main screen. Described on the following pages.</p> <p>B—Hotkey screen. Described under Assignment of hot keys on the following pages.</p> <p>C—Display screen. Described under CommandCenter settings on the following pages.</p> <p>D—Information screen. Described in Section 135, Diagnostic Trouble Codes and Customization.</p> <p>E—Option screen. Described in Section 20, Lights and Section 25, Operator's Cab.</p> <p>F—Performance monitor screen. Described under Performance monitor on the following pages.</p> <p>G—Lights screen. Described in Section 20, Lights.</p> <p>H—TLS Plus screen. Described in Section 45, Operating the Tractor.</p> | <p>J—Engine screen. Described in Section 40, Operating the Engine.</p> <p>K—Transmission screen. Described in Section 45, Operating the Tractor.</p> <p>L—PTO screen. Described in Section 55, Power Take-Off.</p> <p>M—Lift limit screen. Described in Section 50, Hitch.</p> <p>N—Rate-of-drop screen. Described in Section 50, Hitch.</p> <p>O—Load/depth control screen. Described in Section 50, Hitch.</p> <p>P—SCV screen. Described in Section 70, Additional Equipment.</p> <p>Q—HMS screen. Described in Section 51, HMS.</p> |
|---|---|



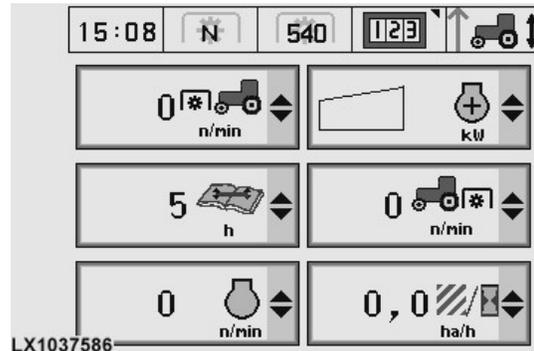
LX1041065

LX1041065—UN—11OCT06

OU12401,0001D85-19-29NOV09-4/17

Main screen

On this screen, six cells are available; they can be assigned any of the symbols in the selection lists. Selection depends on how the tractor is equipped.



LX1037586

LX1037586—UN—11OCT06

Continued on next page

OU12401,0001D85-19-29NOV09-5/17

Main screen - selections

- A—Front PTO speed
- B—Rear PTO speed
- C—Coolant temperature
- D—Engine hours
- E—Engine speed
- F—Ambient temperature
- G—Lift height of three-point hitch
- H—Set speeds (AutoPowr/IVT)
- J—Selected speed (AutoPowr/IVT)
- K—Engine power
- L—Temperature of transmission/hydraulic oil
- M—Time of day
- N—Voltage (electrical system)
- O—Fuel reserve in percent
- P—Fuel consumption per hour
- Q—Area covered per hour
- R—Distance covered
- S—Area covered
- T—Rear wheel slip
- U—Service interval
- V—Ground speed
- W—Ground speed (radar)
- X—Engine oil pressure

The main screen display shows the following metrics:

- A**: 500 n/min (Front PTO speed)
- B**: 560 n/min (Rear PTO speed)
- C**: 23 °C (Coolant temperature)
- D**: 1433,0 h (Engine hours)
- E**: 1230 n/min (Engine speed)
- F**: 21 °C (Ambient temperature)
- G**: 56% (Lift height of three-point hitch)
- H**: 25.0 mph (Set speeds: F2 25.0, F1 12.4, R1 12.4, R2 16.8)
- J**: 25.0 mph (Selected speed)
- K**: kW (Engine power)
- L**: 23 °C (Temperature of transmission/hydraulic oil)
- M**: 15:10 (Time of day)
- N**: 11,9 V (Voltage)
- O**: 64% (Fuel reserve)
- P**: 9,0 l/h (Fuel consumption)
- Q**: 6,0 ha/h (Area covered per hour)
- R**: 671,5 n (Distance covered)
- S**: 3,3 ha (Area covered)
- T**: 6,0% (Rear wheel slip)
- U**: 5 h (Service interval)
- V**: 5 km/h (Ground speed)
- W**: 5 km/h (Ground speed radar)
- X**: 368 kPa (Engine oil pressure)

LX1041396

LX1041396—UN—16NOV06

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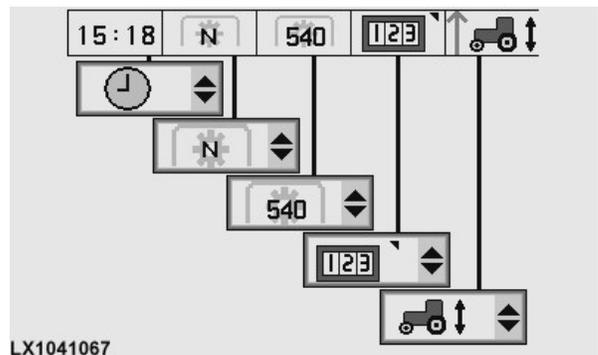
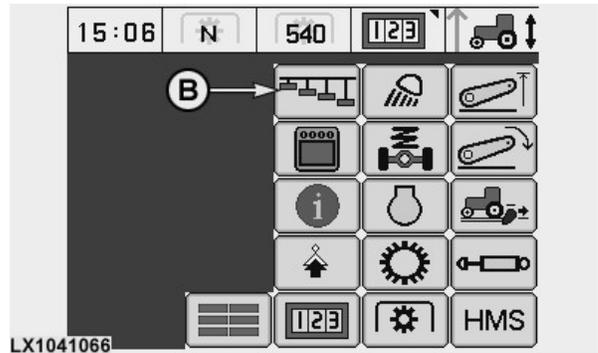
OU12401,0001D85-19-29NOV09-6/17

Hot keys - assignment

Press the main menu key (A) and select hot keys (B) on the screen.

On the following screen, a function may be selected from the selection list for each of the 5 hot keys. The functions depend on how the tractor is equipped.

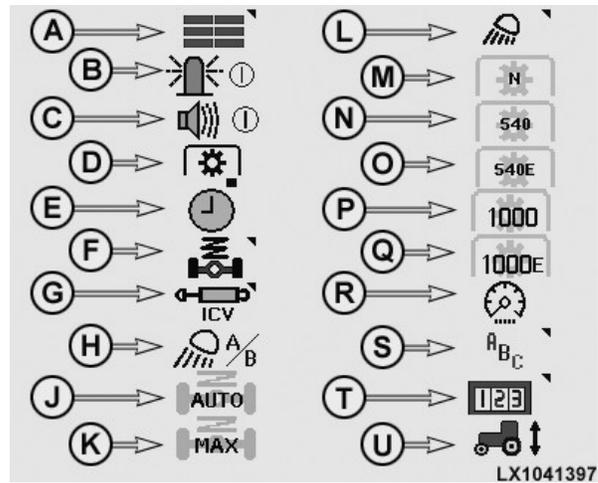
A—Main menu key B—Hot keys



OU12401,0001D85-19-29NOV09-7/17

Hot keys - selection of functions

- | | |
|--|-------------------------|
| A—Main screen | L—Worklights |
| B—Beacon light | M—PTO (neutral) |
| C—Back-up alarm | N—PTO (540) |
| D—PTO remote (external) control | O—PTO (540E) |
| E—Clock | P—PTO (1000) |
| F—TLS Plus screen | Q—PTO (1000E) |
| G—Selective control valves for functions at front of tractor | R—Dimming the screen |
| H—Worklights A/B | S—Language selection |
| J—TLS Plus automatic | T—Performance monitor |
| K—TLS Plus (maximum hardness) | U—Manual area recording |



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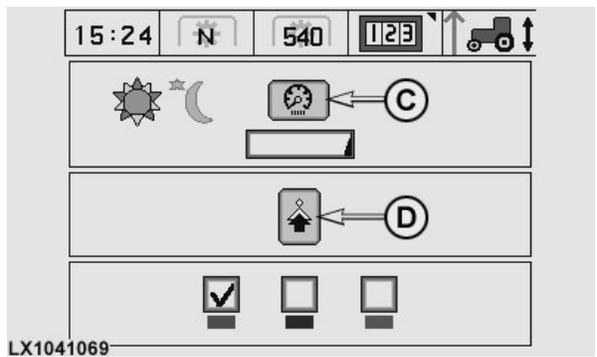
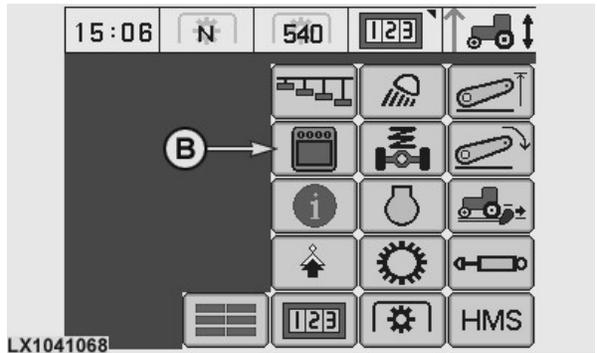
OU12401,0001D85-19-29NOV09-8/17

CommandCenter settings

Press the main menu key (A) and select Display (B) on the screen.

On the following screen, brightness and the highlight color can be selected. **Dimming cell (C)** considerably reduces the brightness of the display (for night time operation). To reset the brightness to normal, press any key. Symbol (D) gives access to the next screen.

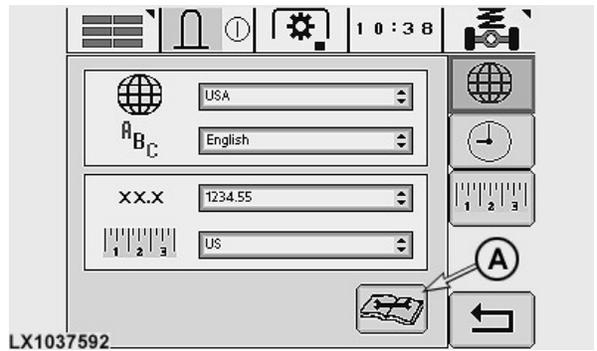
- A—Main menu key
- B—Display
- C—Dimming cell
- D—Next screen



OU12401,0001D85-19-29NOV09-9/17

On this screen, the selection lists can be used to select country, language, numeric format and units.

Symbol (A) provides access to other screens on which a graphic test, equipment information and copyright details are shown.



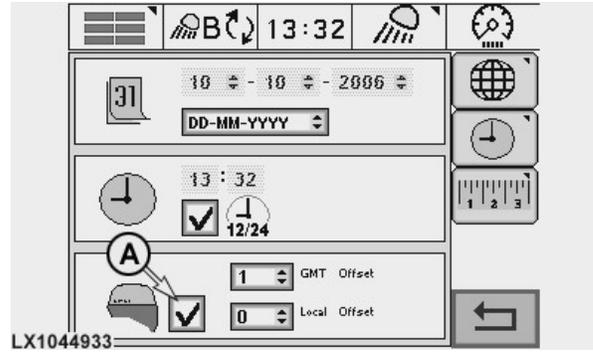
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OU12401,0001D85-19-29NOV09-10/17

Date and time of day can be set on this screen.

If the tractor is equipped with a GPS receiver, cell (A) can be used to determine whether date and time of day are to be synchronized with the GPS signal.

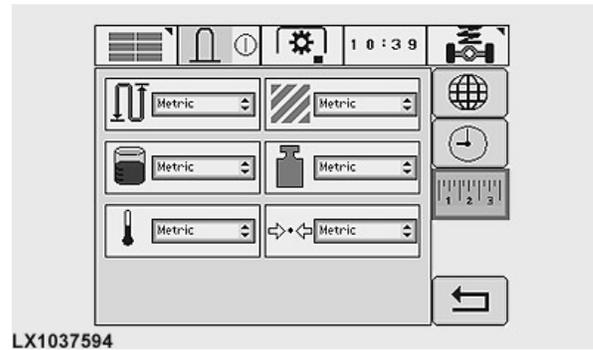
A—Date and time synchronization



LX1044933—UN—12DEC07

OU12401,0001D85-19-29NOV09-11/17

Various units of measurement can be selected on this screen.



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OU12401,0001D85-19-29NOV09-12/17

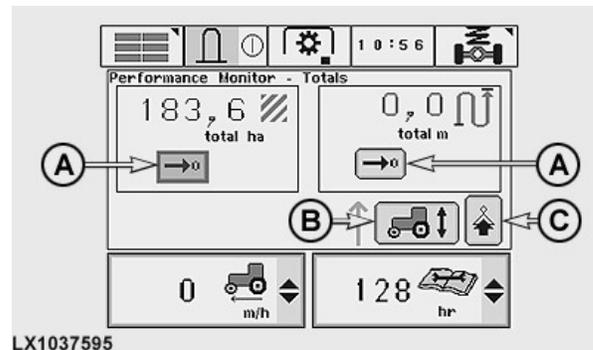
Performance monitor - totals

This screen shows area worked and distance covered. Cells (A) allow the stored values to be set back to zero (the user is first asked if he is sure he wants to make the change).

Cell (B) allows manual recording to be started and ended (provided this type of recording is selected under Performance monitor - implement selection).

Cell (C) gives access to the next screen.

A—Zeroing the values **C—Next screen**
B—Manual recording



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OU12401,0001D85-19-29NOV09-13/17

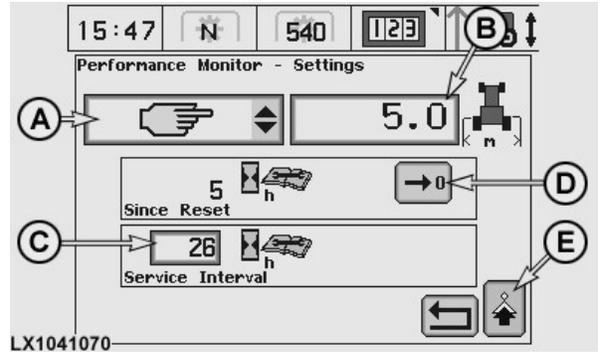
Performance monitor - settings

Selection list (A) allows the implement/device to be selected that is used for calculating area.

Implement width can be keyed in at cell (B).

The service interval can be keyed in at cell (C). During the last 20 hours before reaching this interval a corresponding message will be displayed each time the tractor is started. After a service, the Since Reset hour-meter can be set back to zero at cell (D).

Cell (E) gives access to the Performance monitor - calibration screen.



A—Implement/device selection B—Implement width
C—Service interval D—Zeroing the value E—Next screen

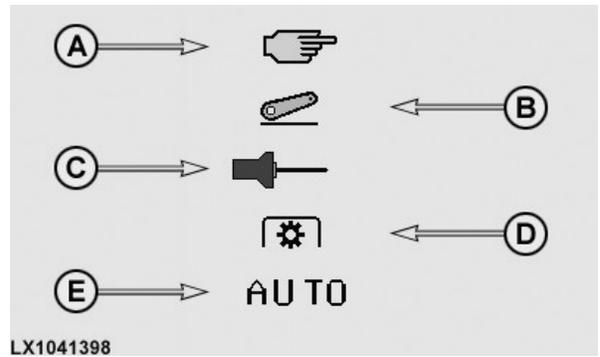
OU12401,0001D85-19-29NOV09-14/17

Performance monitor - implement selection

Manual recording can be started and stopped via a cell on the Performance monitor - totals screen. A hot key may also be used to perform this function (see Hot keys - selection of functions).

For automatic recording, the first implement that is activated starts the recording process. Recording is interrupted as soon as this implement is deactivated.

- A—Manual recording
- B—Hitch
- C—Implement switch
- D—PTO
- E—Automatic recording



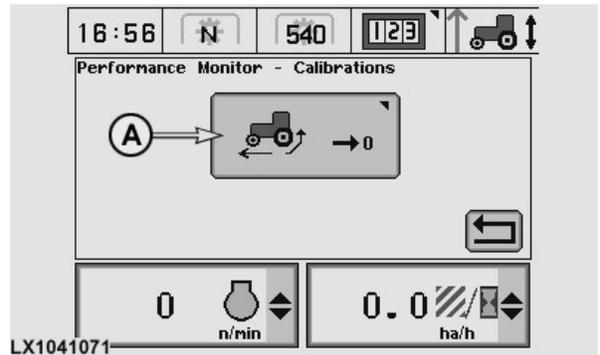
LX1041398

OU12401,0001D85-19-29NOV09-15/17

Performance monitor - calibration

Cell (A) gives access to the page shown below.

- A—Setting slip to 0



LX1041071

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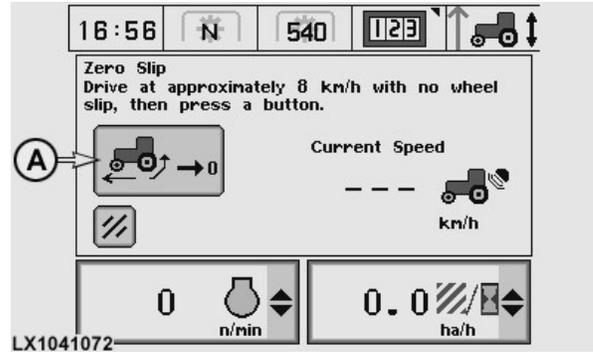
OU12401,0001D85-19-29NOV09-16/17

Performance monitor - zero rear wheel slip

This setting is required after changing the tires or when the tires are bald.

Drive tractor at approx. 8 km/h (5 mph) and select cell (A).

A message appears saying whether the setting was successful or unsuccessful.



OU12401,0001D85-19-29NOV09-17/17

GreenStar Display (Optional)

This display is used to operate additional components (e.g. ISO implements, GreenStar™ or AutoTrac).

Operation of display and components is described in separate operator's manuals.



GreenStar is a trademark of Deere & Company

OU12401,00014E9-19-08AUG06-1/1

AutoTrac (Optional)

The AutoTrac switch is located in side console (A) or in CommandArm (B). This switch activates the AutoTrac system.

Operation of the AutoTrac system is described in a separate operator's manual.

A—AutoTrac switch (side console)

B—AutoTrac switch (CommandArm)



OU12401,00014EA-19-08AUG06-1/1

Software Update

After a software or hardware update, there may be new or additional functions available on the tractor that are not described in this Operator's Manual. Ask your John Deere dealer.

OU12401,0001AE1-19-11NOV08-1/1

Lights

Light Switches

⚠ CAUTION: Comply with local lighting regulations.

Light switch (A) can be set to the following positions:

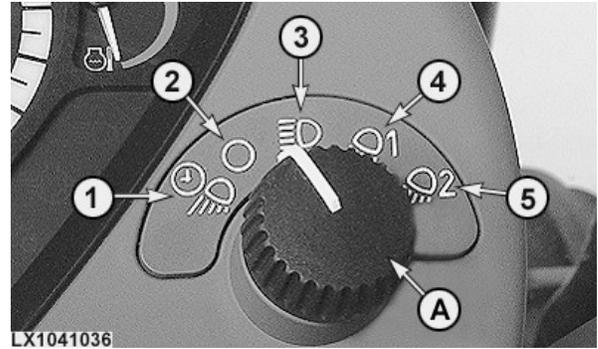
- 1 = Egress light "on"
- 2 = Light switch in "off" position
- 3 = Headlights, tail lights and warning lights "on"
- 4 = Headlights "on"
- 5 = Headlights "on" and worklights can be switched on

Switch headlights to "low beam" or "high beam" position using switch (B).

- Pull switch toward steering wheel = Headlight flasher (flash-to-pass)
- Switch in center = low beam
- Push switch away from steering wheel = high beam

Indicator light (C) will glow when headlight switch is in "high beam" position.

NOTE: If the egress light is activated at the CommandCenter (see "Worklights" in this Section), the headlights and any worklights that are activated come on for several seconds if the light switch is turned briefly to position 1 once or several times.



LX1041036

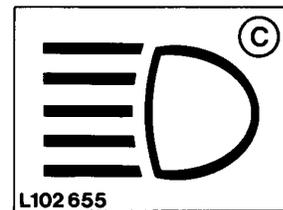
LX1041036—UN—14JUN06



LX1041415

LX1041415—UN—11OCT06

Frequency of switch actuation	Egress light "on" time
Once	90 seconds
Twice	120 seconds
Three Times	150 seconds
Four Times	180 seconds



L102 655

L102655—UN—15AUG94

A—Light switch
B—Switch for high-/low-beam headlights

C—High beam indicator

OU12401,000152A-19-17NOV06-1/1

Worklights

⚠ CAUTION: Switch off worklights when driving on public roads. Worklights might blind or confuse other drivers.

Press the main menu key (A) and select the “Lights” screen (B).

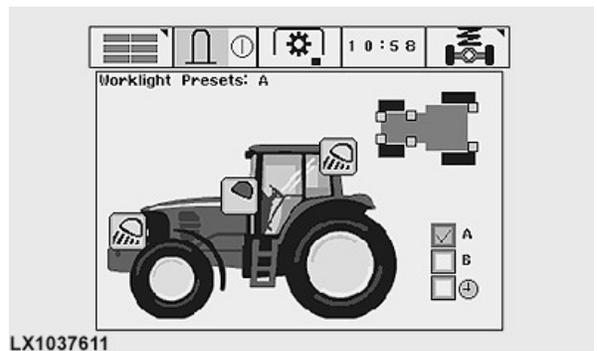
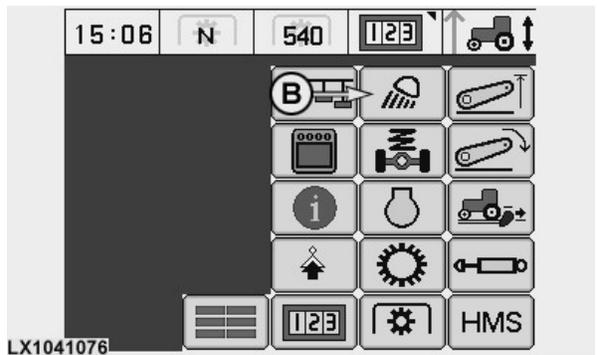
The content of the following screen varies depending on how the tractor is equipped.

Two combinations of worklights may be specified (option A and option B). The option marked with the clock symbol determines whether the egress light is activated.

The selected worklights come on when the light switch is set to position 5.

A—Main menu key

B—“Lights” screen



OU12401,00014B1-19-07OCT06-1/1

Xenon (HID) Worklights

The tractor may be equipped with high-intensity discharge (HID) xenon worklights.

Adjust the Xenon (HID) worklights in such a way that the roof signal lights are not concealed during road travel. For optimum adjustment of the field of vision, adjust the lights crosswise.

⚠ CAUTION: High voltage. Risk of personal injury. Changing bulbs on Xenon (HID) lights and work on the ballast unit must be performed ONLY by your John Deere dealer or in a professional workshop.

OU12401,0001533-19-13OCT06-1/1

Additional Headlights

Additional headlights may be attached to the cab frame. Switch (A) allows the operator to choose between normal headlights and these additional lights (e.g. when front attachments are installed).



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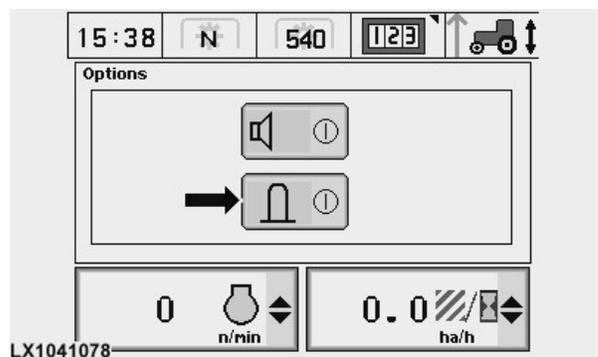
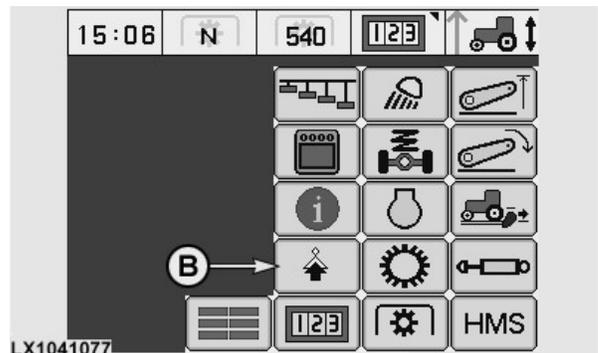
Beacon Light (Optional Equipment)

The beacon light should be used as recommended by local laws (e.g. when driving extremely slowly and when tractor width is excessive).

Press the main menu key (A) and then select the “Option” screen (B).

A—Main menu key

B—Option screen

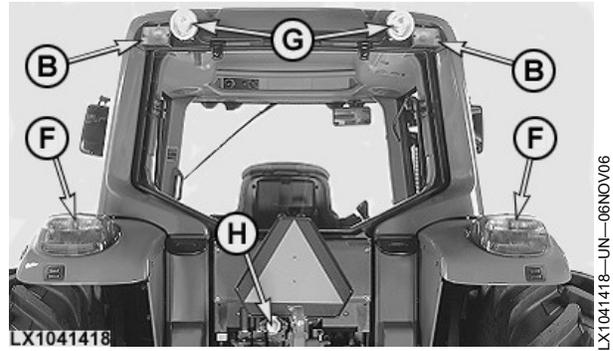
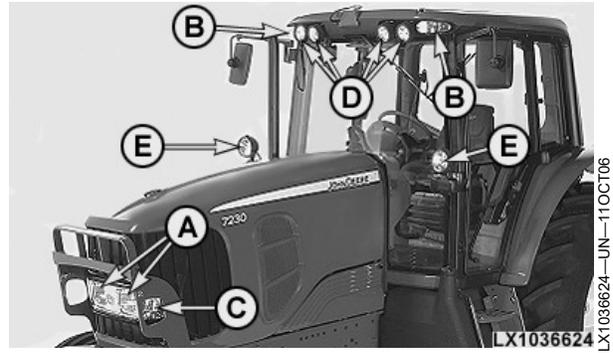


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Lights

NOTE: H9 bulbs must NOT be used in front corner worklights (C).

- | | |
|--|--------------------------------------|
| A—Headlights | E—Cab frame worklights ¹ |
| B—Turn signal and warning lights | F—Tail, brake and turn signal lights |
| C—Front corner worklights ¹ | G—Rear roof worklights |
| D—Front roof worklights | H—Socket for trailer lighting |



¹ If equipped

OU12401,000138E-19-13OCT06-1/1

Fender Mounted Worklights (If Equipped)

- A—Rear Facing Fender Mounted Worklights

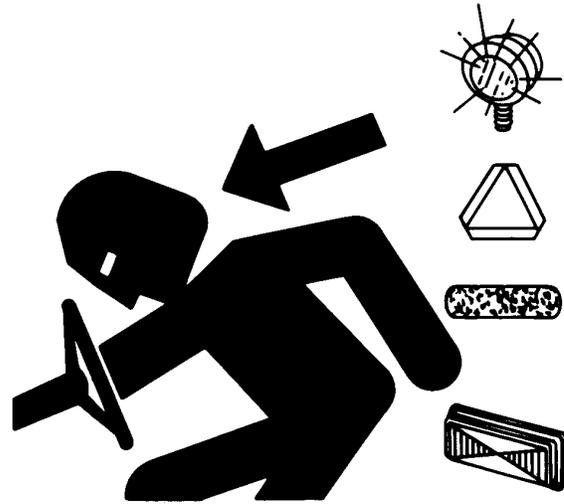


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Use Safety Lights and Devices

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

Operating the Hazard Warning Light Switch

Operate hazard warning lights when driving on roadways; do this at switch (A).



OU12401.000144C-19-12JUN06-1/1

Switch for Turn Signal Lights and Horn

- A—Switch for turn signal lights and horn
- 1—Left-turn signal
- 2—Right-turn signal
- 3—Horn (push towards steering column)



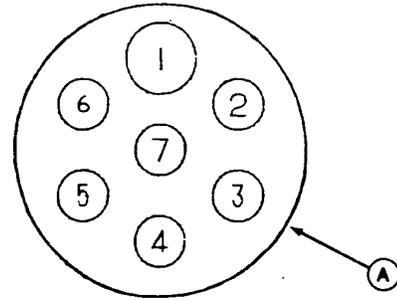
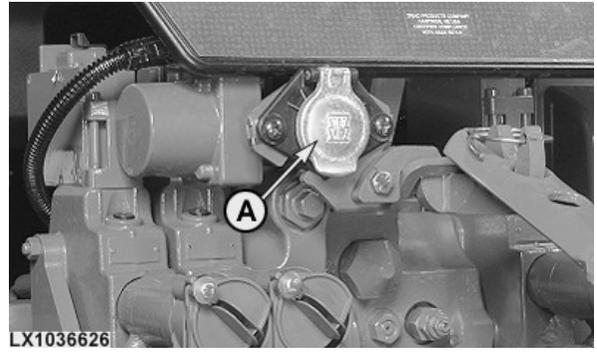
OU12401.000152E-19-08OCT06-1/1

Seven-Terminal Trailer Socket

Socket (A) allows lights, turn signals and other electrical equipment on a trailer or implement to be connected. Always use additional lighting on a mounted implement if this conceals the turn signals and other lights at the rear of the tractor.

NOTE: Suitable plugs can be obtained from your John Deere dealer.

Connection	Function	Color of wire
1	Ground	White
2	—	—
3	L.h. turn signal	Yellow
4	Brake light	Light blue
5	R.h. turn signal	Dark green
6	Tail lights	Brown
7	Accessories	Light blue



LX1036626—UN—22AUG05

RW21249—UN—17JUN82

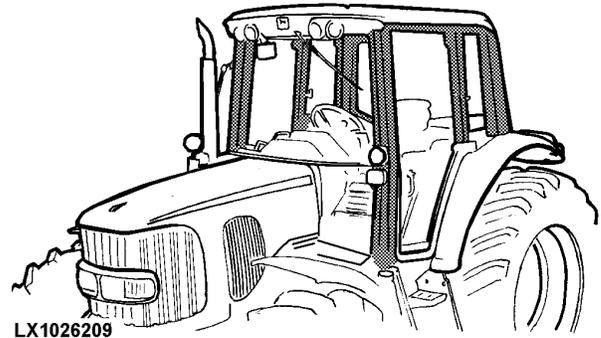
OU12401,0001532-19-13OCT06-1/1

Operator's Cab

Roll-Over Protective Structure (ROPS)

CAUTION: A roll-over protective structure (ROPS) is incorporated into each operator's cab. On this construction do not under any circumstances modify structural members by welding on additional parts, drilling holes, cutting or grinding etc. Disregarding this instruction will affect the rigidity of the ROPS.

A tractor roll-over places a severe strain on the ROPS. Therefore, replace the ROPS immediately if structural members have been bent, buckled or otherwise damaged.



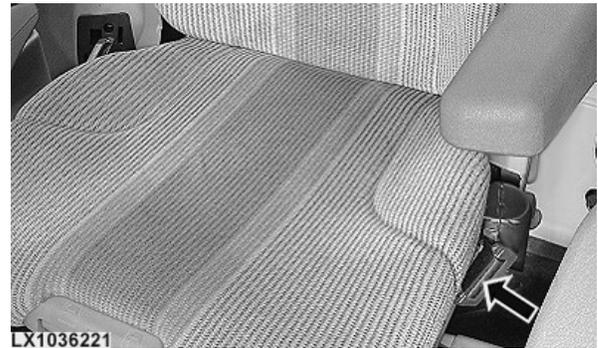
LX1026209

LX1026209—UN—16MAY01

OU12401,00012AE-19-22AUG05-1/1

Seat Belt

CAUTION: When driving tractors, always wear the seat belt.



LX1036221

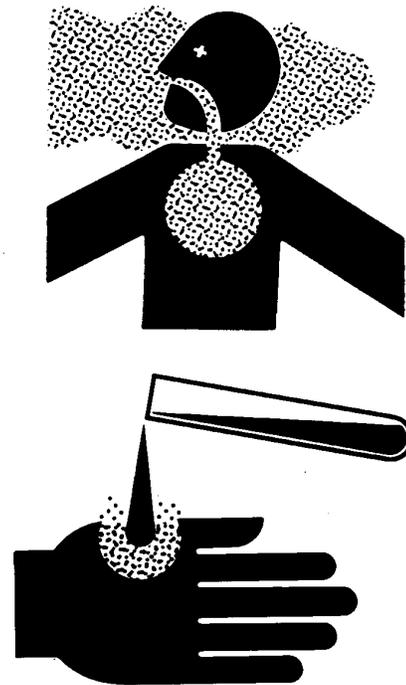
LX1036221—UN—02JUN05

OU12401,000152F-19-08OCT06-1/1

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

Super Comfort Seat

To adjust the seat upward, raise it until it clicks into place (3 detent positions). To adjust downward, raise the seat to the stop position then lower it.

IMPORTANT: Shut off engine before swivelling the seat. Accidental contact with the controls could cause the tractor or implement to operate.

When driving on public roads, lock the seat in straight-ahead position.

If the seat is equipped with a swivel (optional equipment), this is operated by means of lever (G) as follows:

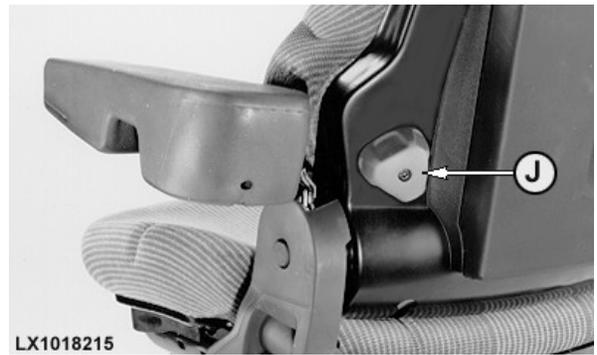
Lift the lever up. The seat turns 200° to the left and 20° to the right. The seat locks at 10° intervals.

As a further option, the seat may be equipped with the same type of swivel described at "Air Comfort Seat".

To lower the armrest through 30°, press the armrest tilt adjuster (E) into the armrest.

- | | |
|---|--|
| A—Crank for adjusting operator's weight | F—Backrest tilt |
| B—Lever for seat tilt ¹ | G—Lever for swivel ¹ |
| C—Lever for adjusting the cushion position ¹ | H—Lever for fore/aft spring ¹ |
| D—Fore-and-aft | J—Lumbar support |
| E—Armrest tilt | |

¹ If equipped



OU12401,000152C-19-08OCT06-1/1

ComfortCommand Seat

IMPORTANT: If single lever control is installed on CommandARM™, lever may contact right-hand console if seat is placed in full right-hand swivel position. Check seat swivel as well as seat height and fore-aft adjustment to avoid this contact.

Lumbar Support Adjustment: Rotate lever (A) to any of five positions.

Weight and Height Adjustment: Turn key to ON position. Press lower portion of switch (C) to lower the seat or upper portion to raise the seat to adjust for individual weight and height.

Armrest Height Adjustment: Turn handle (D) to adjust armrest height.

Backrest Angle: Pull up handle (E) and lean on backrest to recline seat to desired angle.

Seat Swivel: Lift up on handle (F) to detent position to allow seat to swivel. Push down on handle to lock seat in position.

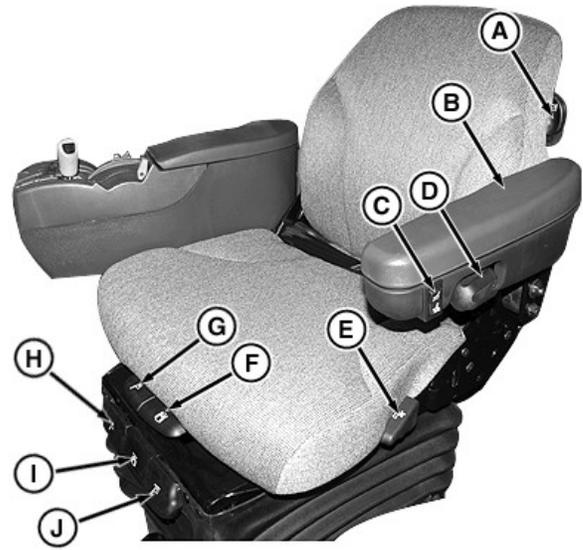
Fore-Aft Seat Position: Pull up on handle (G) to allow the seat to slide forward or backward.

Fore-Aft Movement Lock: Push down on handle (J) to allow seat to move fore and aft. Pull up to prevent fore-aft movement.

Dampening: Handle (H) infinitely adjusts suspension shock. Moving lever to farthest down position provides the firmest ride; farthest up position provides softest ride.

Lateral Movement Lock: Push down on handle (I) to allow

CommandARM is a trademark of Deere & Company



- | | |
|--------------------------|--------------------------|
| A—Lumbar Support | F—Seat Swivel |
| B—Flip-Up Armrest | G—Fore-Aft Adjustment |
| C—Seat Height Adjustment | H—Suspension Shock |
| D—Armrest Adjustment | Dampening |
| E—Backrest Angle | I—Lateral Movement Lock |
| | J—Fore-Aft Movement Lock |

seat to move sideways. Pull up on handle to lock seat in position.

RXA0090742—JUN—11SEP06

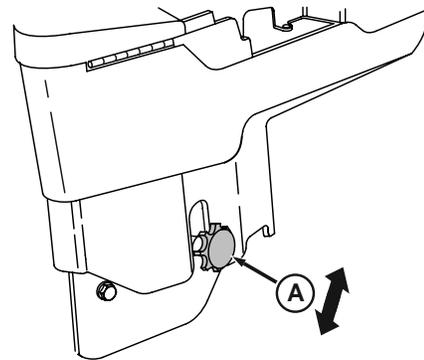
BB92646,000027B-19-20DEC06-1/1

Adjusting CommandARM Position

CAUTION: Use caution when raising or lowering CommandARM console. Fingers could get pinched between mounting plates.

1. Support console and loosen knob (A).
2. Move console/armrest to desired position:
 - Raise console/armrest—Forward and up
 - Lower console/armrest—Rearward and down
3. Tighten knob (A).

A—Armrest Control Knob



Right-Hand Side of CommandARM Shown

BB92646,00002BC-19-20DEC06-1/1

RXA0068760—JUN—27AUG03

Instructional Seat

⚠ CAUTION: This instructional seat must be used for training or diagnostic purposes only.

Keep all other riders off the tractor and equipment.

Always use the seat belt.

Press lock (A).



OU12401,0001728-19-19APR07-1/4

Tip instructional seat forward.



OU12401,0001728-19-19APR07-2/4

Rotate seat 90°.



Continued on next page

OU12401,0001728-19-19APR07-3/4

Tip seat backward. Make sure that pin (B) engages in the appropriate bore.

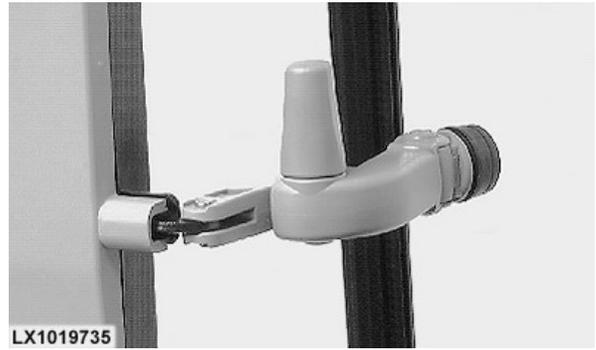
⚠ CAUTION: When driving, always wear the seat belt (if equipped).



OU12401,0001728-19-19APR07-4/4

Opening Windows

The side and rear windows can all be opened for better ventilation.



OU12401,00012B1-19-22AUG05-1/1

Windshield Wiper and Washer System

Windshield wiper rotary switch (A) has four positions:

- 0 = off
- --- = Intermittent wipe
- 1 = Slow wipe
- 2 = Fast wipe

The windshield washer is operated using switch (B).

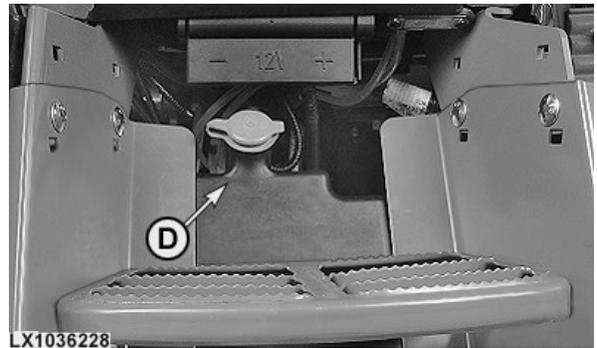
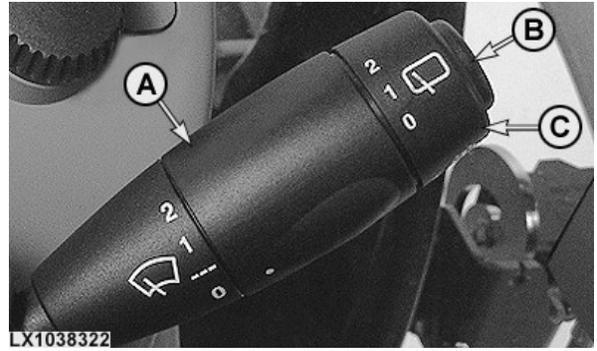
Rear window wiper lever (C) has three positions:

- 0 = off (lever to rear)
- 1 = Intermittent wipe (lever centered)
- 2 = Constant wipe (lever to front)

The rear window washer system is operated by pulling the lever toward the steering wheel.

Add anti-freeze solution to water in reservoir (D) if temperature is liable to drop below freezing point.

The windshield and rear window washer systems both have an automatic wipe/wash function: if the washer is actuated for longer than 0.5 seconds, the wiper operates in conjunction with the washer pump and then wipes for 8 seconds after the pump has switched off. After a 5-second delay, the wiper comes on once more.

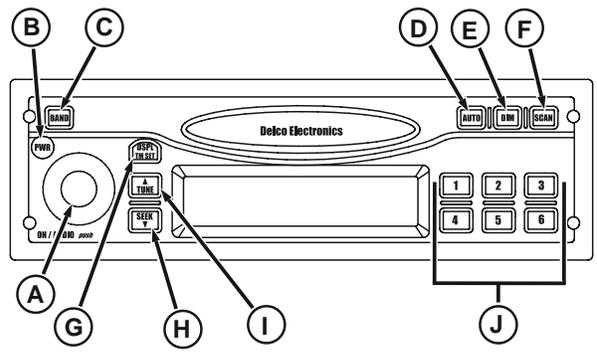


- | | |
|---|--|
| <p>A—Rotary switch for windshield wiper</p> <p>B—Switch for windshield washer</p> | <p>C—Lever for rear window wiper</p> <p>D—Reservoir for washer</p> |
|---|--|

OU12401,0001450-19-13JUN06-1/1

Operating the Radio—Early Model Tractors

1. Turn on receiver by depressing button ON (A) or Power (B).
2. Press BAND (C) to select FM1, FM2, AM, SAT or WX (Weather).
3. Press TUNE (I) once to tune to the next higher station.
4. Press SEEK (H) once to tune to the next lower station.
5. Press and hold both TUNE and BAND to switch between manual tune mode and "seek" mode.
6. Holding SEEK longer than half a second begins the "seek" function. When a station with a strong enough signal is found, "seek" function will stop at that station.
7. Press SCAN (F), to scan all stations. When a strong enough signal is found, the station will play for 5 seconds then continue to scan until SCAN is pressed again.
8. Adjust volume, bass, treble, fade, and balance by pressing and releasing ON/AUDIO knob (A) repeatedly until desired function appears on display. Rotate ON/AUDIO knob for adjustment.
9. Adjust brightness of display by pressing (E), rotate ON/AUDIO knob to adjust.



- | | |
|--|---|
| <p>A—On/Audio/Volume</p> <p>B—Power</p> <p>C—Band</p> <p>D—Auto Preset</p> <p>E—Dim</p> | <p>F—Scan</p> <p>G—Display/Time Set</p> <p>H—Seek</p> <p>I—Tune</p> <p>J—Preset Stations</p> |
|--|---|

OURX935,000045D-19-06AUG08-1/1

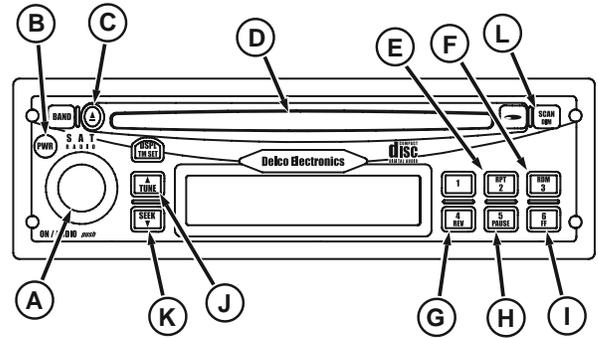
Operating the Radio with Optional Compact Disc Player—Early Model Tractors

Operating compact disc player

1. Turn on receiver by depressing button ON (A) button or Power (B).
2. Insert disc into compact disc slot (D) label side up.
3. Press (N) to forward to next track. Press (O) to reverse to the beginning of the track.
4. Press CD REPEAT (E) to repeat the current track. Press RDM (F) for random track selection.
5. Press and hold (G) to fast reverse. Release to play at normal speed.
6. Press PAUSE (H) to pause the CD. Press PAUSE again to resume play.
7. Press and hold FF (I) to fast forward. Release button to play at normal speed.
8. Press (C) to eject CD
9. Press SCAN/DIM (L) to advance to next track on CD.
The CD will play 10 seconds of that track and then play each successive track for 10 seconds. Press SCAN/DIM again to cancel.

¹ For Optional Cassette Player

² For Optional Compact Disc Player



AM/FM/WX Radio with Compact Disc Player

- | | |
|--|--------------------|
| A—On/Audio/Volume | G—Rev/Fast Reverse |
| B—Power | H—Pause |
| C—Tape ¹ /CD ² Eject | I—FF-Fast Forward |
| D—Tape ¹ /CD ² Slot | J—Tune-Forward |
| E—CD Repeat | K—Seek-Reverse |
| F—RDM-CD Random | L—Scan/Dim |

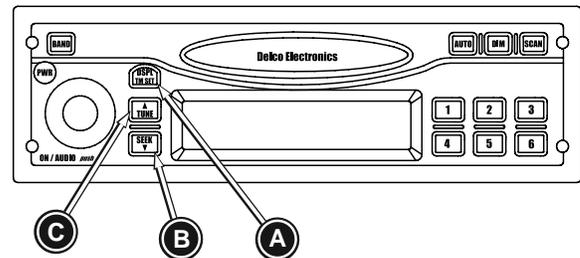
OURX935,000046C-19-08AUG08-1/1

RXA0098863—UN—13AUG08

Setting the Clock—Early Model Tractors

1. Switch ignition to ON position.
2. Press and hold DSPL/TM SET (A) button until the "hours" digits flash.
3. Press SEEK (B) or TUNE (C) to set the correct hour.
4. Press and hold DSPL/TM SET until the "minutes" digits flash.
5. Press SEEK or TUNE to set correct minute. The seconds are reset to zero when minute setting is changed.

- | | |
|---------------|--------|
| A—DSPL/TM SET | C—TUNE |
| B—SEEK | |

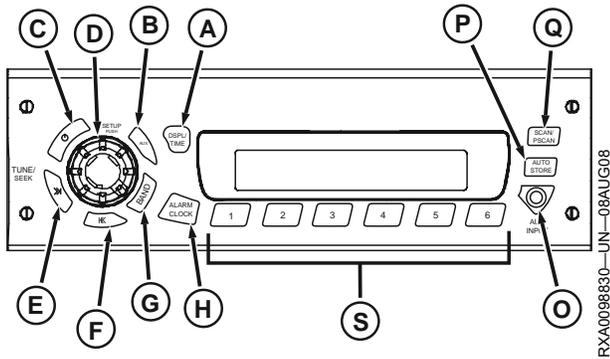


Setting the Clock

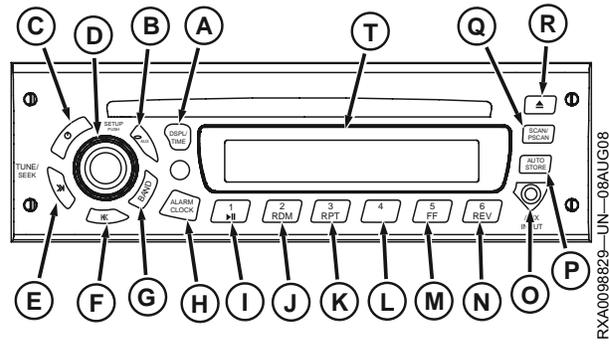
OURX935,000045F-19-06AUG08-1/1

RXA0065276—UN—05FEB03

Operating Radio With Or Without Compact Disc Player—Late Model Tractors



Radio



Radio With Compact Disc

- A—DISPLAY/TIME
- B—AUX
- C—ON/OFF
- D—SETUP
- E—Tune/Seek (+)
- F—Tune/Seek (-)
- G—BAND
- H—ALARM CLOCK
- I—Pause/Play CD
- J—2 RDM

- K—3 RPT
- L—Preset Stations
- M—5 FF
- N—6 REV
- O—AUX INPUT
- P—AUTO STORE
- Q—SCAN/PSCAN
- R—Eject/CD Button
- S—Preset Stations (1—6)
- T—CD Slot

Radio can be operated in any one of three modes;

1. Radio ON with tractor running.
2. Radio ON with tractor not running, but tractor ignition ON.
3. With tractor ignition OFF press radio power button, radio will play up to one hour, then shut off automatically.

Operating Radio

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

Display change option to dwell on time or station frequency:

1. Press and hold DISPL/TIME (A) button for 3 seconds.
2. Observe slow flash on display.
3. Press selected preset station (S) or button #4 (L) for radios with compact disc.
4. Wait a three to five seconds, then toggle to dwell on time or station frequency.

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

Press AUX (B) to play an external device like your iPod or MP3 player that is connected via auxiliary input jack on front of receiver.

Press SETUP (D) to adjust volume, bass, treble, fade, and balance by pressing and releasing SETUP button repeatedly until desired function appears on display. Rotate knob for adjustment. control volume/adjusts bass, treble, balance, fade, seek sensitivity, dim and speakers. Adjust brightness of display by pressing SETUP until "DIM" appears on display. Rotate knob to adjust.

NOTE: Quickly pressing the TUNE/SEEK 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 TUNE/SEEK 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.

Press TUNE/SEEK (E or F) quickly to go to the next higher/lower frequency respectively. To switch to a radio station on the next higher/lower frequency, press TUNE/SEEK (E or F) respectively and hold briefly.

Press ALARM CLOCK (H) to enter alarm set mode.

Press AUX INPUT (O) for external audio devices.

Press AUTO STORE (P) to preset strongest stations.

Pressing SCAN/PSCAN (Q) quickly or "Scanning" results in locating next station. Pressing SCAN/PSCAN and holding more than half a second or "P-Scanning" results in locating next preset station. Scanning/P-Scanning will continue until SCAN/PSCAN is pressed again.

Storing Preset Stations (S) or button #4 (L) for radios with compact disc:

1. Select FM1, FM2, FM3, AM or WX.
2. Tune to desired station.
3. Press and hold one of the six preset buttons (T) or button #4 (L) for radios with compact disc to store the selected station.
4. Repeat procedure for remaining preset buttons.

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

Playing Preset Stations:

Press appropriate button 1-6.

For radios with a CD player only:

- Press Pause/Play (I) to pause CD. Repeat to play CD.
- Press RDM (J) to play CD tracks randomly.

- Pre RPT (K) to repeat same CD track until cancelled.
- Press Preset Stations (L) buttons 1-6.
- Press FF (M) to fast forward CD track.
- Press REV (N) to fast reverse CD track.
- Press Eject (R) to eject CD.

OURX935.0000458-19-26AUG08-2/2

Setting Alarm And Clock—Late Model Tractors

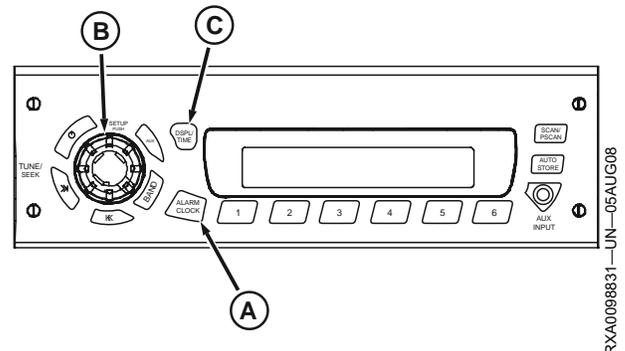
Setting The Alarm

1. With radio on, press and hold ALARM CLOCK (A) button until you see the "ALARM" icon and SET. The hour digits for alarm time will begin to flash.
2. Rotate SETUP (B) knob to change the hour. Rotate the knob clockwise to increase and counterclockwise to decrease the hour.
3. Press ALARM CLOCK button again until minutes digits flash.
4. Rotate SETUP knob to change minutes. Rotate the 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.

NOTE: If you do not press any button or rotate knob 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 (A) button until the "hours" and "minutes" digits flash and you hear a beep.



Radio

A—ALARM CLOCK
B—SETUP

C—DSPL/TM SET

3. Press DSPL/TM SET (A) button again until "hours" digits flash.
4. Rotate SETUP (B) knob to change the hour. Rotate the 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 the 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.

OURX935.000045B-19-08AUG08-1/1

Fan and Air Louvers (Tractors without ClimaTrak System)

Fan switch (A) controls the fan speed. The direction of airflow can be altered by means of switch (B).

De-icing or defogging the windshield

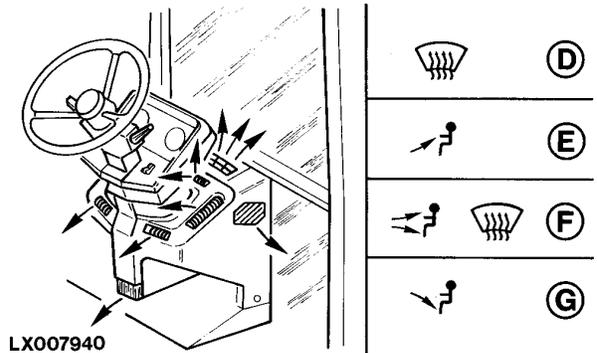
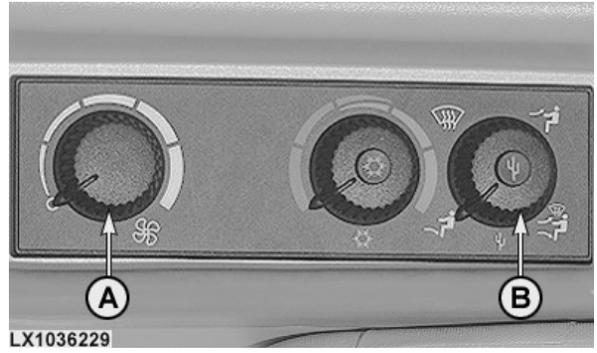
Set the heater to maximum heat. Set switch (B) to defog symbol (D) and turn switch (A) (fan) to its maximum.

If the airflow is to be directed **at the operator**, set switch (B) to symbol (E). Turn on the fan at switch (A). The direction and force of the airflow can be further adjusted at louvers (C).

If the airflow is to be directed **evenly around the cab**, set switch (B) to symbol (F). Turn on the fan at switch (A).

If the airflow is to be directed **into the footwell**, set switch (B) to symbol (G). Turn on the fan at switch (A).

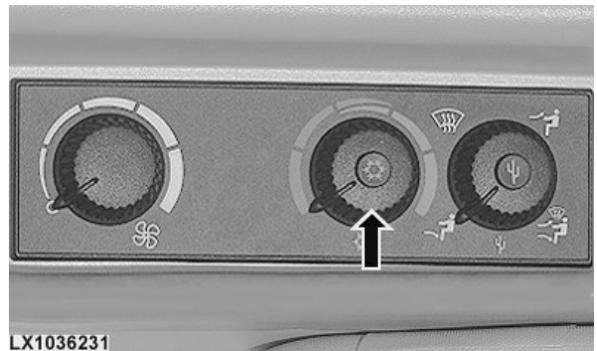
- | | |
|---|---|
| A—Fan switch | E—Airflow to operator |
| B—Switch for selecting direction of airflow | F—Airflow to windows, operator and footwell |
| C—Louvers | G—Airflow to footwell |
| D—Airflow to windshield | |



OU12401,00012C9-19-19SEP05-1/1

Heater (Tractors without ClimaTrak)

Heating is infinitely variable by means of the heater control. To increase heating, turn switch clockwise. Set the fan and louvers as desired.



OU12401,0001220-19-24MAY05-1/1

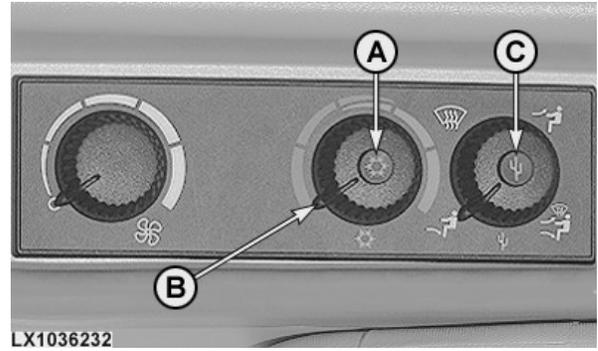
Air-Conditioning (Tractors without ClimaTrak)

Turn on air-conditioning at switch (A). Regulate the cooling at control (B). The cooling is increased by turning the knob counterclockwise. Set the fan and louvers as desired.

IMPORTANT: To maintain consistently high performance, turn on the air-conditioning for two or three minutes every month, regardless of weather conditions or season (with engine at low idle). Control (B) should be set for maximum cooling.

At ambient temperatures below 4°C (39°F), the cab should first be heated (using the heating system) so that the temperature inside the cab is as high as possible.

NOTE: When switch (C) is activated, the air-conditioning operates without regard to ambient temperature. This is necessary in winter, when the air-conditioning has to be operated once a month, and when the system has to be operated in conjunction with the heater to dehumidify the cab.



A—Air-conditioning switch
B—Cooling regulator
C—Switch for special operation

OU12401,00012CA-19-19SEP05-1/1

Tips on Using Air-Conditioning

Preventing the windows from fogging up

NOTE: First check that the condensation drain is not blocked.

1.) During the day:

- Do not blow cold air at the windshield! (do not use "window" mode while running the air-conditioning at "max. cool").
- If you feel too cool with air-conditioning at "max. cool":
 - Keep the fan running
 - Turn the temperature control to a warmer position
 - Leave the air-conditioning on
- If you still feel too cold:
 - Keep the fan running
 - Turn the temp. control to a warmer setting (in the red zone)
 - Leave the air-conditioning on
 - If windows fog, slowly turn the temperature control to a "cooler" position until the windows start to clear
- Before you stop the tractor:
 - Keep the fan running
 - Switch off the air-conditioning
 - Turn the temp. control to a warmer setting or leave it if it already is at "warm"

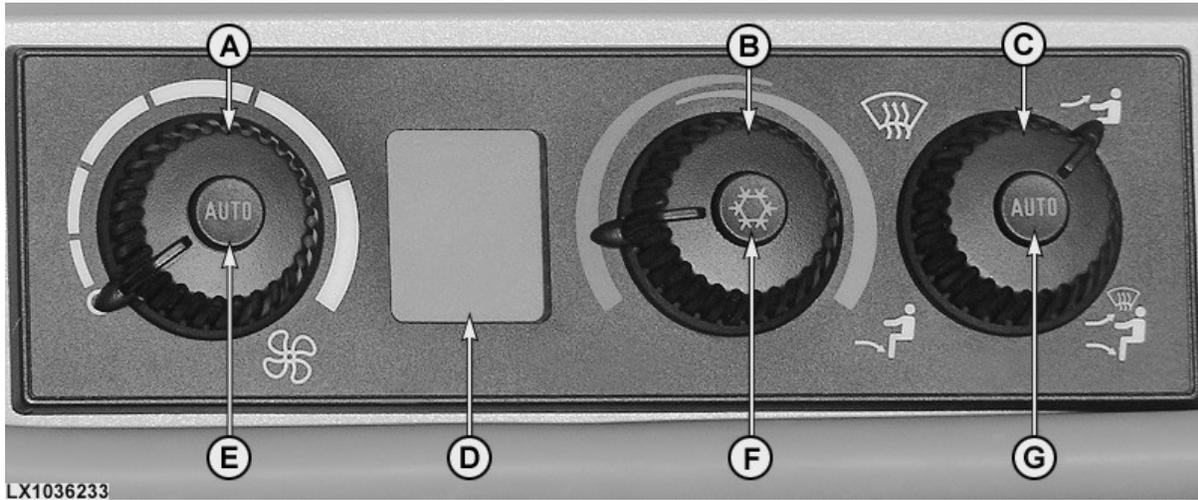
- Keep the fan running for a couple of minutes to dry the evaporator core

2.) In the morning (if air-conditioning was in use the day before)

- During the first start-up
 - Set air-flow to "footwell" - NOT to "window"!
 - Run the fan
 - Turn the temp. control to "max. heating" (in the red)
 - If you are not driving the tractor, it may help to open the cab door or window
- As soon as hot, dry air comes out the louvers:
 - Set air-flow to "window" - this will defog the windows
- When the windows are clear:
 - Set air-flow and temperature to a comfortable setting
- If ambient humidity is high or there is moisture inside the cab
 - With the temperature regulator set to "warm", switch the air-conditioning on at the dehumidify switch for special operation (cactus symbol).

OU12401,00012CB-19-19SEP05-1/1

Using ClimaTrak (Automatic Temperature Control)



- | | | |
|--------------------------------------|-----------------------------------|--------------------------------------|
| A —Fan speed control | D —LCD temperature display | F —Economy mode ON/OFF switch |
| B —Temperature selection knob | E —AUTO fan control mode | G —AUTO air-flow mode |
| C —Air-flow control | | |

System controls and display

There are three controls and an LCD window on the ClimaTrak (ATC) console.

1. Fan speed control (A) with AUTO switch (E)
2. Temperature control (B) with economy mode switch (F)
3. Four-position air-flow control (C) with AUTO switch (G)
 - Defog/windshield
 - Defog/dashboard/footwell
 - Dashboard
 - Footwell

Outside temperature is displayed on the LCD display (D). Desired temperature is displayed for 10 seconds every time the engine is started and every time the setting is changed at the temperature control switch.

NOTE: If you want desired temperature to be displayed all the time, change the setting at address ATC033. See "Customization" in the "Diagnostic Trouble Codes and Customization" section.

AUTO are displayed. When the air-conditioning clutch is engaged (not in economy mode), the snowflake symbol is displayed. Direction of air-flow is displayed by an arrow pointing towards the feet or head, and the defog symbol appears. The word "AUTO" appears below the man when the system is in automatic air-flow mode.

In AUTO air-flow mode, selection is infinitely variable between defog, footwell and footwell/dashboard.

- Dashboard — Air is directed to the louvers in the dashboard.
- Footwell — Air is directed to the footwell, unless defogging is required.
- Defog — Air is directed to the windshield.
- Defog/dashboard/footwell — Variable settings to direct air-flow as needed.

NOTE: To ensure that ClimaTrak gives its best performance, clean the recirculated-air filters in the cab regularly (see "Service - As Required").

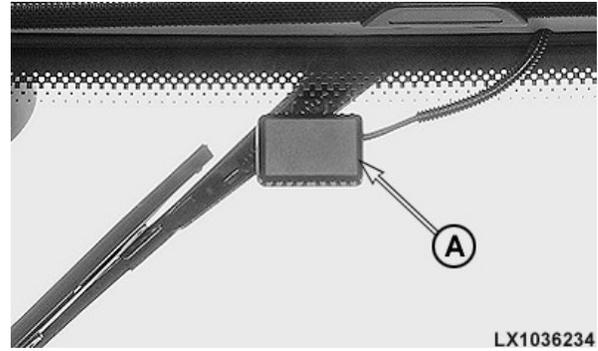
When in automatic fan mode, a fan symbol and the word

Continued on next page

OU12401,000144D-19-12JUN06-1/2

Defog sensor

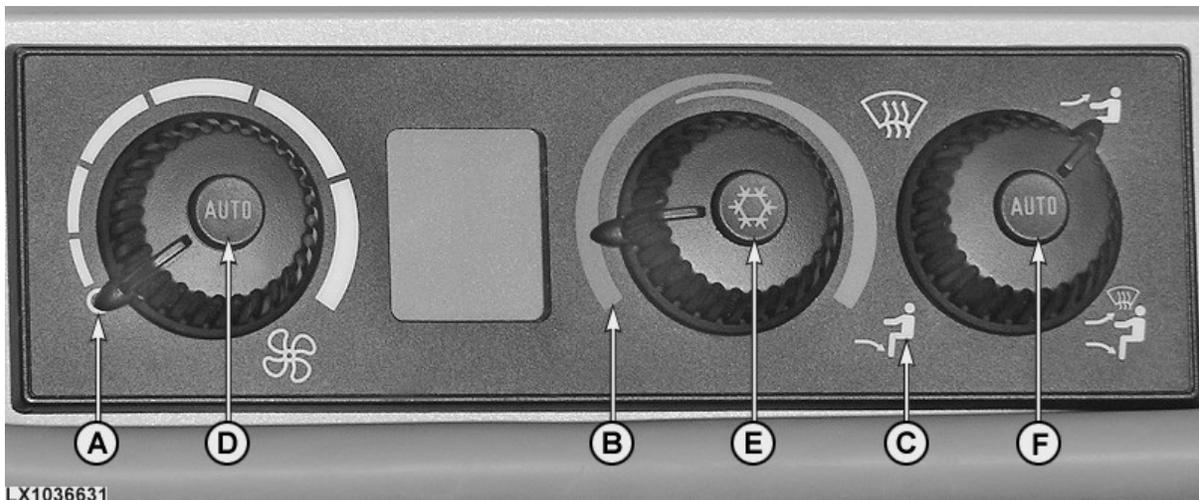
IMPORTANT: Do not expose defog sensor (A) to large quantities of water.



LX1036234 LX1036234—UN—03JUN05

OU12401,000144D-19-12JUN06-2/2

Changing the ClimaTrak Display (ATC)



LX1036631—UN—07MAY08

- A—Off
- B—Max. cool position
- C—Air outlet in footwell
- D—Auto fan button
- E—Economy button
- F—Auto air-flow button

How to change the temperature display from °C to °F and back

NOTE: To change the temperature units as described on this page, the CommandCenter has to be set to customary units. See "CommandCenter settings" in the "Controls and Instruments" section.

1. Turn fan speed control to off (A).
2. Turn temperature control to max. cool position (B).
3. Turn mode control to foot (heat) position (C).

4. Then press button (D) and button (E) at the same time. The letters **DIA** appear on the LCD after the "change" mode has been accessed.

The units of measurement in which temperature is displayed (°C or °F) are changed by pressing switches (D) and (F) at the same time.

Then leave the "change" mode by pressing button (D) and button (E) at the same time.

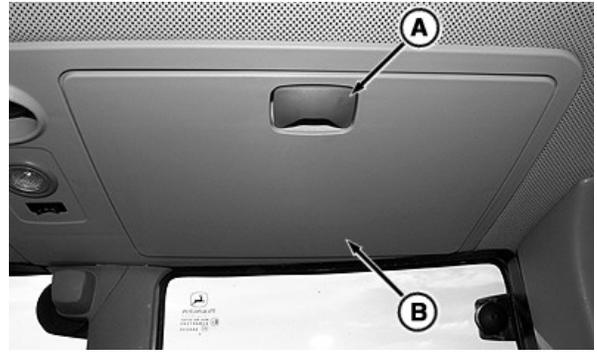
OU12401,00012B3-19-25AUG05-1/1

Overhead Storage Compartment (If Equipped)

Pull lever (A) to access overhead storage compartment (B).

A—Lever

B—Overhead Storage Compartment



BB92646,00002C6-19-14NOV06-1/1

Storage Box

The tractor is equipped with a storage box. A refrigerator may be integrated into this storage box.



OU12401,0001ACA-19-09OCT08-1/1

Refrigerator (If Equipped)

NOTE: The refrigerator is supplied with current by the socket on the left-hand side. If a refrigerator is installed, this socket cannot be used for any other purpose.

To gain access to the refrigerator, open lid (A).

A—Lid



Continued on next page

OU12401,00019C6-19-28APR08-1/2

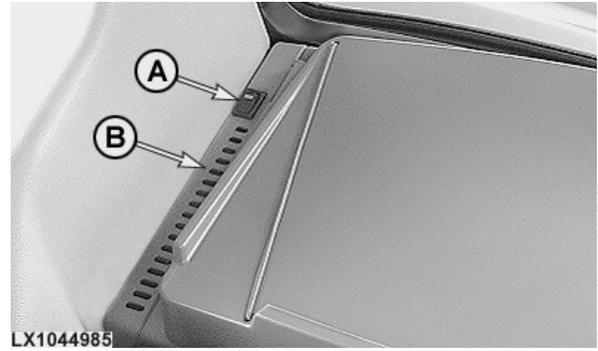
Operating the refrigerator

The refrigerator is switched on and off at switch (A).

IMPORTANT: Air slots (B) must not be obstructed when the refrigerator is in use.

A—Switch

B—Air slots



LX1044985—UN—28APR08

OU12401,00019C6-19-28APR08-2/2

Field Office™ (If Equipped)

NOTE: Field Office may be removed from tractor and taken with operator to be used as a brief case. Verify lid is secure before removing Field Office to avoid lid opening and losing contents.

Field Office must be removed to access storage box or refrigerator under Field Office.

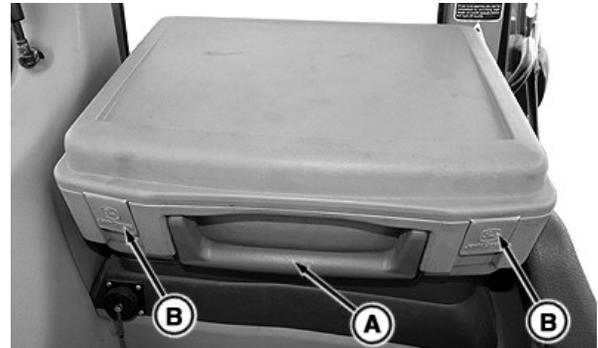
BB92646,00002B8-19-20NOV06-1/2

Unfasten locks (B) to open lid.

Pull out and up on handle (A) to unlock and remove Field Office from storage location.

A—Handle

B—Lid Locks



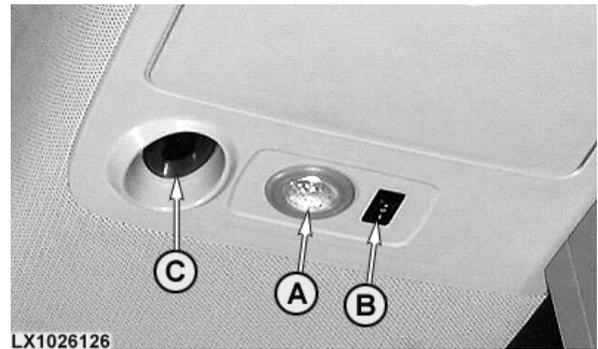
RXA0090888—UN—04OCT06

BB92646,00002B8-19-20NOV06-2/2

Dome Light

Dome light (A) remains on all the time switch (B) is set to position 1. With the switch at position 2, it comes on whenever the door is opened. It is switched off in position 0.

Light (C) illuminates the transmission control levers when the headlights are switched on.



LX1026126—UN—16MAY01

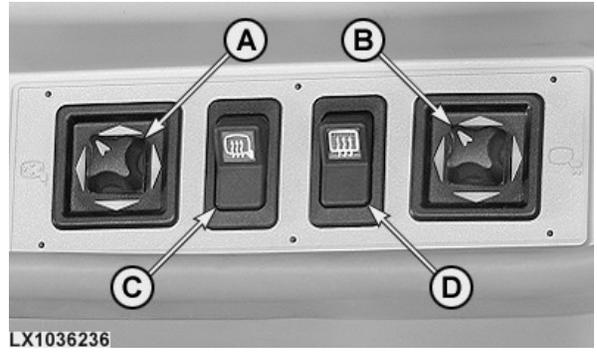
OU12401,00012B4-19-23AUG05-1/1

Control Switches for Rear-View Mirror and Rear-Window Heater (If Equipped)

Turn the arrow on knobs (A) and/or (B) towards the mirror that is to be adjusted. Press knob (A) up/down or left/right to adjust the mirror surface. Press knob (B) left/right to extend or retract the mirror's arm.

Switch (C) is for switching the mirror heater on and off.
Switch (D) is for switching the rear-window heater on and off.

- | | |
|------------------------------|------------------------------------|
| A—Mirror adjuster | C—Mirror heater switch |
| B—Mirror arm adjuster | D—Rear window heater switch |



OU12401,0001224-19-02AUG05-1/1

Adjusting the Steering Wheel

To adjust the angle of the steering wheel, pull lever (A), move steering wheel to desired angle and release the lever.

If only the lever is pulled, the steering wheel will rise to its highest position.

To adjust height, pull lever (B) to the rear. Push the lever forward when the adjustment is completed.

- | | |
|---|---|
| A—Lever for tilting the steering wheel | B—Lever for adjusting the height of the steering wheel |
|---|---|



OU12401,0001225-19-23AUG05-1/1

Back-Up Alarm (Optional Equipment)

If the tractor is equipped with this option and it is activated at the CommandCenter, an alarm signal is triggered whenever the reverser lever is set to reverse travel position.

Press the main menu key (A) and then select the "Option" screen (B).

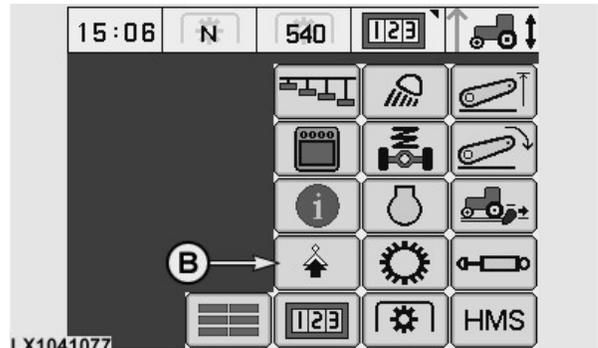
A—Main menu key

B—Option screen



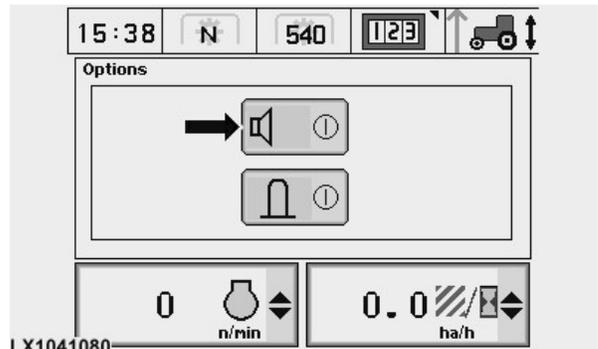
LX1037587

LX1037587—UN—06NOV06



LX1041077

LX1041077—UN—11OCT06



LX1041080

LX1041080—UN—11OCT06

OU12401,00014B3-19-08OCT06-1/1

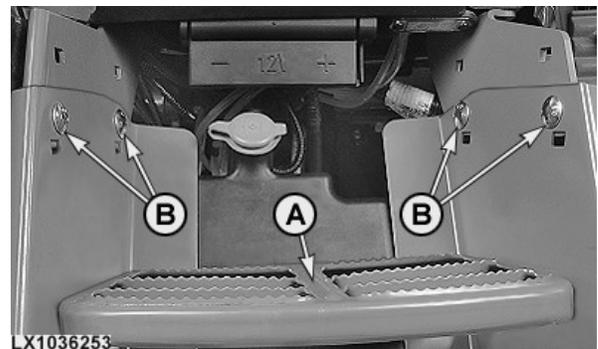
Adjusting the Height of Access Step

The height of access step (A) can be adjusted.

Take out screws (B). Move access step to desired position. Put screws (B) back in.

A—Access step

B—Screws



LX1036253

LX1036253—UN—03JUN05

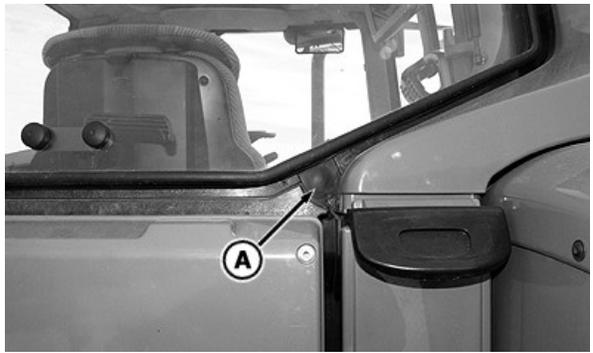
OU12401,00012B8-19-23AUG05-1/1

Cable Routing

Two openings exist in rear of cab for routing of cables into cab for monitors and other devices.

1. Open rear window and remove grommets (A).
2. Cut incision (B) into grommet large enough for cables to fit through.
3. Route cables into cab and connect.
4. Route cables through incision (B) in grommet.
5. Reinstall grommet (A) with cables and close window.

A—Rubber Grommet (1 per side)
B—Incision



RXA0090968—UN—04OCT06



RXA0091041—UN—06OCT06

BB92646,00002B1-19-14NOV06-1/1

Cigarette Lighter and Ashtray

Open lid (A) and pull out ashtray to remove.

A—Ashtray Lid
B—Cigarette Lighter



RXA0090970—UN—04OCT06

BB92646,00002B2-19-14NOV06-1/1

Installing the Monitor

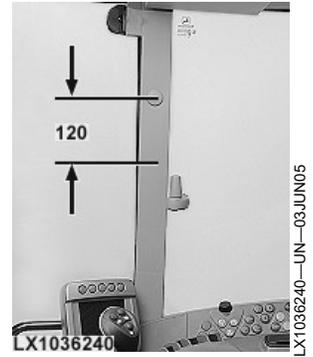
Attaching the performance monitor and controls

There are several possible locations for attaching monitors and controls in the cab:

- On the front right post.
- On the center posts.
- On the rear posts.

NOTE: Gap between holes at attaching points is 120 mm (4.72 in.) - M10 thread

Take off the relevant trim and turn it over. The positions where holes may be drilled are already marked on the inside.



OU12401,0001531-19-18NOV06-1/1

Electrical Sockets (If Equipped)

Signal socket

Terminal	Wire color	Description
1	Red	Speed determined by radar
2	Brown	Wheel speed
3	Orange	Rear PTO speed
4	—	—
5	—	—
6	Blue	Power supply
7	Black	Ground

The 7-terminal signal socket (A) is protected by a 30-amp fuse.

ISOBUS socket in cab

An implement monitor meeting ISO Standard 11783 may be connected to socket (C).

A—Signal Socket
B—3-Terminal Power Outlet Socket

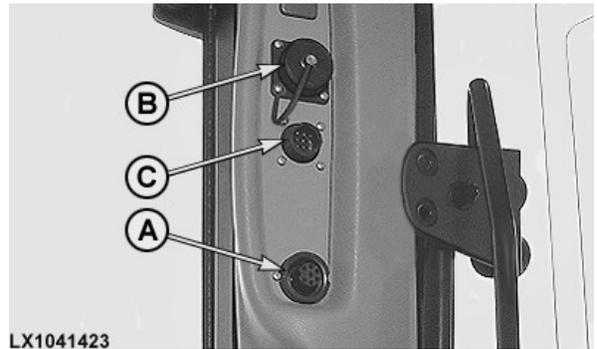
C—ISOBUS Socket



Signal socket in lateral console



3-terminal socket in rear cab wall



Sockets in cab frame

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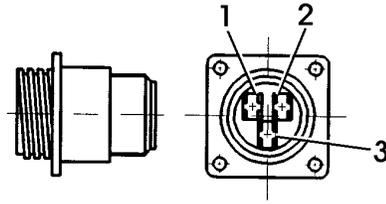
OU12401,0001B90-19-24AUG10-1/2

3-terminal power outlet socket

Terminals 1 and 2 of 3-terminal power outlet socket (B) are protected by a 30-amp fuse. Terminal 3 is ground.

Turn key in main (key) switch to the right to supply power to terminal 1. Terminal 2 is supplied with power even when the ignition is switched off.

IMPORTANT: Electrical equipment requiring high current inputs may be operated, and the use of multiple power outlets is permitted, but the supply circuit must never be overloaded. Remember, total load comprises the sum of all the current consumers connected to the on-board circuit at any one time. This also applies if the consumers are connected to the on-board circuit at different sockets.



LX1017966

LX1017966—UN—12JAN98

OU12401,0001B90-19-24AUG10-2/2

Multiple Power-Outlet Socket Strip (If Equipped)

A strip of extra sockets may be installed on the front of the switch console. Terminal A on the socket strip is protected by a 30-amp fuse. Terminal C is protected by a 30-amp fuse, and terminal B is ground.

Turn key in main (key) switch to the right to supply power to terminal C. Terminal A is supplied with power even when the ignition is switched off.

IMPORTANT: Electrical equipment requiring high current inputs may be operated, and the use of multiple power outlets is permitted, but the supply circuit must never be overloaded. Remember, total load comprises the sum of all the current consumers connected to the on-board circuit at any one time. This also applies if the consumers are connected to the on-board circuit at different sockets.



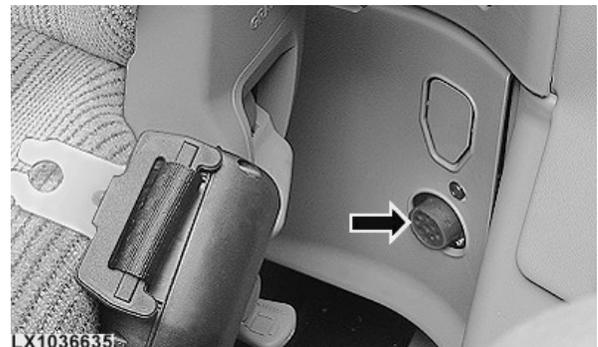
LX1036247

LX1036247—UN—24APR06

OU12401,0001B91-19-24AUG10-1/1

Service ADVISOR™ Socket

This socket is suitable **only** for service and diagnostic purposes. Do not connect any other equipment.



LX1036635

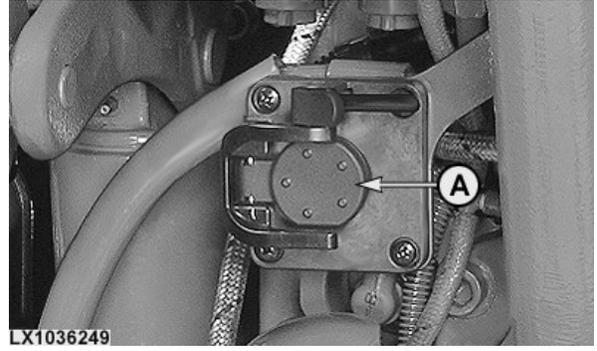
LX1036635—UN—24AUG05

SERVICE ADVISOR is a trademark of Deere & Company

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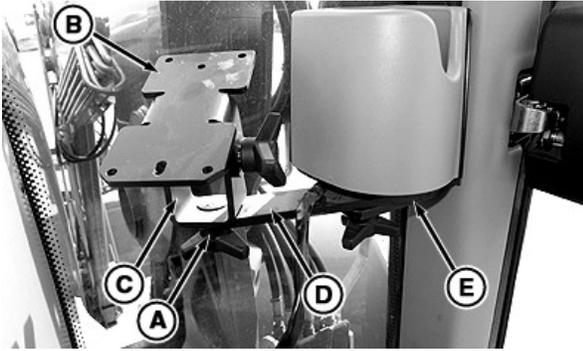
ISOBUS Socket (If Equipped)

Implements meeting ISO Standard 11783 may be connected to this socket (A). Read the operator's manual provided by the implement manufacturer and observe all safety messages in the manual and on the implement prior to use.



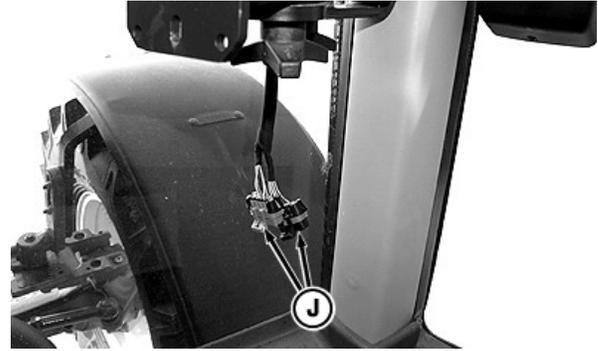
OU12401,0001530-19-08OCT06-1/1

GreenStar™ System Connections and Mounting Locations



RXA0091025—UN—06OCT06

Original GreenStar Display/Mobile Processor and GS2 2600 Display Mounting Location

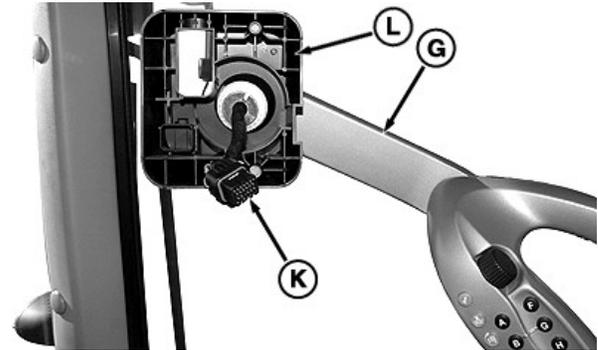


RXA0091027—UN—06OCT06

NOTE: See your John Deere dealer for wiring harnesses needed to connect GreenStar displays and StarFire receiver to tractor.

1. Install StarFire™ receiver to mounting bracket (H).
2. Connect harness connector (I) to StarFire receiver connector.
3. Install GreenStar display.

NOTE: Additional harnesses may be needed to connect display to wiring harness connectors (J) on tractor. See your John Deere dealer for details.



RXA0091029—UN—06OCT06

GS2 2100 Display Mounting Location

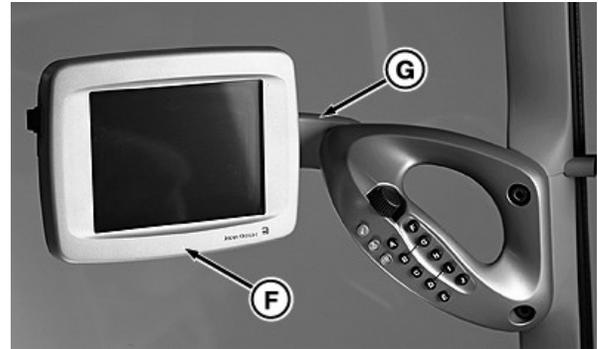
Original GreenStar Display/Mobile Processor and GS2 2600 Display:

1. Connect Original GreenStar display/mobile processor or GS2 2600 display to wiring harness connectors (J).
2. Install Original GreenStar display/mobile processor or GS2 2600 display to bracket (B).
3. Loosen knobs (A) to adjust brackets (B), (C), (D), and (E) for desired display position.

GS2 2100 Display:

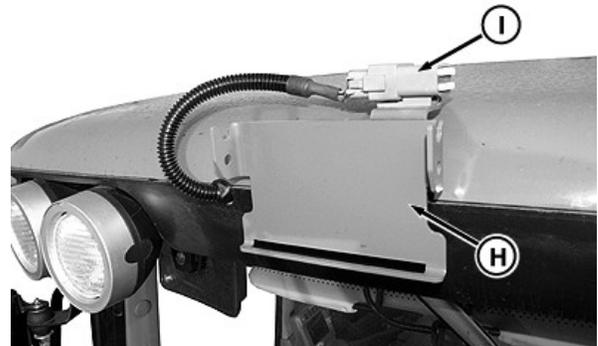
NOTE: Additional harnesses may be needed to connect display to wiring harness connector (K) on tractor. See your John Deere dealer for details.

1. Connect wiring harness connector (K) to GS2 2100 display (F).
2. Install GS2 2100 display (F) to bracket (L) on arm (G).
3. Rotate GS2 2100 display (F) and arm (G) to desired position.



RXA0091031—UN—06OCT06

- A—Adjusting Knobs
- B—Bracket
- C—Bracket
- D—Bracket
- E—Bracket
- F—GS2 2100 Display



RXA0091023—UN—06OCT06

Continued on next page

BB92646,00002BB-19-11DEC06-1/2

- G—Mounting Arm
- H—StarFire Receiver Mounting Bracket
- I—StarFire Receiver Wiring Harness Connector
- J—Display Wiring Harness Connectors
- K—Display Wiring Harness Connector
- L—GS2 2100 Display Mounting Bracket

StarFire is a trademark of Deere & Company

BB92646,00002BB-19-11DEC06-2/2

AutoTrac™ Assisted Steering System (If Equipped)

NOTE: Refer to AutoTrac Operator's Manual for detailed information.

