6100D, 6110D, 6115D, 6125D, 6130D and 6140D Tractors (North American 08/10)

OPERATOR'S MANUAL

6100D, 6110D, 6115D, 6125D, 6130D and 6140D Tractors (North American 08/10)

OMRE283529 ISSUE K0 (ENGLISH)

CALIFORNIA

Proposition 65 Warning

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

If this product contains a gasoline engine:

⚠ WARNING

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

The State of California requires the above two warnings.

Additional Proposition 65 Warnings can be found in this manual.

Industrias John Deere S.A. de C.V.
PRINTED IN U.S.A.

DCY

OMRE283529

Introduction

Foreword

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

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

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

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

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

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

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

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

This tractor is designed solely for use in customary agricultural or similar operations. 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.

PUPX200069 —UN—05JUN09

Cab Tractor (6115D Shown)

OUMX005,00028FC -19-05JUN09-1/1

Look For Supplemental Information

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

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

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

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

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

PX03972,000053E -19-17DEC08-1/1

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

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Recognize Safety Information

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

Follow recommended precautions and safe operating practices.

T81389 —UN—07DEC88

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

Understand Signal Words

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 -19-03MAR93-1/1

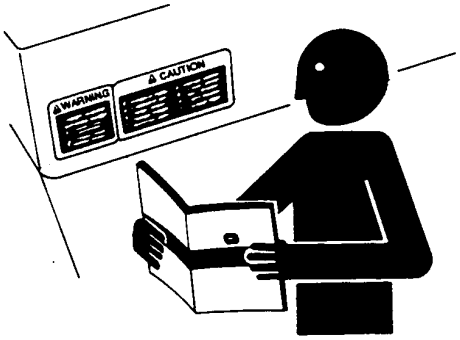
Follow Safety Instructions

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

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

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

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



TS201 —UN—23AUG88

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

DX,READ -19-16JUN09-1/1

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.

TS177 —UN—11JAN89

CED,OUO1032,2778 -19-15OCT99-1/1

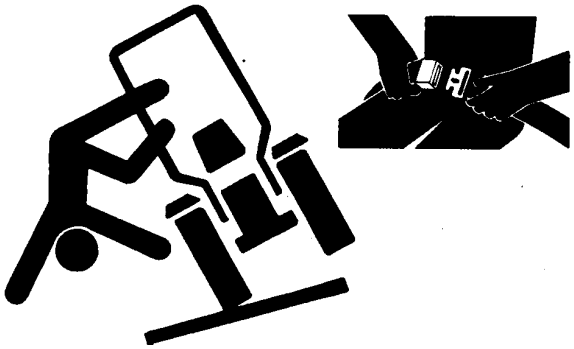
Use Seat Belt and Foldable ROPS Properly (If Equipped)

This tractor may be equipped with a foldable Roll Over Protective Structure (ROPS). The ROPS (A) should be kept in the "up" or extended position (as pictured) with retaining pins (B) and pin clips (C), except when it is necessary to fold it for low clearance operations. (See OPERATING FOLDABLE ROPS—IF EQUIPPED in Operator's Platform section for folding procedure.)

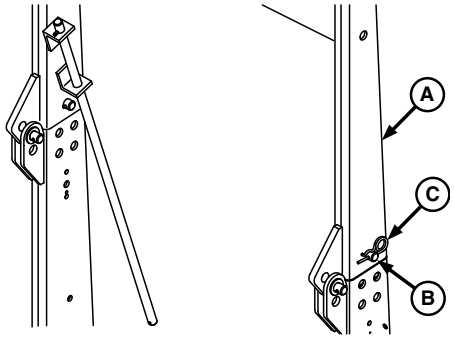
When the ROPS is in the "up" or extended position, ALWAYS use your seat belt to minimize chance of injury from an overturn accident.

DO NOT use seat belt when ROPS is folded down.

A—ROPS Post
B—Retaining Pin
C—Pin Clip



TS205 —UN—23AUG88



P10066 —UN—05OCT01

Foldable ROPS in Extended Position

OUO6070,000001B -19-11OCT00-1/1

In Case of Damage or Alteration to ROPS

CAUTION: 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 must be replaced, not reused.

Make certain all parts are reinstalled correctly if ROPS is loosened or removed for any reason. (See ROPS MAINTENANCE OR REPLACEMENT in General Maintenance and Inspection section.)

OUO6070,000001E -19-12OCT00-1/1

Operate Tractor Safely

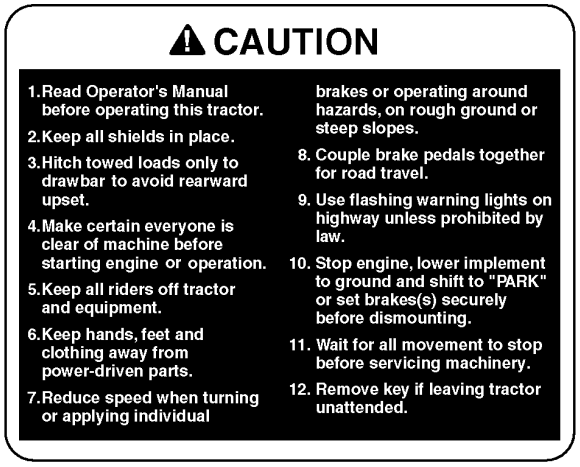
Features designed into your tractor make operation safer and let it perform a wide variety of jobs. Use your tractor only for specified jobs it was designed to perform: implement carrier, load mover, remote power source, or transport unit—not a recreational vehicle.

Careless use or misuse can result in accidents. Be alert to hazards of tractor operation. Understand causes of accidents and take every precaution to avoid them. Most common accidents are caused from:

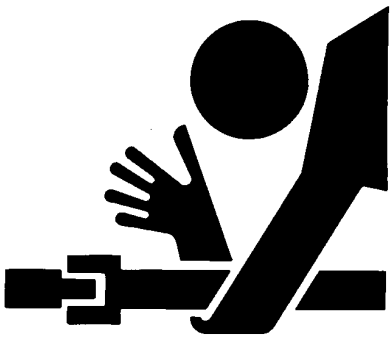
- Tractor upsets
- Improper starting procedures
- Crushing and pinching during hitching
- Collisions with other motor vehicles
- Getting entangled in PTO shafts
- Falls from tractors

Avoid accidents by taking the following precautions:

- Put transmission in neutral, “N”, and set parking brake before dismounting. Leaving transmission in gear with engine stopped MAY NOT prevent the tractor from moving.
- Be sure everyone is clear of tractor and attached equipment before starting engine.
- Never try to get on or off a moving tractor.
- When tractor is to be left unattended, make sure to follow procedure in STOPPING TRACTOR, Driving the Tractor section.



M47224A —19—02JUN97



TS276 —UN—23AUG88

AG,OUO6035,84 -19-18MAY00-1/1

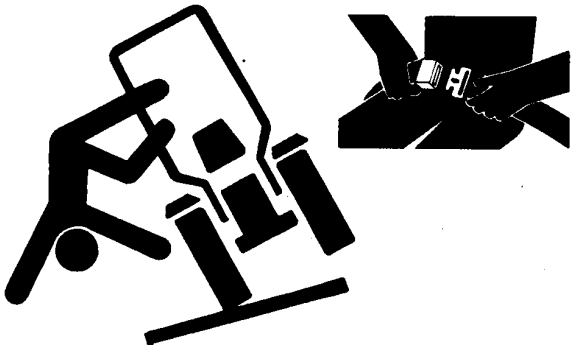
Use Caution on Hillsides

Always wear seat belt with ROPS in upper position.

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

Never drive near the edge of a gully or steep embankment—it might cave in.

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



TS205 —UN—23AUG88

CAUTION: Avoid injury! Use extra caution when driving on slopes. To increase traction and provide 4-wheel braking, engage mechanical front wheel drive (MFWD) when driving on slopes. Be aware that MFWD may improve access to dangerously sloped terrain, thereby increasing the possibility of a tipover.

To improve braking on sloped, icy, wet or graveled surfaces, engage the MFWD. Add ballast to the tractor and travel at a reduced speed to avoid skidding and loss of steering control.

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

Hitch towed loads only to drawbar. When using a chain, take up the slack slowly.

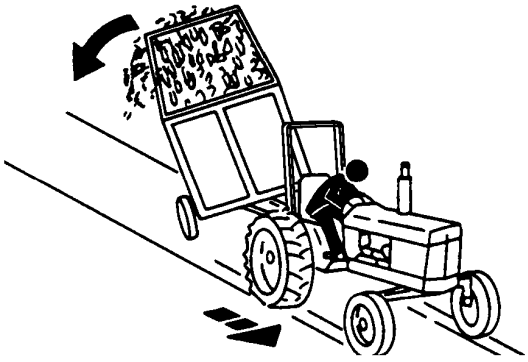
MX,SAIP,CA1 -19-31JUL03-1/1

Shift to Low Gear on Hills

Shift to a low gear before descending a steep hill to improve your control of the tractor with little or no braking. Use engine braking to reduce speed before applying tractor brakes. Runaway tractors often tip over. Never coast downhill.

When driving on icy, wet or graveled surfaces, reduce speed and be sure tractor is properly ballasted to avoid skidding and loss of steering control.

Additional ballast may be needed for transporting heavy hitch mounted implements. When implement is raised, drive slowly over rough ground, regardless of how much ballast is used.



LV4042 —UN—09JUL99

AG,OUO6035,83 -19-17MAY00-1/1

Avoid Tipping

Always wear seat belt with ROPS in upper position.

Do not drive where machine could slip or tip.

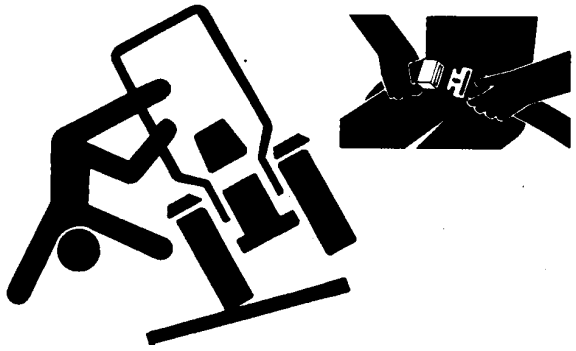
Stay alert for holes, rocks, and roots in the terrain, and other hidden hazards. Keep away from drop-offs.

Slow down before you make a sharp turn.

Use care when pulling loads or using heavy equipment:
- Use only approved drawbar hitch points.
- Limit loads to those you can safely control.
- Use counterweights or wheel weights when suggested in this operator's manual.

Reduce speed and exercise extreme caution on slopes and in sharp turns to prevent tipping or loss of control. Be especially cautious when changing direction on slopes.

Do not stop or start suddenly when going uphill or downhill.



TS205 —UN—23AUG88

If machine stops going uphill:
- STOP the PTO.
- Back down slowly.

MX,AVOIDTIP1A1 -19-22JUL94-1/1

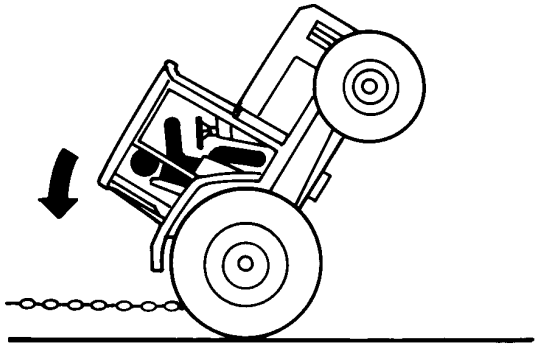
Freeing a Mired Machine

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

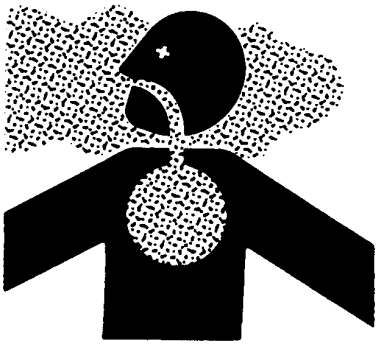
TS263 —UN—23AUG88

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

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—23AUG88

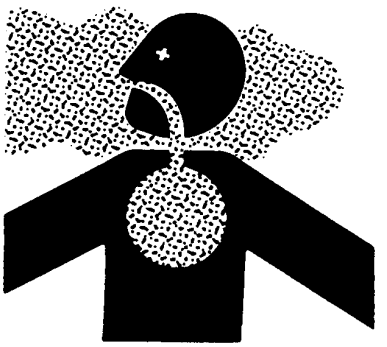
DX,AIR -19-17FEB99-1/1

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—23AUG88

TS272 —UN—23AUG88

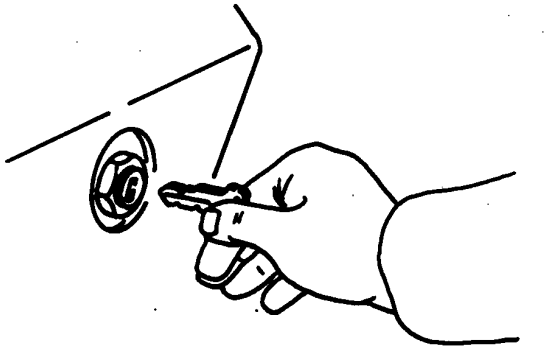
DX,CABS -19-25MAR09-1/1

Park Tractor Safely

To park tractor safely:
- Disengage PTO.
- Lower equipment to the ground.
- Put power reverserPowrReverser™ lever (if equipped) and gear shift lever in NEUTRAL.
- Lock brake pedals together, then set parking brake.
- Allow engine to run at slow idle for two-three minutes.
- STOP the engine.
- Remove key.

Before you leave the operator's seat, wait for engine and attachment parts to stop moving.

PowrReverser is a trademark of Deere & Company



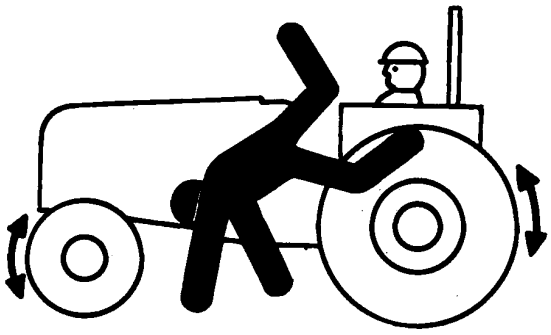
M35691 —UN—26APR89

OUMX005,00028E8 -19-07APR08-1/1

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

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.

TS202 —UN—23AUG88

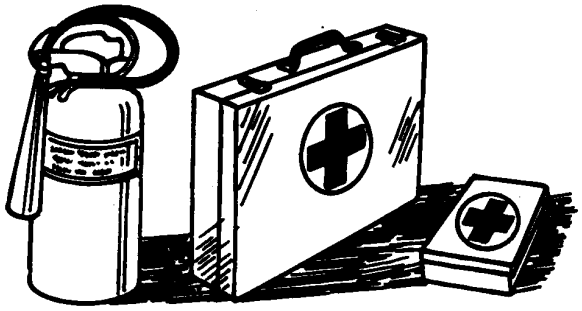
DX,FIRE1 -19-03MAR93-1/1

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—23AUG88

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

Do Not Use Starting Fluid

DO NOT use starting fluid in tractors equipped with an intake air heater system. (See your John Deere dealer for a complete list of other starting aids available.)

Tractors are equipped with an intake air heater system.

LV611 —UN—22APR94

MX,SAIP,JA2 -19-12MAR01-1/1

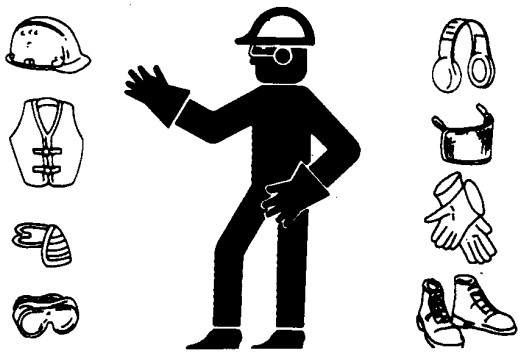
Wear Protective Clothing

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

Prolonged exposure to loud noise can cause impairment or loss of hearing.

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

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



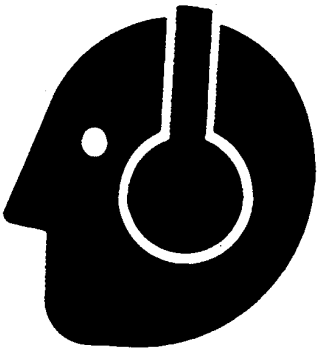
TS206 —UN—23AUG88

DX,WEAR -19-10SEP90-1/1

Protect Against Noise

Prolonged exposure to loud noise can cause impairment or loss of hearing.

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



TS207 —UN—23AUG88

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

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.

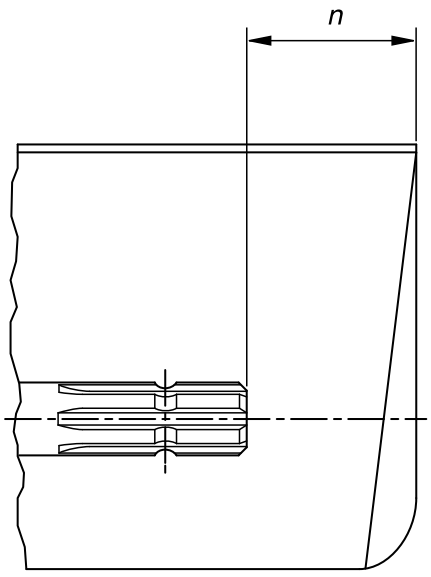
Wear close fitting clothing. Stop the engine and be sure that PTO driveline is stopped before making adjustments, connections, or cleaning out PTO driven equipment.

Do not install any adapter device between the tractor and the primary implement PTO drive shaft 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.

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

TS1644 —UN—22AUG95



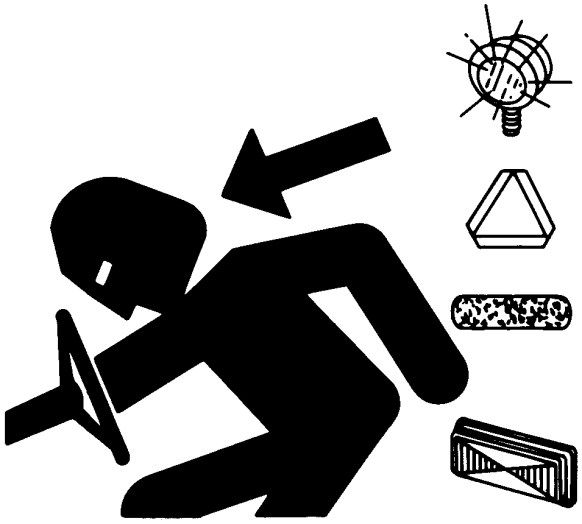
H96219 —UN—29APR10

DX,PTO -19-30JUN10-1/1

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

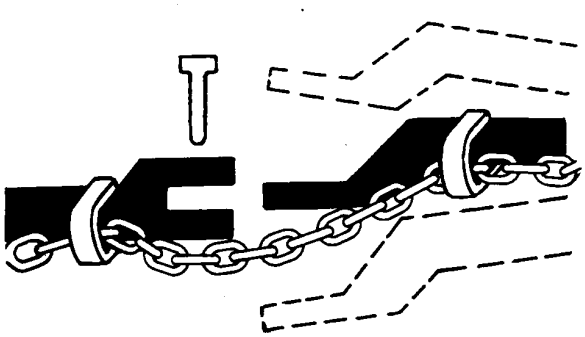
DX,FLASH -19-07JUL99-1/1

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.



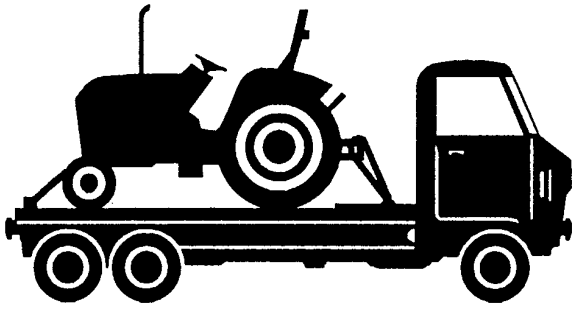
TS217 —UN—23AUG88

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

Safely Transporting the Tractor

A disabled tractor is best transported on a flatbed carrier. Use chains to secure the tractor to the carrier.

Never tow a tractor at a speed greater than 16 km/h (10 mph). An operator must steer and brake the tractor under tow.



LV610 —UN—22APR94

OUO6070,0000020 -19-12OCT00-1/1

Transport Towed Equipment at Safe Speeds

Do not exceed the maximum transport speed. This tractor is capable of operating at transport speeds that exceed the maximum allowable transport speed for most 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:

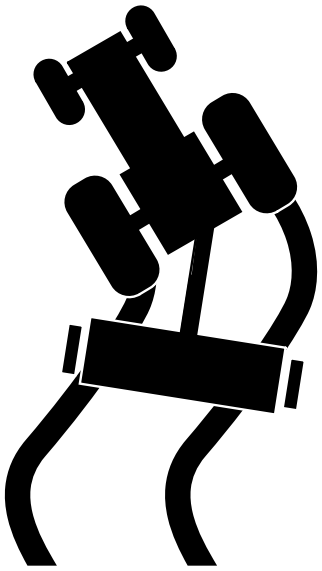
- Loss of control of the tractor/implement combination
- Reduced or no ability to stop during braking
- Implement tire failure
- Damage to the implement structure or its components

Implements 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.

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 tractor 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 tractor weight.

DX,TOW1 -19-14SEP06-1/1

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 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.

TS218 —UN—23AUG88

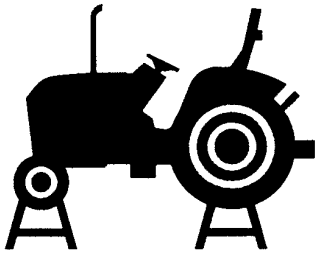
DX,SERV -19-17FEB99-1/1

Service Tractor Safely

Do not service the tractor while it is in motion or while the engine is running.

Tighten wheel hardware to correct torque as specified in Wheels, Tires and Tread section. Torque at intervals shown in Break-In Period and Lubrication and Maintenance sections, to ensure that wheel hardware does not loosen.

Reinstall shields removed during service.



LV828 —UN—08AUG94

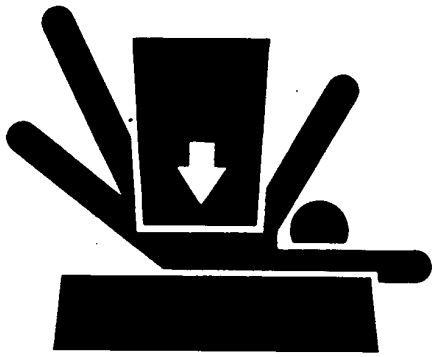
AG,OUO6070,70 -19-17MAY00-1/1

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

Remove Paint Before Welding or Heating

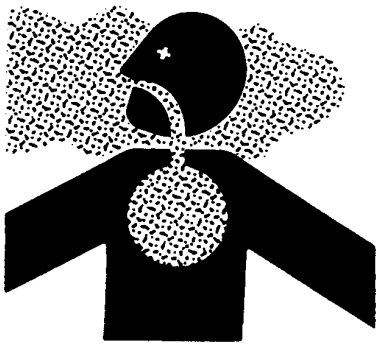
Avoid potentially toxic fumes and dust.

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—23AUG88

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

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

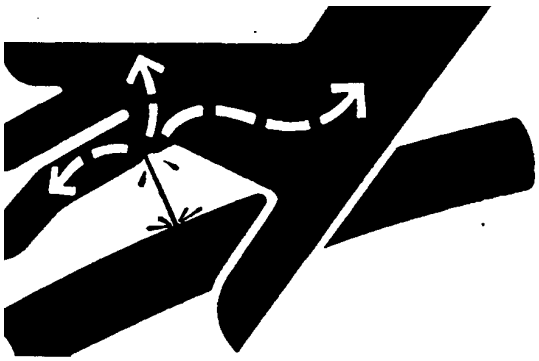
Avoid High-Pressure Fluids

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

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

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

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



X9811 —UN—23AUG88

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

Service Cooling System Safely

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

If reservoir cap must be removed, do not remove when engine is hot. Shut engine off and wait until cap is cool enough to touch with bare hands. Slowly loosen cap to first stop to relieve pressure before removing completely.

TS281 —UN—23AUG88

OUMX005,00028E9 -19-15NOV07-1/1

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

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—23AUG88

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

Handling Batteries Safely

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

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

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

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

TS204 —UN—23AUG88

Avoid hazards by:

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

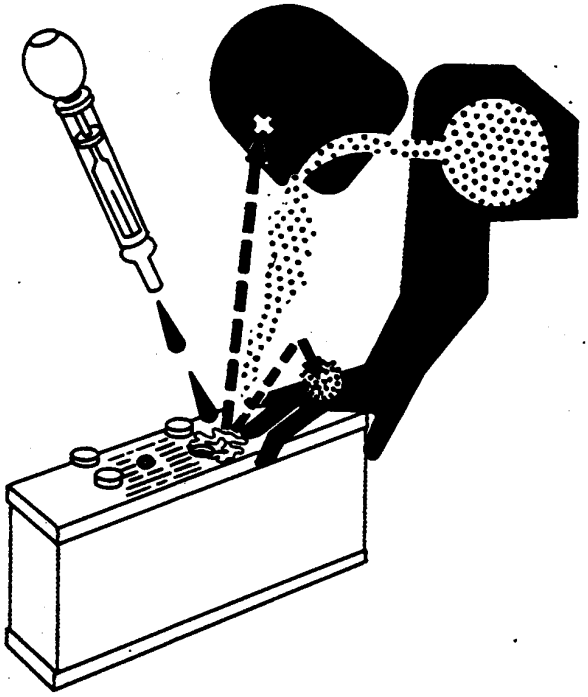
If acid is spilled on skin or in eyes:

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

If acid is swallowed:

1. Do not induce vomiting.
2. Drink large amounts of water or milk, but do not exceed 2 L (2 quarts).
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.**



TS203 —UN—23AUG88

AG,RX15494,3820 -19-08NOV07-1/1

Service Tires Safely

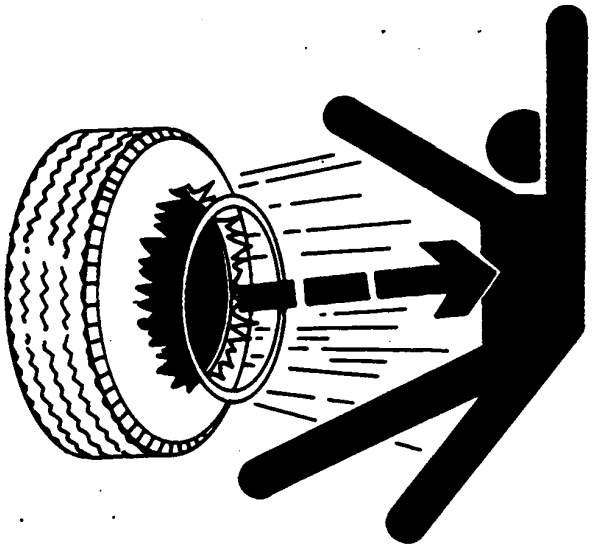
Explosive separation of a tire and rim parts can cause serious injury or death.

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.



TS211 —UN—23AUG88

DX,RIM -19-24AUG90-1/1

Dispose of Waste Properly

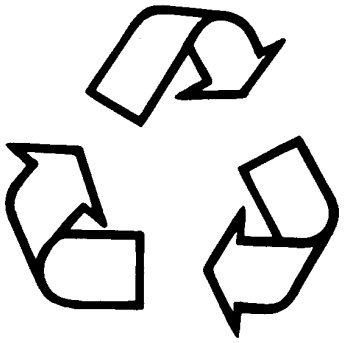
Improperly disposing of waste can threaten the environment and ecology. Potentially harmful waste used with John Deere equipment include such items as oil, fuel, coolant, brake fluid, filters, and batteries.

Use leakproof containers when draining fluids. Do not use food or beverage containers that may mislead someone into drinking from them.

Do not pour waste onto the ground, down a drain, or into any water source.

Air conditioning refrigerants escaping into the air can damage the Earth's atmosphere. Government regulations may require a certified air conditioning service center to recover and recycle used air conditioning refrigerants.

Inquire on the proper way to recycle or dispose of waste from your local environmental or recycling center, or from your John Deere dealer.



TS1133 —UN—26NOV90

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

Replace Damaged or Missing Safety Signs

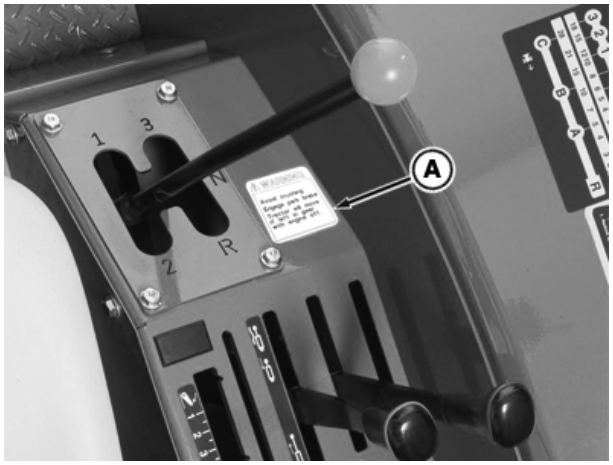
IMPORTANT: Install new safety signs if old signs are damaged, lost or can not be read. Install a new safety sign when replacing any part that previously had a safety sign.

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

TS231 —19—07OCT88

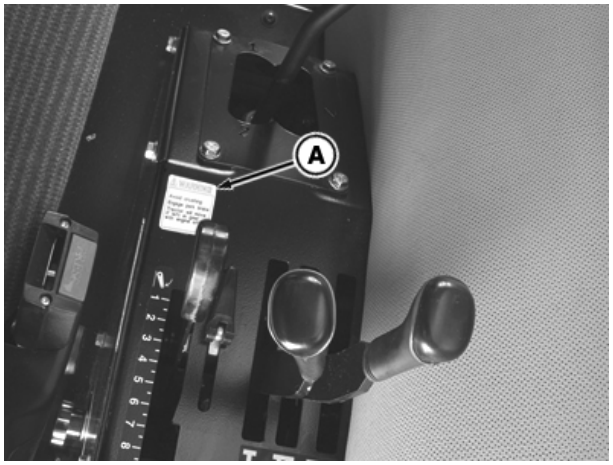
OUMX005,00015FD -19-22MAR05-1/1

Safety Signs—Parking Brake (Wet Clutch / PowrReverser Options Only)



P15489 —UN—24JUN08

Park Brake Warning Label (Open Station Tractor)



P15490 —UN—25JUN08

Park Brake Warning Label (Cab Tractor)

⚠ WARNING

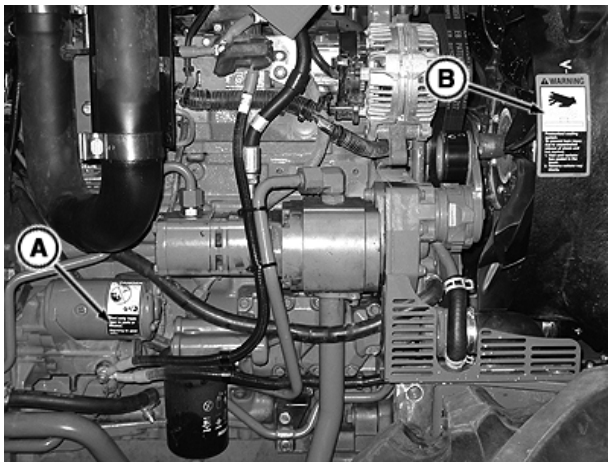
**Avoid crushing
Engage park brake
Tractor will move
if left in gear
with engine off.**

P15491 —19—24JUN08

A—Engage Park Brake Warning Label

OU1092A,0000001 -19-16OCT08-1/1

Safety Signs—Front

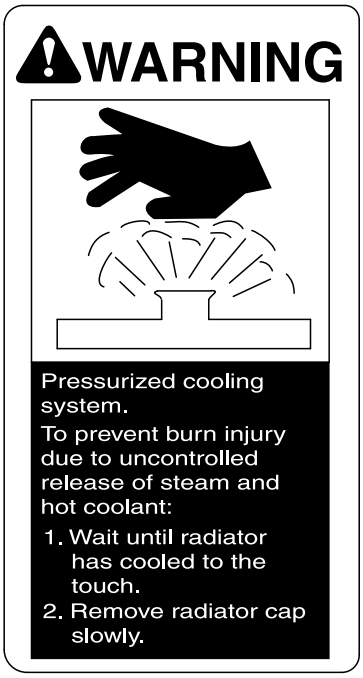


P15411 —UN—09APR08

Engine Right-Hand Side

P15202 —19—25JAN08

A—Bypass Start

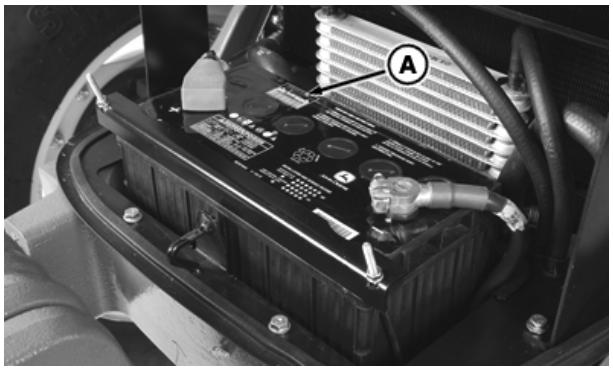


SSH169344 —19—06APR05

B—Cooling System

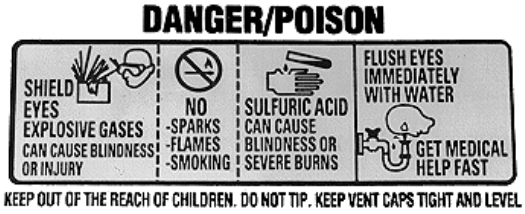
Continued on next page

OUMX005,00028FD -19-15APR08-1/2



P15296 —UN—26MAR08

Front



LV1933 —19—29AUG97

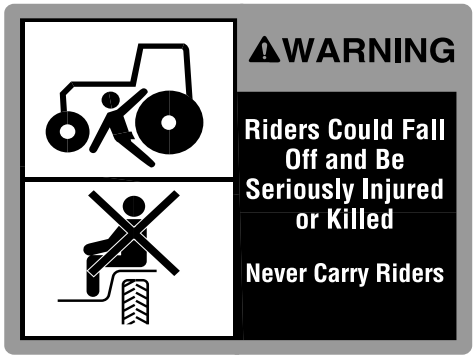
A—Top of Battery

OUMX005,00028FD -19-15APR08-2/2

Safety Signs—OOS

P15367 —UN—09APR08

Left-Hand Side

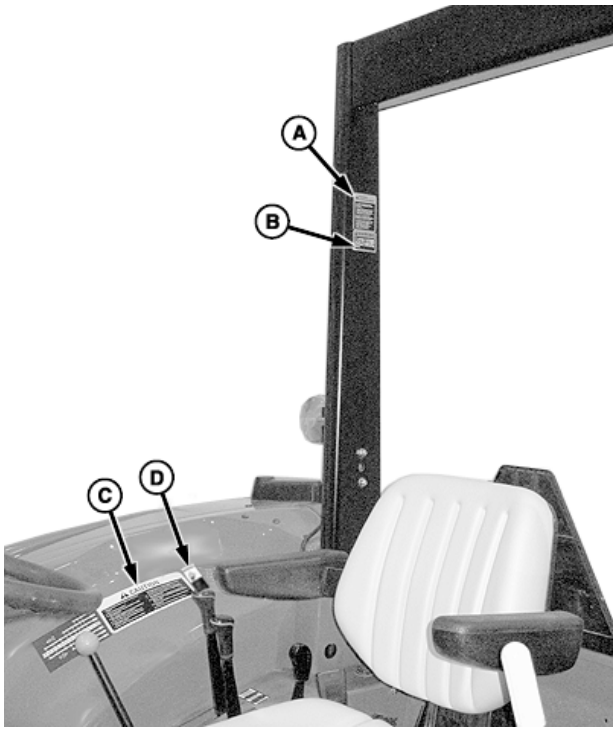


P15366 —19—03APR08

(A)—Keep Riders Off

Continued on next page

OUMX005,00028FE -19-19NOV08-1/3

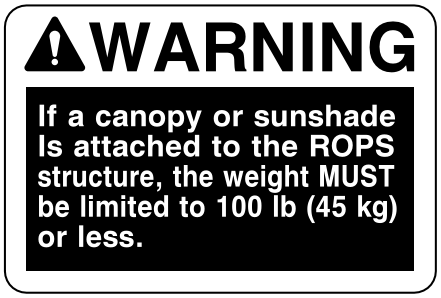


P15175 —UN—04APR08

Right-Hand Side

P15419 —19—18NOV08

(A)