AutoTrac is a trademark of Deere & Company

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BB92646,00002BA-19-14NOV06-1/2



StarFire Receiver

RXA0090990—UN—04OCT06



Original GreenStar Display/Mobile Processor

RXA0084304—UN—26SEP05

AutoTrac utilizes tractor's steering system control unit (SSU), StarFire™ receiver (A), and GreenStar™ display (B), (C), or (D) to assist operator in steering tractor.

Operator must turn tractor at end of each pass and steer around any obstacles in field.

Turn steering wheel manually to disengage AutoTrac and obtain manual steering control.

- A—StarFire Receiver
- B—Original GreenStar Display/ Mobile Processor
- C—GS2 2100 Display
- D—GS2 2600 Display



GS2 2100 Display

RXA0090992—UN—04OCT06



GS2 2600 Display

RXA0084306—UN—26SEP05

StarFire is a trademark of Deere & Company
GreenStar is a trademark of Deere & Company

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Roof Hatch (If Equipped)

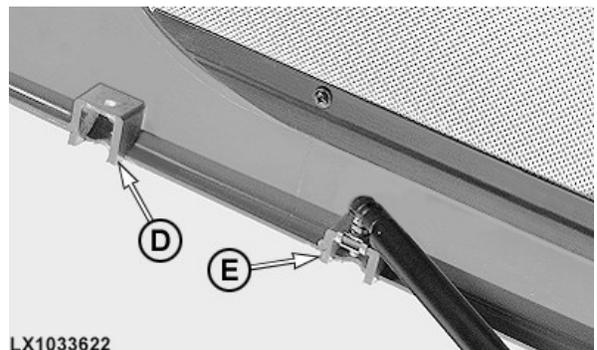
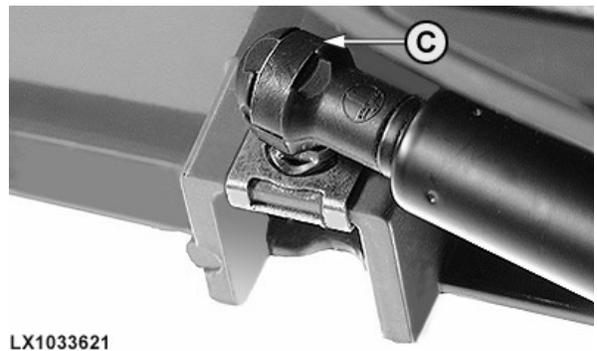
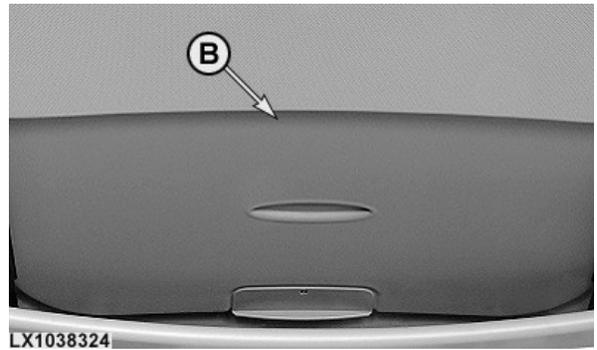
The roof hatch can be opened and closed using handle (A).

If the roof hatch is equipped with a glass panel, direct sunlight can be prevented from entering by using cover (B).

The roof hatch can be adjusted to a narrower or wider angle. To adjust the angle, remove retaining clip (C), pull gas spring from its retainer and remove retainer. Install retainer in the desired position (D) or (E), re-install gas spring and secure with the clip.

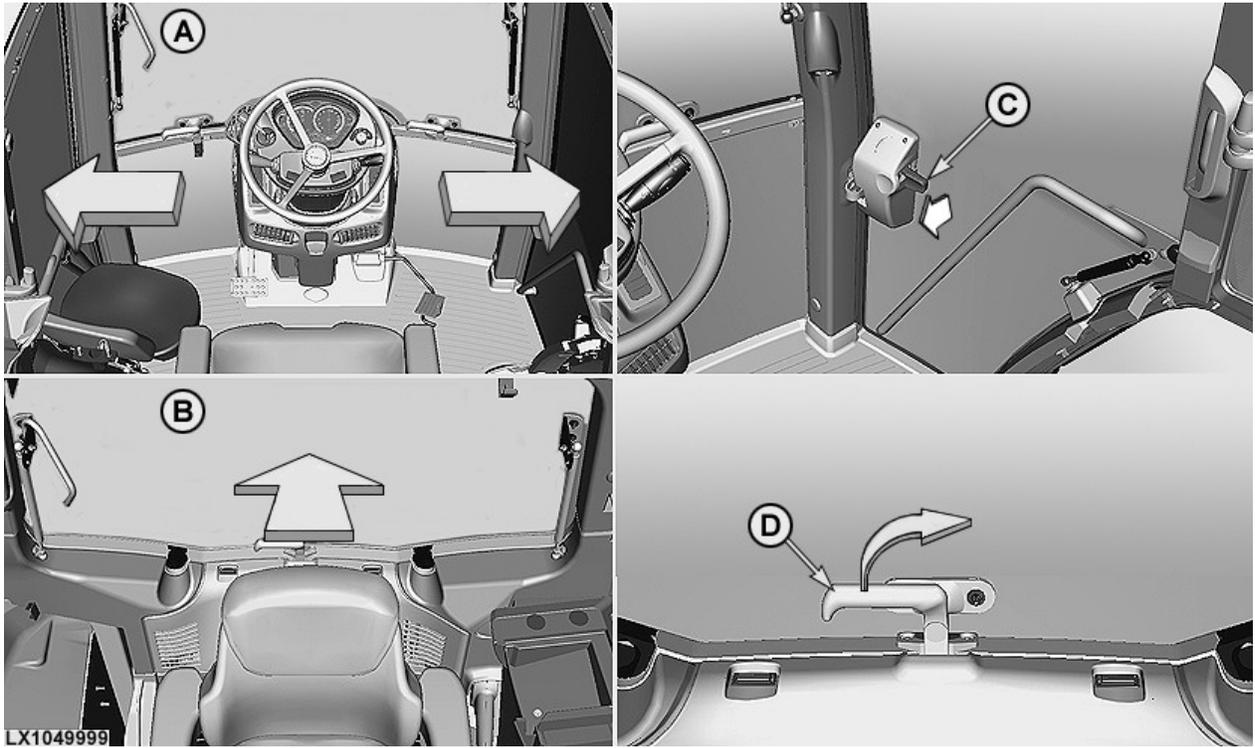
- A—Handle
- B—Cover
- C—Retaining clip

- D—Narrow angle
- E—Wide angle



OULXE59,001088B-19-19APR06-1/1

Emergency Exits



In an emergency, it is possible to exit the cab through the two doors (A). To do this, pull lever (C) to release the door and then push it open.

In an emergency it is also possible to exit the cab through

the opening of the rear window (B). Turn lever (D) to the right to release the window and then push it open.

If not equipped with a right door, either break the glass by using an emergency hammer (if equipped) or open it by pulling out the cotter pin.

OU12401,0001CD5-19-18OCT11-1/1

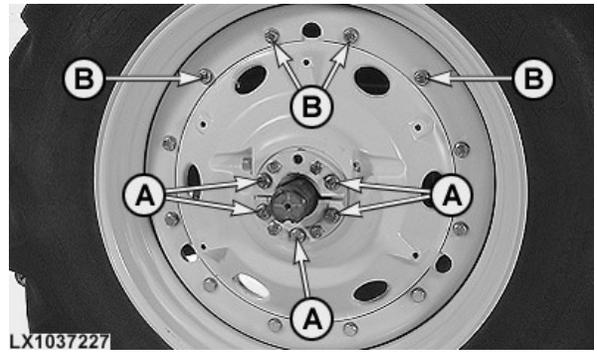
Break-in Period

After the First 4 and 8 Operating Hours

Tighten rear wheel retaining bolts

A—600 N·m (445 lb.-ft.)

B—600 N·m (445 lb.-ft.)



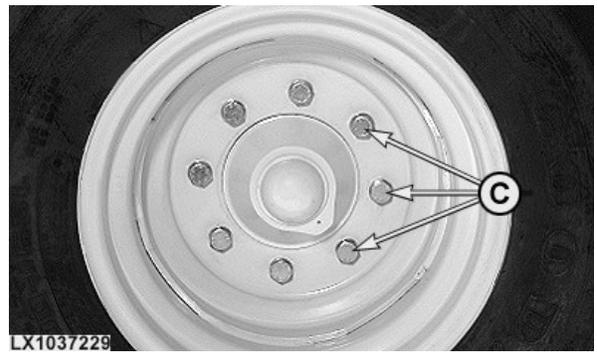
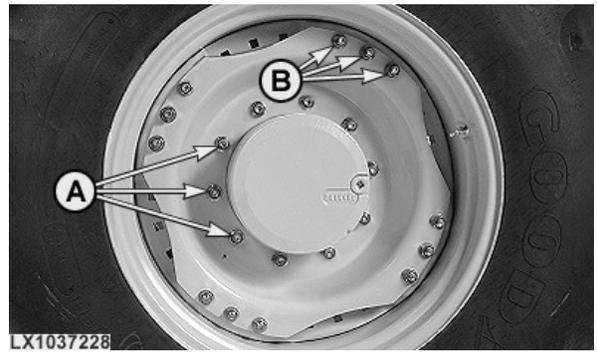
OU12401,0001B26-19-22NOV11-1/3

Tighten bolts/nuts of front wheels

A—480 N·m (355 lb.-ft.)

C—310 N·m (230 lb.-ft.)

B—310 N·m (230 lb.-ft.)

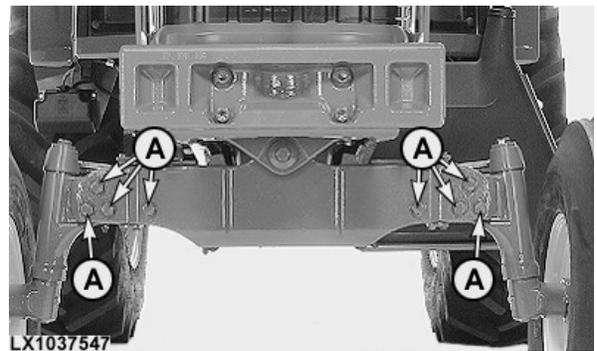


OU12401,0001B26-19-22NOV11-2/3

Adjustable front axle

Tighten mounting screws (A) to 600 N·m (445 lb.-ft.).

A—Mounting Screws



OU12401,0001B26-19-22NOV11-3/3

Within the First 100 Hours of Operation

Wheel bolts

Check torque at wheel retaining bolts frequently.

Engine oil

For the correct use of engine oil, see Section 80, FUEL, LUBRICANTS, HYDRAULIC OIL AND COOLANT.

The first oil and filter change must take place after the first 100 operating hours at the earliest but within the first 500 operating hours at the latest.

OU12401,00019C8-19-11AUG11-1/1

After the First 100 Hours of Operation

The service jobs listed under “After the First 100 Hours” in Section 85, “Lubrication and Periodic Service” must be carried out.

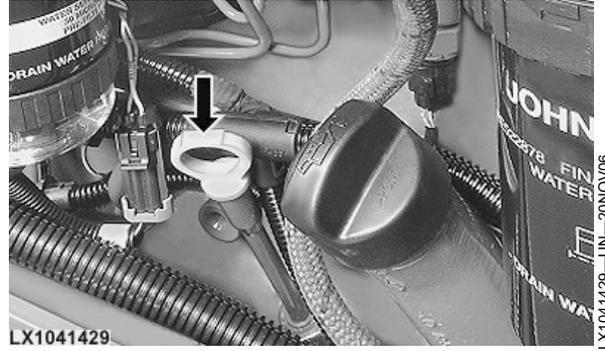
OU12401,00019C9-19-06MAY08-1/1

Prestarting Checks

Prestarting Checks

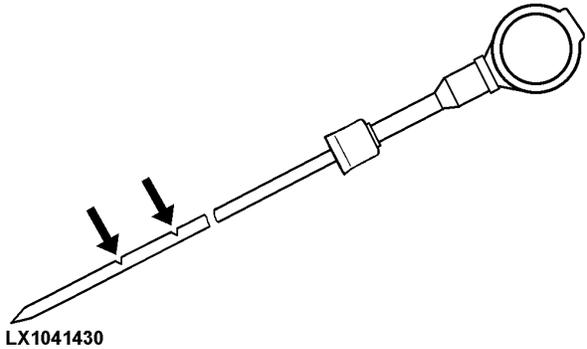
Engine oil level

Engine oil level should always be between the marks on the dipstick. Do not start the engine if oil level is below lower mark on dipstick.



After long storage period

Check whether dirt or other foreign bodies have collected under the hood. If so, remove them.



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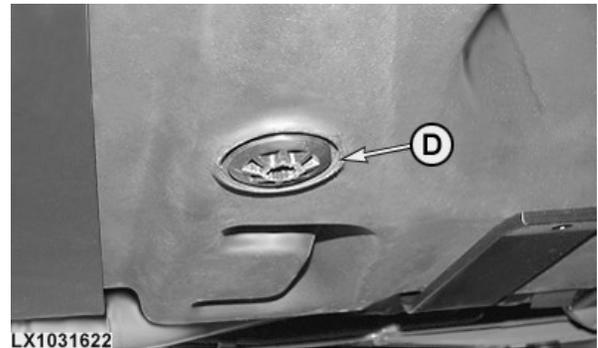
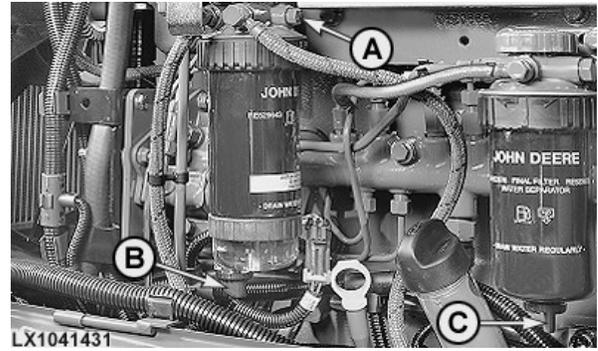
OU12401,00014B4-19-17NOV06-1/2

Fuel filter

If water or sediment deposits have settled in filter, proceed as follows:

1. Open bleed screw (A).
2. Open drain plug (B) by 3/4 of a turn. Retighten the plug as soon as water and sediment deposits have drained out.
3. Open drain plug (C) by 3/4 of a turn. Retighten the plug as soon as water and sediment deposits have drained out.
4. Tighten bleed screw (A).
5. Turn key in main switch to the right to the first switch position so that the fuel transfer pump is operating. Keep the pump running for approx. 40 seconds.

If water was present in fuel filter, use a 1/2-inch square-section key to loosen drain plug (D) under the fuel tank by one turn. After draining off any water and sediment deposits, retighten drain plug until hand-tight.



A—Bleed screw
B—Drain plug
C—Drain plug
D—Fuel tank drain plug

Other checks

If the tractor is used to power external hydraulic equipment, check the level of the transmission/hydraulic oil every day.

This check is described in “Service - Every 250 Hours”.

If the tractor is used in particularly wet and muddy terrain, perform the following additional service:

- Lubricate front axle and front-wheel drive shaft.
- Lubricate rear axle.

- Lubricate three-point hitch.

These jobs are described in “Service - Every 250 Hours” and “Service - Every 500 Hours”.

OU12401.00014B4-19-17NOV06-2/2

Comply with Operator's Manuals of Implement Manufacturers

⚠ CAUTION: Before operating the tractor in conjunction with a mounted implement or trailer, it is the responsibility of the operator to make himself familiar with the relevant Operator's Manuals. Operator errors may have serious consequences.

Operator's Manuals and the safety decals on mounted implements and trailers provide important information on how to operate them safely. For this reason, it is important to make yourself familiar with them before starting work. Operator's Manuals must be provided for all operators of the tractor.



OULXBER.0001A5A-19-21FEB11-1/1

Operating the Engine

Engine Fuel System and Power Rating

Fuel System

IMPORTANT: Modification or alteration to the injection pump, the injection pump timing, or the fuel injectors will terminate the warranty to the purchaser.

Do not attempt to service injection pump or fuel injectors. Special tools and training 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. In most applications this will not be the same rating as the advertised **tractor** kW (hp) rating. (See Specifications section.)

RF30435,0000027-19-18APR01-1/1

Important Information Regarding the Engine

The warranty does not cover damage to the engine and driveline elements caused by unauthorized engine settings.

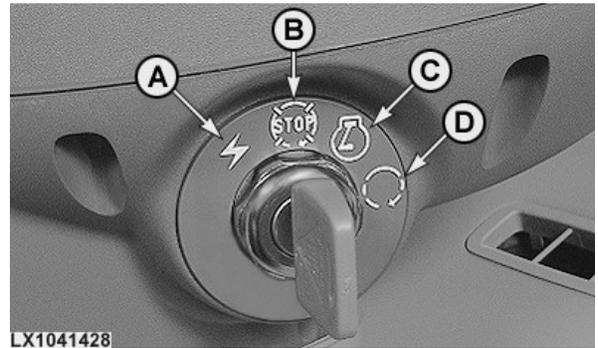
Unauthorized settings contravene the emissions

regulations that apply to this engine and may result in criminal prosecution.

OU12401,000198A-19-25JAN08-1/1

Positions of Main (Key) Switch

- | | |
|--------------------------------|-------------------------|
| A—Power supply with engine off | C—“On” (engine running) |
| B—“Off” | D—Start position |



OU12401,000154B-19-14NOV06-1/1

Starting the Engine

⚠ CAUTION: Never operate the engine in a closed building. Make sure there is plenty of ventilation. Danger of asphyxiation!

1. Set selective control valve levers (A) to neutral position.
2. Set reverser lever (C) to neutral position (or to positions N or P on tractors with IVT transmission).
3. Turn key in main switch (D) one position to the right. Wait until light (E) goes out.
4. Turn key in main switch (D) clockwise to end position. As soon as engine starts, release key.

Do not operate starting motor for more than 30 seconds at a time. Turn key in main switch to zero. Wait at least one minute before attempting to start again.

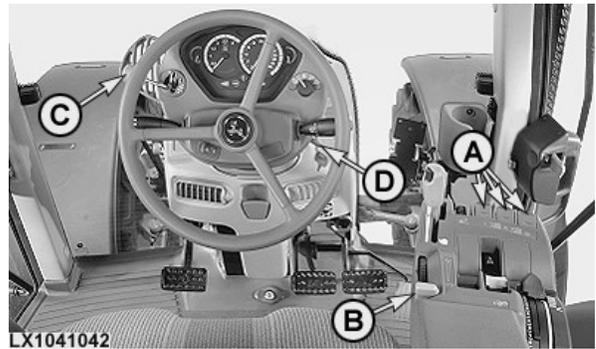
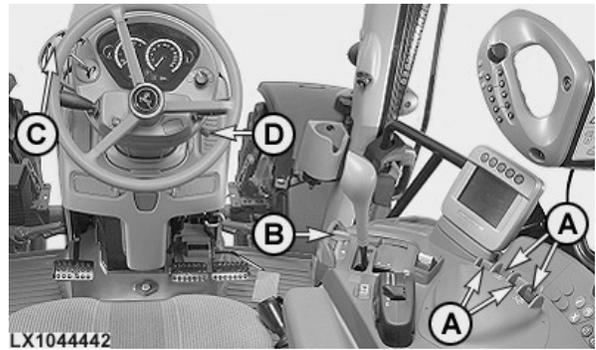
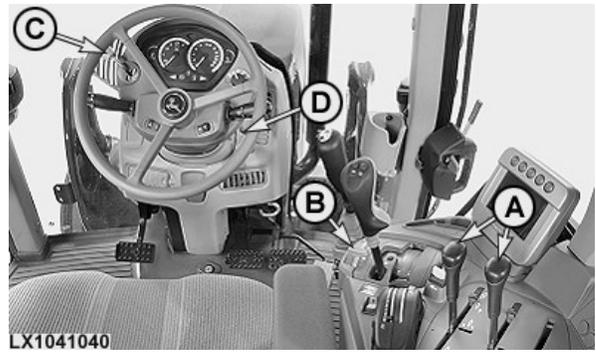
After starting the engine, wait 2 seconds before operating switches or controls since the electronic system of the tractor is checked.

IMPORTANT: During the warm-up phase, operate the tractor at moderate load only. Once operating temperature has been reached (see temperature gauge), full power becomes available.

NOTE: The engine control unit (ECU) allows the engine to run at a higher slow idle speed (1050 rpm) until coolant temperature reaches 20°C (68°F).

A—SCV Levers
B—Hand Throttle
C—Reverser Lever

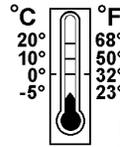
D—Main (Key) Switch
E—Glow-Plug Indicator Light



OULXE59,0010994-19-17JUN10-1/1

Cold-Weather Starting Aid

Depending on tractor equipment, various cold-weather starting aids are available to assist in starting the engine at temperatures below 0°C (32°F).



LX1026128

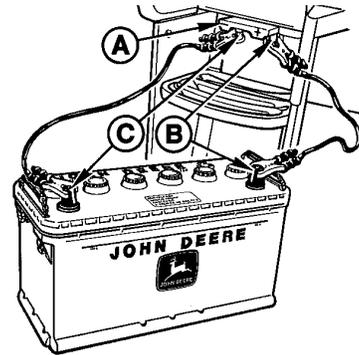
OU12401,00012C1-19-28AUG05-1/1

Starting with a Booster Battery

⚠ CAUTION: Gas given off by batteries is highly explosive. Keep sparks and flames away from batteries. Be sure polarity is correct before making connections: ground cable to negative pole and starter cable to positive pole of battery.

Reversed polarity will damage the electrical system. Always connect ground cable to negative pole last.

The tractor is equipped with connections to allow an additional 12-volt battery to be brought into the circuit. Lift up cover (A), and connect positive poles (B) before connecting negative poles (C).



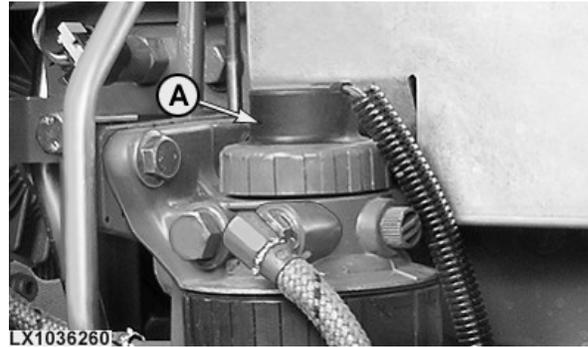
LX 000399

OULXE59,001071C-19-18FEB05-1/1

Fuel Preheater

Fuel preheater (A) switches on and off automatically in relation to the ambient temperature.

A—Fuel preheater



LX1036260—UN—16AUG05

OU12401,0001232-19-27MAY05-1/1

Using Auxiliary Heaters — If Equipped

⚠ CAUTION: Avoid electrical shock or fire. Use 3-wire, heavy duty electrical cord with 15-amp rating (14 gauge) minimum, suitable for outdoor use. Always plug electrical cord into 110-volt outlet protected with ground fault interrupter.

Two Cold Weather Packages are available from your John Deere Dealer.

Auxiliary Heater Package, including:

- Engine Coolant Heater

- Hydraulic Charge Pump Heater
- Transmission Heater

Premium Cold Weather Package, including:

- Engine Coolant Heater
- Hydraulic Charge Pump Heater
- Transmission Heater
- Fuel Heater
- Rear Window Defroster

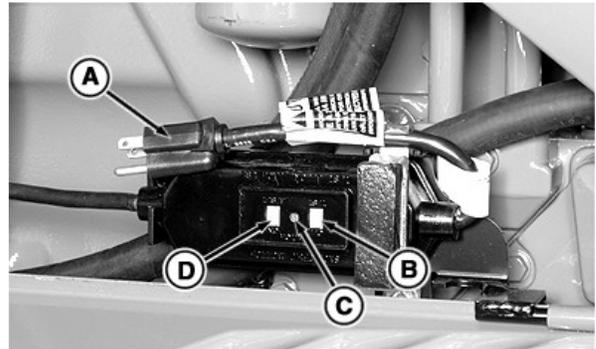
OU12401,0001374-19-03NOV05-1/2

IMPORTANT: Ground fault interrupter protects tractor only, and does not protect electrical wiring supplying power to tractor. Test all ground fault interrupters before use.

Auxiliary heaters are used to aid starting in cold weather. At ambient temperature of -15°C (5°F), coolant heating process requires about 2 hours. Extend heating period if ambient temperature is lower.

- A—Plug
- B—Test Button

- C—Indicator Light
- D—Reset Button



OU12401,0001374-19-03NOV05-2/2

Engines with Turbocharger

Most damage to the turbocharger is caused by not following the correct procedure when starting and shutting off the engine. After starting and before shutting off, idle the engine without load for at least 30 seconds.

IMPORTANT: If the engine stalls when in operation, restart it IMMEDIATELY. This will prevent the turbocharger from overheating.

See also *Stopping the Engine* in this Section.

LX,OMMOT 013413-19-22JUN10-1/1

Intelligent Power Management (Power Boost) — Optional Equipment

NOTE: Power boost is activated automatically when starting the engine.

To de-activate or re-activate power boost, press engine button (A) and make a choice on the screen.

If power boost is activated at the CommandCenter, then the following applies:

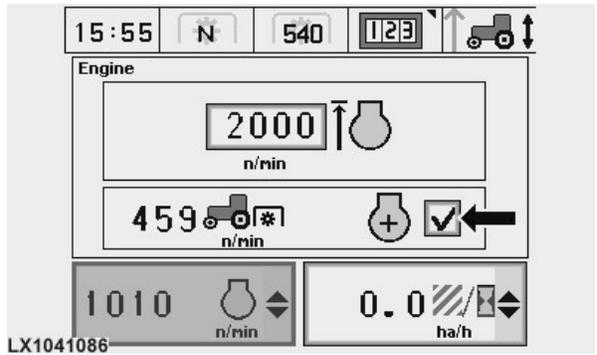
a) Transport work

Engine power is increased automatically when ground speed exceeds 15 km/h (9.3 mph). This power boost persists until the ground speed drops below 10 km/h (6.2 mph).

b) PTO operation

When using PTO-driven implements, engine power is increased gradually when ground speed exceeds 1 km/h (0.6 mph), if the tractor electronic system detects a correspondingly high PTO power requirement. Full power becomes available from a speed of 2.5 km/h (1.5 mph).

A—Engine button



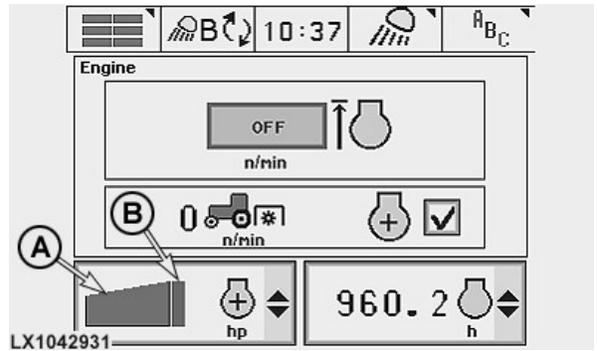
OU12401,00019B0-19-23APR08-1/2

Engine power display

Fields (A) and (B) display the current engine power (light green color).

- Field (A) represents the power range up to rated engine power.
- Field (B) represents the John Deere power bulge (above rated power).
- The power boost achieved by the “Intelligent Power Management” system for PTO operation and transport work is displayed in field (B) (dark green color).

A—Engine power below rated power B—Engine power above rated power



OU12401,00019B0-19-23APR08-2/2

Engine Protection

Malfunctions in the fuel system and engine are indicated by the red STOP light, yellow CAUTION light and blue INFO light coming on. In addition, a message appears on the CommandCenter.

To protect the engine and prevent damage, there is an engine protection program that functions as follows when a serious malfunction occurs:

Malfunction	Light	Diagnostic trouble code	Effect
Incorrect signal from the crankshaft speed sensor	blue	000637.10	Engine power is reduced by 50%
	yellow	000637.02	
	yellow	000637.08	
Coolant too hot	yellow	000110.16	Engine power is reduced by 20%
	red	000110.00	Engine power is reduced by 60%
Engine control unit too hot	red	001136.00	Engine speed is reduced to 1200 rpm
Exhaust Gas Recirculation (EGR) exhaust temperature too high	blue	000412.15	Engine power is reduced by 5 to 50%
	yellow	000412.16	
	red	000412.00	
Exhaust gas recirculation valve in wrong position	blue	002791.02	Engine power is reduced by 20%
	yellow	002791.13	
	yellow	002659.17	
Intake air temperature (VGT) too high	yellow	001180.16	Engine power is reduced by 5 to 50%
	red	001180.00	
Fuel temperature too high	red	000174.00	Engine power is reduced by 20%
Fresh air temperature of Exhaust Gas Recirculation (EGR) too high	yellow	002630.16	Engine power is reduced by 20%
	red	002630.00	Engine power is reduced by 60%
Mixed air temperature of Exhaust Gas Recirculation (EGR) too high	yellow	000105.16	Engine power is reduced by 20%
	red	000105.00	Engine power is reduced by 60%
Engine oil pressure too low	yellow	000100.18	Engine power is reduced by 20%
	red	000100.01	Engine power is reduced by 60%
Incorrect signal from sensor for fuel rail pressure	red	000157.03	Engine power is reduced by 50%
	red	000157.04	
Problem with transmission on the CAN BUS	yellow	000237.02	Engine power is reduced in increments of 10% to an engine speed of 1200 rpm
	yellow	000237.13	
	yellow	000237.31	
Turbocharger speed too high	yellow	000103.00	Engine power is reduced by 50%
Turbocharger compressor outlet temperature too high	yellow	002790.16	Engine power is reduced by 50%
Turbocharger actuator error	yellow	002795.07	Engine power is reduced by 50%
Water detected in fuel	yellow	000097.16	Engine power is reduced by 50%

OU12401,0001AF5-19-22NOV08-1/1

Towing the Tractor

IMPORTANT: Never tow the tractor to start the engine!

A disabled tractor is best transported on a flatbed carrier. Comply with the instructions in the "Transport" section.

LX,OMOT 004928-19-01SEP99-1/1

Park the Tractor (Tractors without IVT)

IMPORTANT: Engage park only when the tractor is stationary.

Engage park when parked or operating the tractor from a stationary position.



LX1044921

LX1044921—UN—11DEC07

OU12401,00019AF-19-09APR08-1/1

Parking the Tractor (Tractors with IVT)

IMPORTANT: Engage park lock only when the tractor is stationary.

Engage park lock when parked or operating the tractor from a stationary position.

NOTE: In extremely cold temperatures, it may take up to 20 seconds for the park lock to engage.

When engaging park lock on bumpy terrain, remember to actuate the brake pedals as well.

An acoustic alarm warns the operator if he vacates his seat with the park lock not engaged.



OU12401,00012E7-19-04OCT05-1/1

Stopping the Engine

⚠ CAUTION: Do NOT shut off the engine while the tractor is moving (not even when it is rolling to a stop). To do so could damage the electronics as well as the transmission.

⚠ CAUTION: After heavy-duty work or driving at high engine speeds, do not shut off the engine immediately; wait for a few minutes with the engine running at slow idle speed. This prevents the engine compartment from becoming too hot.

⚠ CAUTION: Lower mounted implement(s) or equipment to the ground before leaving the tractor. Pull the key out of the main switch.

Stop the tractor, engage the park lock and then turn main (key) switch (A) to the left to shut off the engine.



OU12401,00012C6-19-22JUN10-1/1

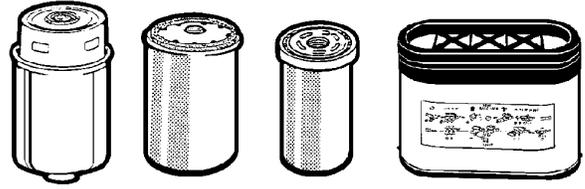
Operating the Tractor — General

Reduce Fuel Consumption

Service correctly

Replace air cleaner element and fuel, engine oil and transmission/hydraulic filter elements at specified service intervals (see Service section).

Use only John Deere filters!

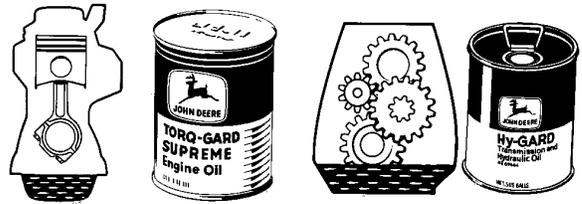


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OU12401.000197F-19-24DEC07-1/7

Use recommended oils and lubricants only (see Fuel, Lubricants, Hydraulic Oil and Coolant section).

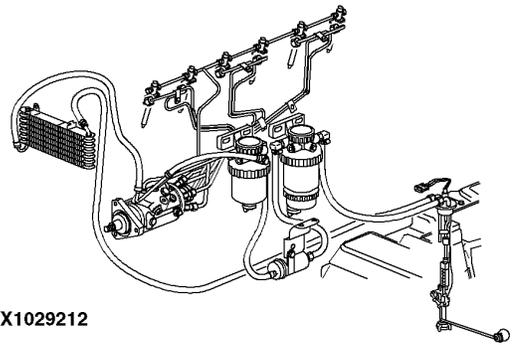


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OU12401.000197F-19-24DEC07-2/7

Have the fuel system checked regularly by your John Deere dealer.



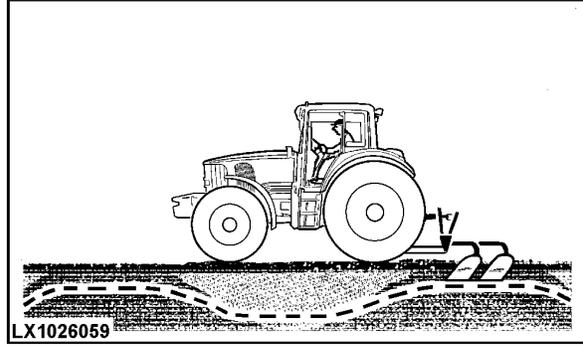
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OU12401.000197F-19-24DEC07-3/7

Have draft link control functions of the hitch checked regularly by your John Deere dealer.

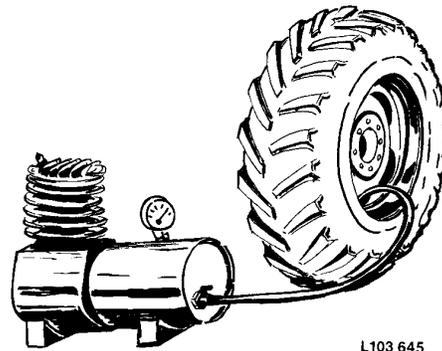


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OU12401,000197F-19-24DEC07-4/7

Drive with correct tire pressures

Adapt tire pressures to type of work and ground conditions (consult your John Deere dealer or local tire agent).



L103645—UN—15AUG94

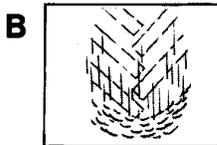
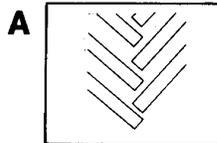
OU12401,000197F-19-24DEC07-5/7

Choose correct ballast

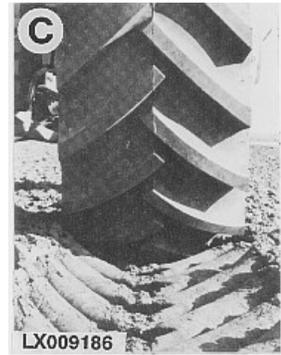
Choose ballast to obtain 10 to 15% wheel slip. Use no more ballast than necessary, reduce ballast for light work.

A—Too much ballast
B—Too little ballast

C—Correct ballast



LX009185—UN—01SEP94



LX009186—UN—01SEP94

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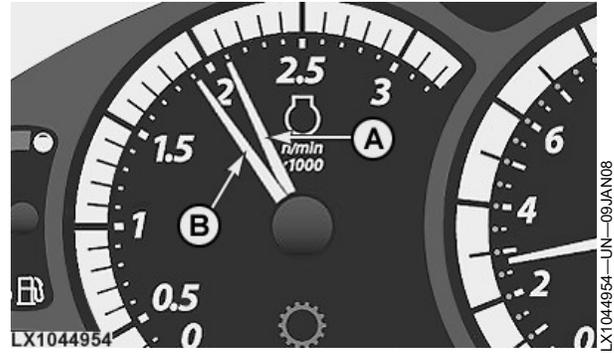
OU12401,000197F-19-24DEC07-6/7

Select correct gear

Always drive in the highest possible gear with reduced engine speed.

Choose a gear so that engine speed (A) with engine under no load drops 150 to 250 rpm when the tractor is operating with the engine under load (B).

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



OU12401,000197F-19-24DEC07-7/7

Select Correct Ground Travel Speed

7130 and 7230 tractors

7330 tractors

7430 and 7530 tractors

PowrQuad Plus transmission (30 km/h; 16 mph):
16 forward gears, 16 reverse gears

PowrQuad Plus transmission (30 km/h; 16 mph):
16 forward gears, 16 reverse gears

PowrQuad Plus transmission (40 km/h; 25 mph):
24 forward gears, 24 reverse gears

PowrQuad Plus transmission (40 km/h; 25 mph):
20 forward gears, 20 reverse gears

PowrQuad Plus transmission (40 km/h; 25 mph):
20 forward gears, 20 reverse gears

AutoQuad Plus transmissions have the same number of gears and the same travel speeds as the corresponding PowrQuad Plus transmission.

The tractor may be equipped with an additional creeper transmission.

Gears should be selected so as to avoid prolonged overloading of the engine. Ground travel speeds with engine running at rated speed are shown on the following pages.

OU12401,0001B27-19-03FEB09-1/1

Using Emergency Exit

The rear window provides a large exit path if the cab door is blocked in an emergency situation.

RF30435,000004F-19-21MAY01-1/1

Transmission Description

⚠ CAUTION: Avoid personal injury or damage to the tractor. If the 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.

Always place shift lever in PARK position before dismounting.

IMPORTANT: Prevent transmission or clutch damage:

Never rest foot on the clutch pedal while tractor is moving

Do not allow tractor to coast by disengaging clutch or shifting transmission into neutral

Never attempt to start tractor by towing or pushing

Always stop tractor completely before shifting transmission to PARK position

Avoid excessive ballast

Avoid continuous operation under full throttle and full load conditions below 1800 rpm

PowrQuad PLUS™ Transmission provides 16 forward and 16 reverse speeds. Left-hand reverser provides fully modulated shift capability between forward and reverse. Four power-shiftable gears can be shifted manually on-the-go using upshift/downshift switches. Range lever provides four or five fully synchronized ranges shiftable on-the-go. Creeper option is available.

AutoQuad PLUS™ Transmission provides 24 forward and 24 reverse speeds or 20 forward and 20 reverse speeds. Left-hand reverser provides fully modulated shift capability between forward and reverse. Range lever provides five or six fully synchronized ranges shiftable on-the-go. Four power-shiftable gears can be shifted manually using upshift/downshift switches or automatically using Auto shift enable/resume switch. In AUTO mode, gear changes within a selected range are performed automatically depending on engine speed and throttle position. Creeper option is available.

Infinitely Variable Transmission (IVT)™ provides an infinite range of ground speeds in both forward and reverse modes.

Description

Three transmission options are available:

PowrQuad PLUS is a trademark of Deere & Company

AutoQuad PLUS is a trademark of Deere & Company

Infinitely Variable Transmission (IVT) is a trademark of Deere & Company

BB92646,00002A2-19-12DEC06-1/1

Travel Speed Tables

NOTE: The ground travel speeds shown in the following tables are theoretical. The actual speeds vary with rolling circumference, load, tire pressure, make of tire, wheel slip etc. If the precise speed is required for specific applications, then it must be obtained by measurement.

OULXE59,001089F-19-08MAY06-1/1

Changing Rear Wheel Tires

When changing tires, always choose tires with the same differential ratio (refer to the following tables).

OU12401,0001539-19-25OCT06-1/1

Travel Speeds, PowrQuad Plus Transmission (16/16), 7130 and 7230 Tractors

30 km/h (18.5 mph); rated engine speed 2300 rpm; 18.4R38 tires; differential 51/9

Range	Gear	km/h	mph	Additional gears with creeper transmission			
				Range	Gear	km/h	mph
A	1	2,6	1.6	A	1	0,26	0.16
	2	3,1	1.9		2	0,31	0.19
	3	3,7	2.3		3	0,37	0.23
	4	4,5	2.8		4	0,46	0.29
B	1	5,1	3.2	B	1	0,52	0.32
	2	6,2	3.9		2	0,62	0.39
	3	7,4	4.6		3	0,75	0.47
	4	9,1	5.7		4	0,91	0.57
C	1	8,5	5.3	C	1	0,85	0.53
	2	10,2	6.3		2	1,02	0.63
	3	12,2	7.6		3	1,23	0.76
	4	14,9	9.3		4	1,50	0.93
D	1	17,4	10.8	A	R1	0,27	0.17
	2	21,0	13.1		R2	0,32	0.20
	3	25,1	15.6		R3	0,39	0.24
	4	30,8	19.1		R4	0,48	0.30
A	R1	2,7	1.7	B	R1	0,54	0.34
	R2	3,2	2.0		R2	0,65	0.40
	R3	3,9	2.4		R3	0,78	0.48
	R4	4,7	2.9		R4	0,95	0.59
B	R1	5,4	3.4	C	R1	0,89	0.55
	R2	6,5	4.0		R2	1,07	0.67
	R3	7,7	4.8		R3	1,28	0.80
	R4	9,5	5.9		R4	1,57	0.98
C	R1	8,8	5.5	D	R1	18,2	11.3
	R2	10,6	6.6		R2	21,9	13.6
	R3	12,7	7.9		R3	26,2	16.3
	R4	15,6	9.7		R4	32,1	20.0

Other tires (supplied by factory):

Tires	Speed	Differential	Tires	Speed	Differential
24.5-32	same	51/9	650/65R38	2.3% faster	47/8
18.4R34	0.3% faster	53/10	18.4R42	2.3% faster	47/8
650/75R34	2.3% faster	47/8	480/80R42	2.3% faster	47/8
18.4-38	same	51/9	14.9R46	2.3% faster	47/8
20.8R38	2.3% faster	47/8	320/90R46	same	51/9
480/80R38	same	51/9	420/80R46	2.3% faster	47/8
520/85R38	2.3% faster	47/8	320/90R50	2.3% faster	47/8

OU12401,00014BA-19-10SEP06-1/1

Travel Speeds, PowrQuad Plus Transmission (16/16), 7330 Tractors

30 km/h (18.5 mph); rated engine speed 2100 rpm; 18.4R38 tires; differential 49/10

				Additional gears with creeper transmission			
Range	Gear	km/h	mph	Range	Gear	km/h	mph
A	1	2,4	1.5	A	1	0,25	0.16
	2	2,9	1.8		2	0,30	0.19
	3	3,5	2.2		3	0,36	0.22
	4	4,3	2.7		4	0,44	0.27
B	1	5,1	3.2	B	1	0,53	0.33
	2	6,2	3.9		2	0,64	0.40
	3	7,4	4.6		3	0,77	0.48
	4	9,1	5.7		4	0,94	0.58
C	1	8,2	5.1	C	1	0,85	0.53
	2	9,9	6.2		2	1,02	0.63
	3	11,8	7.3		3	1,22	0.76
	4	14,5	9.0		4	1,50	0.93
D	1	17,0	10.6				
	2	20,4	12.7				
	3	24,5	15.2				
	4	30,0	18.6				
A	R1	2,5	1.6	A	R1	0,26	0.16
	R2	3,0	1.9		R2	0,32	0.20
	R3	3,7	2.3		R3	0,38	0.24
	R4	4,5	2.8		R4	0,46	0.29
B	R1	5,4	3.4	B	R1	0,56	0.35
	R2	6,5	4.0		R2	0,67	0.42
	R3	7,7	4.8		R3	0,80	0.50
	R4	9,5	5.9		R4	0,98	0.61
C	R1	8,5	5.3	C	R1	0,88	0.55
	R2	10,3	6.4		R2	1,06	0.66
	R3	12,3	7.6		R3	1,28	0.80
	R4	15,1	9.4		R4	1,56	0.97
D	R1	17,7	11.0				
	R2	21,3	13.2				
	R3	25,5	15.8				
	R4	31,3	19.5				

Other tires (supplied by factory):

Tires	Speed	Differential	Tires	Speed	Differential
24.5-32	same	49/10	650/65R38	12.1% faster	49/10
18.4R34	6.1% slower	49/10	18.4R42	12.1% faster	49/10
650/75R34	12.1% faster	49/10	480/80R42	12.1% faster	49/10
18.4-38	same	49/10	14.9R46	12.1% faster	49/10
20.8R38	12.1% faster	49/10	320/90R46	same	49/10
480/80R38	same	49/10	420/80R46	12.1% faster	49/10
520/85R38	12.1% faster	49/10	320/90R50	12.1% faster	49/10

OU12401,000151B-19-10SEP06-1/1

Travel Speeds, PowrQuad Plus Transmission (24/24), 7130 and 7230 Tractors

40 km/h (25 mph); rated engine speed 2300 rpm; 18.4R38 tires; differential 51/9

Range	Gear	km/h	mph	Additional gears with creeper transmission			
				Range	Gear	km/h	mph
A	1	1,6	1.0	A	1	0,16	0.10
	2	1,9	1.2		2	0,19	0.12
	3	2,3	1.4		3	0,23	0.14
	4	2,8	1.7		4	0,28	0.17
B	1	3,9	2.4	B	1	0,39	0.24
	2	4,7	2.9		2	0,47	0.29
	3	5,6	3.5		3	0,56	0.35
	4	6,8	4.2		4	0,69	0.43
C	1	6,3	3.9	C	1	0,63	0.39
	2	7,6	4.7		2	0,76	0.47
	3	9,1	5.7		3	0,91	0.57
	4	11,2	7.0		4	1,12	0.70
D	1	10,4	6.5				
	2	12,5	7.8				
	3	14,9	9.3				
	4	18,3	11.4				
E	1	16,8	10.4				
	2	20,3	12.6				
	3	24,3	15.1				
	4	29,8	18.5				
F	1	22,7	14.1				
	2	27,4	17.0				
	3	32,8	20.4				
	4	40,2	25.0				
A	R1	1,7	1.1	A	R1	0,17	0.11
	R2	2,0	1.2		R2	0,20	0.12
	R3	2,4	1.5		R3	0,24	0.15
	R4	2,9	1.8		R4	0,29	0.18
B	R1	4,0	2.5	B	R1	0,41	0.25
	R2	4,9	3.0		R2	0,49	0.30
	R3	5,8	3.6		R3	0,59	0.37
	R4	7,1	4.4		R4	0,72	0.45
C	R1	6,6	4.1	C	R1	0,66	0.41
	R2	7,9	4.9		R2	0,80	0.50
	R3	9,5	5.9		R3	0,95	0.59
	R4	11,6	7.2		R4	1,17	0.73
D	R1	10,8	6.7				
	R2	13,0	8.1				
	R3	15,6	9.7				
	R4	19,1	11.9				
E	R1	17,6	10.9				
	R2	21,2	13.2				
	R3	25,3	15.7				
	R4	31,0	19.3				
F	R1	23,7	14.7				
	R2	28,6	17.8				
	R3	34,2	21.3				
	R4	41,9	26.0				

Continued on next page

OU12401,00014BC-19-10SEP06-1/2

Operating the Tractor — General

Other tires (supplied by factory):

Tires	Speed	Differential	Tires	Speed	Differential
24.5-32	same	51/9	650/65R38	2.2% faster	47/8
18.4R34	0.2% faster	53/10	18.4R42	2.2% faster	47/8
650/75R34	2.2% faster	47/8	480/80R42	2.2% faster	47/8
18.4-38	same	51/9	14.9R46	2.2% faster	47/8
20.8R38	2.2% faster	47/8	320/90R46	same	51/9
480/80R38	same	51/9	420/80R46	2.2% faster	47/8
520/85R38	2.2% faster	47/8	320/90R50	2.2% faster	47/8

OU12401,00014BC-19-10SEP06-2/2

Travel Speeds, PowrQuad Plus Transmission (20/20), 7330 Tractor

40 km/h (25 mph); rated engine speed 2100 rpm; 18.4R38 tires; differential 49/10

Range	Gear	km/h	mph	Additional gears with creeper transmission			
				Range	Gear	km/h	mph
A	1	2,4	1.5	A	1	0,25	0.16
	2	2,9	1.8		2	0,30	0.19
	3	3,5	2.2		3	0,36	0.22
	4	4,3	2.7		4	0,44	0.27
B	1	5,1	3.2	B	1	0,53	0.33
	2	6,2	3.9		2	0,64	0.40
	3	7,4	4.6		3	0,77	0.48
	4	9,1	5.7		4	0,94	0.58
C	1	8,2	5.1	C	1	0,85	0.53
	2	9,9	6.2		2	1,02	0.63
	3	11,8	7.3		3	1,22	0.76
	4	14,5	9.0		4	1,50	0.93
D	1	15,2	9.4				
	2	18,3	11.4				
	3	21,9	13.6				
	4	26,8	16.7				
E	1	21,9	13.6				
	2	26,4	16.4				
	3	31,6	19.6				
	4	38,7	24.1				
A	R1	2,5	1.6	A	R1	0,26	0.16
	R2	3,0	1.9		R2	0,32	0.20
	R3	3,7	2.3		R3	0,38	0.24
	R4	4,5	2.8		R4	0,46	0.29
B	R1	5,4	3.4	B	R1	0,56	0.35
	R2	6,5	4.0		R2	0,67	0.42
	R3	7,7	4.8		R3	0,80	0.50
	R4	9,5	5.9		R4	0,98	0.61
C	R1	8,5	5.3	C	R1	0,88	0.55
	R2	10,3	6.4		R2	1,06	0.66
	R3	12,3	7.6		R3	1,28	0.80
	R4	15,1	9.4		R4	1,56	0.97
D	R1	15,8	9.8				
	R2	19,0	11.8				
	R3	22,8	14.2				
	R4	27,9	17.3				
E	R1	22,8	14.2				
	R2	27,5	17.1				
	R3	32,9	20.4				
	R4	40,4	25.1				

Other tires (supplied by factory):

Tires	Speed	Differential	Tires	Speed	Differential
24.5-32	same	49/10	650/65R38	5.9% faster	49/10
18.4R34	6.2% slower	49/10	18.4R42	5.9% faster	49/10
650/75R34	5.9% faster	49/10	480/80R42	5.9% faster	49/10
18.4-38	same	49/10	14.9R46	5.9% faster	49/10
20.8R38	5.9% faster	49/10	320/90R46	same	49/10
480/80R38	same	49/10	420/80R46	5.9% faster	49/10
520/85R38	5.9% faster	49/10	320/90R50	5.9% faster	49/10

OU12401,00014BB-19-10SEP06-1/1

Travel Speeds, PowrQuad Plus Transmission (20/20), 7430 and 7530 Tractors

40 km/h (25 mph); rated engine speed 2100 rpm; 18.4R38 tires; differential 52/10

Range	Gear	km/h	mph
A	1	2,3	1.4
	2	2,8	1.7
	3	3,3	2.1
	4	4,0	2.5
B	1	4,8	3.0
	2	5,8	3.6
	3	7,0	4.4
	4	8,6	5.3
C	1	7,7	4.8
	2	9,3	5.8
	3	11,1	6.9
	4	13,6	8.5
D	1	14,3	8.9
	2	17,2	10.7
	3	20,6	12.8
	4	25,2	15.7
E	1	21,2	13.2
	2	25,5	15.8
	3	30,5	19.0
	4	37,4	23.2

A	R1	2,4	1.5
	R2	2,9	1.8
	R3	3,4	2.1
	R4	4,2	2.6
B	R1	5,1	3.2
	R2	6,1	3.8
	R3	7,3	4.5
	R4	8,9	5.5
C	R1	8,0	5.0
	R2	9,7	6.0
	R3	11,6	7.2
	R4	14,2	8.8
D	R1	14,9	9.3
	R2	17,9	11.1
	R3	21,5	13.4
	R4	26,3	16.3
E	R1	22,1	13.7
	R2	26,6	16.5
	R3	31,8	19.8
	R4	39,0	24.2

Other tires (supplied by factory):

Tires	Speed	Differential	Tires	Speed	Differential
24.5-32	same	52/10	650/65R38	5.9% faster	52/10
18.4R34	6.1% slower	52/10	18.4R42	5.9% faster	52/10
650/75R34	5.9% faster	52/10	480/80R42	5.9% faster	52/10
18.4-38	same	52/10	14.9R46	5.9% faster	52/10
20.8R38	5.9% faster	52/10	320/90R46	same	52/10
480/80R38	same	52/10	420/80R46	5.9% faster	52/10
520/85R38	5.9% faster	52/10	320/90R50	5.9% faster	52/10

OU12401,0001B28-19-03FEB09-1/1

Engaging Front-Wheel Drive

Front-wheel drive can be engaged and disengaged in all gears (forward and reverse), on-the-go and under load without using the clutch.

NOTE: Disengage front-wheel drive before driving at high speed on public roads.

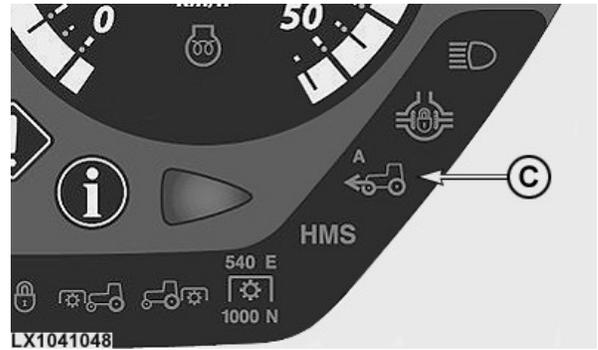
NOTE: When braking with both brake pedals, front-wheel drive engages automatically regardless of the position selected at the front-wheel drive switch. The front-wheel drive indicator light comes on.

Automatic mode

When the automatic mode is selected, front-wheel drive disengages automatically whenever tractor speed exceeds 23.3 km/h (14.5 mph).

When tractor speed drops below 21 km/h (13 mph), front-wheel drive re-engages automatically.

- | | |
|--|--|
| A —Engage / disengage front-wheel drive | C —Indicator light comes on when front-wheel drive is engaged |
| B —On/off switch for automatic mode | |



OU12401,000172B-19-19APR07-1/1

Tractors with TLS Front Axle

CAUTION: When the engine is started and when a different suspension setting is selected, the front axle may move briefly, even if the tractor is stationary. Make sure everyone is clear of the area of potential danger.

IMPORTANT: If faults occur in the regulating system, a message appears at the CommandCenter. The suspension system is out of action. Drive slowly so as not to inhibit safety or damage components. See your John Deere Dealer immediately.

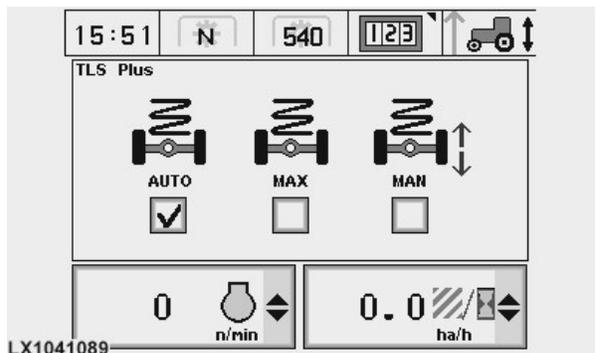
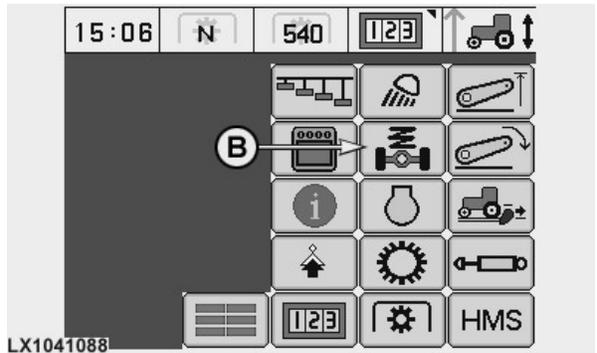
Press the main menu key (A) and select “TLS Plus” on the screen. Axle settings can be selected on the screen that follows.

If “AUTO” is selected, suspension reacts automatically in response to changing conditions. Travel speed, surface characteristics, tractor load and heavy implements at the rear are all taken into account. The best possible comfort is achieved. The suspended front axle engages whenever the tractor’s speed exceeds 1.5 km/h (0.9 mph).

If “MAX” is selected, suspension is set to maximum hardness (e.g. for operation with a front loader). The suspended front axle engages whenever the tractor’s speed exceeds 1.5 km/h (0.9 mph), and there is a delay in control when pulling away from stationary: control does not become active until the tractor has moved 5 m (16 ft.). When speed exceeds 35 km/h (22 mph), the “MAX” setting is de-activated. When speed drops below 25 km/h (15 mph) again, the “MAX” setting is re-activated.

A—Main menu key

B—TLS Plus

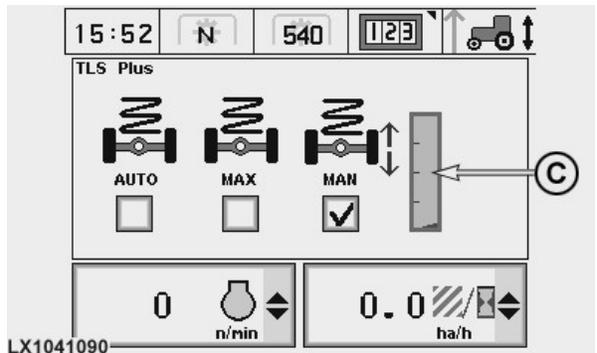


OU12401,00014BF-19-12NOV06-1/2

If MAN is selected, the axle settles in its mid-position. Thereafter, the front of the tractor can be raised and lowered manually (e.g. to facilitate the attachment of mounted implements). Do this by selecting bar graph (C) and turning the selection wheel. Turn it clockwise to raise the front of the tractor, and counterclockwise to lower the front of the tractor. To leave this screen, press the “confirm” or “abort” buttons. As speed rises above 1.5 km/h (0.9 mph), the axle settles in its mid-position.

The manual setting is overridden as soon as travel speed exceeds 5 km/h (3 mph). The system returns to its previous setting (“AUTO” or “MAX”).

C—Bar graph



OU12401,00014BF-19-12NOV06-2/2

Engaging and Operating Creeper Transmission

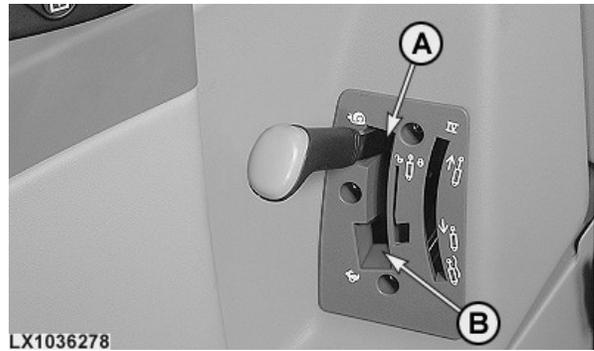
IMPORTANT: To maximize transmission reliability:

- Never engage or disengage creeper transmission with engine speed higher than 1000 rpm.
- Operate creeper transmission in ranges A, B or C only.
- Do not operate creeper transmission with ground engaging equipment requiring high horsepower.

NOTE: Shifting force required to engage creeper can be high compared to force required on other mechanical shift levers. Shifter is not synchronized or spring assisted so tractor must be stopped. Shifting range shift lever to neutral or feathering the clutch can provide easier creeper engagement or disengagement.

To Operate Creeper Transmission:

1. Stop tractor by depressing clutch pedal.



A—Creeper speed

B—High speed

2. Reduce engine speed below 1000 RPM.
3. Move Left-Hand Reverser Lever to Neutral.
4. Select range A, B or C.
5. Move creeper lever to engage or disengage creeper transmission.

OU1092A,0000033-19-17NOV08-1/1

Stopping Tractor

PowrQuad PLUS and AutoQuad PLUS Transmissions:

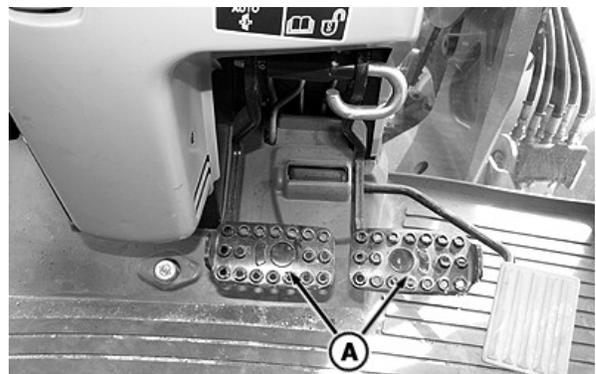
1. Reduce throttle.
2. Depress clutch pedal and engage BOTH brake pedals to bring tractor to a complete stop.
3. Move left-hand reverser lever to NEUTRAL position.
4. Shift range lever to PARK position.
5. Lower any implements and shut PTO OFF.
6. Turn engine OFF and remove key.

IVT Transmission:

1. Reduce throttle.

*NOTE: Depressing clutch pedal or engaging **BOTH** brake pedals will stop tractor.*

2. Depress **BOTH** brake pedals to activate AutoClutch (automatic transmission clutch and braking system) and bring tractor to a complete stop.
3. Move left-hand reverser to PARK position.



A—Brake Pedals

4. Move speed control lever to slowest speed position.
5. Lower any implements and shut PTO OFF.
6. Turn engine OFF and remove key.

BB92646,00002A5-19-12DEC06-1/1

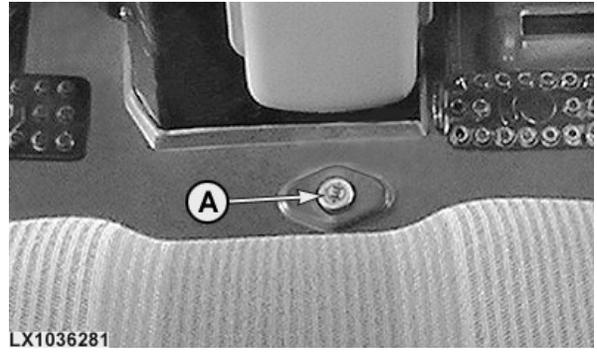
Engage the Differential Lock

⚠ CAUTION: Do not attempt to steer the tractor with the differential lock engaged.

If wheel slip varies greatly between rear wheels, engage differential lock by means of button (A) (only if the difference in speed is not too high). To disengage the differential lock, depress brake pedal or actuate button (A) again.

If tractor speed exceeds 23.3 km/h (14.5 mph) with the differential lock engaged, the differential lock switches off automatically.

When tractor speed drops below 23.3 km/h (14.5 mph) again, the differential lock must be engaged manually by the driver.



OU12401,0001677-19-22MAR07-1/1

Hydraulic Foot Brakes

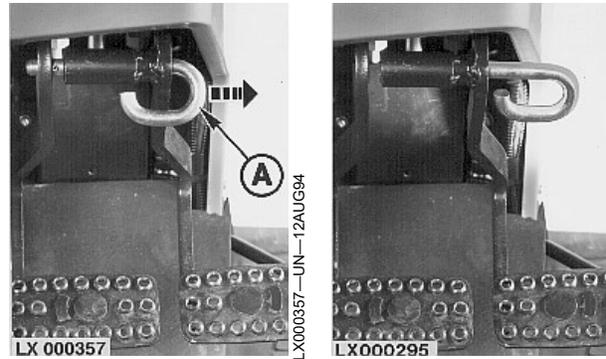
⚠ CAUTION: When the engine is not running, pedal travel is longer (no hydraulic assistance).

IMPORTANT: Brake pedals must be coupled together by means of pedal coupler (A) when driving on public roads.

For field operation, pull pedal coupler (A) outward. The brake pedals can now be operated individually. In this case, only the l.h. or r.h. rear wheel is braked. Use individual brakes to assist in making sharp turns. Use brake to assist steering at low tractor speeds only.

When stopping the tractor, press down on both brake pedals at the same time.

When braking with both brake pedals together, front-wheel



drive engages automatically. The front-wheel drive indicator light comes on.

OULXE59,001066E-19-05AUG04-1/1

Hydraulic Trailer Brakes

IMPORTANT: Absolute cleanliness is essential when connecting hydraulic trailer brake hose. Dirt and contaminants can be introduced into hydraulic system if connections are not clean causing damage to hydraulic components.

Remove dust cover from coupler (A).

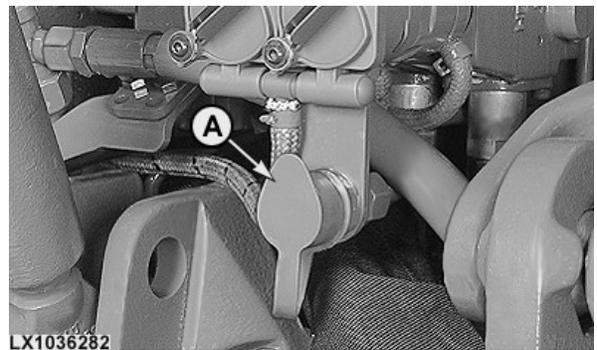
Connect pressure hose to coupler.

Press down on brake pedals to operate hydraulic trailer brake. Braking effect depends on pressure applied to brake pedals.

⚠ CAUTION: Never exceed a speed of 25 km/h (15 mph) when travelling with trailers equipped with hydraulic trailer brakes.

IMPORTANT: Observe following points to prevent undue wear on brakes:

Make sure pressure hose is connected.



A—Hydraulic Trailer Brake Coupler

When driving downhill, select the same gear you would for driving uphill.

Check hydraulic trailer brake regularly to make sure that it is functioning correctly.

BB92646,000033D-19-14NOV06-1/1

Operating the Tractor — PowrQuad Plus

Shift the PowrQuad Plus Transmission

Gears are shifted using range shift lever (A), gear-shift buttons (B) - or switch (E) - and reverser lever (C). The hand clutch is operated via button (D).

Before starting the engine, move reverser lever (C) to neutral position. To drive, **first** move range-shift lever (A) to the desired range and then move the reverser lever to the desired direction of travel.

CAUTION: If the reverser lever is actuated when the engine is running and a range is selected, the tractor will start to move.

To change the ranges, the clutch pedal must be depressed or the hand clutch button must be actuated. There is no need to actuate the clutch to shift gears or to change the direction of travel.

To park the tractor, move reverser lever (C) to neutral and engage park at range-shift lever (A).

IMPORTANT: Engage park only when the tractor is stationary.

NOTE: If shift lever (A) is moved to park when reverser lever (C) is not in neutral, an audible alarm is triggered and the blue "INFO" light comes on. When the engine is shut off, the reverser lever remains in its selected position but the transmission shifts into neutral.

If the reverser lever is not in neutral when the engine is started, an audible alarm is triggered and the relevant message appears on the CommandCenter to alert the operator.

If the reverser lever is moved out of neutral while park is engaged, an audible alarm is triggered and the blue "INFO" light comes on. To make the tractor move, first put the reverser lever in neutral and then move it to the desired position.

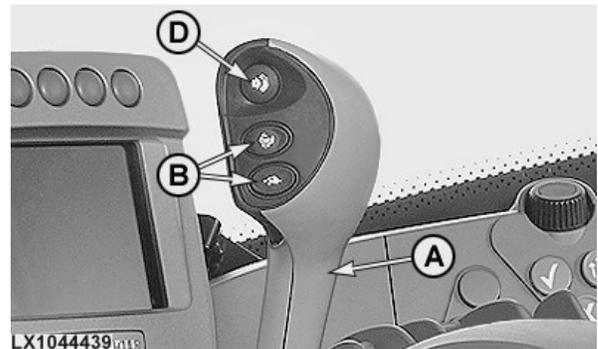
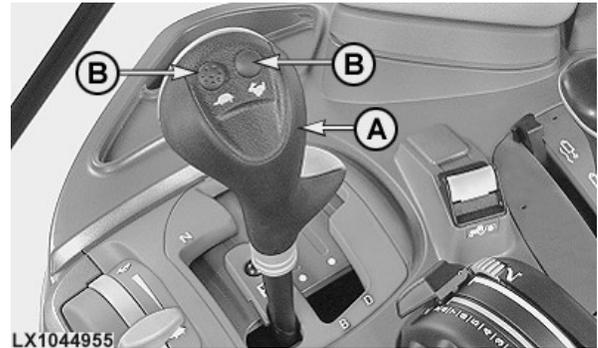
Hand clutch (if equipped)

Press button (D), the clutch separates. Ranges may be selected or the tractor can be halted.

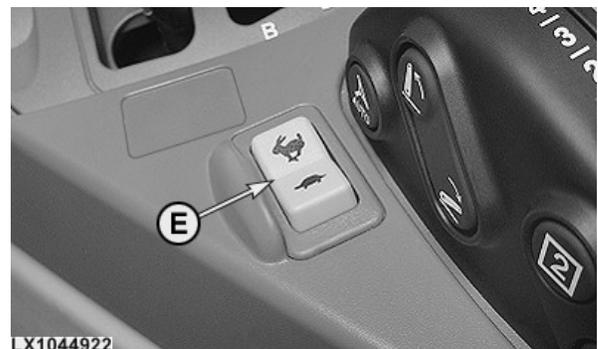
Release button (D), the clutch engages with modulation. On tractors equipped with a seat switch (operator presence switch), the following applies: If, within the last 3 seconds before the button is released, there was no weight on the seat and no actuation of the clutch pedal or brake pedal, the tractor does not move, even although the reverser lever is in the forward or reverse position. A message appears on the CommandCenter. To make the tractor move, move the reverser lever to neutral and then back into the desired direction.

NOTE: The hand clutch is not suitable for "creeping" up to an implement.

The hand clutch can be activated and de-activated at address EPC167. See "Customization" in the "Diagnostic Trouble Codes and Customization" section.



Range-shift lever and buttons (with hand clutch)



A—Range-shift lever
B—Gear-shift buttons
C—Reverser lever

D—Hand clutch button
E—Gear shift switch (extra)

Continued on next page

OU12401.00019B1-19-18APR08-2/1

Optimum gear-shifting for driving under load (transport):

1. Select a range suitable for driving under load.
2. Engage the first gear.
3. Drive and shift up through the ranges until the top range is reached.
4. Shift up through the gears.

Cold-weather operation

If the oil is cold (0°C, 32°F), it may affect how the reverser lever operates. At temperatures below -10°C (14°F), it may take longer to change the direction of travel. Below +5°C (41°F), the automatic engine-speed matching is deactivated.

In certain circumstances, the reverser lever may have to be actuated several times before the tractor starts to move. When the oil has had time to warm up, operation becomes normal again.

"Come-home" mode

Under certain circumstances, the tractor can still be driven in "come-home" mode even if there is an electrical fault in the transmission.

To do this, stop the engine, remove plug K07/4 (relay box K07) and re-install it at a position 90° from its original position. The wording "Come Home" must be at the top.

NOTE: In the come-home mode, engine speed is limited to 1500 rpm and only the first gear in each range is available. The hand clutch is NOT available.

Restriction in the event of a missing speed signal

If the control unit notices that the speed signal is missing, only the first three gears in each range are available.

OU12401,00019B1-19-18APR08-1/1

PowrQuad Plus Transmission — Settings

Speed-matching when changing ranges

If this option is activated, when changing ranges at travel speeds at or above approx. 7 km/h (4.4 mph), the transmission is automatically shifted into a gear that matches the travel speed. This automatic function can be overridden by holding down one of the gear shift buttons.

Press transmission button (A) and select speed-matching (B).

Engine-speed matching when shifting gears

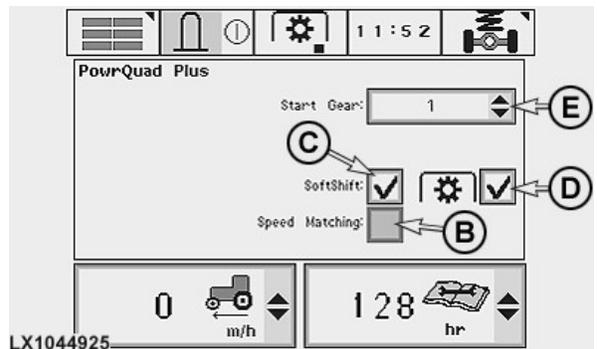
If this option is activated, engine speed is altered temporarily by the electronics to achieve a smoother shift.

Press transmission button (A) and select engine-speed matching (C) and - if desired - PTO operation (D). Engine speed can then be matched in the following ways:

- Switched off all the time, if (C) is **not** activated
- Switched on, but off for PTO operation if **only** (C) is activated
- Switched on all the time, if (C) **and** (D) are activated

Initial gear (at start-up)

The figure in cell (E) determines which gear will be automatically selected at the transmission immediately after the engine is started.



- A—Transmission button
- B—Speed-matching
- C—Engine-speed matching
- D—PTO operation
- E—Initial gear (at start-up)

Continued on next page

OU12401,00019B4-19-23APR08-1/2

Setting an upper limit for engine speed (Field Cruise)

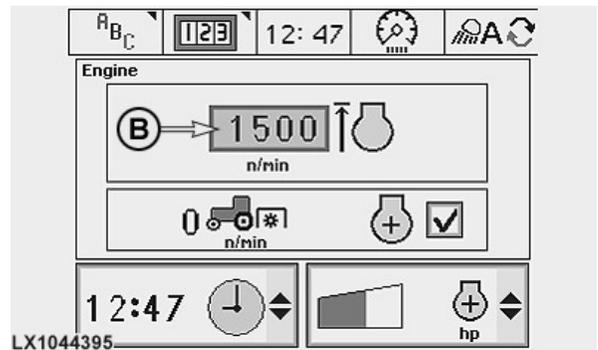
This option allows you to set an upper limit for engine speed when performing certain work such as operating an hydraulic motor.

Run the engine, set the hand throttle to maximum speed, then press engine button (A) and set the desired engine speed in cell (B).

In the lowest setting, engine speed is limited to 1050 rpm. In the highest setting, the engine can run at maximum speed. Individual engine speed limits can be set between these two positions.

A—Engine button

B—Upper limit for engine speed



OU12401,00019B4-19-23APR08-2/2

Operating the Tractor — AutoQuad Plus

Shift the AutoQuad Plus Transmission

Gears are shifted using range shift lever (A), gear-shift buttons (B) - or switch (F) - and reverser lever (C). Automatic selection is activated and de-activated by means of button (D). The hand clutch is operated via button (E).

Before starting the engine, move reverser lever (C) to neutral position. To drive, **first** move range-shift lever (A) to the desired range and then move the reverser lever to the desired direction of travel.

⚠ CAUTION: If the reverser lever is actuated when the engine is running and a range is selected, the tractor will start to move.

To change the ranges, the clutch pedal must be depressed or the hand clutch button must be actuated. There is no need to actuate the clutch to shift gears or to change the direction of travel.

To park the tractor, move reverser lever (C) to neutral and engage park at range-shift lever (A).

IMPORTANT: Engage park only when the tractor is stationary.

NOTE: If shift lever (A) is moved to park when reverser lever (C) is not in neutral, an audible alarm is triggered and the blue INFO light comes on. When the engine is shut off, the reverser lever remains in its selected position but the transmission shifts into neutral.

If the reverser lever is not in neutral when the engine is started, an audible alarm is triggered and the relevant message appears on the CommandCenter to alert the operator.

If the reverser lever is moved out of neutral while park is engaged, an audible alarm is triggered and the blue INFO light comes on. To make the tractor move, first put the reverser lever in neutral and then move it to the desired position.

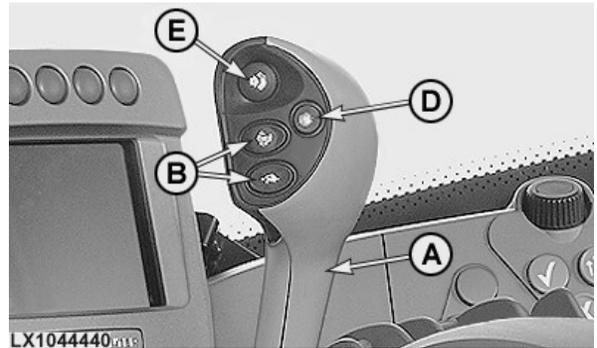
Hand clutch

Press button (E), the clutch separates. Ranges may be selected or the tractor can be halted.

Release button (E), the clutch engages with modulation. On tractors equipped with a seat switch (operator presence switch), the following applies: If, within the last 3 seconds before the button is released, there was no weight on the seat and no actuation of the clutch pedal or brake pedal, the tractor does not move, even although the reverser lever is in the forward or reverse position. A message appears on the CommandCenter. To make the tractor move, move the reverser lever to neutral and then back into the desired direction.

NOTE: The hand clutch is not suitable for creeping up to an implement.

The hand clutch can be activated and de-activated at address EPC167. See Customization in the Diagnostic Trouble Codes and Customization section.



A—Range-shift lever
B—Gear-shift buttons
C—Reverser lever
D—Automatic button
E—Hand clutch button
F—Gear shift switch (extra)

Optimum gear-shifting for driving under load (transport):

1. Select a range suitable for driving under load.
2. Engage the first gear.
3. Drive and shift up through the ranges until the top range is reached.
4. Shift up through the gears.

Cold-weather operation

If the oil is cold (0°C, 32°F), it may affect how the reverser lever operates. At temperatures below -10°C (14°F), it may take longer to change the direction of travel. Below +5°C

(41°F), the automatic engine-speed matching is de-activated.

In certain circumstances, the reverser lever may have to be actuated several times before the tractor starts to move. When the oil has had time to warm up, operation becomes normal again.

Come-home mode

Under certain circumstances, the tractor can still be driven in come-home mode even if there is an electrical fault in the transmission.

To do this, stop the engine, remove plug K07/4 (relay box K07) and re-install it at a position 90° from its original position. The wording Come Home must be at the top.

NOTE: In the come-home mode, engine speed is limited to 1500 rpm and only the first gear in each range is available. The hand clutch is NOT available.

Restriction in the event of a missing speed signal

If the control unit notices that the speed signal is missing, only the first three gears in each range are available.

OU12401,0001B29-19-03FEB09-1/3

Automatic gear shifting

This automatic function is activated by pressing button (A) once.

The gears in each range are shifted in relation to the position of the hand throttle or accelerator pedal as soon as engine speed reaches a maximum or minimum value. These values can be set at the CommandCenter (see AutoQuad Plus Transmission — Settings on the following pages).

The automatic function can be de-activated by pressing button (A) once again or by selecting a gear manually.

IMPORTANT: Eco mode is suitable ONLY for light work in the field and for driving on roads when the load being pulled is not heavy.

7130 and 7230 tractors

Eco mode: Hand throttle / accelerator pedal more than 85% towards top speed and engine revs over 1872 rpm: transmission shifts up.

Hand throttle / accelerator pedal more than 55% towards top speed and engine revs under 1300 rpm: transmission shifts down.

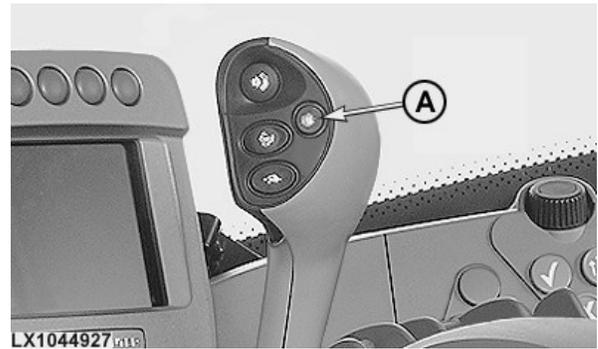
Hand throttle / accelerator pedal less than 55% towards top speed and engine revs under 1100 rpm: transmission shifts down.

Power mode: Hand throttle / accelerator pedal more than 85% towards top speed and engine revs over 2280 rpm: transmission shifts up.

Hand throttle / accelerator pedal more than 55% towards top speed and engine revs under 1720 rpm: transmission shifts down.

Hand throttle / accelerator pedal less than 55% towards top speed and engine revs under 1100 rpm: transmission shifts down.

Intermediate settings: The engine speeds at which the transmission shifts can be customized at the CommandCenter to change the shift point to an intermediate level between Eco mode and Power mode.



A—Automatic button

7330 to 7530 tractors

Eco mode: Hand throttle / accelerator pedal more than 85% towards top speed and engine revs over 1700 rpm: transmission shifts up.

Hand throttle / accelerator pedal more than 55% towards top speed and engine revs under 1220 rpm: transmission shifts down.

Hand throttle / accelerator pedal less than 55% towards top speed and engine revs under 1100 rpm: transmission shifts down.

Power mode: Hand throttle / accelerator pedal more than 85% towards top speed and engine revs over 2052 rpm: transmission shifts up.

Hand throttle / accelerator pedal more than 55% towards top speed and engine revs under 1600 rpm: transmission shifts down.

Hand throttle / accelerator pedal less than 55% towards top speed and engine revs under 1100 rpm: transmission shifts down.

Intermediate settings: The engine speeds at which the transmission shifts can be customized at the CommandCenter to change the shift point to an intermediate level between Eco mode and Power mode.

Continued on next page

OU12401,0001B29-19-03FEB09-2/3

Programmable highest gear in automatic gear shifting

NOTE: For programming, automatic gear shifting must be switched off.

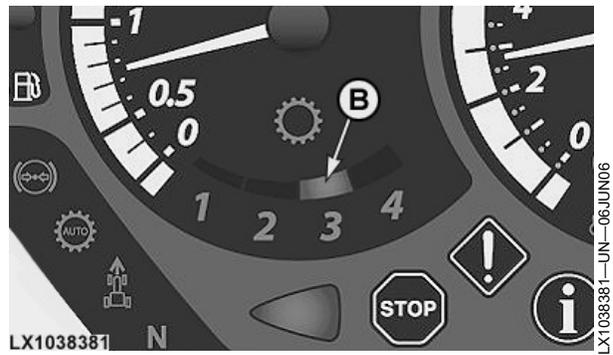
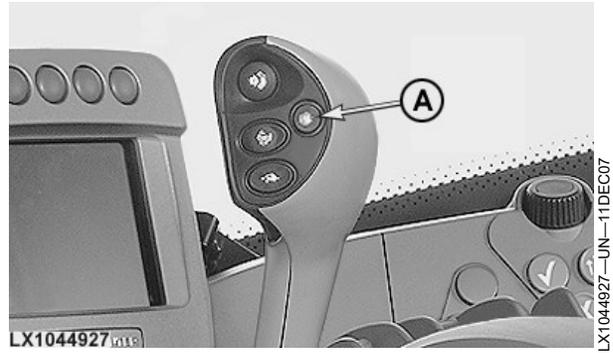
In addition to activating the automatic gear-shift function, button (A) may be used to determine the highest possible gear. The following applies:

- Press once = the highest gear is 4th.
- Press twice (briefly) in succession = the highest gear is 3rd.
- Press three times (briefly) in succession = the highest gear is 2nd.

This setting is lost as soon as automatic gear shifting is switched off.

In the example opposite, the highest gear (B) is 3rd (third sector).

A—Button for automatic gear shifting **B**—Highest gear shifting



OU12401,0001B29-19-03FEB09-3/3

AutoQuad Plus Transmission — Settings

Selecting automatic gear-shifting

Press transmission button (A) and select automatic gear-shift (B).

Selecting the forward/reverse ratio

The relationship between forward and reverse gears can be selected on the CommandCenter screen from a maximum of 3 gears higher in reverse to 3 gears lower (+3 to -3).

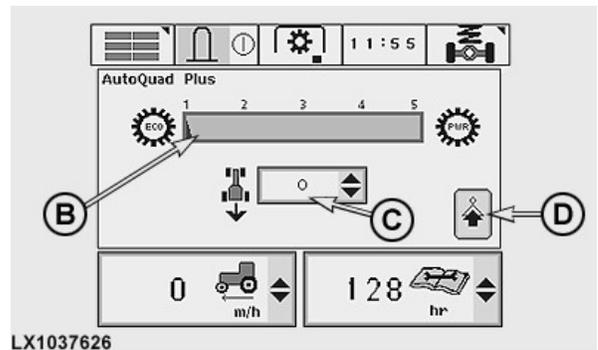
Press transmission button (A) and select the desired relationship in cell (C).

The relationship remains in effect when automatic gear shifting is switched off, and is stored after ignition is switched off.

If “smart” is selected, the electronic system will “learn” the forward and reverse gear manually selected by the operator and will shift into the relevant gear when changing the direction of travel.

NOTE: When automatic gear shifting is activated, a set “maximum gear” takes priority over the selected relationship.

- | | |
|--|-------------------------|
| A—Transmission button | C—Forward/reverse ratio |
| B—Cell for setting automatic gear-shifting | D—Next page |



Continued on next page

OU12401,00019B3-19-23APR08-1/3

Speed-matching when changing ranges

If this option is activated, when changing ranges at travel speeds at or above approx. 7 km/h (4.4 mph), the transmission is automatically shifted into a gear that matches the travel speed. This automatic function can be overridden by holding down one of the gear shift buttons.

Press transmission button (A) and select speed-matching (B).

Engine-speed matching when shifting gears

If this option is activated, engine speed is altered temporarily by the electronics to achieve a smoother shift.

Press transmission button (A) and select engine-speed matching (C) and - if desired - PTO operation (D). Engine speed can then be matched in the following ways:

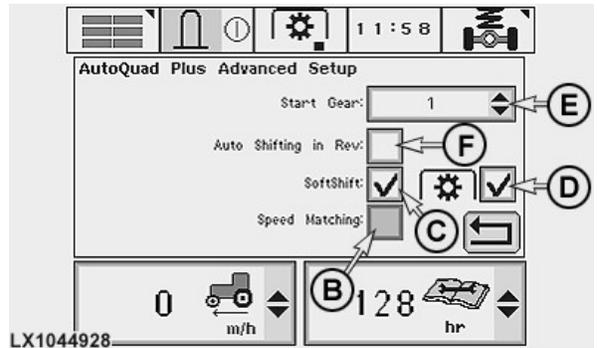
- Switched off all the time, if (C) is **not** activated
- Switched on, but off for PTO operation if **only** (C) is activated
- Switched on all the time, if (C) **and** (D) are activated

Initial gear (at start-up)

The figure in cell (E) determines which gear will be automatically selected at the transmission immediately after the engine is started.

Automatic gear-shifting in reverse

In cell (F), you can select whether or not automatic gear-shifting is active in reverse as well.



- A—Transmission button
- B—Speed-matching
- C—Engine-speed matching
- D—PTO operation
- E—Initial gear (at start-up)
- F—Automatic gear-shifting in reverse

OU12401,00019B3-19-23APR08-2/3

Setting an upper limit for engine speed (Field Cruise)

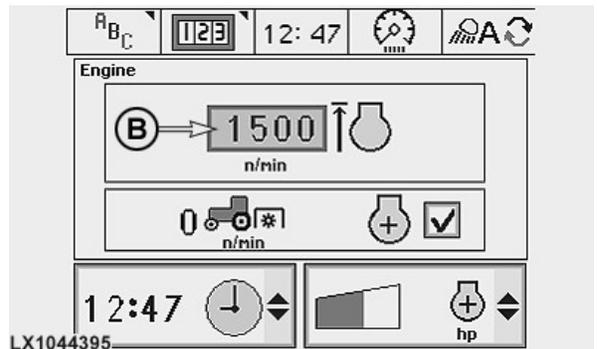
This option allows you to set an upper limit for engine speed when performing certain work such as operating an hydraulic motor.

Run the engine, set the hand throttle to maximum speed, then press engine button (A) and set the desired engine speed in cell (B).

In the lowest setting, engine speed is limited to 1050 rpm. In the highest setting, the engine can run at maximum speed. Individual engine speed limits can be set between these two positions.