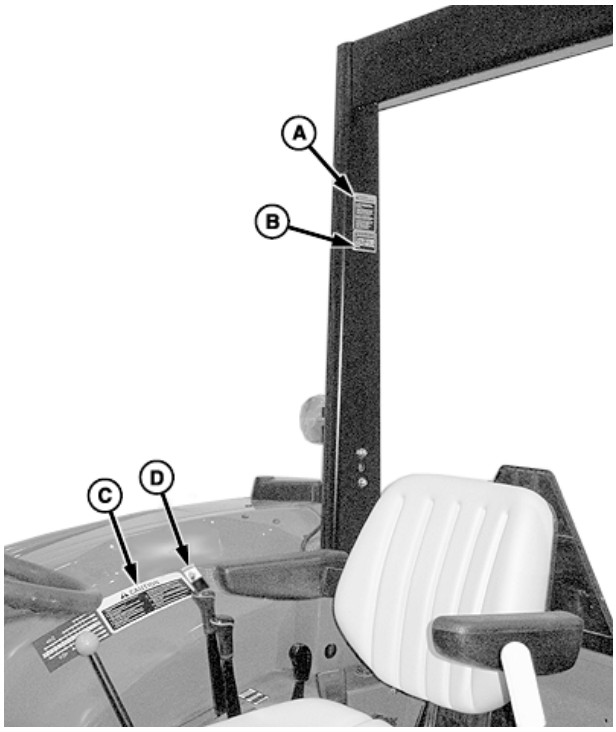


P15205 —19—25JAN08

(B)

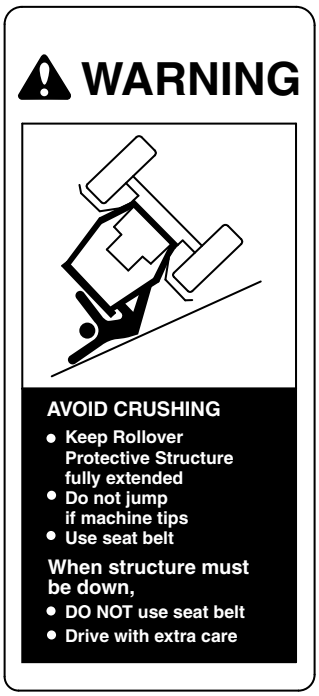
Continued on next page

OUMX005,00028FE -19-19NOV08-2/3



P15175 —UN—04APR08

Right-Hand Side



P10225 —19—05OCT01

(D)

LV4307 —19—04NOV05

(C)

OUMX005,00028FE -19-19NOV08-3/3

Safety Signs—Cab

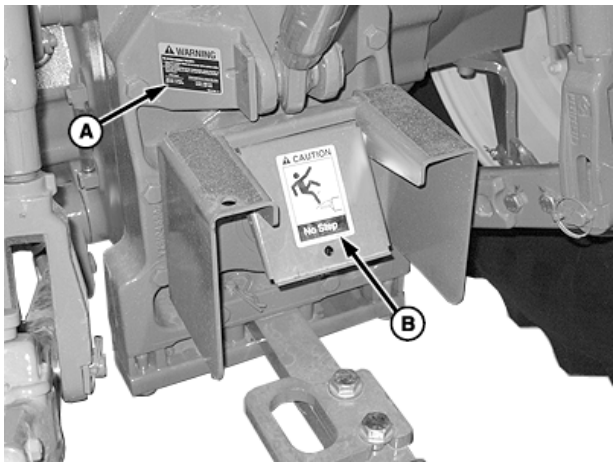
P15420 —19—09APR08

LV8441 —UN—17JUL03

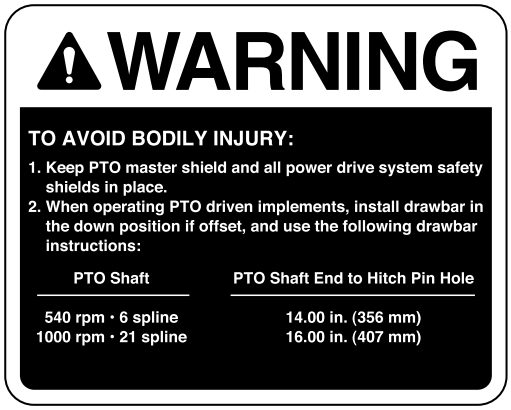
Left-Hand Door Post

OUMX005,00028FF -19-09APR08-1/1

Safety Signs—Rear



P15176 —UN—19JAN08



P15206 —19—29JAN08

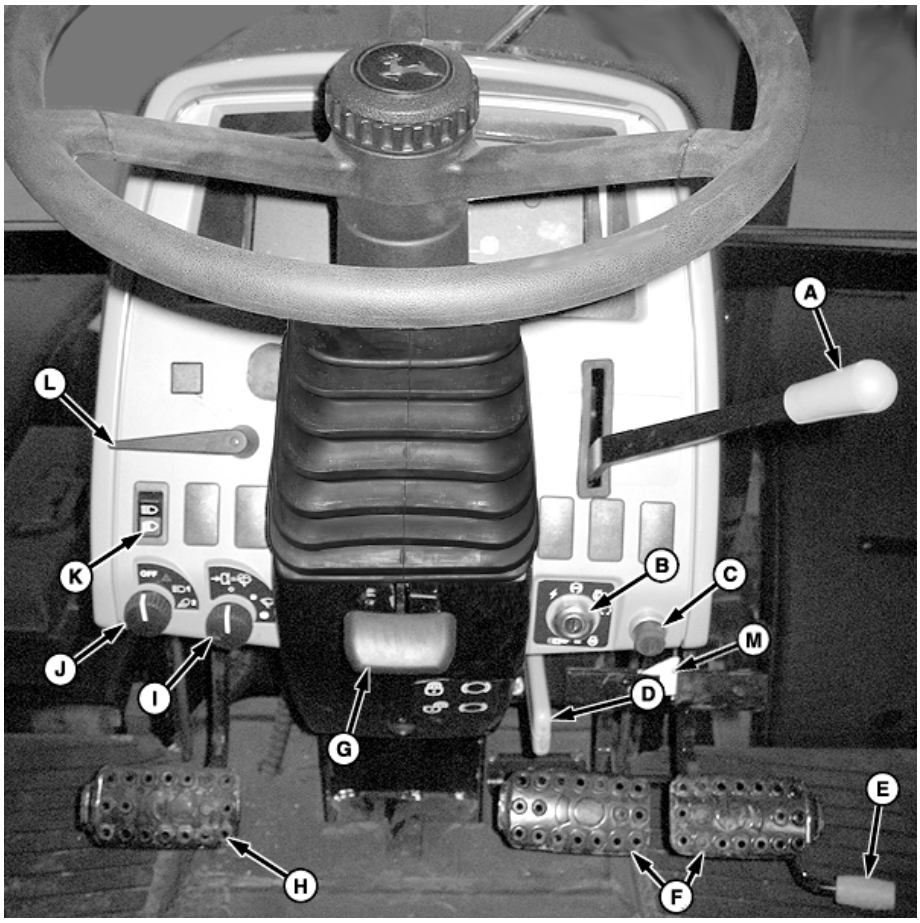
A—Center Link Bracket

RXA0068078 —19—01JUL03

B—Foldable PTO Shield

OUMX005,0002900 -19-24JAN08-1/1

Tractor Controls—Dash (Collar Shift and Non PowrReverser Transmissions)

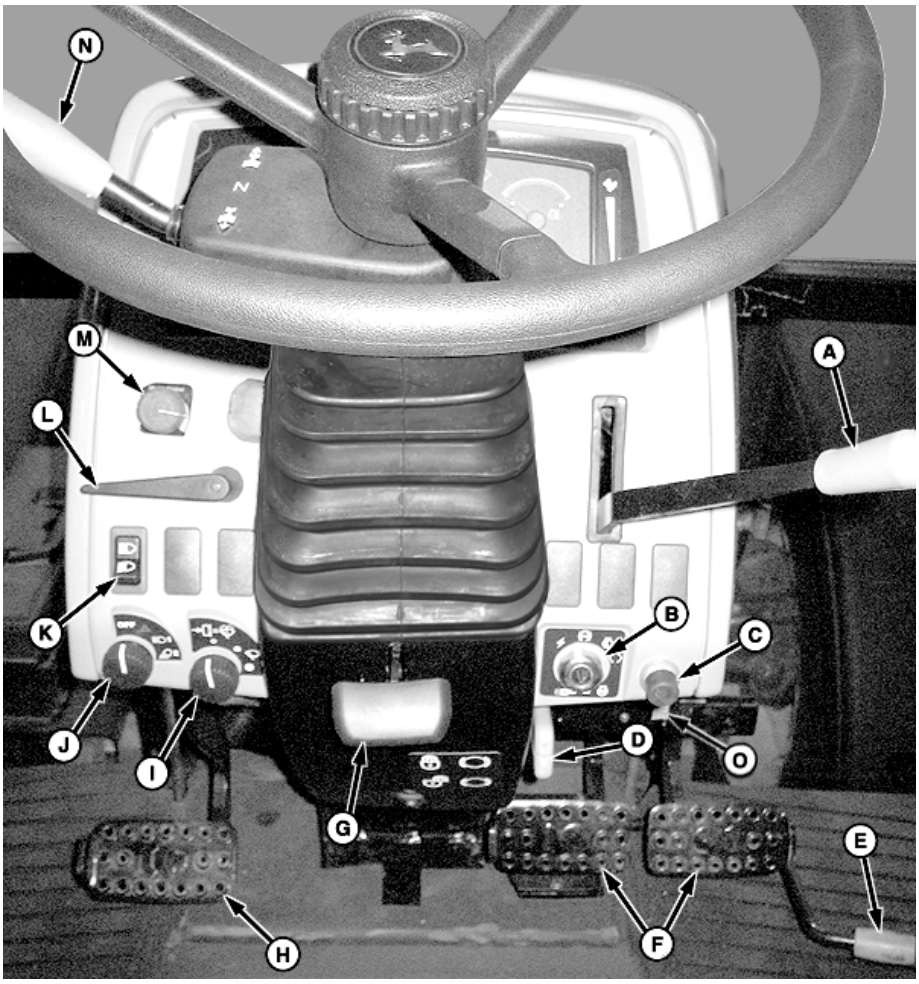


P15287 —UN—14APR08

A—Hand Throttle
B—Ignition Switch
C—Horn Button
D—Parking Brake Lever
E—Foot Throttle
F—Brake Pedals
G—Steering Wheel Tilt Lever (If Equipped)
H—Clutch Pedal
I— Wiper Switch (Cab)
J— Light Switch
K—High/Low Beam Switch
L— Turn Signal Lever
M—Brake Pedal Lock Lever

NS43404,0000424 -19-17APR08-1/1

Tractor Controls—Dash (PowrReverser™ Transmission)



P15288 —UN—09APR08

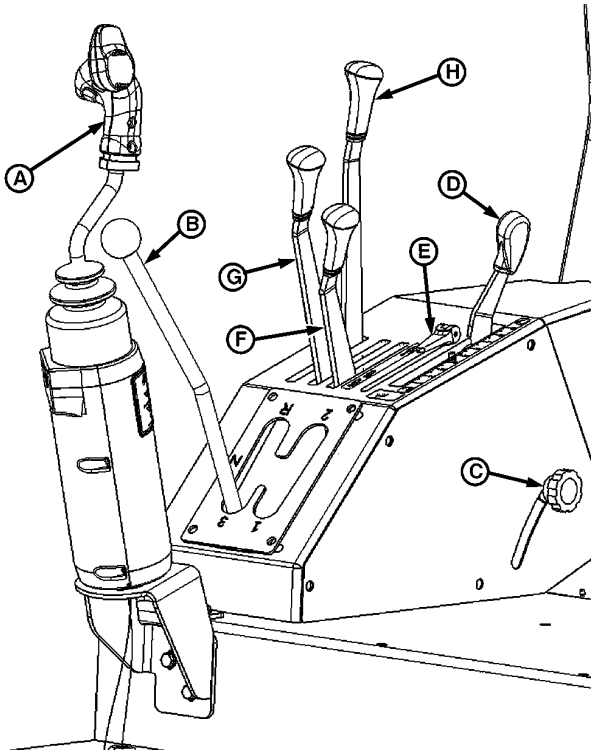
A—Hand Throttle
B—Ignition Switch
C—Horn Button
D—Parking Brake Lever
E—Foot Throttle
F—Brake Pedals
G—Steering Wheel Tilt Lever (If Equipped)
H—Clutch Pedal
I— Wiper Switch (Cab)
J—Light Switch
K—High/Low Beam Switch
L—Turn Signal Lever
M—Shuttle Control (If Equipped)
N—PowrReverser Lever
O—Brake Pedal Lock Lever

PowrReverser is a trademark of Deere & Company

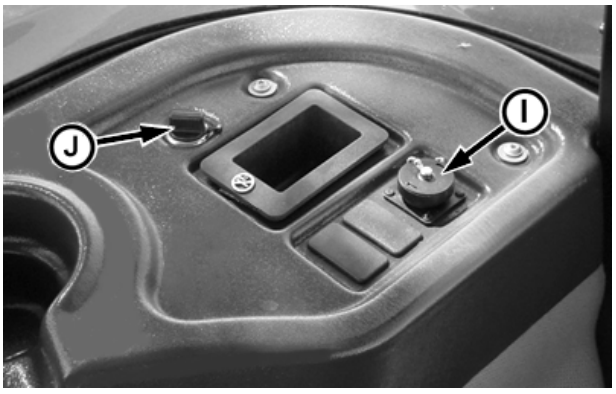
OUMX005,0002901 -19-17APR08-1/1

Tractor Controls—Right-Hand Panel

A—Multi-Function Control Lever (If Equipped)
B—Gear Shift Lever
C—Rockshaft Draft Control Knob
D—Rockshaft Position Control Lever
E—Position Control Stop Knob
F—SCV I Control Lever
G—SCV II Control Lever (If Equipped)
H—SCV III Control Lever (If Equipped)
I— 12-Volt Accessory Electrical Outlet (Cab Only)
J— 12-Volt Power Outlet (Cab Tractor Shown)
K—SCV Lockout[1]



P12967 —UN—07APR04



P15297 —UN—25MAR08

Cab Only

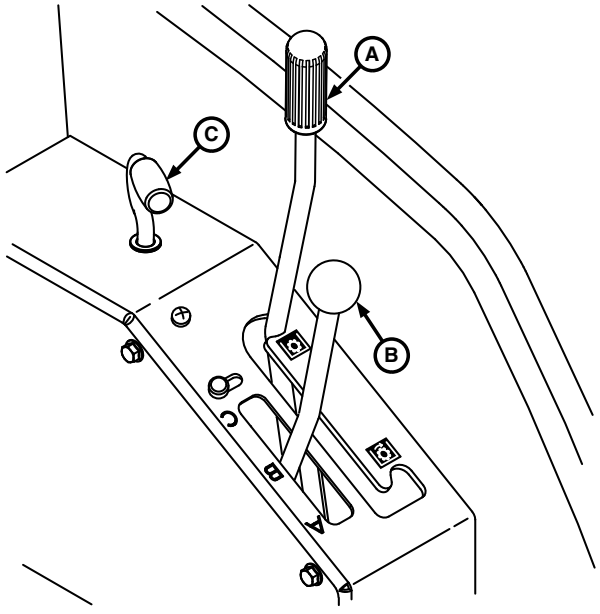
P9007B —UN—17DEC08

[1]*The SCV lockout avoid lever movement according to its position.*

NS43404,0000426 -19-17APR08-1/1

Tractor Controls—Left-Hand Panel

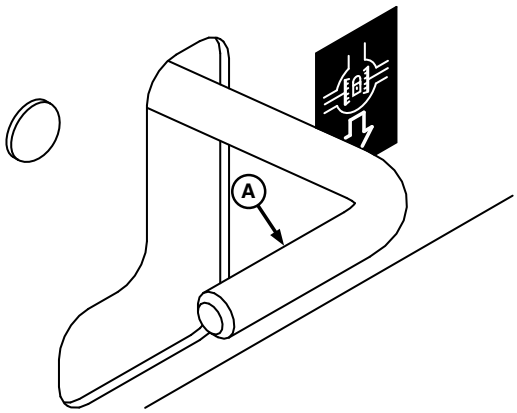
A—Power Take-Off (PTO) Lever
B—Transmission Range Lever
C—Mechanical Front-Wheel Drive (MFWD) Lever (If Equipped)



PX03972,0000541 -19-17DEC08-1/1

Tractor Controls—Differential Lock Pedal

A—Differential Lock Pedal

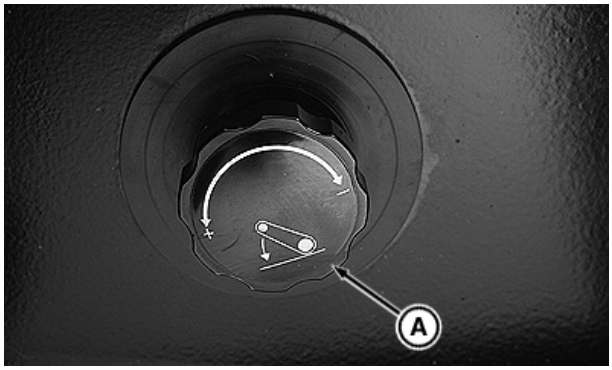


Differential Lock Pedal

OUMX005,0002903 -19-19JAN08-1/1

Tractor Controls—Rockshaft Rate-of-Drop Knob

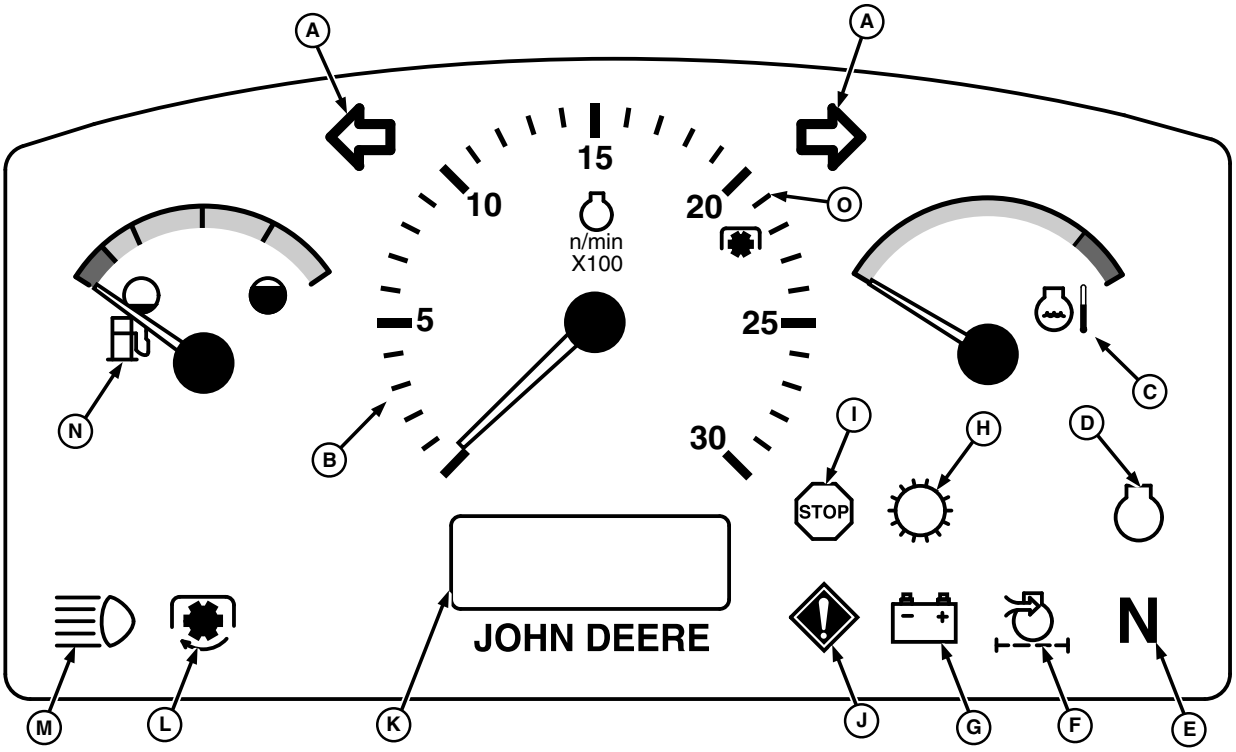
A—Rockshaft Rate-of-Drop Knob



Lower Right-Hand Side, Behind Driver's Seat

NS43404,0000429 -19-20MAR08-1/1

Instrument Panel (PowrReverser™/Wet Clutch Tractors)



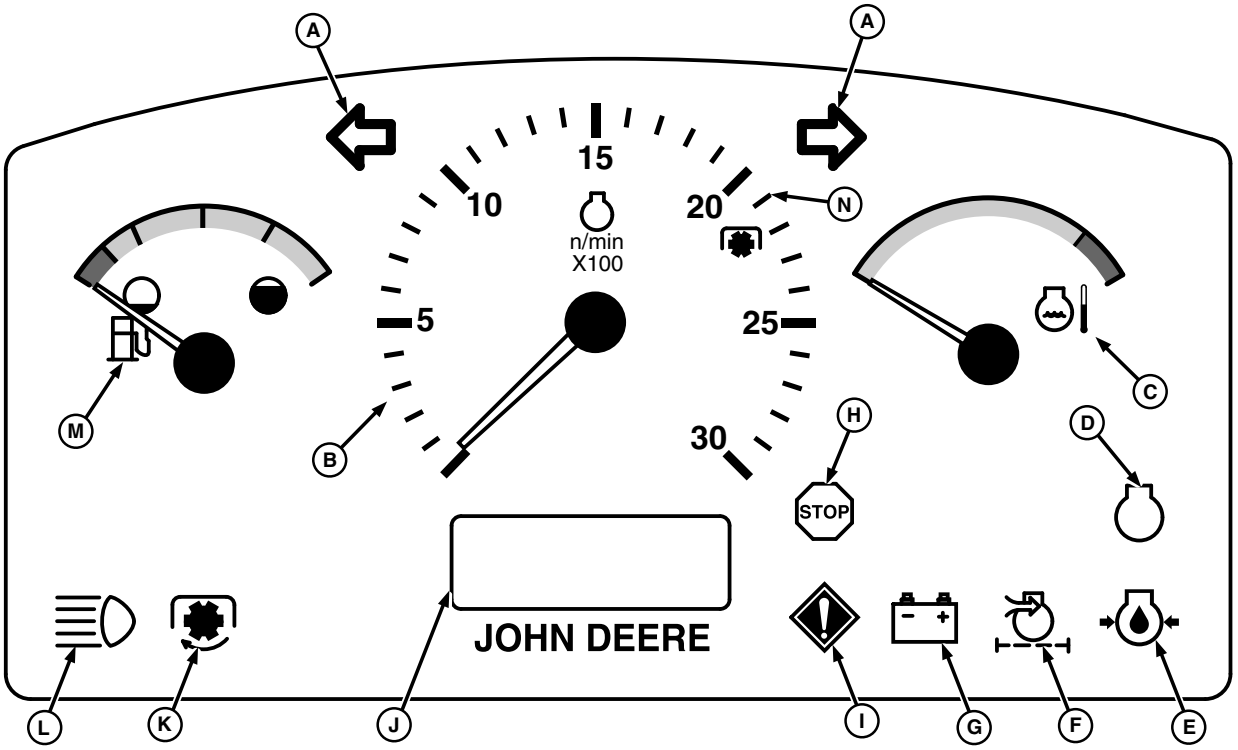
Instrument Panel (PowrReverser—Wet Clutch Tractors)

A—Turn Signal Indicators
B—Tachometer
C—Engine Coolant Temperature Gauge
D—Engine Information Indicator
E—Neutral Indicator
F—Engine Air Cleaner Restriction Indicator
G—Charging System Indicator
H—Transmission Information Indicator
I— STOP Indicator
J— Service Alert Indicator
K—Hour Meter/Ground Speed (LCD Digital)
L— PTO Engaged Indicator
M—Headlight High Beam Indicator
N—Fuel Level Gauge
O—Rated PTO Speed Indicator

NOTE: Hour Meter/Ground Speed (LCD Digital) (K) displays hours when tractor is not moving. When tractor is moving, display switches to ground speed. When tractor is stopped, display changes back to hours.

NS43404,000042A -19-29JUL09-1/1

Instrument Panel (Dry Clutch Tractors)



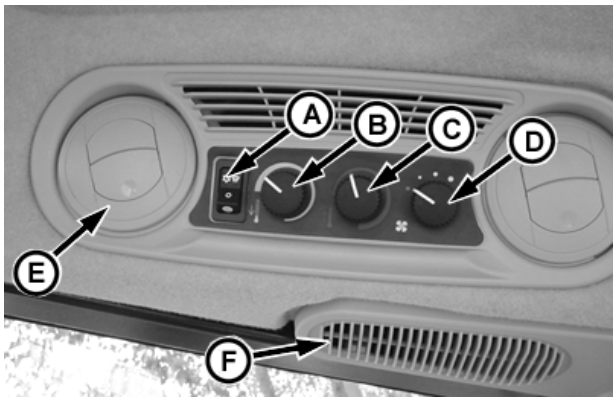
Instrument Panel (Dry Clutch Tractors)

A—Turn Signal Indicators
B—Tachometer
C—Engine Coolant Temperature Gauge
D—Engine Information Indicator
E—Engine Oil Pressure
F—Engine Air Cleaner Restriction Indicator
G—Charging System Indicator
H—STOP Indicator
I— Service Alert Indicator
J—Hour Meter
K—PTO Engaged Indicator
L—Headlight High Beam Indicator
M—Fuel Level Gauge
N—Rated PTO Speed Indicator

OU1092A,00001E8 -19-29JUL09-1/1

Overhead Control Panel

A—Air Conditioning/Defrost Switch
B—Air Conditioning Temperature Control Knob
C—Heater Temperature Control Knob
D—Blower Speed Knob
E—Directional Air Louver (6 used)
F—Recirculating Air Intake (2 used)



Right-Hand Side

NS43404,000042D -19-17JUN09-1/1

Light Switch Positions

A—OFF All lights off. Instrument panel will illuminate for approximately 6 seconds after switch is turned off.

B—Triangle (Warning) Warning lights flash, tail lights (red) on, instrument panel illuminates, turn signal arrows on instrument panel flash and courtesy light (cab) is on. This position is for driving on roads during daytime.

C—Road lights (Position 1) Headlights and tail lights (red) on, warning lights flash, instrument panel illuminates, turn signal arrows on instrument panel flash and courtesy light (cab) is on. This position is for driving on roads during daytime or nighttime.

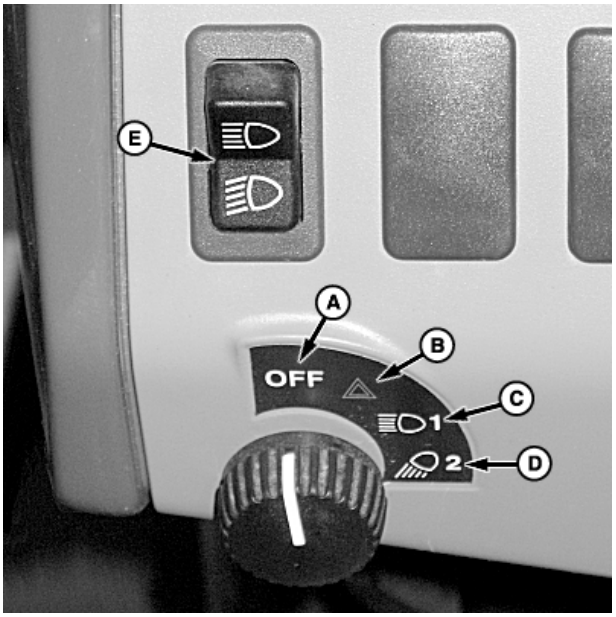
D—Field lights (Position 2) Headlights and tail lights (red) on, floodlights on, instrument panel illuminates and courtesy light (cab) is on. This position is for field use only.

CAUTION: Never use floodlights when driving on roads. Dim headlights for oncoming traffic. Bright lights could blind or confuse other drivers.

E—High/Low beam switch Active when light switch is in positions (C or D).

- Switch DOWN—Low/dim headlights on
- Switch UP—High/bright headlights on. High beam indicator on instrument panel also illuminates.

Dim headlights when approaching other vehicles, bright lights may blind or confuse other drivers.



P14835 —UN—21NOV07

(If Equipped)

A—OFF
B—Triangle (Warning)
C—Road Lights-1
D—Field Lights-2
E—High/Low Beam Switch

Light Switch Operation				
Position	**Tail Lights**	**Headlights**	**Floodlights**	**Warning Lights**
OFF	OFF	OFF	OFF	OFF
Triangle (Warning)	OFF	OFF	OFF	FLASH
1 (Road)	ON	ON	OFF	FLASH
2 (Field)	ON	ON	ON	OFF

PX03972,0000543 -19-17DEC08-1/1

Using Headlights

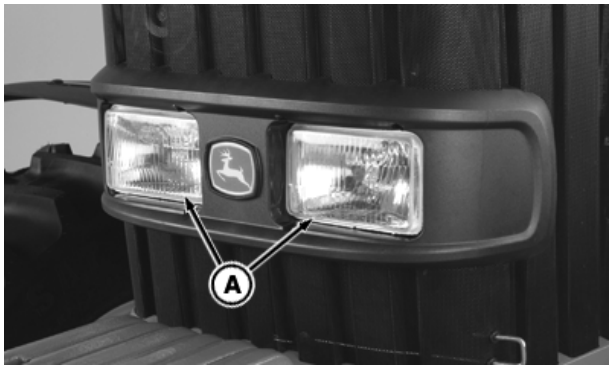
CAUTION: Never use flood lights when driving on roads. Dim headlights for oncoming traffic. Bright lights could blind or confuse other drivers.

Dual-beam headlights (A) are used for highway driving, day or night. They are turned on in position 1 (C) or 2 (B) with the light switch.

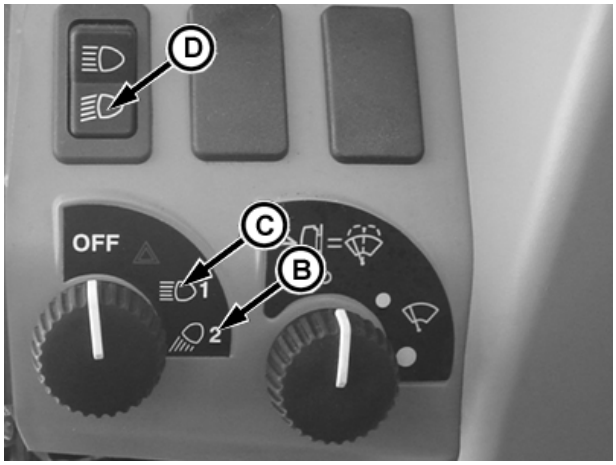
Always dim headlights by moving high/low beam switch (D) to low beam position when meeting another vehicle.

Keep headlights adjusted properly. (See ADJUST HEADLIGHTS in Maintenance—Electrical System section.)

A—Headlights
B—Field Lights
C—Road Lights
D—High/Low Beam Switch



P15323 —UN—27MAR08



P12943A —UN—04JUL05

Cab Switch Shown

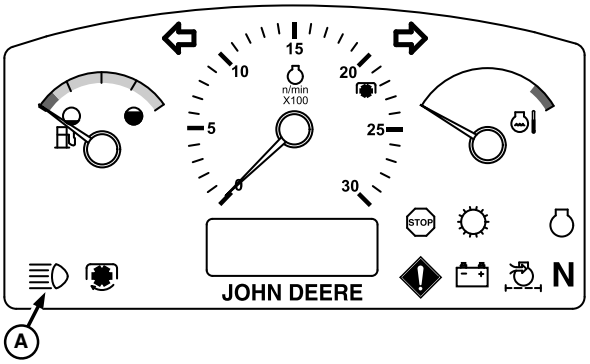
NS43404,0000431 -19-16OCT08-1/1

High Beam Indicator

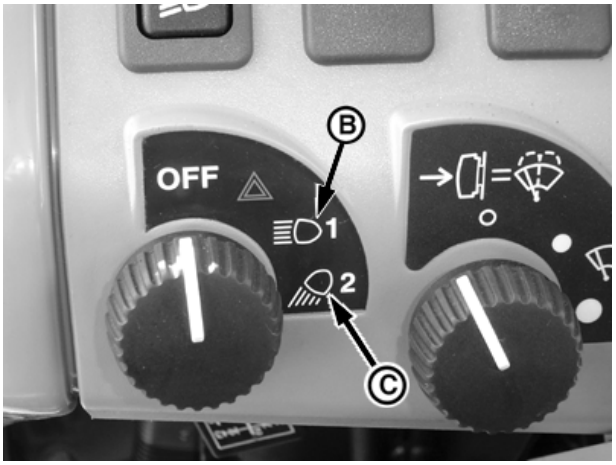
High beam indicator (A) should glow with key in ON or OFF position and light switch in following positions:

- Road lights (Position 1) and high/low beam switch UP
- Field lights (Position 2)

A—High Beam Indicator
B—Position 1
C—Position 2



P14836 —UN—19NOV07



P13883A —UN—11NOV08

NS43404,0000433 -19-19JAN08-1/1

Using Fender Lights—If Equipped (OOS)

CAUTION: Never use fender lights when driving on roads. Bright lights could blind or confuse other drivers as they approach. When driving or transporting tractor on public roads, use road lights only (switch position 1).