A—Engine button

B—Upper limit for engine speed



OU12401,00019B3-19-23APR08-3/3

Operating the Tractor — IVT

Special Features on Tractors with IVT

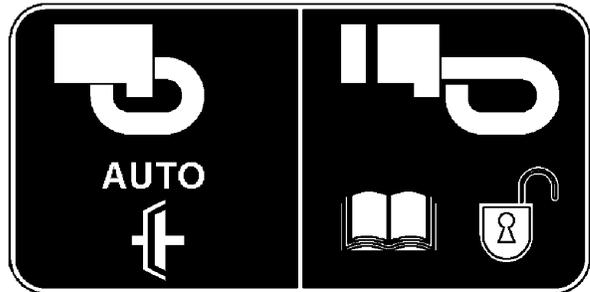
The brake pedals also control the automatic clutch. Partially depressing **both** of the brake pedals allows the tractor to "creep" - this makes it easier to back up to an implement, for example. Fully depressing the two brake pedals stops the tractor with power still at the transmission. There is no need to press the clutch pedal. However, be aware that:

- Full torque remains available even at very slow speeds. In certain conditions, even obstacles will not bring the tractor to a standstill.
- After the brakes are released, the tractor automatically accelerates up to the speed currently commanded by the hand throttle or accelerator pedal.
- If only **one** of the brake pedals is depressed (to assist with steering), the tractor will **not** come to a standstill (unless it is idling).
- If you go back to a tractor with a conventional transmission again, remember that the transmission is **not** disconnected when the brake pedals are depressed. Also, park **cannot** be selected on such tractors while the tractor is still in motion.

NOTE: When engaging park on bumpy terrain, remember to actuate the brake pedals as well.

Also use the brake pedals when turning on a downhill slope, as this will make the tractor change direction faster.

IMPORTANT: The speed control lever makes it possible to command a large reduction in speed in a short time. For safety reasons (e.g. preventing trailers from jack-knifing), the IVT transmission reduces its speed at a more moderate rate. Always use the brake pedals to decelerate quickly.



OU12401.000145B-19-14JUN06-1/1

IVT — Operating on Hillside in Slippery Conditions

⚠ CAUTION: Personal injury may result if control of the tractor is lost while operating on hillsides. The tractor's wheels may lock on slippery slopes, causing skidding. Observe the following precautions:

- Select a travel speed that ensures safe operation on hillsides.
- Do not use the speed lever to decelerate excessively quickly.

OU12401.00012F2-19-08OCT05-1/1

IVT — Starting in Cold Weather

To avoid damage at temperatures below freezing, an automatic function prevents the drive system from engaging too soon. After the engine has started, diagnostic trouble code UIC 305057.01 (INFORMATION FOR OPERATOR: Transmission warm-up routine is active) appears on the display.

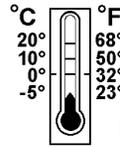
The warm-up routine can only be started if the reverser lever is in the "corner park" position. If the reverser lever is in any position other than corner park, code UIC 305058.01 (INFORMATION FOR OPERATOR: Transmission warm-up routine cannot be activated, park lock should be engaged) appears on the display.

The time required for the transmission to warm up will vary depending on temperature:

Temperature range	Warm-up time
above -7° C (19.4° F)	none
between -8° C (17.6° F) and -15° C (5° F)	96 seconds
between -16° C (3.2° F) and -20° C (-4° F)	156 seconds
between -21° C (-5.8° F) and -30° C (-22° F)	246 seconds

At temperatures below -30° C (-22° F) only the transmission input shaft is turned. The warm-up routine starts as soon as the transmission oil temperature has reached -30° C (-22° F).

NOTE: The engine speed may rise up to 1500 rpm during the warm-up routine.



LX1026066

LX1026066—UN—10MAY01



LX1037175

LX1037175—UN—06JUN06

OU12401,000145C-19-14JUN06-1/1

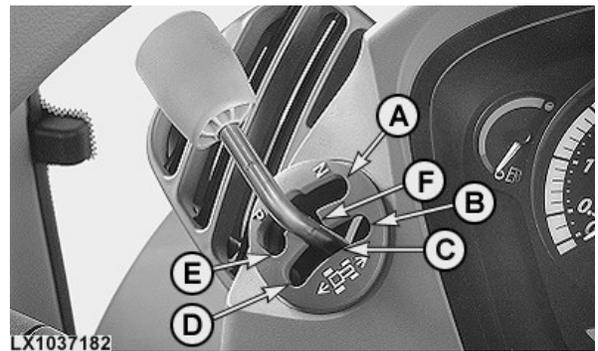
Operating the IVT

Reverser lever

To drive the tractor, move the lever to forward (B) or reverse (D). If the lever is moved from forward or reverse back to center park (F), the tractor will continue to roll and the transmission goes to "Power Zero". Ten seconds after the tractor stops rolling, park will automatically engage. If the lever is moved from forward or reverse directly to the corner park position (E), the tractor will brake to a stop using the transmission. Park will then engage. Remember to actuate the brake pedals as well when driving downhill.

If the lever is moved from forward or reverse to "Power Zero" (C), the tractor will continue to roll but it will **not** be braked by the transmission. When the tractor is stationary, power remains at the transmission. For "Power Zero", the lever must be held firmly in this position. If the lever is released from the "Power Zero" position, it will automatically go to the center park position (F).

When the tractor is stopped, move the lever back to the



LX1037182

LX1037182—UN—06JUN06

- A—Neutral
- B—Forward
- C—"Power Zero"
- D—Reverse
- E—Corner park
- F—Center park

corner park position. If the lever is moved to neutral (A), the direction clutches are opened and there will be no power in the transmission. The tractor may roll away.

Continued on next page

OU12401,000145D-19-14JUN06-1/4

Speed control lever

Travel speed is regulated using the speed control lever. Two speed ranges are available.

Speed range 1 allows a maximum forward speed of 20 km/h (12.4 mph). Speed range 2 allows a maximum forward speed of 40 km/h (25 mph). The maximum speed in range 1 is always the minimum speed in range 2. This implies that speed does not change when the range is changed.

The maximum speed in a speed range is adjusted using speed wheel (B). See "IVT Settings" on the following pages for details.

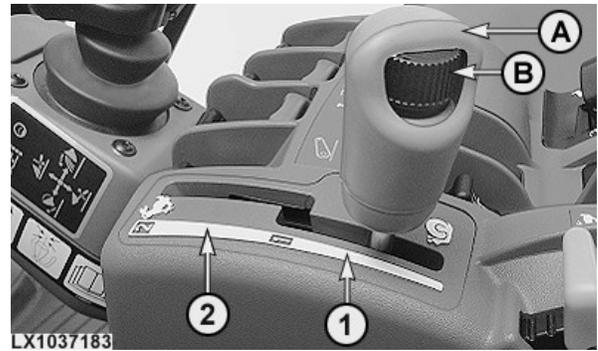
The maximum speed of a range is reached with the engine at full throttle and the speed control lever at the end of its travel in the speed range (provided tire dimension match the set values precisely). If the accelerator pedal is not at the end of its travel, the tractor will move at a corresponding speed (not proportional). If the speed control lever is not at the end of its travel in a speed range, the tractor will similarly operate at a corresponding speed.

Speed wheel (B) does not have a stop and can be "infinitely" adjusted. It makes a change in relation to the previous setting. If the maximum speed setting is changed with wheel (B) while the tractor is moving, the change is always based on the last setting. Turning the wheel will directly increase or decrease the last maximum speed setting. Any changes are stored by the tractor's electronics.

Creeper

If a forward travel speed below 2 km/h (1.24 mph) is used in speed range 1, the tractor will automatically shift to creeper mode. The possible minimum travel speed is 0.05 km/h (0.03 mph).

The highest speed in range 2 is 2.5 times that in range 1. In both speed ranges, the highest speed in creeper mode is never more than 2.5 times greater than the lowest speed.



A—Speed control lever
B—Speed wheel (for setting maximum speed)
1—Speed range 1
2—Speed range 2

For example, if a maximum speed of 0.50 km/h (0.33 mph) is set in range 1, the minimum speed is 0.20 km/h (0.12 mph).

At speeds below 0.6 km/h (0.37 mph), changing engine speed does not have any effect on travel speed.

The following occurs if the speed-adjusting wheel is used to increase travel speed while the tractor is in motion in range 2 with creeper mode selected:

- If the speed selected is below 10 km/h (6.2 mph), the transmission remains in creeper mode. This means the originally set values will apply on changing back to range 1. Speed range 1 will flash on the digital display.
- Creeper mode also remains in effect if the 10 km/h (6.2 mph) speed is temporarily exceeded and then reduced to under 10 km/h (6.2 mph) before returning to range 1.
- Creeper mode will be exited if the 10 km/h (6.2 mph) speed is exceeded and range 1 is re-engaged. Forward speed range 1 will be automatically adjusted (to 2 km/h; 1.24 mph).

OU12401.000145D-19-14JUN06-2/4

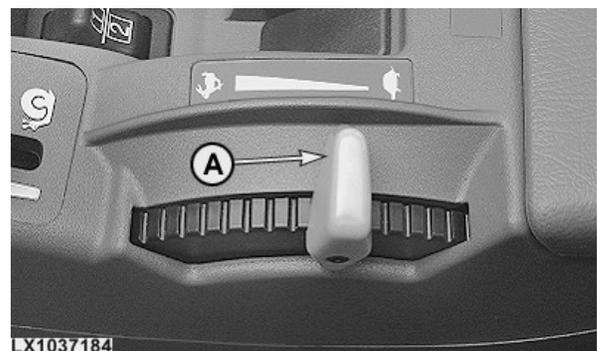
Accelerator pedal and hand throttle

The stronger signal is always used for transmission control.

If the accelerator pedal or hand throttle are moved to command a higher engine speed, engine speed increases. In Eco mode, once the set travel speed is reached, engine speed is reduced (load controlled).

If the reverser lever is in forward or reverse, the tractor can be accelerated to the set speed using the accelerator pedal or hand throttle. The immediate travel speed is directly dependent on the setting of the accelerator pedal or hand throttle. Engine speed is indirectly determined by the position of the accelerator pedal.

When the accelerator pedal or hand throttle are actuated, the values set in the CommandCenter for automatic control and engine-speed limitation are always taken into account. For example, the value set for engine-speed limitation is not exceeded, even at full throttle. In Eco mode, the engine



A—Hand throttle

turns only as fast as needed, even if the operator applies full throttle.

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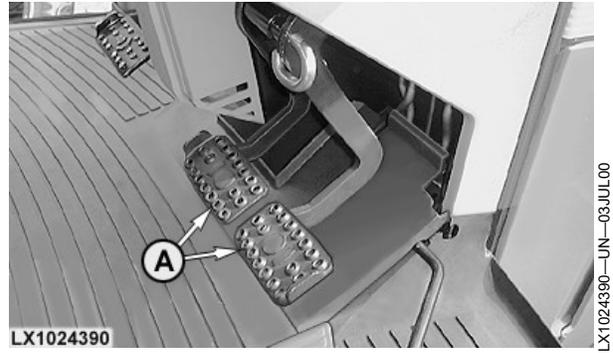
OU12401.000145D-19-14JUN06-3/4

Brake pedals

If when driving the tractor **both** brake pedals are depressed, the tractor's speed will be reduced until it stops. Thanks to the automatic clutch function, there is no need to depress the clutch pedal when braking.

When the brakes are released again, the tractor automatically accelerates up to the speed currently commanded by the hand throttle or accelerator pedal.

The higher the engine speed, the greater is the force required at the brake pedals to stop the tractor.



A—Brake pedals

Clutch pedal

The clutch pedal normally does not need to be depressed to stop the tractor. If the clutch pedal is depressed, the

corresponding clutch signal has priority over other commands.

OU12401,000145D-19-14JUN06-4/4

IVT - Settings

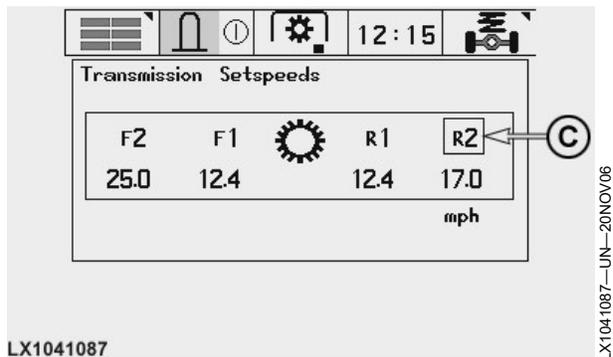
Ground speed

The maximum speed in a speed range is adjusted using speed wheel (A) and speed control lever (B).

To set a forward speed range only, switch on the ignition and move the reverser lever to forward. Use speed control lever (B) to select the desired range and set the desired travel speed with wheel (A).

To set a reverse speed range only, switch on the ignition and move the reverser lever to reverse. Use speed control lever (B) to select the desired range and set the desired travel speed with wheel (A).

To set both a forward and reverse speed range, switch on the ignition and move the reverser lever to neutral. Range (C) alternates every 2 seconds between the forward and reverse speed ranges. Use speed control lever (B) to select the desired range and set the desired travel speed with wheel (A).



- A—Speed Wheel (for setting maximum speed)
- B—Speed Control Lever
- C—Range Mark

Continued on next page

OU12401,00019B2-19-25MAY10-1/7

Setting the transmission's automatic control

Press transmission button (A). The screen shown controls the extent to which the transmission is controlled automatically.

When cell (B) is activated, fully automatic comes into force. The electronic system reacts automatically to the demands made on the engine by the PTO, hitch, electronic SCVs and steering brake. For more details, see Setting for fully automatic on the following pages.

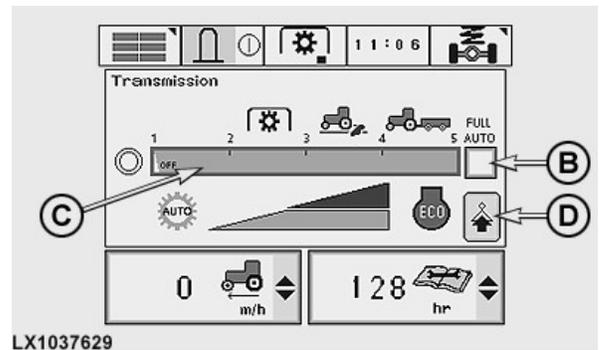
When cell (B) is de-activated, the following applies per the setting in cell (C):

In setting 0 (manual), the only automatic intervention is to prevent the engine from stalling.

In setting 1, transmission control is minimally influenced by the electronic system. In setting 5, transmission control is most influenced by the electronic system. The extent of transmission automation progressively increases in settings 1 to 3, between 3 and 5 there is additional automation of engine control.

Engine load control is set in settings 1 to 3. In settings from greater than 3 to 5 (Eco mode), the engine turns only as fast as needed. This results in fuel savings and noise reduction. If the operator sets a specific engine speed in Eco mode and the electronic control system recognizes that this speed is not necessary, engine speed will be automatically reduced to a level adequate for tractor operation. Travel speed remains constant, however. Eco mode is not suited for lifting operations (where engine speed determines hydraulic pump output) and PTO operation (where engine speed directly determines PTO speed).

In Eco mode, you can override the set engine speed by operating the accelerator pedal and hand throttle at the same time.



A—Transmission Button
B—Fully Automatic on/off
C—Degree of Automation
D—Next Page

- Setting 0** — Manual control of transmission
- Setting 1** — Approx. 30% engine load control before transmission intervenes, i.e. the transmission ratio changes.
- Setting 2** — Approx. 18% engine load control before transmission intervenes.
- Setting 3** — Approx. 4% engine load control before transmission intervenes.
- Setting 4** — Approx. 16% engine load control* before transmission intervenes. Engine speed can be reduced electronically to a speed not lower than 1500 rpm in the partial load range.
- Setting 5** — Approx. 16% engine load control before transmission intervenes. Engine speed can be reduced electronically to a speed not lower than 1200 rpm in the partial load range.

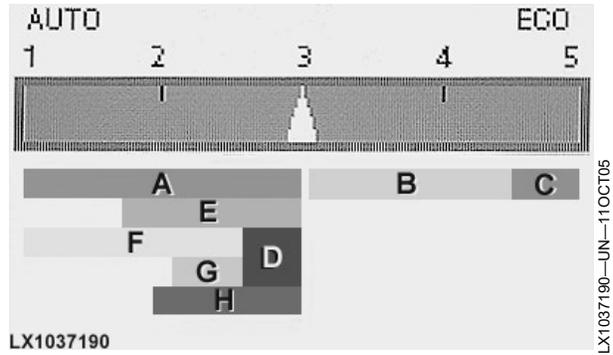
* If Intelligent Power Management (power boost) is activated (see Operating the Engine section), engine load control lies between 13% and 16%, depending on travel speed.

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OU12401.00019B2-19-25MAY10-2/7

The following list shows which automation settings are suitable for various types of tasks.

- Range A** — PTO operation
- Range B** — Towing operations with hydraulic power requirements
- Range C** — Any towing operation (field or road) without any hydraulic power requirement (since hydraulic power is not sufficient at an engine speed of 1200 rpm)
- Range D** — PTO operation, with precise PTO speeds (for example, when using a manure spreader)
- Range E** — Operation of balers
- Range F** — Tillage
- Range G** — Operation of mowers
- Range H** — Other operations requiring hydraulic power (e.g. use of front loaders)



- Setting 1-2** — Work in which the engine's flywheel mass (PTO operation) and vehicle inertia (earth-moving) are adequate to meet transient peaks in the power requirements (caused by the implement or task in hand).
- Setting 2.5** — Operations where engine speed is important.
- Setting 5** — Operations where engine speed is not important.

The following may be regarded as basic settings:

Summary of different types of work

Procedure	Setting for automatic	Comment
Crop protection, liquid fertilizer	1	The transmission behaves like a conventional one with stepped gears. As engine speed drops due to increased load, travel speed also drops. The simultaneous reduction in PTO speed causes the output of pesticide to drop in step with travel speed. Adjust and operate pesticide equipment in accordance with the manufacturer's guidelines and the instructions provided by the pesticide/fertilizer producer. The less the engine is subjected to load control (e.g. 5 %), the greater the danger of excessive pesticide being metered as a result of the stepless change in the transmission ratio as load increases while engine and PTO speeds remain constant. Select other settings between 1 and 3, but take into account the technical aspects of the pesticide machine (metering, electronic regulation). The user must ensure that the pesticide is metered correctly.
Fertilizing (spreader for mineral-based fertilizers; manure spreader, liquid fertilizer)	3	A constant width of spray can be achieved only if PTO speed remains constant. If metering is not achieved on the basis of distance travelled, preselect a travel speed that can be sustained over the entire field. If the spreader functions independently of engine speed (e.g. a hydraulically-driven spreader), a different engine load control setting may be selected, provided the user makes sure that the material being sprayed is metered and distributed correctly.
Balers (large, round and high-pressure)	2-3	Select travel speed and engine load control so that the engine can cope with differences in terrain and windrow, to overcome load peaks with rising engine torque and the inertia of the driveline. PTO speed must be kept high enough for the machine to work properly. The operator may vary travel speed infinitely at any time as he pleases, without changing the engine speed, and thus adapt his speed to the requirements.
Mowers, mowers with conditioners, self-loading wagons	2-3	Same as for balers.
Turning, making and spreading windrows	1-3	Select a setting appropriate to your requirements.
PTO-driven tillage equipment (rotary harrow, rotary cultivator, tined rotor, also in combination with seed drills and spacing seeders)	2-3	Drive in a manner appropriate to the terrain, soil conditions and desired results. To achieve the desired crumb structure, there should not be too great an imbalance between PTO speed and travel speed.
Mechanical drills (metered via a wheel on the ground, with no PTO-assisted tillage)	greater than 3-5	Select a setting greater than 3 for economical driving.
Pneumatic drills and spacing seeders (without tillage)	2-3	PTO speed must be sufficiently high for pneumatic distribution of the seeds.

Continued on next page

OU12401,00019B2-19-25MAY10-3/7

Summary of different types of work

Procedure	Setting for automatic	Comment
Transport, driving on roads, towed tillage implements (plow, seedbed combination implements etc.)	greater than 3-5	Select a setting greater than 3 for economical driving.
Front loaders and hydraulically driven machines (silage cutters, feed mixers etc.)	2-4	Select any setting suitable for the work load (light or heavy loads on front loader). To achieve the desired machine speed, the hydraulic system must be able to provide sufficient oil.

IMPORTANT: When applying pesticides and fertilizers, always comply with the guidelines provided by the machine manufacturer and the pesticide/fertilizer producers, and with the relevant legal requirements.

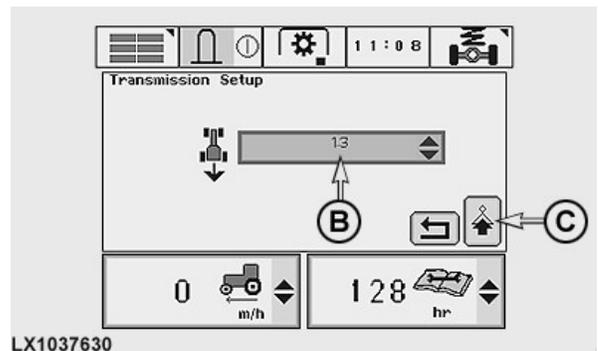
OU12401,00019B2-19-25MAY10-4/7

Setting the relationship of forward to reverse speed

Press transmission button (A). At the first screen, confirm the next page cell. Then, on the following screen, the desired relationship can be set at cell (B). There are 2 variants:

- In range 1, reverse speeds can be set to a maximum of 30% higher (selection 1.3) and 70% lower (selection 0.3) than forward speeds. A setting such as this only takes effect if the maximum speed in a speed range is adjusted using the speed wheel. In range 2 the forward-to-reverse speed ratio is 1:1 up to 22 km/h (14 mph). Above that, it changes automatically to 40:30.
- If **independent** is selected, any speed can be set in speed ranges 1 and 2 for each direction of travel. This does not apply to creeper mode.

A—Transmission Button C—Next Page
 B—Forward/Reverse Relationship



Continued on next page

OU12401,00019B2-19-25MAY10-5/7

Setting for fully automatic

Press transmission button (A) and confirm next page at each of the following two screens. Then, at the next screen, the electronic engine/transmission control can be altered to suit the operating conditions.

In cell (B), the following selections can be made:

- Auto
16% engine load control, or 13% to 16% if Intelligent Power Management (power boost) has been activated (see Operating the Engine section).
- low
4% engine load control
- med
9% engine load control
- high
14% engine load control

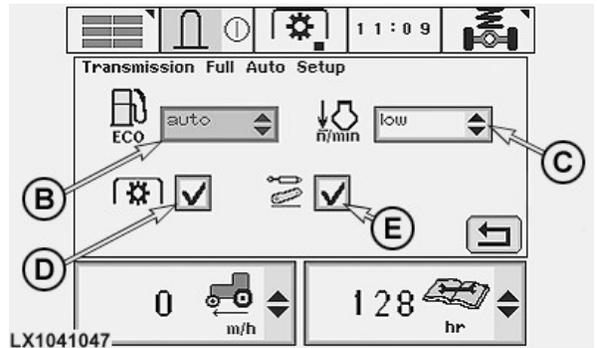
In cell (C), the following selections can be made:

- low
Engine speed may fall to 1200 rpm
- med
Engine speed may fall to 1400 rpm
- high
Engine speed may fall to 1600 rpm

If cell (D) is activated, the automatic control changes to the 2.5 setting whenever the PTO is selected.

If cell (E) is activated, the following applies:

- If the three-point hitch is raised or lowered, the automatic control moves to setting 4 until the hitch has completed its movement.
- If an electronic SCV is operated, the automatic control moves to setting 4 for the duration of this condition.
- The automatic control does NOT move to setting 4 if an electronic SCV is moved to float position.
- If engine speed is increased at the accelerator pedal or hand throttle while an electronic SCV is operating, the



A—Transmission Button
 B—ECO
 C—Engine Speed (n/min)
 D—PTO
 E—Hitch/Selective Control Valves

automatic control moves to a setting of 2.5. If the speed is reduced using the accelerator pedal or hand throttle, the automatic control switches to a setting of 4.

If the tractor's electronics register that the steering brake is in use, the automatic control moves down one unit (from setting 5 to setting 4 or from setting 4 to setting 3).

Continued on next page

OU12401,00019B2-19-25MAY10-6/7

Setting an upper limit for engine speed (Field Cruise)

This option allows you to set an upper limit for engine speed when performing certain work such as operating an hydraulic motor.

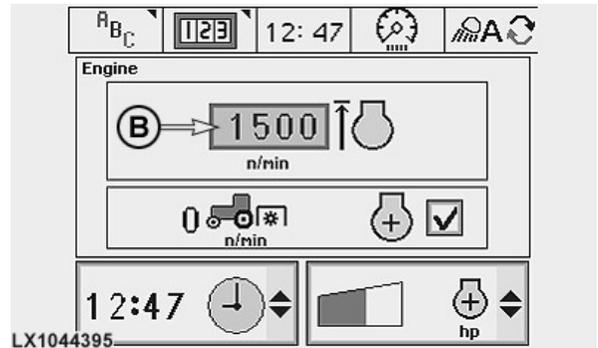
Run the engine, set the hand throttle to maximum speed, then press engine button (A) and set the desired engine speed in cell (B).

In the lowest setting, engine speed is limited to 1050 rpm. In the highest setting, the engine can run at maximum speed. Individual engine speed limits can be set between these two positions.



A—Engine Button

B—Upper Limit for Engine Speed



OU12401,00019B2-19-25MAY10-777

IVT "Come Home" Mode

In the event of a transmission malfunction, the tractor can still be operated at a maximum speed of 9 km/h (5.6 mph).

To do this, stop the engine, remove plug K07/4 (relay box

K07) and re-install it at a position 90° from its original position. The wording "Come Home" must be at top.

The clutch pedal must then be used to start, stop and operate the reverser lever. Comply with instructions on CommandCenter screen.

OU12401,000145F-19-14JUN06-1/1

Towing an IVT-Equipped Tractor

If the tractor must be towed and the park lock cannot be

released, follow the instructions in the "Manual Park Lock Release" procedure in the "Transport" section.

OU12401,0001376-19-10NOV05-1/1

Hitch

Hitch Control

The hitch is controlled by means of hitch control lever (A) and raise/lower switch (B). Button (C) is used to select the lift-limit screen.

To prepare the hitch for operation, start the engine and either:

- move control (A) to the position that corresponds to the position of draft links,
- move control (A) to one of the end positions, or
- actuate switch (B).

Pull control (A) towards "0" to raise implement
Push control (A) towards "9" to lower implement

The implement can be raised and lowered independently of control lever (A) by means of raise/lower switch (B). This is of assistance when **turning at the end of a field**, for example. If the upper part of raise/lower switch (B) is pressed, the implement is raised as high as the raise-limit setting. If the lower part of raise/lower switch (B) is pressed, the implement is lowered as far as the setting at control lever (A).

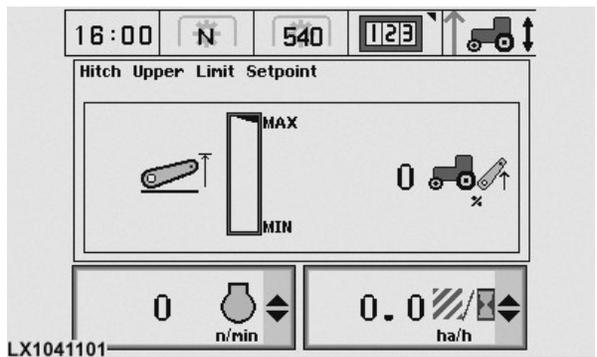
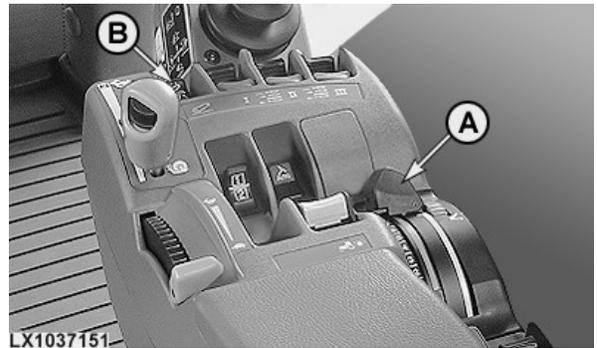
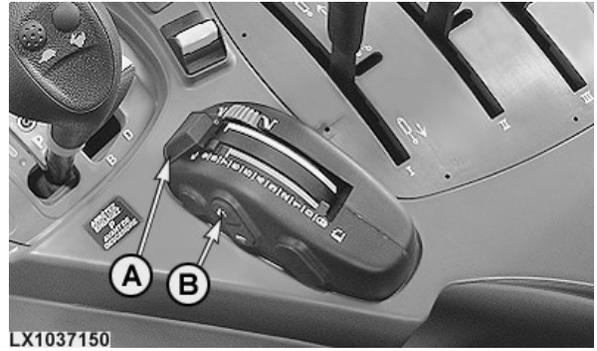
To obtain working depth quickly in compact soil at the headland (quick lower), keep switch (B) pressed. As long as switch (B) is pressed, the adjusted draft force is not active (override function). If switch (B) is released, the implement returns to the previous settings.

This "quick lower" function will only work if:

- the implement has been raised using switch (B)
- the implement is lowered continuously from raised position using switch (B)

A—Hitch control lever
B—Raise/lower switch

C—Lift-limit button



Continued on next page

OU12401,000193E-19-11DEC07-1/2

Pull control lever as far as it will go (beyond "0") - hitch is locked.



OU12401.000193E-19-11DEC07-2/2

Hitch Control on Fender

These switches allow the hitch to be operated from the fender. For safety reasons, the hitch rises and drops at a slower rate. The height and depth values are ignored.

Push upper switch - Raise implement

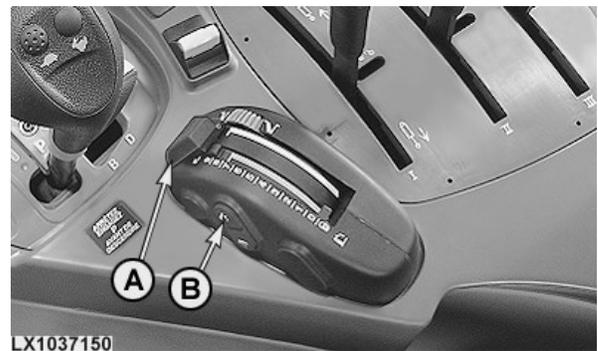
Push lower switch - Lower implement

NOTE: Once the fender control has been activated, the hitch is prevented from moving accidentally. To prepare the hitch for operation again, either:

- move hitch control (A) to the position that corresponds to the position of the draft links,
- move control (A) to one of the end positions, or
- actuate raise/lower switch (B).

A—Hitch control

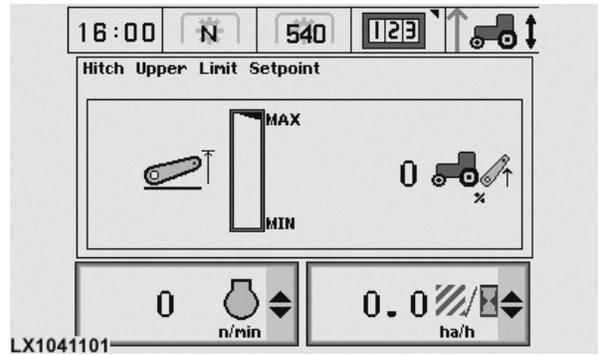
B—Raise/lower switch



OU12401.00019B8-19-19APR08-1/1

Lift Limit

Button (A) is used to select the lift-limit screen. There, you can set the raise height of the three-point hitch to any desired value.



OU12401,0001940-19-11DEC07-1/1

Transport Mounted Implements

Raise mounted implement fully by pulling hitch control lever as far as it will go to the rear (beyond "0") (A).

For a towed implement, push the hitch control lever as far as it will go to the front (B).

A—Implement without wheels B—Implement with wheels



OU12401,00012D5-19-25SEP05-1/1

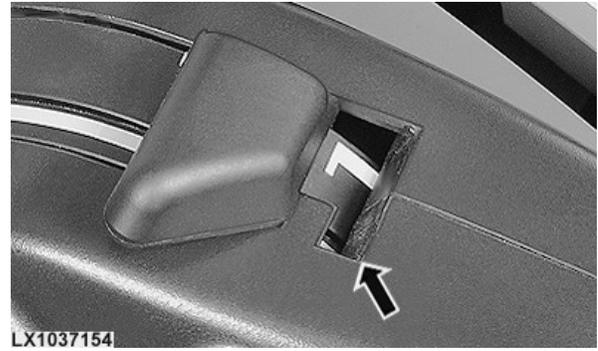
Hitch Dampening

The tractor is equipped with a hitch dampening function that prevents the tractor from "pitching" when travelling with a raised implement.

To activate the dampening function, first move the hitch control lever (with the engine running) to the position that corresponds to the position of the draft links. Then pull it as far as it will go to the rear (beyond "0") to the transport position (see arrow). Rate of drop must not be set at the minimum value.

To switch off the dampening function, push the hitch control lever forward from the transport position to a position beyond "0" (in the "lower" direction).

NOTE: Using the remote control and switching off the engine both have the effect of switching off the hitch dampening function.



LX1037154

LX1037154—UN—28SEP05

OU12401,00012D6-19-25SEP05-1/1

Adjusting Rate of Implement Drop

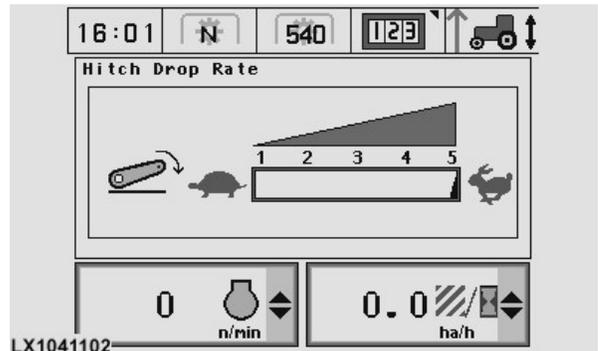
Button (A) is used to select this screen. There, you can set the rate at which mounted implements will drop.

The rate-of-drop varies with this setting and the weight of the mounted implement. The heavier the implement, the faster the rate-of-drop and the lighter the implement, the slower the rate-of-drop.



LX1038303

LX1038303—UN—06NOV06



LX1041102

LX1041102—UN—06NOV06

OU12401,00014C3-19-07JUL06-1/1

Rate of Lift Adjustment

It is possible to adjust the rate of lift individually at address

BCU165 (see "Customization" in the "Diagnostic Trouble Codes and Customization" section).

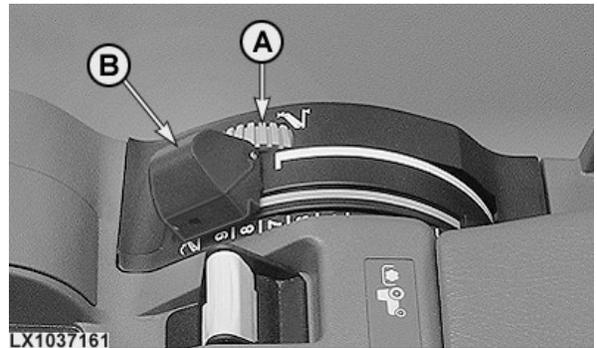
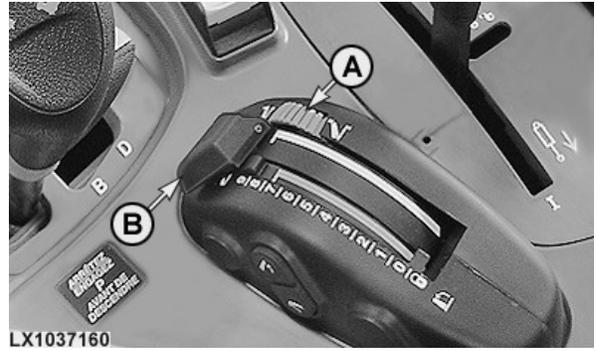
OU12401,00013F0-19-06APR06-1/1

Depth Adjustment

Push down hitch control stop (A) and set the desired working depth.

After lifting the implement, the same working depth will be selected the next time the implement is lowered. This depth is indicated by resistance at hitch control lever (B).

A—Hitch control stop B—Hitch control lever



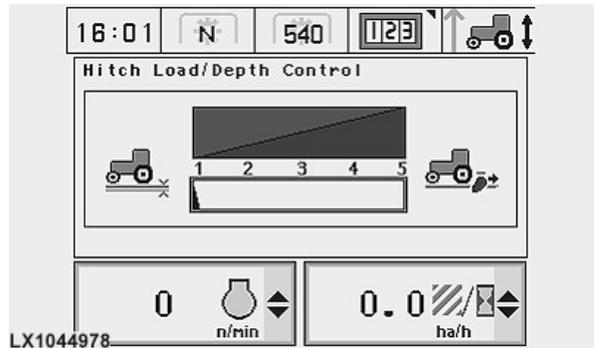
OU12401,00012D8-19-26SEP05-1/1

Load/Depth Adjustment

Button (A) is used to select this screen. There, you can set the hitch between load control and depth control. The positions have the following meanings:

- 1 = Depth control
- over 1 but less than 5 = Mixed control
- 5 = Load control

CAUTION: Before connecting implements to the three-point hitch, position 1 (depth control) must be selected to prevent unintentional raising or lowering of the hitch.

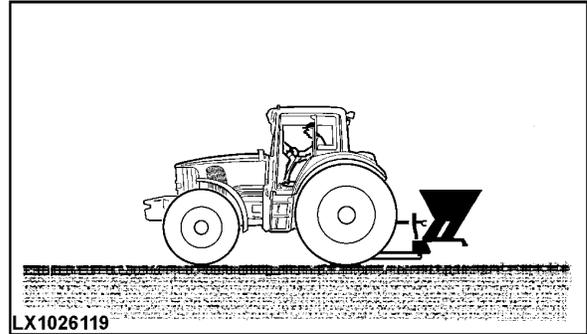


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OU12401,00019F8-19-23JUN08-1/4

1 Depth Control

With load/depth control in this position, the implement is held at the selected position.

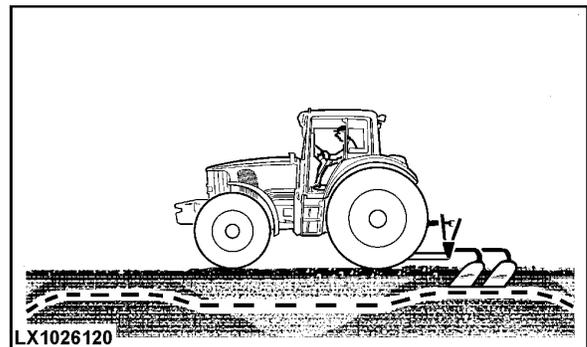


LX1026119—UN—10MAY01

OU12401,00019F8-19-23JUN08-2/4

Over 1 but less than 5 Mixed Control

The intermediate positions of the load/depth control allow the effects of depth control and/or load control to be infinitely varied as the ground conditions require.

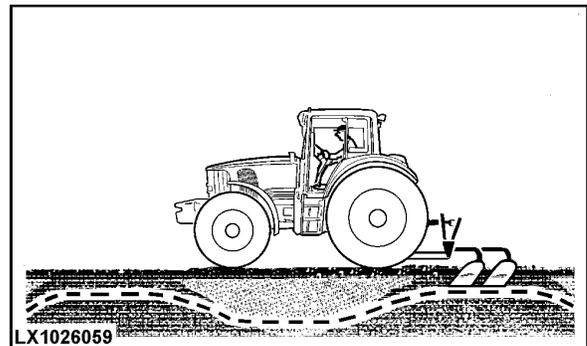


LX1026120—UN—10MAY01

OU12401,00019F8-19-23JUN08-3/4

5 Load Control

With load/depth control in this position, the implement is raised as resistance (soil density) increases and lowered as resistance decreases, thus maintaining the preselected load.

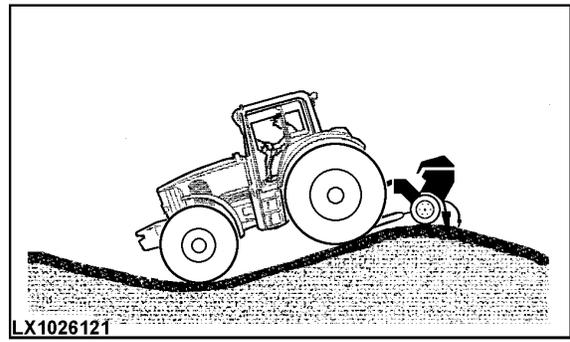


LX1026059—UN—18MAY01

OU12401,00019F8-19-23JUN08-4/4

Float Position

In float position (for implements with gauge wheel), implement can move freely up and down to follow ground contours independently of the tractor. To obtain a "floating" action, set load/depth to "0" and move hitch control lever (A) as far as it will go to the front.



OU12401,0001465-19-17JUN06-1/1

Direct Actuation

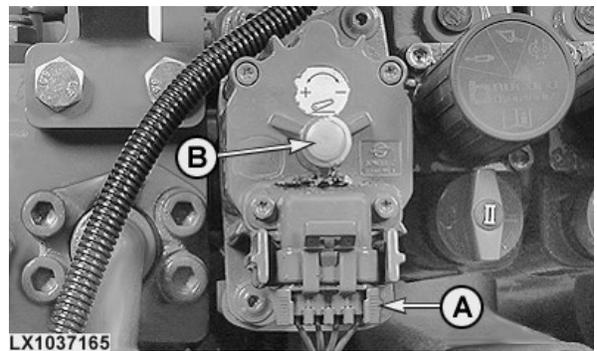
In the event of an electrical failure, the hitch can be actuated as follows:

Pull out plug (A).

Run the engine. Take off protective cap (B).

From the operator's seat, turn the screw with a 3 mm (0.12 in.) hex. socket wrench until the three-point hitch is in the desired position.

See your John Deere dealer.



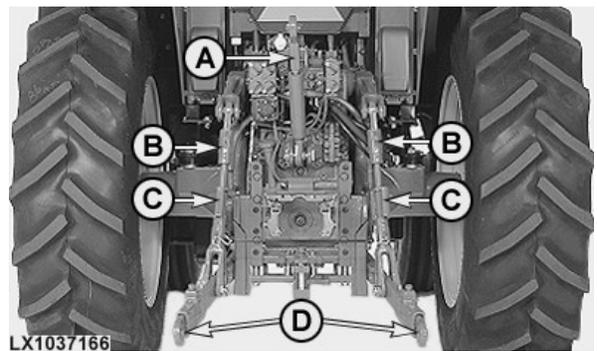
OU12401,0001942-19-11DEC07-1/1

Three-Point Hitch

Tractors may be equipped with telescopic draft links or quick-coupling (hook-type) draft links.

A—Center link
B—Lift links

C—Crank for adjusting lift links
D—Draft links



OU12401,00012DC-19-26SEP05-1/1

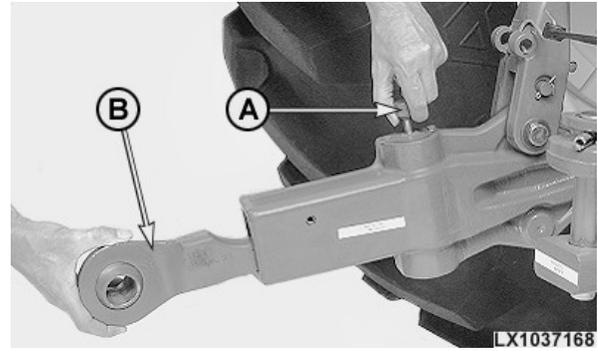
Telescopic Draft Links

These draft links are intended for Category II and Category IIN implements.

To facilitate hitching of implements, extend the draft links to the rear.

Do this by pulling up lock pin (A) and then pulling draft link (B) out to the rear.

After attaching and securing implements to draft links, reverse the tractor until the lock pins snap into place. Make sure that the draft links are locked by driving a short distance in forward direction.



A—Lock pin

B—Draft link

OU12401,000153F-19-08NOV06-1/1

Attach Three-Point Hitch Mounted and Drawn Implements

Be sure not to damage exposed parts of cab (see arrows) or other tractor components when attaching three-point hitch mounted or drawn implements.

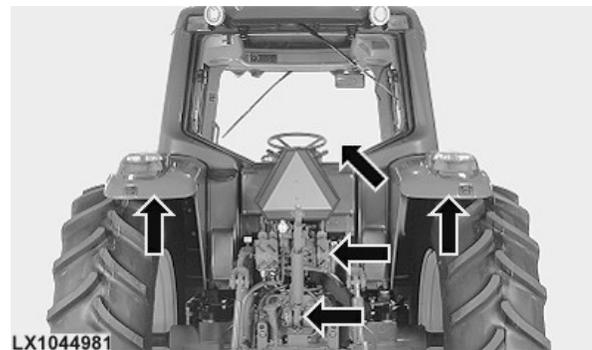
CAUTION: Do not stand between tractor and implement unless park lock and park brake are both applied firmly.

IMPORTANT: When attaching three-point hitch mounted or drawn implements for the first time, conduct a trial to ensure that implement will not damage cab or other tractor components in any position. With hitch-mounted implements, pay attention to the highest lift position; with drawn implements, be careful when turning sharply.

Also comply with instructions under Hydraulic Center Link, where applicable.

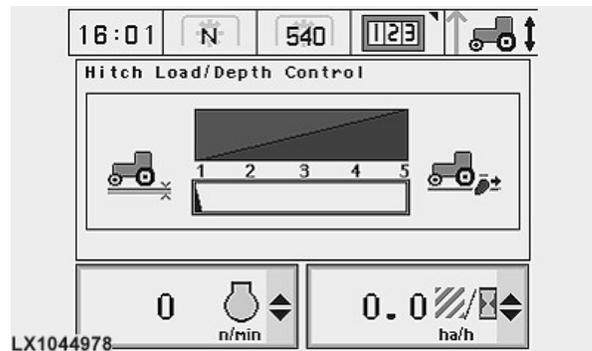
If a swinging drawbar is installed, set it in the front, short position. The swinging drawbar can also be swung to the right or left and secured there.

When attaching an implement, first make sure that load/depth control is set to 1.



LX1044981

LX1044981—UN—24APR08



LX1044978

LX1044978—UN—17MAR08

OU12401,0001D83-19-28NOV09-1/1

Leveling the Implement

To level implement from side-to-side, adjust the right-hand lift link. Adjust center link to level fore-and-aft.

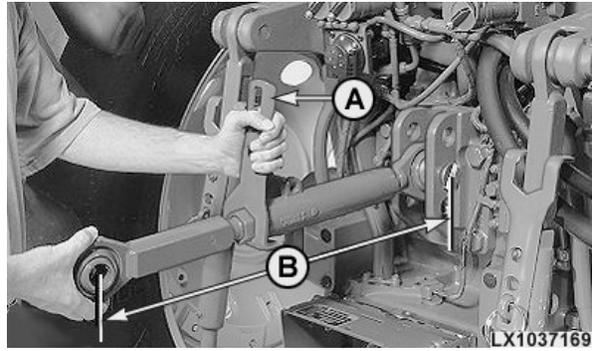
AG,OU12401,209-19-07APR00-1/1

Center Link

Length of center link can be adjusted by means of adjusting handle (A). Lift up adjusting handle and turn it until the required length is achieved.

Length (B) must be between 530 mm (20.9 in.) and 725 mm (28.5 in.) on 7130 and 7230 tractors and between 587 mm (23.1 in.) and 782 mm (30.8 in.) on 7330 to 7530 tractors.

Do not deviate from the specified dimensions. Grooves in the thread indicate the maximum permitted setting. The threads must not be unscrewed any further out of the receiver. After adjusting, push handle down again over center link. Insert attaching pin through implement mast and center link, and secure.



A—Adjusting handle

B—Length

LX1037169

UN—29SEP05

OU12401,0001B2A-19-03FEB09-1/1

Hydraulic Center Link (If Equipped)

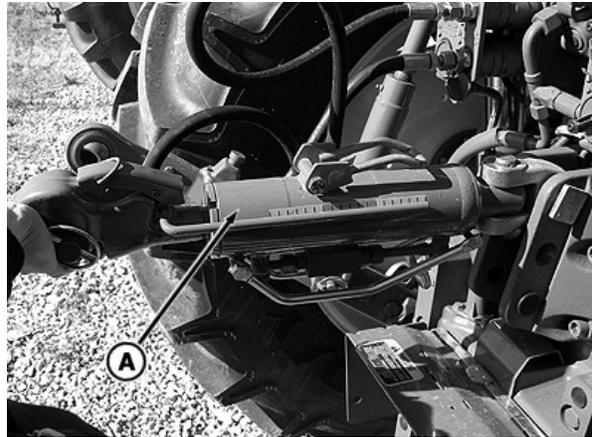
Length of hydraulic center link (A) can be adjusted from operator's seat using one SCV.

Push lever (B) and lift bracket (C) to remove hydraulic center link from storage position.

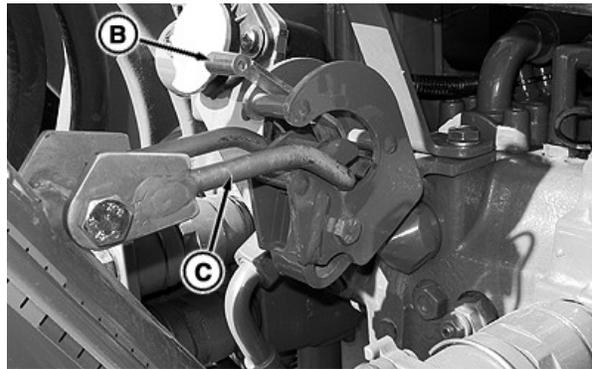
Clean all moving parts and lubricate with commercial grease as needed to prevent parts from seizing.

A—Hydraulic Center Link
B—Lever

C—Storage Bracket



UN—06OCT06



UN—06OCT06

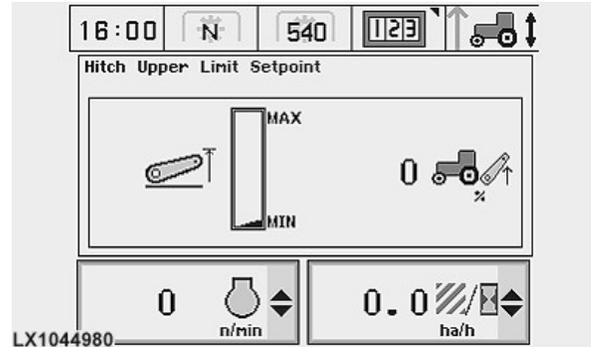
BB92646,00002C8-19-14NOV06-1/1

Using the Hydraulic Center Link

With the hydraulic center link, before starting any journey or operating in the field the operator must be certain that the three-point hitch has sufficient clearance for all possible movements. The center link must not come into contact with other parts of the tractor at any point within its vertical and horizontal ranges.

With mounted implement, retract the center link fully. On the CommandCenter screen, set the mark to "MIN". Use the hitch control to raise the implement fully. **Carefully** move the mark in the CommandCenter towards "MAX" until the implement reaches its highest possible position.

IMPORTANT: To avoid damaging the center link and its bracket on the tractor, the hydraulic center link may be operated only in the top and center holes of the center link bracket.



Adjust upper limit gradually

OU12401,00019BC-19-19APR08-1/1

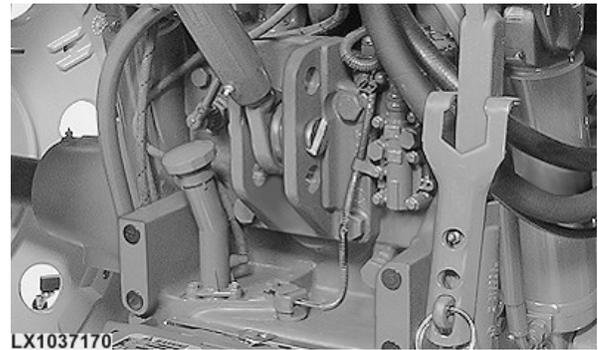
Center Link Positions

The center link can be attached to the tractor in any one of three different positions.

The lowest position provides maximum tilt angle but less lifting force and should be used when working with a plow.

The highest position provides greater lifting force and minimum tilt angle, and can be used when working with machines such as direct drills.

IMPORTANT: The lowest position must NOT be used with the hydraulic center link.



OU12401,00019BB-19-19APR08-1/1

Lift Links (7130-7230 Tractors)

A greater transport clearance is obtained by shortening the links. Extra working depth is obtained by lengthening the links.

To level implement from side-to-side, adjust one link. Use handle (A) to adjust the link. Do this by lifting handle (A) out of lock (B) and setting the lift link to the length desired. After adjustment is completed, push handle (A) down and secure it with lock (B).

To adjust left lift link:

- If equipped with an adjusting handle, proceed in the same way as for the right link.
- If not equipped with an adjusting handle, remove the lift link from the draft link and screw yoke end (C) of lift link in or out.

Length (D) of links must be kept within the limits stated. A groove in the thread of each lift link indicates the maximum permitted setting. The threads must not be unscrewed any further out of the receiver.

- Minimum length 705 mm (27.8 in.)
- Maximum length 865 mm (34.1 in.)

NOTE: The lift link dimensions quoted above are with lift links locked in draft links (no vertical float).

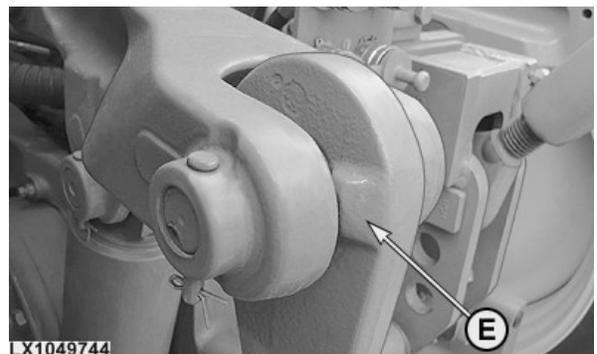
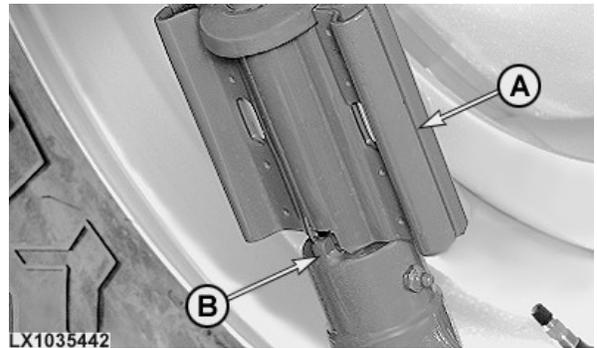
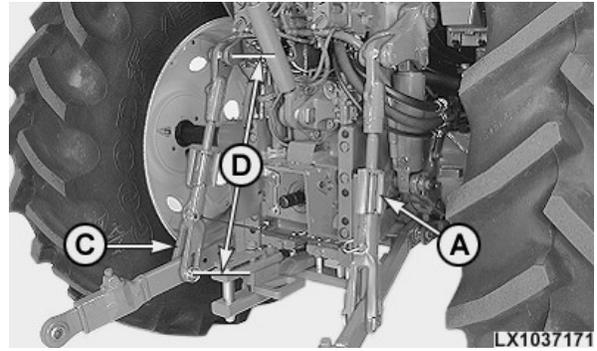
NOTE: A short lift link provides a short lifting height and maximum lifting force.

A long lift link provides a long lifting height and less lifting force.

IMPORTANT: When engaging the lift links in the lift arms, make sure that stops (E) are always at the rear as shown.

A—Adjusting Handle
B—Lock
C—Yoke End

D—Length of Links
E—Stops (2 on Each Lift Link)



OU12401,00012E1-19-30APR10-1/1

Lift Links (7330-7530 Tractors)

A greater transport clearance is obtained by shortening the links. Extra working depth is obtained by lengthening the links.

To level implement from side-to-side, adjust one link. Use handle (A) to adjust the link.

Length of links (B) must be kept within the limits stated.

- Minimum length 875 mm (34.4 in.)
- Maximum length 1035 mm (40.7 in.)

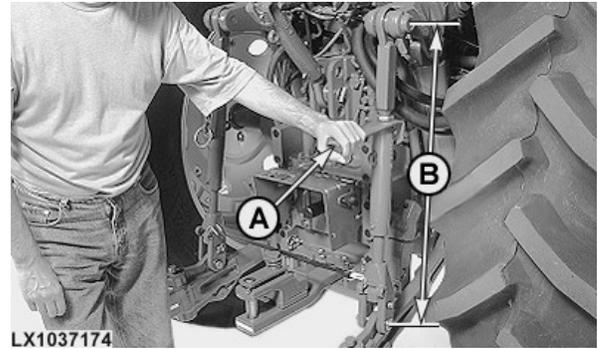
NOTE: A short lift link provides a short lifting height and maximum lifting force.

A long lift link provides a long lifting height and less lifting force.

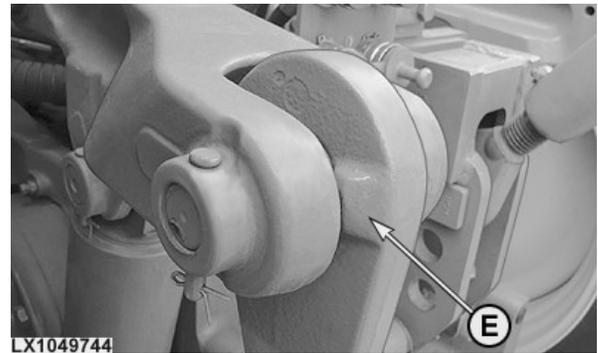
IMPORTANT: When engaging the lift links in the lift arms, make sure that stops (E) are always at the rear as shown.

A—Adjusting Handle
B—Length of Links

E—Stops (2 on Each Lift Link)



LX1037174—UN—28SEP05



LX1049744—UN—03MAY10

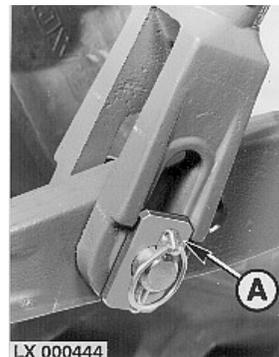
OU12401,0001B2B-19-30APR10-1/1

Adjusting for Vertical Float (7130-7230 Tractors)

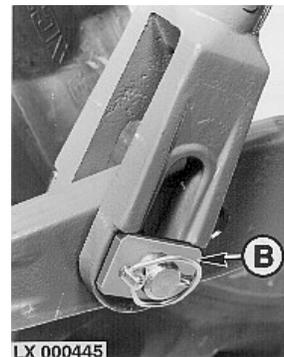
Depending on the position of the steel plate, draft links can be adjusted to allow for vertical float or to lock out float.

A—Vertical float

B—No float



LX000444—UN—12AUG94



LX000445—UN—12AUG94

OU12401,00012E3-19-26SEP05-1/1

Sway Blocks (If Equipped)

Sway blocks (A) are used to limit sideways motion of draft links during operation and transport.

Sway blocks must be fitted when working with attachments which follow exactly the line of the tractor.

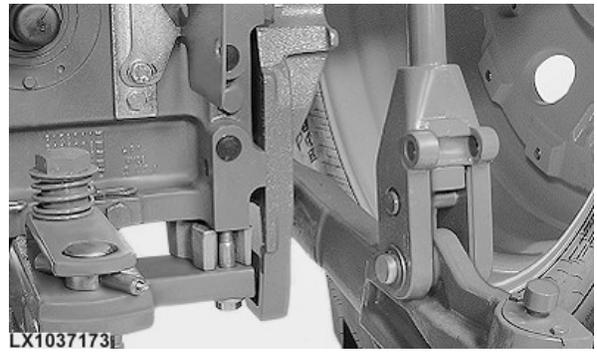
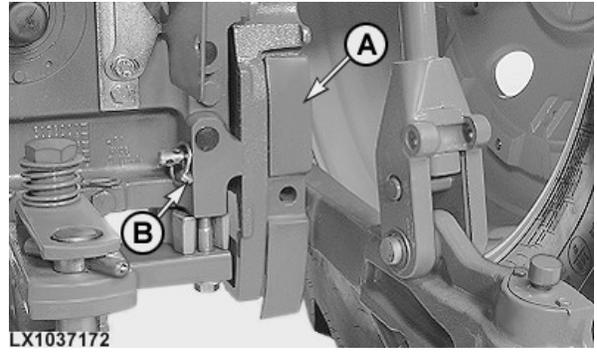
NOTE: If sideways motion is excessive even with sway blocks installed, additional spacers can be used between the PTO housing and the sway-block mountings. See your John Deere dealer for suitable spacer rings.

If the attachments (plow, disk harrow etc.) require sideways motion in the operating position, remove quick-lock pins (B) and take off the sway blocks.

With sway blocks in this position, draft links will sway in operating position. However, sway is locked out in transport position.

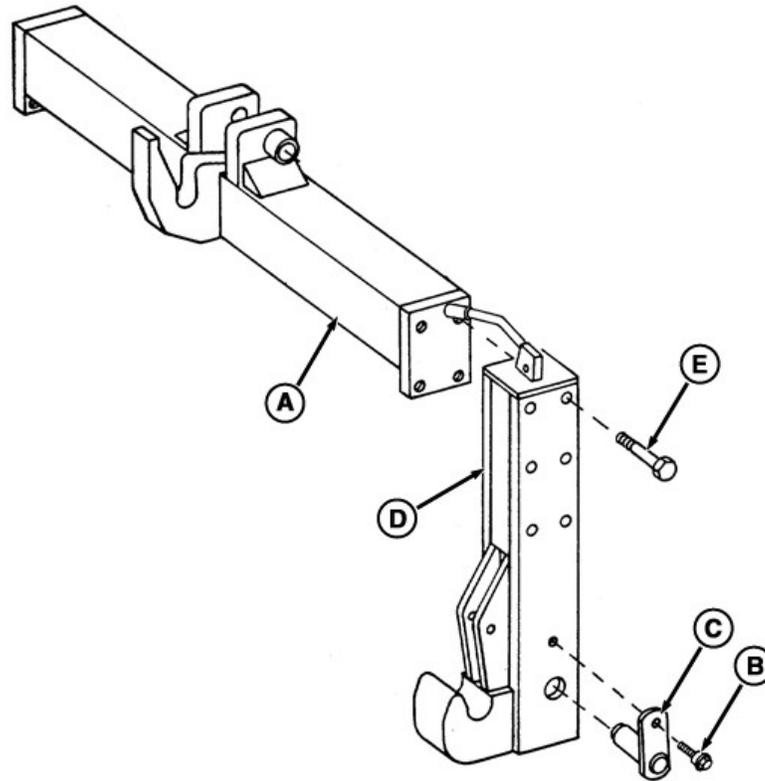
A—Sway block

B—Quick-lock pin



OU12401,00012E4-19-26SEP05-1/1

Convertible Quick Coupler (If Equipped)



RXA0091514—UN—14NOV06

- A—Crossbar
- B—Pin Cap Screw (1 per side)
- C—Pin (1 per side)
- D—Side Member
- E—Side Member Cap Screw (4 per side)

NOTE: Tractor may be equipped with a Category 3N/2 quick coupler. Use category 3N whenever possible. Use following procedure to convert quick coupler from category 3N to category 2 or vice versa.

1. Install support stands under crossbar (A).
2. Remove cap screw (B) and pin (C) from side member (D) and draft link on one side of tractor.
3. Remove four cap screws (E) from side member (D) and crossbar (A).
4. Move side member (D) up or down to convert quick coupler.

5. Reinstall four cap screws (E) in lower four holes for category 2 or upper four holes for category 3N.
6. Tighten cap screws (E) to specification.

Specification

Quick Coupler Cap Screw—Torque. 240 N·m
(177 ft·lb)

7. Reinstall quick coupler to draft link with pin (C) and cap screw (B).
8. Repeat all steps for opposite side.

BB92646,0000340-19-14NOV06-1/1

HMS — Headland Management System

HMS — Headland Management System (If Equipped)

CAUTION: Avoid injury due to losing control of tractor.

If a high gear is stored in a program, activating the program may result in rapid gear shifts.

IMPORTANT: A front loader must NOT be operated using HMS. Make sure that front loader is deactivated on the page for selective control valves at the CommandCenter. See “Additional Equipment” section.

HMS makes it possible to record and save sequences of functions that occur repeatedly and to call them up as programs when they are required. Five memories (**memories A-E**) are provided for five different implements each of them providing 2 programs. Example: one program for the sequence of functions used at start of field, another program for the sequence of functions used at end of 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.

The functions of the following tractor sub-assemblies may be stored: Differential lock, hitch, rear PTO, front PTO, front-wheel drive, electronic selective control valves, PowrQuad Plus/AutoQuad Plus transmission (gear shifts), AutoQuad Plus transmission (automatic gear shifting), IVT (maximum speed) and upper limit for engine speed.

The distance the tractor moves between functions is also stored.

There are two ways to program sequences of functions:

- With tractor stationary = **Edit Mode**
- With moving tractor = **Learn Mode**

OU12401,00019B6-19-19APR08-1/1

HMS, Possible Functions

The functions shown here can

- be selected from the drop-down lists when the tractor is stationary (edit mode)
- be “learned” via the tractor’s controls when the tractor is moving (learn mode)

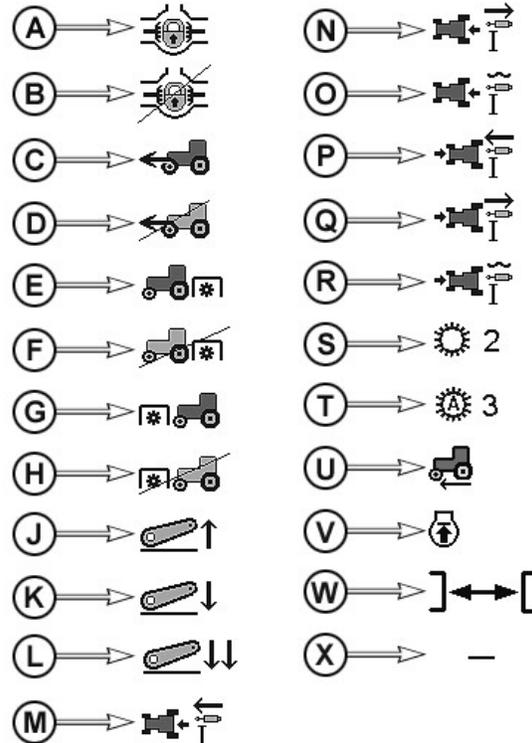
On functions that can be selected via the controls (e.g. front-wheel drive on/off and differential lock on/off), the opposite condition can be selected by actuating the control again within 2 seconds.

NOTE: For functions (M) to (R), the electronic selective control valves must be unlocked, and learning requires the time setting to be other than 0.

Function (S) determines which gear the transmission shifts to (gears 1-4). Function (T) determines the highest gear to which the AutoQuad Plus transmission’s automatic gear-shift function can shift (gears 2-4).

A—Differential lock on
 B—Differential lock off
 C—Front-wheel drive on
 D—Front-wheel drive off
 E—Rear PTO on
 F—Rear PTO off
 G—Front PTO on
 H—Front PTO off
 J—Three-point hitch, raise
 K—Three-point hitch, lower
 L—Three-point hitch (quick withdrawal)
 M—Selective control valves (rear), extend

N—Selective control valves (rear), retract
 O—Selective control valves (rear), float position
 P—Selective control valves (front), extend
 Q—Selective control valves (front), retract
 R—Selective control valves (front), float position
 S—Transmission - specified gear
 T—Transmission - automatic gear-shifting
 U—Maximum speed (IVT)
 V—Upper limit for engine speed
 W—Add function (edit mode)
 X—Delete function (edit mode)



LX1044436

LX1044436—UN—29NOV07

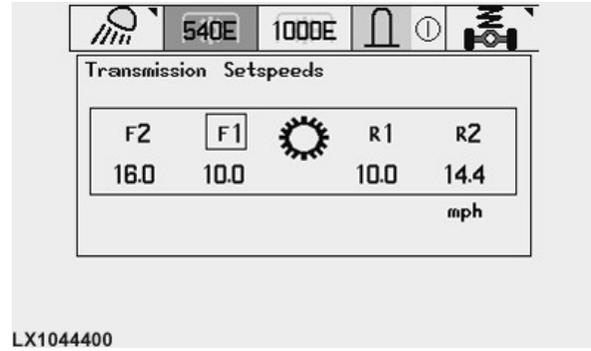
Continued on next page

OU12401,00019B7-19-19APR08-1/4

Maximum speed (IVT)

This screen appears if the speed wheel on the speed control lever is turned during “learning”. Maximum speed in the speed range (dependent on whether the control lever is in forward range F1 or F2) can now be changed. In HMS, the permitted speed range is from 1.5 to 16 km/h (0.9 to 9.4 mph). Faster or slower speeds are not accepted by the HMS. Press the HMS button to return to the HMS screen.

NOTE: Set speed is not attained until the speed control lever reaches its relevant end position.



LX1044400

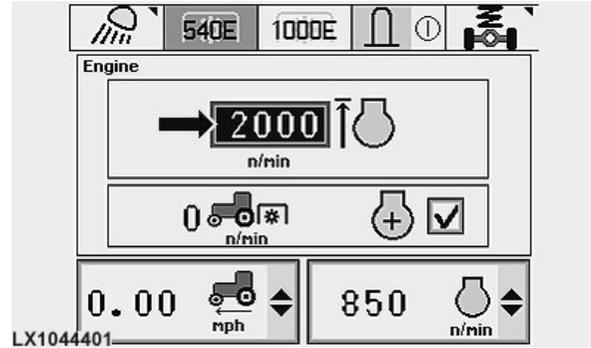
LX1044400—UN—28NOV07

OU12401,00019B7-19-19APR08-2/4

Upper limit for engine speed

This screen appears if the engine button is pressed during “learning”. The upper limit for engine speed can be set here. Press the HMS button to return to the HMS screen.

NOTE: The speed set here is not attained unless top speed is commanded and there is no intervention by any automatic transmission function.



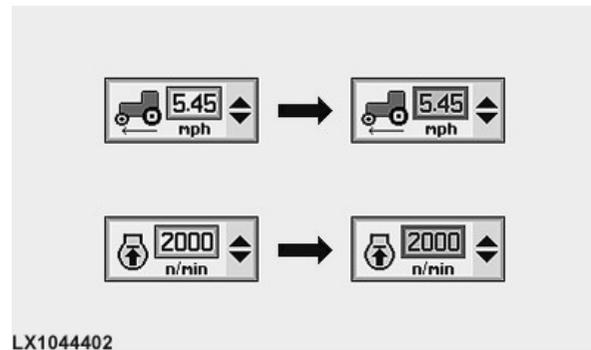
LX1044401

LX1044401—UN—30NOV07

OU12401,00019B7-19-19APR08-3/4

Editing of maximum speed (IVT) and upper limit for engine speed

Maximum speed and upper limit for engine speed can be changed in the edit mode. To do so, go to the relevant box and select the small window with figures in it.



LX1044402

LX1044402—UN—28NOV07

OU12401,00019B7-19-19APR08-4/4

HMS, Controls

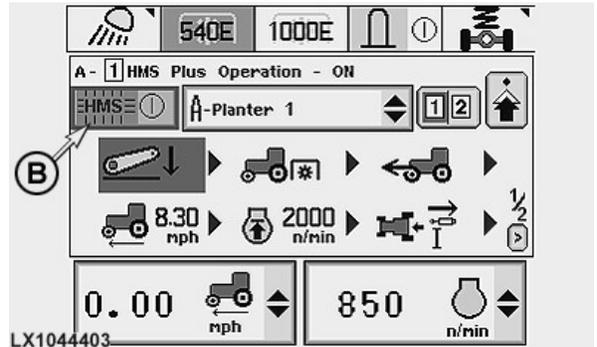
NOTE: On all HMS pages, use the program switch (C) to toggle between the two programs.

- A—Button, HMS main page
- B—HMS on/off
- C—Program switch
- D—HMS indicator light on dashboard



LX1037561

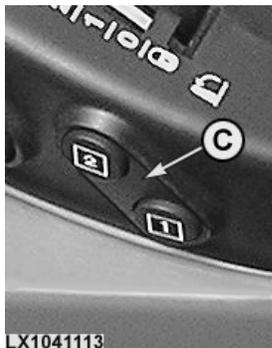
LX1037561—UN—06NOV06



LX1044403

LX1044403—UN—29NOV07

HMS main page



LX1041113

LX1041113—UN—21SEP06

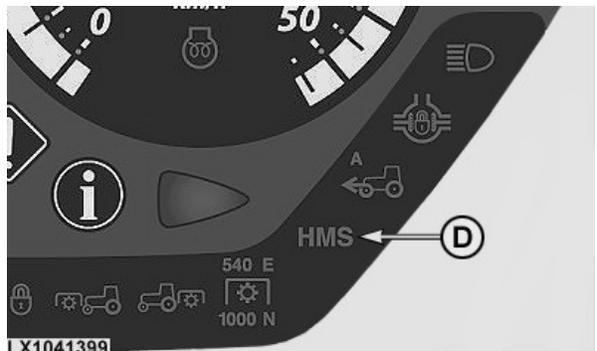
Switch, without CommandArm



LX1041387

LX1041387—UN—21SEP06

Switch, with CommandArm



LX1041399

LX1041399—UN—21SEP06

HMS indicator light on dashboard

OU12401,0001755-19-28NOV07-1/1

HMS, Programming with Tractor Stationary (Edit Mode)

On the screen, switch on HMS by actuating cell (A) (the HMS indicator light lights up on the dashboard). In cell (B), select the desired implement memory (A-E). A suitable implement name can be selected later via cell (E). The HMS select page (edit/learn mode) is displayed after pressing symbol (C). On this page the edit mode can be accessed via symbol (D). From list (E), choose the desired implement and then the desired program (1 or 2) using the program switch or cell (F). Select the desired functions from the selection lists and use the selection wheel to determine the distances between the functions. Use cell (G) to save the program and to display the HMS main page. For details regarding the programming process, see next page.

NOTE: To delete a single function from a program, select the empty cell from the selection list.

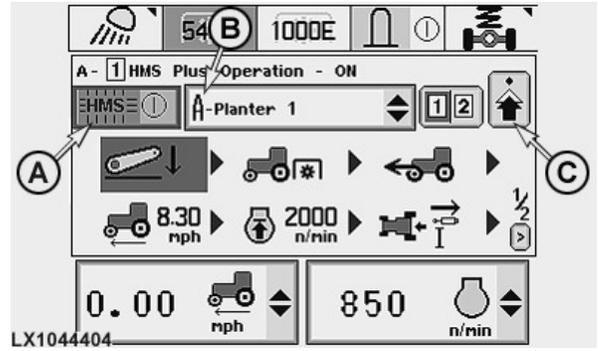
To overwrite a single function, choose the new function from the selection list.

To add a function, go to the desired position and select the add cell from the drop-down list. The other functions (including the one already selected) move down one position.

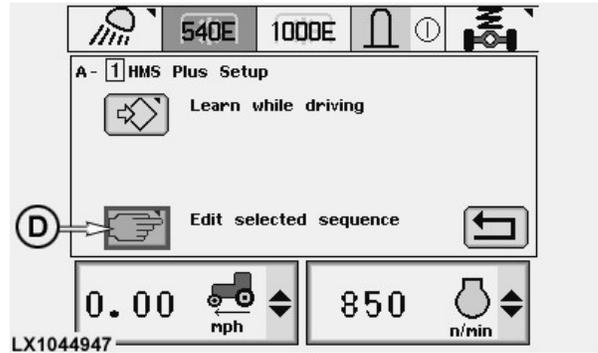
The following applies to the rear PTO function:

PTO is switched off once the three-point hitch has reached 25% of the lift height. PTO is switched on **AFTER** the tractor has moved the set distance. If the PTO is switched on too early or too late, change the set distance to achieve optimum function timing.

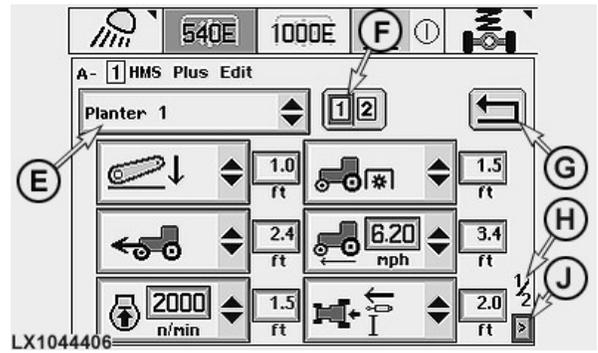
- | | |
|-------------------------|-----------------------------------|
| A—HMS on/off | F—Program select cell |
| B—Memory (A-E) | G—"Back to HMS main page" symbol |
| C—"Next page" symbol | H—Page indicator |
| D—Edit mode | J—"Next function page" symbol |
| E—Implement application | K—"Previous function page" symbol |



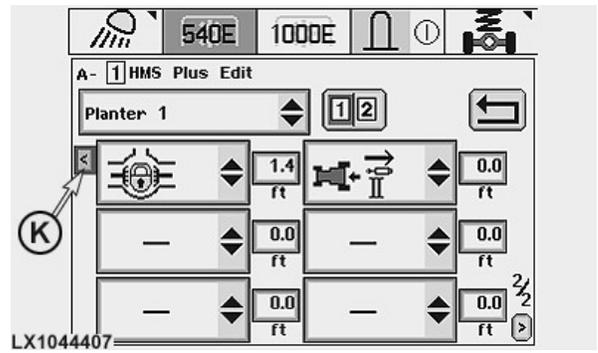
HMS main page



HMS select page (edit/learn mode)



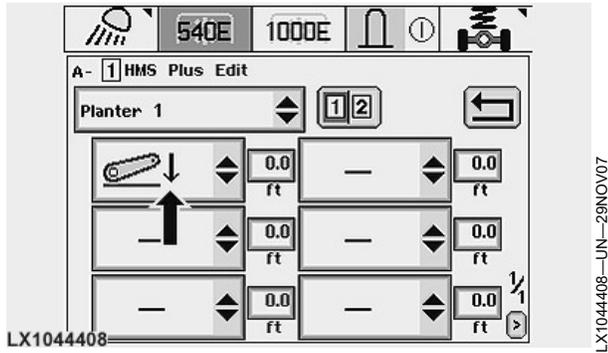
HMS Edit - page 1



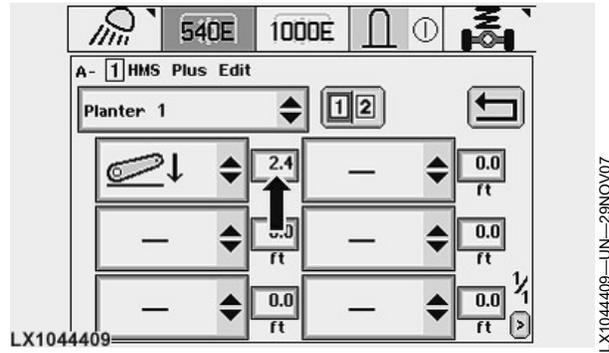
HMS Edit - page 2

OU12401.000196C-19-19DEC07-1/1

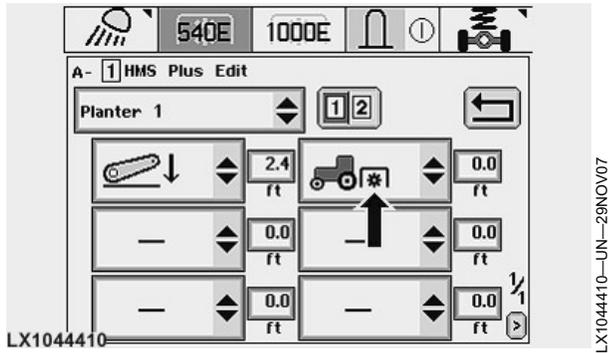
HMS, Programming with Tractor Stationary, Example



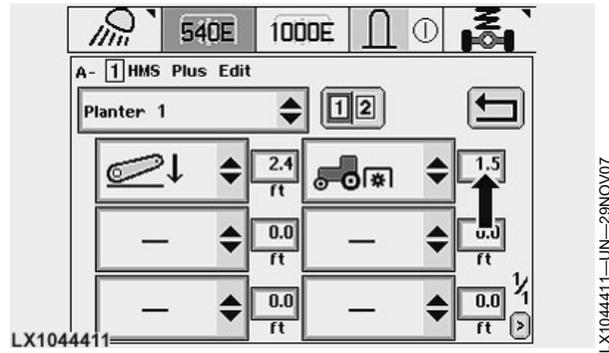
Step 1: Select 1st function



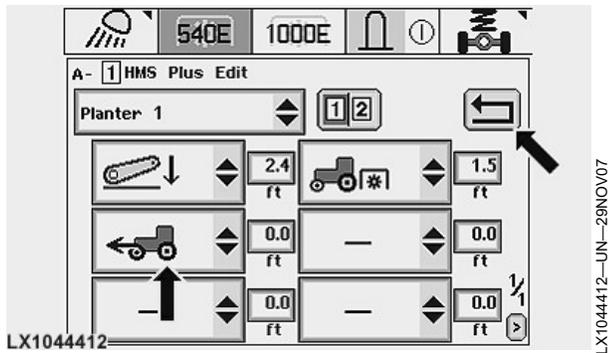
Step 2: Enter distance the tractor moves until the next function is activated



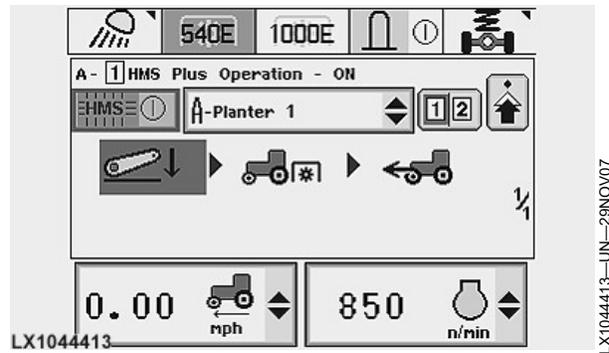
Step 3: Select 2nd function



Step 4: Enter distance the tractor moves until the next function is activated



Step 5: Select 3rd function, then save settings



HMS main page

OU12401,0001757-19-28NOV07-1/1

HMS, Programming with Moving Tractor (Learn Mode)

On the screen, switch on HMS by actuating cell (A) (the HMS indicator light lights up on the dashboard). In cell (B), select the desired implement memory (A-E). A suitable implement name can be selected later via cell (E). The HMS select page (edit/learn mode) is displayed after pressing symbol (C). On this page the learn mode can be accessed via symbol (D). From list (E), choose the desired implement and then the desired program (1 or 2) using the program switch or cell (F). To start the recording, select cell (G). If there is a program already saved under this name, it will be **lost**. With tractor moving in forward direction (travel speed at least 0.5 km/h; 0.31 mph), perform the desired functions. To end the recording, select cell (J). The sequence of functions is now stored as a program. For details regarding the programming process, see next page.

“Learned” programs can be altered in the edit mode (with tractor stationary).

NOTE: If no tractor function is performed within 60 seconds after recording has started, the learn mode is aborted.

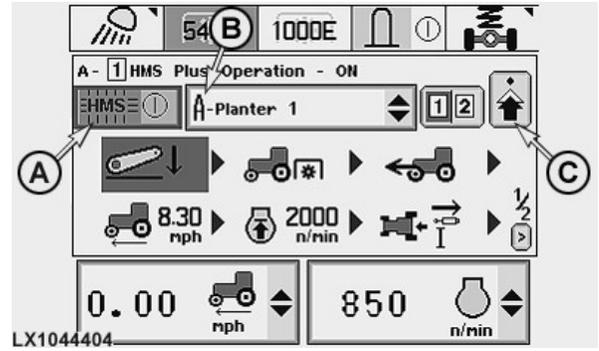
Learn mode is also aborted if cell (K) is selected.

A program can be deleted completely by choosing cell (G) and immediately afterwards cell (J).

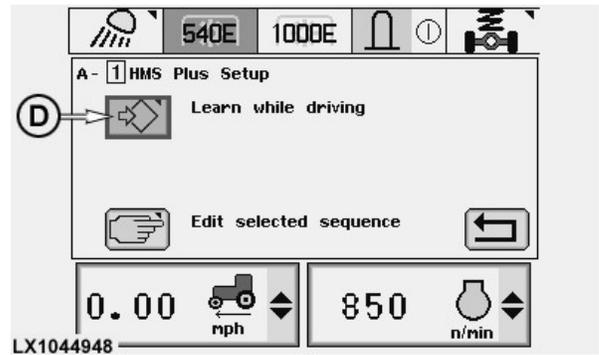
The following applies to the rear PTO function:

PTO is switched on once the three-point hitch has dropped below the learned lift height **AND** the learned distance has been travelled. The PTO **ALWAYS** switches off as soon as the learned lift height is exceeded.

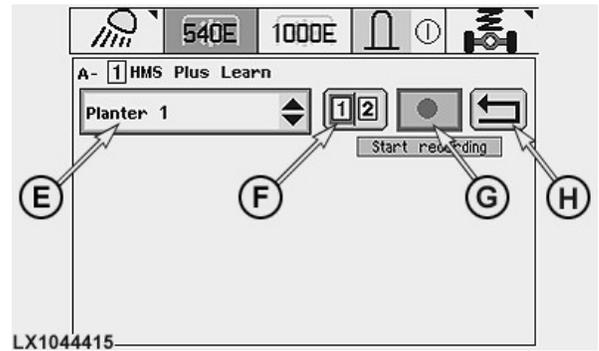
- | | |
|-------------------------|----------------------------------|
| A—HMS on/off | F—Program select cell |
| B—Memory (A-E) | G—Start of recording |
| C—“Next page” symbol | H—“Back to HMS main page” symbol |
| D—Learning mode | J—End of recording |
| E—Implement application | K—Abortion of recording |



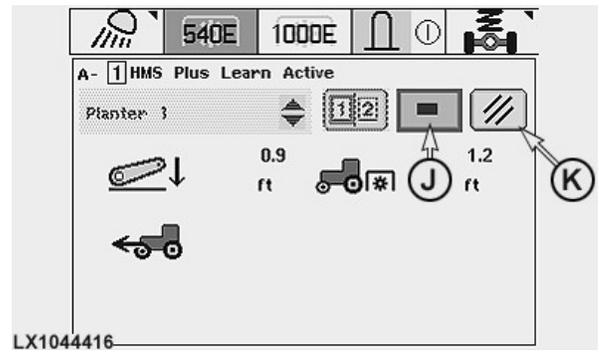
HMS main page



HMS select page (edit/learn mode)



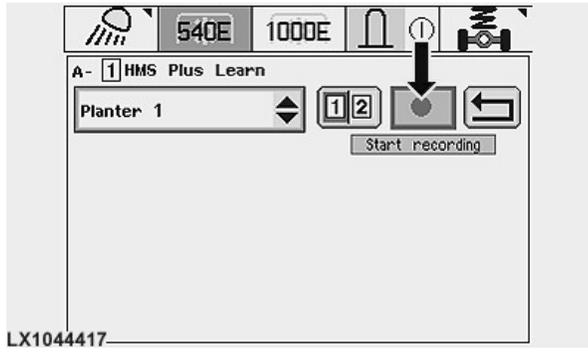
HMS learn page (recording not active)



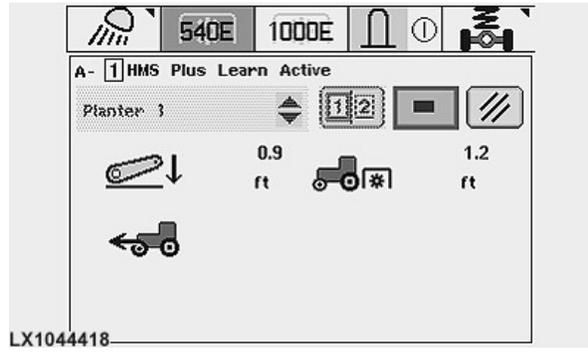
HMS learn page (recording active)

OU12401,000196D-19-19DEC07-1/1

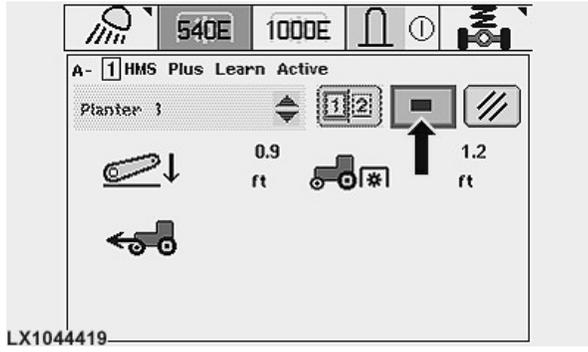
HMS, Programming with Tractor Moving, Example



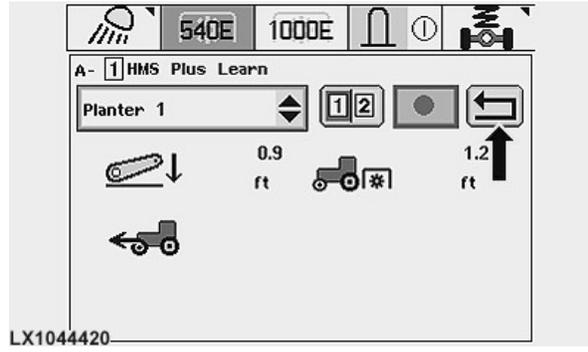
Step 1: Start of recording



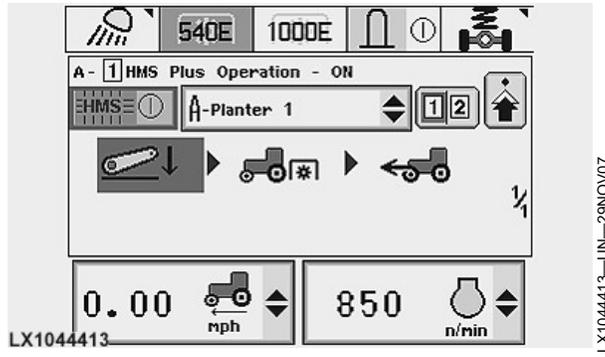
Step 2: Perform desired functions



Step 3: End of recording and saving settings



Step 4: Back to main page



HMS main page

OU12401,0001759-19-28NOV07-1/1

HMS, Performing the Stored Programs

NOTE: To enable the recorded programs to be performed, the tractor must be driven at a speed of at least 0.5 km/h (0.31 mph).