Fender lights (A) are on when switch is turned to field light position (B).

A—Fender Light **B—Field Lights-2**

P14837 —UN—20NOV07

Right Hand Side Shown

P14838 —UN—20NOV07

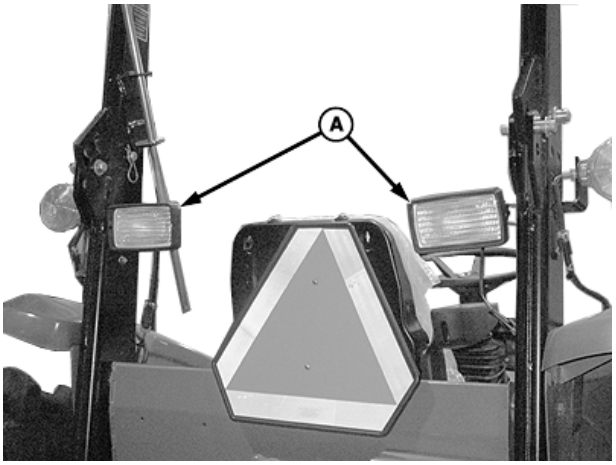
NS43404,0000435 -19-26JAN08-1/1

Using Floodlights—OOS (If Equipped)

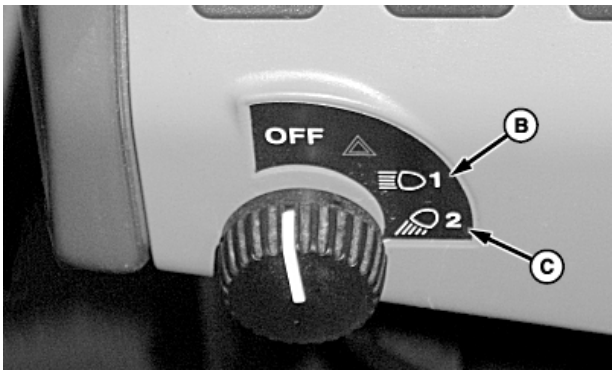
CAUTION: Rear-facing floodlights may blind or confuse driver of other vehicles approaching from behind. When driving or transporting tractor on public roads, use road lights only (switch position 1) (B).

Floodlights (A) are for field work only. Do NOT use when driving on public roads. Floodlights are on when switch is turned to field light position (C).

A—Floodlights
B—Road Lights-1
C—Field Lights-2



P14839 —UN—20JAN08



P14840 —UN—20JAN08

NS43404,0000436 -19-09APR08-1/1

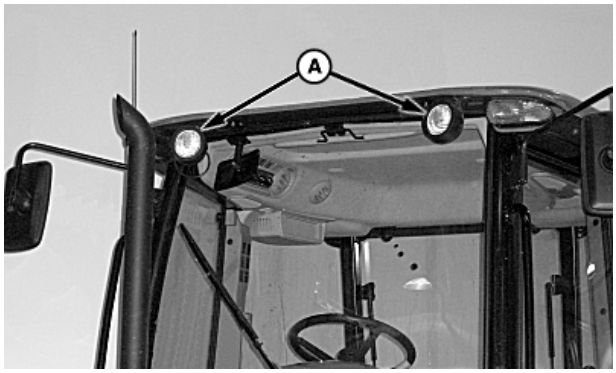
Using Floodlights—Cab

CAUTION: When operating on a road, move light switch to either road lights position-1 (D) or low (dim) headlight position (E). Never use floodlights when transporting on roads. Clear, bright lights at the rear of the tractor could confuse drivers of other vehicles as they approach from the rear.

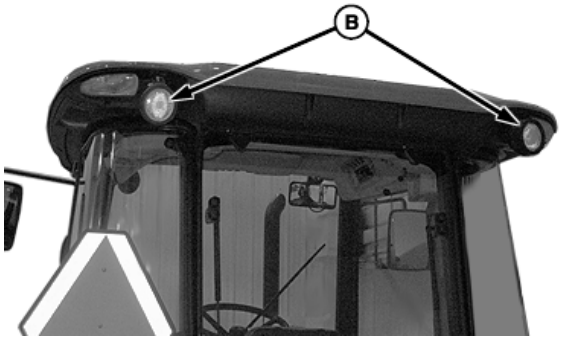
NOTE: Front and rear flood lights adjust freely by hand.

Floodlights (A and B) are for field work only. Do NOT use when driving on public roads. Floodlights are on when switch is turned to field light position (C).

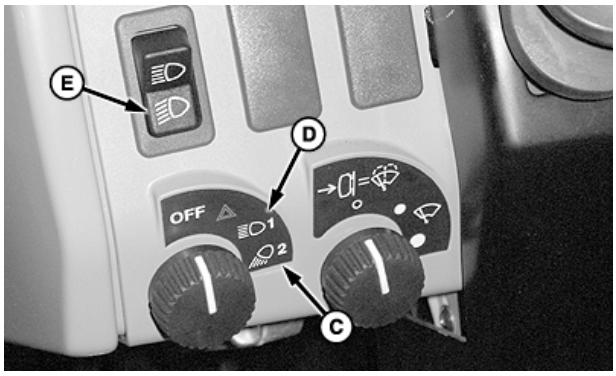
A—Front Floodlights
B—Rear Floodlights
C—Field Lights-2
D—Road Lights-1
E—High/Low Beam Switch (Low position)



P14841 —UN—20NOV07



P14842 —UN—20JAN08



P14843 —UN—20JAN08

NS43404,0000437 -19-20JAN08-1/1

Using Tail Lights/Brake Lights and Warning Lights—OOS

Tail lights (A) are on when switch is turned to positions (C) or (D). Brake lights (A) are on when key is in run position and service brake is applied.

Be sure tail light lenses are clean before driving on a road, so other drivers can see them easily.

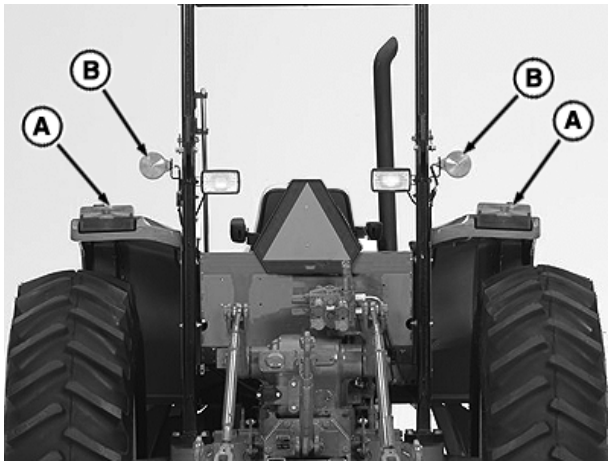
CAUTION: Prevent collisions between other road users, slow moving tractors with attachments or towed equipment, and self-propelled machines on public roads. Frequently check for traffic from the rear, especially in turns, and use hand signals or turn signal lights.

Use headlights, warning lights, 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.

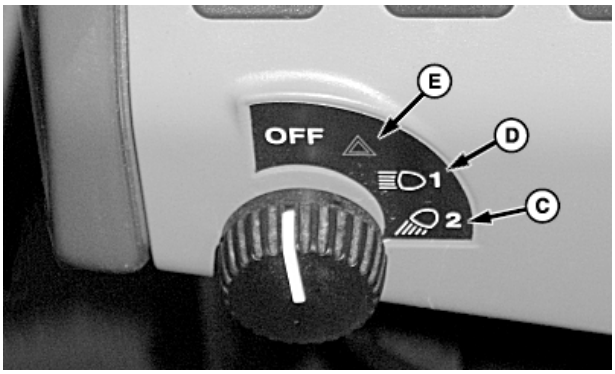
Warning lights (B) flash when switch is turned to warning light (triangle) position (E). They also flash when switch is in road lights position (D).

NOTE: If equipped with canopy, warning lights operate same as lights mounted on ROPS.

A—Tail Lights/Brake Lights (Red)
B—Warning Lights (Amber)
C—Field Lights-2
D—Road Lights-1
E—Warning Lights (Triangle) (If Equipped)



P15315 —UN—09APR08



P14847 —UN—26JAN08

(If Equipped)

PX03972,0000544 -19-17DEC08-1/1

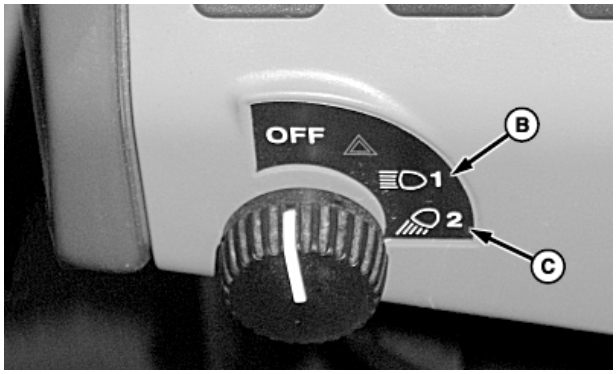
Using Tail Lights/Brake Lights—Cab

Tail lights (A) are on when switch is turned to positions (B). Brake lights (A) are on when key is in run position and service brake is applied.

Be sure tail light lenses are clean before driving on a road, so other drivers can see them easily.

A—Tail Lights/Brake Lights (Red)
B—Road Lights-1
C—Field Lights-2

P14844 —UN—26JAN08



P14840 —UN—20JAN08

NS43404,0000439 -19-21NOV08-1/1

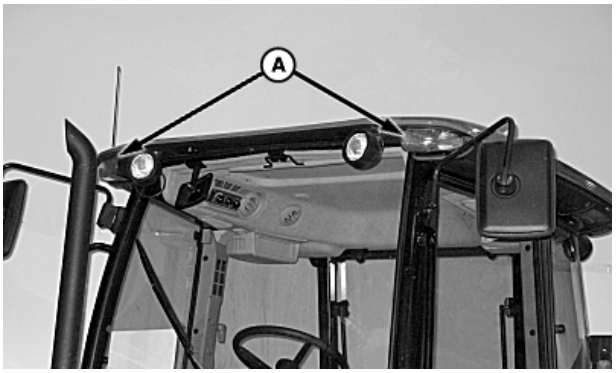
Using Warning Lights—Cab

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

Use headlights, warning lights, 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.

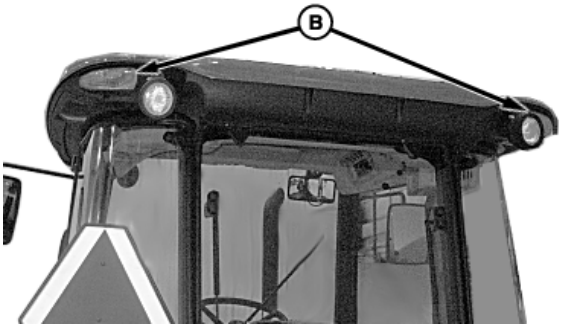
Warning lights (A and B) flash when switch is turned to warning light (triangle) position (C) position . They also flash when switch is in road lights position (D).

A—Front Warning Lights
B—Rear Warning Lights
C—Warning Lights (Triangle)
D—Road Lights-1



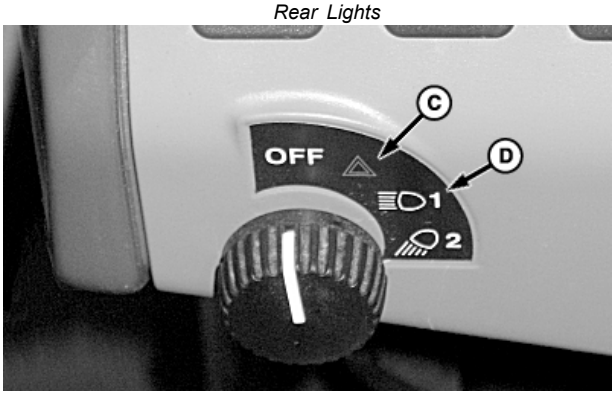
P14848 —UN—20NOV07

Front Lights



P14849 —UN—26JAN08

Rear Lights



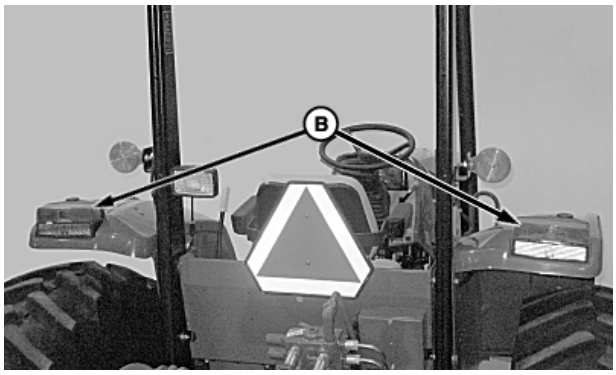
P14850 —UN—20NOV07

PX03972,0000545 -19-17DEC08-1/1

Using Turn Signals

P14851 —UN—10APR08

Cab Shown



P14853 —UN—26JAN08

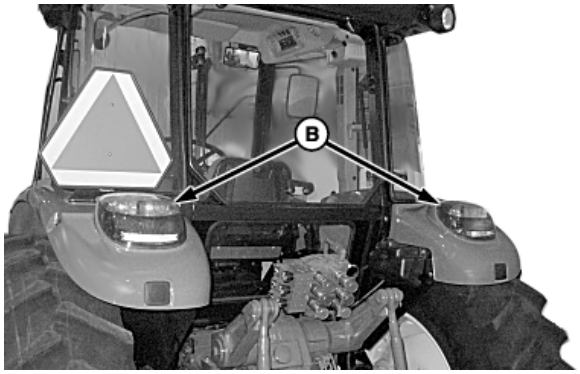
OOS

With key in RUN position, move turn signal lever (A):

- DOWN—Left-hand turn
- UP—Right-hand turn

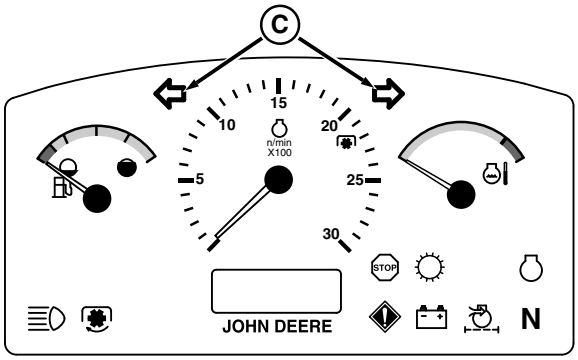
NOTE: Make sure to manually return lever to CENTER position after turning.

A—Turn Signal Lever
B—Turn Signal Lights
C—Directional Arrows



P14852 —UN—26JAN08

Cab



P15473 —UN—10APR08

Instrument Panel

NS43404,000043C -19-10APR08-1/1

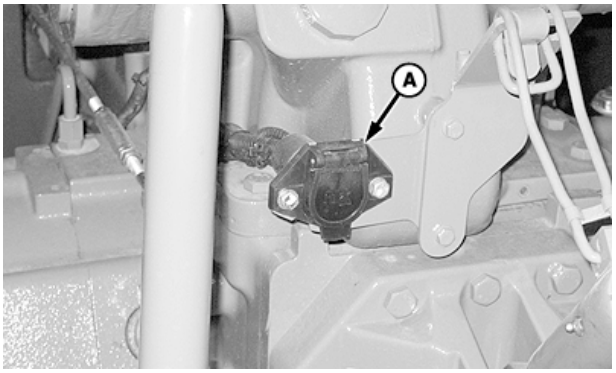
Using Seven-Terminal Outlet—*If Equipped*

Outlet (A) is used to connect lights, turn signals and remote electrical equipment on trailers or implements. Always use auxiliary lighting on towed implements when tractor rear signals and other lights are not clearly visible from behind.

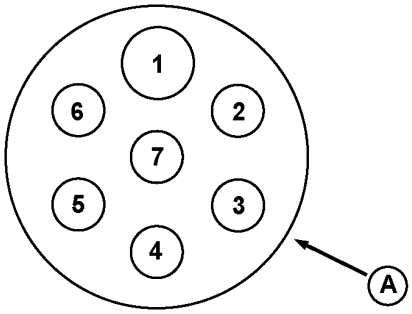
NOTE: Matching plug is available through your John Deere dealer.

Terminal	Function
1	Ground
2	Work Light
3	Left Turn
4	Brake Light
5	Right Turn
6	Tail Light
7	Auxiliary

A—Seven-Terminal Outlet



P15208 —UN—26JAN08



RW21249A —UN—29APR99

NS43404,000043D -19-16OCT08-1/1

Operating Rotating Beacon Light—If Equipped

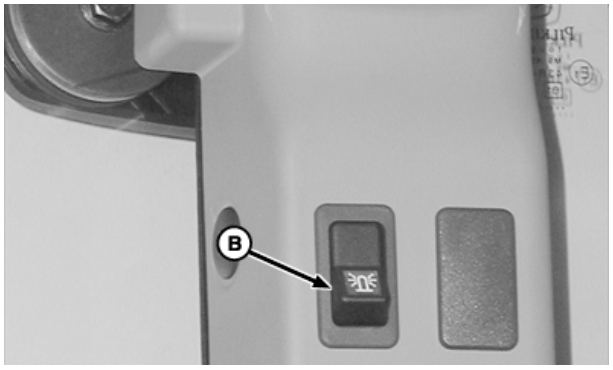
Depress switch (B) to activate light (A).