When performing programs which include PTO functions, a message is displayed telling the operator to switch on the PTO. HMS cannot physically “turn on” the relevant switches.

Before programs are performed that include selective control valve functions, the relevant levers/switches must be in neutral position.

1. Switch on HMS via cell (A); indicator light (B) comes on.
2. To start the desired program, select “1” or “2” using program switch (C). An alarm signal sounds and the HMS light flashes until the program has been completed.

A program sequence is displayed by highlighting the currently activated function in green.

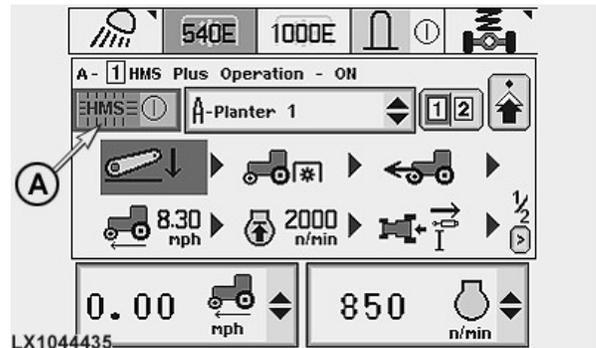
After a program has ended, the “opposing” program is displayed and its first function is highlighted in green.

A manual intervention can be made in a running program at any time. Such an intervention takes priority. The affected function will be ignored by the HMS for the rest of the program.

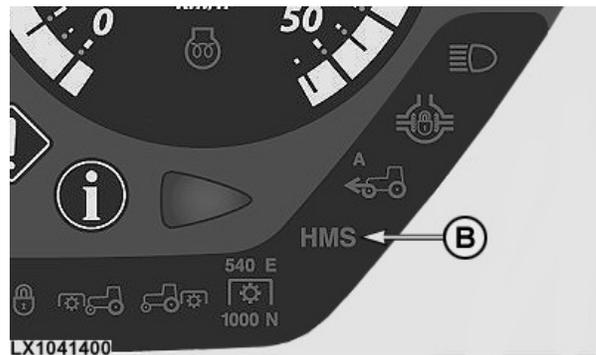
IMPORTANT: To abort a program immediately, use program switch (C) to select the “opposing” program (“2” instead of “1” or “1” instead of “2”).

A—HMS on/off
B—HMS display light

C—Program switch



HMS main page



LX1041400



LX1041113
Switch, without CommandArm



LX1041387
Switch, with CommandArm

Power Take-Off

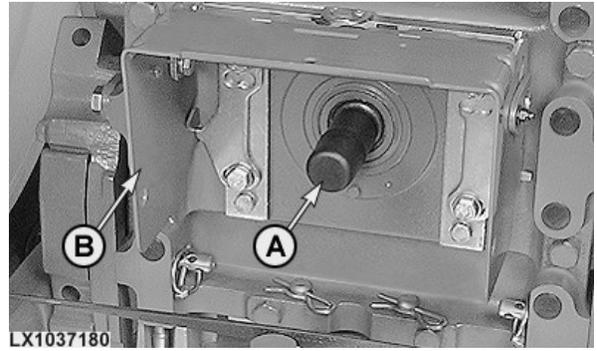
PTO Guard

⚠ CAUTION: Remove PTO cap (A) only when the PTO is to be used.

As soon as PTO-driven implement is removed, re-install cap over PTO stub shaft.

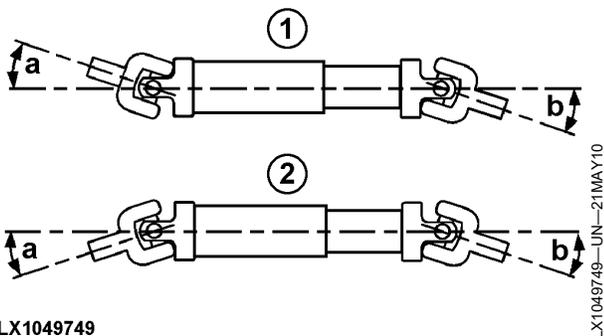
Master shield (B) may be folded up when attaching certain implements to the PTO, but it must be reinstalled as soon as the implement is installed.

⚠ CAUTION: Never operate PTO unless the master shield is in the position shown.



OU12401,00012EC-19-07OCT05-1/1

Operating Instructions



LX1049749

Articulation on drive shaft

1—Z-shaped layout

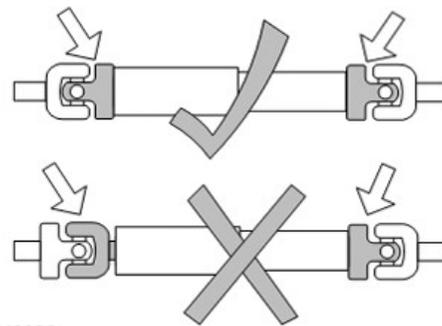
2—W-shaped layout

As far as possible, angles (a) and (b) at the universal joints should be the same at both ends of the drive shaft.

In applications where this is not the case (e.g. sharp turns with PTO engaged), it is recommended to use a continuous-velocity drive shaft.

NOTE: The two schematic drawings do not show any guards on the drive shaft. A guard is mandatory when using drive shafts.

IMPORTANT: Only operating conditions described in the Operator's Manuals of the various implements are permitted. This applies particularly to maximum permissible angle of articulation, to the use of freewheel clutches and overload clutches, and to the prescribed amount of overlap when shaped pipes are pushed together.



LX1049900

Align forks correctly

IMPORTANT: Before using a PTO-driven implement, take action to ensure that the drive shaft is lubricated regularly. Comply with instructions in the Operator's Manual provided by the manufacturer.

IMPORTANT: On multi-component, telescopic drive shafts, the yokes at each end must be aligned as shown. The yokes at each end must NOT be at 90° to one another (see arrows in illustration on the right).

OULXBER,00018EA-19-15FEB11-1/1

PTO Options

IMPORTANT: Implements may be driven at 540 rpm only if their power input never exceeds 70 kW (95 hp).

The tractor may be equipped with one of the following PTO versions:

- 7130, 7230 and 7330 tractors

- Reversible PTO for 540/1000 rpm
- Shiftable PTO for 540/540E/1000 rpm
- 1000 rpm front PTO
- 7430 and 7530 tractors
 - Reversible PTO for 540/1000 rpm
 - Shiftable PTO for 540E/1000/1000E rpm
 - 1000 rpm front PTO

OU12401,0001B2C-19-03FEB09-1/1

PTO Speeds

The engine speeds at which standard PTO speeds are

achieved are listed under "Engine" in the "Specifications" section.

OU12401,00014A0-19-29JUN06-1/1

Overspeed Protection

The following applies to PTO versions 540/540E/1000 rpm (shiftable) and 540E/1000/1000E rpm (shiftable):

Upper limit for engine speed

If the PTO speed exceeds the rated PTO speed by more than 14.4%, the engine speed is reduced automatically to avoid overspeeding of the implement.

Warning message

If the PTO speed is 17% higher than the rated PTO speed

(e.g. weight pushing from behind when driving downhill), a message will appear at the CommandCenter and the blue INFO lamp on the dashboard will flash.

PTO Shutoff

If the PTO speed is 17% higher than the rated PTO speed for more than 2 seconds, the PTO will be shut off. If the PTO speed is 30% higher than the rated PTO speed, the PTO will be shut off immediately.

OU12401,00014F3-19-14AUG06-1/1

PTO Operation

CAUTION: Always disengage the PTO when not in use.

CAUTION: High-inertia implements do not stop the moment the PTO control lever is shifted to the disengaged position. Do NOT approach the implement while it is coasting down. Do not work on the implement until it has stopped.

NOTE: On tractors with PowrQuad Plus or AutoQuad Plus transmission, the electronic engine-speed matching should be turned off during PTO operation. See **Settings** for the relevant transmission in the **Operating the Tractor** section.

To switch on the PTO, press switch (A) or (B) down and then forward. To switch off the PTO, pull the switch back.

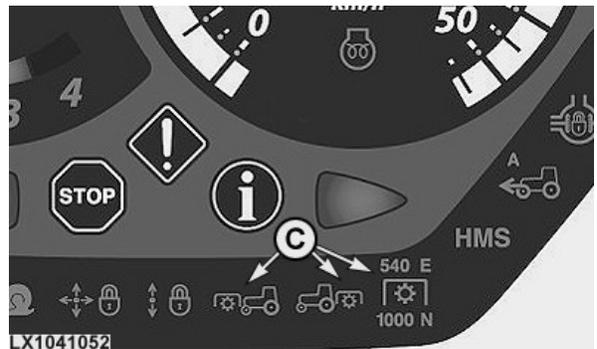
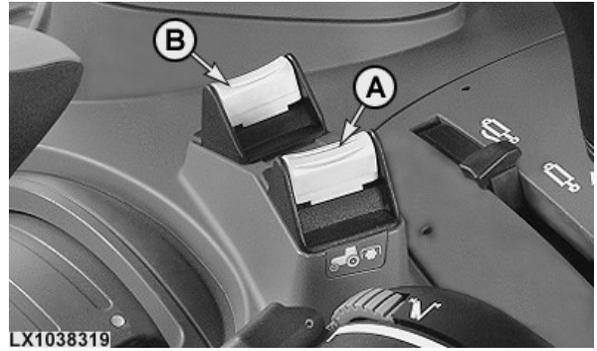
NOTE: An acoustic alarm warns the operator and the yellow **CAUTION** on the dashboard flashes if the operator leaves his seat while the PTO is engaged. The PTO does not disengage when operator leaves seat.

NOTE: If the engine is shut off and then restarted while the PTO is running, the PTO will not operate. Even so, indicator lights (C) remain on. Switch off PTO and then restart.

On tractors with IVT, an acoustic alarm warns the operator if he leaves his seat while the PTO is still running.

A—Switch for Rear PTO
B—Switch for Front PTO

C—Indicator Lights



OU12401,000146A-19-22NOV11-1/2

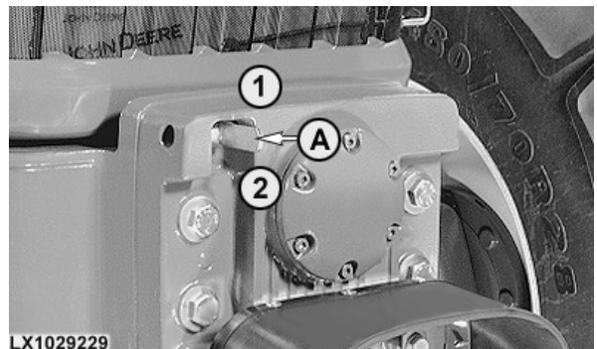
If the front PTO is not required for a lengthy period, the PTO gear can be disengaged by means of lever (A). This prevents the gear train components from turning unnecessarily.

To disengage the gear train, pull lever (A) up; to engage, push the lever down.

IMPORTANT: Engage PTO gear only when the engine is shut off.

A—Lever
1—Disengaged

2—Engaged



OU12401,000146A-19-22NOV11-2/2

Select Standard Speed of Rear PTO (Shiftable PTO)

⚠ CAUTION: Before engaging the PTO, make sure that selected PTO speed is correct for the implement attached. Incorrect speed can result in serious damage to the implement.

Danger of accidents!

The PTO is engaged and disengaged as described under Operating Power Take-Offs. The PTO must be disengaged to select standard PTO speed.

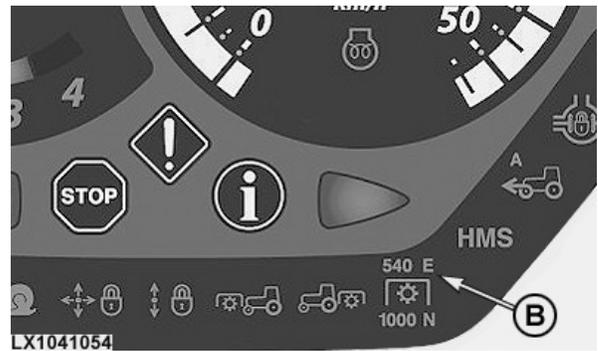
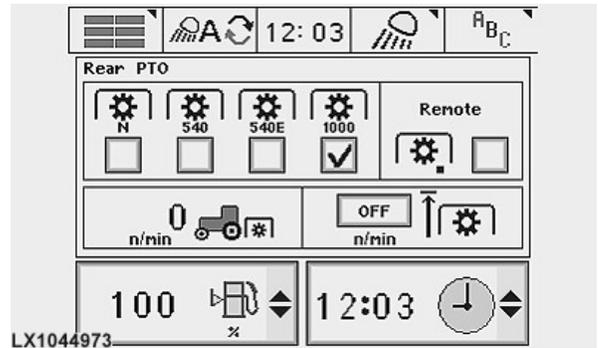
Press button (A) and select the desired speed on the screen (e.g. 1000).

The selected PTO speed is indicated by lights (B).

⚠ CAUTION: The engine must be shut off when an implement is being connected.

A—PTO button

B—Indicator lights for PTO speeds



OULXE59,001098A-19-29JAN09-1/1

Fine Adjustment of Rear PTO Speed (Shiftable PTO; PTO Cruise)

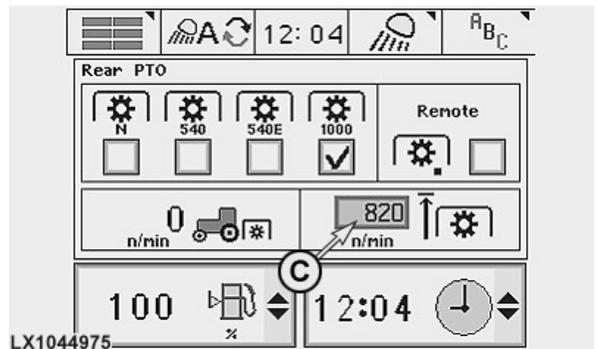
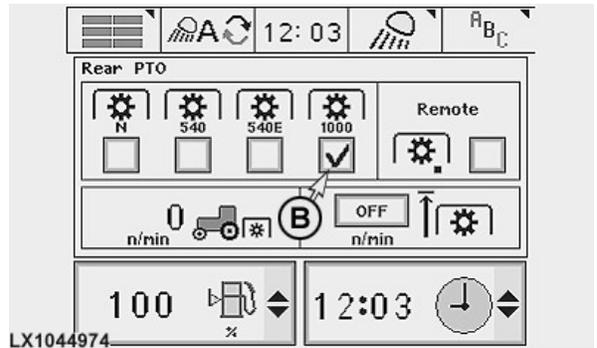
Press button (A) and select the desired standard speed of rear PTO (B) on the screen (e.g. 1000). If desired, select the exact speed in cell (C).

When the PTO is switched on, engine speed is limited so that set PTO speed is not exceeded even at full throttle. When the PTO is switched off, the engine can be operated over its full speed range again.

NOTE: When standard speed is changed, cell (C) must read OFF.

If an engine speed limit is set on the transmission settings page (see Transmission Settings in the Operating the Tractor section), the lower limit applies.

- A—PTO button
- B—Standard speed of rear PTO
- C—Cell for speed



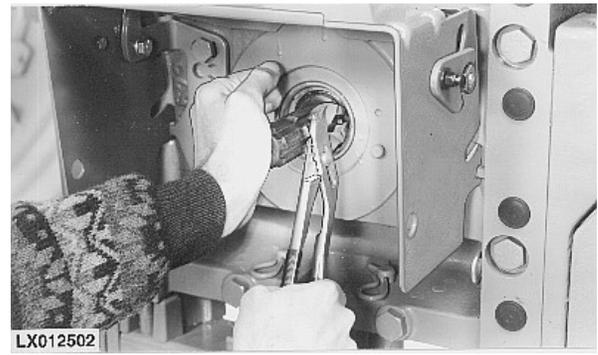
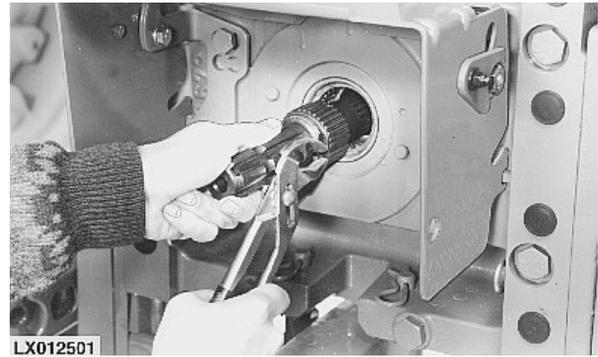
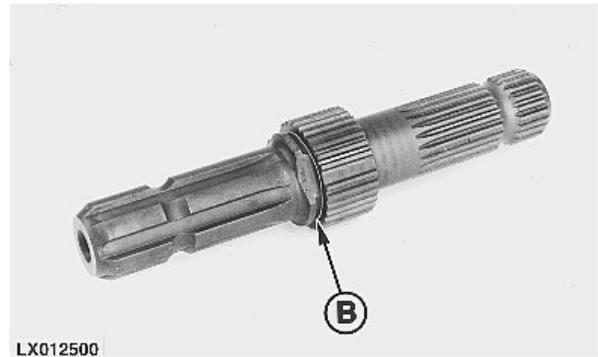
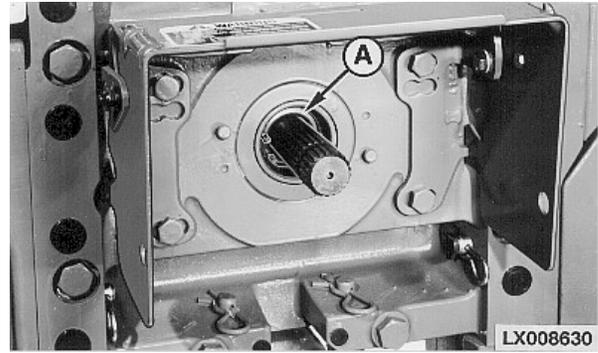
OULXE59,001098B-19-29JAN09-1/1

Reversing Rear PTO Shafts

One end of the PTO stub shaft has 6 splines for operating at 540 rpm, and the other end has 21 splines for operating at 1000 rpm. Clean stub shaft thoroughly before installing.

1. Remove snap ring (A) and pull out stub shaft.
2. Clean stub shaft thoroughly and coat it with grease. Groove (B) facilitates installation of snap ring.
3. Insert stub shaft in PTO housing until snap ring (A) fits into the groove.
4. Install snap ring.

NOTE: A flattened area on the stub shaft facilitates removal and installation of snap ring.



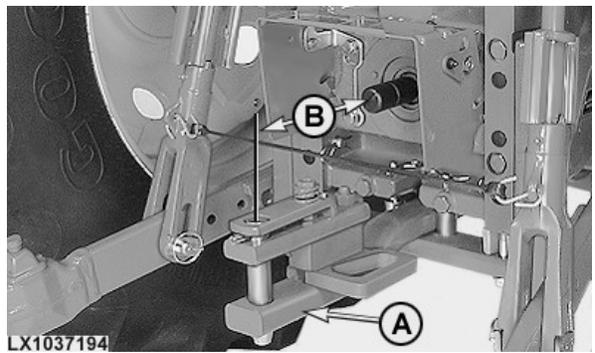
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Attaching PTO-Driven Equipment

- ⚠ CAUTION:** Shut off engine and disengage PTO before attaching PTO-driven equipment.
- ⚠ CAUTION:** High-inertia implements do not brake to a standstill the moment the PTO control lever is shifted to the disengaged position. Do NOT approach the implement while it is "coasting down". Do not work on the implement until it has stopped.
- ⚠ CAUTION:** Before attempting to clean, adjust or lubricate a PTO-driven machine, the three-point hitch or u.j. shaft, always make sure the PTO is switched off and stopped, the tractor engine is shut off and the ignition key is removed.

1. Align swinging drawbar (A) parallel to PTO shaft and lock it in position.
2. Distance (B) from end of PTO shaft to hole in drawbar end should be 350 mm (13.8 in.) for the 540 rpm PTO and 400 mm (15.7 in.) for the 1000 rpm PTO.

If PTO splines are not aligned with the grooves in the u.j.



A—Swinging drawbar

B—Distance between end of PTO shaft and hole in drawbar end

shaft, keep the engine shut off and select "N" cell at the CommandCenter. Then turn the PTO shaft manually to the correct position.

OU12401,000146C-19-19JUN06-1/1

Ballast

Selecting Ballast

⚠ CAUTION: When determining front and rear axle ballast, ensure that permissible axle loads and the maximum permissible machine weight (including mounted implements) are not exceeded (see Specifications).

Comply with local regulations regarding installation and maximum permissible number of weights. In order to maintain steerability, at least 20% of unladen mass must be on the front axle. Unladen mass is the mass of the tractor without special equipment, attachments, trailer or ballast, but with hydraulic oil and lubricants, a full fuel tank and an operator weighing 75 kg.

⚠ CAUTION: Use suitable lifting tackle/hoists when handling weights.

Safety and performance of your tractor depend on correct ballasting of front axle (front weights) and rear axle (wheel weights, filling tires with liquid ballast).

OU12401.0001AD1-19-10OCT08-1/1

Ballasting Rear Wheels

Rear wheel ballast should be chosen so as to give 10 to 15% wheel slippage when operating. Field tests have shown that maximum horsepower available at the drawbar occurs in this range.

Rear wheel ballast should never be such that the engine cannot be fully loaded at rated engine speed while the tractor is moving at 7 km/h (4.3 mph). If the engine labors or stalls below 7 km/h (4.3 mph), there is too much ballast on the rear wheels.

Too little ballast leads to:

- Excessive wheel spin and thereby loss of power

- Increased tire wear
- High fuel consumption

Too much ballast leads to:

- Increased load and thereby loss of power
- Overloading of tires and gearbox
- Soil compaction
- High fuel consumption

NOTE: Do not use more than 3 weights on each rear wheel. Comply with the legal limits on tractor width.

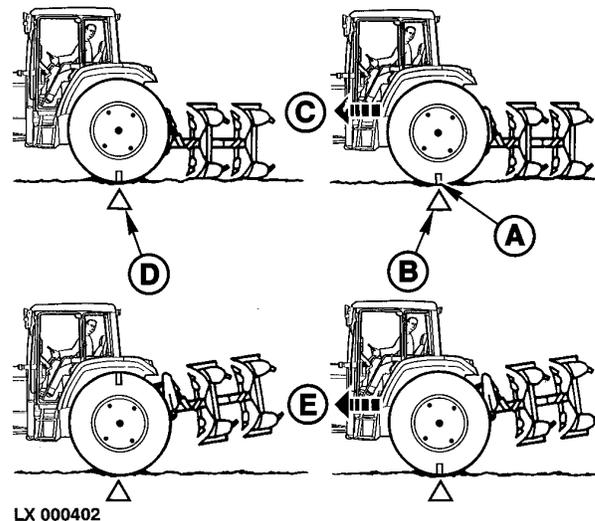
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Measuring Rear Wheel Slip

1. Mark tire (A).
2. Mark starting point on the ground (B).
3. Drive tractor forward with implement lowered until ten revolutions of the rear wheel have been made (C).
4. Again place a marker on the ground (D).
5. Now raise implement and again drive between the two markers on the ground. Note number of revolutions made between the two markers (E).

The number of revolutions gives the following percentage of wheel slip:

- 10.0 revolutions = 0% wheel spin
- 9.5 revolutions = 5% wheel spin
- 9.0 revolutions = 10% wheel spin
- 8.5 revolutions = 15% wheel spin
- 8.0 revolutions = 20% wheel spin
- 7.5 revolutions = 25% wheel spin
- 7.0 revolutions = 30% wheel spin



LX 000402

LX000402—UN—15AUG94

LX.OSPU 000247-19-01APR92-1/1

Installing Rear Wheel Weights

CAUTION: Avoid possible serious injury. Use appropriate equipment when installing weights, or have job performed by your John Deere Dealer.

Weights (A) of 75 kg (165 lb) or 210 kg (465 lb) can be installed inside or outside of wheel. Weights should not be installed on outside of inner wheel when using duals, as this prevents retightening of sleeve bolts. Ballasting is easier if some of the weight is attached to outside of outer dual wheel.

NOTE: When using 1525 mm (60 in.) tread setting, only one 210 kg (465 lb) weight can be installed inside of wheel.

Install weights on wheel. Tighten to specification.

Specification

M16 Bolt—Torque.	310 Nm (230 lb)
M20 Bolt—Torque.	610 Nm (450 lb)

IMPORTANT: Inside wheel weights must have at least 25 mm (1 in.) clearance between weight and tractor body.

For additional weights, install bolts in previous weight. Rotate to align bolts with available hole.



A—Weights

RW19886A—UN—02AUG99

Retighten after driving 100 m (110 yd), again after 3 Hours and after 10 Hours of operation.

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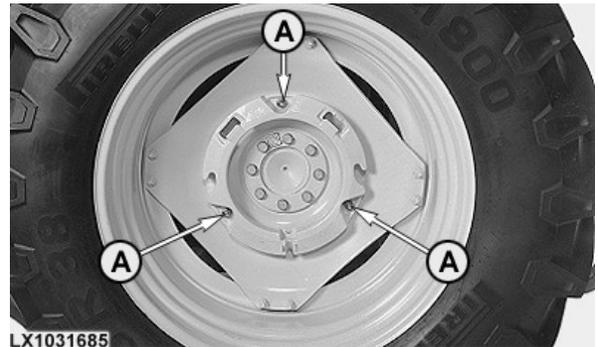
Installing Weights on Flanged Axle

CAUTION: When installing and removing quick-catch weights, always position wheels so that retainer jaws are at the top. This prevents weights from falling when cap screw is removed.

Attach first weight to wheel disk using three cap screws (A).

When installing further weights, position wheel so that retainer jaws (B) are at the top. Hang weight in retainer jaws and secure with a cap screw (C) at the bottom.

- A—Screws of first weight
- B—Retainer jaws
- C—Screws of further weights



LX1031685

LX1031685—UN—03APR03



LX1031686

LX1031686—UN—03APR03

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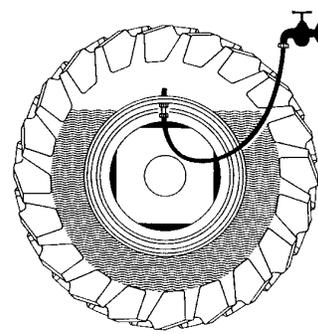
Filling Tires with Liquid Ballast

To fill a tire, jack up the wheel and turn it so that the tire valve is at the top. Remove the valve insert and screw water valve onto valve stem. While the water is entering, air escapes through lateral bore in water valve. Stop filling tire when water drains from vent hole of valve. Filling a tire takes 15 to 30 minutes, depending on tire size. Then screw in air valve and pump up tire to the normal inflation pressure. The quantity of liquid ballast required varies depending on tire size and type. If in doubt, consult your John Deere dealer or tire manufacturer.

If low temperatures are expected, an anti-freeze solution should be used. Tire manufacturers recommend a mixture of water and calcium chloride.

The anti-freeze solution may be sucked from an elevated tank. To speed up the filling operation, a pump may be used (flush pump with clear water afterwards). To provide protection down to -25° C (-13° F), dissolve 34 kg (75 lb) of

calcium chloride in 86 liters (22.7 U.S. gal.) of water to obtain 100 liters (26.4 U.S. gal.) of anti-freeze solution. This solution produces an increase in weight of 120 kg (269 lb). Add calcium chloride to the water - not vice versa. Do not fill radiator with this anti-freeze solution.



LX009450

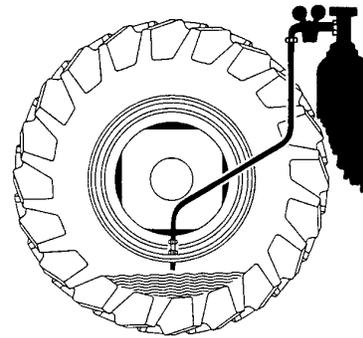
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Draining the Tires

Jack up wheel. Remove air valve and allow water to drain out.

To clear the remainder of the water from the tire, insert the drain tube with the hose extension and pump air into the tire. The air pressure will push the remaining water out of the tire.



LX009451

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Installing Front Weights

One basic weight (A) and up to 18 front weights may be installed. The basic weight weighs 110 kg (243 lb). Each additional weight weighs 47 kg (104 lb).

The additional weights must be installed in pairs, one on either side of the central pin.

A—Basic weight



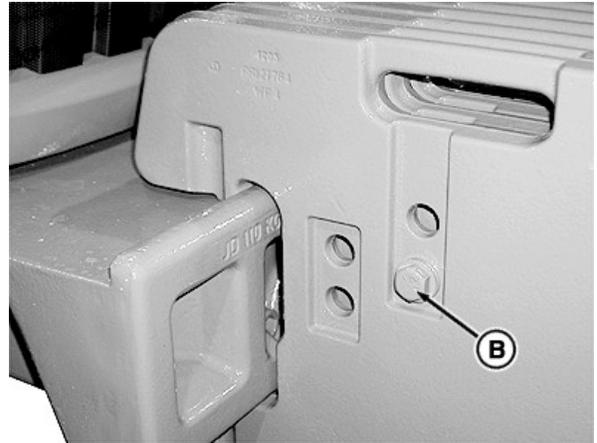
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To install up to 6 additional weights, install one attaching screw of suitable length on either side, and secure it with a nut. Tighten the nuts to 230 N·m (170 lb-ft).

B—Attaching screw



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OU12401,00012FD-19-10OCT05-2/3

To install more than 6 weights, install retainers (C) between the weights. Install one retainer with the threaded bore uppermost and one retainer with the threaded bore at the bottom. Tighten the screws to 230 N·m (170 lb-ft).

C—Retainer



RXA0074573—UN—22APR04

OU12401,00012FD-19-10OCT05-3/3

Adding Rear Ballast for Front Loader Work

⚠ CAUTION: To avoid personal injury or death from tractor/loader rollover, add recommended ballast to rear wheels or to rear hitch. Ballast amount listed is the minimum required for normal loader operation. For some operations, additional ballast may be required.

NOTE: Minimum ballast, with rear tread set at 1800 mm (71 in.) or greater.

Ballast on hitch must be installed 1200 mm (47.25 in.) behind rear axle.

Loader 741 is the only loader that can be installed on 7430 and 7530 tractors.

IMPORTANT: As tread settings become narrower or as load being lifted increases, ballast on rear wheels must increase accordingly to maintain tractor stability.

Loader model	Ballast option	Location of ballast	Minimum ballast ^a
563 SL (2WD)	#1	Rear wheels	475 kg (1047 lb) per wheel
	#2	Rear hitch	500 kg (1102 lb)
563 NSL (2WD)	#1	Rear wheels	400 kg (882 lb) per wheel
	#2	Rear hitch	350 kg (772 lb)
673 SL (2WD and MFWD)	#1	Rear wheels	200 kg (441 lb) per wheel
		Rear hitch	1000 kg (2205 lb)
	#2	Rear wheels	875 kg (1929 lb) per wheel
673 NSL (2WD and MFWD)	#1	Rear wheels	525 kg (1158 lb) per wheel
	#2	Rear hitch	500 kg (1102 lb)
740 SL and NSL (2WD and MFWD)		Rear wheels	550 kg (1213 lb) per wheel
741 SL and NSL (2WD and MFWD)		Rear wheels	580 kg (1279 lb) per wheel

^a All rear wheel ballast requirements are calculated assuming tractor is equipped with STEEL wheels. If tractor is equipped with cast wheels, reduce requirement by approximately 220 kg (485 lb) per wheel on 563 and 673 loaders and 150 kg (331 lb) on 740 and 741 loaders.

OU12401.0001B2D-19-03FEB09-1/1

Using Implement Codes

Implement codes are used to determine the number of QUIK-TATCH™ weights required to safely use a given implement.

1. Before using code, determine following tractor features:

- MFWD or Adjustable Front Axle (Two-Wheel Drive)
- Hitch equipped with or without quick coupler

2. Find implement code in implement operator's manual.

⚠ CAUTION: Do not attempt to transport an implement without correct front ballast. Loss of steering control may result. With maximum front ballast, do not attempt to transport an implement whose code exceeds:

- 335 for two-wheel drive tractor
- 380 for MFWD tractor

MAXIMUM NUMBER OF WEIGHTS, TWO-WHEEL DRIVE TRACTOR		
Implement Code	Without Coupler	With Coupler
246-260	8	12
261-275	10	14
276-290	12	16
291-305	14	18
306-320	16	
321-335	18	

MAXIMUM NUMBER OF WEIGHTS, MFWD TRACTOR		
Implement Code	Without Coupler	With Coupler
216-230		2
231-245		4
246-260	2	6
261-275	4	8
276-290	6	10
291-305	8	12
306-320	10	14
321-335	12	16
336-350	14	18
351-365	16	
366-380	18	

MAXIMUM NUMBER OF WEIGHTS, TWO-WHEEL DRIVE TRACTOR		
Implement Code	Without Coupler	With Coupler
170-185		2
186-200		4
201-215	2	6
216-230	4	8
231-245	6	10

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Wheel Tread, Tires

General Wheel, Tire, and Tread Guidelines

Wheels are installed on the other side of the axle to obtain a wider setting range by changing the rim positions. Install wheels on the other side of the tractor, making sure that the correct direction of tire rotation is maintained.

IMPORTANT: Tires must have at least 25 mm (1 in.) clearance with fenders (A). Distance between tires must be at least 1070 mm (42 in.), with tires at equal distances from tractor centerline (B).

Minimum tread settings are specified to provide sufficient clearance to fuel tank and fender.

A minimum clearance (C) of 1524 mm (60 in.) between tire centerlines must be maintained.

Check for adequate clearance between implement and rear tires.

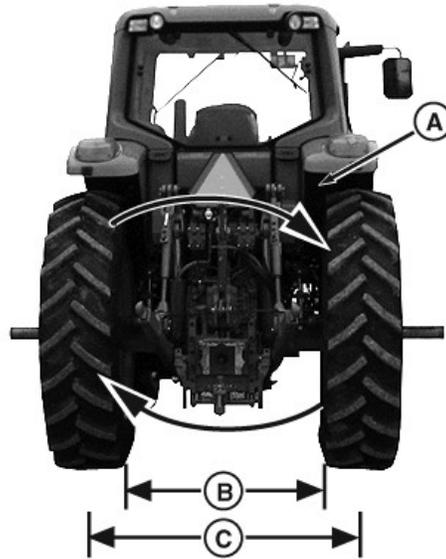
Do NOT mix radial and bias-ply tires on the same axle.

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 radial tires reduces machine performance. Using the correct inflation pressures will result in optimum tractive performance.

CAUTION: Avoid injury and insufficient tractor stability. Never operate the tractor with single tires having tread width less than 1520 mm (60 in.).



A—Clearance between inner wheel and fender
B—Clearance between inside of drive wheels
C—Minimum clearance between tire centerlines

IMPORTANT: Do not exceed 2800 mm (110 in.) between single tires for pulling heavy loads.

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Tires on Front Wheels

On tractors with front-wheel drive, the steering system may have to be adjusted if tires wider than the ones supplied by the factory are put on the front wheels. Always consult your John Deere dealer before putting on such tires.

OU12401,0001536-19-14OCT06-1/1

Tire Combination Guidelines (up to 40 km/h; 25 mph)

The size ratio of front wheels to rear wheels must produce a front wheel lead of 1.5 to 4 % on tractors with IVT transmission and 1 to 6 % on tractors with PowrQuad Plus and AutoQuad Plus transmissions.

⚠ CAUTION: Avoid personal injury or damage to tractor. Selecting tire sizes for an IVT-equipped tractor outside recommendations below could cause tractor instability when towing implements.

NOTE: In addition to above restriction on front wheel lead, tires exceeding a static loaded radius of 856 mm (33.7 in.) are not acceptable for use on 7130, 7230 and 7330 IVT tractors. See tire dealer to determine whether desired tire meets this requirement.

NOTE: In order to choose proper tire combination, MFWD clutch ratio for your tractor needs to be identified.

IMPORTANT: Any time a new brand or tire size is selected, see your John Deere dealer for recalibrating tractor control units and radar.

Available tires are grouped by rolling circumference (RC).

Rear tire groups 44, 45 and 46 are available for 7130-7330 tractors. Rear tire groups 46 and 47 are available for 7430 and 7530 tractors. The target rolling circumference for each group is shown below.

NOTE: Table shows target rolling circumference and should NOT be used to calculate front wheel lead. Exact rolling circumference values vary for each tire size. Use rolling circumference information from your tire dealer to calculate front wheel lead.

Tire groups and target RC	
Group 39 (front)	3850 mm (151.6 in.)
Group 40 (front)	4055 mm (159.6 in.)
Group 41 (front)	4275 mm (168.3 in.)
Group 42 (front)	4505 mm (177.4 in.)
Group 44 (rear)	5000 mm (196.9 in.)
Group 45 (rear)	5270 mm (207.5 in.)
Group 46 (rear)	5550 mm (218.5 in.)
Group 47 (rear)	5850 mm (230.3 in.)

Tires of the same size but different brand name, as well as different size tires within the same RC group, may have slightly different rolling circumferences than their target values. Therefore, it is necessary to verify front wheel lead using procedure below.

Front tire group must be five groups lower than rear tire. This results in front/rear tire group combinations of 39/44, 40/45, 41/46 and 42/47.

Front-wheel lead verification procedure

1. Select tires with suitable load-bearing capability.
2. Select tires appropriate to the tractor's top speed.

NOTE: Do NOT use estimated rolling circumference values in previous table to calculate front wheel lead. Exact rolling circumference values vary for each tire size. Use rolling circumference information from your tire dealer.

3. Obtain rolling circumference for replacement front and rear tires from your tire dealer.
4. Use tractor's model, transmission and MFWD clutch ratio in following chart to find front axle-to-rear axle speed ratio needed to calculate front wheel lead.

Model/transmission	MFWD clutch ratio	Front axle-to-rear axle speed ratio
7130 and 7230, PowrQuad Plus and AutoQuad Plus transmissions	1.990	1.330
	1.943	1.363
7130 and 7230, IVT transmission	1.564	1.354
	1.597	1.326
7330, PowrQuad Plus and AutoQuad Plus transmissions	1.760	1.341
	1.800	1.311
7330, IVT transmission	1.485	1.348
	1.515	1.321
7430 and 7530, PowrQuad Plus and AutoQuad Plus transmissions	1.875	1.349
	1.917	1.319
7430 and 7530, IVT transmission	1.727	1.352
	1.758	1.328

5. Calculate front wheel lead using following formula:

$$FL = RCF \times AR \div RCR$$

FL = Front wheel lead

RCF = Rolling circumference of front tire

RCR = Rolling circumference of rear tire

AR = Front axle-to-rear axle speed ratio

Resulting front wheel lead should be between 1.01 (1 %) and 1.06 (6 %) for PowrQuad Plus and AutoQuad Plus transmissions and between 1.015 (1.5 %) and 1.04 (4 %) for IVT transmission.

SAMPLE CALCULATION:

- Tractor model: 7230 with IVT transmission and MFWD clutch ratio of 1.597
- Group 41 front tire (16.9R28) with RCF = 4242 mm
- Group 46 rear tire (20.8R38) with RCR = 5436 mm
- From the chart, front axle-to-rear axle ratio (AR) for this tractor = 1.326
- Applying formula: $4242 \times 1.326 \div 5436 = 1.0347$ (3.47 %)
- Front wheel lead (FL) is between 1.015 (1.5%) and 1.04 (4%). Tire combination is acceptable.

OU12401,0001B31-19-03FEB09-1/1

Use of Dual Wheels (easy-to-attach)

IMPORTANT: Do not install dual wheels on the front axle.

Dual wheels may be used on the rear axles of tractors for the purpose of flotation or soil compaction reduction only.

They are only recommended for use in the field and should be removed prior to driving on public roads.

IMPORTANT: If dual wheels are used, wheel disk reinforcements must be installed. If no wheel disk reinforcements are available, reinforced rear wheels may be ordered for some tractors. Information can be obtained from your John Deere dealer.

NOTE: Retighten the wheel nuts regularly to the specified torque. See Break-in Period or Service / Every 250 Hours.

OU12401,0001D73-19-30NOV11-1/1

Tire Inflation Pressure Guidelines

Check tire inflation pressure while tires are cool, using accurate gauge with 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.

Checking inflation pressure of inner tires is much easier if valve stems of inner and outer tires are aligned at the time the outer wheel is installed.

Correctly inflated radial tires will show sidewall deflection. This is normal and will not harm tire.

Inflation pressures less than 83 kPa (0.8 bar) (12 psi) should be monitored frequently because of increased risk of low pressure leaks.

NOTE: Bead slip can be experienced in high-traction conditions when using single tires. Increasing inflation pressure will help, but will reduce traction.

Maximum tire pressure is specified on tire sidewall.

IMPORTANT: Rear hitch mounted implements transfer significant weight to rear axle. Include this added weight when determining correct inflation pressures.

Determine correct tire pressure by weighing tractor using following procedure:

- Determine front axle weight with rear hitch mounted implement LOWERED.
- Determine rear axle weight with rear hitch mounted implement RAISED.

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 front and rear-mounted implement, raise both implements.

Set tire inflation pressures according to weight measured. Use tire manufacturer's inflation recommendations for your specific tire sizes.

NOTE: Ballasting and tire pressure may need to be adjusted when operating conditions change.

IMPORTANT: Inflation pressures exceeding heavy ballast guidelines of 145 lb/PTO-hp (66 kg/PTO-hp) are not recommended. Tractor efficiency will be decreased. Use duals or a larger rear tire size.

Managing Tire Inflation Pressures

Tractors with loader should increase front tire pressure 30 kPa (0.3 bar) (4 psi) above recommended values to compensate for weight transfer.

Tractors operating on steep side slopes or furrow plowing, should increase rear tire pressure 30 kPa (0.3 bar) (4 psi) above recommended values for base pressures of 80 kPa (0.8 bar) (12 psi) and above, to compensate for lateral weight transfer. Base pressures below 80 kPa (0.8 bar) (12 psi), pressure should be increased by 30 %.

Tractors with heavy hitch-mounted implements require increased rear tire inflation pressure to carry increased weight during transport. Additional front weights may need to be added to tractors with heavy hitch mounted implements to maintain steering stability. If so, front tire inflation pressure must be increased to carry additional weight.

Tractors with towed implements have reduced weight transfer and may need to have inflation pressures REDUCED.

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Tire Inflation Pressures — Front Tires, 2WD Tractors

Axle Load in kg (lb)	11.00-16 8 PR kPa(bar)(psi)	11.00-16 12 PR kPa(bar)(psi)	11.00-20 12 PR kPa(bar)(psi)	14L-16.1 10 PR kPa(bar)(psi)
1360 (3000)	170 (1.7) (25)	170 (1.7) (25)	170 (1.7) (25)	170 (1.7) (25)
1590 (3500)	170 (1.7) (25)	170 (1.7) (25)	170 (1.7) (25)	170 (1.7) (25)
1810 (4000)	190 (1.9) (28)	190 (1.9) (28)	170 (1.7) (25)	170 (1.7) (25)
2040 (4500)	220 (2.2) (32)	220 (2.2) (32)	180 (1.8) (26)	170 (1.7) (25)
2270 (5000)	260 (2.6) (37)	260 (2.6) (37)	210 (2.1) (30)	190 (1.9) (28)
2490 (5500)	275 (2.75) (40)	300 (3.0) (44)	240 (2.4) (35)	215 (2.15) (31)
2720 (6000)	—	345 (3.45) (50)	280 (2.8) (40)	250 (2.5) (36)
2950 (6500)	—	3890 (3.8) (55)	310 (3.1) (45)	280 (2.8) (41)
3180 (7000)	—	410 (4.1) (60)	358 (3.58) (52)	—
3400 (7500)	—	—	395 (3.95) (57)	—
3630 (8000)	—	—	—	—

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Tire Inflation Pressures — MFWD Tires, Groups 39 and 40

Axle Load in kg (lb)	13.6R28 126A8 kPa(bar)(psi)	16.9-24 6 PR kPa(bar)(psi)	14.9-28 10 PR kPa(bar)(psi)	14.9R28 133A8 kPa(bar)(psi)
1360 (3000)	55(0.55)(8)	80(0.8)(12)	80(0.8)(12)	60(0.6)(9)
1590 (3500)	55(0.55)(8)	80(0.8)(12)	80(0.8)(12)	60(0.6)(9)
1810 (4000)	70(0.70)(10)	80(0.8)(12)	80(0.8)(12)	60(0.6)(9)
2040 (4500)	80(0.8)(12)	80(0.8)(12)	80(0.8)(12)	60(0.6)(9)
2270 (5000)	100(1.0)(15)	80(0.8)(12)	90(0.9)(13)	80(0.8)(12)
2490 (5500)	120(1.2)(17)	80(0.8)(12)	100(1.0)(15)	90(0.9)(14)
2720 (6000)	140(1.4)(20)	100(1.0)(15)	120(1.2)(17)	100(1.0)(15)
2950 (6500)	160(1.6)(23)	120(1.2)(17)	140(1.4)(20)	120(1.2)(17)
3180 (7000)	180(1.8)(26)	—	160(1.6)(23)	140(1.4)(20)
3400 (7500)	210(2.1)(30)	—	180(1.8)(26)	150(1.5)(22)
3630 (8000)	—	—	200(2.0)(29)	170(1.7)(25)
3860 (8500)	—	—	—	190(1.9)(28)
4080 (9000)	—	—	—	210(2.1)(30)
4310 (9500)	—	—	—	—
4540 (10000)	—	—	—	—

Axle Load in kg (lb)	380/85R28 133A8 kPa(bar)(psi)	420/70R28 133A8 kPa(bar)(psi)	16.9-26 10 PR kPa(bar)(psi)	16.9R26 135A8 kPa(bar)(psi)
1360 (3000)	55(0.55)(8)	60(0.6)(9)	80(0.8)(12)	60(0.6)(9)
1590 (3500)	60(0.6)(9)	60(0.6)(9)	80(0.8)(12)	60(0.6)(9)
1810 (4000)	55(0.55)(8)	60(0.6)(9)	80(0.8)(12)	60(0.6)(9)
2040 (4500)	55(0.55)(8)	60(0.6)(9)	80(0.8)(12)	60(0.6)(9)
2270 (5000)	60(0.6)(9)	60(0.6)(9)	80(0.8)(12)	60(0.6)(9)
2490 (5500)	70(0.70)(10)	80(0.8)(12)	80(0.8)(12)	70(0.70)(10)
2720 (6000)	80(0.8)(12)	80(0.8)(12)	100(1.0)(15)	80(0.8)(12)
2950 (6500)	90(0.9)(13)	100(1.0)(15)	110(1.1)(16)	90(0.9)(13)
3180 (7000)	110(1.1)(16)	110(1.1)(16)	120(1.2)(17)	100(1.0)(15)
3400 (7500)	120(1.2)(17)	120(1.2)(17)	140(1.4)(20)	120(1.2)(17)
3630 (8000)	125(1.2)(18)	130(1.3)(19)	150(1.5)(22)	130(1.3)(19)
3860 (8500)	140(1.4)(20)	140(1.4)(20)	170(1.7)(25)	140(1.4)(20)
4080 (9000)	160(1.6)(23)	160(1.6)(23)	190(1.9)(28)	160(1.60)(23)
4310 (9500)	—	—	—	165(1.65)(24)
4540 (10000)	—	—	—	—

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Wheel Tread, Tires

Tire Inflation Pressures — MFWD Tires, Group 41

Axle Load in kg (lb)	290/95R34 131A8 kPa(bar)(psi)	320/85R34 133A8 kPa(bar)(psi)	380/85R30 135A8 kPa(bar)(psi)	420/85R28 139A8 kPa(bar)(psi)
1360 (3000)	60(0.6)(8)	60(0.6)(8)	60(0.6)(8)	60(0.6)(8)
1590 (3500)	60(0.6)(8)	60(0.6)(8)	60(0.6)(8)	60(0.6)(8)
1810 (4000)	62(0.62)(9)	55(0.55)(8)	60(0.6)(8)	60(0.6)(8)
2040 (4500)	76(0.76)(11)	69(0.69)(10)	60(0.6)(8)	60(0.6)(8)
2270 (5000)	90(0.9)(13)	90(0.9)(13)	60(0.6)(8)	60(0.6)(8)
2490 (5500)	110(1.10)(16)	95(0.95)(14)	70(0.7)(10)	60(0.6)(8)
2720 (6000)	117(1.17)(17)	110(1.1)(16)	80(0.8)(12)	60(0.6)(8)
2950 (6500)	140(1.4)(20)	125(1.25)(18)	90(0.9)(14)	70(0.7)(10)
3180 (7000)	150(1.5)(22)	140(1.4)(20)	110(1.1)(16)	80(0.8)(12)
3400 (7500)	165(1.65)(24)	150(1.5)(22)	120(1.2)(17)	90(0.9)(14)
3630 (8000)	180(1.8)(26)	170(1.7)(25)	125(1.2)(18)	110(1.1)(16)
3860 (8500)	190(1.9)(28)	200(2.0)(29)	140(1.4)(20)	120(1.2)(17)
4080 (9000)	—	240(2.4)(35)	150(1.5)(22)	125(1.2)(18)
4310 (9500)	—	—	160(1.6)(23)	130(1.3)(19)
4540 (10000)	—	—	—	145(1.4)(21)
Axle Load in kg (lb)	16.9R28 136A8 kPa(bar)(psi)	480/70R28 140A8 kPa(bar)(psi)	540/65R28 142A8 kPa(bar)(psi)	
1360 (3000)	55(0.55)(8)	60(0.6)(8)	60(0.6)(8)	
1590 (3500)	55(0.55)(8)	60(0.6)(8)	60(0.6)(8)	
1810 (4000)	55(0.55)(8)	55(0.55)(8)	60(0.6)(8)	
2040 (4500)	55(0.55)(8)	55(0.55)(8)	60(0.6)(8)	
2270 (5000)	55(0.55)(8)	55(0.55)(8)	60(0.6)(8)	
2490 (5500)	62(0.62)(9)	55(0.55)(8)	60(0.6)(8)	
2720 (6000)	60(0.6)(9)	62(0.62)(9)	60(0.6)(8)	
2950 (6500)	83(0.83)(12)	69(0.69)(10)	60(0.6)(8)	
3180 (7000)	105(1.05)(15)	80(0.8)(12)	62(0.62)(9)	
3400 (7500)	110(1.1)(16)	95(0.95)(14)	70(0.7)(10)	
3630 (8000)	120(1.2)(17)	105(1.05)(15)	75(0.75)(11)	
3860 (8500)	140(1.4)(20)	110(1.1)(16)	80(0.8)(12)	
4080 (9000)	150(1.5)(22)	120(1.2)(17)	90(0.9)(14)	
4310 (9500)	165(1.65)(24)	130(1.3)(19)	100(1.0)(15)	
4540 (10000)	165(1.65)(24)	140(1.4)(20)	110(1.1)(16)	

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Tire Inflation Pressures — MFWD Tires, Group 42

Axle Load in kg (lb)	290/90R38 138A8 kPa(bar)(psi)	320/85R38 138A8 kPa(bar)(psi)	380/85R34 137A8 kPa(bar)(psi)	16.9R30 141A8/144A8 kPa(bar)(psi)
1360 (3000)	55(0.55)(8)	55(0.55)(8)	55(0.55)(8)	60(0.6)(8)
1590 (3500)	55(0.55)(8)	55(0.55)(8)	55(0.55)(8)	60(0.6)(8)
1810 (4000)	60(0.6)(9)	55(0.55)(8)	55(0.55)(8)	60(0.6)(8)
2040 (4500)	76(0.76)(11)	60(0.6)(9)	55(0.55)(8)	60(0.6)(8)
2270 (5000)	99(0.9)(13)	80(0.8)(12)	55(0.55)(8)	60(0.6)(8)
2490 (5500)	110(1.1)(16)	95(0.95)(14)	60(0.6)(9)	60(0.6)(9)
2720 (6000)	120(1.2)(17)	105(1.05)(15)	70(0.7)(10)	70(0.7)(10)
2950 (6500)	130(1.3)(19)	120(1.2)(17)	99(0.9)(13)	80(0.8)(12)
3180 (7000)	145(1.45)(21)	124(1.24)(18)	95(0.95)(14)	90(0.9)(14)
3400 (7500)	165(1.65)(24)	145(1.45)(21)	110(1.1)(16)	105(1.05)(15)
3630 (8000)	185(1.85)(27)	160(1.6)(23)	120(1.2)(17)	120(1.2)(17)
3860 (8500)	225(2.25)(33)	180(1.8)(26)	130(1.3)(19)	130(1.3)(19)
4080 (9000)	260(2.6)(38)	200(2.0)(29)	140(1.4)(20)	145(1.45)(21)
4310 (9500)	280(2.8)(41)	230(2.3)(34)	150(1.5)(22)	160(1.6)(23)
4540 (10000)	310(3.1)(45)	260(2.6)(38)	160(1.6)(23)	165(1.65)(24)

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Tire Inflation Pressures — MFWD Tires, Group 42 — Continued

Axle Load in kg (lb)	420/90R30 142A8 kPa(bar)(psi)	480/70R30 152A8 kPa(bar)(psi)	600/65/R28 147A8 kPa(bar)(psi)
1360 (3000)	55(0.55)(8)	55(0.55)(8)	55(0.55)(8)
1590 (3500)	55(0.55)(8)	55(0.55)(8)	55(0.55)(8)
1810 (4000)	55(0.55)(8)	55(0.55)(8)	55(0.55)(8)
2040 (4500)	55(0.55)(8)	55(0.55)(8)	55(0.55)(8)
2270 (5000)	55(0.55)(8)	55(0.55)(8)	55(0.55)(8)
2490 (5500)	55(0.55)(8)	55(0.55)(8)	55(0.55)(8)
2720 (6000)	55(0.55)(8)	55(0.55)(8)	55(0.55)(8)
2950 (6500)	60(0.6)(9)	60(0.6)(9)	55(0.55)(8)
3180 (7000)	76(0.76)(11)	76(0.76)(11)	55(0.55)(8)
3400 (7500)	99(0.9)(13)	99(0.9)(13)	60(0.6)(9)
3630 (8000)	95(0.95)(14)	95(0.95)(14)	70(0.7)(10)
3860 (8500)	110(1.1)(16)	110(1.1)(16)	76(0.76)(11)
4080 (9000)	120(1.2)(17)	120(1.2)(17)	80(0.8)(12)
4310 (9500)	120(1.2)(17)	120(1.2)(17)	99(0.9)(13)
4540 (10000)	130(1.3)(19)	130(1.3)(19)	95(0.95)(14)

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Tire Inflation Pressures — Single Rear Tires, Groups 44 and 45

Axle Load in kg (lb) kPa(bar)(psi)	24.5-32 12 PR kPa(bar)(psi)	18.4-38 8 PR kPa(bar)(psi)	18.4R38 146A8 kPa(bar)(psi)	480/80R38 149A8 kPa(bar)(psi)	320/90R46 148A8 kPa(bar)(psi)
3180 (7000)	80(0.8)(12)	80(0.8)(12)	60(0.6)(8)	55(0.5)(8)	110(1.1)(16)
3410 (7500)	80(0.8)(12)	80(0.8)(12)	60(0.6)(8)	60(0.6)(8)	120(1.2)(17)
3630 (8000)	80(0.8)(12)	80(0.8)(12)	70(0.7)(10)	70(0.7)(10)	125(1.2)(18)
3860 (8500)	80(0.8)(12)	90(0.9)(14)	80(0.8)(12)	70(0.7)(10)	140(1.4)(20)
4090 (9000)	80(0.8)(12)	100(1.0)(15)	80(0.8)(12)	80(0.8)(12)	150(1.5)(22)
4310 (9500)	80(0.8)(12)	110(1.1)(16)	90(0.9)(14)	85(0.8)(13)	160(1.6)(23)
4540 (10000)	90(0.9)(14)	120(1.2)(17)	100(1.0)(15)	90(0.9)(14)	180(1.8)(26)
4760 (10500)	100(1.0)(15)	130(1.3)(19)	110(1.1)(16)	110(1.1)(16)	210(2.1)(30)
4990 (11000)	100(1.0)(15)	—	120(1.2)(17)	110(1.1)(16)	240(2.4)(35)
5220 (11500)	110(1.1)(16)	—	130(1.3)(19)	110(1.1)(16)	240(2.4)(35)
5450 (12000)	120(1.2)(17)	—	140(1.4)(20)	125(1.2)(18)	275(2.8)(40)
5670 (12500)	120(1.2)(17)	—	150(1.5)(22)	130(1.3)(19)	295(2.9)(43)
5900 (13000)	130(1.3)(19)	—	160(1.6)(23)	140(1.4)(20)	310(3.1)(45)
6120 (13500)	140(1.4)(20)	—	—	145(1.4)(21)	340(3.4)(49)
6350 (14000)	140(1.4)(20)	—	—	160(1.6)(23)	—

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Tire Inflation Pressures — Single Rear Tires, Group 46

Axle Load in kg (lb)	320/90R50 148A8 kPa(bar)(psi)	14.9R46 142A8 kPa(bar)(psi)	420/80R46 151A8 kPa(bar)(psi)	18.4R42 148A8 kPa(bar)(psi)	480/80R42 151A8 kPa(bar)(psi)
3180 (7000)	100(1.0)(15)	90(0.9)(14)	60(0.6)(9)	55(0.55)(8)	55(0.55)(8)
3400 (7500)	110(1.1)(16)	100(1.0)(15)	70(0.7)(10)	60(0.6)(9)	55(0.55)(8)
3630 (8000)	120(1.2)(17)	110(1.1)(16)	85(0.85)(13)	70(0.7)(10)	70(0.7)(10)
3860 (8500)	125(1.2)(18)	120(1.2)(17)	85(0.85)(13)	75(0.75)(11)	70(0.7)(10)
4090 (9000)	140(1.4)(20)	130(1.3)(19)	90(0.9)(14)	80(0.8)(12)	75(0.75)(11)
4310 (9500)	150(1.5)(22)	140(1.4)(20)	110(1.1)(16)	85(0.85)(13)	80(0.8)(12)
4540 (10000)	160(1.6)(23)	160(1.6)(23)	110(1.1)(16)	90(0.9)(14)	85(0.85)(13)
4760 (10500)	170(1.7)(25)	170(1.7)(25)	120(1.2)(17)	100(1.0)(15)	90(0.9)(14)
4990 (11000)	200(2.0)(29)	190(1.9)(28)	130(1.3)(19)	110(1.1)(16)	100(1.0)(15)
5220 (11500)	240(2.4)(35)	210(2.1)(30)	140(1.4)(20)	120(1.2)(17)	110(1.1)(16)
5450 (12000)	255(2.55)(37)	210(2.1)(30)	145(1.45)(21)	125(1.2)(18)	120(1.2)(17)
5670 (12500)	270(2.7)(39)	—	160(1.6)(23)	140(1.4)(20)	125(1.2)(18)
5900 (13000)	285(2.85)(41)	—	165(1.65)(24)	145(1.45)(21)	130(1.3)(19)
6120 (13500)	320(3.2)(46)	—	180(1.8)(26)	150(1.5)(22)	140(1.4)(20)
6350 (14000)	—	—	190(1.9)(28)	—	145(1.45)(21)
6580 (14500)	—	—	215(2.15)(31)	—	150(1.5)(22)
6800 (15000)	—	—	230(2.3)(34)	—	160(1.6)(23)
7030 (15500)	—	—	240(2.4)(35)	—	—

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Tire Inflation Pressures — Single Rear Tires, Group 46 — Continued

Axle Load in kg (lb)	20.8R38 147A8 kPa(bar)(psi)	20.8R38 153A8 kPa(bar)(psi)	520/85R38 155A8 kPa(bar)(psi)	650/65R38 157A8 kPa(bar)(psi)
3180 (7000)	60(0.6)(8)	60(0.6)(8)	60(0.6)(8)	60(0.6)(8)
3400 (7500)	60(0.6)(8)	60(0.6)(8)	60(0.6)(8)	60(0.6)(8)
3630 (8000)	60(0.6)(8)	60(0.6)(8)	60(0.6)(8)	60(0.6)(8)
3860 (8500)	60(0.6)(8)	60(0.6)(8)	55(0.55)(8)	60(0.6)(8)
4090 (9000)	60(0.6)(8)	65(0.65)(9)	60(0.6)(8)	60(0.6)(8)
4310 (9500)	70(0.7)(10)	70(0.7)(10)	70(0.7)(10)	60(0.6)(8)
4540 (10000)	80(0.8)(12)	75(0.75)(11)	70(0.7)(10)	60(0.6)(8)
4760 (10500)	80(0.8)(12)	80(0.8)(12)	75(0.75)(11)	70(0.7)(10)
4990 (11000)	80(0.8)(12)	85(0.85)(13)	80(0.8)(12)	70(0.7)(10)
5220 (11500)	90(0.9)(14)	90(0.9)(14)	85(0.85)(13)	70(0.7)(10)
5450 (12000)	100(1.0)(15)	100(1.0)(15)	100(1.0)(15)	70(0.7)(10)
5670 (12500)	110(1.1)(16)	120(1.2)(17)	110(1.1)(16)	80(0.8)(12)
5900 (13000)	120(1.2)(17)	120(1.2)(17)	110(1.1)(16)	80(0.8)(12)
6120 (13500)	120(1.2)(17)	125(1.25)(18)	120(1.2)(17)	90(0.9)(14)
6350 (14000)	—	130(1.3)(19)	125(1.25)(18)	90(0.9)(14)
6580 (14500)	—	145(1.45)(21)	125(1.25)(18)	100(1.0)(15)
6800 (15000)	—	160(1.6)(23)	130(1.3)(19)	100(1.0)(15)
7030 (15500)	—	160(1.6)(23)	140(1.4)(20)	110(1.1)(16)
7260 (16000)	—	165(1.65)(24)	145(1.45)(21)	120(1.2)(17)
7480 (16500)	—	—	150(1.5)(22)	125(1.25)(18)
7720 (17000)	—	—	160(1.6)(23)	130(1.3)(19)

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Tire Inflation Pressures — Single Rear Tires, Group 47

Axle Load in kg (lb)	320/90R54 149A8 kPa(bar)(psi)	380/90R50 151A8 kPa(bar)(psi)	18.4R46 155A8 kPa(bar)(psi)	480/80R46 158A8 kPa(bar)(psi)
3180 (7000)	85(0.85)(13)	60(0.6)(9)	55(0.55)(8)	55(0.55)(8)
3400 (7500)	100(1.0)(15)	70(0.7)(10)	55(0.55)(8)	55(0.55)(8)
3630 (8000)	110(1.1)(16)	75(0.75)(11)	60(0.6)(9)	55(0.55)(8)
3860 (8500)	120(1.2)(17)	80(0.8)(12)	60(0.6)(9)	60(0.6)(9)
4090 (9000)	145(1.45)(21)	90(0.9)(14)	75(0.75)(11)	70(0.7)(10)
4310 (9500)	150(1.5)(22)	110(1.1)(16)	75(0.75)(11)	75(0.75)(11)
4540 (10000)	160(1.6)(23)	120(1.2)(17)	80(0.8)(12)	80(0.8)(12)
4760 (10500)	165(1.65)(24)	125(1.2)(18)	85(0.85)(13)	90(0.9)(14)
4990 (11000)	180(1.8)(26)	130(1.3)(19)	100(1.0)(15)	100(1.0)(15)
5220 (11500)	210(2.1)(30)	140(1.4)(20)	110(1.1)(16)	110(1.1)(16)
5450 (12000)	240(2.4)(35)	145(1.45)(21)	125(1.2)(18)	110(1.1)(16)
5670 (12500)	260(2.6)(38)	150(1.5)(22)	130(1.3)(19)	110(1.1)(16)
5900 (13000)	285(2.85)(41)	165(1.65)(24)	140(1.4)(20)	125(1.2)(18)
6120 (13500)	305(3.05)(44)	180(1.8)(26)	140(1.4)(20)	130(1.3)(19)
6350 (14000)	320(3.2)(46)	210(2.1)(30)	150(1.5)(22)	140(1.4)(20)
6580 (14500)	—	220(2.2)(32)	160(1.6)(23)	145(1.45)(21)
6800 (15000)	—	230(2.3)(34)	165(1.65)(24)	150(1.5)(22)
7030 (15500)	—	240(2.4)(35)	180(1.8)(26)	160(1.6)(23)
7260 (16000)	—	—	190(1.9)(28)	170(1.7)(25)
7480 (16500)	—	—	200(2.0)(29)	180(1.8)(26)
7720 (17000)	—	—	210(2.1)(30)	200(2.0)(29)

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Tire Inflation Pressures — Single Rear Tires, Group 47 — Continued

..... Axle Load in kg (lb)	20.8R42 155A8 kPa(bar)(psi)	520/85R42 157A8 kPa(bar)(psi)	620/70R42 160A8 kPa(bar)(psi)	710/70R38 166A8 kPa(bar)(psi)
3180 (7000)	55(0.55)(8)	55(0.55)(8)	55(0.55)(8)	60(0.6)(8)
3400 (7500)	55(0.55)(8)	55(0.55)(8)	55(0.55)(8)	60(0.6)(8)
3630 (8000)	55(0.55)(8)	55(0.55)(8)	55(0.55)(8)	60(0.6)(8)
3860 (8500)	55(0.55)(8)	55(0.55)(8)	55(0.55)(8)	60(0.6)(8)
4090 (9000)	55(0.55)(8)	55(0.55)(8)	60(0.6)(8)	60(0.6)(8)
4310 (9500)	60(0.6)(9)	60(0.6)(9)	55(0.55)(8)	60(0.6)(8)
4540 (10000)	70(0.7)(10)	70(0.7)(10)	55(0.55)(8)	60(0.6)(8)
4760 (10500)	75(0.75)(11)	70(0.7)(10)	60(0.6)(9)	60(0.6)(8)
4990 (11000)	80(0.8)(12)	75(0.75)(11)	70(0.7)(10)	60(0.6)(8)
5220 (11500)	85(0.85)(13)	85(0.85)(13)	70(0.7)(10)	60(0.6)(8)
5450 (12000)	90(0.9)(14)	85(0.85)(13)	75(0.75)(11)	60(0.6)(8)
5670 (12500)	100(1.0)(15)	90(0.9)(14)	80(0.8)(12)	60(0.6)(9)
5900 (13000)	110(1.1)(16)	100(1.0)(15)	85(0.85)(13)	70(0.7)(10)
6120 (13500)	110(1.1)(16)	110(1.1)(16)	85(0.85)(13)	70(0.7)(10)
6350 (14000)	125(1.25)(18)	110(1.1)(16)	100(1.0)(15)	75(0.75)(11)
6580 (14500)	130(1.3)(19)	120(1.2)(17)	110(1.1)(16)	80(0.8)(12)
6800 (15000)	140(1.4)(20)	125(1.25)(18)	110(1.1)(16)	85(0.85)(13)
7030 (15500)	145(1.45)(21)	130(1.3)(19)	120(1.2)(17)	85(0.85)(13)
7260 (16000)	150(1.5)(22)	140(1.4)(20)	120(1.2)(17)	85(0.85)(13)
7480 (16500)	160(1.6)(23)	140(1.4)(20)	125(1.25)(18)	95(0.95)(14)
7720 (17000)	170(1.7)(24)	145(1.45)(21)	130(1.3)(19)	100(1.0)(15)

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Tire Inflation Pressures — Dual Rear Tires, Group 45

Axle Load in kg (lb)	18.4-38 8 PR kPa(bar)(psi)	18.4R38 146A8 kPa(bar)(psi)	480/80R38 149A8 kPa(bar)(psi)
3180 (7000)	80(0.8)(12)	40(0.4)(6)	40(0.4)(6)
3410 (7500)	80(0.8)(12)	40(0.4)(6)	40(0.4)(6)
3630 (8000)	80(0.8)(12)	40(0.4)(6)	40(0.4)(6)
3860 (8500)	80(0.8)(12)	40(0.4)(6)	40(0.4)(6)
4090 (9000)	80(0.8)(12)	40(0.4)(6)	40(0.4)(6)
4310 (9500)	80(0.8)(12)	40(0.4)(6)	40(0.4)(6)
4540 (10000)	90(0.9)(14)	40(0.4)(6)	40(0.4)(6)
4770 (10500)	90(0.9)(14)	40(0.4)(6)	40(0.4)(6)
4990 (11000)	90(0.9)(14)	50(0.5)(7)	40(0.4)(6)
5220 (11500)	90(0.9)(14)	55(0.55)(8)	40(0.4)(6)
5450 (12000)	90(0.9)(14)	55(0.55)(8)	50(0.5)(7)
5670 (12500)	90(0.9)(14)	55(0.55)(8)	55(0.55)(8)
5900 (13000)	90(0.9)(14)	60(0.6)(9)	55(0.55)(8)
6120 (13500)	90(0.9)(14)	70(0.7)(10)	60(0.6)(9)
6360 (14000)	90(0.9)(14)	75(0.75)(11)	70(0.7)(10)
6800 (15000)	90(0.9)(14)	80(0.8)(12)	70(0.7)(10)
7260 (16000)	100(1.0)(15)	85(0.85)(13)	85(0.85)(13)
7720 (17000)	120(1.2)(18)	100(1.0)(15)	85(0.85)(13)
8170 (18000)	120(1.2)(18)	110(1.1)(16)	100(1.0)(15)
8630 (19000)	140(1.4)(20)	120(1.2)(18)	110(1.1)(16)
9080 (20000)	—	130(1.3)(19)	120(1.2)(18)
9990 (22000)	—	150(1.5)(22)	130(1.3)(19)
10900 (24000)	—	165(1.65)(24)	150(1.5)(22)

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Tire Inflation Pressures — Dual Rear Tires, Group 46

Axle Weight in kg (lb)	320/90R50 148A8 kPa(bar)(psi)	420/80R46 151A8 kPa(bar)(psi)	14.9R46 142A8 kPa(bar)(psi)	18.4R42 148A8 kPa(bar)(psi)	480/80R42 151A8 kPa(bar)(psi)
3180 (7000)	40(0.4)(6)	40(0.4)(6)	70(0.7)(10)	40(0.4)(6)	40(0.4)(6)
3410 (7500)	40(0.4)(6)	40(0.4)(6)	70(0.7)(10)	40(0.4)(6)	40(0.4)(6)
3630 (8000)	40(0.4)(6)	40(0.4)(6)	70(0.7)(10)	40(0.4)(6)	40(0.4)(6)—
3860 (8500)	50(0.5)(7)	40(0.4)(6)	70(0.7)(10)	40(0.4)(6)	40(0.4)(6)
4090 (9000)	55(0.55)(8)	40(0.4)(6)	70(0.7)(10)	40(0.4)(6)	40(0.4)(6)
4310 (9500)	60(0.6)(9)	40(0.4)(6)	70(0.7)(10)	40(0.4)(6)	40(0.4)(6)
4540 (10000)	70(0.7)(10)	40(0.4)(6)	70(0.7)(10)	40(0.4)(6)	40(0.4)(6)
4770 (10500)	75(0.75)(11)	50(0.5)(7)	70(0.7)(10)	40(0.4)(6)	40(0.4)(6)
4990 (11000)	80(0.8)(12)	55(0.55)(8)	70(0.7)(10)	50(0.5)(7)	40(0.4)(6)
5220 (11500)	85(0.85)(13)	55(0.55)(8)	80(0.8)(12)	50(0.5)(7)	40(0.4)(6)
5450 (12000)	85(0.85)(13)	60(0.6)(9)	80(0.8)(12)	50(0.5)(7)	40(0.4)(6)
5670 (12500)	100(1.0)(15)	70(0.7)(10)	80(0.8)(12)	55(0.55)(8)	50(0.5)(7)
5900 (13000)	110(1.1)(16)	70(0.7)(10)	100(1.0)(15)	55(0.55)(8)	55(0.55)(8)
6120 (13500)	110(1.1)(16)	70(0.7)(10)	100(1.0)(15)	60(0.6)(9)	55(0.55)(8)
6360 (14000)	120(1.2)(17)	80(0.8)(12)	110(1.1)(16)	70(0.7)(10)	60(0.6)(9)
6800 (15000)	130(1.3)(19)	85(0.85)(13)	120(1.2)(18)	75(0.75)(11)	70(0.7)(10)
7260 (16000)	140(1.4)(20)	100(1.0)(15)	140(1.4)(20)	80(0.8)(12)	75(0.75)(11)
7720 (17000)	150(1.5)(22)	110(1.1)(16)	150(1.5)(22)	85(0.85)(13)	85(0.85)(13)
8170 (18000)	180(1.8)(26)	120(1.2)(18)	170(1.7)(24)	100(1.0)(15)	85(0.85)(13)
8630 (19000)	210(2.1)(30)	125(1.25)(18)	180(1.8)(26)	110(1.1)(16)	100(1.0)(15)
9080 (20000)	240(2.4)(35)	140(1.4)(20)	200(2.0)(29)	120(1.2)(18)	110(1.1)(16)
9920 (22000)	285(2.85)(41)	160(1.6)(23)	210(2.1)(30)	140(1.4)(20)	125(1.25)(18)
10900 (24000)	320(3.2)(46)	185(1.85)(27)	—	165(1.65)(24)	140(1.4)(20)

BB92646,0000261-19-19DEC06-1/1

Adjustable Front Axle (Tractors without Front-Wheel Drive)

The front axle can be set to any of 7 tread widths.

If front wheels are removed to adjust tread, tighten front wheel bolts to 310 N·m (230 lb-ft) once the wheels are replaced.

IMPORTANT: After the first 4 and 8 hours of operation, retighten all front wheel bolts. Check tightness of these bolts frequently during the next 100 hours of operation.

Tires	Position of tire valve	Axle position						
		1	2	3	4	5	6	7
11.00-16	Out	1515 mm (59.5 in.)	1615 mm (63.5 in.)	1715 mm (67.5 in.)	1820 mm (71.5 in.)	1920 mm (75.5 in.)	2020 mm (79.5 in.)	2125 mm (83.5 in.)
	In	1615 mm (63.5 in.)	1715 mm (67.5 in.)	1820 mm (71.5 in.)	1920 mm (75.5 in.)	2020 mm (79.5 in.)	2125 mm (83.5 in.)	2225 mm (87.5 in.)
14L-16.1	Out	1565 mm (61.5 in.)	1665 mm (65.5 in.)	1770 mm (69.5 in.)	1870 mm (73.5 in.)	1970 mm (77.5 in.)	2075 mm (81.5 in.)	2175 mm (85.5 in.)
11.00-20	Out	1510 mm (59.3 in.)	1610 mm (63.3 in.)	1710 mm (67.3 in.)	1815 mm (71.3 in.)	1915 mm (75.3 in.)	2015 mm (79.3 in.)	2115 mm (83.3 in.)
	In	1610 mm (63.3 in.)	1710 mm (67.3 in.)	1815 mm (71.3 in.)	1915 mm (75.3 in.)	2015 mm (79.3 in.)	2115 mm (83.3 in.)	2215 mm (87.3 in.)

OU12401,0001366-19-01NOV05-1/1

Two-Wheel Drive Front Axle Adjustment

IMPORTANT: Do not place jack under engine oil pan.

1. Jack up front end of tractor.
2. Remove bolts (A) from tie rod and bolts (B) from one side of axle.
3. Slide axle knee to desired position.
4. Install axle bolts (B). Tighten to specification.

Specification

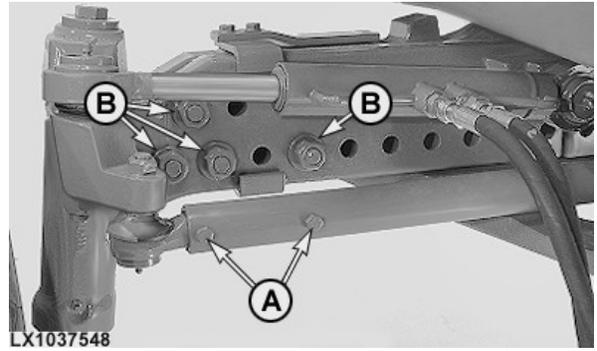
Axle Bolts—Torque 600 N•m
(443 ft-lb)

NOTE: Both sides are usually adjusted to same setting.

5. Repeat steps 2-4 on opposite side of tractor.
6. Adjust tie rod same amount as axle.
7. Install bolts (A) in tie rod and tighten to specification.

Specification

Tie Rod Bolts—Torque 61 N•m
(45 ft-lb)



A—Tie-Rod Bolts

B—Axle Bolts

8. Check toe-in and adjust as required.

NOTE: Alternate tread settings may require additional hose length to be pulled from frame rails. Excess hose length should be pulled back into frame area when adjusting tread settings inward.

BB92646,0000333-19-12DEC06-1/1

Check Toe-In

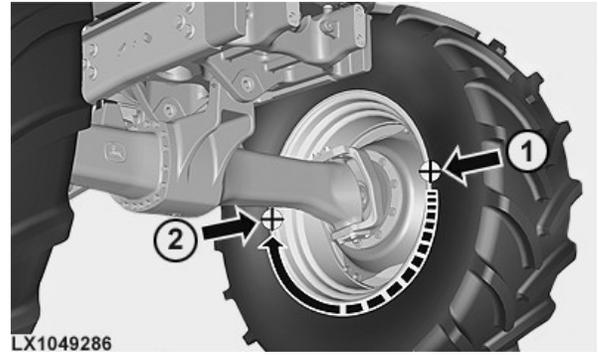
1. Make sure wheels are in the straight forward position by driving tractor in a straight line for approx. 15 m (50 ft).

⚠ CAUTION: Keep the engine switched off while making the measurements, and secure the tractor so that it cannot roll away.

2. First, put marks (+) at axle height on the front (1) of each of the two front wheels.
3. At the front, measure distance (1) from the edge of the right rim to the edge of the left rim, and make a note of this measurement.
4. Roll the tractor forward by half the circumference of the front wheel, bringing the (+) mark to the rear (2).
5. At the rear, measure distance (2) from the edge of the right rim to the edge of the left rim, and make a note of this measurement.

Tractor with front-wheel drive: Dimension (1) at the front must correspond to dimension (2) at the rear. A deviation of ± 1.5 mm (0.06 in.) is permissible.

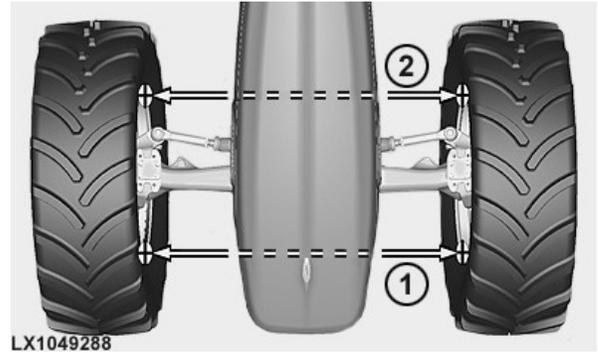
Tractor without front-wheel drive: Dimension (1) at the front must be 3 to 9 mm (0.12 to 0.35 in.) less than dimension (2) at the rear.



LX1049286

LX1049286—UN—08JUN10

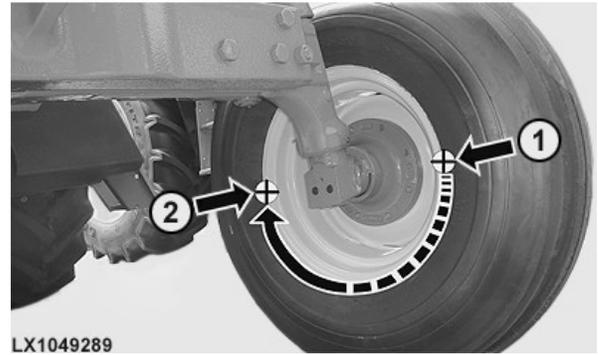
Tractor with Front-Wheel Drive



LX1049288

LX1049288—UN—08JUN10

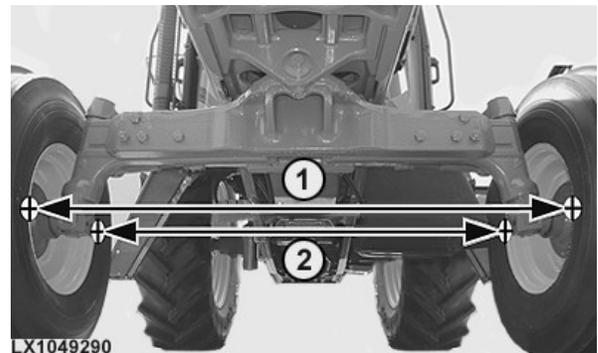
Tractor with Front-Wheel Drive



LX1049289

LX1049289—UN—09JUN10

Tractor without Front-Wheel Drive



LX1049290

LX1049290—UN—08JUN10

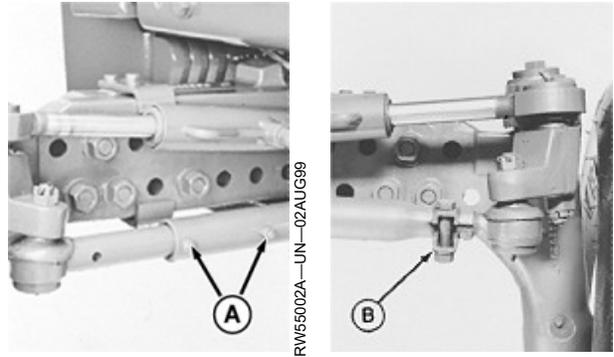
Tractor without Front-Wheel Drive

OULXBER.00018EE-19-17SEP10-1/1

Adjusting Toe-In on Two-Wheel Drive Front Axle

1. Remove screws (A) from tie-rod tube and loosen clamp (B).
2. Rotate tube to lengthen or shorten tie-rod. Adjust toe-in to 3 - 9 mm (0.12 - 0.35 in.).
3. Re-install the screws, tighten the nuts to 61 N·m (45 lb.-ft.) and tighten clamp to 68 N·m (50 lb.-ft.).

A—Tie Rod Screws B—Clamp



RW55002A—UN—02AUG99

RW55003—UN—25JUN93

OULXBER,00018F0-19-11JUN10-1/1

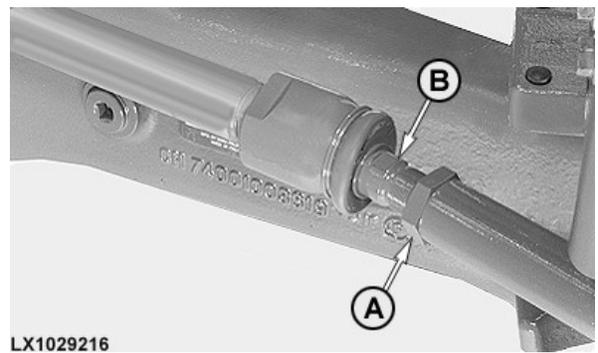
Adjust Toe-In (Tractors with Front-Wheel Drive Axle)

1. Align front wheels for travelling straight ahead, shut off the engine, move the transmission to park position and remove the ignition key.
 2. Loosen locknut (A).
- NOTE: Toe-in of ± 1.5 mm (0.06 in.) is permissible. See Check Toe-In in this section.*
3. Turn rod (B) to obtain desired toe-in or toe-out.

Specification

Maximum toe-in or toe-out—Clearance..... 1.5 mm (0.06 in.)

4. Tighten locknut (A) to specified torque.



LX1029216

A—Locknut

B—Rod

LX1029216—UN—02APR03

Specification

Locknut—Torque..... 328 to 363 N·m
242 to 267 lb.-ft.

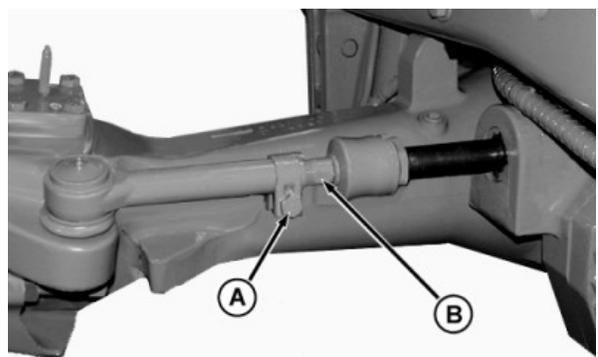
OULXBER,0001918-19-15SEP10-1/1

MFWD Toe-In Adjustment — Hi-Crop Tractor

1. Loosen clamp (A) on tie rod.
2. Rotate steering cylinder rod (B) as necessary to obtain toe-in not to exceed 3 mm (1/8 in.). Each 1/8 turn equals approximately 4 mm (3/16 in.) change.
3. Tighten each nut to 75 Nm (55 lb-ft).

NOTE: Bolt threads should point to front of tractor.

A—Clamp B—Steering Cylinder Rod



RW26951—UN—15MAY00

RF30435,0000AB9-19-21NOV00-1/1

Two-Wheel Drive Front Axle and Front Wheel Bolt Tightening

CAUTION: Avoid the possibility of personal injury. Never operate tractor with loose wheel bolts or axle components. Wheel bolts are critical and require retightening. Install wheels and ballast so periodic checking of tightness can be done easily.

Tighten bolts to specification.

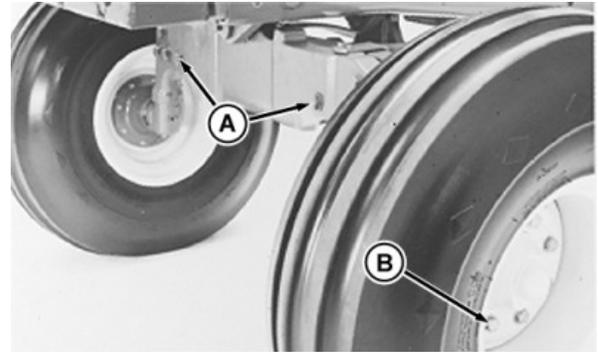
Axle Bolt Torques:

Standard Adjustable Axle Bolts (A) 600 Nm (445 lb-ft)

Two-Wheel Drive Wheel Torques:

Standard Axle Disk-to-Hub Bolts (B) 310 Nm (230 lb-ft)

Drive tractor 100 meters (100 yd), and retighten bolts to specified torque.



RW22662A—UN—06SEP99

Standard Adjustable Axle

A—Standard Axle Bolts

B—Standard Axle Disk-to-Hub Bolts

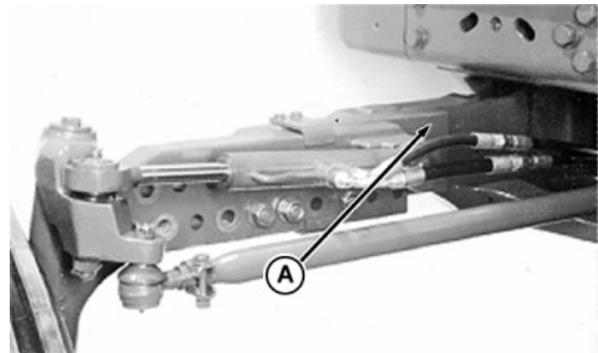
Retighten bolts after working **3 HOURS** and again after **10 HOURS**.

OU1092A,0000227-19-29NOV06-1/1

Two-Wheel Drive Front Axle Tread Settings — With Extensions

Adjustable front axle (A) has seven tread settings with extensions.

A—Adjustable Front Axle



RW21366A—UN—02AUG99

Tire Size	Valve Stem Location	Axle Hole Position						
		1	2	3	4	5	6	7
11.00-16	Out	1960 mm (77.0 in.)	2060 mm (81.0 in.)	2160 mm (85.0 in.)	2265 mm (89.0 in.)	2365 mm (93.0 in.)	2465 mm (97.0 in.)	2570 mm (101.0 in.)
14L-16.1	Out	2010 mm (79.0 in.)	2110 mm (83.0 in.)	2210 mm (87.0 in.)	2315 mm (91.0 in.)	2415 mm (95.0 in.)	2515 mm (99.0 in.)	2620 mm (103.0 in.)
11.00-20	Out	1950 mm (76.8 in.)	2050 mm (80.8 in.)	2150 mm (84.8 in.)	2255 mm (88.8 in.)	2355 mm (92.8 in.)	2455 mm (96.8 in.)	2555 mm (100.8 in.)

OU1092A,0000018-19-06MAY04-1/1

Change Wheels Safely

Due to the big size and the heavy weight of tractor wheels, pay attention to the following points when changing wheels:

- Before changing wheels, place tractor on firm, level ground.
- Engage park lock and prevent the tractor from rolling away by putting down chock blocks.
- Remove the ignition key to prevent unauthorized operation.
- When removing rear wheels, prevent front axle oscillation by using wedges.
- When jacking up the tractor, only use the recommended lifting points, see Jack Up the Tractor - Lifting Points in Section 85 of this Operator's Manual.
- Use a stable jack with sufficient lifting force. See Specifications, Loads and Weights in Section 145.
- Stop jacking up the tractor when the wheel is completely off the ground.
- Use a suitable wheel dolly, especially when removing a rear wheel. This is available from your John Deere dealer as special tool KJD10581.
- Support the tractor when a wheel is removed. Jack stands are available from your John Deere dealer as special tools JT02043 and JT02044.
- When installing wheels, make sure that the correct torques are applied, see Tighten Wheel Bolts and Wheel Weights in Section 95 of this Operator's Manual.

⚠ CAUTION: Do not operate the tractor until the wheel change has been completed.

When changing wheels, make sure that no-one is standing in the danger zone.

When removing a wheel, make sure that the tractor is supported safely.

When storing removed wheels, make sure that they cannot fall.

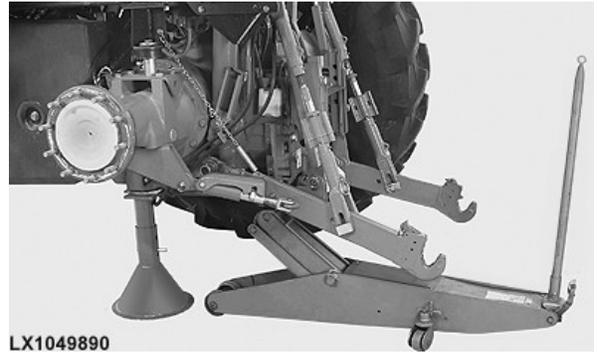
JT02043—Jack Stand, 482 to 736 mm (19 to 29 in.) JT02044—Jack Stand, 863 to 1117 mm (34 to 44 in.)



LX1049987

KJD10581 - Wheel Dolly

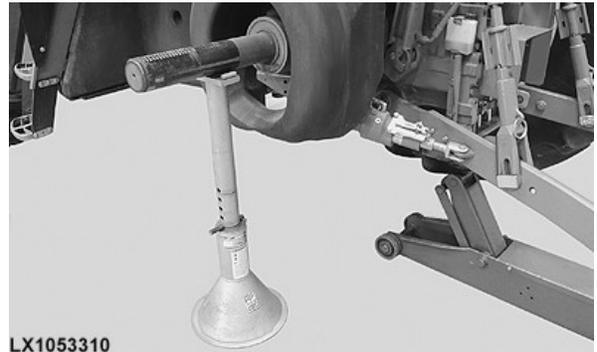
LX1049987—UN—15JUL11



LX1049890

Jack Stand JT02043 or JT02044

LX1049890—UN—11FEB11



LX1053310

Jack Stand JT02043 or JT02044

LX1053310—UN—23SEP11

OULXBER,0001AA7-19-13JAN12-1/1

Tightening Wheel Bolts with Front-Wheel Drive

⚠ CAUTION: Avoid personal injury. Never operate tractor with loose wheel bolts or axle components. Wheel bolts are critical and require retightening.

NOTE: Both inner and outer bolt patterns of disk have one **tight fit** hole and one **slot fit** hole directly opposite each other.

Tight-fit and slot-fit holes are **not** found on 24 in. and 26 in. 10-bolt rims or on 26 in. 8-bolt rims.

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. Tighten all bolts:

Specification

Wheel disk to rim—Torque. 310 N•m (230 lb-ft)
 Wheel disk to rim — *Hi-Crop*
 axle—Torque. 600 N•m (445 lb-ft)

Drive tractor 100 meters (100 yd) and retighten bolts. Retighten bolts after operating **3 HOURS** and **10 HOURS**.

Wheel disk to hub:

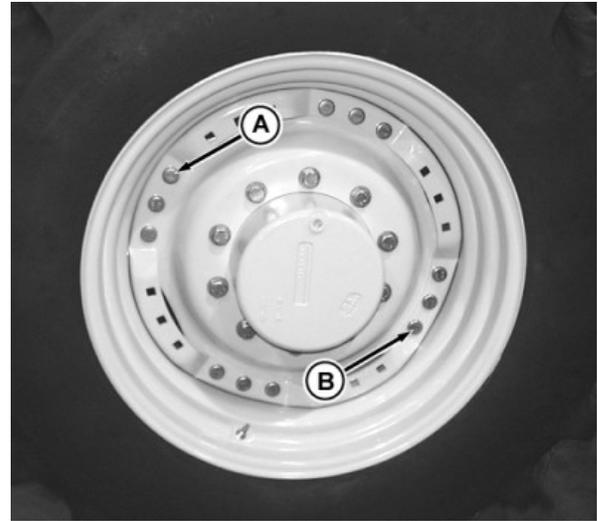
Install bolt in **tight fit** hole (C) and hand tighten bolt. Install bolt in **slot fit** hole (D) and hand tighten bolt. Install and hand tighten remaining wheel disk-to-hub cap screws. Tighten all bolts:

Specification

Wheel disk to hub — *Hi-Crop*
 axle—Torque. 600 N•m (445 lb-ft)
 Wheel disk to hub — 7130, 7230,
 7330, 7430, 7530—Torque. 480 N•m (355 lb-ft)

Drive tractor 100 meters (100 yd) and retighten bolts. Retighten bolts after operating **3 HOURS** and **10 HOURS**.

- A—Disk-to-rim, tight-fit hole C—Disk-to-hub, tight-fit hole
- B—Disk-to-rim, slot-fit hole D—Disk-to-hub, slot-fit hole



RW26463—UN—14AUG99



RW26464—UN—25AUG99

OU12401,0001B32-19-03FEB09-1/1

Tread Settings — MFWD Tractors with Loader

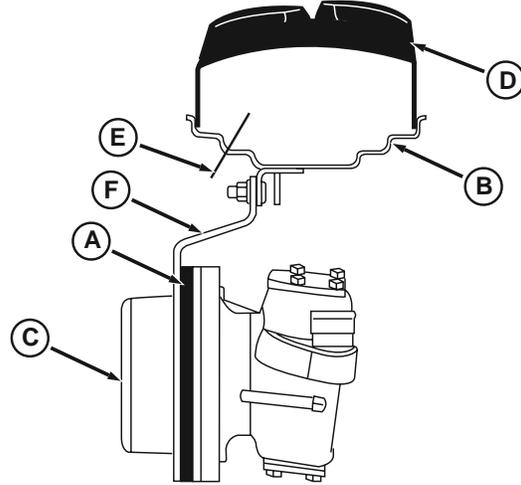
IMPORTANT: Minimum tread settings on tractors equipped with a front loader must be 1800 mm (71 in.) for optimum tractor stability and axle life. Set steering stops same as non loader application when tractor is equipped with John Deere Loader.

RF30435,000006A-19-31AUG04-1/1

Front Wheel Tread Adjustment (Tractors With Front Wheel Drive)

Identification of components for tread adjustment

- | | |
|------------------------|--------------|
| A—Spacer (if equipped) | D—Tire |
| B—Rim | E—Valve |
| C—Hub | F—Wheel disk |

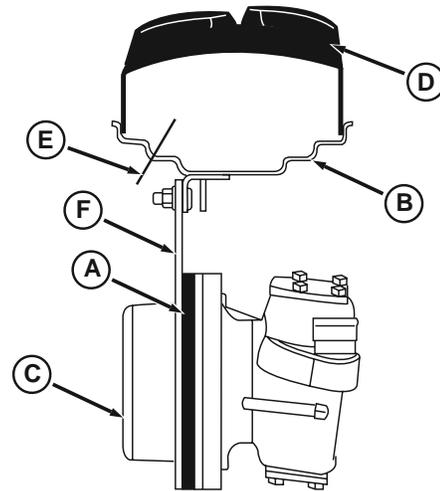


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OU12401,000136A-19-01NOV05-1/4

Identification of components for tread adjustment (26-inch wheels)

- | | |
|------------------------|--------------|
| A—Spacer (if equipped) | D—Tire |
| B—Rim | E—Valve |
| C—Hub | F—Wheel disk |



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Continued on next page

OU12401,000136A-19-01NOV05-2/4

Tread widths without spacers

NOTE: The wheel shown is the front left one, viewed from the rear. Tread settings are measured at bottom centerline of tire. The drawings serve as an aid when making adjustments to the rim and wheel disk.

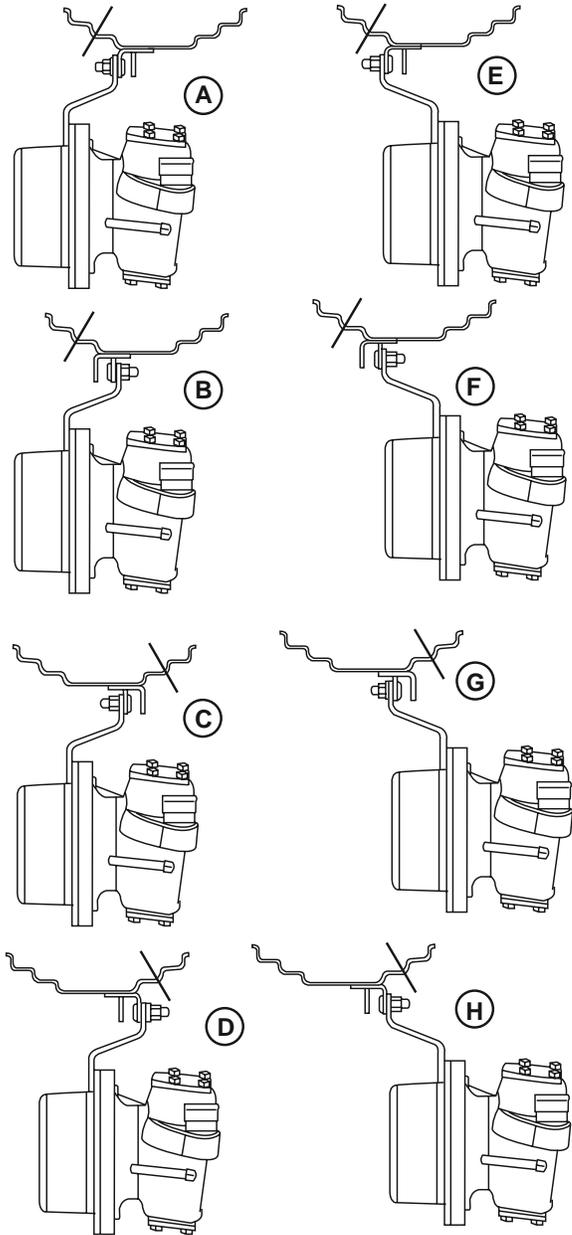
Tread widths WITHOUT spacers *		
	Valve Stem Out	Valve Stem In
A—	—	—
B—	1510 mm (59.4 in.)	—
C—	—	1611 mm (63.4 in.)
D—	—	1713 mm (67.4 in.)
E—	1814 mm (71.4 in.)	—
F—	1916 mm (75.4 in.)	—
G—	—	2018 mm (79.4 in.)
H—	—	2119 mm (83.4 in.)

* Adjustments for all wheels with 8 or 10 wheel bolts. Does not apply to 26-inch wheels.

26-inch wheels	
Tread widths WITHOUT spacers	
A—	1611 mm (63.4 in.)
B—	1713 mm (67.4 in.)
C—	1814 mm (71.4 in.)
D—	1916 mm (75.4 in.)

NOTE: Illustrations A, B, C and D show the offset wheel disk, but they apply to the flat 26-inch wheel disk as well.

Adjust fenders and steering stop positions as required.



RXA0051035—UN—30JAN01

Continued on next page

OUI2401.000136A-19-01NOV05-3/4

Tread widths with spacers

NOTE: The wheel shown is the front left one, viewed from the rear. Tread settings are measured at bottom centerline of tire. The drawings serve as an aid when making adjustments to the rim and wheel disk.

NOTE: All the adjustments shown on this page require the use of spacers. See your John Deere dealer.

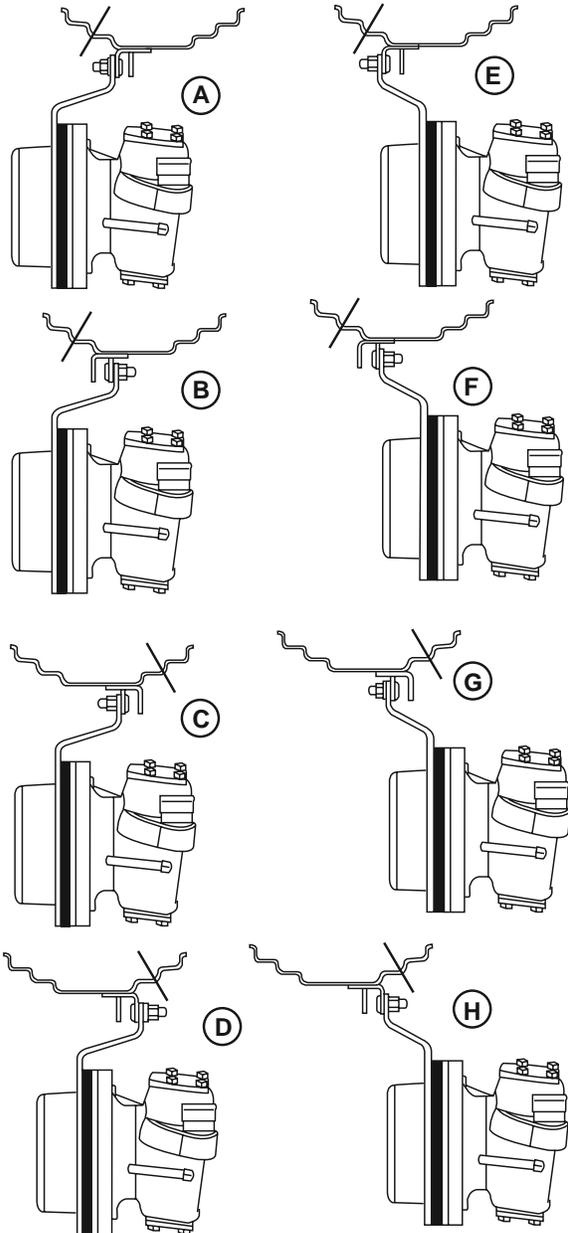
Tread widths WITH spacers *		
	Valve Stem Out	Valve Stem In
A—	1524 mm (60 in.)	—
B—	1626 mm (64 in.)	—
C—	—	1727 mm (68 in.)
D—	—	1829 mm (72 in.)
E—	1930 mm (76 in.)	—
F—	2032 mm (80 in.)	—
G—	—	2134 mm (84 in.)
H—	—	2235 mm (88 in.)

* Adjustments for all wheels with 8 or 10 wheel bolts. Does not apply to 26-inch wheels.

26-inch wheels	
Tread widths WITH spacers	
A—	1727 mm (68 in.)
B—	1828 mm (72 in.)
C—	1930 mm (76 in.)
D—	2032 mm (80 in.)

NOTE: Illustrations A, B, C and D show the offset wheel disk, but they apply to the flat 26-inch wheel disk as well.

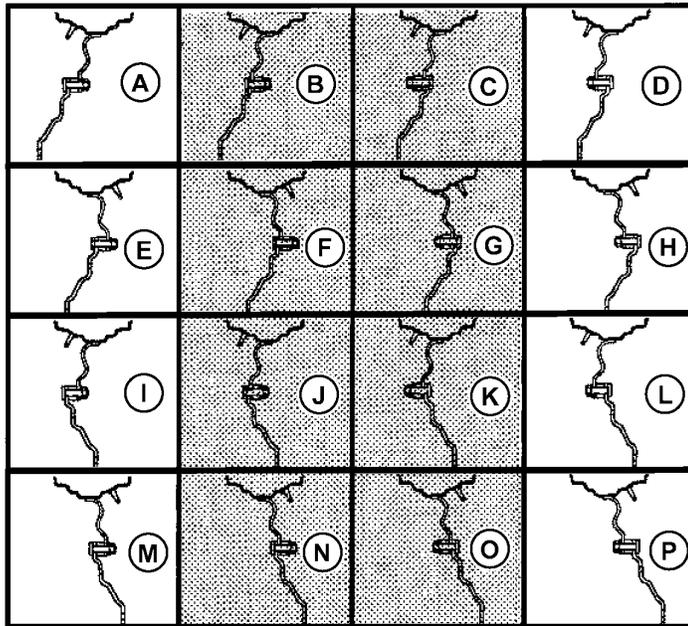
Adjust fenders and steering stop positions as required.



RXA0051512—UN—21MAY01

OU12401,000136A-19-01NOV05-4/4

Tread Settings —MFWD Hi-Crop Tractors



RW26518—UN—01 SEP99

NOTE: Tread settings are measured at bottom centerline of tire. Positions in the shaded areas are not used. Wheel, as viewed from behind left front tire.

IMPORTANT: After setting wheel spacing, tighten rim-to-disk bolts and disk-to-hub nuts to 600 Nm (445 lb-ft).

Use diagram as a guide to adjust the rim and disk to desired tread setting with 320/90 tires. Adjust fenders and steering stops as required.

Valve Stem Out		Valve Stem In		Valve Stem Out		Valve Stem In	
A—	1524 mm (60 in.)	—	—	I—	1930 mm (76 in.)	—	—
B—	—	—	—	J—	—	—	—
C—	—	—	—	K—	—	—	—
D—	1626 mm (64 in.)	—	—	L—	2032 mm (80 in.)	—	—
E—	—	1727 mm (68 in.)	—	M—	—	2134 mm (84 in.)	—
F—	—	—	—	N—	—	—	—
G—	—	—	—	O—	—	—	—
H—	—	1829 mm (72 in.)	—	P—	—	2235 mm (88 in.)	—

AG,RX15494,1775-19-26APR04-1/1

Steering Stop Position Setting —Hi-Crop MFWD Axle

1. Adjust fenders before setting steering stop positions.
2. Select correct steering stop position for tire size and tread setting. See following charts.
3. Set steering stops to correct position by measuring overall bolt length, as illustrated.
4. Tighten steering stop lock nuts to 250 Nm (185 lb-ft).
5. Turn wheel fully to the right. Bottom knuckle housing to steering stop five times. Repeat for left side.
6. Retighten steering stop lock nuts to 250 Nm (185 lb-ft).

IMPORTANT: These settings allow 25 mm (1 in.) minimum clearance at maximum turn and full axle oscillation. Check for interference with front weights, tie rods and side frames. Fenders may deflect against side frame, and/or grille screen during full turn. Minimized turn radius may be obtained by utilizing a shorter stop position.

7. Verify clearance by turning steering wheel fully to the left and then to the right.



RW26457—UN—20AUG09

STEERING STOP POSITIONS—HI-CROP MFWD		
Position	Turn Angle	Bolt Length
0	52°	42 mm (1.65 in.)
1	42°	61.5 mm (2.44 in.)
2	38°	71 mm (2.80 in.)
3	34°	80 mm (3.15 in.)
4	25°	100.5 mm (3.94 in.)

OU1092A,0000019-19-06MAY04-1/1

Steering Stop Positions — Hi-Crop MFWD Axle

Numbers 0-4 below each tread setting correspond to steering stop positions in table on previous page.

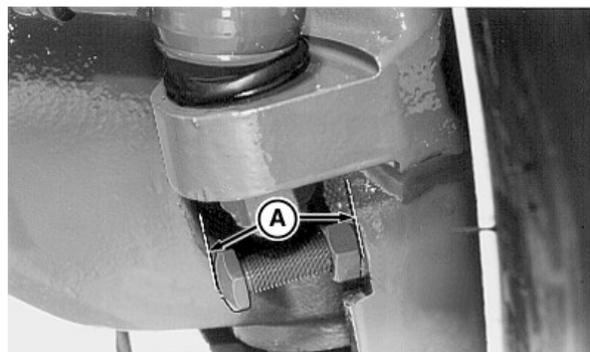
Steering Stop Positions — Hi-Crop MFWD Tractors								
Tread Setting	1525 mm (60 in.)	1625 mm (64 in.)	1725 mm (68 in.)	1825 mm (72 in.)	1925 mm (76 in.)	2025 mm (80 in.)	2125 mm (84 in.)	2225 mm (88 in.)
Tire Size								
320/90R46		4	4	3	1	1	1	0
320/90R50		4	4	3	2	1	1	1

RF30435,0000AB4-19-10NOV00-1/1

Steering Stop Positions — 7130, 7230, 7330, 7430 and 7530 Tractors with Front-Wheel Drive

Steering stop dimension (A) is expressed in millimeters. Tractor turning radius increases as steering stop dimension increases. **Steering stop dimensions in parentheses are for tractors without fenders.**

NOTE: Tractors with loaders may have different steering stop positions. Refer to the loader Operator's Manual.



RXA0053751—UN—21MAY01

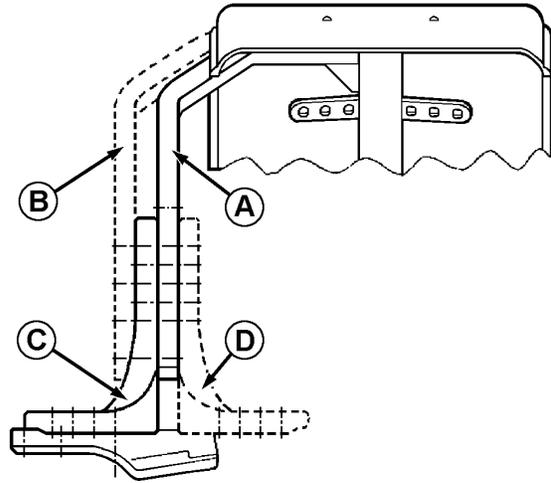
Steering stop positions								
Tread	1510 mm (60 in.*)	1611 mm (64 in.*)	1713 mm (68 in.*)	1814 mm (72 in.*)	1916 mm (76 in.*)	2018 mm (80 in.*)	2119 mm (84 in.*)	2235 mm (88 in.***)
Tire Size								
	mm							
380/85R28 14.9R28	105 (95)	80 (75)	70 (50)	65 (35)	40 (35)	35 (35)	35 (35)	35 (35)
380/85R34 14.9R30	(100)	85 (80)	70 (55)	65 (40)	40 (35)	35 (35)	35(35)	35 (35)
16.9-26 16.9R26	**	95 (85)	75 (60)	65 (35)	50 (35)	35 (35) ***	**	**
420/85R28 16.9R28	(105)	95 (90)	75 (70)	65 (60)	50 (35)	35 (35)	35 (35)	35 (35)
290/95R34 320/85R34	90 (85)	80 (70)	60 (45)	50 (35)	50 (35)	35 (35)	35 (35)	35 (35)
420/70R28	(100)	95 (85)	75 (65)	65 (55)	50 (35)	35 (35)	35 (35)	35 (35)
480/70R28	**	105 (95)	85 (75)	65 (55)	55 (40)	35 (35)	35 (35)	35 (35)
540/65R28	NA	130 (120)	113 (103)	95 (85)	90 (85)	75 (65)	60 (45)	NA
* Spacers required for exact settings. See your John Deere dealer.								
** Position not used.								
*** Spacers required for this setting. See your John Deere dealer.								

OU12401.0001B34-19-03FEB09-1/1

Adjusting the Fixed Fenders

The fenders may be adjusted individually. Several adjusting positions are possible. Tilt, width and height of the fenders can be adjusted depending on tire size. To do so, proceed as follows:

- A—Support to base plate (wheel side)
- B—Support to base plate (tractor side)
- C—Base plate (tractor side)
- D—Base plate (wheel side)



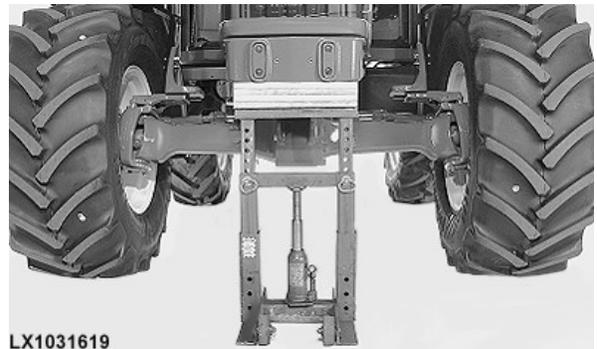
LX1033634

LX1033634—UN—08AUG06

OU12401,0001B7F-19-03MAR09-1/4

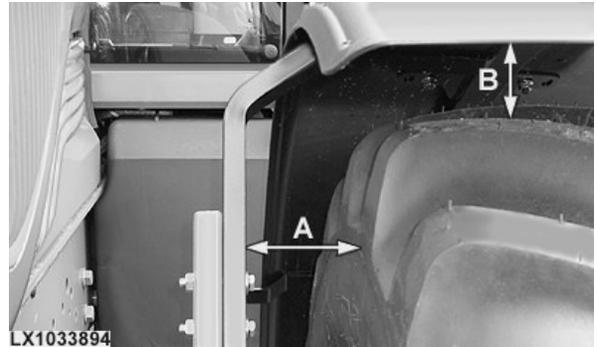
1. Raise front of tractor so that the front wheel drive axle can pivot freely.
2. Turn steering wheel in both directions and pivot the axle to determine the most suitable fender mounting position.
3. Adjust fender position so that the minimum clearances (see illustration) are met. There must not be any contact with the tractor frame.

A = 40 mm (1.57 in.), B = 60 mm (2.36 in.)



LX1031619

LX1031619—UN—31MAY06



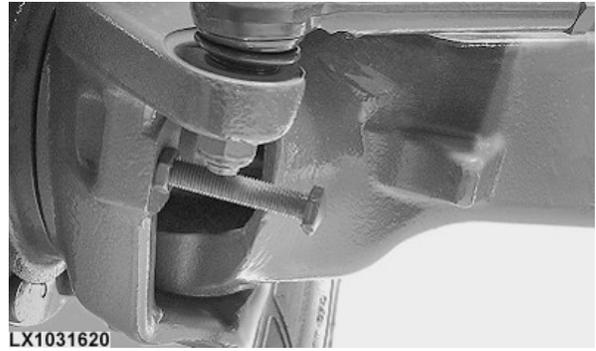
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OU12401,0001B7F-19-03MAR09-2/4

4. Also adjust the steering stops to make sure that neither the wheel nor the fender come into contact with tractor components (e.g. fuel tank).



LX1031620

LX1031620—UN—24APR06

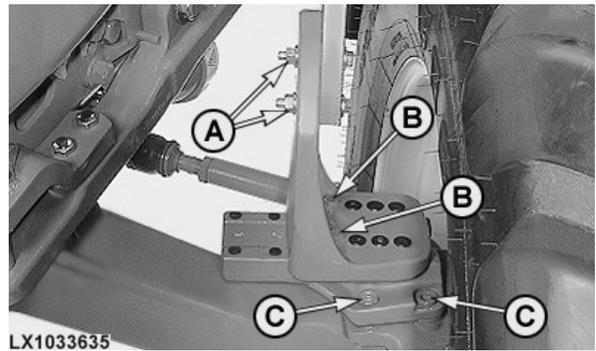
OU12401,0001B7F-19-03MAR09-3/4

Tighten the screws to the following torque values:

- Screws (A)..... 140 N·m (105 lb-ft)
- Screws (B)..... 140 N·m (105 lb-ft)
- Screws (C)..... 190 N·m (140 lb-ft)

- A—Cap screws, support to base plate
- B—Cap screws, base plate to base

- C—Hex. socket screws, base to knuckle housing



LX1033635

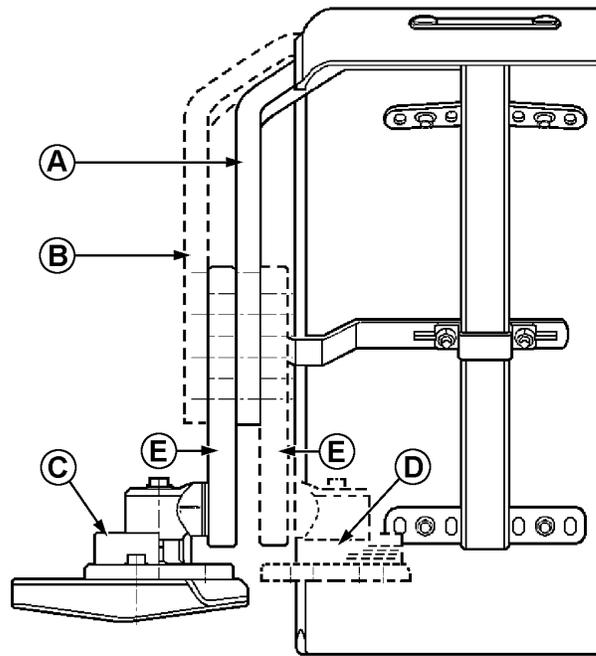
LX1033635—UN—10MAY04

OU12401,0001B7F-19-03MAR09-4/4

Adjusting the Pivoting Fenders

The fenders may be adjusted individually. Several adjusting positions are possible. Tilt, width and height of the fenders can be adjusted depending on tire size. If the intention is to change between positions C and D, turn the part around (do NOT install it on the other side of the tractor). Then adjust the front-to-rear angle of adjusting arm (E). To make the adjustment, follow this procedure:

- A—Support to adjusting arm (wheel side)
- B—Support to adjusting arm (tractor side)
- C—Pivot plate (tractor side)
- D—Pivot plate (wheel side)
- E—Adjusting arm



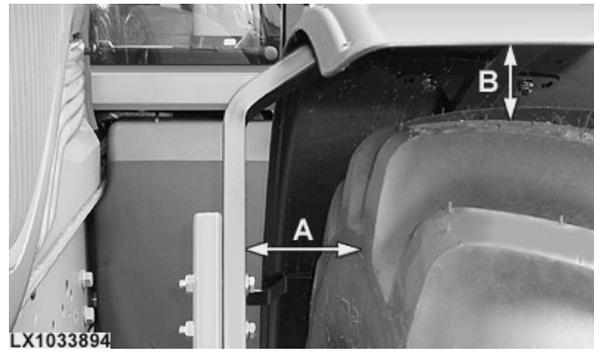
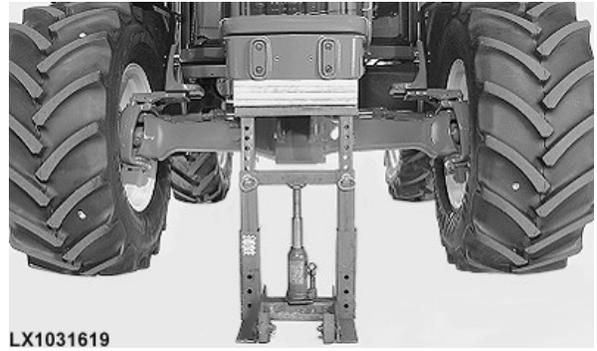
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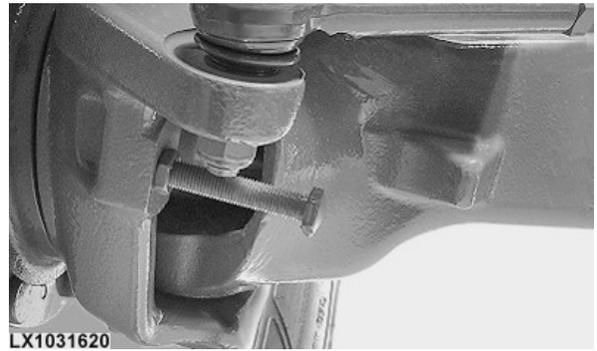
OU12401,0001B80-19-03MAR09-1/4

1. Raise front of tractor so that the front wheel drive axle can pivot freely.
 2. Turn steering wheel in both directions and pivot the axle to determine the most suitable fender mounting position.
 3. Adjust fender position so that the minimum clearances (see illustration) are met. There must not be any contact with the tractor frame.
- A = 40 mm (1.57 in.), B = 60 mm (2.36 in.)
4. Adjust fender stop to prevent it from being seized at the edges with steering wheel fully turned and axle pivoting. Make sure that the stop contacts the tractor frame before the fender can hit the frame.



OU12401.0001B80-19-03MAR09-2/4

5. Also adjust the steering stops to make sure that neither the wheel nor the fender come into contact with tractor components (e.g. fuel tank).

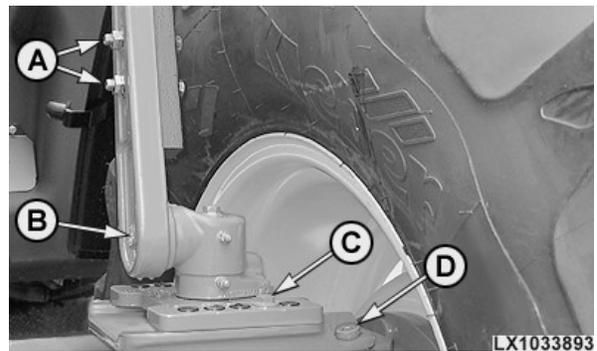


OU12401.0001B80-19-03MAR09-3/4

Tighten the screws to the following torque values:

Screws (A).....	140 N·m (105 lb-ft)
Screw (B).....	300 N·m (220 lb-ft)
Screws (C).....	140 N·m (105 lb-ft)
Screws (D).....	190 N·m (140 lb-ft)

- | | |
|--|---|
| A —Cap screws, support to adjusting arm | C —Cap screws, pivot plate to base |
| B —Cap screw, adjusting arm to joint | D —Hex. socket screws, base to knuckle housing |



OU12401.0001B80-19-03MAR09-4/4

Tightening Rear Wheel Bolts

⚠ CAUTION: Avoid the possibility of personal injury. Never operate tractor with loose wheel bolts. Wheel bolts are critical and require retightening.

IMPORTANT: Do not use clamp-on dual wheels with steel wheels, on flanged axle.

Tightening Sleeve Retaining Bolts

1. Install sleeve retaining bolts (C) and tighten to 204 Nm (150 lb-ft).
2. Retighten to 410 Nm (300 lb-ft).
3. Drive tractor 100 meters (110 yd), then tighten bolts (C) to 600 Nm (445 lb-ft).
4. Retighten bolts after operating **3 HOURS** and **10 HOURS**.

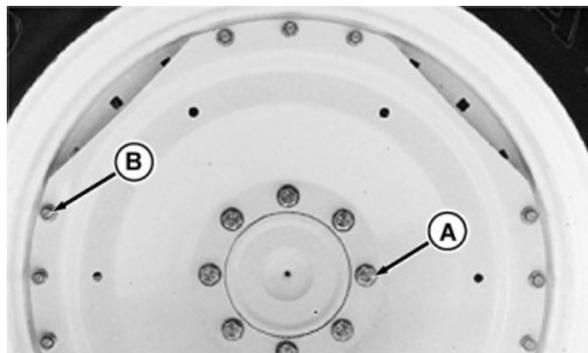
IMPORTANT: When sleeve retaining bolts (C) have been loosened, both sleeve halves must be tightened evenly to prevent hub cracking or bolt loosening.

Tightening Cast Wheel-to-Rim Bolts

Rear wheel rims 965 mm (38 in.) and larger have one bolt hole smaller than the others and one slotted hole 180 degrees apart.

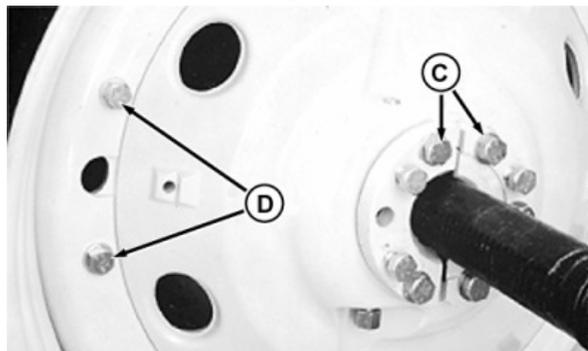
1. Install bolt in **tight-fit** hole and hand tighten.
2. Install bolt in **slot-fit** hole and hand tighten.
3. Install remaining bolts hand tight, then tighten all cast wheel-to-rim bolts to 600 Nm (445 lb-ft).
4. Retighten bolts after operating 100 meters, **3 HOURS** and **10 HOURS**.

A—Disk-to-Axle Flange Bolts	500 Nm (370 lb-ft)
B—Rim-to-Disk Bolts (Multiposition Steel Wheels)	
... 864 mm (34 in.) or 965 mm (38 in.) wheels.....	310 Nm (230 lb-ft)
... 1168 mm (46 in.) or 1270 mm (50 in.) wheels.....	600 Nm (445 lb-ft)
C—Sleeve Retaining Bolts	
... First Tightening	204 Nm (150 lb-ft)
... Second Tightening	410 Nm (300 lb-ft)
... Final Tightening.....	600 Nm (445 lb-ft)
D—Rim-to-Cast Wheel Bolts	600 Nm (445 lb-ft)
E—Steel Wheel-to-Hub Bolts	600 Nm (445 lb-ft)



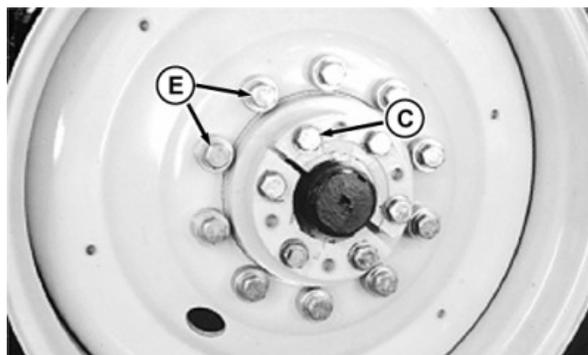
Flanged Axle

RW55090A—UN—06SEP99



Cast Wheel

RW19892A—UN—11AUG99



Steel Wheel

RW21295A—UN—11AUG99

A—Disk-to-Axle Flange Bolt **D—Rim-to-Cast Wheel Bolts**
B—Rim-to-Disk Steel Wheel Bolt **E—Steel Wheel-to-Hub Bolts**
C—Sleeve Retaining Bolts

RF30435.0000015-19-12MAY05-1/1

Rear Wheel Adjusting —Cast

⚠ CAUTION: Avoid personal injury. NEVER operate 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 the tractor on level ground and turn wheel so rack on the axle is upward.
2. Loosen the lower hub center bolt against the retaining nut. Loosen the outer hub sleeve bolts.
3. Tighten the inner jack screws on the upper and lower hub sleeves to loosen sleeves. Tighten jack screws up to 500—600 Nm (370—440 lb-ft) if necessary.

NOTE: Strike end of axle with a heavy hammer and use penetrating oil if sleeves are difficult to break loose.

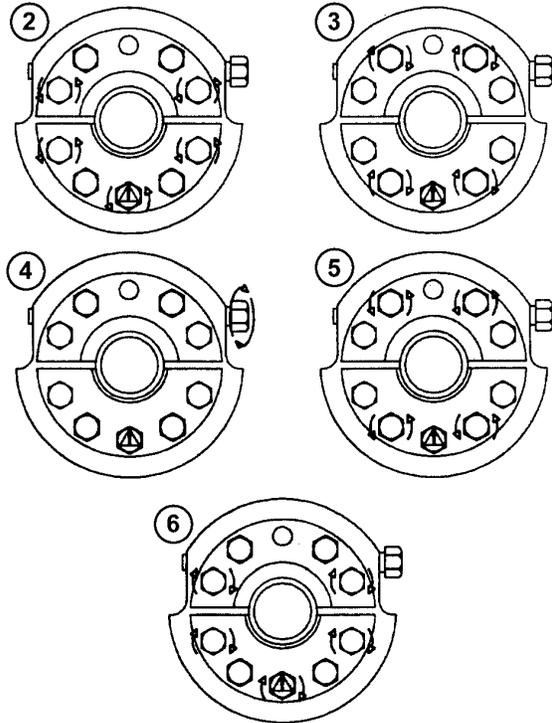
4. Turn adjusting screw to slide wheel to desired position. Observe tread width limitations.
5. Loosen the jack screws all the way against the stop.

⚠ CAUTION: Never operate tractor with a loose rim, wheel, or hub.

IMPORTANT: Keep the face of hub sleeves even to prevent hub breakage or bolt loosening.

6. Tighten hub sleeve bolts to 204 Nm (150 lb-ft) beginning with the center bolt in the lower sleeve, then crisscrossing the other bolts. Retighten bolts to 410 Nm (300 lb-ft) using the same sequence.

Drive tractor a minimum of 100 meters (100 yd) and tighten bolts to 600 Nm (445 lb-ft).



Retighten all bolts after working **3 HOURS** and again after **10 HOURS**.

RW26332—UN—24JUN99

AG,RX15494,1780-19-31AUG04-1/1

Rear Wheel Adjusting —Steel

CAUTION: Avoid personal injury. Never operate 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 wheel so rack on the axle is upward.
2. Loosen hub center bolts (A) against retaining nuts.
3. Remove hub sleeve bolts (B). Use hub sleeve bolts in jack screw holes (C) to loosen sleeves. Tighten screws up to 500—600 Nm (370—440 lb-ft) if necessary.

NOTE: Strike end of axle with a heavy hammer and use penetrating oil if sleeves are difficult to break loose.

4. Remove screws from jack screw holes (D). Install JDG667A Wheel Adjusting Tool (available from your John Deere Dealer), using bolts removed from jack screw holes. Move wheel to desired position. Observe tread width limitations.
5. Remove adjusting tool and jack screws.

CAUTION: Never operate tractor with a loose rim, wheel, or hub.

IMPORTANT: Keep the face of hub sleeves even to prevent hub breakage or bolt loosening.

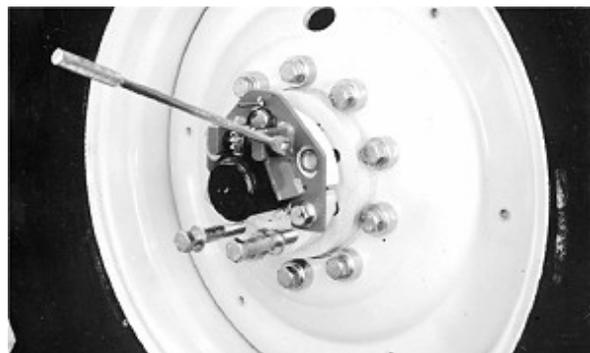
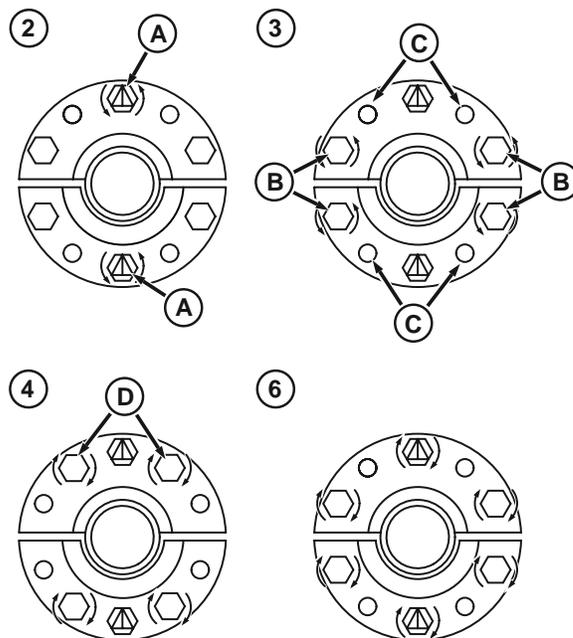
6. Tighten hub sleeve bolts to 204 Nm (150 lb-ft) beginning with the center bolts, then crisscrossing the other bolts. Retighten bolts to 410 Nm (300 lb-ft) using the same sequence.

Drive tractor a minimum of 100 meters (100 yd) and tighten bolts to 600 Nm (445 lb-ft).

Recheck all bolts after working **3 HOURS** and again after **10 HOURS**.

A—Hub Center Bolts
B—Hub Sleeve Bolts

C—Jack Screw Holes
D—Jack Screw Holes



RXA0063088—UN—14OCT02

RW21374—UN—28JUL92

AG,RX15494,1781-19-31AUG99-1/1

Rear Tread Ranges

Tread settings are measured between center of tires.

Radial-ply tires do not require special rims.

Cast drive wheels or steel drive wheels are used inside, and steel wheels are used on outside of tractors with dual wheels.

NOTE: Cast drive wheels have 2 positions for 14.9, 18.4, 20.8, 320/90, 420/90, 480/80, 520/85 and 650/65 tires.

Steel drive wheels have 2 positions for 14.9, 18.4, 480/80 and 650/75 tires, and 16 positions for 14.9, 320/90 and 420/80 tires.

BB92646,000027E-19-12SEP06-1/1

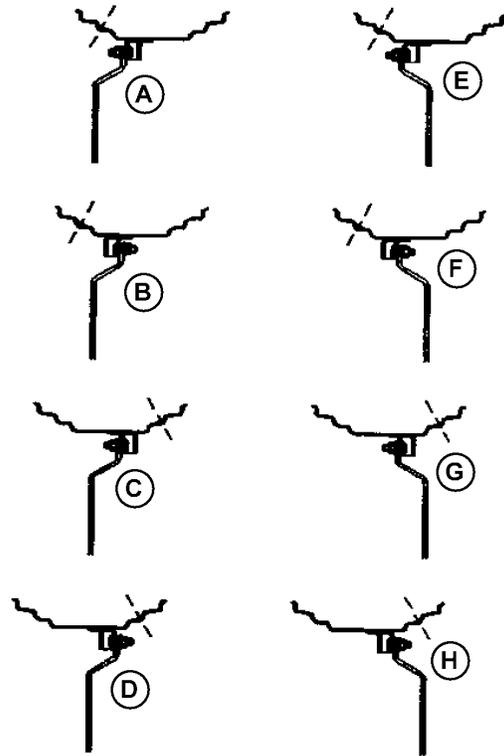
Rear Tread Settings for Single 8-Position Wheels —Flanged Axle

NOTE: Tread settings are measured at bottom centerline of tire.

Use diagram as a guide to adjust rim and disk to desired tread setting.

18.4, 480/80 TIRES		
	Valve Stem Out	Valve Stem In
A—	—	—
B—	—	—
C—	—	1524 mm (60 in.)
D—	—	1626 mm (64 in.) ^a
E—	1727 mm (68 in.)	—
F—	1829 mm (72 in.)	—
G—	—	1930 mm (76 in.)
H—	—	2032 mm (80 in.)

^a Tread spacer kit available from your John Deere Dealer to obtain 1676 mm (66 in.) tread setting.



RWZ1362A—UN—06SEP99

OURX986,0000178-19-06MAY04-1/1

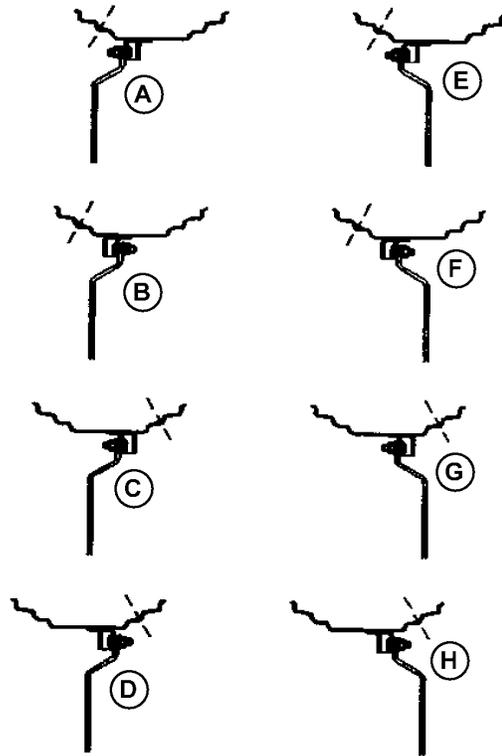
Rear Wheel Treads for 8-Position Wheels with Single Tires — Hi-Crop Tractor — Flanged Axle

NOTE: Tread settings are measured at the bottom tire centerline.

Use diagram as a guide to set rim and disk, to obtain desired tread setting.

18.4 Tire		
	Valve Stem Out	Valve Stem In
A—	—	—
B—	1626 mm (64 in.) ^a	—
C—	—	1727 mm (68 in.)
D—	—	1829 mm (72 in.)
E—	1930 mm (76 in.)	—
F—	2032 mm (80 in.)	—
G—	—	2134 mm (84 in.)
H—	—	2235 mm (88 in.)

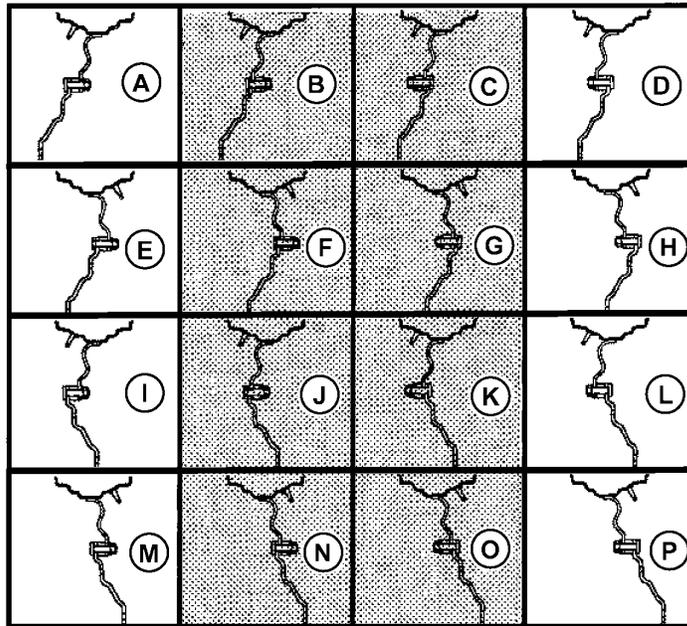
^a Parts are available from your John Deere dealer to obtain a tread setting of 1676 mm (66 in.).



RW21362A—UN—06SEP99

OU12401,0001750-19-02MAY07-1/1

Rear Tread Settings for Single 16-Position Wheels — Hi-Crop Tractor — Flanged Axle



RW26518—UN—01 SEP99

Steel single wheel positions for 320/90 tires as viewed from behind left rear tire. Positions in the shaded areas are not used.

	STANDARD FLANGED AXLE			LONG FLANGED AXLE	
	Valve Stem Out	Valve Stem In		Valve Stem Out	Valve Stem In
A—	—	1524 mm (60 in.)	A—	—	1930 mm (76 in.)
B—	—	—	B—	—	—
C—	—	—	C—	—	—
D—	—	1626 mm (64 in.) ^a	D—	—	2032 mm (80 in.)
E—	1727 mm (68 in.)	—	E—	2134 mm (84 in.)	—
F—	—	—	F—	—	—
G—	—	—	G—	—	—
H—	—	1829 mm (72 in.)	H—	—	2235 mm (88 in.)
I—	1930 mm (76 in.)	—	I—	2337 mm (92 in.)	—
J—	—	—	J—	—	—
K—	—	—	K—	—	—
L—	—	2032 mm (80 in.)	L—	—	2438 mm (96 in.)
M—	2134 mm (84 in.)	—	M—	Not Recommended	—
N—	—	—	N—	—	—
O—	—	—	O—	—	—
P—	2235 mm (88 in.)	—	P—	Not Recommended	—

^a Tread spacer kit available from your John Deere Dealer to obtain 1676 mm (66 in.) tread setting.

AG,RX15494,1786-19-06MAY04-1/1

Rear Wheel Treads for 2-Position Wheels with Single Tires — Adjustable Axle — 2438 mm (96 in.)

		Cast wheels		Steel wheels	
Tire size	Range	Wheel disk inward	Wheel disk outward	Wheel disk inward	Wheel disk outward
320/90	Min.	1525 mm (60.0 in.)	1703 mm (67.0 in.)	—	—
	Max.	1873 mm (73.7 in.)	2178 mm (85.7 in.)	—	—
14.9	Min.	1525 mm (60.0 in.)	1703 mm (67.0 in.)	—	—
	Max.	1873 mm (73.7 in.)	2178 mm (85.7 in.)	—	—
420/80	Min.	1525 mm (60.0 in.)	1703 mm (67.0 in.)	—	—
	Max.	1873 mm (73.7 in.)	2178 mm (85.7 in.)	—	—
18.4	Min.	1588 mm (62.5 in.)	1703 mm (67.0 in.)	1602 mm (63.1 in.)	1907 mm (75.1 in.)
	Max.	1873 mm (73.7 in.)	2178 mm (85.7 in.)	2077 mm (81.9 in.)	2382 mm (93.8 in.)
480/80	Min.	1601 mm (63.0 in.)	1703 mm (67.0 in.)	1602 mm (63.1 in.)	1907 mm (75.1 in.)
	Max.	1873 mm (73.7 in.)	2178 mm (85.7 in.)	2077 mm (81.9 in.)	2382 mm (93.8 in.)
20.8	Min.	1651 mm (65.0 in.)	1703 mm (67.0 in.)	1651 mm (65.0 in.)	1907 mm (75.1 in.)
	Max.	1873 mm (73.7 in.)	2178 mm (85.7 in.)	2077 mm (81.8 in.)	2382 mm (93.8 in.)
520/85	Min.	1651 mm (65.0 in.)	1703 mm (67.0 in.)	1651 mm (65.0 in.)	1907 mm (75.1 in.)
	Max.	1873 mm (73.7 in.)	2178 mm (85.7 in.)	2077 mm (81.8 in.)	2382 mm (93.8 in.)
	Max.	—	—	2077 mm (81.8 in.)	2382 mm (93.8 in.)
24.5	Min.	—	—	1753 mm (69.0 in.)	2408 mm (113.5 in.)
	Max.	—	—	1939 mm (76.3 in.)	2883 mm (113.5 in.)
620/70	Min.	1766 mm (69.5 in.)	1806 mm (71.1 in.)	—	—
	Max.	1833 mm (72.2 in.)	2137 mm (84.1 in.)	—	—
650/65	Min.	1778 mm (70 in.)	1873 mm (73.7 in.)	—	—
	Max.	1817 mm (71.5 in.)	2178 mm (85.7 in.)	—	—
650/75	Min.	—	—	1778 mm (70.0 in.)	1907 mm (75.1 in.)
	Max.	—	—	2077 mm (81.8 in.)	2382 mm (93.8 in.)
710/70	Min.	—	1854 mm (73.0 in.)	—	—
	Max.	—	2137 mm (84.1 in.)	—	—

NOTE: Different settings are obtained by changing rim-to-hub positions.

OU12401,0001751-19-03MAY07-1/1

Rear Wheel Treads for 2-Position Wheels with Single Tires — Adjustable Axle — 2808 mm (110.5 in.)

		Cast wheels		Steel wheels	
Tire size	Range	Wheel disk inward	Wheel disk outward	Wheel disk inward	Wheel disk outward
320/90	Min.	1525 mm (60.0 in.)	1702 mm (67.0 in.)	—	—
	Max.	2243 mm (88.3 in.)	2548 mm (100.3 in.)	—	—
14.9	Min.	1525 mm (60.0 in.)	1702 mm (67.0 in.)	—	—
	Max.	2243 mm (88.3 in.)	2548 mm (100.3 in.)	—	—
420/80	Min.	1525 mm (60.0 in.)	1702 mm (67.0 in.)	—	—
	Max.	2243 mm (88.3 in.)	2548 mm (100.3 in.)	—	—
18.4	Min.	1588 mm (62.5 in.)	1702 mm (67.0 in.)	1603 mm (63.1 in.)	1908 mm (75.1 in.)
	Max.	2243 mm (88.3 in.)	2548 mm (100.3 in.)	2447 mm (96.3 in.)	2752 mm (108.3 in.)
480/80	Min.	1601 mm (63 in.)	1702 mm (67.0 in.)	1603 mm (63.1 in.)	1908 mm (75.1 in.)
	Max.	2243 mm (88.3 in.)	2548 mm (100.3 in.)	2447 mm (96.3 in.)	2752 mm (108.3 in.)
20.8	Min.	1651 mm (65.0 in.)	1702 mm (67.0 in.)	1651 mm (65.0 in.)	1908 mm (75.1 in.)
	Max.	2243 mm (88.3 in.)	2548 mm (100.3 in.)	2447 mm (96.3 in.)	2752 mm (108.3 in.)
520/85	Min.	1651 mm (65.0 in.)	1702 mm (67.0 in.)	1651 mm (65.0 in.)	1908 mm (75.1 in.)
	Max.	2243 mm (88.3 in.)	2548 mm (100.3 in.)	2447 mm (96.3 in.)	2752 mm (108.3 in.)
24.5	Min.	—	—	1753 mm (69.0 in.)	2408 mm (94.8 in.)
	Max.	—	—	2309 mm (90.9 in.)	3253 mm (128.1 in.)
620/70	Min.	1766 mm (69.5 in.)	1806 mm (71.1 in.)	—	—
	Max.	2202 mm (86.7 in.)	2506 mm (98.6 in.)	—	—
650/65	Min.	1778 mm (70.0 in.)	1873 mm (73.7 in.)	—	—
	Max.	2187 mm (86.1 in.)	2548 mm (100.3 in.)	—	—
650/75	Min.	—	—	1778 mm (70.0 in.)	1908 mm (75.1 in.)
	Max.	—	—	2447 mm (96.3 in.)	2752 mm (108.3 in.)
710/70	Min.	1854 mm (73.0 in.)	1854 mm (73.0 in.)	—	—
	Max.	2202 mm (86.7 in.)	2506 mm (98.6 in.)	—	—

NOTE: Different settings are obtained by changing rim-to-hub positions.

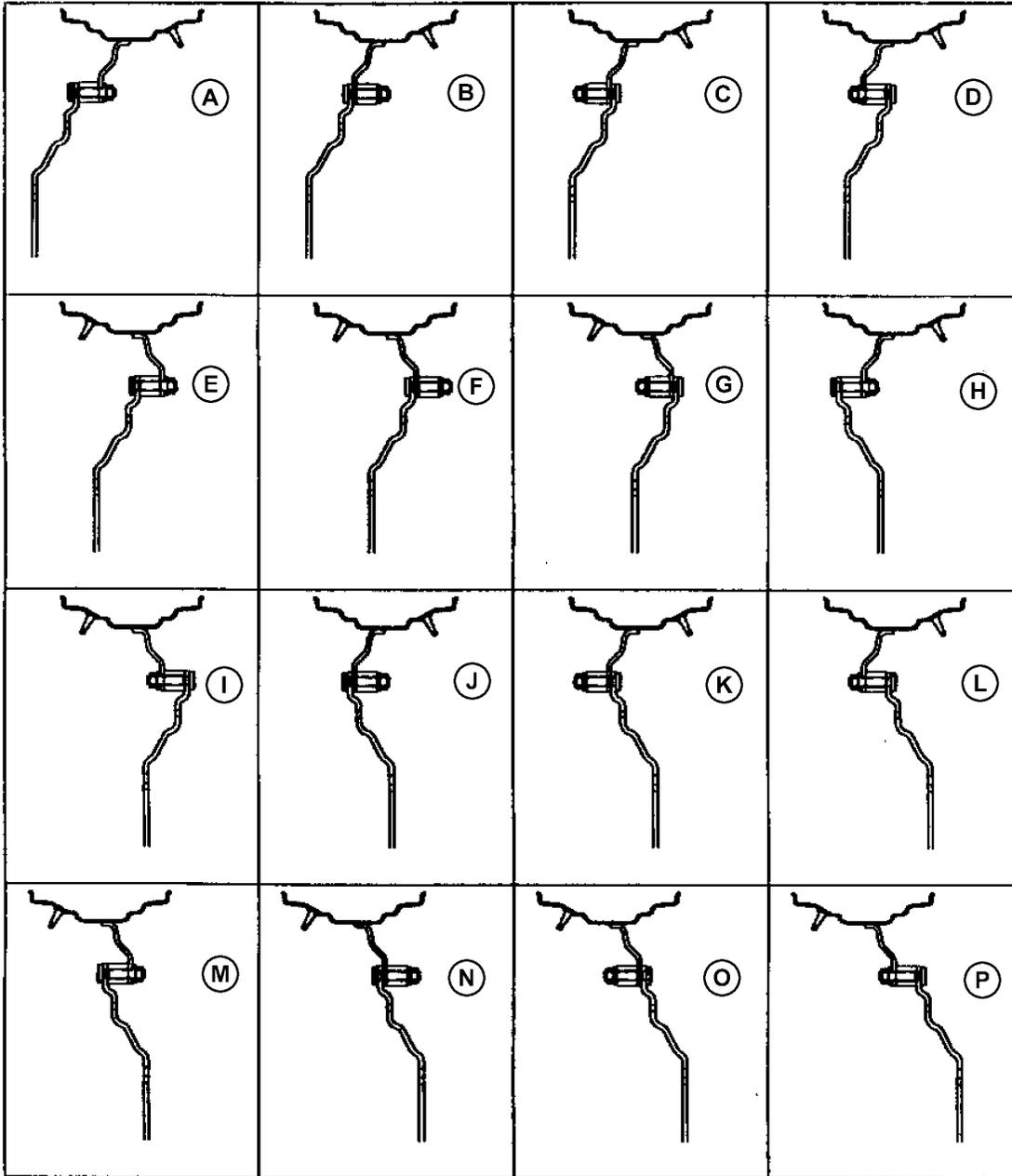
OU12401,0001752-19-03MAY07-1/1

Rear Tread Settings for Single 16-Position Steel Wheels — Rack and Pinion Axle — 2438 mm (96 in.) or 2808 mm (110.5 in.)

2438 mm (96 in.) Axle		2808 mm (110.5 in.) Axle	
Minimum	Maximum	Minimum	Maximum
A—1525 mm (60.0 in.)	1801 mm (70.9 in.)	A—1525 mm (60.0 in.)	2171 mm (85.5 in.)
B—1525 mm (60.0 in.)	1852 mm (72.9 in.)	B—1525 mm (60.0 in.)	2222 mm (87.5 in.)
C—1525 mm (60.0 in.)	1895 mm (74.6 in.)	C—1525 mm (60.0 in.)	2265 mm (89.2 in.)
D—1525 mm (60.0 in.)	1946 mm (76.6 in.)	D—1525 mm (60.0 in.)	2316 mm (91.2 in.)
E—1631 mm (64.2 in.)	2106 mm (82.9 in.)	E—1631 mm (64.2 in.)	2476 mm (97.5 in.)
F—1682 mm (66.2 in.)	2157 mm (84.9 in.)	F—1682 mm (66.2 in.)	2527 mm (99.5 in.)
G—1725 mm (67.9 in.)	2200 mm (86.6 in.)	G—1725 mm (67.9 in.)	2570 mm (101.2 in.)
H—1733 mm (68.2 in.)	2208 mm (86.9 in.)	H—1733 mm (68.2 in.)	2578 mm (101.5 in.)
I—1776 mm (69.9 in.)	2251 mm (88.6 in.)	I—1776 mm (69.9 in.)	2621 mm (103.2 in.)
J—1784 mm (70.2 in.)	2259 mm (88.9 in.)	J—1784 mm (70.2 in.)	2629 mm (103.5 in.)
K—1827 mm (71.9 in.)	2302 mm (90.6 in.)	K—1827 mm (71.9 in.)	2672 mm (105.2 in.)
L—1877 mm (73.9 in.)	2352 mm (92.6 in.)	L—1877 mm (73.9 in.)	2722 mm (107.2 in.)
M—2038 mm (80.2 in.)	2513 mm (98.9 in.)	M—2038 mm (80.2 in.)	2883 mm (113.5 in.)
N—2088 mm (82.2 in.)	2563 mm (100.9 in.)	N—2088 mm (82.2 in.)	2933 mm (115.5 in.)
O—2131 mm (83.9 in.)	2606 mm (102.6 in.)	O—2131 mm (83.9 in.)	2976 mm (117.2 in.)
P—2182 mm (85.9 in.)	2657 mm (104.6 in.)	P—2182 mm (85.9 in.)	3027 mm (119.2 in.)

OU1092A.0000224-19-29NOV06-1/1

Rear 16-Position Steel Wheel Settings



RW55071A—UN—06SEP99

Steel single wheel positions for 14.9 single tires, and 14.9, 320/90 and 420/80 dual tires, as viewed from behind left rear tire.

OU1092A,0000225-19-29NOV06-1/1

Rear Dual Wheel Guidelines

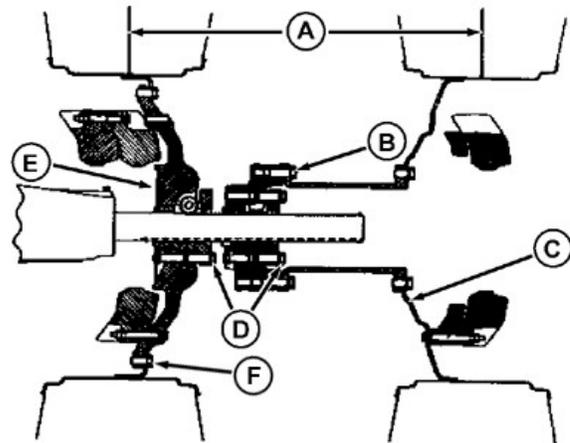
CAUTION: Avoid personal injury or death. Never operate the engine with transmission in gear and rear wheels off the ground. Front wheels on tractors with MFWD could pull rear wheels off support.

Make sure MFWD is disengaged and transmission gear shift lever is in neutral position (N) to rotate axle by hand.

IMPORTANT: Check minimum spacing (A) between tire centers, as shown in GENERAL WHEEL, TIRE AND TREAD SETTING GUIDELINES. Dual wheels can not be used with 2438 mm (96 in.) axles.

Tighten retaining bolts (B), special sleeve bolts (D), and rim flange bolts (F).

NOTE: When removing a wheel for single wheel operation, always remove steel disk wheel (C) and operate tractor on cast wheel (E) with flanged rim.



A—Minimum Spacing
B—Retaining Bolts
C—Steel Disk Wheel

D—Sleeve Bolts
E—Cast Wheel
F—Rim Flange Bolts

RXA0063073—UN—15OCT02

AG,RX15494,1790-19-01SEP99-1/1

Dual 2-Position Wheel Tread Settings — 2808 mm (110.5 in.) Axle

Tire Size	Inner Wheel Dished	Outer Wheel Dished	Inner Tire Range		Outer Tire Range
			Min—Max mm (in.)	Maximum with Dual Hub Extension	Min—Max mm (in.)
18.4 or 480/80	In	Out	1525—1829 (60.0—72.0)	1829 (72.0)	2810—3114 (110.6—122.6)
	Out	Out	1823—1959 (71.8—77.1)	2134 (84.0)	2978—3114 (117.2—122.6)

AG,RX15494,1791-19-01SEP99-1/1

Dual Wheel Hub Extensions

CAUTION: Avoid personal injury from tipping or falling wheel. Remove extension from hub before sleeve bolts are loosened.

Do not use extensions in combination with each other.

Hub extensions of 25.4 mm (1 in.), 127 mm (5 in.), 254 mm (10 in.), 330 mm (13 in.), and 381 mm (15 in.) are available for 20-inch through 38-inch rows.

NOTE: JDG679 wrench adapter, available from your John Deere dealer, must be used to tighten 127 mm (5 in.) hub extension.

Refer to the following charts to determine the correct extension to use.

NOTE: Either size extension will work when more than one is listed.

Tread setting is possible without an extension if listed as "w/o".

Inch dimensions only in following charts. Multiply the inch dimension by 25.4 for the metric equivalent.

NOTE: Hub extensions not used with 2438 mm (96 in.) axle.

BB92646,000027F-19-12SEP06-1/1

Wheel Tread, Tires

Hub Extensions for 18.4 and 480/80 Duals With 2808 mm (110.5 in.) Axle

Row Spacing	20	22	22	24	26	28	30	32	34	36	38
Inner Wheel Setting	80	66	88	72	78	84	60	64	68	72	76
Outer Wheel Setting	120	110	132	120	130	140	120	128	136	144	152

18.4, 480/80 Tires

Inner Wheel Dished	Outer Wheel Dished											
In	In	—	—	—	—	—	—	13,15	—	—	—	—
Out	In	—	—	—	13,15	—	—	—	—	—	—	—
In	Out	—	—	—	—	—	—	w/o,1	5	—	—	—
Out	Out	—	—	—	w/o,1	5	—	—	—	—	13,15	15

RF30435,0000ABE-19-26APR04-1/1

Hub Extensions for 14.9, 320/90 and 420/80 Duals With 2808 mm (110.5 in.) Axle

NOTE: Asterisk denotes row spacings not recommended for 420/80 tires

Row Spacing	20*	22*	22*	24	26	28	30	32	34	36	38
Inner Wheel Setting	80	66	88	72	78	84	60	64	68	72	76
Outer Wheel Setting	120	110	132	120	130	140	120	128	136	144	152
Inner Wheel Dished											
Outer Wheel Dished											
In Pos A	—	10	—	—	—	—	15	—	—	—	—
Out Pos A	15	—	—	15	—	—	—	—	—	—	—
In Pos B	—	10	—	—	—	—	13,15	—	—	—	—
Out Pos B	13	—	—	13,15	—	—	—	—	—	—	—
In Pos C	—	—	—	—	—	—	13,15	—	—	—	—
Out Pos C	13	—	—	13,15	—	—	—	—	—	—	—
In Pos D	—	—	—	—	—	—	13,15	15	—	—	—
Out Pos D	—	—	—	13,15	—	—	—	—	—	—	—
In Pos E	—	5	—	—	—	—	10,13	13,15	—	—	—
Out Pos E	—	—	—	10,13	13,15	—	—	—	—	—	—
In Pos F	—	—	—	—	—	—	10	13	15	—	—
Out Pos F	—	—	—	10	13	—	—	—	—	—	—
In Pos G	—	1	—	—	—	—	10	10,13	15	—	—
Out Pos G	—	—	—	10	13	—	—	—	—	—	—
In Pos H	—	1	—	—	—	—	10	10,13	15	—	—
Out Pos H	—	—	—	10	13	—	—	—	—	—	—
In Pos I	—	w/o,1	—	—	—	—	5,10	10	13	—	—
Out Pos I	5	—	—	5,10	10	—	—	—	—	—	—
In Pos J	—	w/o,1	—	—	—	—	5,10	10	13	—	—
Out Pos J	5	—	—	5,10	10	—	—	—	—	—	—
In Pos K	—	w/o,1	—	—	—	—	5	10	13	—	—
Out Pos K	5	—	—	5	10	—	—	—	—	—	—
In Pos L	—	w/o	—	—	—	—	5	10	—	—	—
Out Pos L	—	—	—	5	10	—	—	—	—	15	—
In Pos M	—	—	—	—	—	—	w/o,1,5	5	—	—	—
Out Pos M	w/o,1	—	—	w/o,1,5	5	—	—	—	—	13,15	—
In Pos N	—	—	—	—	—	—	w/o,1	5	—	—	—
Out Pos N	w/o	—	—	w/o,1	5	—	—	—	—	13,15	15
In Pos O	—	—	—	—	—	—	w/o,1	5	—	—	—
Out Pos O	—	—	—	w/o,1	5	—	—	—	—	10,13,15	15
In Pos P	—	—	—	—	—	—	w/o,1	1	5	—	—
Out Pos P	—	—	—	w/o,1	—	—	—	—	—	10,13	13,15

AG,RX15494,1795-19-06MAY04-1/1

Service Tires Safely

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

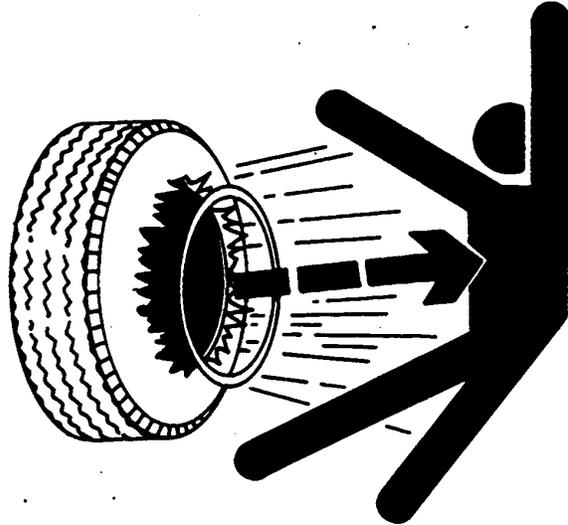
Do not attempt to mount a tire unless you have the proper equipment and experience to perform the job.

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.



TS211-UN-15APR13

DX,RIM1-19-27OCT08-1/1

Check the Oil Sight-Glass (when the Tire Combination has been Changed on Tractors 7130 and 7230)

IMPORTANT: If a new pair of tires is selected, the Basic Control Unit (BCU) must be recalibrated; if the tractor has IVT, the User Interface Controller (UIC) must be recalibrated as well. See your John Deere dealer.

If the new rear tires have a higher SRI (speed/radius index) than the previous ones, the tractor's electronics must be recalibrated by your John Deere dealer.

Refer to "Specifications" section for the SRI (speed/radius index) of the tires supplied with the tractor when it left the factory. Ascertain the indicator letter (A-G) of the existing oil sight-glass by referring to Table 1.

Ascertain the indicator letter of the required sight-glass by finding the SRI of the desired tire combination in Table 1. If a new glass is required, refer to Table 2 for the part number.

SRI of front tires	SRI (speed/radius index) of rear tires			
	775	800	825	875
625	C	C	B	F
650	D	C	C	A
675	D	D	C	B
High Crop tractors:				
825	—	—	G	—
875	—	—	F	G

Non-IVT		IVT	
Identification Letter	Part Number	Identification Letter	Part Number
A	AL175219	A	AL176116
B	AL176110	B	AL176117
C	AL176111	C	AL176118
D	AL176112	D	AL176119
F	AL176114	F	AL176121
G	AL176115	G	AL176122

OU12401,00014C9-19-03AUG06-1/1

Additional Equipment — Hydraulic System

Selective Control Valves

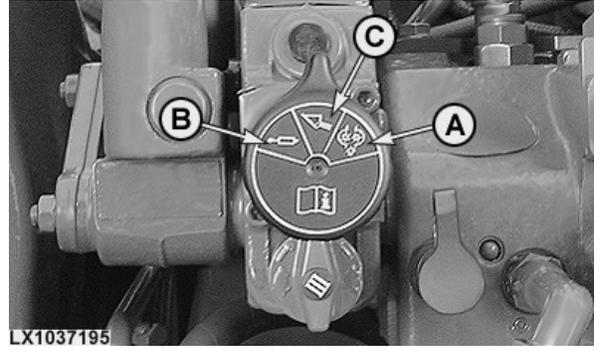
The tractor may be equipped with 300 or 350 Series selective control valves. These provide the functions Raise and Lower plus one Float Position.

Besides these functions, they have a lock function (A) which holds the control lever in the Raise or Lower position until it is moved manually.

They also have an additional lock function (B), which holds the control lever in the Raise or Lower position until the pressure in the oil circuit has reached a predetermined value (e.g. when the remote control cylinder has reached its end position).

Neither locking function is activated in position (C). The control lever returns to neutral as soon as it is released.

If an implement (e.g. an hydraulic cylinder) is connected, comply with the symbols on the couplers. With 300 Series selective control valves, a valve prevents rapid loss of



A—Lock function (manual) C—No lock function
B—Lock function (pressure-controlled)

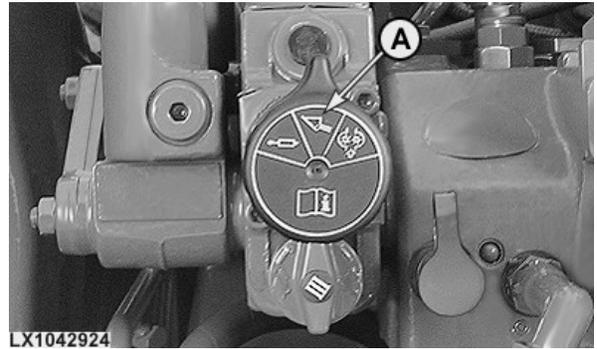
pressure caused by leakage (e.g. retracting cylinder) when the engine is shut off. On 350 Series selective control valves, the likelihood of leakage is further diminished.

OU12401,0001B1E-19-30JAN09-1/1

Operating Loader Using SCV

⚠ CAUTION: Help prevent personal injury or death caused by objects falling on the operator. When using SCV to operate loader (tractor not equipped with single-lever control), SCV must be in loader (no detent) position (A). Movement of the control lever to the detent position may cause the loader to rise to full height unexpectedly and the load to fall back on the operator.

A—Loader position



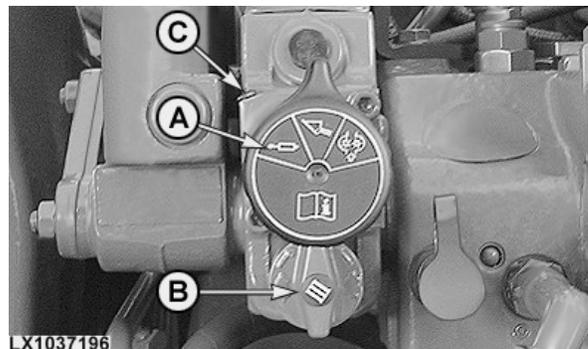
OU12401,0001730-19-20APR07-1/1

Adjustment of Pressure Limit at Selective Control Valves

NOTE: All selective control valves are factory adjusted to 18000 kPa (180 bar; 2610 psi).

If the selective control valve in lock function switches off too early (control lever goes to neutral too early), or if it switches off too late or not at all (lever goes to neutral too late or not at all), proceed as follows:

1. If equipped, disconnect hydraulic hoses at the connectors.
2. Engage the locking function (A) (as far as it will go to the right) and move flow control valve (B) to the mid-position.
3. Take out plug (C) and insert a 1.5 mm (0.06 in.) hex. socket key.
4. Start the engine and turn the screw clockwise as far as it will go.
5. Move SCV control lever to the “raise” or “lower” position (the control lever remains in the “raise” or “lower” position).



LX1037196

A—Lock function
B—Flow-control valve

C—Plug

LX1037196—UN—17MAY06

6. Turn the screw counter-clockwise until the control lever returns to neutral.

NOTE: One full turn changes the pressure by approx. 2000 kPa (20 bar; 290 psi).

7. Re-install the plug.

OU12401.000140F-19-13MAY06-1/1

Levers for Mechanical Selective Control Valves

Control lever positions

The control lever has four positions.

(A) - Retract

The remote cylinder retracts when the lever is moved to the *Retract* position.

(B) - Extend

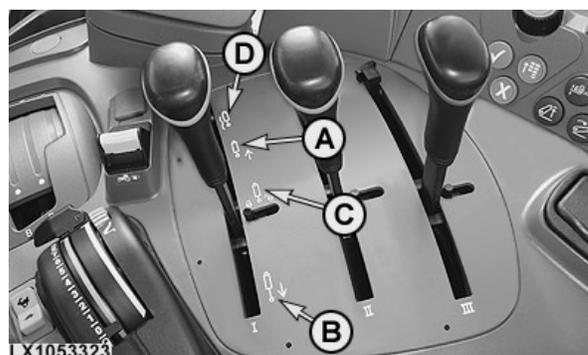
The remote cylinder extends when the lever is moved to the *Extend* position.

(C) - Neutral

The remote cylinder is held in place when the lever is in *Neutral*.

(D) - Float

The mounted implement follows the ground contours when



LX1053323

LX1053323—UN—27OCT11

the lever is in *Float* position (piston moves freely inside remote cylinder).

NOTE: If additional external valves are used, move the control lever to neutral when shutting off each hydraulic function.

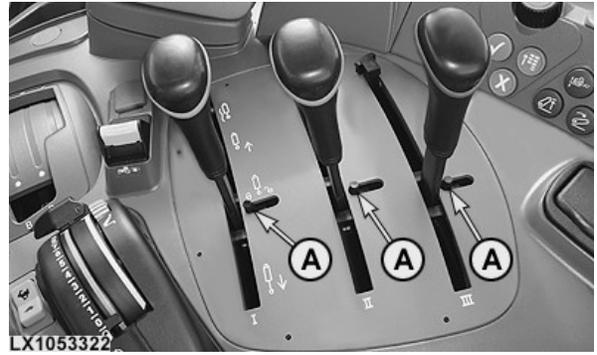
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OU12401.0001301-19-03NOV11-1/2

Transport lock

With locks (A) each lever for selective control valves can be locked in neutral position (transport lock) or released for all functions.

⚠ CAUTION: Use locks (A) to lock the control levers when driving on roads and whenever the control levers are in neutral because they are not required. If this is not done, the control levers may be inadvertently actuated while the tractor is in motion, which could lead to serious accidents.



OU12401,0001301-19-03NOV11-2/2

Levers for Electronically Controlled Selective Control Valves (E-SCVs)

The control lever has four settings.

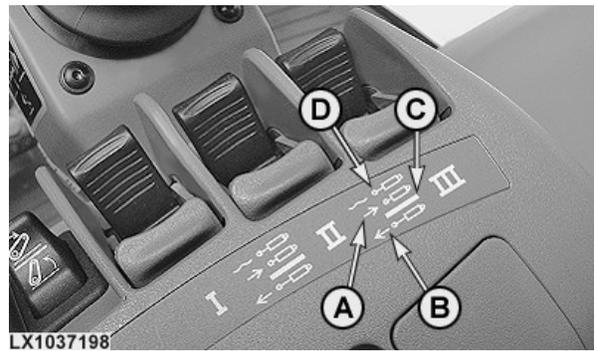
The remote cylinder retracts when the lever is moved to the Retract position.

The remote cylinder extends when the lever is moved to the Extend position.

The remote cylinder is held in place when the lever is in Neutral.

When the lever is in the Float position (i.e. piston moves freely inside remote cylinder), the mounted implement follows the ground contours. To obtain this position, move the lever as far as it will go in Retract, press it downward and then press it further to the front.

NOTE: If additional external valves are used, move the control lever to neutral when shutting off each hydraulic function.



A—Retract
B—Extend

C—Neutral position (between retract and extend)
D—Float position

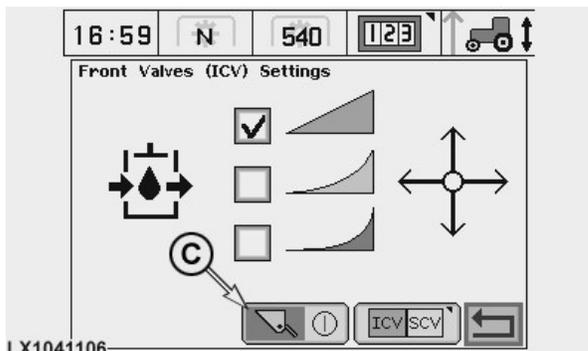
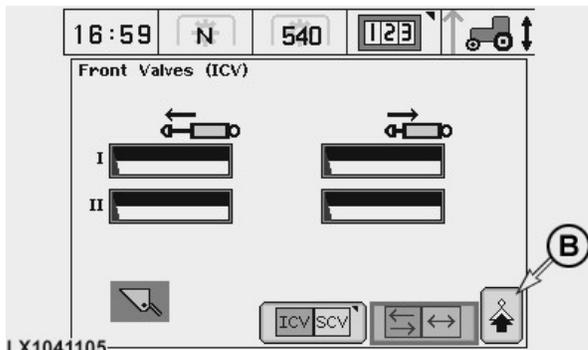
OU12401,00015C8-19-16DEC06-1/1

Additional Functions for Electronic Control Valves (E-SCVs and E-ICVs)

IMPORTANT: For E-ICVs, make sure that the correct machine (front loader or front-mounted implement) is set.

Press button (A) for selective control valves and select ICV, then select next page (B) and finally, select or deselect the front loader symbol (C).

- A—Button for Selective Control Valves
- B—Next Page
- C—Front Loader



Continued on next page

OU12401,0001663-19-28OCT11-1/5

Transport lock

All selective control valves (E-SCVs) can be locked at once (transport lock) using button (A). This is indicated by light (C). The selective control valves go to neutral.

All independent control valves (E-ICVs) of the multi-function lever can be locked at once (transport lock) using button (B). This is indicated by light (D). The selective control valves go to neutral.

⚠ CAUTION: Transport lock buttons (A) and (B) must be activated when driving on roads and whenever the selective control valves or the front loader are not required. If this is not done, the selective control valves or the front loader may be inadvertently actuated while the tractor is in motion, which could lead to serious accidents.

A—Transport Lock Button, Selective Control Valves (E-SCVs)

B—Transport Lock Button, Multi-Function Lever (E-ICVs)

C—Transport Lock Indicator Light, Selective Control Valves (E-SCVs)

D—Transport Lock Indicator Light, Multi-Function Lever (E-ICVs)



Continued on next page

OU12401,0001663-19-28OCT11-2/5

Adjusting the SCV values

The following values may be adjusted for the E-SCVs and E-ICVs:

- Maximum flow
- Automatic shut-off time

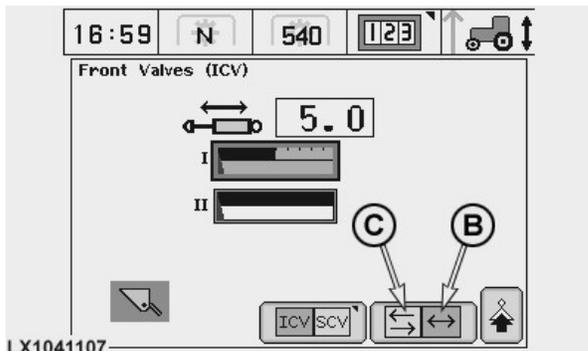
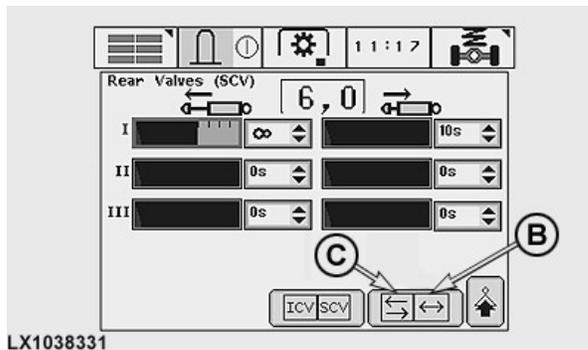
Press button (A) for selective control valves and set the desired values at the following screens using the selector wheel.

The values for maximum flow can be set in increments of 0.1. The minimum is 0.2, and the maximum 10.

The values for the shut-off time can be set in variable increments between 0 and infinity. Infinity means **no** automatic shut-off.

NOTE: If cell (B) is activated, the set values for maximum flow and automatic shut-off time at each of the SCVs are identical in both directions (extend/retract). If cell (C) is activated, the values for the two directions of movement can be set separately (see illustrations).

- A—Button for Selective Control Valves
 B—Joint Adjustment
 C—Separate Adjustment



Continued on next page

OU12401,0001663-19-28OCT11-3/5

Further adjustments

Press button (A) for selective control valves, then select next page (B).