To remove light for storage or clearance:

1. Loosen wing nut and lift light from tube.
2. Install cap on tube end to protect light socket.

A—Light **B—Switch**

LV9687 —UN—19AUG04



LV9688 —UN—19AUG04

Right-Hand Post

OUMX005,0002909 -19-17JUN09-1/1

Operating Foldable ROPS

CAUTION: Make certain all parts are installed correctly if roll over protective structure (ROPS) is loosened or removed for any reason. Tighten mounting bolts to proper torque. (See specification in ROPS MAINTENANCE OR REPLACEMENT, in General Maintenance and Inspection section.)

The protection offered by ROPS will be impaired if ROPS is subjected to structural damage, as in an overturn incident, or is in any way altered by welding, bending, drilling or cutting. A damaged ROPS must be replaced, not reused. Any alteration to the ROPS must be approved by the manufacturer.

Always keep upper part of ROPS pinned in vertical position (as shown) when operating tractor. If tractor is operated with ROPS folded (e.g., to enter a low building), drive with extreme caution and DO NOT use seat belt.

Raise ROPS up again and pin in vertical position as soon as the tractor is operated under normal conditions.

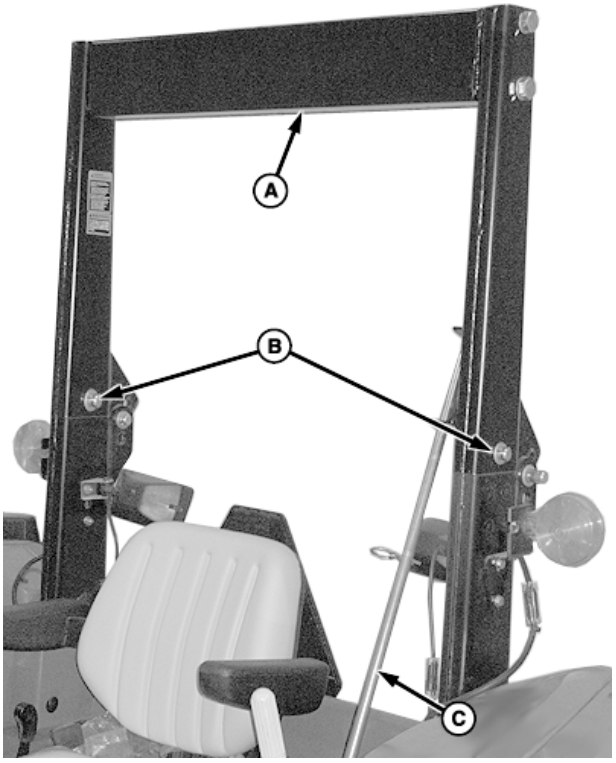
Lower ROPS Crossbar

1. Remove pin clips and retaining pins (B).
2. Using handlebar (C), lower ROPS crossbar (A).
3. Reinstall retaining pins and pin clips into holes (D) in ROPS to lock crossbar down.

Put ROPS in Operating Position

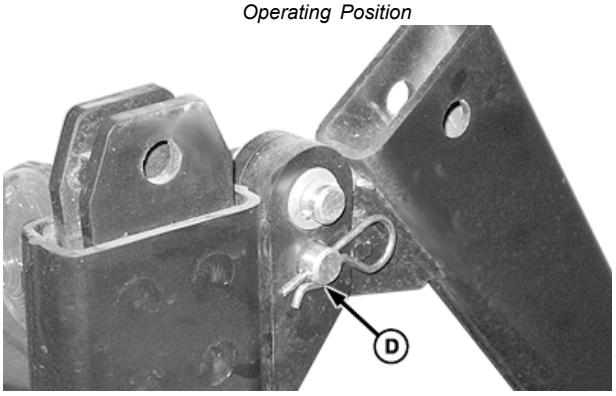
1. Remove pin clips and retaining pins.
2. Using handlebar, raise ROPS crossbar to vertical position.
3. Reinstall retaining pins and pin clips into holes in ROPS to lock crossbar.

A—ROPS Crossbar
B—Pin Clip and Retaining Pin
C—Handlebar
D—Hole

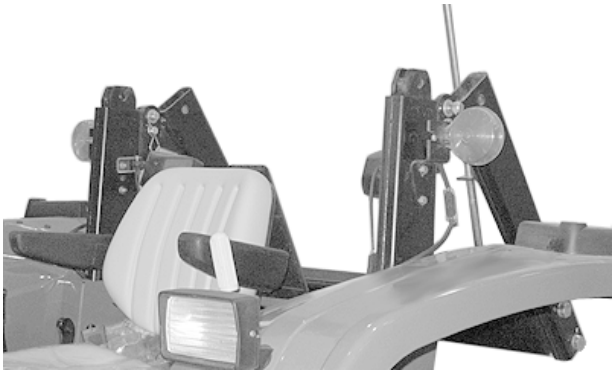


P15216 —UN—28JAN08

Operating Position



P15217 —UN—28JAN08



P15218 —UN—28JAN08

ROPS Folded

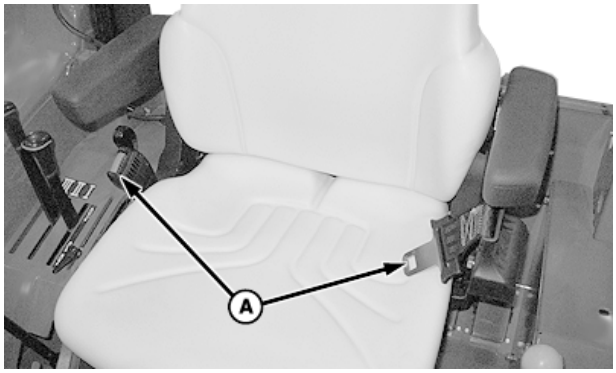
NS43404,000043E -19-29JAN08-1/1

Using Seat Belt

CAUTION: Use a seat belt when you operate with a roll-over protective structure (ROPS) to minimize chance of injury from an accident such as an overturn. DO NOT use seat belt when ROPS is folded down.

To properly retain operator, seat belt (A) must fit snugly across abdomen. Seat belt extends as necessary to fit comfortably.

Inspect seat belt and mounting hardware annually. (See INSPECT SEAT BELTS in General Maintenance and Inspection section.)



P15219 —UN—29JAN08

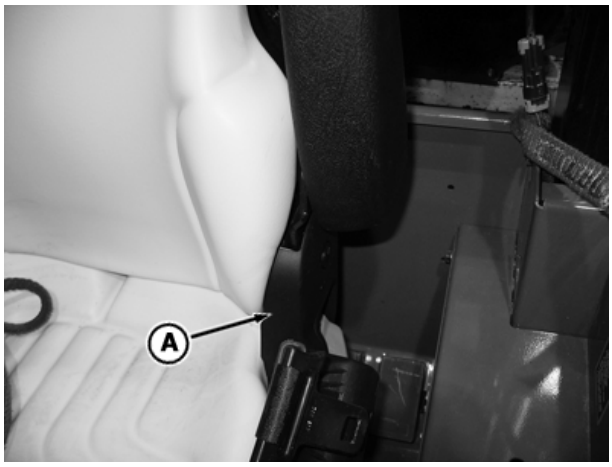
A—Seat Belt

OUMX005,0002912 -19-09APR08-1/2

Armrest Height:

1. Pry plastic cover (A) away from seat.
2. Loosen nut (B).
3. Slide armrest up or down in adjustment slots to desired height and tighten hardware.
4. Repeat procedure for opposite armrest.

A—Plastic Cover **B—Nut**



P15414 —UN—09APR08

P15415 —UN—09APR08

OUMX005,0002912 -19-09APR08-2/2

Adjusting Seat (If Equipped)

CAUTION: To avoid accidents, adjust seat before driving.

Forward or Backward: Lift lever (A), move seat to desired position and release lever to lock in position.

Backrest: Lift lever (B) and tilt backrest to desired position. Release lever to lock in place.

Weight: Rotate lever (C) away from seat and turn:

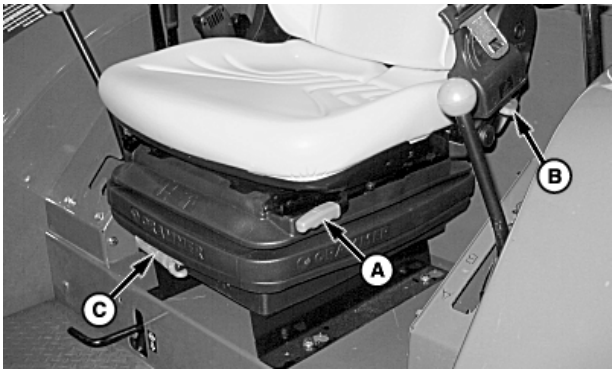
- Clockwise—Increase load
- Counterclockwise—Reduce load

Desired weight setting appears in display window (D). Weight level range is 50-130 kg (110-285 lbs.). Rotate lever toward seat when done.

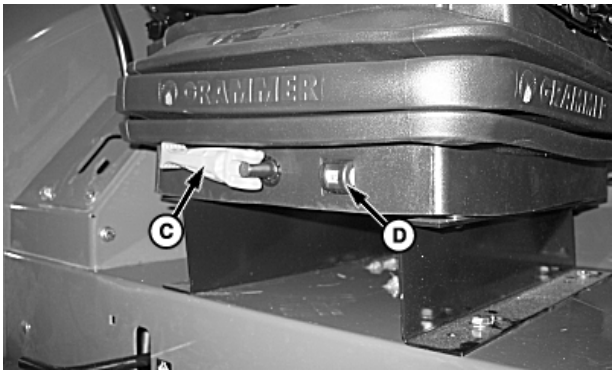
IMPORTANT: Internal damage could occur to the seat mechanism. When turning weight adjustment lever to reduce load; stop turning handle when seat reaches minimum weight adjustment position and handle resistance increases.

NOTE: Suspension should not bottom out when properly adjusted.

Height: To adjust the seat upward, lift seat pan until it clicks into place (maximum of 3 detent positions). To adjust downward, lift the seat to the stop position and then lower it.



P14885 —UN—21NOV07



P14886 —UN—21NOV07

A—Forward/Backward Adjustment Lever
B—Backrest Adjustment Lever
C—Weight Adjustment Lever
D—Display Window

NS43404,0000440 -19-15APR08-1/1

Adjusting Seat (If Equipped)

Move lever (A) sideways and slide seat closer to, or away from, dash panel and controls.

A—Seat Adjustment Lever—Fore-and-Aft

P10206 —UN—09JUL01

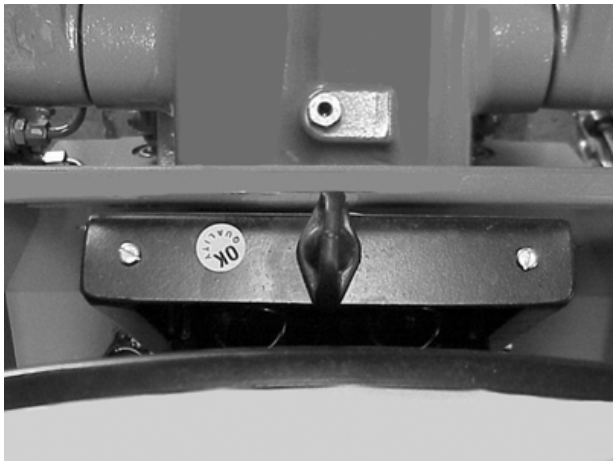
Continued on next page

OU1092A,00001CB -19-09APR08-1/2

Adjustment knob is located behind seat back.

Turn adjustment knob as needed for a firm or soft ride. Turning the knob clockwise stiffens seat cushion and counterclockwise softens it. Weight markings are suggested settings according to operator's weight.

A—Seat Adjustment Knob



P111545 —UN—26JUL02

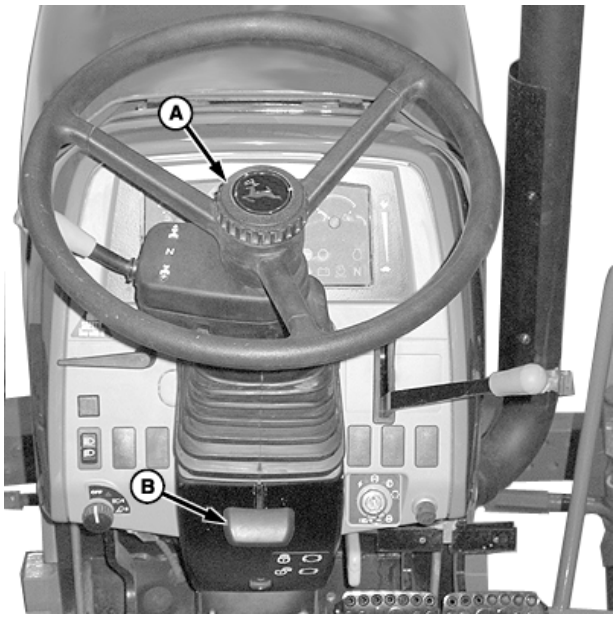
OU1092A,00001CB -19-09APR08-2/2

Adjusting Steering Wheel

Tilt (If Equipped): Lift lever (B) and move steering column to desired angle. Release lever to lock into position.

Wheel Height (Telescoping) (If Equipped): Loosen ring (A) and raise or lower steering wheel to desired height. Tighten ring to lock into position.

A—Height Adjustment Ring **B—Angle Adjustment Lever**



P15221 —UN—14APR08

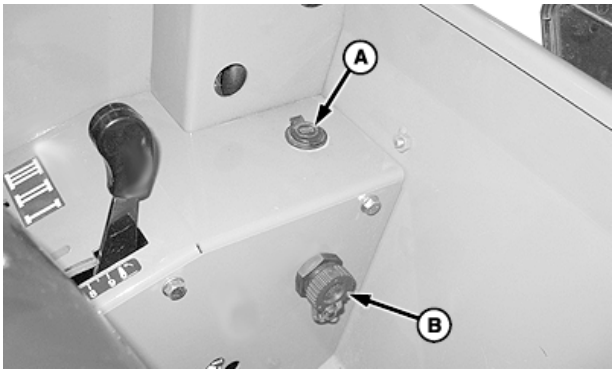
OUMX005,0002914 -19-29JAN08-1/1

Accessory Electrical Outlets

NOTE: Outlets are protected by two 30-amp fuses.

A—(12-Volt Power) Outlet

B—Service ADVISOR™ Outlet (Tractors with electronic controllers)



P14857 —UN—29JAN08

Right-Hand Panel

Service ADVISOR is a trademark of Deere & Company

OUMX005,0002915 -19-10APR08-1/1

Operator's Manual Storage Compartment

Lift tab and open storage compartment cover located on rear of left fender.

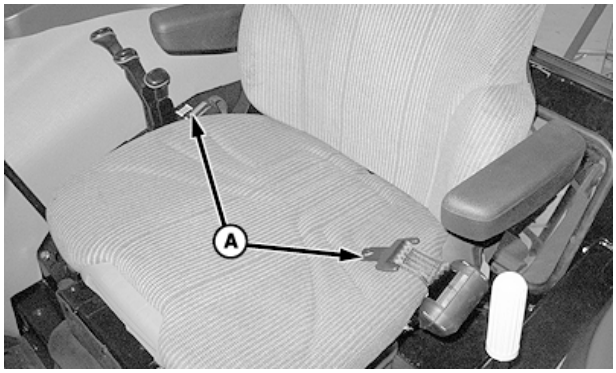
OUMX005,0002916 -19-07APR08-1/1

Using Seat Belt

CAUTION: Use a seat belt when you operate with a roll-over protective structure (ROPS) to minimize chance of injury from an accident such as an overturn.

To properly retain operator, seat belt (A) must fit snugly across abdomen. Seat belt extends as necessary to fit comfortably.

Inspect seat belt and mounting hardware annually. (See INSPECT SEAT BELTS in General Maintenance and Inspection section.)



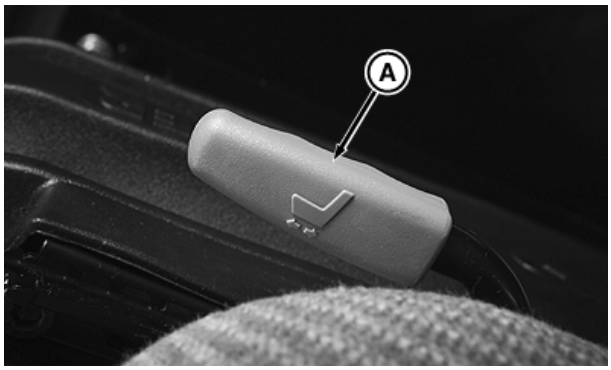
P15220 —UN—29JAN08

A—Seat Belt

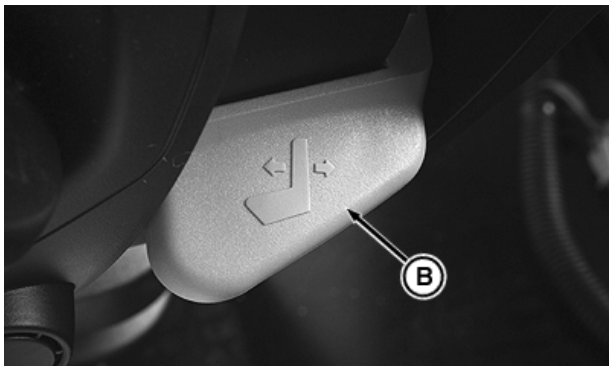
OUMX005,0002913 -19-29JAN08-1/1

Adjusting Seat (Mechanical Suspension)

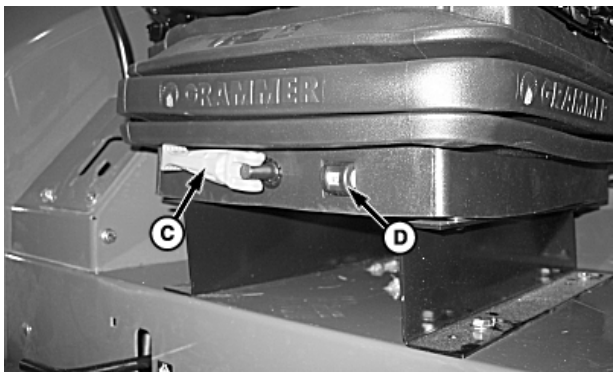
CAUTION: To avoid accidents, adjust seat before driving.