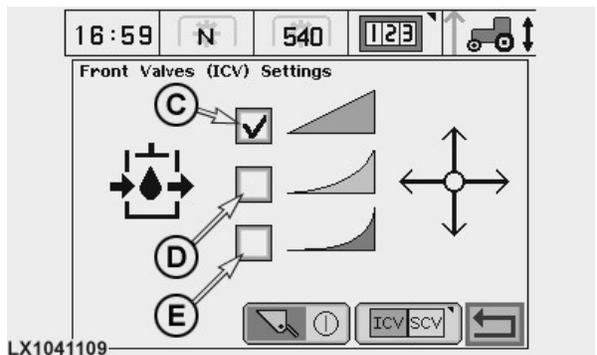
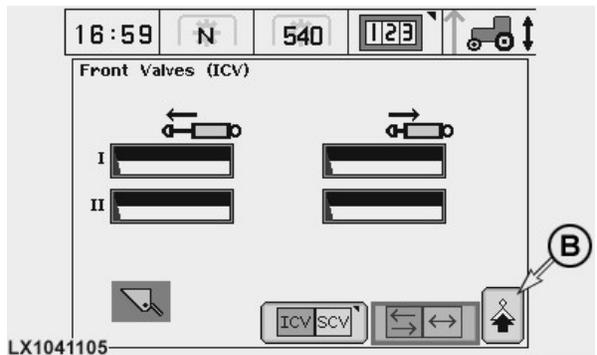
On this screen, the response characteristics of the SCVs can be adjusted:

- **Linear** (C) means that the distance travelled by the SCV corresponds to the distance travelled by the control lever / multi-function lever
- **Progressive** (E) means that initially the distance travelled by the SCV is less than that travelled by the control lever / multi-function lever (giving a more sensitive start to the movement)
- **Combination** (D) is an intermediate stage between the two settings described above

In addition, you can select whether or not a front loader or front-mounted implement can be operated via the electrical multi-function lever.

IMPORTANT: For E-ICVs, make sure that the correct machine (front loader or front-mounted implement) is set.

- A—Button for Selective Control Valves
 B—Next Page
 C—Linear
 D—Combination
 E—Progressive



Continued on next page

OU12401,0001663-19-28OCT11-4/5

Automatic shut-off

Provided the transport lock is not active and a shut-off time greater than zero is set for the SCV, the following applies:

If the SCV control lever (see arrow) is in the maximum extend or retract position and then moved past the point of resistance (a definite click can be perceived), the relevant SCV will be brought to its maximum flow position and held there until the set shut-off time elapses. Then the control valve is moved to its neutral position.

This procedure is aborted if:

- the SCV control lever is not returned to its neutral position within one second
- the SCV control lever is moved out of its neutral position before the shut-off period has elapsed
- the SCV control lever is moved in the opposite direction

In all above-mentioned cases, the SCV will react according to the movements of the SCV control lever.



To re-activate the automatic shut-off, cycle the SCV control lever back from beyond the point of resistance and then past the point of resistance again.

OU12401,0001663-19-28OCT11-5/5

Multi-Function Lever (Mechanical)

Multi-function lever (A) permits two SCVs to be operated at the same time. Button (B) enables other functions to be carried out.

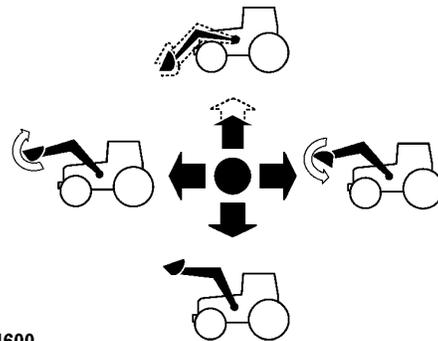
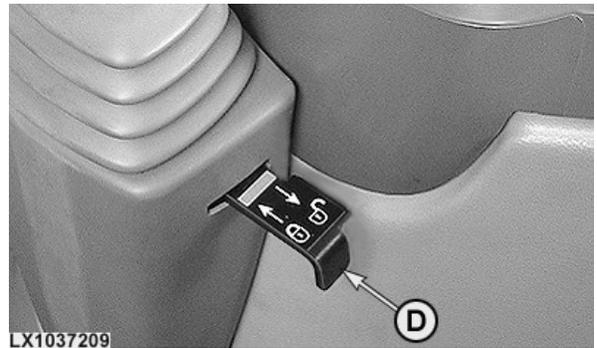
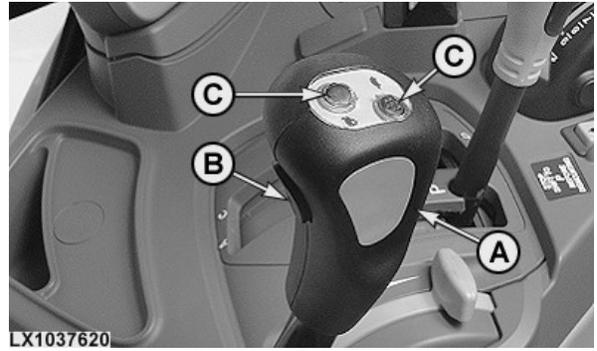
Gear shift buttons (C) allow the gears at the transmission to be shifted. Slide control (D) locks the lever.

Pulling lever (A) back raises the front loader. Pushing the lever forward until resistance is reached lowers the front loader. If the lever is pushed forward beyond the resistance, it engages in a detent and the front loader is in its float position.

Moving the lever to the left makes the loader bucket tip up. Moving the lever to the right makes the loader bucket dump.

⚠ CAUTION: The multi-function lever must be locked when driving on roads and whenever the front loader is not required. Move the multi-function lever to neutral position and lock it using slide control (D). Make sure that the multi-function lever can no longer move. Otherwise, the front loader may be inadvertently actuated while the tractor is in motion, which could lead to serious accidents.

- | | |
|---------------------------|--------------------------------|
| A —Multi-Function Lever | C—Gear Shift Buttons |
| B—Button for 3rd Function | D—Transport Lock Slide Control |



OU12401,00013D1-19-28OCT11-1/1

Mechanical Multi-Function Lever with Front-Loader Dampening

Basic functions:

- Lever to rear = Raise front loader
- Lever to front as far as perceptible resistance = Lower front loader
- Lever to front beyond perceptible resistance (detent) = Front loader in float position
- Lever to left = Bucket tips up
- Lever to right = Bucket tips down

Advanced functions and programming:

Multi-function lever (A) permits two control valves (M-ICVs) to be operated at the same time. A third control valve is actuated via rocker switch (H), permitting an additional function to be controlled.

If Memo™ button (B) is pressed during raising or lowering, the front loader will only move as far as the preset position.

Pressing buttons (E) and (F) actuates the diverter valves of the implement, permitting additional functions to be controlled.

NOTE: For more information, see implement operator's manual. Front-loader dampening must be activated before it can be used.

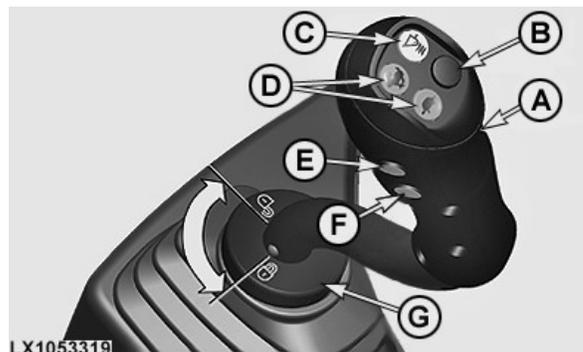
Front-loader dampening is switched on and off at button (C). When front-loader dampening is switched on, the LED in button (C) lights up.

Gear-shift switches (D) allow the gears at the transmission to be shifted.

CAUTION: When the front loader is not in use, the multi-function lever must be locked. To do this, turn locking ring (G) and check that the multi-function lever cannot be moved. If this is not done, the front loader may be inadvertently actuated while the tractor is in motion, which could lead to serious accidents.

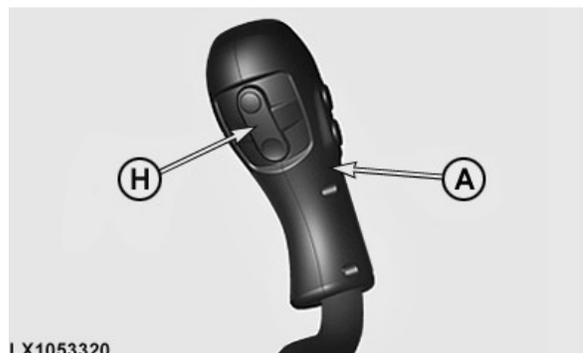
Activate and de-activate front-loader dampening

1. Hold button (C) and then switch on the ignition.
2. Hold button (C) for another 5 seconds at least until the LED in the button starts to flash.
3. Release the button and press it again within 5 seconds to gain access to the programming mode.
4. The current programming of front-loader dampening is shown as follows:
LED off all the time ==> Front-loader dampening deactivated
LED on all the time ==> Front-loader dampening activated
5. Press button (C) to activate or de-activate front-loader dampening.



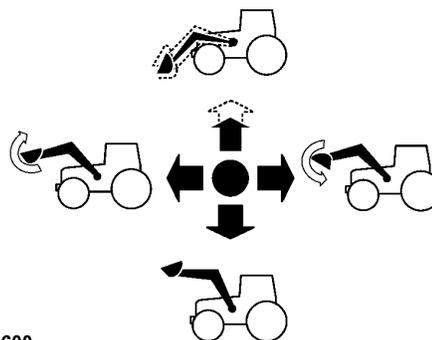
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LX1054600

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- | | |
|--|---|
| A—Multi-Function Lever | E—Button, Diverter Valve 1 on Front Implement (not for North America) |
| B—Memo™ Button (not for North America) | F—Button, Diverter Valve 2 on Front Implement (not for North America) |
| C—Button for Activating Front-Loader Dampening | G—Locking Ring (Transport Lock) |
| D—Gear Shift Switches | H—Raise/Lower Rocker Switch |

6. To leave the programming mode and save the setting, press any button on the multi-function lever or switch off the ignition.

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Multi-Function Lever (Electrical)

⚠ CAUTION: Before operating a front loader, make sure that none of the detent positions have programmed time limits. For this, *front-loader operation* must be selected. See *Additional Functions of the Electronic Selective Control Valves* in this Section.

⚠ CAUTION: Transport lock button (F) must be activated when driving on roads and whenever the front loader is not required. If this is not done, the front loader may be inadvertently actuated while the tractor is in motion, which could lead to serious accidents.

Multi-function lever (A) permits two SCVs to be operated at the same time. By means of rocker switch (B) an additional SCV can be operated (3rd function).

Switches (D) and (E) allow other functions.

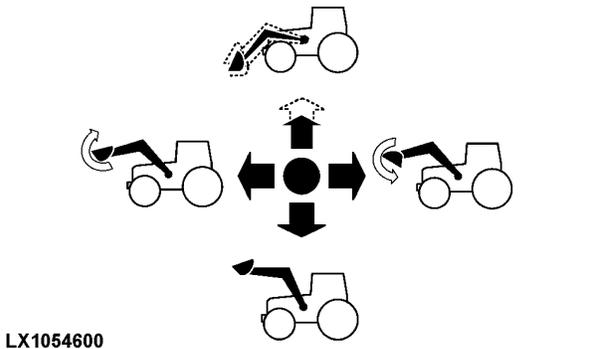
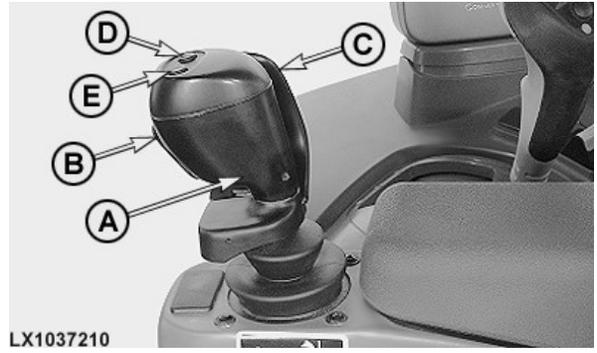
Interlock switch actuator (C) prevents accidental actuation of the multi-function lever. The lever can operate only when the actuator is open (the operator's hand must hold it open). If the loader does not respond after the hand has been placed in the interlock switch actuator, it is possible that the lever was not in the center detent position when the actuator was opened. Move the lever back to the center detent position to activate the system.

If the lever is held in neutral position for longer than 10 minutes, the hydraulic functions are locked out. To overcome this lock-out, take your hand out of the actuator and re-insert hand. In case of malfunctions (e.g. part of system not working or operating error) the system can also be reactivated completely or partly by the procedure above.

Pulling lever (A) back raises the front loader. Pushing the lever forward until resistance is reached lowers the front loader. If the lever is pushed forward beyond the resistance, it engages in a detent and the front loader is in its float position.

Moving the lever to the left makes the loader bucket tip up. Moving the lever to the right until resistance is reached makes the loader bucket dump.

If the lever is moved to the right beyond the resistance and held there, the loader bucket dumps quickly ("quick dump").



- LX1054600
- | | |
|---------------------------------|---|
| A — Multi-Function Lever | D — Switch, 4th Function |
| B — Rocker Switch, 3rd Function | E — Switch, 5th Function |
| C — Interlock Switch Actuator | F — Transport Lock Button, Multi-Function Lever |

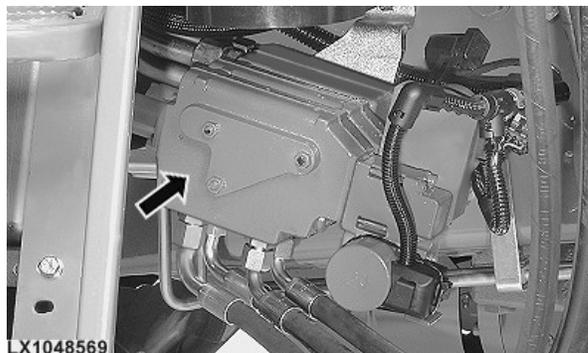
NOTE: In cold weather, there may be brief periods when the loader does not operate. When the temperature drops below -15°C (5°F), the stepper motors for the valves that operate the boom, bucket and grapple become slower and may stop functioning altogether. They automatically go into an internal warm-up mode, which will warm up the stepper motor until they start to function again. These valves are mounted externally and may also be affected by the wind. If the E-ICV control valves have not been in use for a protracted period, or if the tractor has been transported, the stepper motors may need to be warmed up before the loader will function. The warm-up period will vary depending on the weather conditions, but it should not take more than a few minutes.

OU12401.0001308-19-28OCT11-1/1

Positions of E-ICVs

The E-ICVs are located under the right access step.

The inner E-ICV (on frame) is actuated when the multi-function lever is moved forward/back. The second E-ICV is actuated when the lever is moved left/right. The third E-ICV (if equipped) is actuated when the third function is triggered.



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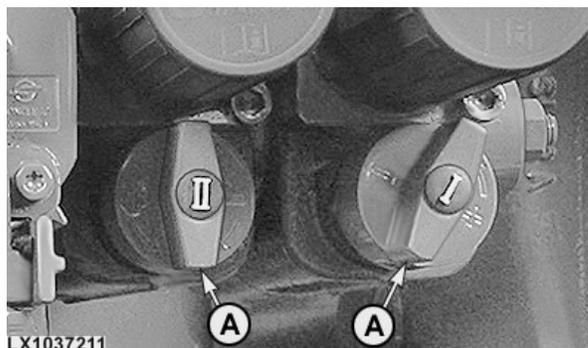
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Rate of Cylinder Operation

Flow control valves (A) can be used to regulate the rate at which remote cylinders extend and retract (raise and lower). When lowering, make sure that the SCV control lever is NOT moved to float position.

IMPORTANT: Full extension and retraction of a remote cylinder must require more than 1.5 seconds. Faster speeds may cause damage.



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Couplers

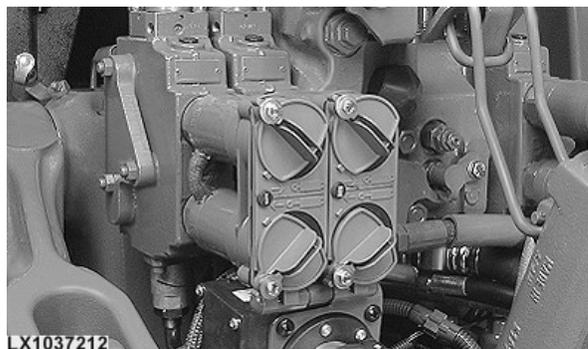
CAUTION: The hydraulic system has a maximum system pressure of 20000 kPa (200 bar; 2900 psi). For your own protection and to assure proper functioning of the system, use only genuine John Deere parts.

Couplers allow hydraulic hoses to be coupled or uncoupled without loss of oil, even if the tractor engine is running.

If a malfunction or accident causes the hose to break loose from the coupler, the oil flow through the coupler is stopped immediately.

To connect the hose union, press it firmly into the coupler.

NOTE: When connecting, comply with the symbols on the couplers.



LX1037212

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To disconnect the hose, give it a firm pull.

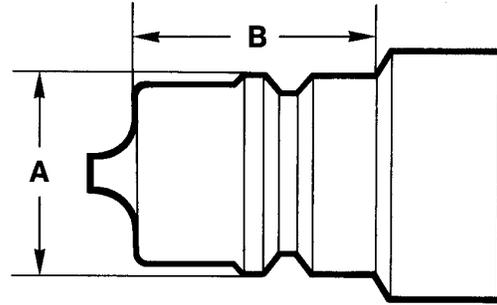
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Hose Unions

The hose unions used must comply with ISO standards.

Dimension (A) must be between 23.66 and 23.74 mm (0.931 and 0.934 in.).

Dimension (B) must be at least 24 mm (0.945 in.).



LX 006613

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Maximum Permissible Oil Withdrawal

To operate large hydraulic cylinders such as those used on tipping trailers, 10 liters (2.6 U.S. gal.) of oil may be drawn from the transmission case through the connecting lines.

This figure applies when the oil in the transmission case is at the minimum mark on the sight-glass. If the oil is at its maximum level, an additional 5 liters (1.3 U.S. gal.) may be withdrawn from 7130 and 7230 tractors and an additional 10 liters (2.6 U.S. gal.) from 7330 to 7530 tractors.

Never perform heavy jobs such as towing, operating a PTO or driving fast when withdrawal results in the oil level dropping below the minimum mark.

If required, a further 10 liters (2.6 U.S. gal.) may be added to the transmission case of 7130 and 7230 tractors and a further 15 liters (4.0 U.S. gal.) to that of 7330 to 7530 tractors; this increases the amount that may be withdrawn accordingly.

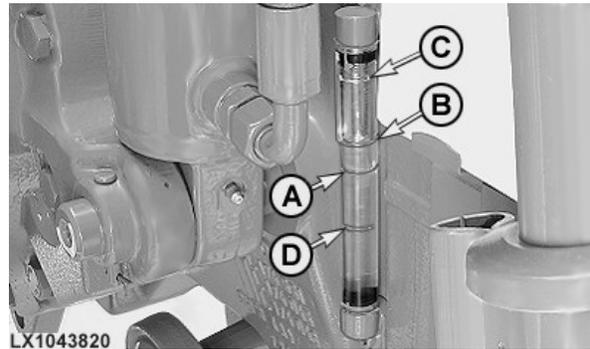
During oil withdrawal, the tractor should not be inclined in any direction by more than 18°. If the tractor is inclined by more than 18°, only a correspondingly lower quantity of oil may be withdrawn.

For refilling, use only John Deere Hy-Gard™ Transmission and Hydraulic Oil or its equivalent.

A—Minimum mark
B—Maximum mark

C—Mark, 10 liters (2.6 U.S. gal.) above max.
D—Mark, 10 liters (2.6 U.S. gal.) below min.

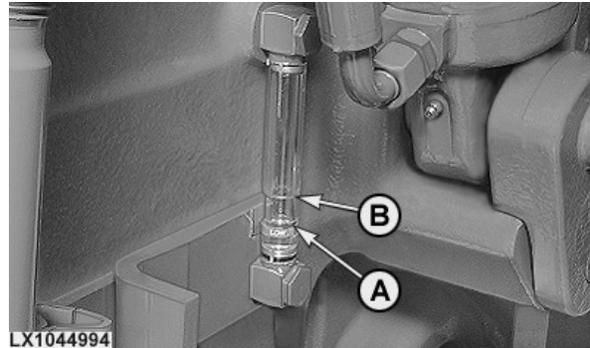
Hy-Gard is a trademark of Deere & Company.



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Marks on sight-glass, 7130 and 7230 tractors

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LX1044994

Marks on sight-glass, 7330-7530 tractors

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Oil Withdrawal with Hydraulic Motor

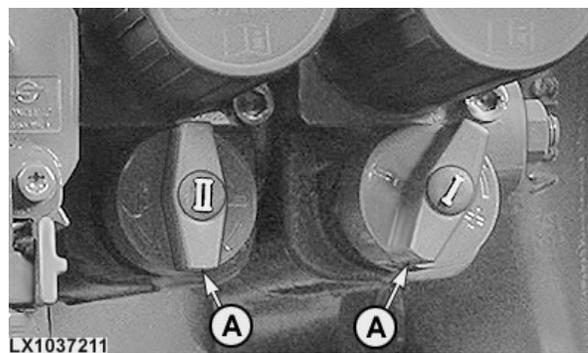
IMPORTANT: Never regulate the flow rate by means of an external valve. Always use flow control valves (A).

Maximum obtainable oil flow of transmission/hydraulic oil is dependent on the tractor model and the size of the hydraulic pump installed on the tractor.

Pump size	Flow rate, 7130 and 7230 tractors	Flow rate, 7330 to 7530 tractors
28 cm ³ (1.7 cu.in.)	71 l/min (18.8 gpm)	68 l/min (18.0 gpm)
41 cm ³ (2.5 cu.in.)	104 l/min (27.5 gpm)	99 l/min (26.2 gpm)
45 cm ³ (2.7 cu.in.)	114 l/min (30.1 gpm)	109 l/min (28.8 gpm)

Shut off the engine. Connect the hydraulic hose from the hydraulic motor. Comply with the symbols on the couplers.

Start the engine. Move the control lever to Lower. To switch off the hydraulic motor, move the control lever to the float



position. Shut off the engine and take out the hydraulic hose.

IMPORTANT: Do not move the control lever to the neutral position, as this may result in back-pressure causing damage to the hydraulic motor and hoses.

OU12401,0001B59-19-06FEB09-1/1

Instructions on Operating a Hydraulic Motor

A hydraulic motor must be operated only with a Series 300 or Series 350 selective control valve.

Never operate implements at constant maximum system pressure (20000 kPa, 200 bar, 2900 psi), as this may cause the hydraulic system to overheat.

The rate of lift value selected on the CommandCenter (BCU 165, factory setting 255) should be reduced in stages until the drop in speed at the hydraulic motor is zero or close to

zero, but an acceptable lever of power is still being provided. When the hydraulic motor is no longer in use, change the value back to its maximum.

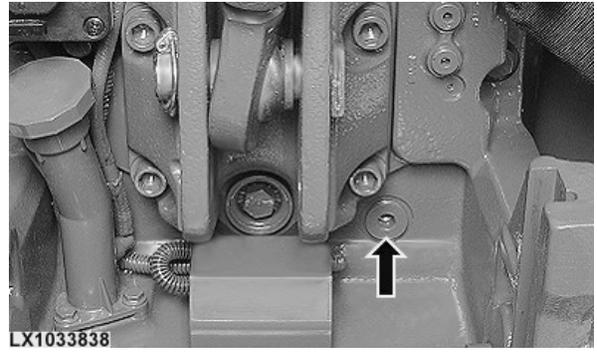
It is also possible to reduce the rates of flow at the SCVs. When the hydraulic motor is no longer in use, change the rate of flow back to its maximum. If necessary, engine speed can be increased to give a higher rate of flow.

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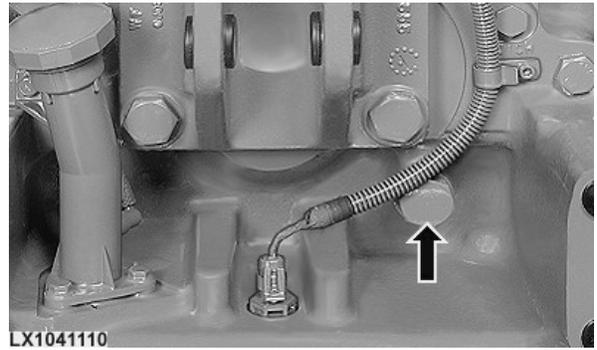
Pressure-Free Return Circuit

This connection ensures pressure-free oil return.

Ask your John Deere dealer for the relevant accessories.



Pressure-free return circuit, 7130 and 7230 tractors



Pressure-free return circuit, 7330 to 7530 tractors

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Additional Equipment — Other

Swinging Drawbar

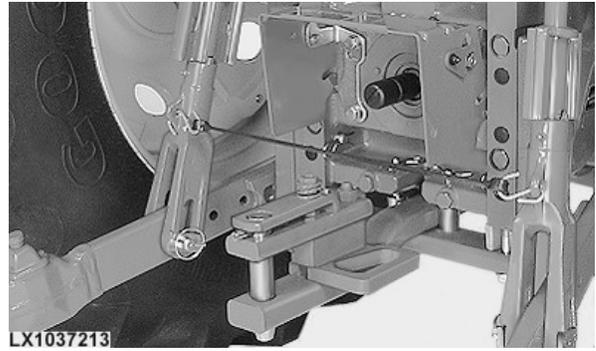
The swinging drawbar is used to pull drawn equipment of all types, particularly PTO-driven implements.

The drawbar hitch point is located so as to increase the rear axle load and at the same time slightly reduce load on the front axle.

Besides having a variable swinging range, the drawbar can also be adjusted lengthwise.

Maximum permissible static vertical loads and towable drawbar loads are stated in the "Specifications" section.

NOTE: Drawbar components that are subject to wear have to be checked every 250 hours (see "Service / Every 250 Hours"). Replace, if necessary.



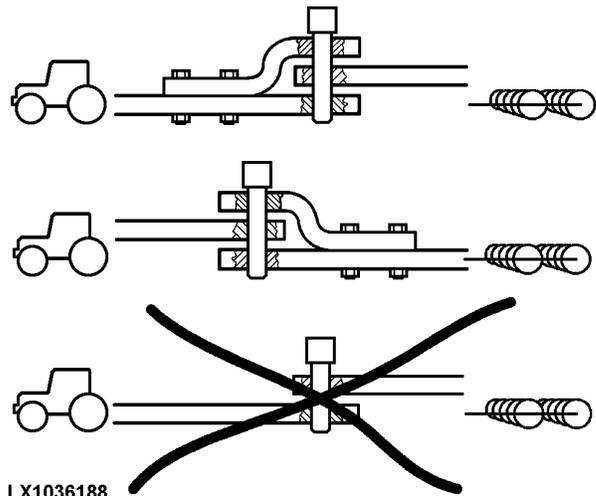
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Proper Use of Drawbar

IMPORTANT: Comply with local traffic regulations when using the drawbar. Use suitable, approved hitch pins only. Combine drawbars as shown only.



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Adjustment of Swinging Drawbar

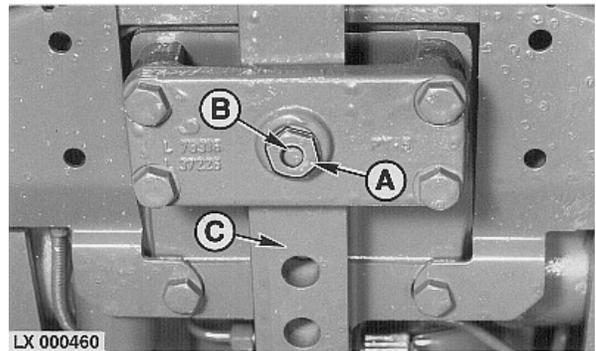
The swinging drawbar can be adjusted to four different positions:

250 mm (9.8 in.), 350 mm (13.8 in.), 400 mm (15.7 in.) and 550 mm (21.7 in.).

NOTE: 550 mm (21.7 in.) is NOT an option on 7330 to 7530 tractors.

These lengths determine the distance from the end of the PTO shaft to the attachment point of the swinging drawbar.

1. Remove hex. stopper (A).
2. Remove locking pin (B).
3. Shift drawbar (C) to desired position and reinstall locking pin.
4. Tighten hex. stopper (A) to 250 N·m (185 lb-ft).

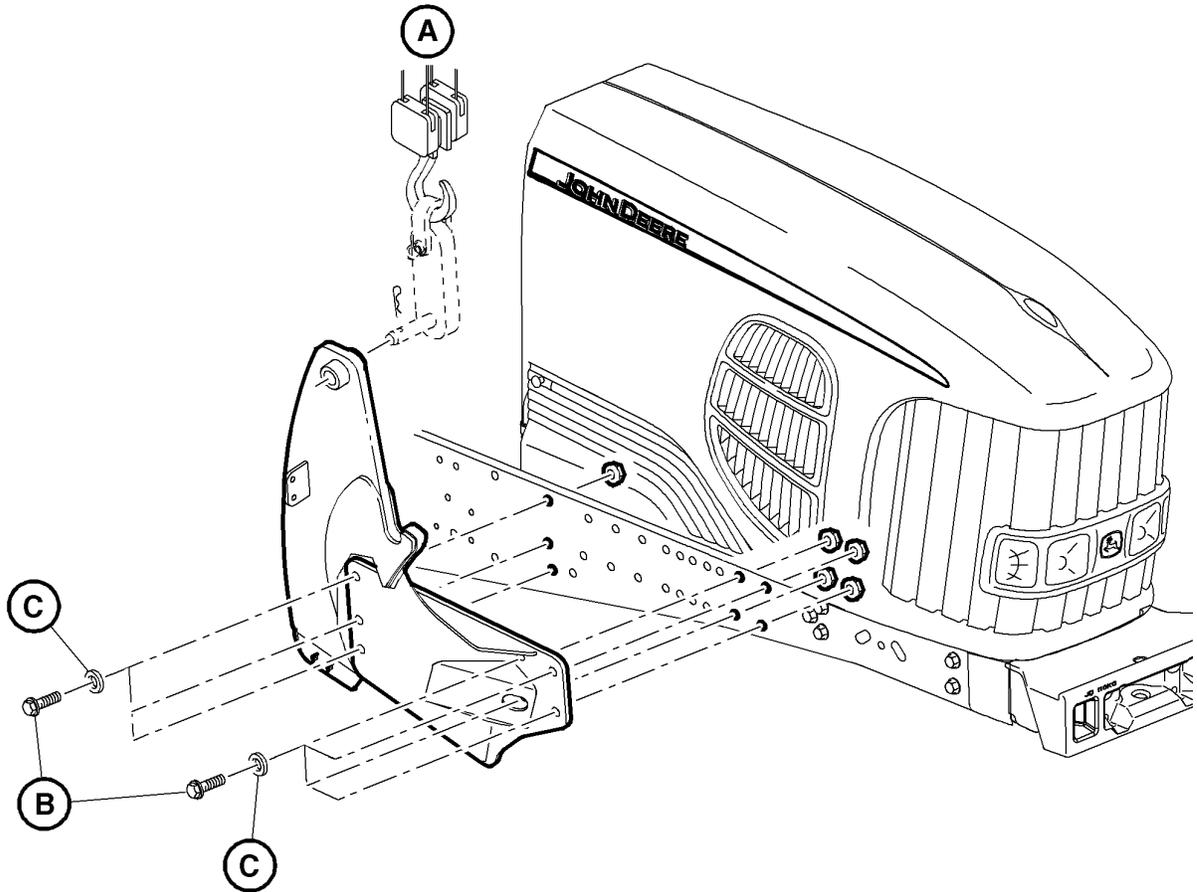


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Front Loader Installation - Front Loader Brackets



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Hardware for John Deere front loader brackets

Item	Description	Width across flats	Torque	Standard	Thread	Length	Identification / Grade
A	Weight of front loader bracket, 100 kg (220 lb)	-	-	-	-	-	-
B	Cap screws (7 used)	30 mm	620 N•m (460 lb.-ft.)	ISO4017	M20 x 2.5	60 mm (2.36 in.)	10.9
C	Washers (7 used)	-	-	-	-	21.4 x 22 x 5 mm	-
	Nuts (5 used)	30 mm	-	ISO4161	M20 x 2.5	-	10

Using a suitable hoist, position the front loader brackets on the main frame of the tractor and tighten the screws to the specified torque. Check the torque regularly; see Section 85, Lubrication and Periodic Service.

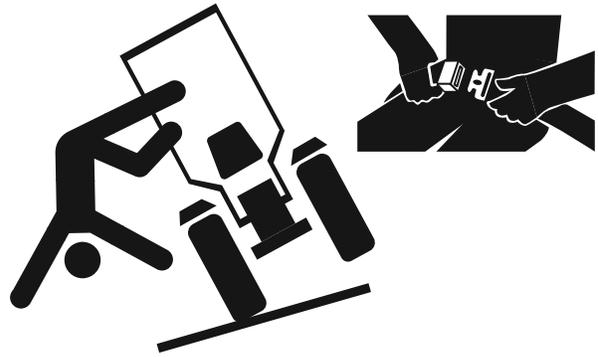
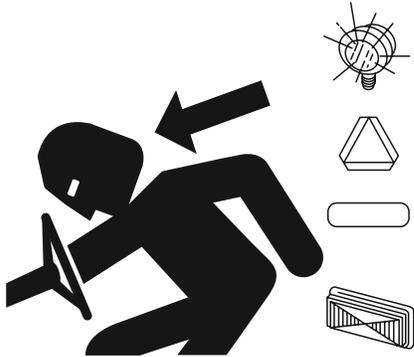
available for purchase. When installing John Deere front-loader brackets, use appropriate hardware only, as shown in the illustration above. Comply also with Operator's Manual and Installation Instructions of the front loader.

A front loader checked and approved by John Deere is

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Transport

Driving Tractor on Roads



RX-A0086597—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
- Prevent wheels from locking and skidding on tractors equipped with IVT transmission.
- 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.

Check headlights, flashing warning lights and tail lights before operating tractor on highway. Adjust rear-view mirrors and clean windows.

CAUTION: To prevent possible personal injury, always operate hazard 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 BRAKE ASSIST position of MFWD switch to provide four wheel braking.

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.)

OU1092A,0000230-19-11DEC06-1/1

Towing Loads and Transporting with Ballast

⚠ 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 transmission. (See Operating on Hillside In Slippery Conditions, in Operating Tractor 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) and 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.

OU1092A,0000231-19-11DEC06-1/1

Transporting the Tractor

A disabled tractor is best transported on a flatbed carrier.

Before transporting the tractor on a low truck or flat-bed rail

wagon, make sure that the engine hood is secured and that doors, roof hatch (if equipped) and windows are closed and latched.

OU12401,00009BF-19-01JUL02-1/1

Towing the Tractor

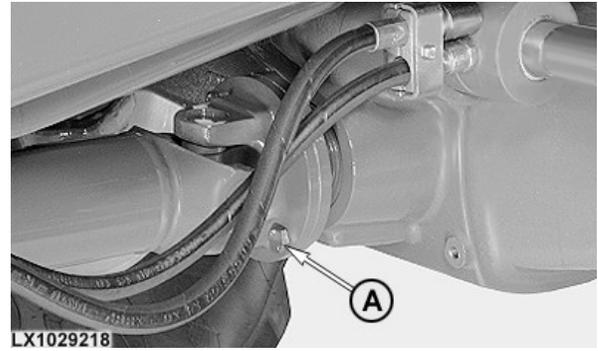
⚠ CAUTION: Never tow the tractor at a speed greater than 10 km/h (6 mph).

When the engine is not running, more force is required to turn the steering wheel and pedal travel is longer (no hydraulic assistance).

Shift both range and reverser levers to neutral position.

Make sure that the transmission oil level is between the marks on the sight-glass. If the tractor is to be towed with the front wheels raised, observe the following points:

- Never raise the wheels more than 30 cm (12 in.).
- For every 15 cm (6 in.) that the front wheels are raised, add 4 liters (1 U.S. gal.) of transmission/hydraulic oil to the transmission.
- When towing is completed, drain the excess oil.



LX1029218

LX1029218—UN—11APR03

IMPORTANT: If the engine is capable of running, switch off front-wheel drive. If the engine is not capable of running, disconnect universal-jointed drive shaft by taking out screws (A). This prevents excessive wear on the tires.

OU12401.00013CF-19-25MAR06-1/1

Manual Park Lock Release (Tractors with IVT)

⚠ CAUTION: Perform the manual park lock release procedure only when the tractor needs to be towed and the park lock cannot be released normally.

⚠ CAUTION: The reverse drive lever must be in the corner Park position "P" in order to manually release the park lock.

⚠ CAUTION: The tractor must never be operated (even for short test drives) when the park lock is manually released.

⚠ CAUTION: The tractor can roll away when the park lock is disengaged. Secure the tractor so that it cannot roll either forwards or backwards.

⚠ CAUTION: After towing, the manual park lock release cable must be reconnected.



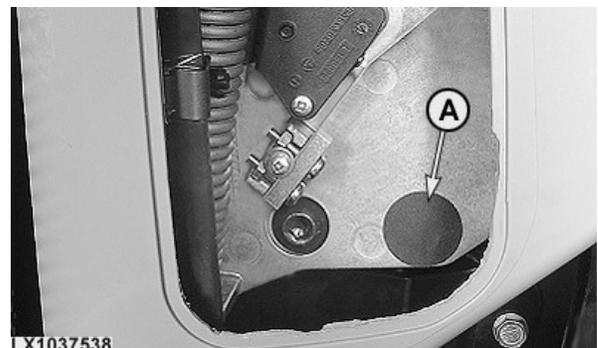
LX1037537

LX1037537—UN—02NOV05

1. Remove cover (A).

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2. Take plug (A) out of the threaded bore.



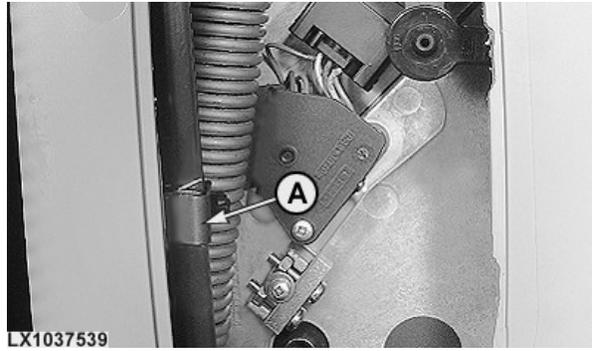
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3. Disconnect the bowden cable from clamp (A).

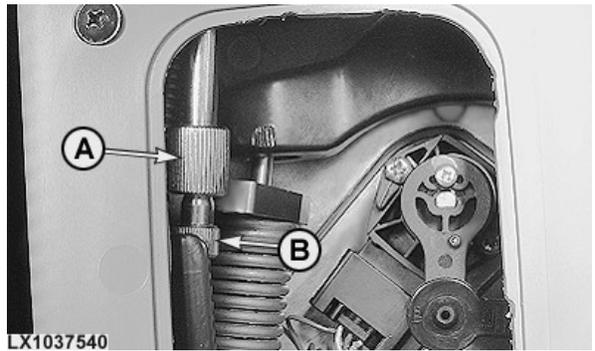


LX1037539

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4. Unscrew threaded stud (A) and knurled nut (B).

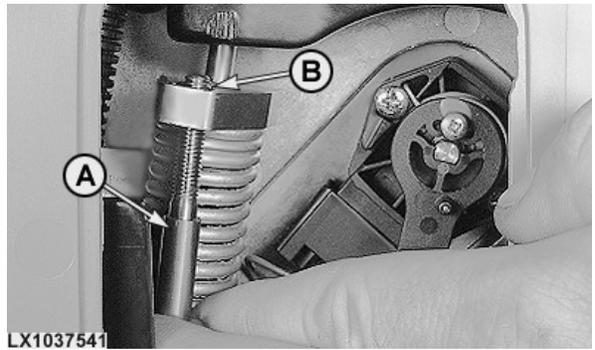


LX1037540

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5. Slightly depress the clutch pedal.
6. Thread the bowden cable (A) through the eye (B) on the clutch pedal or adapter.



LX1037541

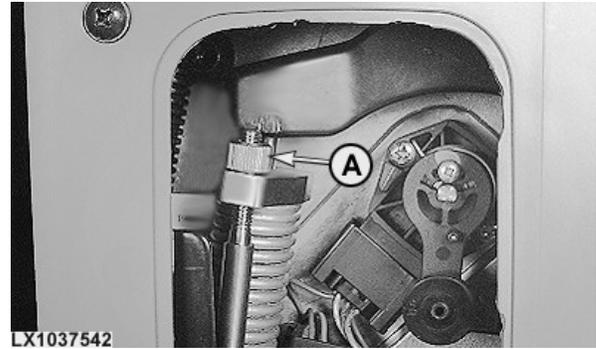
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OU12401,0001350-19-21OCT05-5/7

7. Adjust cable with knurled nut (A) until all slack is removed. Knurled section must be uppermost.

IMPORTANT: The cable must be tight in order to assure complete release of the park lock.



LX1037542

LX1037542—UN—02NOV05

OU12401,0001350-19-21OCT05-6/7

8. Fully depress clutch pedal.

IMPORTANT: If the clutch pedal cannot be depressed to the stop and the threaded stud cannot be adjusted further, unscrew the knurled nut until the clutch pedal can be depressed against its stop.

9. Screw threaded stud (A) into the opening in order to secure the clutch in this position and maintain the park lock in the released position.



LX1037543

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Freeing a Mired Machine

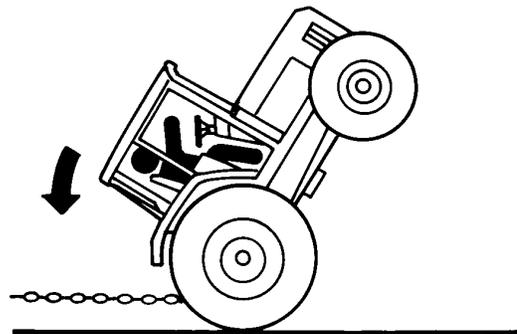
Attempting to free a mired machine can involve safety hazards such as the stuck tractor tipping rearward, the towing tractor overturning, and the tow chain or tow bar (a cable is not recommended) failing and recoiling from its stretched condition.

Back tractor out if it gets stuck in mud. Disconnect any towed implements. Remove mud from behind rear wheels. Place boards behind 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 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 connect to the drawbar of the towing unit. 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.

IMPORTANT: Avoid damage to steering cylinders or tie rods. Use side frame slots to attach chain. DO NOT attach chain around axle. Pull tractor straight forward. Use drawbar to tow tractor out of mired condition if pulling tractor from the rear.



TS1645—UN—15SEP95

TS263—UN—23AUG88

OU1092A,0000044-19-16JAN04-1/1

Fuel, Lubricants, Hydraulic Oil and Coolant

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.

Required fuel properties

In all cases, the fuel shall meet the following properties:

Cetane number of 45 minimum. Cetane number greater than 50 is preferred, especially for temperatures below -20° C (-4°F) or elevations above 1500 m (5000 ft).

Cold Filter Plugging Point (CFPP) below the expected low temperature OR **Cloud Point** at least 5°C (9°F) below the expected low temperature.

Fuel lubricity should pass a minimum level of 3100 grams as measured by ASTM D6078 or maximum scar diameter of 0.45 mm as measured by ASTM D6079 or ISO 12156-1.

Sulfur content

- Diesel fuel quality and sulfur content must comply with existing emissions regulations for the area in which the engine operates.
- Use of diesel fuel with sulfur content less than 0.1% (1000 ppm) is **STRONGLY** recommended.
- Use of diesel fuel with sulfur content 0.2% (2000 ppm) to 0.5% (5000 ppm) results in **REDUCED** oil and filter service intervals.
- **BEFORE** using diesel fuel with sulfur content greater than 0.5% (5000 ppm), contact your John Deere dealer.
- **DO NOT** use diesel fuel with sulfur content greater than 1.0%

IMPORTANT: Do not mix used 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 motors.

OU12401,00013D9-19-03APR06-1/1

Fill Fuel Tank

⚠ CAUTION: PREVENT PERSONAL INJURY. 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.

Fill fuel tank (A) at end of each day. This prevents condensation in tank as moist air cools.

NOTE: Mixing diesel fuels, No. 1 with No. 2, will not lower the Cold Filter Plugging Point (CFPP), when operating in cold temperatures. These fuels do not blend. Drain fuel tank and use No. 1 diesel fuel.

A—Fuel Tank

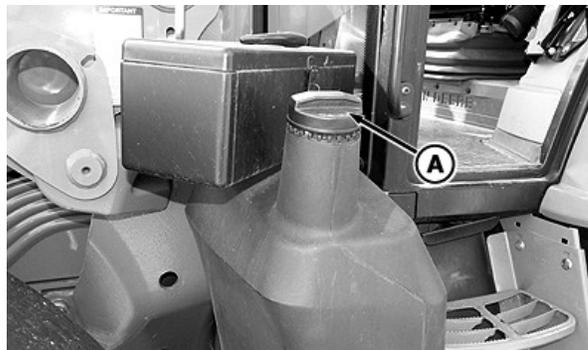


TS202—UN—23AUG88



RXA0090974—UN—04OCT06

Small Fuel Tank



RXA0090976—UN—04OCT06

Large Fuel Tank

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Handling and Storing Diesel Fuel

⚠ CAUTION: Reduce the risk of fire. Handle fuel carefully. DO NOT fill the fuel tank when engine is running. DO NOT smoke while you fill the fuel tank or service the fuel system.

Fill the fuel tank at the end of each day's operation to prevent water condensation and freezing during cold weather.

Keep all storage tanks as full as practical to minimize condensation.

Ensure that all fuel tank caps and covers are installed properly to prevent moisture from entering. Monitor water content of the fuel regularly.

When using biodiesel fuel, the fuel filter may require more frequent replacement due to premature plugging.

Check engine oil level daily prior to starting engine. A rising oil level may indicate fuel dilution of the engine oil.

IMPORTANT: The fuel tank is vented through the filler cap. If a new filler cap is required, always replace it with an original vented cap.

When fuel is stored for an extended period or if there is a slow turnover of fuel, add a fuel conditioner to stabilize the fuel. Keeping the free water drained and treating the bulk fuel storage tank quarterly with a maintenance dose of a biocide will prevent microbial growth. Contact your fuel supplier or John Deere dealer for recommendations.

DX,FUEL4-19-13JAN18-1/1

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

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

(including copper, lead, zinc, tin, brass, and bronze) used in fuel handling, distribution, and storage equipment

- Possible reduction in water separator efficiency
- Possible damage to paint if exposed to biodiesel
- Possible corrosion of fuel injection equipment
- Possible elastomeric seal and gasket material degradation (primarily an issue with older engines)
- Possible high acid levels within fuel system

- Because biodiesel blends above B20 contain more ash, using blends above B20 can result in more rapid ash loading and require more frequent cleaning of the Exhaust Filter (if present)

IMPORTANT: Raw pressed vegetable oils are NOT acceptable for use as fuel in any concentration in John Deere engines. Their use could cause engine failure.

DX,FUEL7-19-13JAN18-2/2

Diesel Engine Break-In Oil — Non-Emissions Certified and Certified Tier 1, Tier 2, Tier 3, Stage I, Stage II, and Stage III

New engines are filled at the factory with either John Deere Break-In™ or John Deere Break-In Plus™ Engine Oil. During the break-in period, add John Deere Break-In™ or Break-In Plus™ Engine Oil, respectively, 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™ Engine Oil is used during the initial operation of a new or rebuilt engine, change the oil and filter at a maximum of 100 hours.

If John Deere Break-In Plus™ Engine Oil is used, change the oil and filter at a minimum of 100 hours and a maximum equal to the interval specified for John Deere Plus-50™ II or Plus-50™ oil.

After engine overhaul, fill the engine with either John Deere Break-In™ or Break-In Plus™ Engine Oil.

If John Deere Break-In™ or Break-In Plus™ Engine Oil is not available, use an SAE 10W-30 viscosity grade diesel engine oil meeting one of the following and change the oil and filter at a maximum of 100 hours of operation:

- API Service Classification CE
- API Service Classification CD
- API Service Classification CC

*Break-In is a trademark of Deere & Company.
Break-In Plus is a trademark of Deere & Company
Plus-50 is a trademark of Deere & Company.*

- ACEA Oil Sequence E2
- ACEA Oil Sequence E1

IMPORTANT: Do not use Plus-50™ II, Plus-50™, or engine oils meeting any of the following for the initial break-in of a new or rebuilt engine:

API CK-4	ACEA E9
API CJ-4	ACEA E7
API CI-4 PLUS	ACEA E6
API CI-4	ACEA E5
API CH-4	ACEA E4
API CG-4	ACEA E3
API CF-4	
API CF-2	
API CF	

These oils do not allow the engine to break in properly.

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, John Deere Plus-50™, or other diesel engine oil as recommended in this manual.

DX,ENOIL4-19-02NOV16-1/1

Diesel Engine Oil and Filter Service Intervals

The oil and filter service intervals in the table below should be used as guidelines. Actual service intervals also depend on operation and maintenance practices. It is suggested to use oil analysis to determine the actual useful life of the oil to aid in selection of the proper oil and filter service interval. 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.

Diesel fuel sulfur level will affect engine oil and filter service intervals. Higher fuel sulfur levels reduce oil and filter service intervals as shown in the table:

- Use of diesel fuel with sulfur content less than 0.1% (1000 ppm) is strongly recommended.
- Use of diesel fuel with sulfur content 0.2% (2000 ppm) to 0.5% (5000 ppm) may result in REDUCED oil and filter service intervals as shown in the table.
- BEFORE using diesel fuel with sulfur content greater than 0.5% (5000 ppm), contact your John Deere dealer.

- DO NOT use diesel fuel with sulfur content greater than 1.0% (10000 ppm).

Oil types (premium or standard) in the table include:

- Premium oils include John Deere PLUS-50™, ACEA E7 or ACEA E6 oils.
- Standard oils include John Deere TORQ-GARD SUPREME™, API CI-4 PLUS, API CI-4, ACEA E5 or ACEA E4 oils.

Use of lower specification oils in Stage III A engines may result in premature engine failure. The 500 hour extended oil and filter change interval is allowed if the following conditions are met:

- Use of diesel fuel with sulfur content less than 0.2% (2000 ppm).
- Use of premium oil John Deere PLUS-50, ACEA E7 or ACEA E6 and approved John Deere oil filter

	Service interval
Sulfur content of fuel	Less than 0.2% (2000 ppm)
Standard oil	250 hours
Premium oil	500 hours
Sulfur content of fuel	0.2% to 0.5% (2000 to 5000 ppm)
Standard oil	200 hours
Premium oil	300 hours
Sulfur content of fuel	0.5% to 1.0% (5000 to 10000 ppm)
Standard oil	Contact your John Deere dealer
Premium oil	Contact your John Deere dealer

PLUS-50 is a trademark of Deere & Company
 TORQ-GARD SUPREME is a trademark of Deere & Company

OU12401,00013D8-19-03APR06-1/1

Transmission and Hydraulic Oil

Use oil with a 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 HY-GARD LOW VISCOSITY

Other oils may be used if they meet one or more of the following:

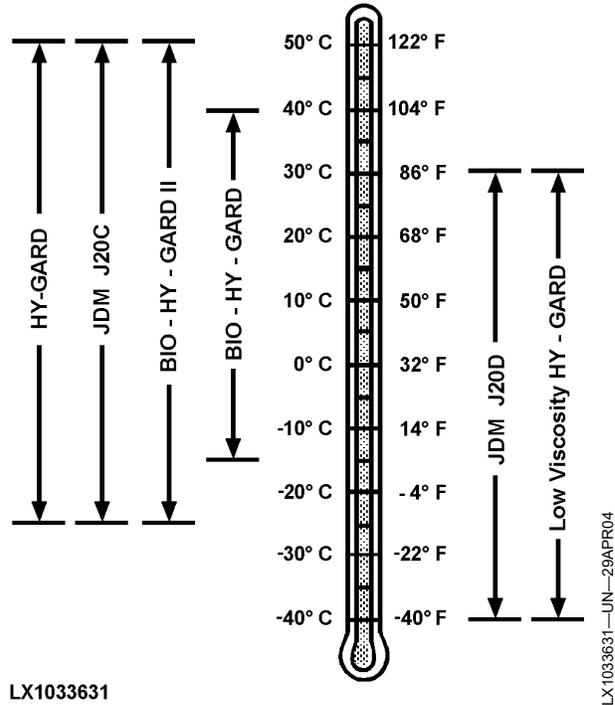
- John Deere Standard JDM J20C
- John Deere Standard JDM J20D

Use John Deere BIO-HY-GARD II™¹ or BIO-HY-GARD™¹ when a biodegradable fluid is required.

IMPORTANT: On tractors with IVT:

Only John Deere HY-GARD or John Deere BIO-HY-GARD II may be used.

Do NOT use HY-GARD LOW VISCOSITY. Do NOT use BIO-HY-GARD.



HY-GARD is a trademark of Deere & Company.

BIO-HY-GARD II 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-A-93 test method. BIO-HY-GARD meets or exceeds the minimum biodegradability of 80 % within 21 days according to CEC L-33-T-82 test method. These oils should not be mixed with mineral oils because this reduces the biodegradability and makes proper oil recycling impossible.*

Front-Wheel Drive Axle Oil

Use oil with a viscosity based on the expected air temperature range during the period between oil changes.

The following oil is recommended:

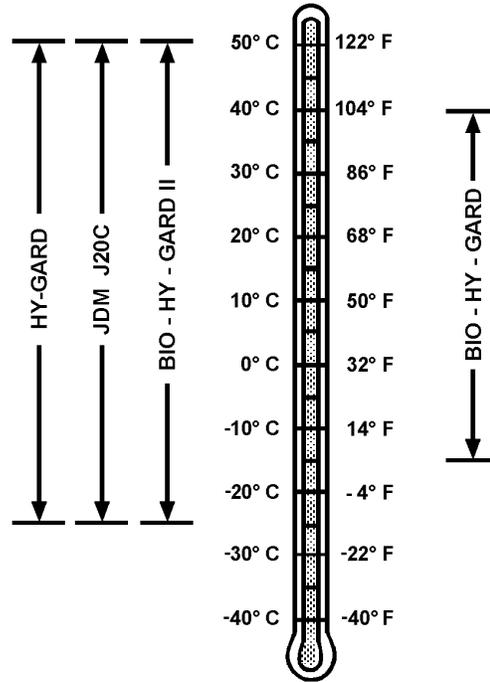
John Deere HY-GARD™

Other oils may be used if they meet the following:

John Deere Standard JDM J20C

Use one of the following oils when a biodegradable fluid is required:

John Deere BIO-HY-GARD II™¹, or BIO-HY-GARD™¹



LX1033632

LX1033632—UN—29APR04

*HY-GARD is a trademark of Deere & Company.
BIO-HY-GARD II 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-A-93 test method. BIO-HY-GARD meets or exceeds the minimum biodegradability of 80 % within 21 days according to CEC L-33-T-82 test method. These oils should not be mixed with mineral oils because this reduces the biodegradability and makes proper oil recycling impossible.*

OU12401.0001313-19-13OCT05-1/1

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:

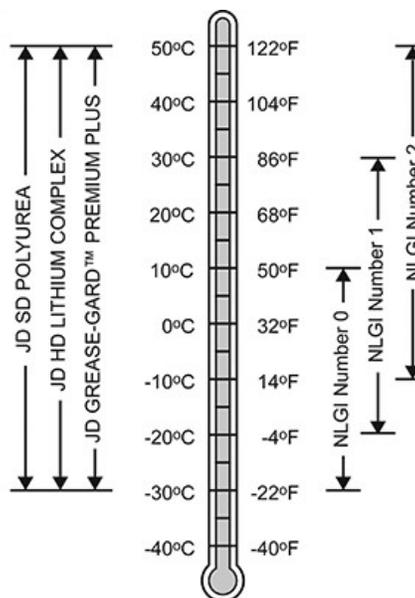
- John Deere HD Lithium Complex Grease
- John Deere Grease-Gard™ Premium Plus

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.

Grease-Gard is a trademark of Deere & Company



Greases for Air Temperature Ranges

RG30199—JUN—08MAR18

DX,GREA1-19-13JAN18-1/1

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

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

Oil Filters

Filtration of oils is critical to proper operation and lubrication.

Always change filters regularly as specified in this manual.

Use filters meeting John Deere performance specifications.

DX,FILT-19-18MAR96-1/1

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:

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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.

- 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.

DX,COOL3-19-25AUG20-1/1

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

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additive system for use with all COOL-GARD II coolants. COOL-GARD II Coolant Extender is not intended for use with nitrite-containing coolants.

IMPORTANT: Do not add a supplemental coolant additive when the cooling system is drained and refilled with any of the following:

- John Deere COOL-GARD II
- John Deere COOL-GARD II PG

The use of non-recommended supplemental coolant additives can result in additive drop-out, gelation of the coolant, or corrosion of cooling system components.

Add the recommended concentration of COOL-GARD II Coolant Extender. DO NOT add more than the recommended amount.

DX,COOL16-19-15MAY13-1/1

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

Additional Information About Diesel Engine Coolants and John Deere LIQUID COOLANT CONDITIONER

Engine coolants are a combination of three chemical components: ethylene glycol or propylene glycol antifreeze, inhibiting coolant additives, and quality water.

Coolant Specifications

Some products, including John Deere COOL-GARD™ Premix coolant, are fully formulated coolants that contain all three components in their correct concentrations. Do not add an initial charge of supplemental coolant additives or water to John Deere COOL-GARD Premix.

John Deere COOL-GARD Concentrate contains both ethylene glycol and inhibiting coolant additives. Mix COOL-GARD Concentrate with quality water, but do not add an initial charge of supplemental coolant additives.

Replenish Coolant Additives

Some coolant additives will gradually deplete during engine operation. Periodic replenishment of inhibitors is required, even when John Deere COOL-GARD Premix, COOL-GARD Concentrate, or COOL-GARD PG Premix is used. Follow the recommendations in this manual for the use of supplemental coolant additives.

Why use John Deere LIQUID COOLANT CONDITIONER?

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 LIQUID COOLANT CONDITIONER is an additive system designed to reduce corrosion, erosion, and pitting when used with nitrite-containing diesel engine coolants such as John Deere COOL-GARD Premix, COOL-GARD Concentrate, and COOL-GARD PG Premix. Maintaining John Deere COOL-GARD coolants with John Deere LIQUID COOLANT CONDITIONER provides optimum protection for up to 5 years or 5000 hours of operation.

Avoid Automotive-type Coolants

Never use automotive-type coolants (such as those

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meeting ASTM D3306). These coolants do not contain the correct additives to protect heavy-duty diesel engines. They often contain a high concentration of silicates and may damage the engine or cooling system. Do not treat an automotive engine coolant with a supplemental coolant additive 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, COOL7-19-03NOV08-1/1

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.

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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.

DX,COOL11-19-14APR11-1/1

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

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.

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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.

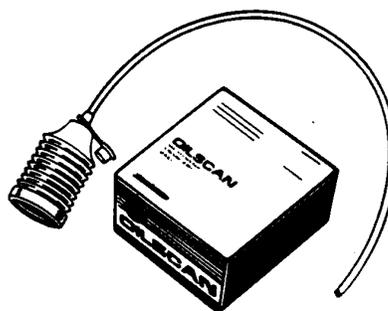
DX,COOL9-19-11APR11-1/1

Oilscan™ and CoolScan™

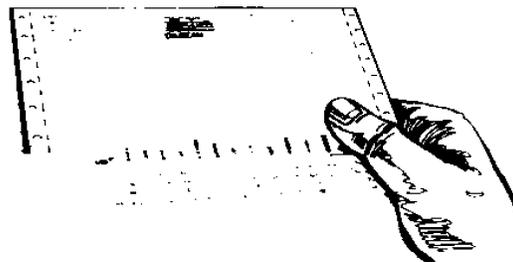
Oilscan™ and CoolScan™ are John Deere sampling programs to help you monitor machine performance and identify potential problems before they cause serious damage.

Oil and coolant samples should be taken from each system before its recommended change interval.

Check with your John Deere dealer for the availability of Oilscan™ and CoolScan™ kits.



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Oilscan is a trademark of Deere & Company
CoolScan is a trademark of Deere & Company

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MFWD Axle Housing Oil — Hi-Crop Rear Axle

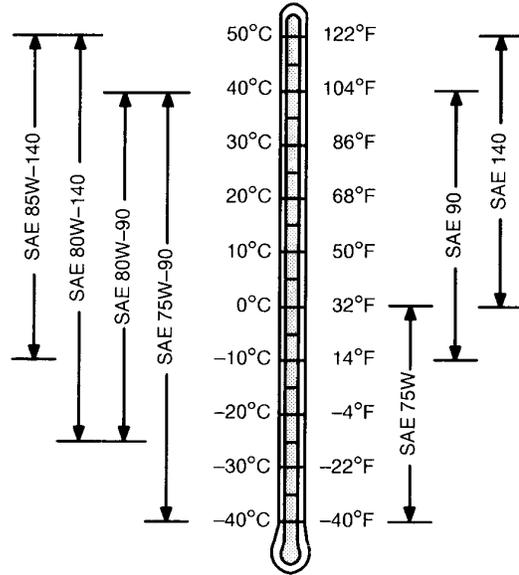
Use oil viscosity based on the expected air temperature range during the period between oil changes.

The following oils are preferred:

- John Deere GL-5 GEAR LUBRICANT

Other oils may be used if they meet the following:

- API Service Classification GL-5



TS1653—UN—14MAR96

OU1092A,000017B-19-28JUL04-1/1

Lubrication and Periodic Service

Scope of This Manual

This publication is not a detailed service manual. It contains information meant primarily for machine operation and

routine maintenance. For more detailed service information, order a Technical Manual through your John Deere dealer.

OURX986,000000A-19-09MAY02-1/1

Safe Maintenance and Cleaning

CAUTION: To perform service work at locations that are difficult to reach, it is essential to use suitable platforms or safety ladders.

Particular care is required to perform service work and cleaning jobs at locations that are difficult to reach, e.g. adjusting roof-mounted lights, servicing the cooling system, adjusting the right outside mirror on tractors without a door on the right side and many other similar tasks.

CAUTION: It is NOT permissible to stand on tractor components to perform such tasks unless the tractor components are intended for this purpose. There is an acute risk of falling, especially if the tractor components are wet, dirty, or coated with ice.



TSS249—UN—23AUG88

OULXBER,0001A59-19-21FEB11-1/1

Service Tractor Safely

Disengage power to attachments and stop engine before making any repairs or adjustments.

Do not overspeed engine.

Keep machine and attachments in good operating condition.

Keep all safety devices in place and in good working condition.

Keep all nuts, bolts and screws tight to be sure the equipment is in safe operating condition.

Before you work on any part of the engine, stop the engine and let it cool. Hot engine parts can burn skin on contact.

Never start engine unless gear shift lever is in neutral position.

Be careful to prevent clothing, jewelry or long hair from getting caught in the fan blades, drive belts or any other moving machine parts.

Unauthorized modifications to the machinery may impair performance and/or safety, and affect machine life.

OURX986,000000B-19-09MAY02-1/1

Observe Service Intervals

IMPORTANT: Recommended service intervals are for average conditions. Service **MORE OFTEN** if tractor is operated under adverse conditions.

Service required during the break-in period should be performed previously. See Break-In Period section.

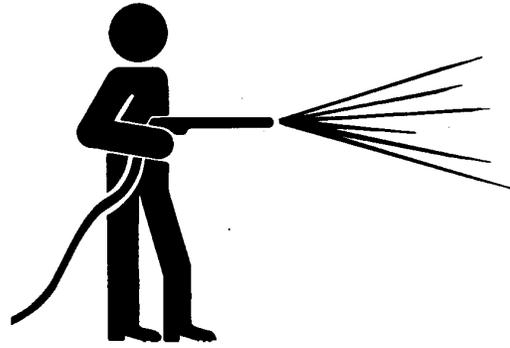
Perform all services at the hourly intervals indicated on following pages. Record service performed, in Lubrication and Maintenance Records section.

OU1092A,000002F-19-16JAN04-1/1

Using High-Pressure Washers

IMPORTANT: High-pressure washers are a very effective means of cleaning the tractor. To avoid damage to the tractor, do not go closer than 1 m (39 in.) and spray at an angle between 45 and 90° when cleaning sealing surfaces, seals and decals. Maximum pressure must not exceed 12000 kPa (120 bar; 1740 psi).

Do not, under any circumstances, spray or wash components (e.g. the engine) with cold water when hot. Do not use rotary nozzles or water at temperatures over 50°C (122°F), and do not aim at seals. Keep the water jet moving at all times. Cooling units, the hitch jaw, bearings and electronic/electrical equipment must not be cleaned with high-pressure washers. Follow the instructions in the high-pressure washer operator's manual and manuals of attached equipment.



After cleaning, run the engine until it is warm.

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OU12401,0001D7F-19-28NOV09-1/1

Lubricate All Lubricating Points

If tractor has been washed with high-pressure water, lubricate all specified lubricating points.

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Lubrication and Periodic Service

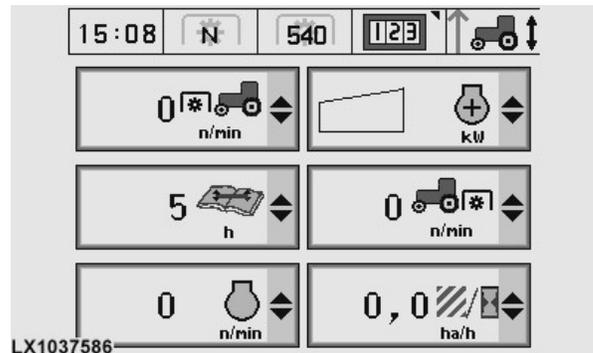
CAUTION: Do not lubricate or adjust the tractor while the engine is running unless recommended to do so.

The intervals at which the various parts should be checked, lubricated, serviced or adjusted are based on the actual hours of operation as shown on the hour meter. The meter operates whenever the engine is running and shows the accumulated hours of engine operation.

Every 250 hours, an acoustic warning signal goes off as the engine starts (for five consecutive engine starts). This reminds the operator that service work is due.

Always check to make sure that the hour meter is serviceable.

The lubrication and periodic service intervals are for normal working conditions. These intervals should be shortened when operating under adverse conditions.



IMPORTANT: After servicing, cleaning or repairing your tractor, reinstall any safety guards or shields before operating the tractor again.

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OULXE59,0010890-19-24APR06-1/1

General Instructions Regarding the Condition of the Tractor

Perform a thorough visual inspection of the tractor on a regular basis or at every service interval at the latest. Ensure the following:

- Safety features and shields are in place and have been installed properly.
- All warning labels and decals are in place and are legible.

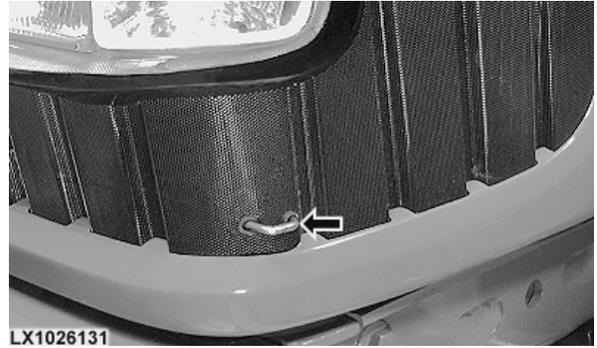
- Tires are in good condition.
- All lines and hoses are in good condition.
- Electrical wiring and ground connections are in good condition.
- There are no flammable materials in high heat emission areas.
- Tractor is free from leakage.

OU12401,00018FB-19-16NOV07-1/1

Open the Hood

Pull the catch and lift the hood up.

NOTE: If the tractor is equipped with a hood protector (front loader), the protector must be folded down before the hood can be opened.



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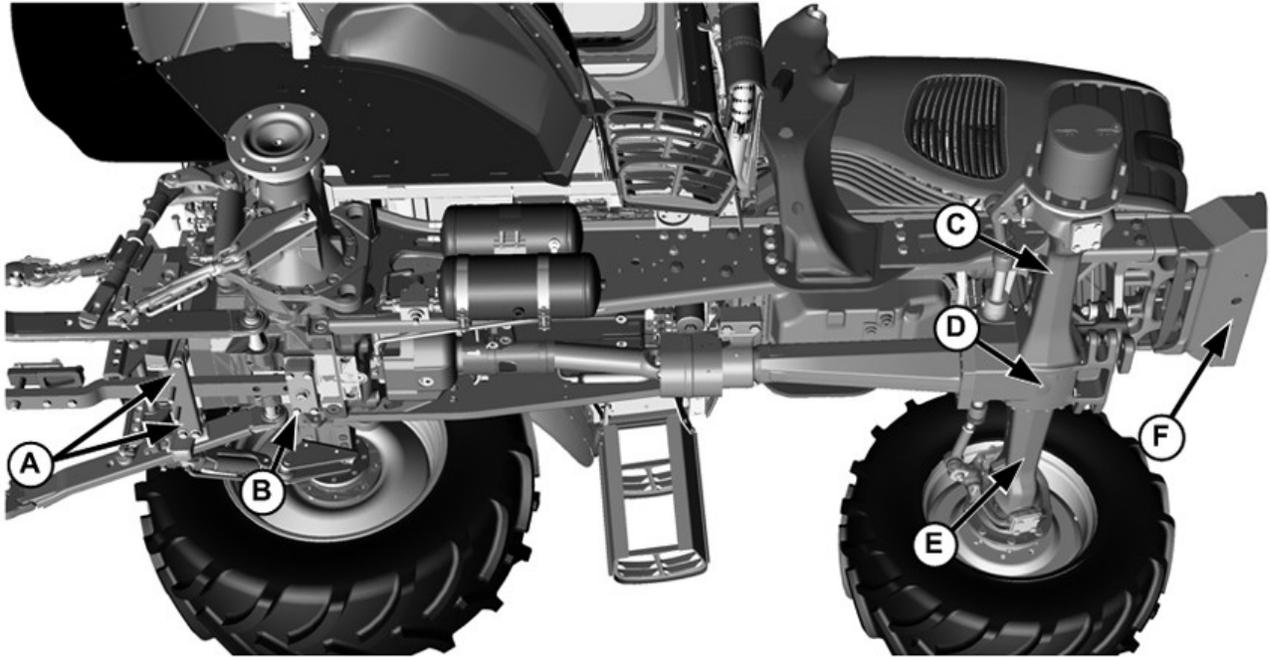
Jack Up the Tractor - Lifting Points

The illustrations show the recommended lifting points for jacking up the tractor. Use a stable jack with sufficient lifting

force. See Specifications, Loads and Weights in Section 145.

Continued on next page

OULXBER,0001AB2-19-04AUG11-1/5



LX1049994—UN—03AUG11

- A—Raise Rear of Tractor, e.g. to Remove Rear Wheel
- B—Raise Rear of Tractor, e.g. to Remove Rear Wheel
- C—Raise Right End of Axle, e.g. to Remove Right Front Wheel
- D—Raise Center of Axle (Use Wooden Wedges to Prevent Axle from Tilting)
- E—Raise Left End of Axle, e.g. to Remove Left Front Wheel
- F—Raise Front End of Tractor under the Basic Weight

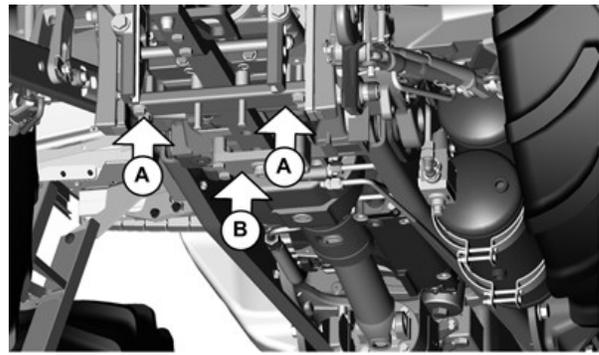
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LX1049889

LX1049889—UN—11FEB11

With Hydraulic Pick-Up Hitch



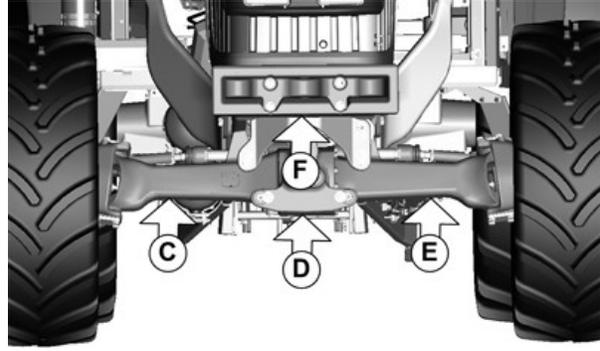
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Without Hydraulic Pick-Up Hitch

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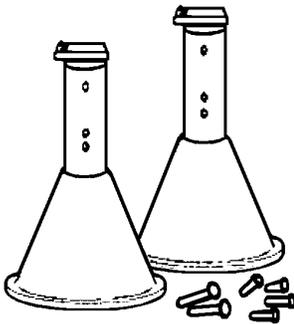
OULXBER,0001AB2-19-04AUG11-3/5

- C—Raise Right End of Axle, e.g. to Remove Right Front Wheel
- D—Raise Center of Axle (Use Wooden Wedges to Prevent Axle from Tilting)
- E—Raise Left End of Axle, e.g. to Remove Left Front Wheel
- F—Raise Front End of Tractor under the Basic Weight



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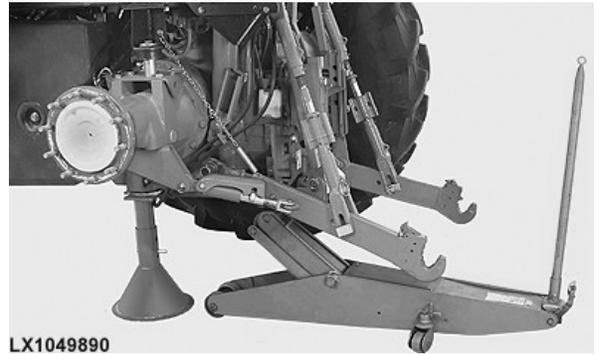
JT07211

JT02043 and JT02044 Support Stands

JT07211—UN—14DEC06

JT02043—Support Stand, 482 to 736 mm (19 to 29 in.)
 JT02044—Support Stand, 863 to 1117 mm (34 to 44 in.)

CAUTION: Use approved lifting equipment only.
 Jack up tractor on firm, level ground only.



LX1049890

Example

LX1049890—UN—11FEB11

Before doing any further work on the tractor, first secure it using suitable support stands. The special John Deere tools shown can be used for this purpose. These support stands are available from your John Deere dealer.

OULXBER,0001AB2-19-04AUG11-5/5

Access to Battery

The battery is located in front of the radiator. To gain access, open the hood.



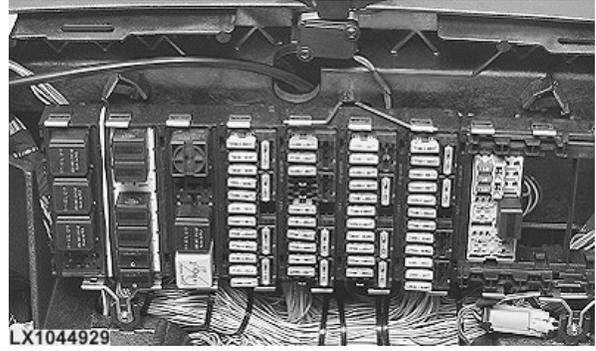
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Access to Fuses

Most of the fuses are located behind the operator's seat. Other fuses are located in the engine compartment.



OU12401,0001915-19-10DEC07-1/1

Important Instructions Regarding Alternator

NOTE: The alternator is equipped with overvoltage protection.

If engine is to be run for a short time without battery (using a slave battery for starting), do not run engine at a speed above 1000 rpm. Furthermore, use additional current (lights) while engine is running.

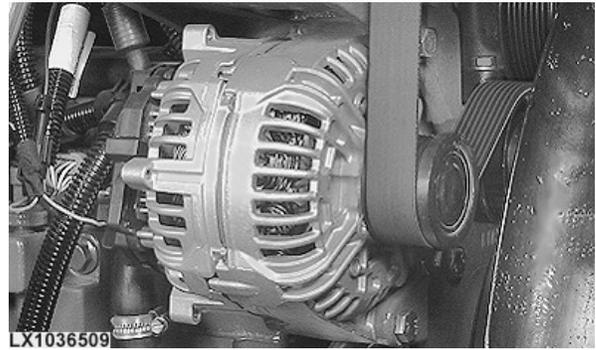
With the battery removed and when starting by means of a slave battery, insulate the battery end of the disconnected starter cable. This will avoid damage to the alternator and regulator.

Slave battery cables must be connected only to the poles provided for this purpose.

With the engine running, do not short-circuit or ground the alternator and regulator even momentarily.

Connect battery and charger with the correct polarity. If they are improperly connected ("+" and "-"), the rectifier diodes will be destroyed immediately.

Before carrying out any electro-welding jobs on the tractor,



disconnect the two cables at the alternator and at the battery.

Connect ground terminal of welding apparatus directly to the part being welded.

Before carrying out repairs on electrical system, disconnect battery ground strap. This will avoid the danger of a short circuit.

OULXE59,0010825-19-13MAY06-1/1

Note Regarding the Service Interval for Engine Coolant

The interval may be shorter when a coolant other than COOL-GARD™ II is used. The most important service intervals are stated in the table.

NOTE: It is essential to comply with Drain Intervals for Diesel Engine Coolant in Section 80, Fuel, Lubricants, Hydraulic Oil and Coolant. There you will find details of service intervals and related circumstances.

Operating hours (after x years at the latest)	Coolant meets John Deere specification	COOL-GARD II
2000 (after 2 years)	X	—
4000 (after 4 years)	—	Valid if condition of COOL-GARD II is not checked once a year.
6000 (after 6 years)	—	Valid if condition of COOL-GARD II is checked once a year.

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OULXBER,000194A-19-24NOV11-1/1

After the First 100 Hours

- Drain engine crankcase and refill with fresh oil (see Service / Every 500 Hours).
- Replace engine oil filter (see Service / Every 500 Hours).
- Tighten screws on front loader bracket (see Service / Every 250 Hours).
- Check air intake hoses (see Service / Every 500 Hours).
- Replace transmission/hydraulic oil filter (see Service / Every 750 Hours).
- Drain the axle housing and final drives, and refill with fresh oil (see Service / Every 1500 Hours).
- Lubricate front PTO drive shaft (see Service / Every 250 Hours).
- Retighten cab attaching screws.
Torques: front screws 280 N·m (205 lb-ft), rear screws 200 N·m (150 lb-ft)

OU12401,0001B75-19-19FEB09-1/1

Service As Required

- Clean air cleaner and cab air filters.
- Clean radiator.
- Check coolant level.
- Check fuel filter, bleed fuel system.
- Check tire pressures.
- Lubrication points - lubricate, if tractor has been washed with high pressure water.
- Check specific gravity of battery.
- Replace fuses.

OU12401,0001D1A-19-26JUL11-1/1

Check/Replace Hydraulic Hoses

Check hydraulic hoses regularly – at least once a year – for leaks, kinks, cuts, tears, rubbing, bulges, corrosion, exposed fabric and other signs of wear and damage.

Replace worn or damaged hoses immediately.

Replacement hoses are available from your John Deere dealer.

OULXBER,0001A4B-19-10FEB11-1/1

Periodic Service

In the following tables, service work is only listed once. Example: **In addition to** the 500 hour services, the 10 hour and 250 hour services have to be carried out.

NOTE: When performing service work, always check for any damage (e.g. on hydraulic lines, wiring harnesses, etc.) and repair as necessary.

OU12401,00019D6-19-22MAY08-1/1

Other Service Jobs

The tables below provide a list of service jobs that must be carried out by your John Deere dealer. These service jobs (e.g. checking the accumulators of the cab suspension or

TLS front axle) require specialist knowledge and equipment.

OU12401,0001AE2-19-14NOV08-1/1

Lubrication and Periodic Service

Service (Daily / Every 10, Every 250, Every 500, Every 750 Hours)

Service	Daily or every 10 hours	250 hours	500 hours	750 hours
Check engine oil level	•			
Check the fuel filter	•			
Check lights	•			
Lubricate front axle and front-wheel drive shaft *	•			
Lubricate rear axle *	•			
Lubricate three-point hitch *	•			
Check oil level of transmission/hydraulic system **	•			
Drain residue from fuel tank		•		
Check oil level of transmission/hydraulic system		•		
Check the level of the electrolyte in the battery		•		
Lubricate front axle (tractors without front-wheel drive)		•		
Lubricate front axle, u.j. shafts and drive shaft (tractors with front-wheel drive)		•		
Check oil level in axle and final drives (tractors with front-wheel drive)		•		
Check brakes		•		
Lubricate front PTO drive shaft		•		
Lubricate three-point hitch		•		
Lubricate pivoting fenders		•		
Lubricate the cab suspension system		•		
Check the neutral start circuit		•		
Tighten wheel retaining bolts/nuts		•		
Tighten screws on front loader bracket		•		
Check components of swinging drawbar for wear		•		
Change engine oil ***		•	•	
Change engine oil filter element ***		•	•	
Change fuel filter			•	
Lubricate rear axle			•	
Lubricate draft link bearings (7330 to 7530 only)			•	
Check the air intake hoses			•	
Check ground connections (engine and cab)			•	
Check engine drive belt for wear			•	
Change cab air filters ****			•	
Change transmission/hydraulic oil filters				•
Change front PTO filter				•

* only necessary when operating in extremely wet and muddy conditions

** only necessary if the tractor is driving external hydraulic equipment

*** Engine oil must be changed at least once a year. Service intervals vary depending on the type of engine oil used and the sulfur content of the fuel. See Diesel Engine Oil and Filter Service Intervals in the Fuel, Lubricants, Hydraulic Oil and Coolant section.

**** Ultra-Gard activated carbon filters only. Replace the filters with new ones at least once every year.

OU12401,0001B39-19-26AUG10-1/1

Service (Annually, Every 1000, Every 1500 Hours)

Service	Annually	1000 hours	1500 hours
Inspect seat belt.	•		
Drain engine crankcase and refill with fresh oil (see Service / Every 500 Hours).	•		
Check engine drive belt for wear (see Service / Every 500 Hours).	•		
Lubricate front PTO drive shaft (see Service / Every 250 Hours).	•		
Replace cab air filters. *	•		
Use coolant test strip to test coolant (see annual service).	•		
Have accumulator of cab suspension checked by your John Deere dealer.		•	
Have viscous fan drive checked by your John Deere dealer.		•	
Change oil in axle and final drives (tractors with front-wheel drive).			•
Change oil in transmission/hydraulic system.			•
Replace air cleaner element and cab air filters.			•
Change front PTO oil and filter.			•
Have accumulator of TLS front axle checked by your John Deere dealer.			•

* Ultra-Gard activated carbon filters only.

OU12401,0001B3A-19-09DEC11-1/1

Service (Every 2000, Every 6000 Hours, Every 10 Years)

Service	2000 hours	6000 hours	10 years
Have valve clearance checked by your John Deere dealer.	•		
Have glow plugs checked by your John Deere dealer.	•		
Change the coolant* (if COOL-GARD II is used and it is checked regularly every year).		•	
Have accumulators of cab suspension and axle suspension replaced by your John Deere dealer.			•

* If John Deere COOL-GARD II is not used, the coolant change interval is reduced to 2 years or 2000 hours of operation.

OU12401,0001B3B-19-09DEC11-1/1

Checking on Lights

Comply with all legal regulations.

Check that the lights are operating correctly, especially before driving on public roads.

LX,LICHT 002082-19-01FEB92-1/1

Other Service Jobs

If the tractor is used to power external hydraulic equipment, check the level of the transmission/hydraulic oil.

If the tractor is used in particularly wet and muddy terrain, apply extra lubrication as follows:

- Front axle and front-wheel drive shaft
- Rear axle
- Three-point hitch

These jobs are described in "Service - Every 250 Hours" and "Service - Every 500 Hours".

OU12401,0001321-19-14OCT05-1/1

Service / Every 250 Hours

Servicing the Fuel Tank

Use a 1/2-inch square-section key to slacken off the drain screw by one turn. Drain water and contaminants. Re-insert drain screw and tighten by hand.



OU12401,0000504-19-03NOV00-1/1

Check Transmission/Hydraulic System Oil Level

IMPORTANT: Check oil level when oil is cold. If possible, check the oil level in the morning after the tractor has been standing overnight.

1. Park tractor so that it is level.
2. Apply park brake or engage park lock.
3. Lower draft links, front loader, front implements and other implements that draw oil from the transmission.

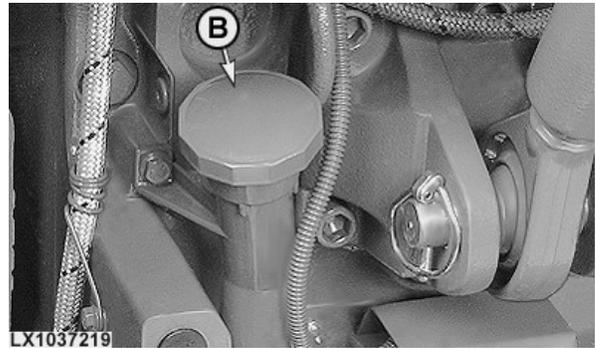
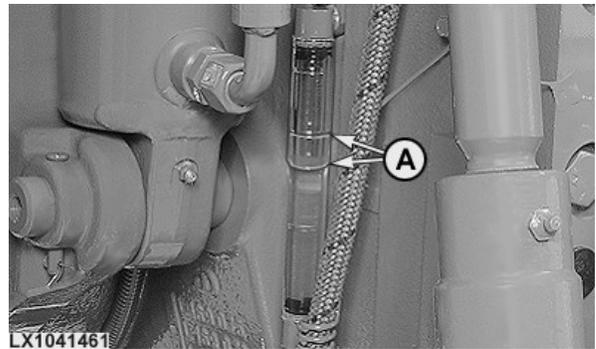
OU12401,0001DA4-19-28DEC09-1/3

4. 7130 and 7230 tractors

Oil level should be between marks (A) on the sight-glass. If it is not, add more oil at filler neck (B).

A—Sight-glass (left side of transmission)

B—Filler neck



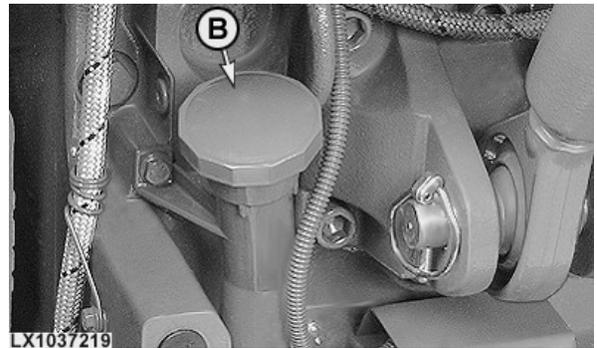
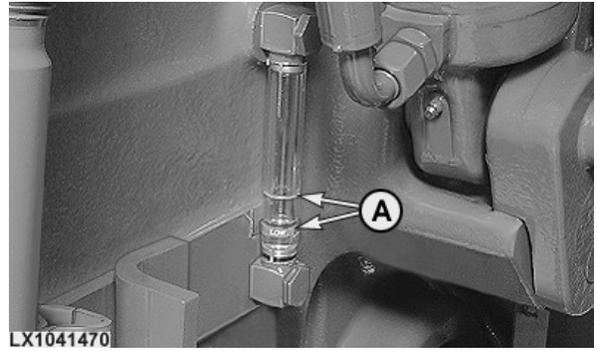
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OU12401,0001DA4-19-28DEC09-2/3

5. 7330 to 7530 tractors

Oil level should be between the marks on sight-glass (A).
If it is not, add more oil at filler neck (B).

A—Sight-glass (right side of transmission) **B**—Filler neck
(transmission)



OU12401,0001DA4-19-28DEC09-3/3

Prevent Battery Explosions

Keep sparks, lighted matches, and open flame away from the top of battery. Battery gas can explode.

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

Do not charge a frozen battery; it may explode. Warm battery to 16°C (60°F).