P15306 —UN—25MAR08



P15307 —UN—25MAR08



P14886 —UN—21NOV07

P15305 —UN—26MAR08

A—Forward/Backward Adjustment Lever **B—Backrest Adjustment Lever** **C—Weight Adjustment Lever** **D—Display Window**

Forward or Backward: Lift lever (A), move seat to desired position and release lever to lock in position.

Backrest: Lift lever (B) and tilt backrest to desired position. Release lever to lock in place.

Weight: Rotate lever (C) away from seat and turn:

- Clockwise—Increase load
- Counterclockwise—Reduce load

NOTE: Suspension should not bottom out when properly adjusted.

Desired weight setting appears in display window (D). Rotate lever toward seat when done.

Continued on next page

NS43404,000055F -19-12JUN09-1/3

Height: To adjust the seat upward, lift seat pan until it clicks into place (maximum of 3 detent positions). To adjust downward, lift the seat to the stop position and then lower it.

NS43404,000055F -19-12JUN09-2/3

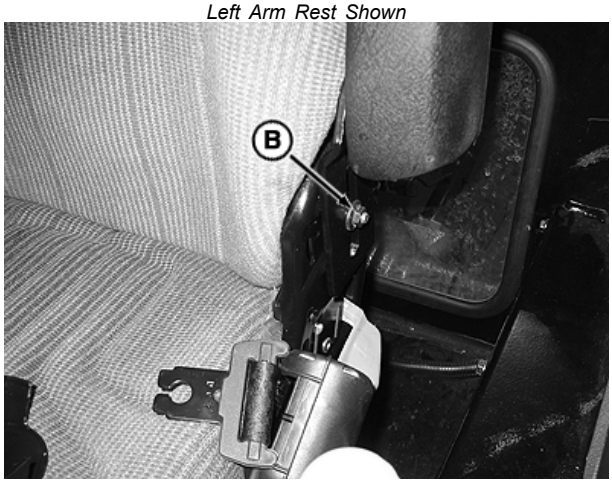
Armrest Height:

1. Pry plastic cover (A) away from seat.
2. Loosen nut (B).
3. Slide armrest up or down in adjustment slots to desired height and tighten hardware.
4. Repeat procedure for opposite armrest.

A—Plastic Cover **B—Nut**

P15427 —UN—10APR08

Left Arm Rest Shown



P15428 —UN—10APR08

NS43404,000055F -19-12JUN09-3/3

Adjusting Seat (Air Suspension)

CAUTION: To avoid accidents, adjust seat before driving.

Seat Bottom—Forward/Backward: Lift lever (A) to allow seat bottom to slide forward or backward. Release lever to lock in position.

Seat Bottom—Angle: Lift lever (B) to allow seat to tilt up or down. Release lever to lock in position.

Height (Air Suspension) Adjustment: While seated, move lever (C):

- Down—Seat lowers. Release lever to lock seat in position.
- Up:
  a. Turn key switch to RUN position. Seat raises.
  b. Release lever to lock seat in position.
  c. Turn key switch to OFF position.

Forward or Backward Suspension: Rotate lever (D) to desired position:

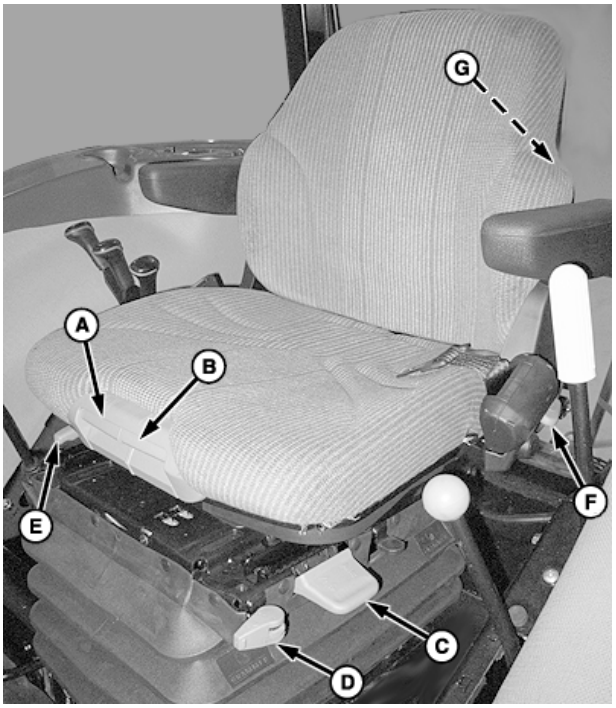
- Lever facing front (shown)—Lock
- Lever facing rear—Unlock

Forward or Backward Adjustment: Lift lever (E) and move seat to desired position. Release lever to lock in position.

Backrest—Angle: Lift lever (F) and tilt backrest to desired position. Release lever to lock in place.

Backrest—Lumbar Support: Turn knob (G) to increase or decrease support to lower back.

A—Seat Bottom Forward/Backward Position Lever
B—Seat Bottom Angle Lever
C—Height (Air Suspension) Adjustment Lever
D—Forward/Backward Suspension Lock
E—Forward/Backward Adjustment Lever
F—Backrest Angle Adjustment Lever
G—Backrest Lumbar Support Knob



P15225 —UN—29JAN08

P15228 —UN—30JAN08

Back of Seat

Continued on next page

OUMX005,0002911 -19-17JUN09-1/2

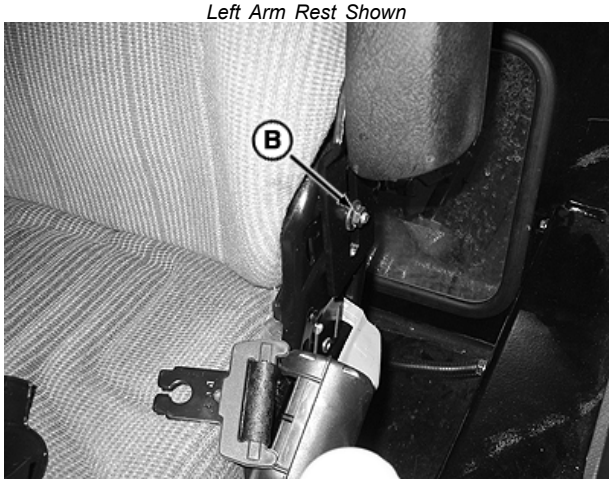
Armrest Height:

1. Pry plastic cover (A) away from seat.
2. Loosen nut (B).
3. Slide armrest up or down in adjustment slots to desired height and tighten hardware.
4. Repeat procedure for opposite armrest.

A—Plastic Cover **B—Nut**

P15427 —UN—10APR08

Left Arm Rest Shown



P15428 —UN—10APR08

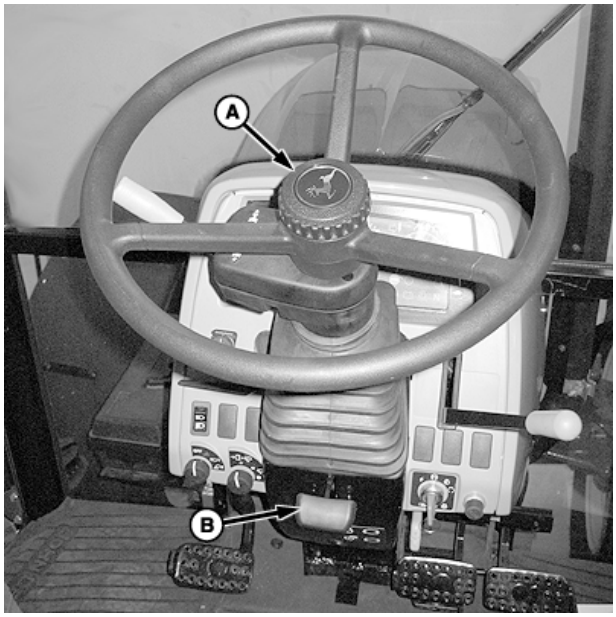
OUMX005,0002911 -19-17JUN09-2/2

Adjusting Steering Wheel

Tilt: Lift lever (B) and move steering column to desired angle. Release lever to lock into position.

Wheel Height (Telescoping): Loosen ring (A) and raise or lower steering wheel to desired height. Tighten ring to lock into position.

A—Height Adjustment Ring **B—Angle Adjustment Lever**



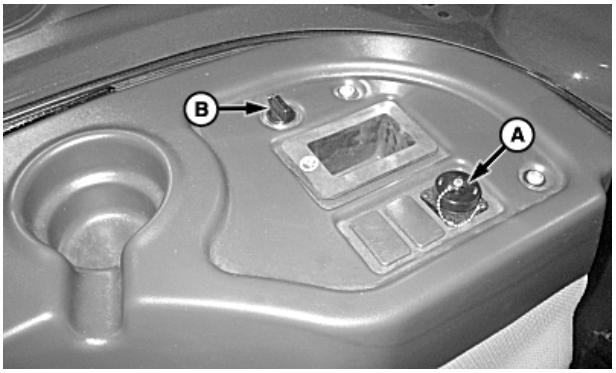
P15223 —UN—29JAN08

OUMX005,0002917 -19-29JAN08-1/1

Accessory Electrical Outlets

NOTE: Outlet is protected by two 30-amp fuses.

A—12-Volt Electrical Outlet **B—12-Volt Power Outlet**



P14856 —UN—20NOV07

NS43404,000044C -19-09APR08-1/1

Operator's Manual Storage Compartment

Lift tab (A) and pull cover away from seat.

A—Tab

P15224 —UN—29JAN08

OUMX005,0002918 -19-29JAN08-1/1

Opening Windows

Side and rear windows can be opened for better ventilation.

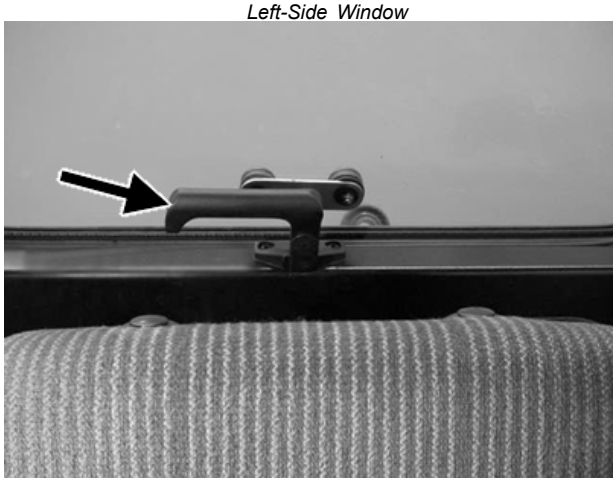
Side: Pull handle toward rear and push to lock open.

Rear: Rotate handle clockwise and push out.

NOTE: Rear window opening provides a large exit path if cab doors are blocked in case of an emergency.

P12674 —UN—24NOV03

Left-Side Window



P12675 —UN—24NOV03

Rear Window

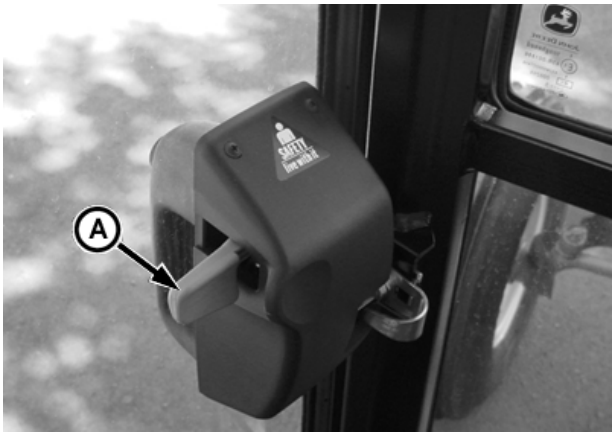
NS43404,0000443 -19-29JAN08-1/1

Opening Door

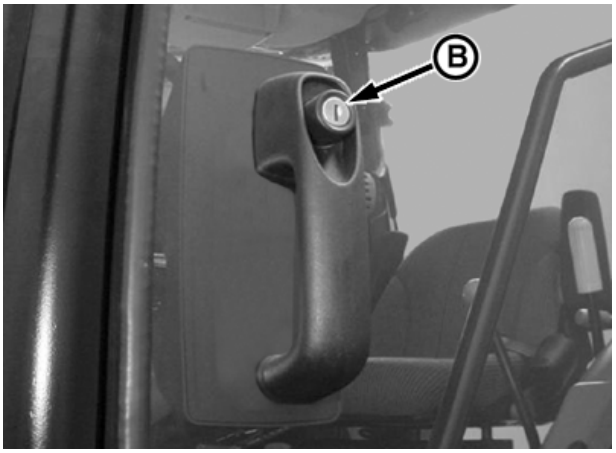
Pull handle (A) from inside of cab and push door.

Press knob (B) from outside of cab and pull door.

A—Handle **B—Knob**



P12676 —UN—04JUL05



P12677 —UN—24NOV03

OUMX005,0002919 -19-29JAN08-1/1

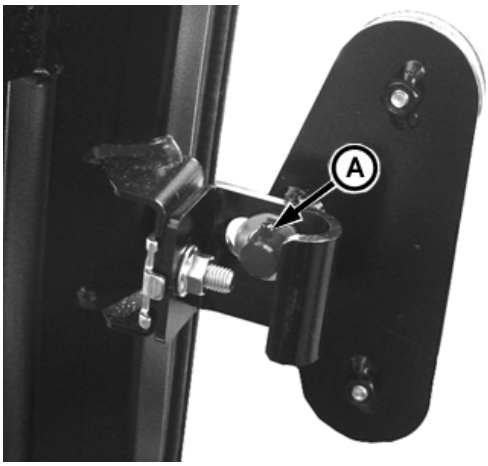
Emergency Exit

⚠ CAUTION: Make sure no one is near emergency exit. Panel will fall out when retaining pin (A) is removed.

NOTE: Option not available in North America.

Remove retaining pin (A) and push on right-hand glass panel.

A—Retaining Pin



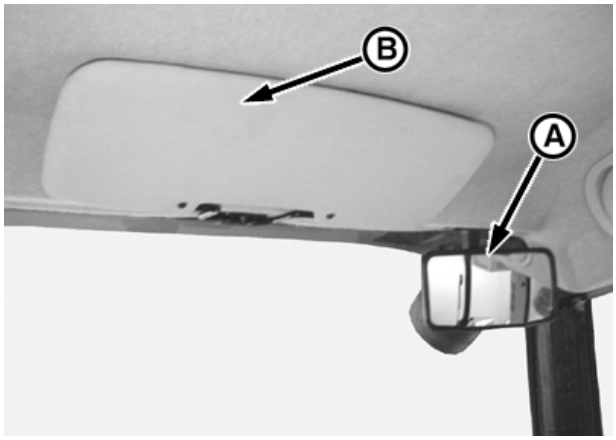
P12678A —UN—07JUL05

Right-Hand Side Panel

NS43404,0000445 -19-26MAR08-1/1

Inside Rear View Mirror and Sun Visor

A—Inside Rear View Mirror **B—Sun Visor**



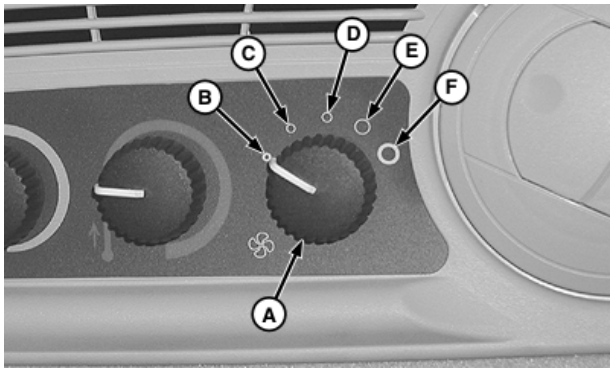
P12679 —UN—24NOV03

OUMX005,000291A -19-29JAN08-1/1

Adjusting Blower Speed

Turn control knob (A) to desired setting. For rapid cab cool down, use the purge setting (F).

A—Blower Speed Control Knob
B—Off
C—Low
D—Medium
E—High
F—Purge



LV8414 —UN—14JUL03

OUO1043,00002B7 -19-28JUN04-1/1

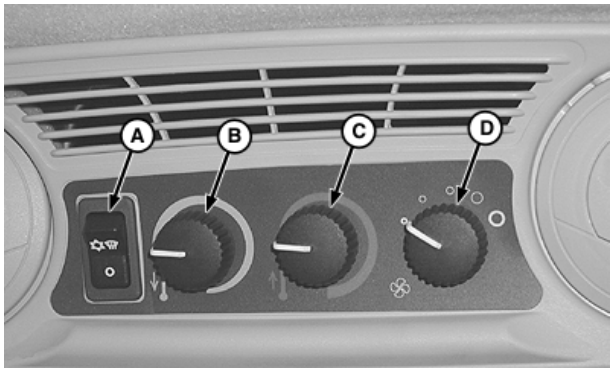
Controlling Temperature

Push top half of switch (A) to turn air conditioning and deicing ON and push bottom half to turn it OFF.

Turn control knob (B) to adjust air conditioning temperature.

Turn control knob (C) to adjust heater temperature.