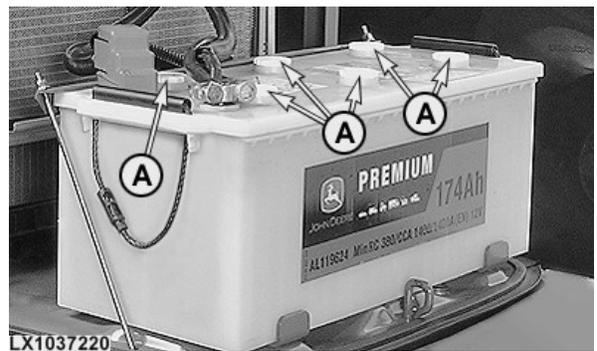


DX,SPARKS-19-03MAR93-1/1

Checking Electrolyte Level of Battery

Remove filler caps (A). Level of electrolyte should be above the mark. Fill with distilled water only.

Check that the vent holes in the battery caps are open at all times. If terminal connectors are corroded, remove corrosion with a stiff bristle brush and then coat the terminals with an acid-free grease.



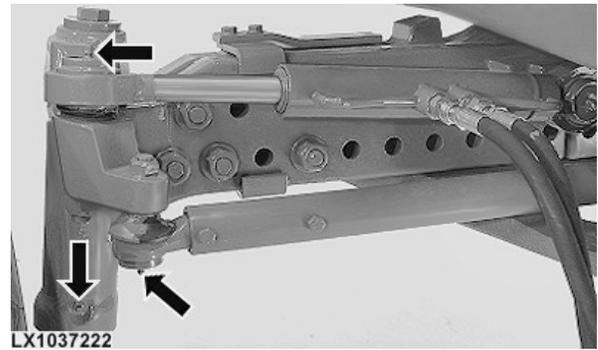
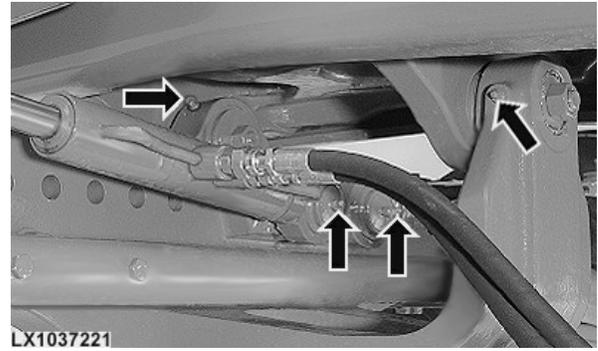
OU12401,0001323-19-14OCT05-1/1

Lubricating the Front Axle (Tractors without Front-Wheel Drive)

IMPORTANT: Carry out this service after every ten hours of operation when working under very wet and muddy conditions.

Lubricate the grease fittings on the front axle using John Deere multi-purpose grease.

IMPORTANT: Thoroughly clean all grease fittings prior to greasing. Replace damaged grease fittings immediately.



OU12401,0001324-19-14OCT05-1/1

Lubricating Front Axle and U.J. Shafts (Tractors with Front-Wheel Drive)

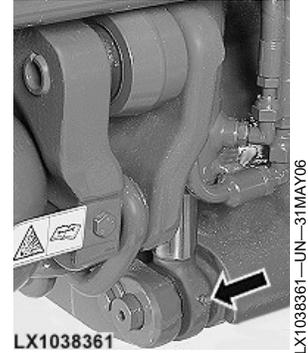
IMPORTANT: Carry out this service after every ten hours of operation when working under very wet and muddy conditions.

Apply John Deere multi-purpose grease to the grease fittings on the final drives (two on each drive), on the axle bridge (with suspended axle, one fitting on each side of tractor), on the rear drive shaft and the front drive shaft (suspended axle only).

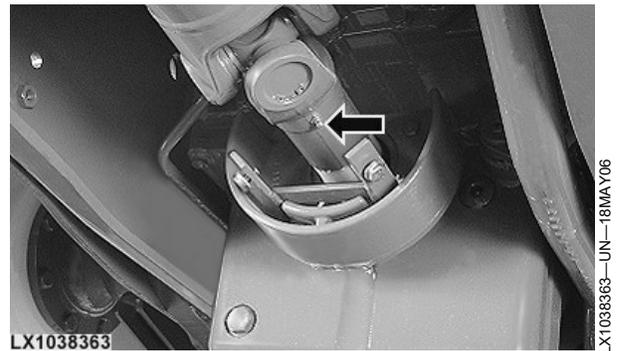
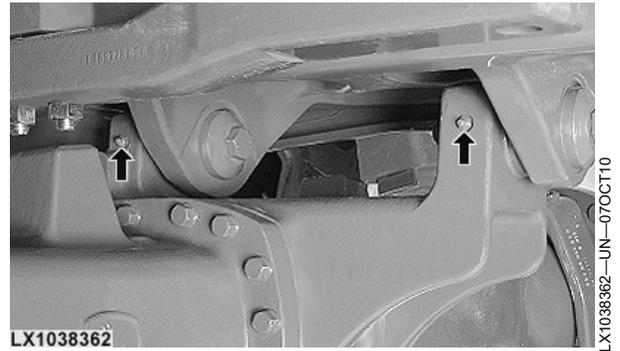
IMPORTANT: Thoroughly clean all grease fittings prior to greasing. Replace damaged grease fittings immediately.



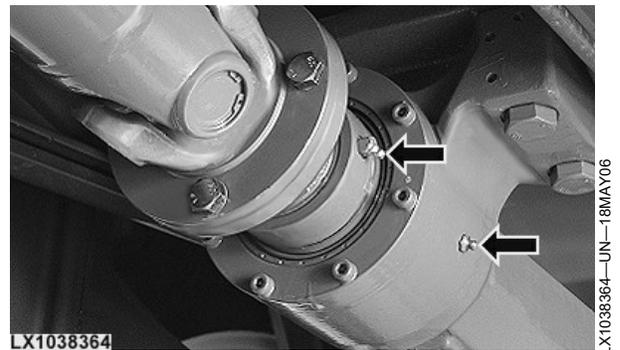
Final drive



Suspended axle



Drive shaft (rear)



Drive shaft (front)

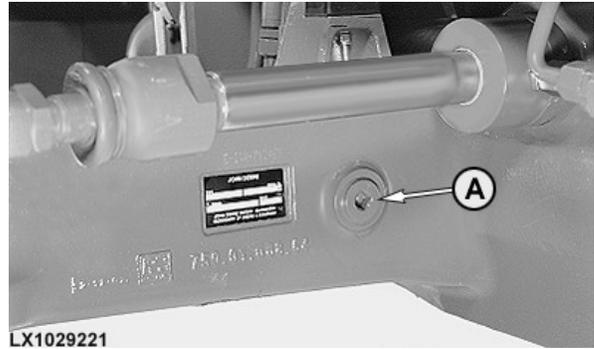
OU12401,00014D0-19-12JUL06-1/1

Check Oil Level in MFWD Axle Housing

⚠ CAUTION: If the oil is hot, it may be under pressure. Unscrew the level plug slowly.

Remove level plug (A). Oil must be level with screw bore. Fill to proper level, if necessary. Tighten level plug to 90 N·m (66 lb.-ft.). Always use a transmission oil listed in the Fuel, Lubricants, Hydraulic Oil and Coolant section.

NOTE: The position of the level plugs varies depending on axle type.



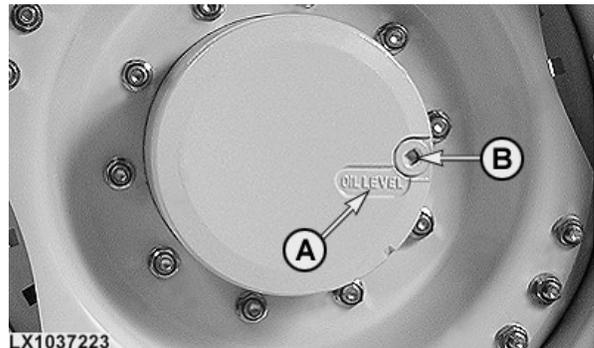
OU12401,0000E02-19-18MAY10-1/1

Check Oil Level in MFWD Final Drives

⚠ CAUTION: If the oil is hot, it may be under pressure. Unscrew the level plug slowly.

1. Turn the wheel until OIL LEVEL mark (A) is horizontal.
2. Remove level plug (B). Oil must be level with plug bore.
3. If necessary, top up with oil at this point. Tighten level plug to 90 N·m (66 lb.-ft.). Always use a transmission oil listed in the Fuel, Lubricants, Hydraulic Oil and Coolant section.

NOTE: Change oil in axle housing and final drives after the first 100 hours of operation. Then change after every 1500 hours of operation or once every 2 years, whichever occurs first.



A—Oil Level Mark

B—Level Plug

OU12401,0001325-19-18MAY10-1/1

Checking Brake Operation

Shut off the engine and check that the brakes are operating properly:

1. One at a time, press down on the left and right brake pedals. Do this several times to each pedal. Distinct resistance should be noticeable at each of the two pedals. If no resistance can be felt at the pedals, bleed the air from the brakes, or see your John Deere dealer.
2. Check to make sure the pedals do not settle to the end of stroke within 10 seconds after being applied. If leakage exceeds this rate or if one pedal settles faster than the other, see your John Deere dealer.
3. Press both pedals down at the same time. Distinct resistance should occur at both pedals at roughly the same height. If the height at which resistance can be felt differs by more than 51 mm (2 in.), bleed the air from the brakes, or see your John Deere dealer.



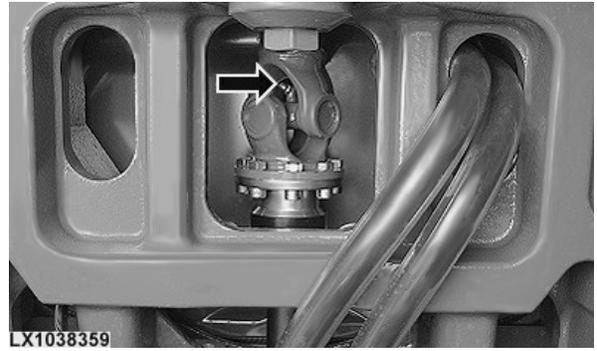
IMPORTANT: Any noticeable drift downward from the point of resistance indicates brake leakage. See your John Deere Dealer.

Distinct pedal resistance and balance between the left and right pedals are important for emergency braking with the two brakes coupled together.

OU12401,0001326-19-14OCT05-1/1

Lubricating the Front PTO Drive Shaft

Lubricate grease fittings with several strokes of grease gun. Use John Deere multi-purpose grease.

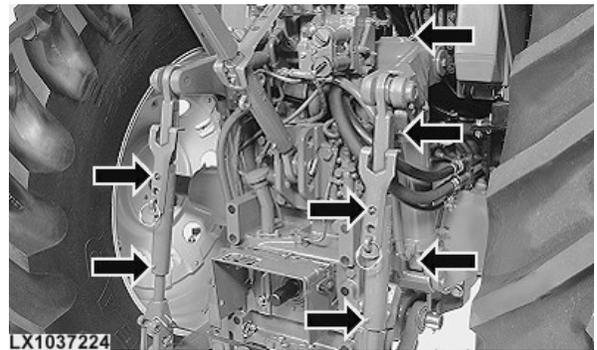


OULXE59,00108A2-19-15MAY06-1/1

Lubricating the Three-Point Hitch

Lubricate grease fittings with several strokes of grease gun. Use John Deere multi-purpose grease.

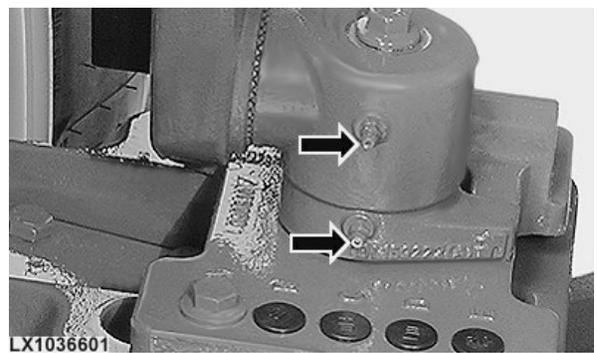
NOTE: The grease fittings on the second lift cylinder and second lift link are not visible in this illustration.



OU12401,0001327-19-14OCT05-1/1

Lubricate the Pivoting Fenders

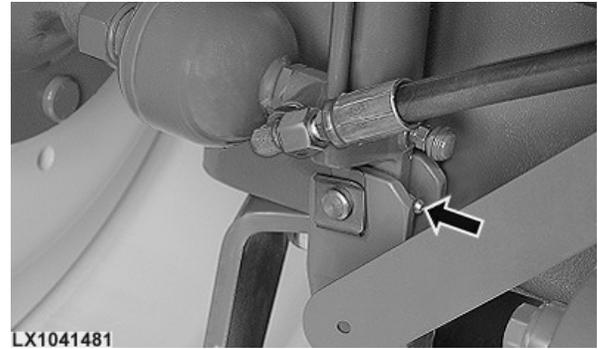
Lubricate grease fittings with several strokes of grease gun. Use John Deere multipurpose grease.



OU12401,0001286-19-09AUG05-1/1

Lubricate the Cab Suspension System

Lubricate grease fittings with several strokes of grease gun. Use John Deere multi-purpose grease.



OU12401,00015DE-19-18DEC06-1/1

Check the Neutral Start Circuit

Tractors with PowrQuad Plus or AutoQuad Plus transmissions

1. Move range-shift lever (A) to neutral.
2. Move the reverser lever (B) to "forward" or "reverse".
3. Start the engine and wait 6-7 seconds. The "N" display must light up.
4. Depress the clutch and engage any range. Slowly release the clutch pedal. The tractor must NOT start to move. If it does, see your John Deere dealer immediately.



A—Range-shift lever

B—Reverser lever

OU12401,00019C4-19-26APR08-1/2

Tractors with IVT

1. Move reverser lever (A) to "forward" or "reverse".
2. Turn key in main switch as far as it will go to the right. The starting motor must NOT turn over. If it does, see your John Deere dealer immediately.
3. Repeat the test for the other direction of travel.

A—Reverser lever



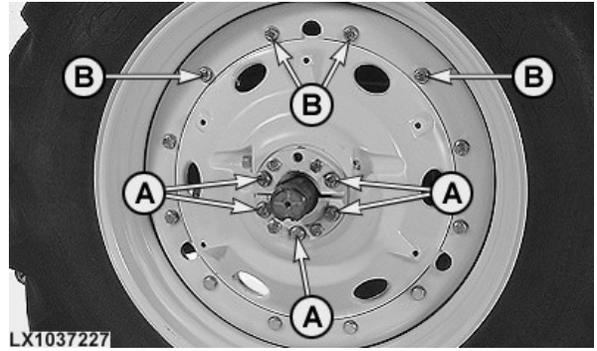
OU12401,00019C4-19-26APR08-2/2

Wheel Retaining Bolts

Tighten rear wheel retaining bolts

A—600 N·m (445 lb.-ft.)

B—600 N·m (445 lb.-ft.)



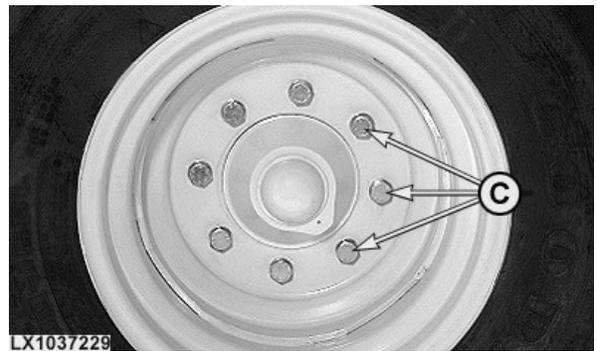
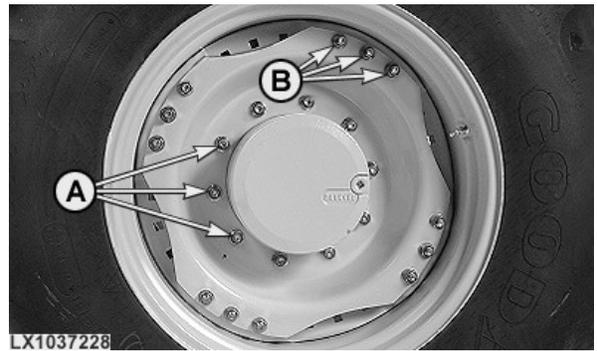
OU12401,0001B3D-19-22NOV11-1/2

Tighten bolts/nuts of front wheels

A—480 N·m (355 lb.-ft.)

C—310 N·m (230 lb.-ft.)

B—310 N·m (230 lb.-ft.)



OU12401,0001B3D-19-22NOV11-2/2

Tighten Screws on Front Loader Bracket

Tighten the screws on the front loader bracket to 550 N·m (405 lb-ft).

See also "Front Loader Installation - Front Loader Brackets" in Section 71.

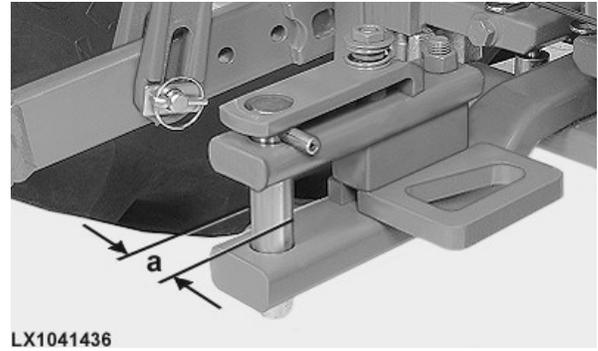


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Checking the Swinging Drawbar for Wear

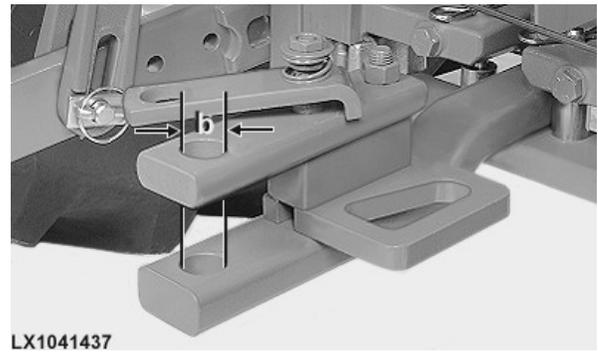
⚠ CAUTION: Parts that have reached or exceeded their wear limit must be replaced with new parts.

Pin diameter (a) must be at least 29.5 mm (1.16 in.).



OU12401,000157B-19-18NOV06-1/2

Bore diameter (b) at the top and bottom (measured in direction of travel) must not exceed 35.0 mm (1.38 in.).



OU12401,000157B-19-18NOV06-2/2

Service / Every 500 Hours

Changing Engine Oil

IMPORTANT: Use oil with a viscosity suitable for the relevant season.

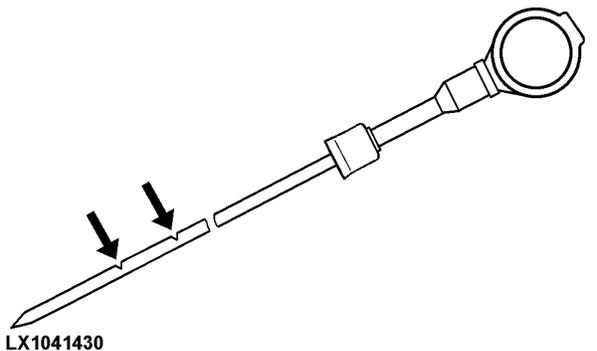
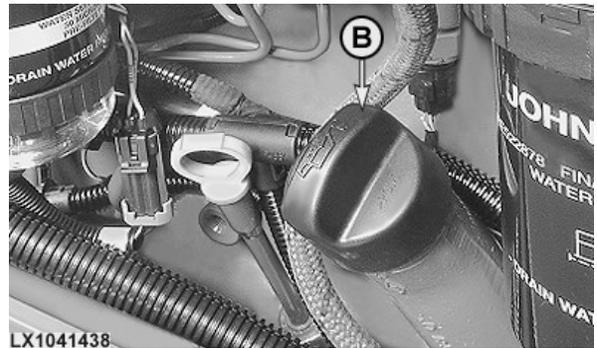
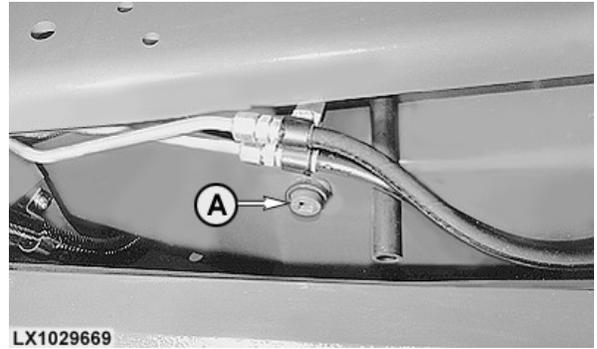
NOTE: Carry out first oil change after first 100 hours of operation.

Drain oil with engine shut off, but with engine oil still warm.

1. Remove drain screw (A).
2. While crankcase is draining, replace filter element.
3. Reinstall drain screw and tighten to 50 N·m (37 lb-ft). Use a new seal ring.
4. Fill crankcase with fresh oil of proper viscosity at filler neck (B). See section "Fuel, Lubricants, Hydraulic Oil and Coolant". Capacity is approx. 19.5 liters (5.2 U.S.gal.).
5. Check the oil level. Oil should be up to the top mark on the dipstick. If necessary, top up with oil.
6. Run engine for a short time and check for leaks at filter base and drain screw.
7. Shut off the engine.
8. Check oil level once again. It must be up to the top mark on the dipstick.

A—Oil drain screw

B—Oil filler neck



OU12401,00014D2-19-18NOV06-1/1

Changing Engine Oil Filter Element

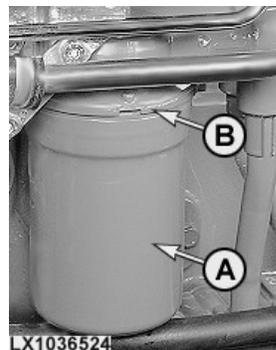
Remove filter element (A) and clean mounting surface (B). If necessary, replace the dust seal on the contact surface with a new one. Make sure that the lugs on the dust seal engage in the recesses in the contact surface of the filter element.

Apply a thin film of oil to sealing rings (C) of new filter. Install new filter and tighten by hand.

Start engine and check base of filter for leaks.

Shut off engine and check oil level.

NOTE: Carry out first oil filter change after first 100 hours of operation.



OU12401,000132C-19-16OCT05-1/1

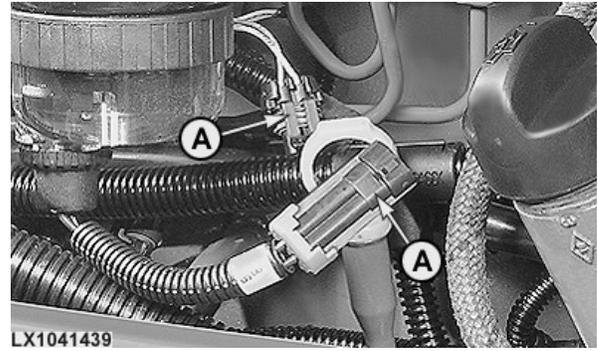
Changing the Fuel Filters

Always change the two filters at the same time.

1. Disconnect cable (A) from the water sensor.
2. Unfasten filter retaining ring (B) and remove filter (C). Seal old filter with cover of the new one.
3. Remove water separator and install it on new filter.
4. Attach new filter. The marks on the filter must be aligned with those on the housing.
5. Tighten retaining ring (B) until it clicks into place.
6. Reconnect cable (A).
7. Turn key in main switch to the right to the first switch position so that the fuel transfer pump is operating. Keep the pump running for approx. 40 seconds.

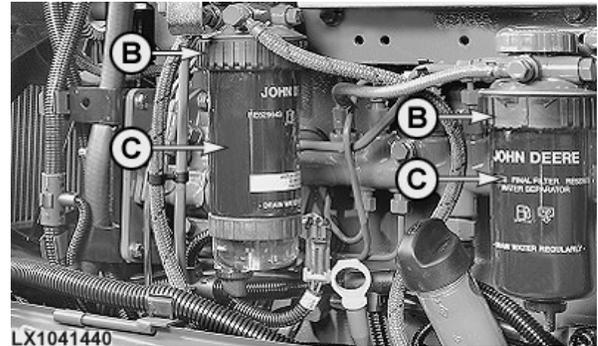
A—Cable
B—Retaining ring

C—Filter



LX1041439

LX1041439—UN—20NOV06



LX1041440

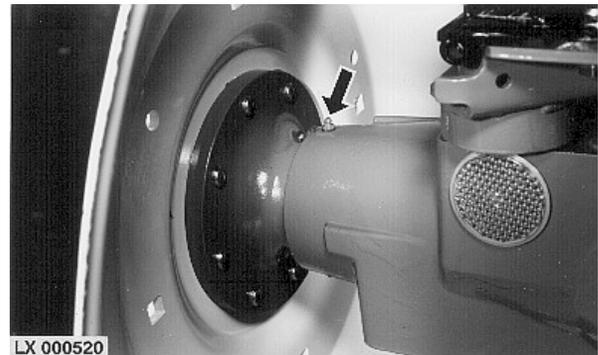
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OU12401,000157C-19-18NOV06-1/1

Lubricating Rear Axle Bearings

IMPORTANT: Carry out this service after every ten hours of operation when working under very wet and muddy conditions.

Lubricate both bearings with six to eight strokes of John Deere multipurpose grease.



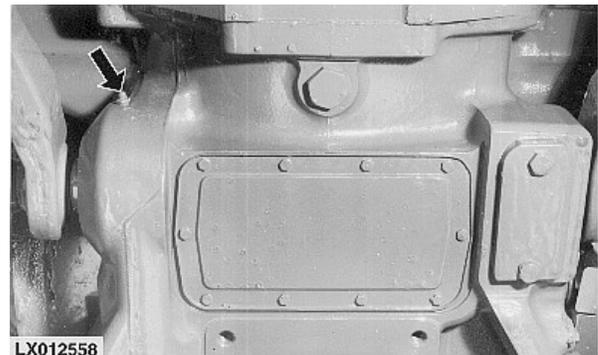
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Lubricate the Draft Link Bearings (7330 to 7530 Tractors)

Lubricate grease fitting with several strokes of grease gun. Use John Deere multi-purpose grease.



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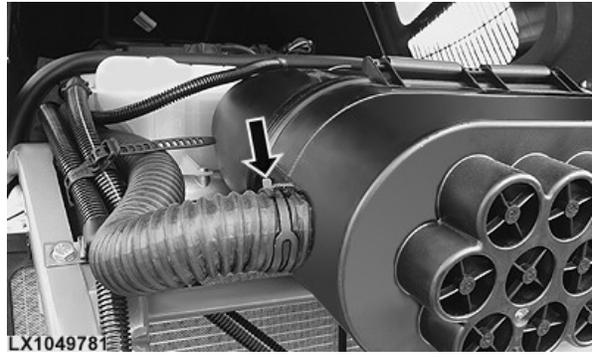
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Air Intake Hoses

The hoses vary depending on engine type.

Check hoses and tighten clamps.

Leaking or damaged hoses are the cause of dirt entering the engine.



LX1049781

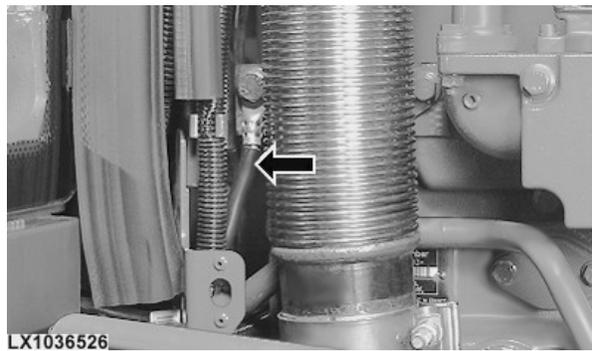
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Checking the Engine Ground Connection

Check the ground cable for signs of wear or damage.
Check that the attaching screws are tight.

Replace the ground cable if it is damaged.



LX1036526

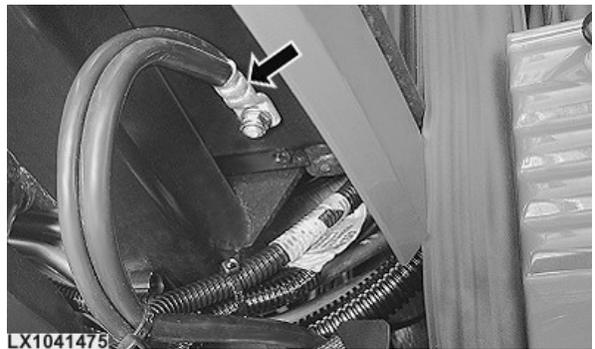
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Check the Cab Ground Connection

Check the ground cable for signs of wear or damage.
Check that the attaching screws are tight.

Replace the ground cable if it is damaged.



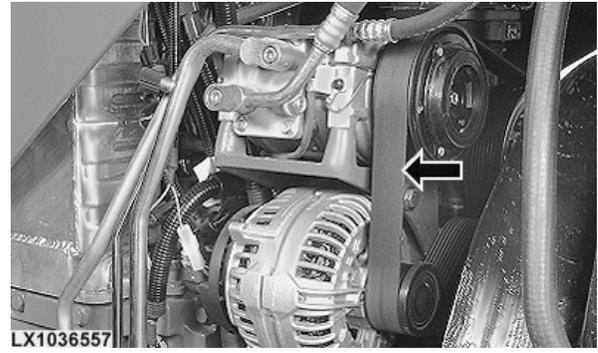
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OU12401,00015D4-19-17DEC06-1/1

Check Engine Drive Belt for Wear

If the drive belt shows any signs of wear, see your John Deere dealer.



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Service / Every 750 Hours

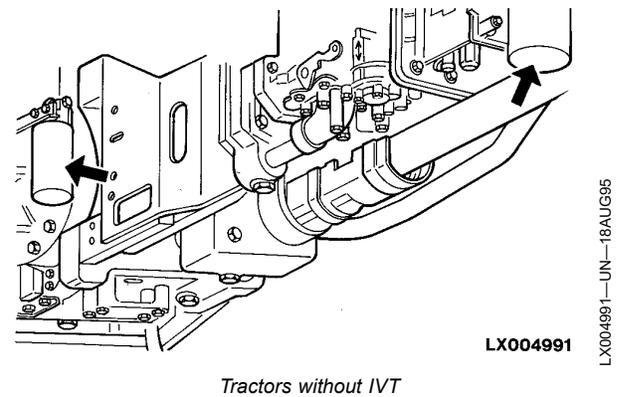
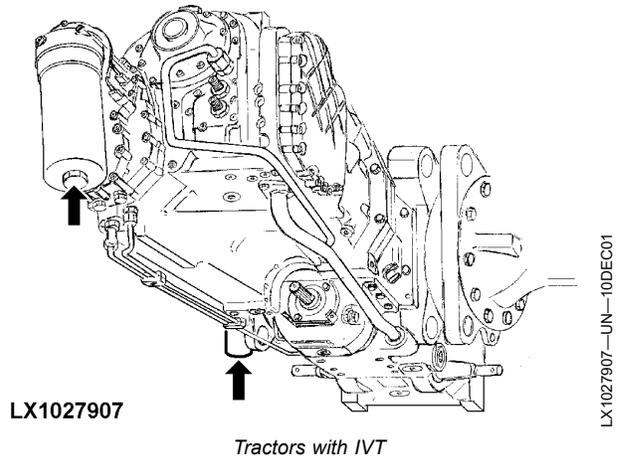
Replacing Transmission/Hydraulic System Filter Elements

NOTE: Replace transmission/hydraulic system filter elements after the first 100 hours of operation. Then replace after the first 750 hours of operation, and regularly every 750 hours thereafter.

1. Unscrew filter elements.
2. Coat sealing rings of new filter elements with grease and screw in filter elements.

Use original John Deere filter elements only!

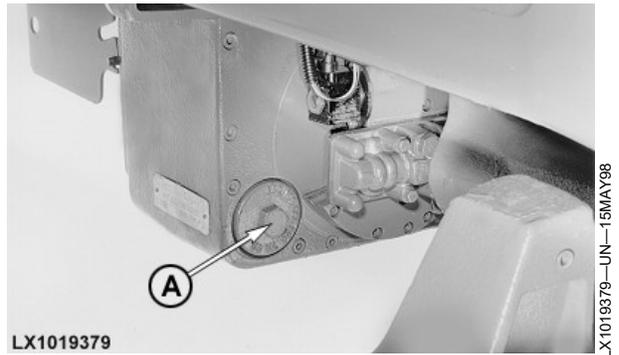
IMPORTANT: Always replace both filters at the same time. Never change one only.



OU12401,0001332-19-16OCT05-1/1

Changing the Filter on the Front PTO (If Equipped)

Unscrew plug (A). Remove filter and put in a new one. Screw in the plug again.



LX,OMWAR 017457-19-01MAY98-1/1

Service / Once a Year

Checking Seat Belt

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

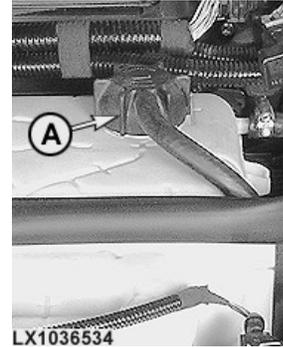
year. Look for signs of loose hardware or belt damage, such as cuts, fraying, extreme or unusual wear, discoloration, or abrasion. Replace only with replacement parts approved for your machine. See your John Deere dealer.

LX,OMWART020394-19-01JUL99-1/1

Test the Coolant



TS281—UN—15APR13



A—Expansion Tank Cap

CAUTION: Do not open cap (A) of expansion tank before coolant temperature is below boiling point. First loosen the cap to relieve pressure, then remove cap completely.

John Deere COOL-GARD™ II Premix and COOL-GARD II Concentrate are maintenance-free coolants for up to 6 years or 6000 hours of operation, provided that the cooling system is topped off using only John Deere COOL-GARD II Premix coolant. 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 EXTENDER as directed.

1. Open the hood.
2. First loosen cap (A) and then take it off.

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3. Test the coolant using COOL-GARD™ II three-way test strips (TY26605), available from your John Deere dealer.

NOTE: Follow instructions on back of reader card in test strip pack when testing coolant.

4. Add TY26603 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.

NOTE: Cap gasket should be visually checked for sealing effectiveness. A properly functioning gasket should have the imprint of the mating surface but no apparent scratches or leak paths.

5. Put cap (A) back on and close the hood.

OULXBER,0001962-19-26AUG10-1/1

Service / Every 1500 Hours or 2 Years

Changing Oil in Front-Wheel Drive Axle and Final Drives

Replace oil in axle housing and final drives after the first 100 hours of operation. Then replace after every 1500 hours of operation or once every 2 years, whichever occurs

first. Always use a transmission oil listed in the “Fuel, Lubricants, Hydraulic Oil and Coolant” section.

Always drain oil while it is still warm, i.e. immediately after a prolonged period of operation.

OU12401,0000CDB-19-01MAR03-1/1

Change Oil In Front-Wheel Drive Axle Housing

CAUTION: If the oil is hot, it may be under pressure. Remove drain screw slowly.

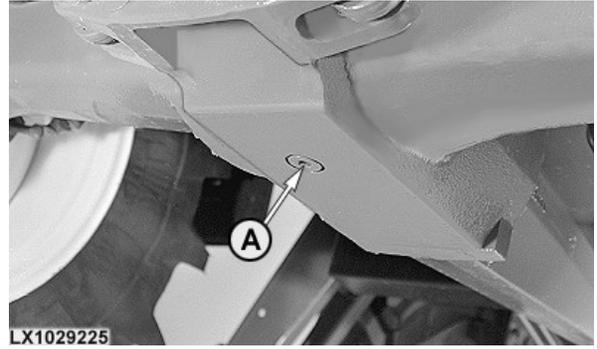
1. Remove drain screw (A) and drain oil into a suitable container.
2. Re-install drain screw and tighten to 90 N·m (66 lb.-ft.).
3. Remove oil level/filler plug (B). Fill with fresh oil. The oil level must be up to the filler hole. Re-install plug.

For capacities, see Specifications.

NOTE: Location of screws varies depending on axle type.

Recommended oil	Hy-Gard™ transmission/hydraulic oil. See also Section 80 (Fuel, Lubricants, Hydraulic Oil and Coolant).
Capacity	8.2 L (2.2 US.gal.)

Hy-Gard is a trademark of Deere & Company



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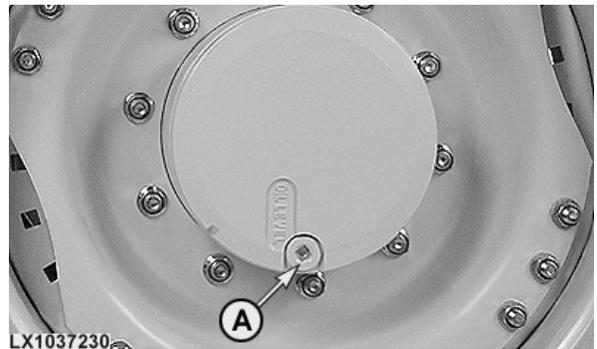
Change Oil in Front-Wheel Drive Final Drives

CAUTION: If the oil is hot, it may be under pressure. Remove drain screw slowly.

1. Turn wheel until drain screw (A) is at the bottom. Remove drain screw and drain oil into a suitable container.
2. Turn the wheel through 90° so that the line marked OIL LEVEL is horizontal (see Service / Every 250 Hours), and fill with fresh oil at drain screw bore. Oil must be level with drain screw bore.
3. Re-install drain screw and tighten to 90 N·m (66 lb.-ft.).

Recommended oil	Hy-Gard™ transmission/hydraulic oil. See also Section 80 (Fuel, Lubricants, Hydraulic Oil and Coolant).
Capacity	ca. 1.7 L (0.4 US.gal.) To fill, follow the procedure described above.

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A—Drain Screw

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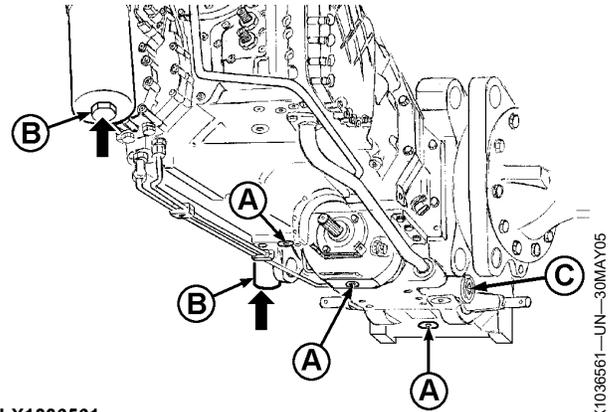
Change Transmission/Hydraulic Oil (Tractors with IVT)

7130 and 7230 (with IVT)

OU12401,0001B40-19-12OCT10-1/5

1. Start engine and operate several hydraulic functions to heat up oil.
2. Park tractor so that it is level. Lower draft links, front loader, front implements and other implements that draw oil from the transmission.
3. Stop the engine and remove the key.
4. Engage the park lock.
5. Remove drain screws (A) and trap oil in a suitable container.
6. Replace transmission/hydraulic oil filter elements (B). See Service / Every 750 Hours.

A—Drain Screws
 B—Transmission/Hydraulic Oil Filters
 C—Screw-Plug or Oil Line



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Transmission/Hydraulic Oil Filters and Drain Screws (7130 and 7230 with IVT)

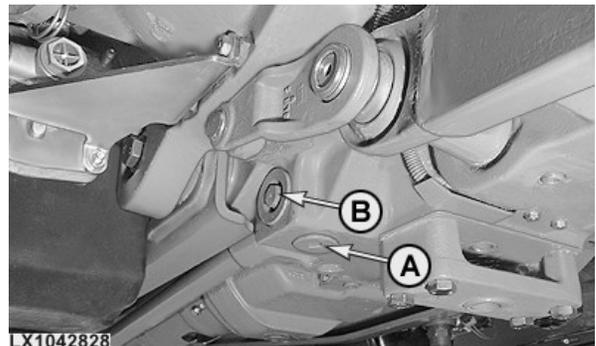
OU12401,0001B40-19-12OCT10-2/5

7. Remove plug (B) and take out intake screen (C). Clean area around intake screen, install screen and tighten plug to 50 N·m (37 lb.-ft.).
8. Before refilling with fresh oil, replace seals and tighten drain screws to 50 N·m (35 lb.-ft.).
9. Add transmission/hydraulic oil to the transmission case. For capacities, see Specifications.

Run engine briefly and operate hydraulic functions. Shut off the engine.

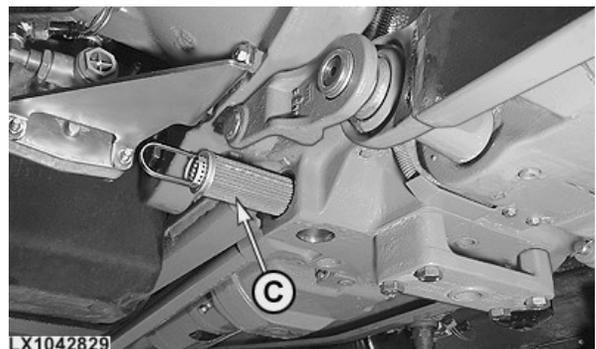
Wait for between 10 and 15 minutes before checking the oil level. It must be between the marks on the sight-glass. If not, correct oil level.

A—Drain Plug (50 N·m; 37 lb.-ft.)
 B—Plug (50 N·m; 37 lb.-ft.)
 C—Intake Screen



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LX1042829

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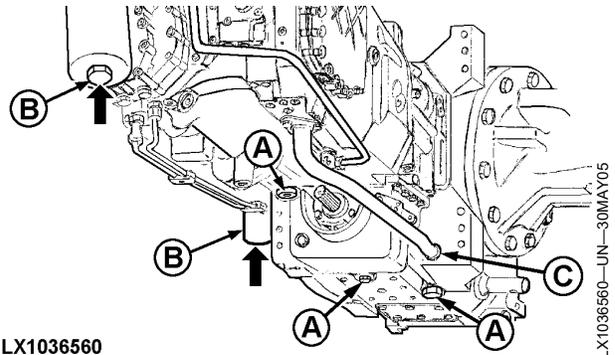
Intake Screen on 7130 and 7230

Continued on next page

OU12401,0001B40-19-12OCT10-3/5

7330 to 7530 (with IVT)

1. Start engine and operate several hydraulic functions to heat up oil.
2. Park tractor so that it is level. Lower draft links, front loader, front implements and other implements that draw oil from the transmission.
3. Stop the engine and remove the key.
4. Engage the park lock.
5. Remove drain screws (A) and trap oil in a suitable container.
6. Replace transmission/hydraulic oil filter elements (B). See Service / Every 750 Hours.



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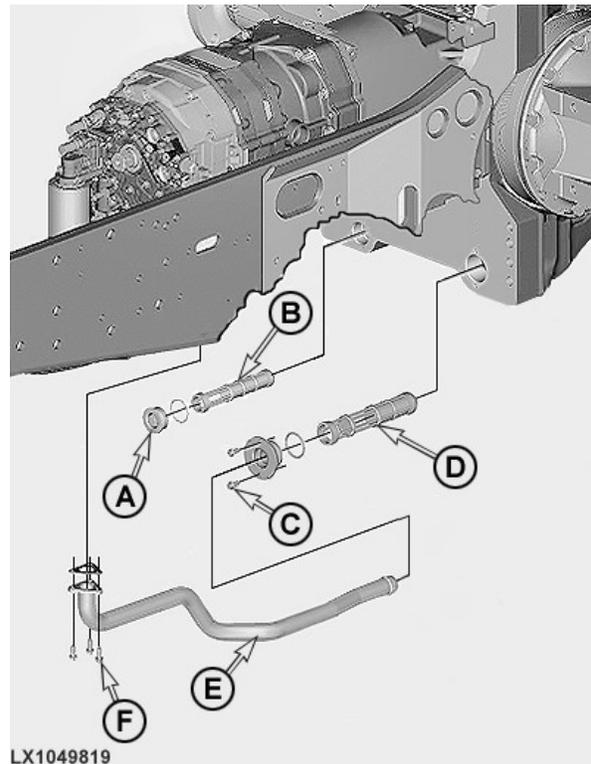
Transmission/Hydraulic Oil Filters, Drain Screws and Oil Line (7330 to 7530 with IVT)

- | | |
|--------------------------------------|---------------|
| A—Drain Screws | C—Intake Line |
| B—Transmission/Hydraulic Oil Filters | |

OU12401,0001B40-19-12OCT10-4/5

7. Take out plug (A), lift off intake screen (B) and clean it. Remove intake line (E) and take out screws (C). Take out intake screen (D) and clean it.
Clean the area where the two intake screens are installed.
8. Re-install all parts as shown and tighten screws to specified torque.
9. Before refilling with fresh oil, replace seals and tighten drain screws to 50 N·m (35 lb.-ft.).
10. Add transmission/hydraulic oil to the transmission case. For capacities, see Specifications.

- | | |
|---------------------------------|---------------------------------|
| A—Plug (50 N·m; 37 lb.-ft.) | D—Intake Screen |
| B—Intake Screen | E—Intake Line |
| C—2 Screws (37 N·m; 27 lb.-ft.) | F—3 Screws (18 N·m; 13 lb.-ft.) |



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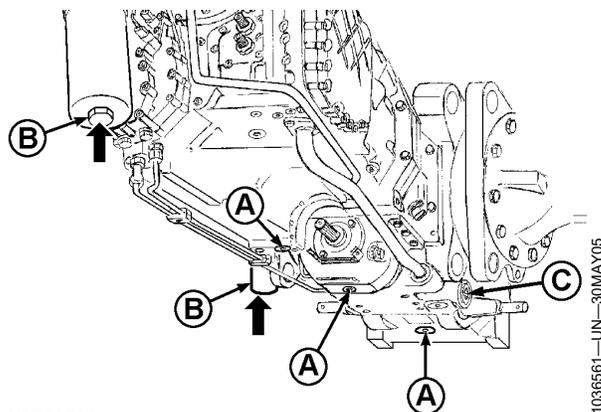
Intake Screens (7330 and 7430 with IVT)

OU12401,0001B40-19-12OCT10-5/5

Change Transmission/Hydraulic Oil (Tractors NOT Equipped with IVT)

Tractors 7130 and 7230 (without IVT)

1. Start engine and operate several hydraulic functions to heat up oil.
2. Park tractor so that it is level. Lower draft links, front loader, front implements and other implements that draw oil from the transmission.
3. Stop the engine and remove the key.
4. Engage the park lock.
5. Remove drain screws (A) and trap oil in a suitable container.
6. Replace transmission/hydraulic oil filter elements (B). See Service / Every 750 Hours.



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Transmission/Hydraulic Oil Filters and Drain Screws (7130 and 7230 without IVT)

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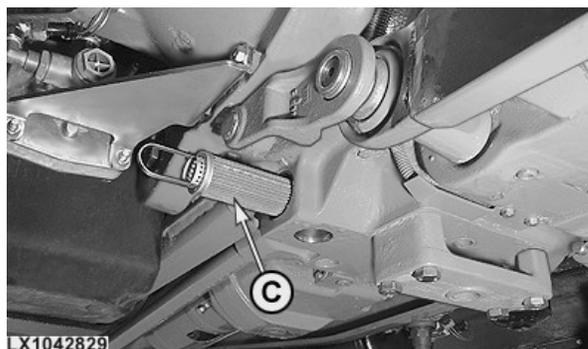
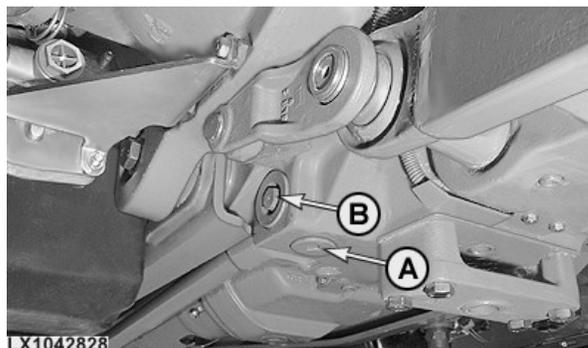
7. Remove screw-plug (B), pull out intake screen and wash in fuel. Clean the area where the intake screen is installed. Re-install the intake screen.
8. Before refilling with fresh oil, replace seals and tighten drain screws to 50 N·m (37 lb.-ft.).
9. Add transmission/hydraulic oil to the transmission case. For capacities, see Specifications.

Run engine briefly and operate hydraulic functions. Shut off the engine.

Wait for between 10 and 15 minutes before checking the oil level. It must be between the marks on the sight-glass. If not, correct oil level.

A—Drain Plug (50 N·m; 37 lb.-ft.) **C**—Intake Screen

B—Screw-Plug (50 N·m; 37 lb.-ft.)



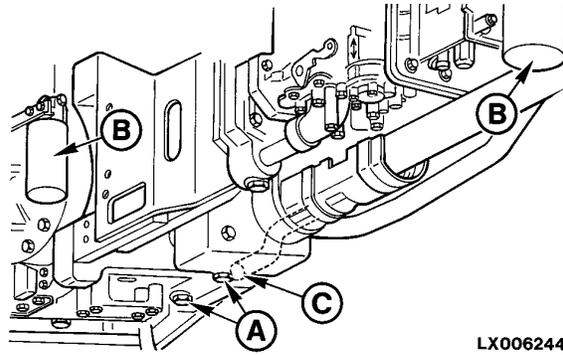
Intake Screen (7130 and 7230)

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OU12401,0001B41-19-12OCT10-2/4

Tractors 7330 to 7530 (without IVT)

1. Start engine and operate several hydraulic functions to heat up oil.
2. Park tractor so that it is level. Lower draft links, front loader, front implements and other implements that draw oil from the transmission.
3. Stop the engine and remove the key.
4. Engage the park lock.
5. Remove drain screws (A) and trap oil in a suitable container.
6. Replace transmission/hydraulic oil filter elements. See Service / Every 750 Hours.



Transmission/Hydraulic Oil Filter and Drain Screws (7330 to 7530 without IVT)

- A—Drain Screws C—Plug
 B—Transmission/Hydraulic Oil Filters

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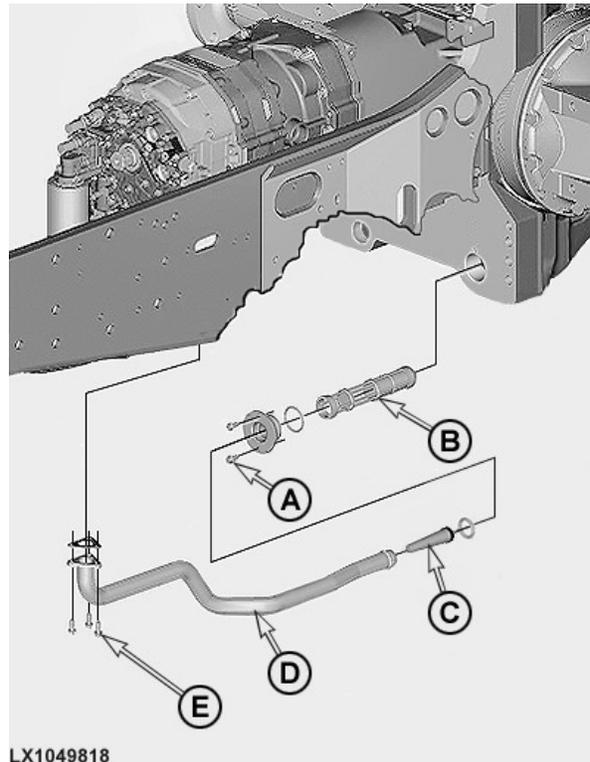
OU12401,0001B41-19-12OCT10-3/4

7. Remove intake line (D) and take out screws (A). Remove intake screens (B) and (C) and wash them in fuel. Clean the area where the intake screens are installed.
8. Re-install all parts as shown and tighten screws to specified torque.
9. Before refilling with fresh oil, replace seals and tighten drain screws to 50 N·m (37 lb.-ft.).
10. Add transmission/hydraulic oil to the transmission case. For capacities, see Specifications.

Run engine briefly and operate hydraulic functions. Shut off the engine.

Wait for between 10 and 15 minutes before checking the oil level. It must be between the marks on the sight-glass. If not, correct oil level.

- A—2 Screws (37 N·m; 27 lb.-ft.) D—Intake Line
 B—Intake Screen E—3 Screws (18 N·m; 13 lb.-ft.)
 C—Intake Screen



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Tractors (7330 to 7530 without IVT)

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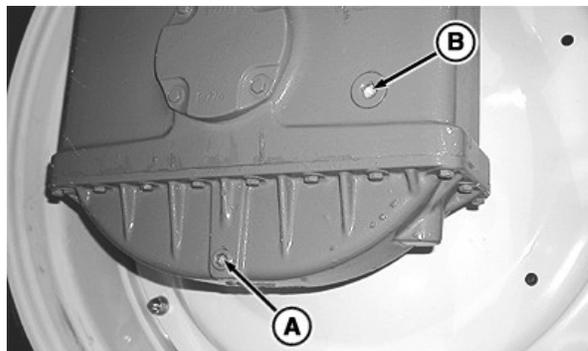
OU12401,0001B41-19-12OCT10-4/4

Change Oil at Drop-Axle (If Equipped)

1. Remove drain screw (A) and drain oil into a suitable container.
2. Re-install and tighten drain screw (A).
3. Take out filler screw (B) and add transmission/hydraulic oil until the oil is level with the hole.
4. Install filler screw (B) and tighten to 150 N·m (110 lb.-ft.).

A—Drain Screw

B—Filler Screw



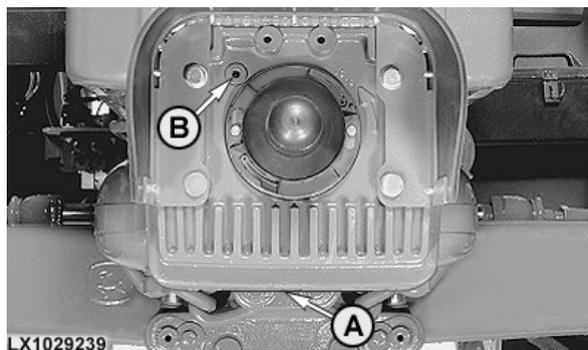
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OULXBER,0001983-19-10SEP10-1/1

Changing the Oil at the Front PTO (If Equipped)

Unscrew plugs (A) and (B) and drain the oil.

Screw in plug (A) again. Add 3.5 liters (0.9 U.S.gal.) of transmission/hydraulic oil to the PTO housing. Screw in plug (B) again.



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OUI2401,00103ED-19-01JAN03-1/1

Service / Every 6000 Hours

Note Regarding the Service Interval for Engine Coolant

The interval may be shorter when a coolant other than COOL-GARD™ II is used. The most important service intervals are stated in the table.

NOTE: It is essential to comply with Drain Intervals for Diesel Engine Coolant in Section 80, Fuel, Lubricants, Hydraulic Oil and Coolant. There you will find details of service intervals and related circumstances.

Operating hours (after x years at the latest)	Coolant meets John Deere specification	COOL-GARD II
2000 (after 2 years)	X	—
4000 (after 4 years)	—	Valid if condition of COOL-GARD II is not checked once a year.
6000 (after 6 years)	—	Valid if condition of COOL-GARD II is checked once a year.

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OULXBER,000194A-19-24NOV11-1/1

Change the Coolant

⚠ CAUTION: Do not open cap (A) of expansion tank before coolant temperature is below boiling point. First loosen the cap to relieve pressure, then remove cap completely.

NOTE: The **FIRST** service interval is 6 years or 6000 hours, provided the cooling system has been improved exclusively with John Deere COOL-GARD II and Premix and the coolant has been checked at the prescribed intervals. After the first service, the **REGULAR** interval (2 years or 2000 hours) can be extended to 6 years or 6000 hours if the appropriate coolant is used and checked at the relevant intervals. Comply with the recommended engine coolant service intervals in Diesel Engine Coolant in the Fuel, Lubricants, Hydraulic Oil and Coolant section of this manual.

1. On tractors with cab, turn the heater control as far as it will go to the right.
2. First loosen cap (A) and then take it off.
3. Turn connect/disconnect control (B) anti-clockwise as far as it will go.
4. Place a container under the drains to trap the coolant as it emerges. Open drain plug (C).

As soon as system is empty, close drain plug (C) and fill the system with clean water.

IMPORTANT: Never pour cold water or coolant into the hot engine. Always use warm water or wait until engine has cooled down.

⚠ CAUTION: Before starting the engine, always close the hood.

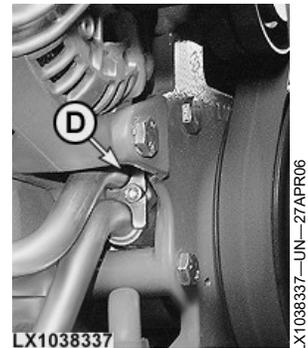
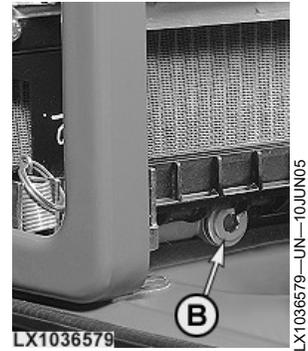
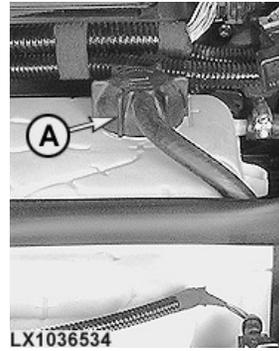
Run the engine until it reaches operating temperature. Shut off engine and drain cooling system.

Close drain plug again and fill the system with clean water.

Again run engine until it has reached operating temperature. Shut off engine and drain system again.

Close the drain plug and disconnect line (D). Fill the system with the prescribed coolant (see Fuel, Lubricants, Hydraulic Oil and Coolant section) until coolant emerges from line (D). Retighten line (D).

Add coolant up to the max. mark on both tanks.



A—Filler cap
B—Connect/disconnect control (front of radiator)

C—Drain plug (rear of radiator)
D—Line

Start the engine and run it for 5 minutes.

Shut down the engine and add coolant up to the max. mark on both tanks.

Start the engine and bring it up to operating temperature.

Shut down the engine and add coolant up to the max. mark on both tanks.

Turn connect/disconnect control (B) clockwise as far as it will go.

Re-install and close the filler cap (A).

For efficient cooling, the radiator screen must be kept clean. Remove any dust or oil and carefully straighten any bent fins.

Service / As Required

Engine Air Cleaner

If a message appears at the CommandCenter saying that the engine air cleaner is contaminated, the air cleaner's primary element must be taken out and cleaned.

The service interval may be extended briefly, e.g. until the next suitable opportunity. Provided the cleaner is serviced properly, this will not adversely affect its performance.

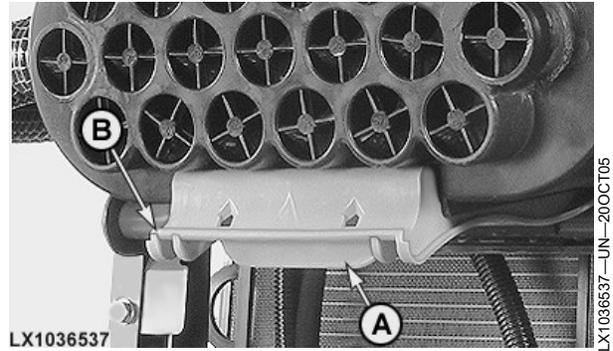
The primary element can be cleaned up to five times. Thereafter, or at the latest after 1500 hours of operation (or 2 years), it must be replaced.

Open the hood, pull lug (A) forward and swing catch (B) down. Fold cover (C) up. Pull the primary filter element out of the cleaner housing.

IMPORTANT: Never run the engine without the primary filter element!

A—Lug
B—Catch

C—Cover



OU12401,0001338-19-18OCT05-1/1

Cleaning the Primary Filter Element

When the element must be serviced in the field, tap it on the palm of your hand as a temporary measure.

IMPORTANT: The guide ring must not be damaged or deformed.

When you return to your service area, clean the filter element thoroughly, or replace it with a new one.



OU12401,0000933-19-01MAY01-1/1

Cleaning a Dusty Element

If tapping element does not remove dust, blow out dust with compressed air (not exceeding 600 kPa; 6 bar; 90 psi) by inserting nozzle inside the element and blowing from the inside of the filter to the outside.

Replace element if air cleaner indicator light continues glowing after the element has been cleaned.

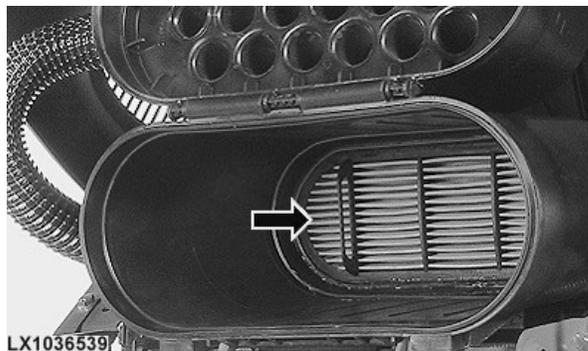


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Secondary (Safety) Element

This filter must be changed if it becomes damaged. Change it at every fifth change of the air cleaner primary element, and at the latest after 1500 hours of operation.

IMPORTANT: Always replace secondary (safety) filter element, do not attempt to clean it.



OU12401,0001339-19-17OCT05-1/1

Installation

With the rubber seal first (arrows on decal pointing into the filter housing), slide a serviced or new primary filter element as far as it will go into the filter housing. Fold down the cover and let the catch click into place.

IMPORTANT: Never close the hood or start the engine unless the filter is locked securely.



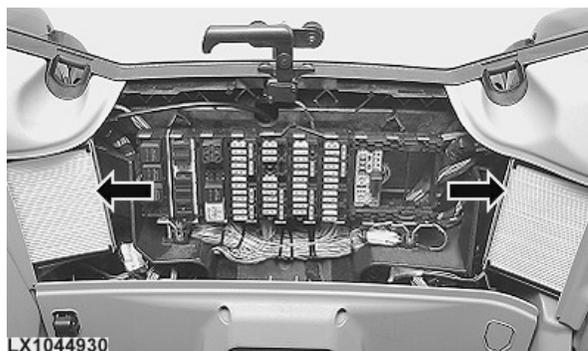
OU12401,000133A-19-17OCT05-1/1

Clean the Cab Air Filters

NOTE: On tractors equipped with Ultra-Gard activated carbon filters, the filters cannot be cleaned. These filters must be replaced with new ones every 500 hours or once a year at the latest.

Every time the primary filter is serviced, also remove the two cab air filters and the recirculated air filters, and clean them with compressed air directed from the clean side.

Replace cab air filters together with engine primary air filter element.



OU12401,0001916-19-10DEC07-1/1

Clean Radiator and Condenser (if equipped)

For efficient cooling, the radiator screen must be kept clean.

Pull the screen (if equipped) out to the side. Remove any dirt from radiator and radiator screen.

Replace radiator screen.

NOTE: If the tractor is equipped with an air-conditioning system, pull the condenser of the air-conditioning system out to the side before cleaning the radiator (see description below).



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OU12401.000133C-19-17OCT05-1/2

Tractors with Air-Conditioning

For efficient cooling, the exterior of the condenser must be kept clean.

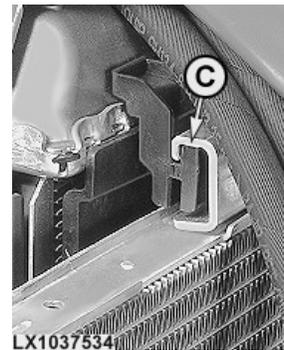
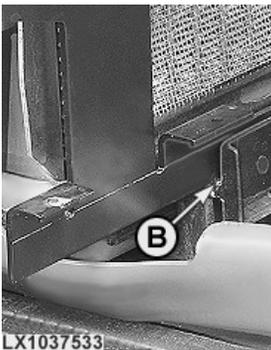
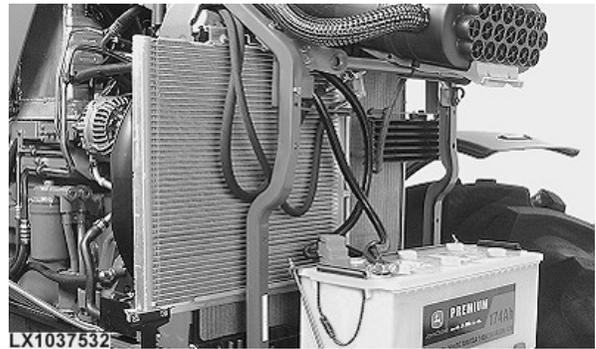
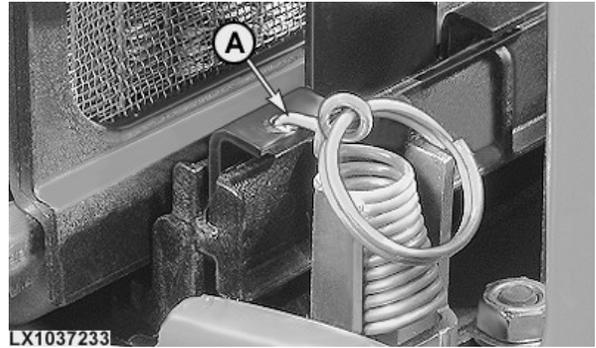
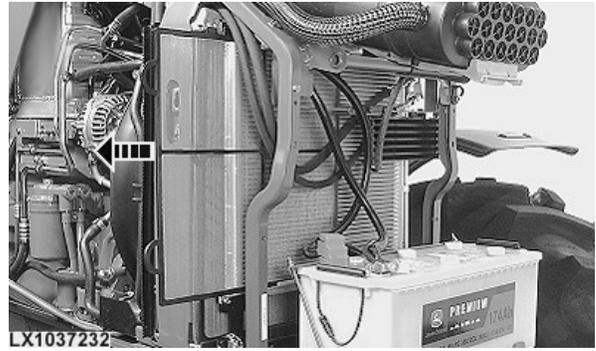
Pull the screen (if equipped) out to the side. Remove any contamination.

Disconnect spring (A) on both tractor sides and pull the condenser out to the side. Remove any contamination.

When re-installing condenser, make sure that it engages properly in the lower and upper guide rails (B and C respectively). Also make sure that the condenser is centered in relation to the radiator. Re-connect springs (A) on both sides.

Replace condenser and radiator screens.

- A—Spring
- B—Lower guide rail
- C—Upper guide rail



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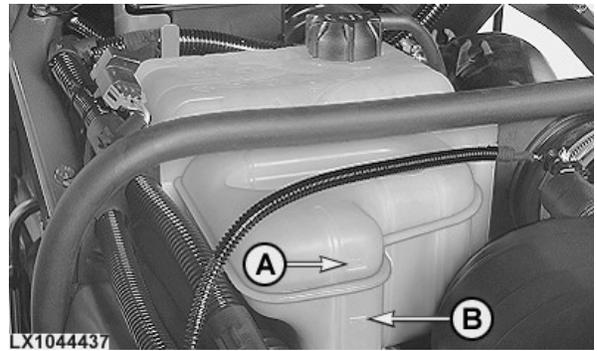
Check Coolant Level

If coolant temperature is too high, rectify the cause (dirty radiator, clogged screen, coolant level too low).

Coolant level should be close to the max. mark (A). It must under no circumstances fall below the min. mark (B).

A—Max. mark

B—Min. mark



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OU12401,0001D1F-19-15OCT09-1/1

Checking the Fuel Filter

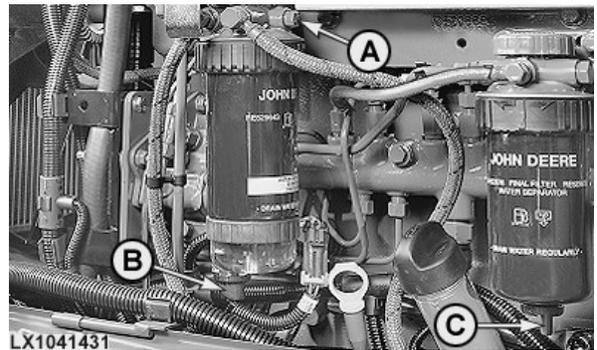
If water or sediment deposits have settled in filter, proceed as follows:

1. Open bleed screw (A).
2. Open drain plug (B) by 3/4 of a turn. Retighten the plug as soon as water and sediment deposits have drained out.
3. Open drain plug (C) by 3/4 of a turn. Retighten the plug as soon as water and sediment deposits have drained out.
4. Tighten bleed screw (A).
5. Turn key in main switch to the right to the first switch position so that the fuel transfer pump is operating. Keep the pump running for approx. 40 seconds.

If water was present in fuel filter, use a 1/2-inch square-section key to loosen drain plug (D) under the fuel tank by one turn. After draining off any water and sediment deposits, retighten drain plug until hand-tight.

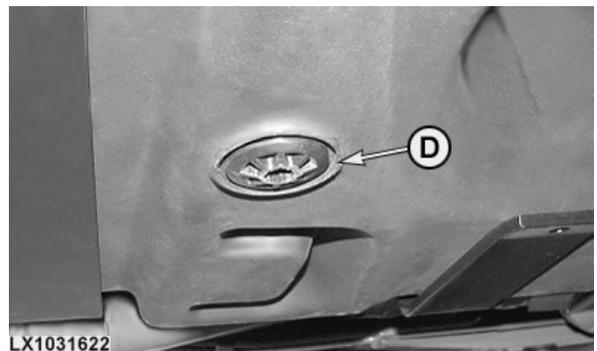
A—Bleed screw
B—Drain plug

C—Drain plug
D—Fuel tank drain plug



LX1041431

LX1041431—UN—20NOV06



LX1031622

LX1031622—UN—23JAN06

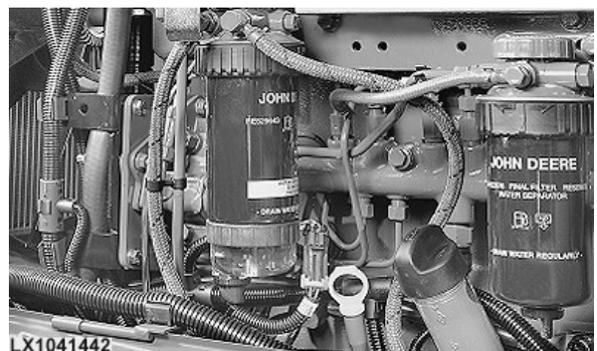
OU12401,0001579-19-18NOV06-1/1

Bleeding Air from the Fuel System

CAUTION: High-pressure fluid remaining in fuel lines can cause serious injury. Do not disconnect or attempt to repair fuel lines, sensors or any other components between injection pump and nozzles.

The fuel system must be bled whenever the fuel tank has been run dry or the fuel filters have been replaced.

Turn key in main switch to the right to the first switch position so that the fuel transfer pump is operating. Keep the pump running for approx. 40 seconds.



LX1041442

LX1041442—UN—21NOV06

OU12401,000157D-19-18NOV06-1/1

Lubricate All Lubricating Points

If the tractor has been washed with high-pressure water,

lubricate all lubricating points with John Deere multi-purpose grease.

OU12401.000133E-19-17OCT05-1/1

Operator's Seat

Lubricate the slide rails with John Deere multi-purpose grease.

OU12401.000133F-19-17OCT05-1/1

Prevent Battery Explosions

Keep sparks, lighted matches, and open flame away from the top of battery. Battery gas can explode.

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

Do not charge a frozen battery; it may explode. Warm battery to 16°C (60°F).



TS204—UN—15APR13

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

Battery - Checking Specific Gravity

Use an hydrometer to check the specific gravity of the electrolyte in each battery cell.

A fully charged battery should have a specific gravity reading of 1.28. Recharge battery if reading drops below 1.20.

NOTE: In tropical regions, the battery is fully charged when the reading is 1.23.



LX1037218

LX1037218—UN—21OCT05

OU12401.0001340-19-17OCT05-1/1

Starter Motor

If the starter motor fails to operate after the starter switch has been operated, the complete starter system must be thoroughly checked. Check specific gravity of battery with an hydrometer and make sure that none of the cables are

broken or worn through and that none of the cable connections are loose or corroded.

If the above checks fail to improve the operation of the starter motor, see your John Deere dealer.

OU12401.000093E-19-01MAY01-1/1

Fuses and Relays in the Engine Compartment

IMPORTANT: To prevent damage to the electrical system, never use a fuse with a higher rating than the one already installed.

NOTE: Depending on how the tractor is equipped, it may not have all the fuses and relays shown below.

The fuse and relay box is located at the upper right-hand side of the engine compartment.

Open the hood.

Take cover (A) off the fuse and relay box.

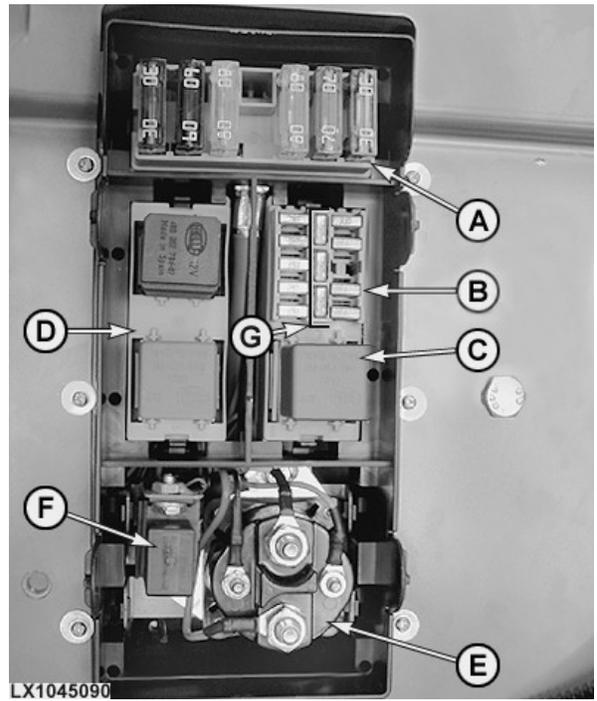


OU12401,0001561-19-17NOV06-1/1

Fuses and Relays (Engine Compartment)

- A—Fuses F01PLB
- B—Fuses F02PLB
- C—Relay K02PLB
- D—Relays K03PLB

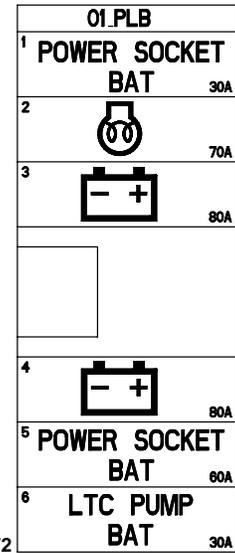
- E—Relay K01PLB
- F—Not used
- G—Spare fuses



OU12401,00019C3-19-24APR08-1/1

Fuses F01PLB (Engine Compartment)

Number	Capacity (amps)	Consumer
F01PL-B/01	30 amps	ISOBUS socket at rear (power supply to implement control units)
F01PL-B/02	70 amps	Heating element of electrical starting aid
F01PL-B/03	80 amps	Main fuse
F01PL-B/04	80 amps	Main fuse
F01PL-B/05	60 amps	ISOBUS socket at rear (power supply to components)
F01PL-B/06	—	Not used

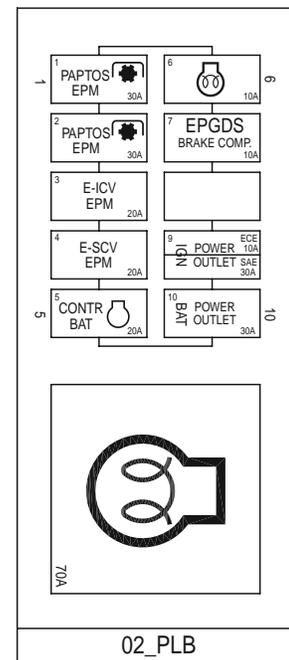


LX1037972

OU12401.0001563-19-17NOV06-1/1

Fuses F02PLB (Engine Compartment)

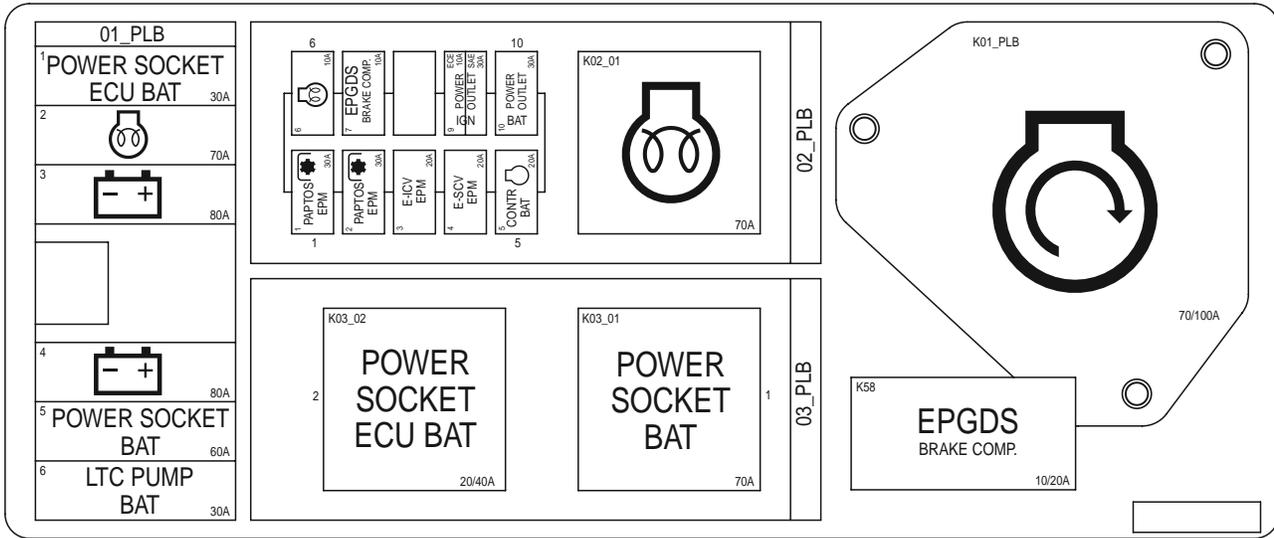
Number	Capacity (amps)	Consumer
F02PL-B/01	30 amps	Magnetic coils for PTO speeds
F02PL-B/02	30 amps	Magnetic coils for PTO speeds
F02PL-B/03	20 amps	E-ICV stepper motors
F02PL-B/04	20 amps	E-SCV stepper motors
F02PL-B/05	20 amps	ECU (engine control unit)
F02PL-B/06	10 amps	Monitoring of electrical starting aid
F02PL-B/07	—	Not used
F02PL-B/08	—	Not used
F02PL-B/09	30 amps	3-terminal socket, power outlet strip, 7-terminal socket (SAE)
	10 amps	3-terminal socket, socket strip (ECE)
F02PL-B/10	30 amps	3-terminal socket, socket strip



LX1044656

OU12401.0001918-19-10DEC07-1/1

Relays K01PLB to K03PLB (Engine Compartment)



LX1044666

LX1044666—UN—23NOV07

Number	Capacity (amps)	Designation
K01PLB	70/100 amps	Starting motor relay
K02PL-B/01	70 amps	Relay for electrical starting aid
K03PL-B/01	70 amps	Relay for power supply to ISOBUS socket at rear
K03PL-B/02	20/40 amps	Relay for power supply to implement control units (ISOBUS socket) at rear
K58	—	Not used

OU12401,0001919-19-10DEC07-1/1

Fuses and Relays in the Cab (Tractors with PowrQuad Transmission)

IMPORTANT: To prevent damage to the electrical system, never use a fuse with a higher rating than the one already installed.

NOTE: Depending on how the tractor is equipped, it may not have all the fuses and relays shown below.

The fuse and relay box is located behind the operator's seat just below the rear window.

Press down latches (A) and lift off the trim panel.

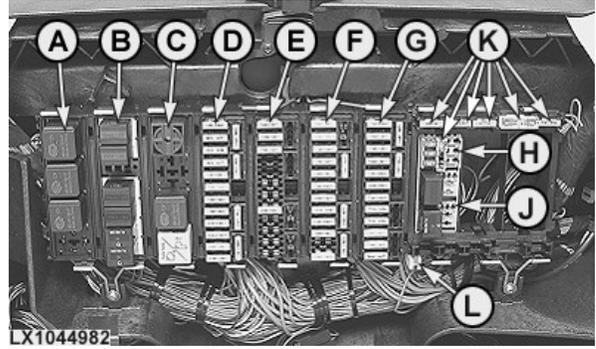


LX1026549—UN—30JUL01

OU12401,0001566-19-17NOV06-1/1

Fuses and Relays (PowrQuad Transmission)

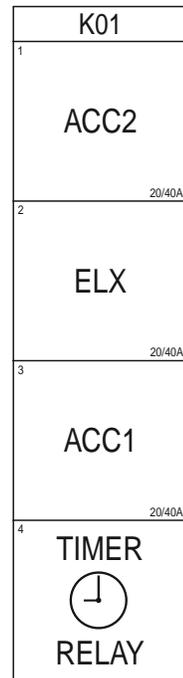
- A—Relays K01
- B—Relays K02
- C—Relays K03
- D—Fuses F04
- E—Fuses F05
- F—Fuses F06
- G—Fuses F07
- H—Fuses F08
- J—Relays K08
- K—Spare fuses
- L—Tool for changing fuses



OU12401.00019C1-19-23APR08-1/1

Relays K01 (PowrQuad Transmission)

Number	Capacity (amps)	Designation
K01/01	20/40 amps	Relay for power supply to accessories
K01/02	20/40 amps	Relay for power supply to electronics
K01/03	20/40 amps	Relay for power supply to accessories
K01/04	—	Timer

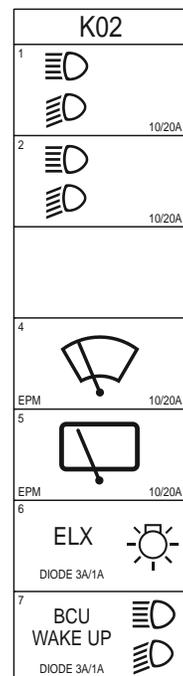


LX1044663

OU12401.000191B-19-10DEC07-1/1

Relays / Diodes K02 (PowrQuad Transmission)

Number	Capacity (amps)	Designation
K02/01	10/20 amps	Relay for low/high beam headlights
K02/02	10/20 amps	Relay for lights
K02/03	-	Not used
K02/04	10/20 amps	Relay for windshield wiper
K02/05	10/20 amps	Relay for rear window wiper
K02/06	1 amp	Diode for power supply to electronics
K02/06	3 amps	Diode for lights
K02/07	1 amp	Diode for low/high beam headlight relay
K02/07	3 amps	Diode for power supply to control units PC0 and PC6, BCU activation



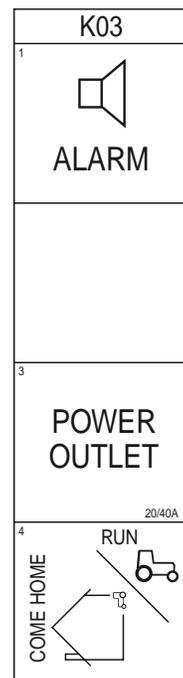
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LX1044664—UN—23NOV07

OU12401,000191C-19-10DEC07-1/1

Relays K03 (PowrQuad Transmission)

Number	Capacity (amps)	Designation
K03/01	-	Acoustic alarm
K03/02	-	Not used
K03/03	20/40 amps	Relay for 3-terminal socket, power outlet strip, 7-terminal socket (SAE)
K03/04	-	Plug for "come home" mode



LX1044665

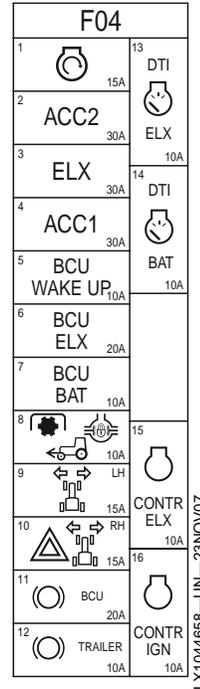
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OU12401,000191D-19-10DEC07-1/1

Fuses F04 (PowrQuad Transmission)

Number	Rating (amps)	Consumer
F04/01	15 A	Main (key) switch
F04/02	30 A	Power supply for accessories
F04/03	30 A	Power supply for electronics
F04/04	30 A	Power supply for accessories
F04/05	10 A	PC0 control unit, PC6 control unit, CAN-BUS (vehicle), BCU activation
F04/06	20 A	BCU control unit
F04/07	10 A	BCU control unit
F04/08	10 A	BCU control unit (rear PTO, front PTO, front-wheel drive, differential lock, HMS Plus, park brake monitor, radar)
F04/09	15 A	Left turn signal
F04/10	15 A	Right turn signal, hazard warning lights
F04/11	20 A	Brake switch
F04/12	10 A	Brake lights
F04/13	10 A	BIF control unit, BIF control unit (wipers), DTI control unit
F04/14	10 A	BIF control unit, DTI control unit
F04/15	10 A	ECU control unit
F04/16	10 A	ECU control unit

LX1044658

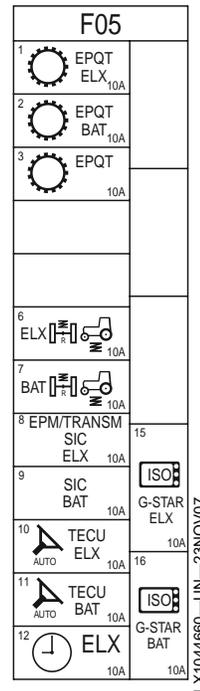


OU12401,0001CF6-19-03OCT09-1/1

Fuses F05 (PowrQuad Transmission)

Number	Capacity (amps)	Consumer
F05/01	10 amps	EPC control unit
F05/02	10 amps	EPC control unit
F05/03	10 amps	EPC control unit (transmission speed sensor, hydraulic oil filter sensor)
F05/04	-	Not used
F05/05	-	Not used
F05/06	10 amps	TSC control unit
F05/07	10 amps	TSC control unit
F05/08	10 amps	SIC control unit, PC5 control unit, CAN-BUS (E-SCV/E-ICV)
F05/09	10 amps	SIC control unit
F05/10	10 amps	TEC control unit, SSU control unit
F05/11	10 amps	TEC control unit, SSU control unit
F05/12	10 amps	Timer
F05/13	-	Not used
F05/14	-	Not used
F05/15	10 amps	GreenStar
F05/16	10 amps	GreenStar

LX1044660

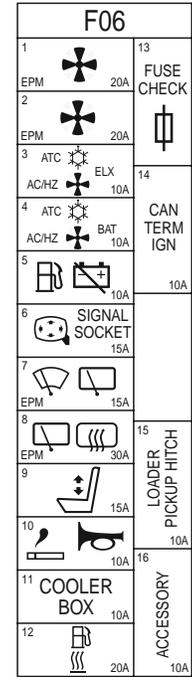


OU12401,0001920-19-10DEC07-1/1

Fuses F06 (PowrQuad Transmission)

Number	Capacity (amps)	Consumer
F06/01	20 amps	Fan motor
F06/02	20 amps	Fan motor
F06/03	10 amps	ATC/ETC/HTC control unit
F06/04	10 amps	ATC/ETC/HTC control unit, radio
F06/05	10 amps	Fuel pump, battery cut-off switch
F06/06	15 amps	Electrical rear-view mirrors, signal socket
F06/07	15 amps	Windshield wiper motor, rear window wiper motor
F06/08	30 amps	Rear window wiper motor, rear window heater
F06/09	15 amps	Operator's seat
F06/10	10 amps	Cigarette lighter, horn
F06/11	10 amps	Electrical cooling compartment
F06/12	20 amps	Fuel preheater
F06/13	-	Fuse tester
F06/14	10 amps	CAN BUS (power train)
F06/15	10 amps	Plug for front loader, electro-hydraulic pick-up hitch
F06/16	10 amps	Plug for accessories

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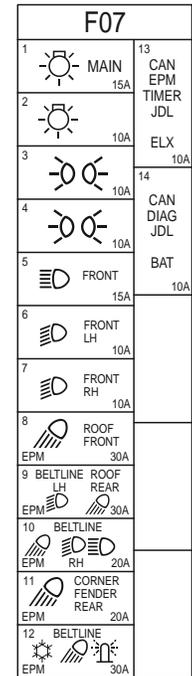


OU12401,0001921-19-10DEC07-1/1

Fuses F07 (PowrQuad Transmission)

Number	Capacity (amps)	Consumer
F07/01	15 amps	Light switch
F07/02	10 amps	Lights
F07/03	10 amps	Left-hand tail light, right-hand clearance light (ECE), license plate light (ECE)
F07/04	10 amps	Right-hand tail light, left-hand clearance light (ECE)
F07/05	15 amps	High-beam headlights
F07/06	10 amps	Low-beam headlight (left)
F07/07	10 amps	Low-beam headlight (right)
F07/08	20 amps	Worklights on front of roof
F07/09	30 amps	Worklights on rear of roof, xenon (HID) worklights on rear of roof, lights on cab frame (left-hand low-beam)
F07/10	20 amps	Lights on cab frame (high beam), lights on cab frame (right-hand low-beam), worklights on cab frame
F07/11	20 amps	Front corner worklights, worklights on rear fender
F07/12	30 amps	Beacon light, air-conditioning system, worklights on cab frame, xenon (HID) worklights on cab frame
F07/13	10 amps	JDL control unit, CAN BUS (vehicle)
F07/14	10 amps	JDL control unit, service socket
F07/15	-	Not used
F07/16	-	Not used

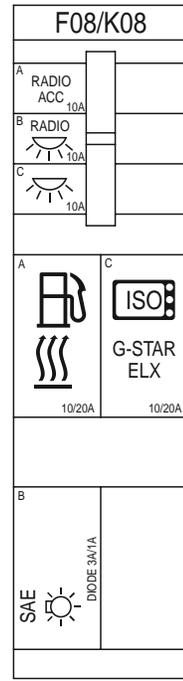
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OU12401,0001922-19-10DEC07-1/1

Fuses F08 (PowrQuad Transmission)

Number	Capacity (amps)	Consumer
F08/A	10 amps	Radio
F08/B	10 amps	Console light, radio light
F08/C	10 amps	Dome light, access-step light
F08/D	-	Not used
F08/E	-	Not used
F08//F	-	Not used



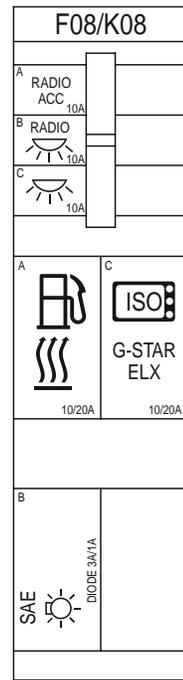
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OU12401,0001923-19-10DEC07-1/1

Relays / Diodes K08 (PowrQuad Transmission)

Number	Capacity (amps)	Designation
K08/A	10/20 amps	Fuel preheater relay
K08/B	1 amp	Not used
K08/B	3 amps	Diode for lights (SAE)
K08/C	10/20 amps	Relay for GreenStar display
K08/D	-	Not used



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OU12401,000191E-19-10DEC07-1/1

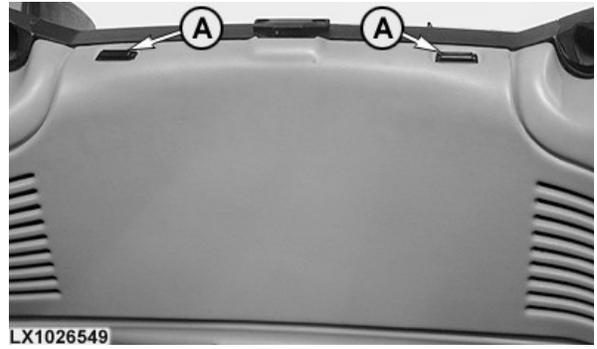
Fuses and Relays in the Cab (Tractors with AutoPowr/IVT)

IMPORTANT: To prevent damage to the electrical system, never use a fuse with a higher rating than the one already installed.

NOTE: Depending on how the tractor is equipped, it may not have all the fuses and relays shown below.

The fuse and relay box is located behind the operator's seat just below the rear window.

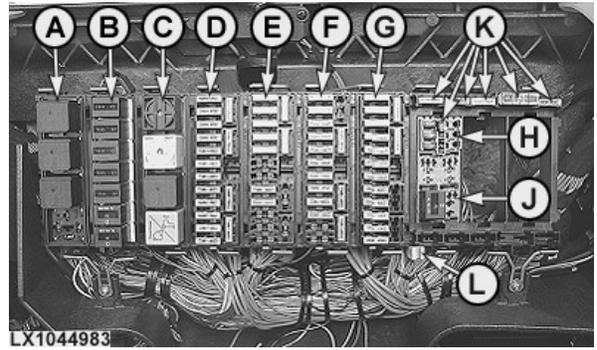
Press down latches (A) and lift off the trim panel.



OU12401,000156F-19-17NOV06-1/1

Fuses and Relays (AutoPowr/IVT)

- A—Relays K01
- B—Relays K02
- C—Relays K03
- D—Fuses F04
- E—Fuses F05
- F—Fuses F06
- G—Fuses F07
- H—Fuses F08
- J—Relays K08
- K—Spare fuses
- L—Tool for changing fuses

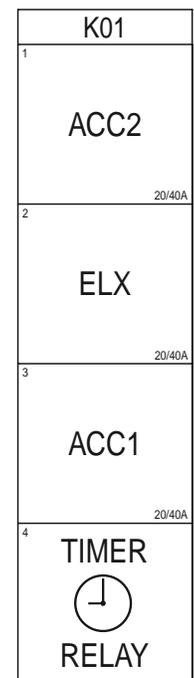


OU12401,00019C2-19-23APR08-1/1

Relays K01 (AutoPowr/IVT)

Number	Capacity (amps)	Designation
K01/01	20/40 amps	Relay for power supply to accessories
K02/02	20/40 amps	Relay for power supply to electronics
K01/03	20/40 amps	Relay for power supply to accessories
K01/04	-	Timer

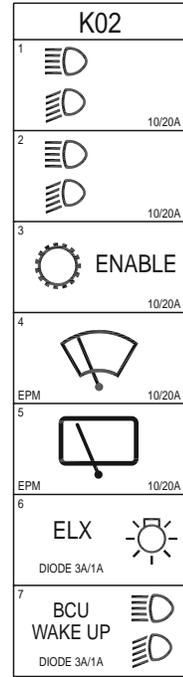
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OU12401,000192A-19-10DEC07-1/1

Relays / Diodes K02 (AutoPowr/IVT)

Number	Capacity (amps)	Designation
K02/01	10/20 amps	Relay for low/high beam headlights
K02/02	10/20 amps	Relay for lights
K02/03	10/20 amps	Transmission enable relay
K02/04	10/20 amps	Relay for windshield wiper
K02/05	10/20 amps	Relay for rear window wiper
K02/06	1 amp	Diode for power supply to electronics
K02/06	3 amps	Diode for lights
K02/07	1 amp	Diode for low/high beam headlight relay
K02/07	3 amps	Diode for power supply to control units PC0 and PC6, BCU activation



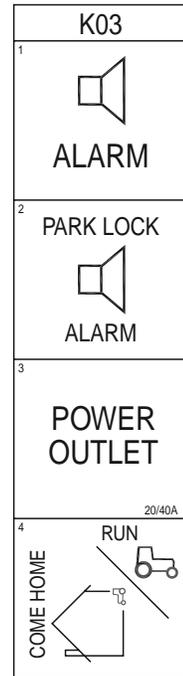
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OU12401,000192B-19-10DEC07-1/1

Relays K03 (AutoPowr/IVT)

Number	Capacity (amps)	Designation
K03/01	-	Acoustic alarm
K03/02	-	Acoustic alarm for park lock
K03/03	20/40 amps	Relay for 3-terminal socket, power outlet strip, 7-terminal socket (SAE)
K03/04	-	Plug for "come home" mode



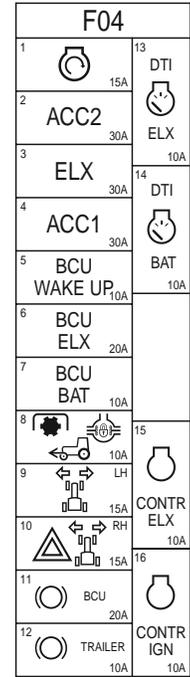
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OU12401,000192C-19-10DEC07-1/1

Fuses F04 (AutoPowr/IVT)

Number	Rating (amps)	Consumer
F04/01	15 A	Main (key) switch
F04/02	30 A	Power supply for accessories
F04/03	30 A	Power supply for electronics
F04/04	30 A	Power supply for accessories
F04/05	10 A	PC0 control unit, PC6 control unit, CAN-BUS (vehicle), BCU activation
F04/06	20 A	BCU control unit
F04/07	10 A	BCU control unit
F04/08	10 A	BCU control unit (rear PTO, front PTO, front-wheel drive, differential lock, HMS Plus, park brake monitor, radar)
F04/09	15 A	Left turn signal
F04/10	15 A	Right turn signal, hazard warning lights
F04/11	20 A	Brake switch
F04/12	10 A	Brake lights
F04/13	10 A	BIF control unit, BIF control unit (wipers), DTI control unit
F04/14	10 A	BIF control unit, DTI control unit
F04/15	10 A	ECU control unit
F04/16	10 A	ECU control unit

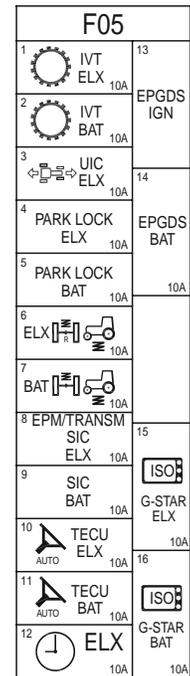


LX1044658

OU12401,0001CE5-19-21SEP09-1/1

Fuses F05 (AutoPowr/IVT)

Number	Capacity (amps)	Consumer
F05/01	10 amps	TCU control unit
F05/02	10 amps	TCU control unit
F05/03	10 amps	UIC control unit
F05/04	10 amps	PLC control unit
F05/05	10 amps	PLC control unit
F05/06	10 amps	TSC control unit
F05/07	10 amps	TSC control unit
F05/08	10 amps	SIC control unit, PC5 control unit, CAN-BUS (E-SCV/E-ICV)
F05/09	10 amps	SIC control unit
F05/10	10 amps	TEC control unit, SSU control unit
F05/11	10 amps	TEC control unit, SSU control unit
F05/12	10 amps	Timer
F05/13	-	Not used
F05/14	-	Not used
F05/15	10 amps	GreenStar
F05/16	10 amps	GreenStar



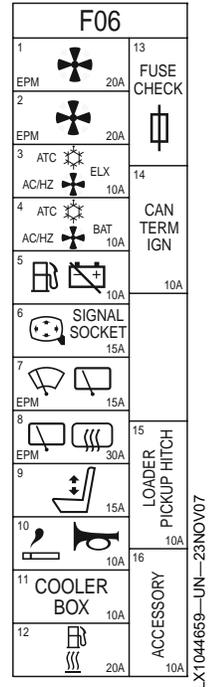
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OU12401,000192F-19-10DEC07-1/1

Fuses F06 (AutoPowr/IVT)

Number	Capacity (amps)	Consumer
F06/01	20 amps	Fan motor
F06/02	20 amps	Fan motor
F06/03	10 amps	ATC/ETC/HTC control unit
F06/04	10 amps	ATC/ETC/HTC control unit, radio
F06/05	10 amps	Fuel pump, battery cut-off switch
F06/06	15 amps	Electrical rear-view mirrors, signal socket
F06/07	15 amps	Windshield wiper motor, rear window wiper motor
F06/08	30 amps	Rear window wiper motor, rear window heater
F06/09	15 amps	Operator's seat
F06/10	10 amps	Cigarette lighter, horn
F06/11	10 amps	Electrical cooling compartment
F06/12	20 amps	Fuel preheater
F06/13	-	Fuse tester
F06/14	10 amps	CAN BUS (power train)
F06/15	10 amps	Plug for front loader, electro-hydraulic pick-up hitch
F06/16	10 amps	Plug for accessories

LX1044659

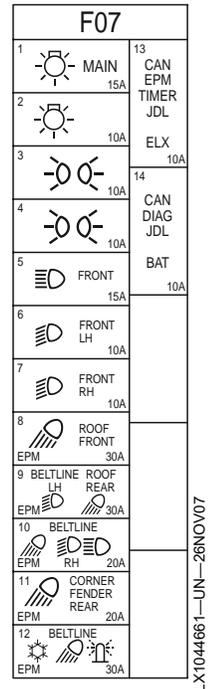


OU12401.0001930-19-10DEC07-1/1

Fuses F07 (AutoPowr/IVT)

Number	Capacity (amps)	Consumer
F07/01	15 amps	Light switch
F07/02	10 amps	Lights
F07/03	10 amps	Left-hand tail light, right-hand clearance light (ECE), license plate light (ECE)
F07/04	10 amps	Right-hand tail light, left-hand clearance light (ECE)
F07/05	15 amps	High-beam headlights
F07/06	10 amps	Low-beam headlight (left)
F07/07	10 amps	Low-beam headlight (right)
F07/08	20 amps	Worklights on front of roof
F07/09	30 amps	Worklights on rear of roof, xenon (HID) worklights on rear of roof, lights on cab frame (left-hand low-beam)
F07/10	20 amps	Lights on cab frame (high beam), lights on cab frame (right-hand low-beam), worklights on cab frame
F07/11	20 amps	Front corner worklights, worklights on rear fender
F07/12	30 amps	Beacon light, air-conditioning system, worklights on cab frame, xenon (HID) worklights on cab frame
F07/13	10 amps	JDL control unit, CAN BUS (vehicle)
F07/14	10 amps	JDL control unit, service socket
F07/15	-	Not used
F07/16	-	Not used

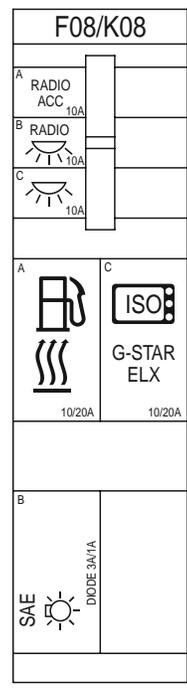
LX1044661



OU12401.0001931-19-10DEC07-1/1

Fuses F08 (AutoPowr/IVT)

Number	Capacity (amps)	Consumer
F08/A	10 amps	Radio
F08/B	10 amps	Console light, radio light
F08/C	10 amps	Dome light, access-step light
F08/D	-	Not used
F08/E	-	Not used
F08/F	-	Not used



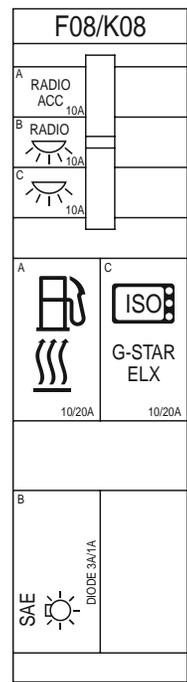
LX1044662

LX1044662-UN-23NOV07

OU12401,0001932-19-10DEC07-1/1

Relays / Diodes K08 (AutoPowr/IVT)

Number	Capacity (amps)	Designation
K08/A	10/20 amps	Fuel preheater relay
K08/B	1 amp	Not used
K08/B	3 amps	Diode for lights (SAE)
K08/C	10/20 amps	Relay for GreenStar display
K08/D	-	Not used



LX1044662

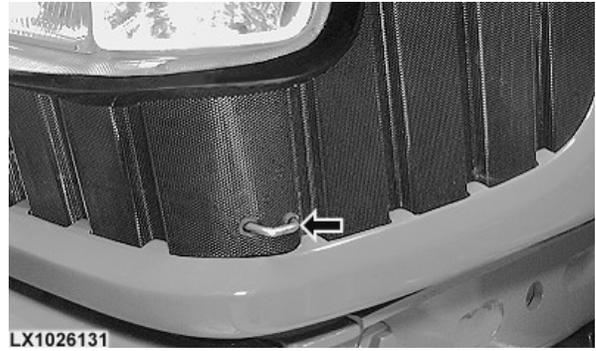
LX1044662-UN-23NOV07

OU12401,000192D-19-10DEC07-1/1

Replacing Drive Belt

NOTE: On tractors with front PTO, the drive belt must be replaced by your John Deere dealer.

Pull the catch and lift the hood up.



LX1026131

LX1026131—UN—21MAY01

OU12401.0001741-19-27APR07-1/4

Relieve drive belt tension

⚠ CAUTION: Disconnect ground (—) cable from battery.

Remove cover from tensioner roll (C). Turn tensioner roll cap screw using a 15 mm (19/32 in.) wrench (see arrow). Once released, the drive belt tensioner automatically goes back to the tensioning position.

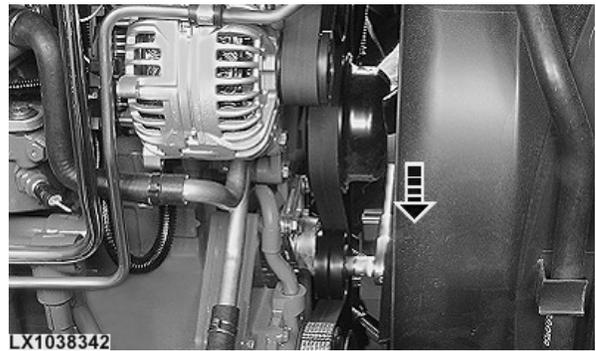
The drive belt tensioner can be kept in relieved position as follows:

Turn tensioner roll cap screw (see arrow) until bores (A) and (B) are aligned. Insert a 5 mm (0.2 in.) dia. pin into the two bores that are in alignment.

For tensioning, turn tensioner roll slightly to release metal pin and pull it from the bores. The drive belt tensioner returns to its tensioning position automatically.

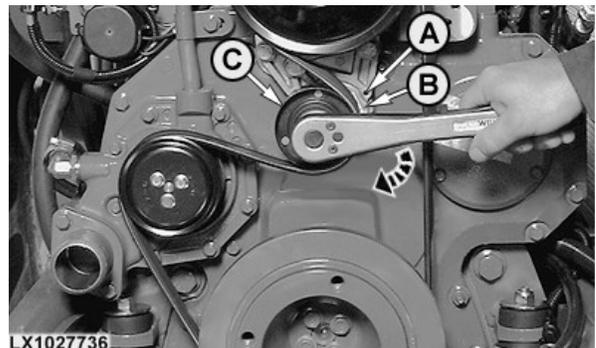
- A—Hole (cam)
- B—Hole (base plate)

C—Tensioner roll



LX1038342

LX1038342—UN—18MAY06



LX1027736

LX1027736—UN—28AUG01

Continued on next page

OU12401.0001741-19-27APR07-2/4

Replace the drive belt

Take the six screws (A) out of the fan.

Take drive belt (B) off over fan (C) and put on a new drive belt (see below for routing of belt).

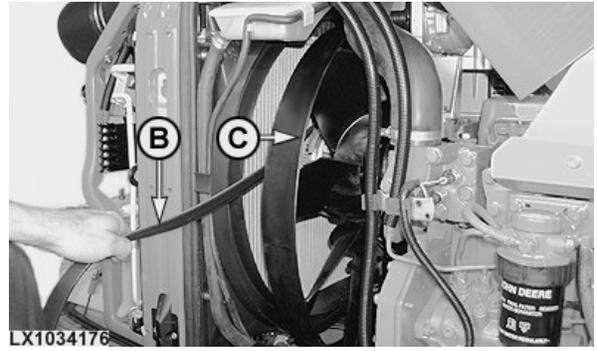
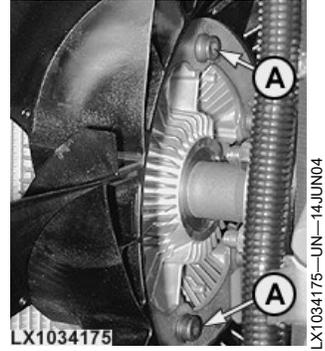
IMPORTANT: When installing, always use new corrugated-head screws.

Tighten corrugated-head screws to the following specification.

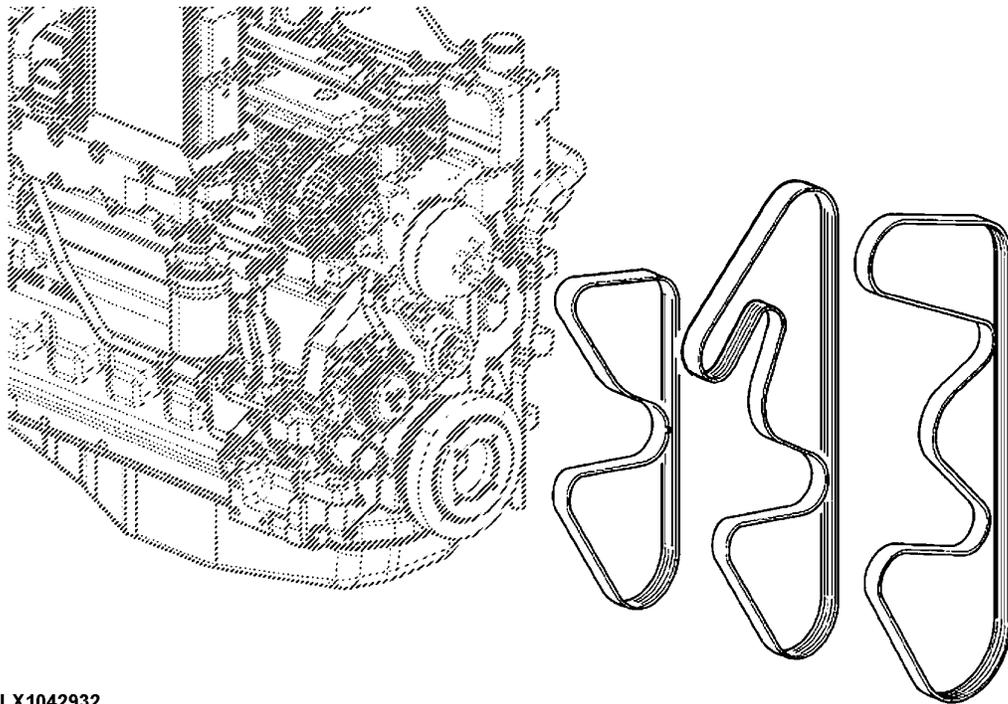
Specification

Attachment to fan—Torque. 22 – 28 N·m
16 – 21 lb·ft

- A—Corrugated-head screws
- B—Drive belt
- C—Fan



OU12401,0001741-19-27APR07-3/4



LX1042932—UN—02MAY07

Install the drive belt correctly and slacken drive belt tensioner again.

OU12401,0001741-19-27APR07-4/4

Troubleshooting

Hydraulic System

Symptom	Problem	Solution
Hydraulic system fails to function	Not enough oil in the system	Correct oil level.
	Open electrical circuit	Check fuses.
Filter plugged/by-passed warning is active	Filter plugged	Replace filter.
Hydraulic oil overheats	Cooling system overloaded	Dirty oil cooler. Coolant level low.
	Selective control valve accidentally locked in operating position	Move selective control valve to neutral position.
Hitch fails to lift load	Excessive load on hitch	Reduce load.
Hitch rate-of-drop too slow	Rate-of-drop not adjusted properly	Adjust rate-of-drop.
Insufficient sensitivity to load control	System regulator in depth control or mixed control position	Move system regulator to load control position.
Excessive sensitivity when attaching implements	System regulator in load control position	Place system regulator in depth control position.
SCVs not operating	Hoses not connected properly	Connect hoses properly.
Remote control cylinder operates too fast or too slow	Incorrect setting for rate-of-flow	With M-SCVs/M-ICVs, adjust the flow control valve.
		With E-SCVs/E-ICVs, adjust the rate of flow at the CommandCenter.

OU12401,0001D20-19-15OCT09-1/1

Engine

Symptom	Problem	Solution
Engine hard to start or will not start	No fuel	Fill tank with proper fuel.
	Air in fuel system	Bleed air from fuel system
	Low ambient air temperature	Use cold weather starting aids.
	Fuel filter contaminated	Replace filter element.
	Crankcase oil too heavy	Use correct viscosity oil
	Faulty glow plugs	See your dealer.
Engine knocks	Insufficient oil in engine	Add more oil.
	Fuel injection pump incorrectly timed	See your dealer.
Engine overheats	Low coolant level	Fill radiator to proper level. Check cooling system for leaks.
	Loose or defective fan belt	Check belt and replace, if necessary.
	Cooling system needs flushing	Drain, flush and refill cooling system.
	Dirty oil cooler or grille screens	Clean oil cooler and screens.
	Defective thermostat	Remove and check thermostat.
Engine oil pressure too low	Low engine oil level	Add more engine oil.
High oil consumption	Oil of too low viscosity	Drain and refill with oil of correct viscosity.
	Leakage	Check for leaks in lines and around gaskets.
Excessive fuel consumption	Unsuitable fuel grade	Use a suitable fuel grade.
	Incorrect valve clearance	See your dealer.
	Fuel injection nozzles dirty or damaged	See your dealer.
	Engine incorrectly timed	See your dealer.
	Clogged or dirty air cleaner	Clean air cleaner.
Engine emits black or grey exhaust smoke	Unsuitable fuel grade	Use a suitable fuel grade.
	Clogged air cleaner	Clean air cleaner.
	Defective muffler	Replace muffler.
	Fuel injection nozzles dirty or damaged	See your dealer.
Engine emits white smoke	Unsuitable fuel grade	Use a suitable fuel grade.

Continued on next page

OU12401,0001D21-19-13JUL11-1/2

Troubleshooting

Symptom	Problem	Solution
	Cold engine	Run engine until normal operating temperature is reached.
	Defective thermostat	Replace thermostat.
	Engine incorrectly timed	See your dealer.
	Faulty glow plugs	See your dealer.

OU12401,0001D21-19-13JUL11-2/2

Electrical System		
Symptom	Problem	Solution
Battery will not charge	Loose or corroded connections	Clean and tighten battery connections.
	Fault in alternator	See your John Deere dealer
	Sulfated battery	Check specific gravity and electrolyte level of battery.
	Loose or defective alternator belt	Adjust belt tension or replace belt.
Starter inoperative	Loose or corroded connections	Clean and tighten loose connections.
	Low battery output	Check and recharge battery.
	Blown fuse	Put in a new fuse.
	Defect in starting motor	See your John Deere dealer.
Starter cranks slowly	Low battery output	Check and recharge battery.
	Crankcase oil too heavy	Drain crankcase and add correct oil.
	Loose or corroded connections	Clean and tighten loose connections.
	Defect in starting motor	See your John Deere dealer.

LX,OMTRO 013415-19-01SEP97-1/1

Diagnostic Trouble Codes and Customization

What the Diagnostic Trouble Codes Mean

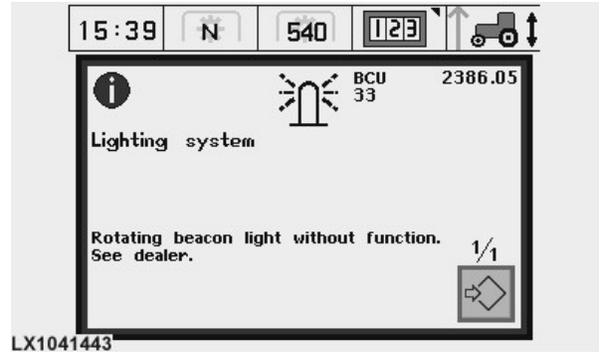
The tractor's electrical circuits are monitored by a number of different control units. While the tractor is in operation, these control units record data that can subsequently be read out. If a functional fault occurs, a diagnostic trouble code will be generated and stored in the memory. A large proportion of these codes appear before the operator automatically on his digital display (see sample illustrations).

In addition, functional faults are indicated on the dashboard by the blue INFO light, the yellow CAUTION light and the red STOP light.

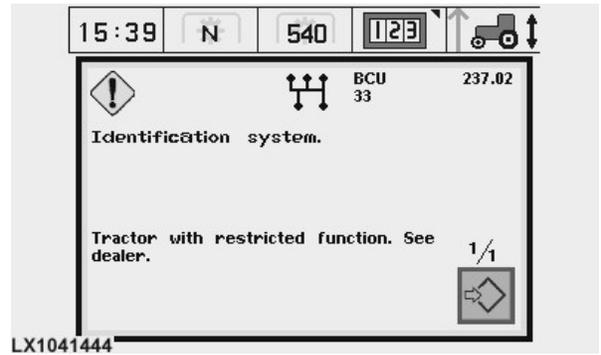
Unless the displayed message is self-explanatory (e.g. transmission oil pressure too low: check oil level), you should get in touch with your John Deere dealer and discuss with him how best to proceed.

On the following pages you can read how to make all the diagnostic trouble codes appear on the display, even the ones that do not appear automatically. Diagnostic trouble codes are accessed and displayed in different ways depending on how the tractor is equipped. The following methods are possible:

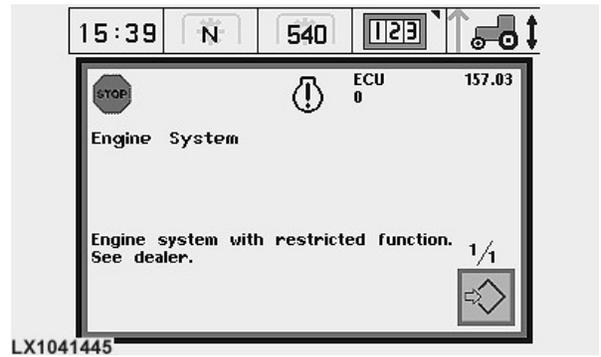
- Display on CommandCenter
- Display on the GreenStar display (refer to the display operator's manual for details)



INFO display



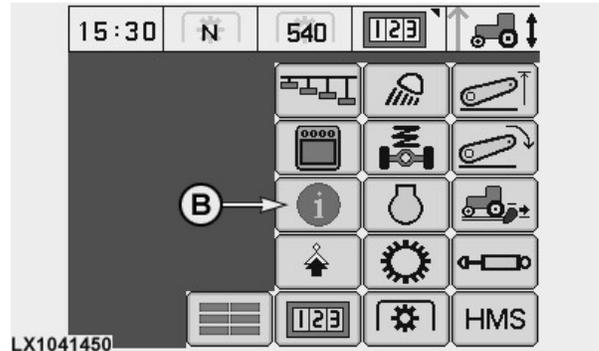
CAUTION display



STOP display

OU12401,0001B5B-19-10FEB09-1/1

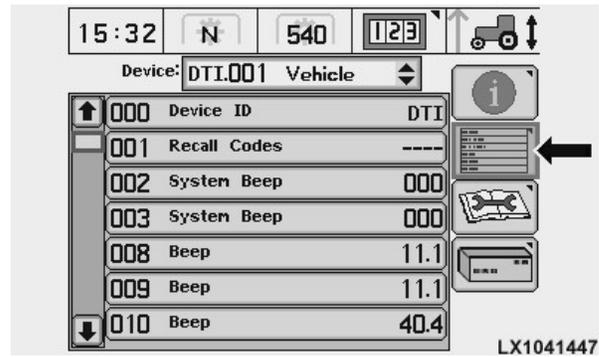
Customization



In various addresses the operator can make adjustments to adapt the operation of tractor components to his personal requirements.

This is done as follows: Press main menu key (A), select information display cell (B) and then the Diagnostic Address screen. Select desired control unit (e.g. ATC, BCU or EPC), select desired address (e.g. 033) and key in the corresponding value (see table below).

A—Main menu key **B—Information display cell**



Address	Meaning	Value
ATC033	Temperature indicator	0 alternating between desired and ambient temperature 255 desired temperature only
BCU024	Audible indicator for turn signals	0 audible indicator off 1 audible indicator on
BCU165	Rate of lift adjustment*	0 min. rate of lift 255 max. rate of lift
EPC167	Hand clutch	0 de-activated 1 activated

* value should be adjusted to 75-85 for hydraulic motor operation

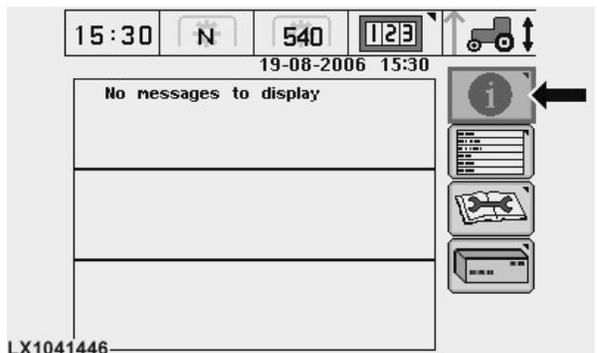
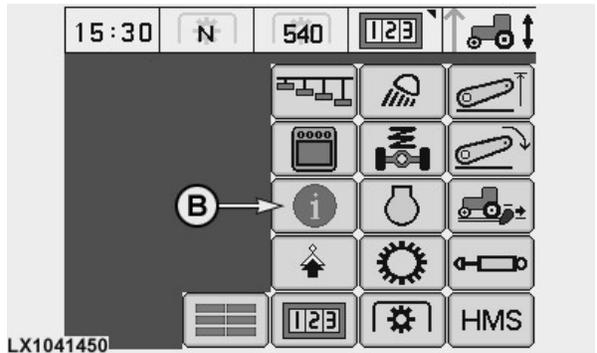
How to Access Information

Press the main menu key (A) and select the information display cell (B) on the screen.

All the warning messages appear on the following screen.

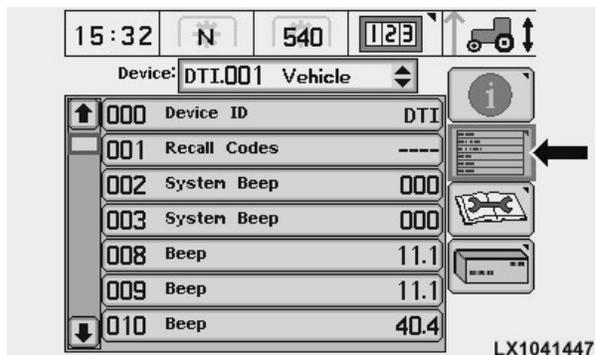
A—Main menu key

B—Information display cell



OU12401,0001580-19-19NOV06-1/4

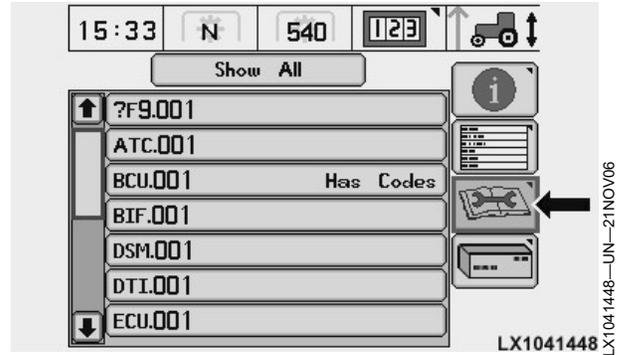
The desired control unit may be selected on the **diagnostic address** screen, where any “customization” that is desired may be done.



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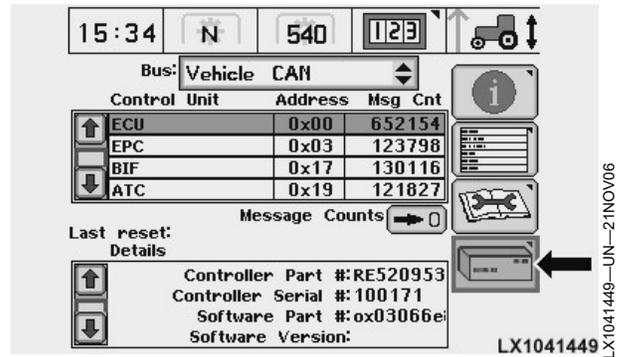
OU12401,0001580-19-19NOV06-2/4

A list of control units appears and control units with diagnostic trouble codes are displayed on the **diagnostic trouble code** screen. This information can be forwarded to the John Deere dealer to identify problems with the machine.



OU12401,0001580-19-19NOV06-3/4

The control units that exchange data via CAN Bus are displayed on the **Control Unit** screen. A counter displays the number of messages of the relevant control unit.



OU12401,0001580-19-19NOV06-4/4

ATC Control Unit

The ATC (Automatic Temperature Control Unit) is responsible for controlling the ClimaTrak automatic air-conditioning system.

If diagnostic trouble codes appear, one of the tractor's sub-assemblies is either not working properly or not working at all. Make a note of the code and contact your dealer.

OU12401,00013DC-19-06APR06-1/1

BCU Control Unit

The BCU (Basic Control Unit) controls the basic functions of the tractor and the hitch.

Light	Diagnostic trouble code	Basic description	Description
blue	BCU 000096.17	Fuel level is low	Fill the fuel tank.
blue	BCU 000186.17	Rear PTO	Rear PTO speed too low. Switch off and then on again.
yellow	BCU 001058.18	Brake system	Air brake pressure too low.
blue	BCU 001504.14	HMS	Check which sequences are currently active before operating with HMS.
blue	BCU 001882.17	Front PTO	Front PTO speed too low. Switch off and then on again.
blue	BCU 001894.31	Rear PTO	Rear PTO does not work. Switch off all PTO switches.
blue	BCU 001896.31	Rear PTO	Do not keep changing the preselection of rear PTO speed.
yellow	BCU 002818.31	Rear PTO	Operator not on seat.
blue	BCU 523689.31	Differential lock	Differential lock switch on all the time or stuck.
blue	BCU 523749.31	Rear PTO	Rear PTO does not work. Switch off and then on again.
yellow	BCU 523839.14	Park brake	Park brake is engaged and a gear is selected.
yellow	BCU 523839.31	Park brake	Tractor is moving although park brake is engaged.
yellow	BCU 523904.31	Front PTO	Operator not on seat.
yellow	BCU 523908.14	Rear PTO	Rear PTO can now be switched on at the switch on the fender.
blue	BCU 524216.02	HMS	Switch off the front PTO switch.
blue	BCU 524216.14	HMS	The front PTO switch must be on for operation with HMS. Caution: Unless in learn mode, PTO is switched on.
blue	BCU 524216.31	Front PTO	Switch off the front PTO switch.
blue	BCU 524224.02	HMS	Switch off the rear PTO switch.
blue	BCU 524224.14	HMS	The rear PTO switch must be on for operation with HMS. Caution: Unless in learn mode, PTO is switched on.
blue	BCU 524224.31	Rear PTO	Switch off the rear PTO switch.

If other diagnostic trouble codes appear, one of the tractor's sub-assemblies is either not working properly or not working at all. Make a note of the code and contact your dealer.

OU12401,0001D84-19-28NOV09-1/1

BIF Control Unit

The BIF (Basic Informator) is the instrument unit.

Light	Diagnostic trouble code	Brief description	Description
blue	BIF 002348.01	Lights	Lights on cab frame do not operate at high-beam. Check fuses.
blue	BIF 002348.05	Lights	Lights on cab frame do not operate at high-beam. Check bulbs.
blue	BIF 002873.31	Lights	Switch off worklights while driving on road.
blue	BIF 522427.01	Wiper	Windshield wiper inoperative. Check fuses.
blue	BIF 522435.01	Wiper	Windshield wiper inoperative. Check fuses.
blue	BIF 523900.01	Lights	Left light on cab frame not operating at low-beam. Check fuses.
blue	BIF 523909	Lights	Right light on cab frame not operating at low-beam. Check fuses.

If other diagnostic trouble codes appear, one of the tractor's sub-assemblies is either not working properly or not working at all. Make a note of the code and contact your dealer.

OU12401,0001ABD-19-08OCT08-1/1

DSM Control Unit

The DSM (Distributed Tractor Informator Switch Module) is responsible for the keyboard of the CommandCenter (DTI).

Light	Diagnostic trouble code	Brief description	Description
blue	DSM 000168.04	Voltage of electrical system low	DSM inoperative. Battery voltage too low.
blue	DSM 523523.10 to DSM 523610.10	Electrical system	Button on switch module is sticking.

If other diagnostic trouble codes appear, one of the tractor's sub-assemblies is either not working properly or not working at all. Make a note of the code and contact your dealer.

OU12401,0001ABE-19-08OCT08-1/1

ECU Control Unit

The ECU (Engine Control Unit) is responsible for controlling the engine.

Light	Diagnostic trouble code	Brief description	Description
yellow	ECU 000097.16	Water trap on engine is full	Engine power is restricted. Drain the water.
yellow	ECU 000107.00	Engine air cleaner plugged	Clean or replace air cleaner.
red	ECU 000190.00	Engine speed high	Reduce engine speed.
yellow	ECU 000190.16	Engine speed high	Reduce engine speed.
blue	ECU 001569.31	Engine	Engine power cut back.
blue	ECU 523581.31	Engine	Injection system is currently being calibrated.

If other diagnostic trouble codes appear, one of the tractor's sub-assemblies is either not working properly or not working at all. Make a note of the code and contact your dealer.

OU12401,0001ABF-19-08OCT08-1/1

EPC Control Unit

The EPC (Electronic PowrQuad transmission Control Unit) is the controller for PowrQuad Plus and AutoQuad Plus transmissions.

Light	Diagnostic trouble code	Brief description	Description
blue	EPC 000084.14	Transmission	Transmission operating at reduced level. Waiting for vehicle to move.
yellow	EPC 000126.16	Transmission	Transmission oil filter blocked. Change filter.
red	EPC 000127.01	Transmission	Transmission oil pressure too low. Check oil level.
red	EPC 000177.00	Transmission	Transmission oil temperature too high. Check oil level.
yellow	EPC 000177.16	Transmission	Transmission oil temperature high. Check oil level.
blue	EPC 001713.15	Transmission	Hydraulic oil filter needs to be changed soon.
yellow	EPC 001713.16	Transmission	Hydraulic oil filter blocked. Change filter.
blue	EPC 522506.31	Controls	Reverser lever not in neutral when starting. Move to neutral.
blue	EPC 523677.14	Controls	Clutch disengagement function not available.
blue	EPC 523677.31	Hand clutch	Operator not present.
blue	EPC 523961.07	Controls	Reverser lever not in neutral when park is engaged. Move to neutral.
yellow	EPC 523966.31	Transmission	Transmission's come-home mode is active.
blue	EPC 524020.31	Controls	Reverser lever not in neutral when starting. Move to neutral.
blue	EPC 524023.31	Controls	Transmission in neutral as default.
	to EPC 524025		

If other diagnostic trouble codes appear, one of the tractor's sub-assemblies is either not working properly or not working at all. Make a note of the code and contact your dealer.

OU12401,0001AC0-19-08OCT08-1/1

ETC Control Unit

The ETC (Electronic Temperature Control Unit) is the controller for the heater and air-conditioning system (no automatic air-conditioning system).

If diagnostic trouble codes appear, one of the tractor's sub-assemblies is either not working properly or not working at all. Make a note of the code and contact your dealer.

OU12401,00013E2-19-06APR06-1/1

HTC Control Unit

The HTC (Electronic Heater Control Unit) is the controller for the heater (no air-conditioning system).

If diagnostic trouble codes appear, one of the tractor's sub-assemblies is either not working properly or not working at all. Make a note of the code and contact your dealer.

OU12401,00013E3-19-06APR06-1/1

JDL Control Unit

The JDL (JDLink control unit) is responsible for the tractor's telecommunications.

If diagnostic trouble codes appear, one of the tractor's sub-assemblies is either not working properly or not working at all. Make a note of the code and contact your dealer.

OU12401,00013E4-19-06APR06-1/1

PLC Control Unit

The PLC (Park Lock Controller) determines how the park lock operates.

If diagnostic trouble codes appear, one of the tractor's sub-assemblies is either not working properly or not working at all. Make a note of the code and contact your dealer.

OU12401,00013E5-19-06APR06-1/1

SIC Control Unit

The SIC (E-SCV / E-ICV control unit) controls the E-SCVs and E-ICVs (selective control valves and independent control valves).

Light	Diagnostic trouble code	Brief description	Description
blue	SIC 000177.01	Selective control valves (ICV/SCV)	ICVs/SCVs inoperative. Hydraulic oil is too cold. Wait until oil has warmed up.
blue	SIC 523869.18	ICV I	ICV I inoperative. Wait until oil has warmed up.
blue	SIC 523870.18	ICV II	ICV II inoperative. Wait until oil has warmed up.
blue	SIC 523871.18	ICV III	ICV III inoperative. Wait until oil has warmed up.
blue	SIC 523887.18	SCV I	SCV I inoperative. Wait until oil has warmed up.
blue	SIC 523888.18	SCV II	SCV II inoperative. Wait until oil has warmed up.
blue	SIC 523889.18	SCV III	SCV III inoperative. Wait until oil has warmed up.
blue	SIC 523893.18	SCV IV	SCV IV inoperative. Wait until oil has warmed up.

If other diagnostic trouble codes appear, one of the tractor's sub-assemblies is either not working properly or not working at all. Make a note of the code and contact your dealer.

OU12401,0001AC2-19-08OCT08-1/1

SSU Control Unit

The SSU (Steering System Control Unit) is responsible for controlling the AutoTrac automatic steering system.

Light	Diagnostic trouble code	Brief description	Description
yellow	SSU 001504.14	AutoTrac system	Operator not on seat. AutoTrac disabled.
yellow	SSU 001504.31	AutoTrac system	Operator not on seat. Sit down on the seat.
yellow	SSU 523767.14	AutoTrac system	AutoTrac button pressed too long.

If other diagnostic trouble codes appear, one of the tractor's sub-assemblies is either not working properly or not working at all. Make a note of the code and contact your dealer.

OU12401,0001B7D-19-03MAR09-1/1

TCU Control Unit

The TCU (Transmission Control Unit) controls the AutoPowr/IVT transmission.

Light	Diagnostic trouble code	Brief description	Description
yellow	TCU 000126.00	Transmission	Transmission oil filter blocked. Change filter.
red	TCU 000127.01	Transmission	Transmission oil pressure too low. Check oil level and filter.
yellow	TCU 000161.00	Transmission	Engine speed too high. Reduce ground speed.
red	TCU 000177.00	Transmission	Transmission oil temperature too high. Check oil level and filter.
yellow	TCU 000191.00	Transmission	Tractor speed too high. Reduce ground speed.

If other diagnostic trouble codes appear, one of the tractor's sub-assemblies is either not working properly or not working at all. Make a note of the code and contact your dealer.

OU12401,0001AC4-19-08OCT08-1/1

TEC Control Unit

The TEC (Tractor Equipment Control Unit) is responsible for communication between the vehicle CAN BUS and the ISOBUS.

If diagnostic trouble codes appear, one of the tractor's sub-assemblies is either not working properly or not working at all. Make a note of the code and contact your dealer.

OU12401,00013E9-19-06APR06-1/1

TEI Control Unit

The TEI (Tractor Equipment Control Unit) is responsible for communication between the vehicle CAN BUS and the ISOBUS.

If diagnostic trouble codes appear, one of the tractor's sub-assemblies is either not working properly or not working at all. Make a note of the code and contact your dealer.

OU12401,00013EA-19-06APR06-1/1

TSC Control Unit

The TSC (Tractor Suspension Control Unit) is responsible for controlling the cab and front axle suspension systems.

If diagnostic trouble codes appear, one of the tractor's sub-assemblies is either not working properly or not working at all. Make a note of the code and contact your dealer.

OU12401,00013EB-19-06APR06-1/1

UIC Control Unit

The UIC (User Interface Control Unit) processes the various commands given by the operator with regard to speed and direction of travel.

Light	Diagnostic trouble code	Brief description	Description
yellow	UIC 000606.16	Engine	Engine speed too high. Reduce ground speed.
blue	UIC 001504.30	Controls	Before driving, actuate brake or clutch and move to park position.
blue	UIC 001504.31	Controls	Before driving, sit on seat or actuate brake or clutch and move to park position.
blue	UIC 001713.15	Hydraulic oil filter blocked	Filter needs to be changed soon.
yellow	UIC 001713.16	Hydraulic oil filter blocked	Change filter.
blue	UIC 523956.31	Controls	When starting, move lever to forward or reverse. Shift to park position and start again.
yellow	UIC 523957.31	Electrical system	When starting, move lever to forward or reverse. Shift to park position and start again.
blue	UIC 523960.31	Controls	Before driving, sit on seat or actuate brake or clutch and move to park position.
blue	UIC 523966.11	Transmission's come-home mode is active.	Restart.
blue	UIC 523966.14	Transmission's come-home mode is active.	Select direction of travel.
blue	UIC 523966.31	Transmission's come-home mode is active.	Move lever to park position or neutral.
yellow	UIC 524020.31	Controls	When starting, move lever to forward or reverse. Shift to park position and start again.
blue	UIC 524180.07	Transmission's come-home mode is active.	To stop, press clutch.
blue	UIC 524180.14	Transmission's come-home mode is active.	Press clutch.
blue	UIC 524180.31	Transmission's come-home mode is active.	Release clutch.
blue	UIC 524190.14	Transmission	Slip control is active.
blue	UIC 524193.14	Transmission oil temperature is low.	Vehicle does not operate until oil is warm.
blue	UIC 524193.31	Transmission oil temperature is low.	Shift to park position.

If other diagnostic trouble codes appear, one of the tractor's sub-assemblies is either not working properly or not working at all. Make a note of the code and contact your dealer.

OU12401,0001B7E-19-03MAR09-1/1

UIM Control Unit

The UIM (User Interface Module) is responsible for the keyboard of the GreenStar Display 2100.

If diagnostic trouble codes appear, one of the tractor's sub-assemblies is either not working properly or not working at all. Make a note of the code and contact your dealer.

OU12401,00013ED-19-06APR06-1/1

Storage

Storage for a Long Period

The following storage preparations are good for long term tractor storage up to one year. When this time is up, run the engine until it reaches operating temperature and operate some hydraulic functions. Afterwards re-treat tractor for an extended storage period.

IMPORTANT: Any time your tractor will not be used for over six (6) months, the following recommendations for storing it and removing it from storage will help to minimize corrosion and deterioration.

Change engine oil and replace filter. Change transmission oil and filter. Used oil will not give adequate protection.

Clean the air cleaner.

Draining and flushing of cooling system is not necessary if engine is to be stored only for several months. However, for extended storage periods of a year or longer, it is recommended that the cooling system be drained, flushed and refilled. Refill with appropriate coolant.

Fill the fuel tank.

Remove fan/alternator belt, if desired.

Remove and clean batteries. Store them in a cool, dry place and keep them fully charged.

Clean the exterior of the tractor with salt-free water and touch up any scratched or chipped painted surfaces with a good quality paint.

Coat all exposed (machined) metal surfaces with grease or corrosion inhibitor if not feasible to paint.

Seal all openings such as the vent tube and exhaust outlet.

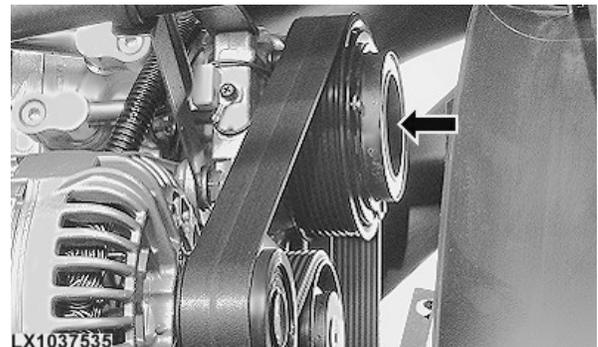
Store the machine in a dry, protected place. If the tractor must be stored outside, cover it with a waterproof canvas or other suitable protective material and use a strong waterproof tape.

Block up the tractor so that the tires do not touch the ground. Protect tires from heat and sunlight.

OU12401,0001DA5-19-29DEC09-1/2

Tractors with air-conditioning

If tractor is equipped with an air-conditioning system, manually turn the inner part of the pulley through several revolutions once a month.



OU12401,0001DA5-19-29DEC09-2/2

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.

AG,RX15494,1914-19-06SEP99-1/1

Removing Tractor from Storage

Remove all protective coverings. Check tire inflation and remove blocks.

Install battery and connect cables. Negative terminals are grounded!

Check transmission and hydraulic oil level. See that fuel tank is filled. Check coolant level in radiator. Check crankcase oil level. Carry out 750-hour check.

Check whether dirt or other foreign bodies have collected under the hood or cab. If so, remove them.



CAUTION: Never operate the engine in a closed building. Make sure there is plenty of ventilation. Danger of asphyxiation!

OU12401,0001D22-19-15OCT09-1/1

Specifications

Engine (up to Model Year 2009)	7130	7230	7330	7430	7530
Engine type					
- 2-valve	6068HRW72	6068HRW72	6068HRW74	6068HRW74	—
- 4-valve	6068HRW73	6068HRW73	6068HRW75	6068HRW77	6068HRW77
Engine power according to 97/68/EC at rated speed	90 kW (121 hp)	98 kW (131 hp)	112 kW (150 hp)	124 kW (166 hp)	134 kW (180 hp)
Max. torque achieved at engine speed					
- 2-valve	506 N·m (373 lb.-ft.) 1600 rpm	554 N·m (409 lb.-ft.) 1600 rpm	688 N·m (507 lb.-ft.) 1500 rpm	763 N·m (563 lb.-ft.) 1500 rpm	—
- 4-valve	517 N·m (381 lb.-ft.) 1700 rpm	562 N·m (415 lb.-ft.) 1700 rpm	701 N·m (517 lb.-ft.) 1600 rpm	776 N·m (572 lb.-ft.) 1600 rpm	870 N·m (642 lb.-ft.) 1600 rpm
Number of cylinders	6	6	6	6	6
Bore	106.5 mm (4.19 in.)				
Stroke	127.0 mm (5.0 in.)				
Displacement	6790 cm ³ (414 cu. in.)				
Firing order	1 5 3 6 2 4	1 5 3 6 2 4	1 5 3 6 2 4	1 5 3 6 2 4	1 5 3 6 2 4
Intake valve clearance	0.36 mm (0.014 in.)				
Exhaust valve clearance	0.46 mm (0.018 in.)				
Slow idle	850 rpm				
Fast idle	2460 rpm	2460 rpm	2250 rpm	2250 rpm	2250 rpm
Rated engine speed	2300 rpm	2300 rpm	2100 rpm	2100 rpm	2100 rpm
Working speed range	1300 - 2300 rpm	1300 - 2300 rpm	1300 - 2100 rpm	1300 - 2100 rpm	1300 - 2100 rpm
Speed for PTO operation					
- 540 rpm rear PTO (reversible)	2143 rpm	2143 rpm	1995 rpm	—	—
- 540 rpm rear PTO (shiftable)	2143 rpm	2143 rpm	1987 rpm	—	—
- 540E rpm rear PTO	1684 rpm	1684 rpm	1753 rpm	1778 rpm	1778 rpm
- 1000 rpm rear PTO (reversible)	2208 rpm	2208 rpm	1995 rpm	—	—
- 1000 rpm rear PTO (shiftable)	2208 rpm	2208 rpm	2000 rpm	1950 rpm	1950 rpm
- 1000E rpm rear PTO	—	—	—	1733 rpm	1733 rpm
- 1000 rpm front PTO with 21 splines (rotating counterclockwise)	2185 rpm	2185 rpm	1995 rpm	1995 rpm	1995 rpm

OU12401,0001D9C-19-26DEC09-1/1

Specifications

Engine (from Model Year 2010)

	7130	7230	7330	7430	7530
Engine type					
- 2-valve	4045HRW51	6068HRW84	6068HRW81	6068HRW81	—
- 4-valve	44045HRW50	6068HRW80	6068HRW82	6068HRW83	6068HRW83
Engine power according to 97/68/EC at rated speed	92 kW (123 hp)	99 kW (133 hp)	114 kW (153 hp)	125 kW (168 hp)	133 kW (178 hp)
Max. torque achieved at engine speed					
- 2-valve	504 N·m (372 lb.-ft.) 1500 rpm	541 N·m (399 lb.-ft.) 1500 rpm	683 N·m (504 lb.-ft.) 1500 rpm	752 N·m (555 lb.-ft.) 1500 rpm	—
- 4-valve	518 N·m (382 lb.-ft.) 1600 rpm	557 N·m (411 lb.-ft.) 1600 rpm	700 N·m (516 lb.-ft.) 1500 rpm	768 N·m (566 lb.-ft.) 1500 rpm	835 N·m (616 lb.-ft.) 1500 rpm
Number of cylinders	4	6	6	6	6
Bore	106.5 mm (4.19 in.)				
Stroke	127.0 mm (5.0 in.)				
Displacement	4530 cm ³ (276 cu. in.)	6790 cm ³ (414 cu. in.)			
Firing order	1 3 4 2	1 5 3 6 2 4	1 5 3 6 2 4	1 5 3 6 2 4	1 5 3 6 2 4
Intake valve clearance	0.36 mm (0.014 in.)				
Exhaust valve clearance	0.46 mm (0.018 in.)				
Slow idle	850 rpm				
Fast idle	2460 rpm	2460 rpm	2250 rpm	2250 rpm	2250 rpm
Rated engine speed	2300 rpm	2300 rpm	2100 rpm	2100 rpm	2100 rpm
Working speed range	1300 - 2300 rpm	1300 - 2300 rpm	1300 - 2100 rpm	1300 - 2100 rpm	1300 - 2100 rpm
Speed for PTO operation					
- 540 rpm rear PTO (reversible)	2143 rpm	2143 rpm	1995 rpm	—	—
- 540 rpm rear PTO (shiftable)	2143 rpm	2143 rpm	1987 rpm	—	—
- 540E rpm rear PTO	1684 rpm	1684 rpm	1753 rpm	1778 rpm	1778 rpm
- 1000 rpm rear PTO (reversible)	2208 rpm	2208 rpm	1995 rpm	—	—
- 1000 rpm rear PTO (shiftable)	2208 rpm	2208 rpm	2000 rpm	1950 rpm	1950 rpm
- 1000E rpm rear PTO	—	—	—	1733 rpm	1733 rpm
- 1000 rpm front PTO with 21 splines (counterclockwise rotating)	2185 rpm	2185 rpm	1995 rpm	1995 rpm	1995 rpm

OU12401,0001D9D-19-06DEC11-1/1

Specifications

PTO Power (up to Model Year 2009)

	7130	7230	7330	7430	7530
PTO power at rated PTO speed (factory measured, with 1000 rpm at PTO)					
- Standard	75 kW (100 hp)	82 kW (110 hp)	93 kW (125 hp)	104 kW (140 hp)	119 kW (160 hp)
- Intelligent Power Management (power boost)	86 kW (115 hp)	93 kW (125 hp)	112 kW (150 hp)	123 kW (165 hp)	131 kW (176 hp)

PTO power may vary depending on the various transmission options and additional equipment.

OU12401,0001D9E-19-26DEC09-1/1

PTO Power (from Model Year 2010)

	7130	7230	7330	7430	7530
PTO power at rated PTO speed (factory measured, with 1000 rpm at PTO)					
- Standard	77 kW (104 hp)	84 kW (112 hp)	95 kW (127 hp)	109 kW (146 hp)	120 kW (161 hp)
- Intelligent Power Management (power boost)	91kW (122 hp)	97 kW (130 hp)	109 kW (147 hp)	125 kW (168 hp)	132 kW (177 hp)

PTO power may vary depending on the various transmission options and additional equipment.

OU12401,0001D9F-19-28DEC09-1/1

Transmission

PowrQuad Plus/AutoQuad Plus transmissions.....	planetary gears, hydraulically actuated
Gear selections	16, 20 or 24 forward gears, 16, 20 or 24 reverse gears
Clutch	mechanical/hydraulic
IVT transmission.....	infinitely variable mechanical/hydraulic transmission
Speed ranges.....	0.05 - 40 km/h (0.03 - 25 mph)
Change of direction of travel.....	electrical, under load, without operating clutch

OU12401,0001B44-19-05FEB09-1/1

Hydraulic System

Type.....	closed-center system with Load-Sensing control
Pump	Axial piston pump
System pressure	
- min. (stand-by):	3000 kPa (30 bars; 435 psi)
- max.:	20000 kPa (200 bars; 2900 psi)
Steering	hydrostatic

OU12401,000135A-19-28OCT05-1/1

Specifications

Loads and Weights

Maximum permissible static vertical load	7130 Premium	7230 Premium	7330 Premium	7430 and 7530 Premium
- drawbar category	CAT 2	CAT 2	CAT 2	CAT 2
- on standard drawbar (transport), extended 250 mm (9.8 in.)	1600 kg (3527 lb)	1600 kg (3527 lb)	—	—
- on standard drawbar (operating pos.)				
• extended 250 mm (9.8 in.)	2250 kg (4960 lb)	2250 kg (4960 lb)	—	—
• extended 350 mm (13.8 in.)	1400 kg (3086 lb)	1400 kg (3086 lb)	—	—
• extended 400 mm (15.7 in.)	1200 kg (2646 lb)	1200 kg (2646 lb)	—	—
• extended 550 mm (19.7 in.)	800 kg (1764 lb)	800 kg (1764 lb)	—	—
- on heavy-duty drawbar (transport), extended 250 mm (9.8 in.)	1800 kg (3968 lb)			
- on heavy-duty drawbar (operating pos.)				
• extended 250 mm (9.8 in.)	2450 kg (5401 lb)			
• extended 350 mm (13.8 in.)	1600 kg (3527 lb)			
• extended 400 mm (15.7 in.)	1400 kg (3086 lb)			
• extended 550 mm (19.7 in.)	1000 kg (2205 lb)	1000 kg (2205 lb)	—	—
Maximum permissible front axle loads (without front-wheel drive axle)				
- in normal operation	3000 kg (6614 lb)	3000 kg (6614 lb)	3000 kg (6614 lb)	—
- with front loader, up to max. 10 km/h (6 mph) and with tread width of 1.80 m (71 in.)	6500 kg (14330 lb)	6500 kg (14330 lb)	6500 kg (14330 lb)	—
Maximum permissible front axle load (with front-wheel drive axle)				
- in normal operation	4400 kg (9700 lb)	4600 kg (10141 lb)	5000 kg (11023 lb)	5500 kg (12125 lb)
- with front loader, up to max. 10 km/h (6 mph) and with tread width of 1,90 m (75 in.)	6580 kg (14506 lb)	6580 kg (14506 lb)	7100 kg (15653 lb)	7100 kg (15653 lb)
Maximum permissible rear axle loads	6800 kg (14991 lb)	7000 kg (15432 lb)	7800 kg (17196 lb)	9500 kg (20944 lb)
Maximum permissible total weight	9500 kg (20944 lb)	10000 kg (22046 lb)	11000 kg (24251 lb)	12300 kg (27117 lb)

NOTE: Traffic regulations in certain countries may restrict the permissible axle loads and total weight to figures lower than those quoted above.

OU12401,0001B45-19-19DEC11-1/1

Towed Mass

Depending on how the trailer/implement is braked, the following masses and speeds are permitted:

Trailer/implement brake system	Maximum permissible towed mass						Top speed
	7130 and 7230 Premium		7330 Premium		7430 and 7530 Premium		
- unbraked	3000 kg	(6614 lb)	3000 kg	(6614 lb)	3000 kg	(6614 lb)	25 km/h (15.5 mph)
- independent	4000 kg	(8818 lb)	4000 kg	(8818 lb)	4000 kg	(8818 lb)	25 km/h (15.5 mph)
- overrun brake	8000 kg	(17637 lb)	8000 kg	(17637 lb)	8000 kg	(17637 lb)	25 km/h (15.5 mph)
- hydraulic brake	34000 kg	(74957 lb)	38000 kg	(83776 lb)	37000 kg	(81571 lb)	25 km/h (15.5 mph)
- single-line air brake	34000 kg	(74957 lb)	38000 kg	(83776 lb)	37000 kg	(81571 lb)	25 km/h (15.5 mph)
- dual-line air brake	34000 kg	(74957 lb)	38000 kg	(83776 lb)	37000 kg	(81571 lb)	Maximum design speed

There may be legal limits in force that restrict the maximum towed mass and/or travel speeds to figures lower than those quoted here.

OULXA64,0002880-19-10NOV11-1/1

Specifications

Electrical System

Battery	12 V, 154 Ah or 12 V, 174 Ah
Alternator with overvoltage protection	14 V, 115 A or 14 V, 150 A or 14 V, 200 A
Starter motor	12 V, 3.0 kW (4.0 hp)
Battery terminal grounded.....	negative

OU12401,000135B-19-28OCT05-1/1

Capacities

	7130 tractors	7230 tractors	7330 tractors	7430 and 7530 tractors
Fuel tank	207 L (54.7 US.gal.)	207 L (54.7 US.gal.)	250 L (66.0 US.gal.) or 325 L (85.9 US.gal.)	350 L (92.5 US.gal.)
Cooling system	29,0 L (7.7 U.S.gal.)	33.6 L (8.9 U.S.gal.)	33.6 L (8.9 U.S.gal.)	35.6 L (9.4 U.S.gal.)
Crankcase	16.0 L (4.2 US.gal.)	19.5 L (5.2 US.gal.)	19.5 L (5.2 US.gal.)	19.5 L (5.2 US.gal.)
Transmission/hydraulic system				
- PowrQuad Plus transmission	52 L (13.7 US.gal.)	52 L (13.7 US.gal.)	56 L (14.8 US.gal.)	56 L (14.8 US.gal.)
- AutoQuad Plus transmission	52 L (13.7 US.gal.)	52 L (13.7 US.gal.)	56 L (14.8 US.gal.)	56 L (14.8 US.gal.)
- IVT transmission	60 L (15.9 US.gal.)	60 L (15.9 US.gal.)	66 L (17.4 US.gal.)	66 L (17.4 US.gal.)
- extra with creeper transmission	1 L (0.3 US. gal.)	1 L (0.3 US. gal.)	1 L (0.3 US. gal.)	1 L (0.3 US. gal.)
- extra with front-wheel drive	3 L (0.8 US. gal.)	3 L (0.8 US. gal.)	3 L (0.8 US. gal.)	3 L (0.8 US. gal.)
- extra with TLS axle	3 L (0.8 US. gal.)	3 L (0.8 US. gal.)	3 L (0.8 US. gal.)	3 L (0.8 US. gal.)
Front PTO	3.5 L (0.9 US.gal.)	3.5 L (0.9 US.gal.)	3.5 L (0.9 US.gal.)	3.5 L (0.9 US.gal.)
Front-wheel drive				
- Axle housing	8.2 L (2.2 US.gal.)	8.2 L (2.2 US.gal.)	8.2 L (2.2 US.gal.)	8.2 L (2.2 US.gal.)
- Final drives	1.7 L (0.4 US.gal.)	1.7 L (0.4 US.gal.)	1.7 L (0.4 US.gal.)	1.7 L (0.4 US.gal.)

OU12401,0001DA0-19-07OCT10-1/1

Specifications

Permissible Front Axle Load in Relation to Tires (Normal Operation)

The values quoted here apply only for travel speeds up to 40 km/h (25 mph).

Tires		SRI*	7130 tractors	7230 tractors	7330 tractors	7430 and 7530 tractors
16.9-24	6 PR	625	3600 kg (7935 lb)	3600 kg (7935 lb)	3600 kg (7935 lb)	3600 kg (7935 lb)
16.9-26	10 PR	650	4120 kg (9080 lb)	4120 kg (9080 lb)	4120 kg (9080 lb)	4120 kg (9080 lb)
16.9R26	135A8	650	4360 kg (9610 lb)	4360 kg (9610 lb)	4360 kg (9610 lb)	4360 kg (9610 lb)
13.6R28	126A8	625	3400 kg (7495 lb)	3400 kg (7495 lb)	3400 kg (7495 lb)	3400 kg (7495 lb)
14.9-28	10 PR	650	3800 kg (8375 lb)	3800 kg (8375 lb)	3800 kg (8375 lb)	3800 kg (8375 lb)
16.9R28	135A8	675	4400 kg (9700 lb)	4480 kg (9875 lb)	4480 kg (9875 lb)	4480 kg (9875 lb)
380/85R28	133A8	650	4120 kg (9080 lb)	4120 kg (9080 lb)	4120 kg (9080 lb)	4120 kg (9080 lb)
420/70R28	133A8	650	4120 kg (9080 lb)	4120 kg (9080 lb)	4120 kg (9080 lb)	4120 kg (9080 lb)
420/85R28	139A8	675	4400 kg (9700 lb)	4600 kg (10140lb)	4860 kg (10715 lb)	4860 kg (10715 lb)
480/70R28	140A8	675	4600 kg (10140lb)	4600 kg (10140lb)	5000 kg (11025 lb)	5000 kg (11025 lb)
540/65R28	142A8	675	4600 kg (10140lb)	4600 kg (10140lb)	5000 kg (11025 lb)	5300 kg (11685 lb)
380/85R34	135A8	675	4360 kg (9610 lb)	4360 kg (9610 lb)	4360 kg (9610 lb)	4360 kg (9610 lb)
290/95R34	131A8	675	3900 kg (8595 lb)	3900 kg (8595 lb)	3900 kg (8595 lb)	3900 kg (8595 lb)
320/85R34	133A8	675	4120 kg (9080 lb)	4120 kg (9080 lb)	4120 kg (9080 lb)	4120 kg (9080 lb)

* Speed/radius index

OU12401,0001B47-19-06FEB09-1/1

Permissible Front Axle Load in Relation to Tires (Operation with Front Loader)

The values quoted here apply only for travel speeds up to 8 km/h (5 mph). Max. permissible front tread width with front loader is 1.90 m (75 in.).

Tires		SRI*	7130 tractors	7230 tractors	7330 tractors	7430 and 7530 tractors
16.9-24	6 PR	625	5400 kg (11905 lb)			
16.9-26	10	650	6200 kg (13665 lb)			
16.9R26	135A8	650	6560 kg (14460 lb)			
13.6R28	126A8	625	5100 kg (11240 lb)			
14.9-28	10 PR	650	5700 kg (12565 lb)			
16.9R28	135A8	675	6580 kg (14505 lb)	6580 kg (14505 lb)	6720 kg (14815 lb)	6720 kg (14815 lb)
380/85R28	133A8	650	6200 kg (13665 lb)			
420/70R28	133A8	650	6200 kg (13665 lb)			
420/85R28	139A8	675	6580 kg (14505 lb)	6580 kg (14505 lb)	7100 kg (15650 lb)	7100 kg (15650 lb)
480/70R28	140A8	675	6580 kg (14505 lb)	6580 kg (14505 lb)	7100 kg (15650 lb)	7100 kg (15650 lb)
540/65R28	142A8	675	6580 kg (14505 lb)	6580 kg (14505 lb)	7100 kg (15650 lb)	7100 kg (15650 lb)
380/85R34	135A8	675	6560 kg (14460 lb)			
290/95R34	131A8	675	6200 kg (13665 lb)			
320/85R34	133A8	675	6200 kg (13665 lb)			

* Speed/radius index

OU12401,0001B48-19-06FEB09-1/1

Specifications

Permissible Rear Axle Load in Relation to Tires

The values quoted here apply only for travel speeds up to 40 km/h (25 mph).

Tires		SRI*	7130 tractors	7230 tractors	7330 tractors	7430 and 7530 tractors
24.5-32	12 PR	825	6800 kg (14990 lb)	7000 kg (15430 lb)	7300 kg (16090 lb)	7300 kg (16090 lb)
18.4R34	139A8	775	4860 kg (10715 lb)			
650/75R34	162A8	875	6800 kg (14990 lb)	7000 kg (15430 lb)	7800 kg (17195 lb)	9500 kg (20940 lb)
18.4-38	8 PR	825	4860 kg (10715 lb)			
18.4R38	141A8	825	6000 kg (13225 lb)			
20.8R38	153A8	875	6800 kg (14990 lb)	7000 kg (15430 lb)	7300 kg (16090 lb)	7300 kg (16090 lb)
480/80R38	149A8	825	6500 kg (14330 lb)			
520/85R38	155A8	875	6800 kg (14990 lb)	7000 kg (15430 lb)	7750 kg (17085 lb)	7750 kg (17085 lb)
650/65R38	157A8	875	6800 kg (14990 lb)	7000 kg (15430 lb)	7800 kg (17195 lb)	8250 kg (18185 lb)
18.4R42	148A8	875	6300 kg (13890 lb)			
480/80R42	151A8	875	6800 kg (14990 lb)	6900 kg (15210 lb)	6900 kg (15210 lb)	6900 kg (15210 lb)
14.9R46	142A8	875	5300 kg (11685 lb)			
320/90R46	148A8	825	6300 kg (13890 lb)			
420/80R46	151A8	875	6800 kg (14990 lb)	6900 kg (15210 lb)	6900 kg (15210 lb)	6900 kg (15210 lb)
320/90R50	147A8	875	6150 kg (13555 lb)			

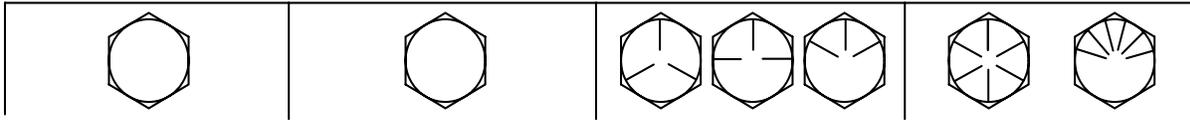
* Speed/radius index

OU12401,0001B49-19-06FEB09-1/1

Specifications

Unified Inch Bolt and Screw Torque Values

TS1671—UN—01MAY03



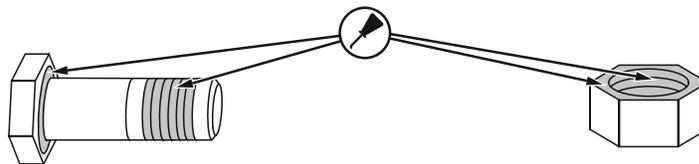
Bolt or Screw Size	SAE Grade 1 ^a				SAE Grade 2 ^b				SAE Grade 5, 5.1 or 5.2				SAE Grade 8 or 8.2			
	Hex Head ^c		Flange Head ^d		Hex Head ^c		Flange Head ^d		Hex Head ^c		Flange Head ^d		Hex Head ^c		Flange Head ^d	
	N·m	lb·in	N·m	lb·in	N·m	lb·in	N·m	lb·in	N·m	lb·in	N·m	lb·in	N·m	lb·in	N·m	lb·in
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.

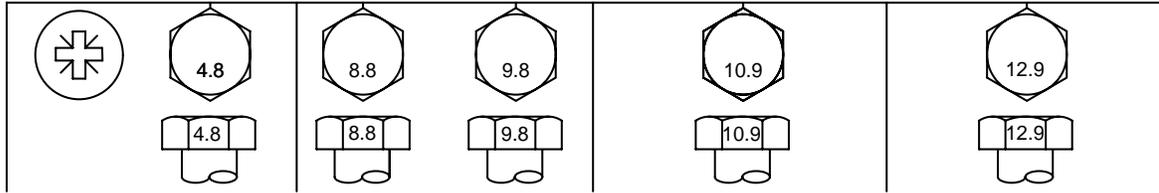
^b Grade 2 applies for hex cap screws (not hex bolts) up to 6 in (152 mm) long.

^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



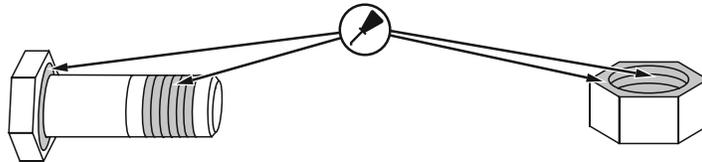
Bolt or Screw Size	Class 4.8				Class 8.8 or 9.8				Class 10.9				Class 12.9			
	Hex Head ^a		Flange Head ^b		Hex Head ^a		Flange Head ^b		Hex Head ^a		Flange Head ^b		Hex Head ^a		Flange Head ^b	
	N·m	lb·in	N·m	lb·in												
M6	3.6	31.9	3.9	34.5	6.7	59.3	7.3	64.6	9.8	86.7	10.8	95.6	11.5	102	12.6	112
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
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
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.

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

Serial Numbers

Type Plates

The illustrations below show some of the type plates used on the tractor. The letters and numbers on the plates are necessary for ordering spare parts, among other things.

NOTE: Copy the letters and figures in the boxes provided.

OU12401,00013A7-19-05MAR06-1/1

Product Identification Number

The plate bearing the product identification number is located on the right side of the main frame. The tractor is provided with one of two possible product identification numbers. Select the appropriate box.

Product identification number (13-digit)

*													*
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Product identification number (17-digit)

*																*
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OULXBER,00018E7-19-07MAY10-1/1

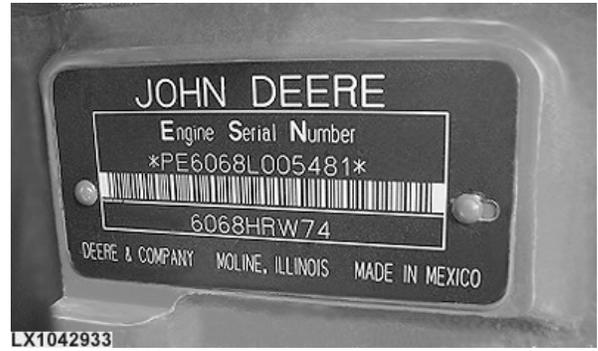
Engine Serial Number

The engine serial number plate is located on the right-hand side of the engine.

NOTE: Besides the engine serial number, the plate shows the engine type as well. When ordering spare parts for the engine, indicate all the numbers and letters shown on this plate.

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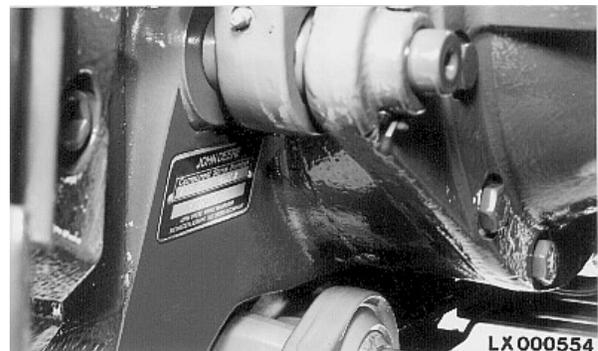
OU12401,0001742-19-27APR07-1/1

Transmission Serial Number

On 7130 and 7230 tractors, the transmission serial number plate is located on the right-hand side of the differential housing. It provides details of the transmission ratio of the front-wheel drive axle output (e.g. 1.712) and the transmission ratio of the differential gear pair (e.g. 54/13). This information will be required if the type of tires is to be changed.

On 7330 to 7530 tractors, this information is provided on the product information plate, which is located on the l.h. side of the radiator.

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OU12401,0001B4A-19-05FEB09-1/1

FWD Axle Serial Number

The plate bearing the FWD axle serial number is located on the end of the axle, at the rear. Information provided on it includes the transmission ratio of the front axle. This information will be required if the type of tires used at the front is to be changed.

*																				*
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LX1029242—UN—15APR03

OU12401,00103F1-19-01MAR03-1/1

Serial Number of Operator's Cab

The serial number of the operator's cab is located below the cab door.

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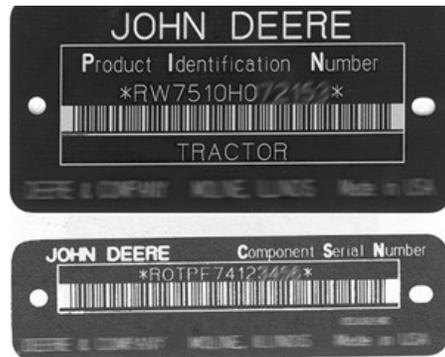


LX1041061—UN—30JUN06

OU12401,0001490-19-29JUN06-1/1

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

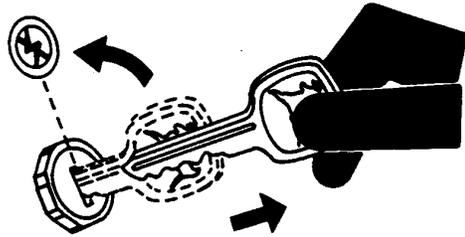


TS1680—UN—09DEC03

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

750 Hour Service

L112124

L112124-UN-05SEP04

Replace transmission/hydraulic oil filter elements. Replace front PTO filter and lubricate its drive shaft. Test the coolant. Drain residue from fuel tank. Check oil level of transmission/hydraulic system. Clean battery and check electrolyte level. Lubricate the front axle. Lubricate front-

wheel drive axle/drive shafts and check oil level. Lubricate three-point hitch. Lubricate pivoting fenders. Check neutral start circuit. Tighten wheel retaining bolts. Tighten screws on front loader bracket. Check components of swinging drawbar. Check brakes.

OU12401,0001B4C-19-04MAR09-1/1

1000 Hour Service

L 112 123

L112123-UN-05SEP04

Have cab suspension and viscous fan drive checked by your John Deere dealer. Drain and refill engine crankcase. Replace engine crankcase filter element. Replace fuel filter. Lubricate rear axle bearings. Lubricate the draft link bearings (7330 to 7530 tractors). Check air intake hoses. Check engine ground connection. Check cab ground connection. Check engine drive belt. Drain residue from fuel tank. Check oil level of transmission/hydraulic system.

Clean battery and check electrolyte level. Lubricate the front axle. Lubricate front-wheel drive axle/drive shafts and check oil level. Lubricate the front PTO drive shaft. Lubricate three-point hitch. Lubricate pivoting fenders. Check neutral start circuit. Tighten wheel retaining bolts. Tighten screws on front loader bracket. Check components of swinging drawbar. Check brakes.

OU12401,0001B4D-19-04MAR09-1/1

1500 Hour Service

L112126

L112126—UN—06SEP94

Have the accumulator of TLS front axle checked by your John Deere dealer. Drain and refill the front-wheel drive axle. Drain and refill the transmission/hydraulic system and clean the intake screen. Replace transmission/hydraulic oil filter elements. Replace engine air cleaner element and cab air filters. Drain and refill front PTO, replace its filter and lubricate its drive shaft. Test the coolant. Drain and refill engine crankcase. Replace engine crankcase filter element. Replace fuel filter. Lubricate rear axle bearings. Lubricate the draft link bearings (7330 to 7530 tractors).

Check air intake hoses. Check engine ground connection. Check cab ground connection. Check engine drive belt. Drain residue from fuel tank. Clean battery and check electrolyte level. Lubricate the front axle. Lubricate front-wheel drive axle/drive shafts. Lubricate three-point hitch. Lubricate pivoting fenders. Check neutral start circuit. Tighten wheel retaining bolts. Tighten screws on front loader bracket. Check components of swinging drawbar. Check brakes.

OU12401,0001B4E-19-04MAR09-1/1

2000 Hour Service

L112126

L112126—UN—06SEP94

Have valve clearance, glow plug resistance (HPCR), cab suspension and viscous fan drive checked by your John Deere dealer. Drain and refill engine crankcase. Replace engine crankcase filter element. Replace fuel filter. Lubricate rear axle bearings. Lubricate the draft link bearings (7330 to 7530 tractors). Check air intake hoses. Check engine ground connection. Check cab ground connection. Check engine drive belt. Drain residue from

fuel tank. Check oil level of transmission/hydraulic system. Clean battery and check electrolyte level. Lubricate the front axle. Lubricate front-wheel drive axle/drive shafts and check oil level. Lubricate the front PTO drive shaft. Lubricate three-point hitch. Lubricate pivoting fenders. Check neutral start circuit. Tighten the wheel bolts. Tighten screws on front loader bracket. Check components of swinging drawbar. Check brakes.

OU12401,0001B4F-19-09DEC11-1/1

6000 Hour Service

L112126

L112126—UN—05SEP94

Have the accumulator of TLS front axle, cab suspension, valve clearance, glow plug resistance and viscous fan drive checked by your John Deere dealer. Drain, flush and refill the cooling system*. Drain and refill the front-wheel drive axle. Drain and refill the transmission/hydraulic system and clean the intake screen. Change the transmission/hydraulic oil filter. Change engine air cleaner element and cab air filters. Drain and refill front PTO, replace its filter and lubricate its drive shaft. Drain and refill engine crankcase. Replace engine crankcase filter element. Replace fuel filter. Lubricate rear axle bearings. Lubricate the draft link bearings (7330 to 7530 tractors). Check air intake hoses.

Check engine ground connection. Check cab ground connection. Check engine drive belt. Drain residue from fuel tank. Clean battery and check electrolyte level. Lubricate the front axle. Lubricate front-wheel drive axle/ drive shafts. Lubricate three-point hitch. Lubricate pivoting fenders. Check neutral start circuit. Tighten wheel retaining bolts. Tighten screws on front loader bracket. Check components of swinging drawbar for wear. Check brakes.

*If COOL-GARD II is used, perform this service after no more than 6000 hours or every 6 years.

OULXBER.000199B-19-12DEC11-1/1

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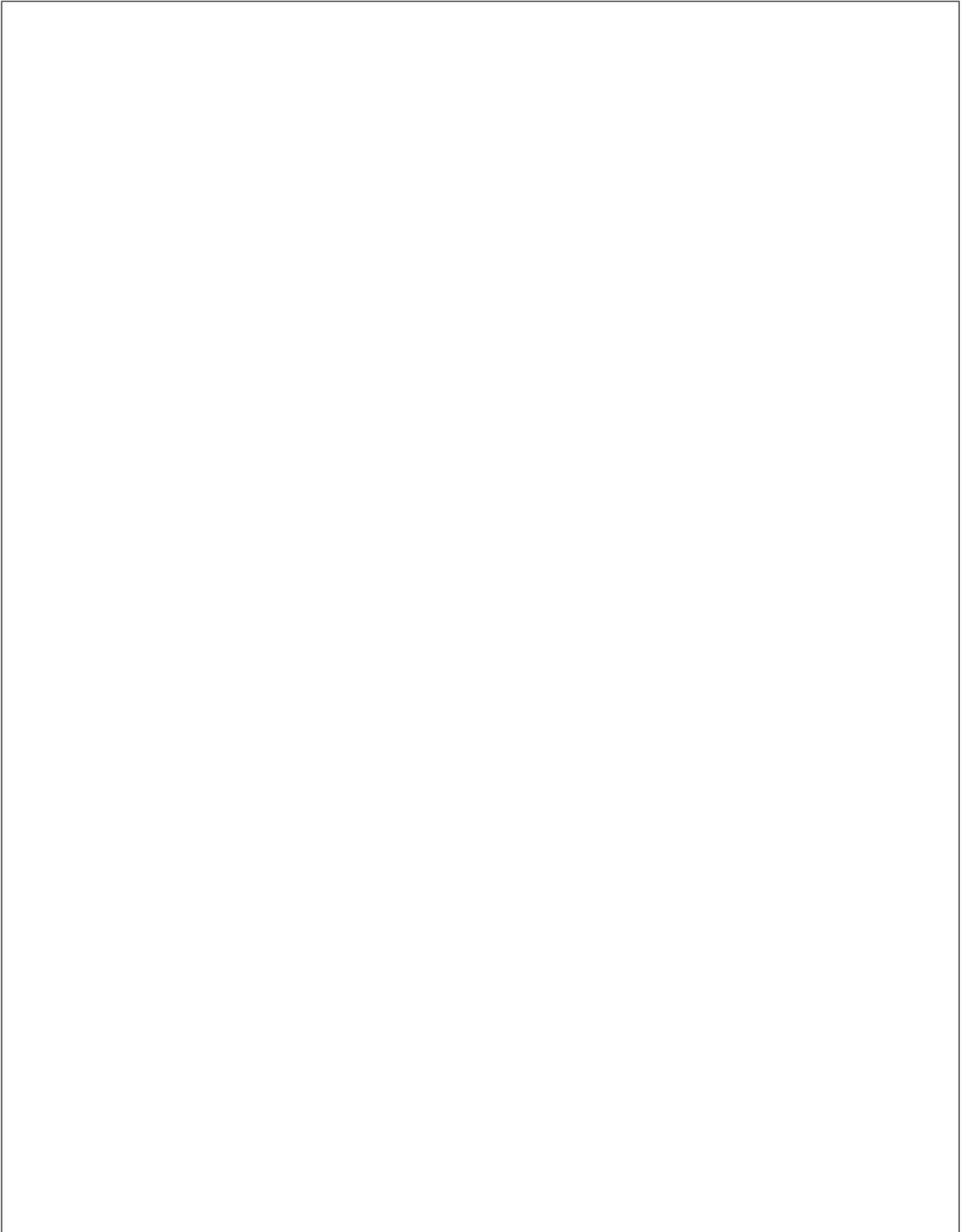
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