A—Air Conditioning and Deicing Switch
B—Air Conditioning Temperature Control Knob
C—Heater Temperature Control Knob
D—Blower Speed Control Knob



LV8415 —UN—14JUL03

OUO1032,00016CE -19-14APR05-1/1

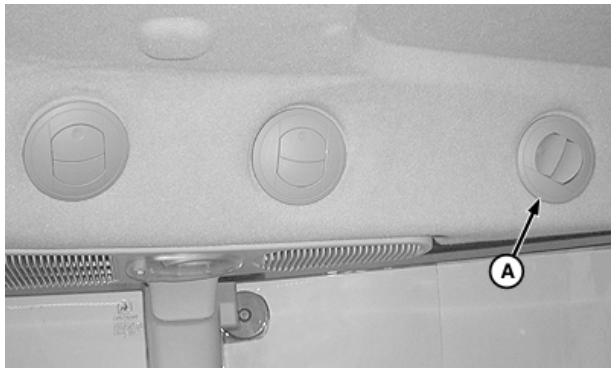
Deicing, Demisting or Defrosting Windshield

1. Aim two front vents (A) toward windshield.

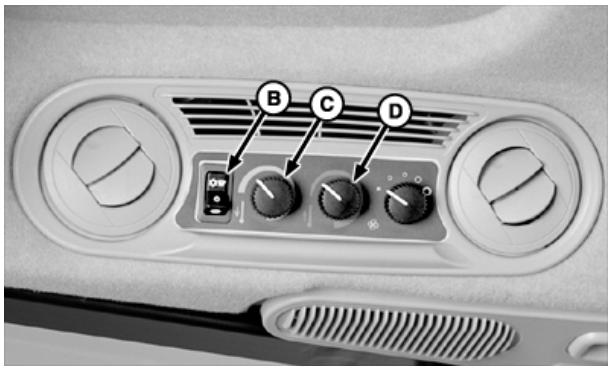
NOTE: Closing middle and rear vents will help clear windshield faster.

2. Press top half of deicing switch (B) and turn A/C temperature control knob (C) to full counterclockwise position.
3. Turn heater temperature control knob (D) clockwise to obtain desired temperature.

A—Front Vent
B—Deicing Switch
C—A/C Temperature Control Knob
D—Heater Temperature Control Knob



LV8596 —UN—14AUG03



LV10324 —UN—21SEP04

OUO1023,00027F1 -19-14MAR06-1/1

Optimizing A/C and Heater Performance

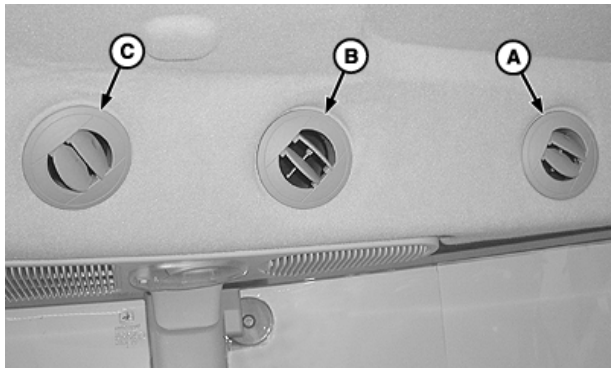
Adjust individual vents to target heating or cooling:

- Position front vents (A) toward legs and mid-body.
- Position middle vents (B) toward your head.
- Position rear vents (C) toward your back.

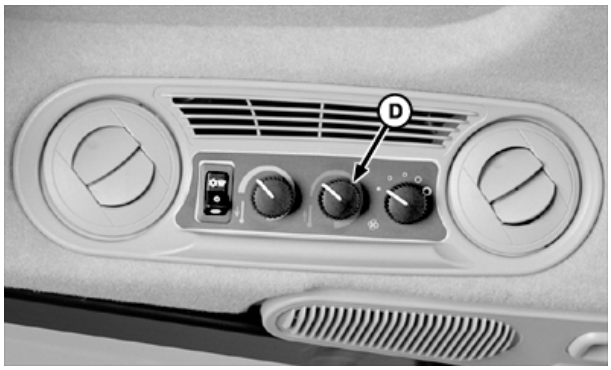
NOTE: For maximum cooling effect, turn heater temperature control knob (D) to full counterclockwise position.

Position all vents (A, B, and C) down to heat the floor and feet.

A—Front Vent
B—Middle Vent
C—Rear Vent
D—Heater Temperature Control Knob



LV10325 —UN—21SEP04



LV10326 —UN—21SEP04

OUO1080,00002AB -19-26MAR08-1/1

Operating Windshield Wiper and Washer

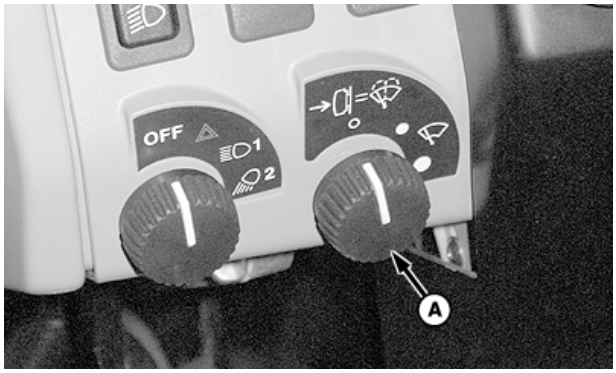
Rotate wiper switch (A) to move windshield wipers to OFF, SLOW or FAST position.

Push switch to activate windshield washer.

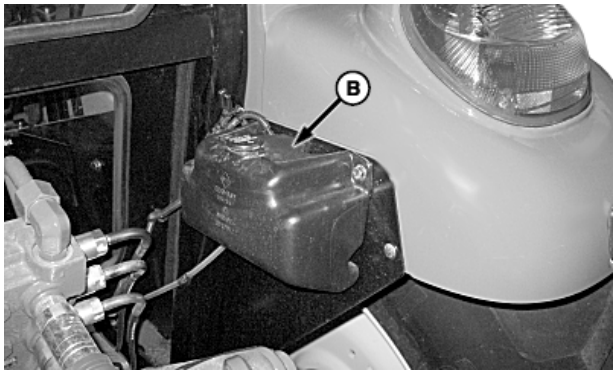
Fill reservoir (B) with non-freezing windshield washer fluid. Reservoir is located behind cab on inside of right rear fender.

A—Windshield Wiper/Washer Switch

B—Washer Fluid Reservoir



P15226 —UN—29JAN08



P14855 —UN—29JAN08

Rear, Right-Hand Side

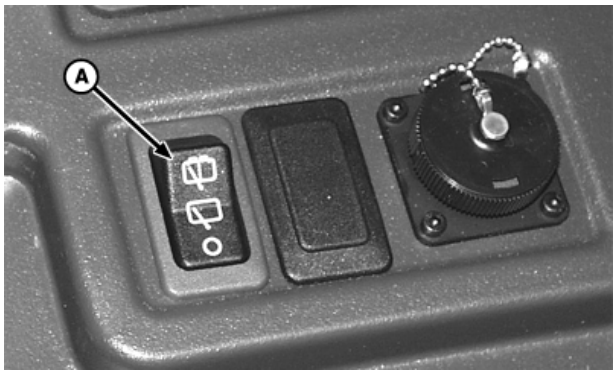
OUMX005,000291B -19-29JAN08-1/1

Operating Rear Window Wiper and Washer—If Equipped

Switch (A) has three positions:

- Top WASH position—Hold switch down to activate washer.
- Center ON position—Rear window wiper is activated.
- Bottom OFF position.

A—Rear Window Wiper/Washer Switch



LV09216 —UN—22JUL04

OUO1032,00016CF -19-14APR05-1/1

Using Auxiliary Power Strip (If Equipped)

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

The power strip provides six outlets of 12-volt power with grounds. This power is 30-amp switched and 30-amp unswitched. The connectors can be used when connecting auxiliary equipment.

Adapters plug directly into power strip as unswitched power. To change to switched power on power plug adapter or standard adapter (three wires), remove small tab at end of slot on plug and rotate plug 180°.

*NOTE: The small white dot on adapter plug face next to cap hinge indicates circuit is **unswitched**. If dot is opposite cap hinge, circuit is **switched**.*

Adapters are available from your John Deere dealer for the following:

LV9485 —UN—28JUL04

Top of Right-Hand Console

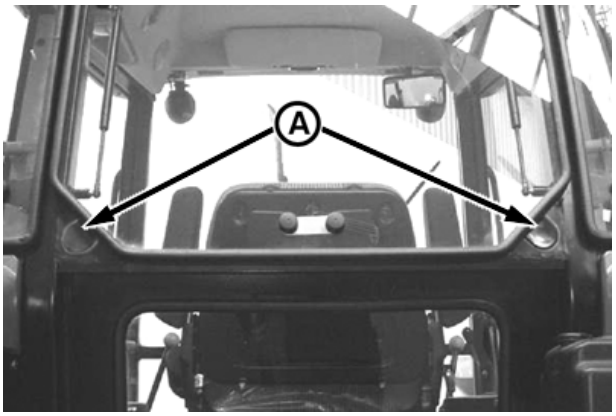
- Power plug adapters
- Three-way convenience adapters
- Standard adapters

OUMX005,00018F6 -19-21JUL04-1/1

Routing Cables and Harnesses

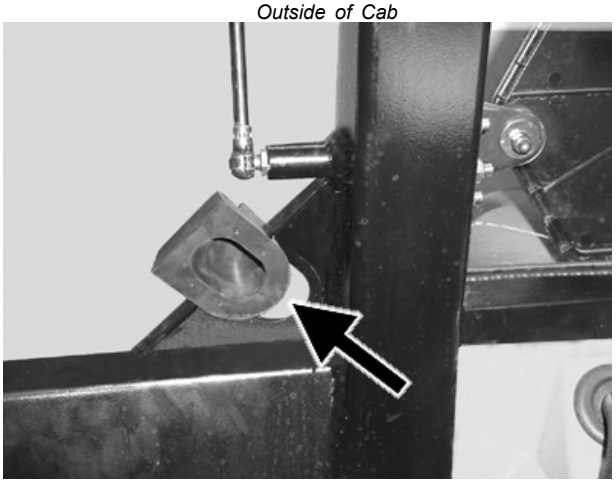
Rear window frame of cab has two openings, allowing cables/harnesses to be routed. Open the window and remove rubber plugs (A). Cut rubber plugs at the incisions provided, to allow cables/harnesses to be routed through the plugs. Connect the cable/harness ends, insert rubber plugs and close the window.

A—Rubber Plugs



P12681 —UN—24NOV03

Outside of Cab

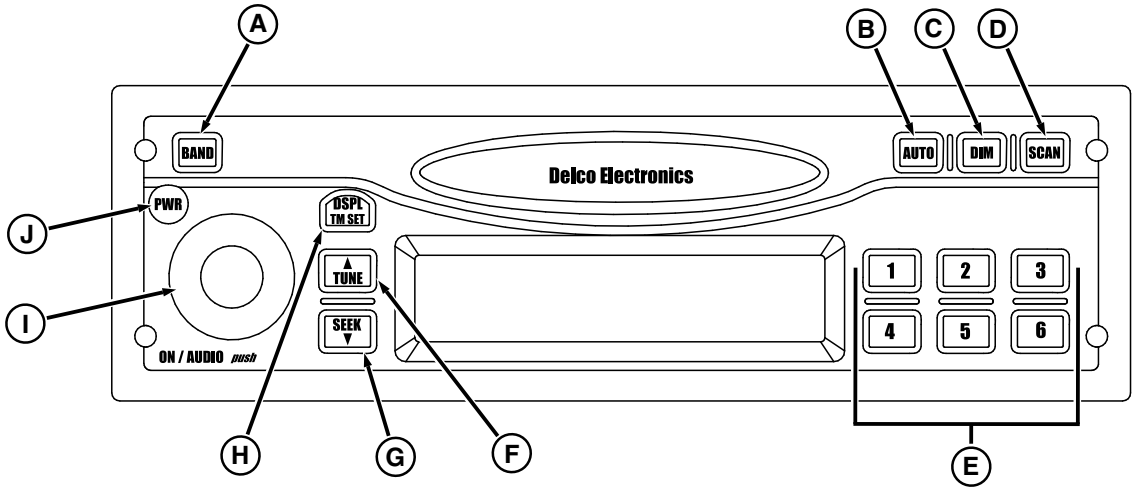


P12682 —UN—24NOV03

Inside of Cab

OUMX005,000291C -19-29JAN08-1/1

Operating Radio (AM/FM)



RXA0065270 —UN—05FEB03

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

Press BAND (A) to select FM1, FM2, AM, SAT or WX (Weather).

Press TUNE (F) once to tune to the next higher station. Press SEEK (G) once to tune to the next lower station.

Press and hold both TUNE (F) and BAND (A) to switch between manual tune mode and ”seek” mode.

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.

Press SCAN (D) 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.

Storing Preset Stations:

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

Press AUTO (B) 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.

Press DISPL/TM SET (H) to switch between displays. When the receiver is in AM, FM1, FM2, SAT or WX, the display will switch between frequency and time of day.

Adjust volume, bass, treble, fade, and balance by pressing and releasing ON/AUDIO knob (I) repeatedly until desired function appears on display. Rotate ON/AUDIO knob for adjustment.

Adjust brightness of display by pressing (C) until ”DIM” appears on display. Rotate ON/AUDIO knob to adjust.

OURX986,00002A7 -19-06AUG08-1/1

Operating Radio with Compact Disc Player (If Equipped)

NOTE: Press Power with ignition switched off. Radio will play up to one hour, then shut off automatically.

Press BAND to select FM1, FM2, AM, SAT or WX (Weather).

Press TUNE (A) once to tune to the next higher station. Press SEEK (B) once to tune to the next lower station.

Press and hold both TUNE (A) and BAND to switch between manual tune mode and ”seek” mode.

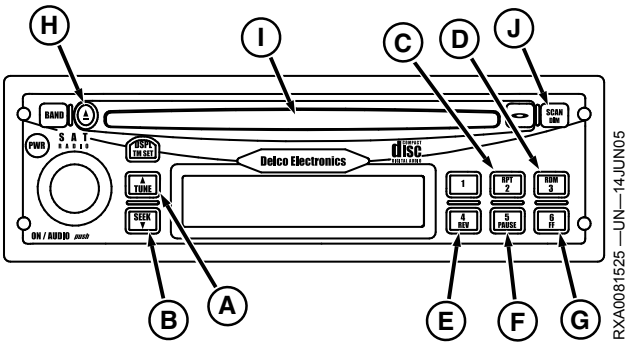
Holding SEEK longer than half a second begins the ”seek” function. When a station with a strong enough signal is found, ”seek” function will stop at that station.

Press SCAN (J) 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.

Storing Preset Stations:

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

Press DISPL/TM SET button to switch between displays. When the receiver is in AM, FM1, FM2, SAT or WX, the display will switch between frequency and time of day.



A—Tune
B—Seek
C—Preset Station/RPT-Repeat
D—Preset Station/RDM-Random
E—Preset Station/REV-Fast Reverse
F—Preset Station/PAUSE-Pause
G—Preset Station/FF-Fast Forward
H—Eject CD
I— Slot
J— Scan/Dim

Adjust volume, bass, treble, fade, and balance by pressing and releasing ON/AUDIO knob repeatedly until desired function appears on display. Rotate ON/AUDIO knob for adjustment.

OURX986,00002A9 -19-06OCT05-1/1

Operating Compact Disc Player (If Equipped)

Switch ignition and receiver to ON position.

Insert compact disc into slot (I), label side up.

Press (A) to forward to the next track. Press (B) to reverse to the beginning of the track.

Press (C) to repeat the current track. Press (D) for random track selection.

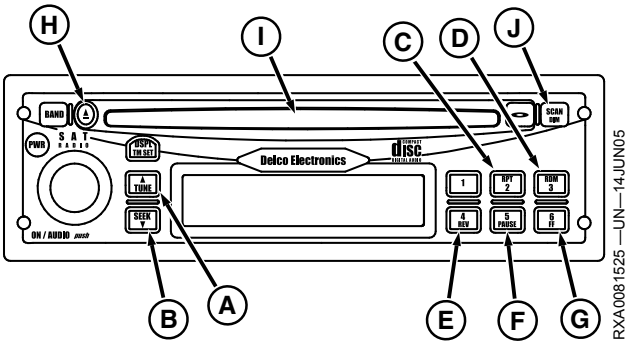
Press and hold (E) to fast reverse. Release to play at normal speed.

Press (F) to pause the CD. Press (F) again to resume play.

Press and hold (G) to fast forward. Release button to play at normal speed.

Press (H) to eject CD.

Press (J) 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 (J) again to cancel.



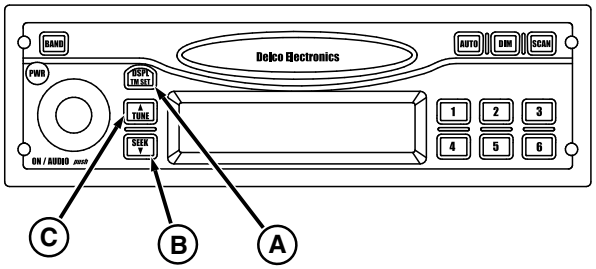
A—TUNE-Forward
B—SEEK-Reverse
C—RPT-Repeat
D—RDM-Random
E—REV-Fast Reverse
F—PAUSE-Pause
G—FF-Fast Forward
H—Eject CD
I— Slot
J— Scan/Dim

OU1092A,0000488 -19-02SEP05-1/1

Setting Clock

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
B—SEEK
C—TUNE



RXA0065276 —UN—05FEB03

OURX986,00002AE -19-13SEP04-1/1

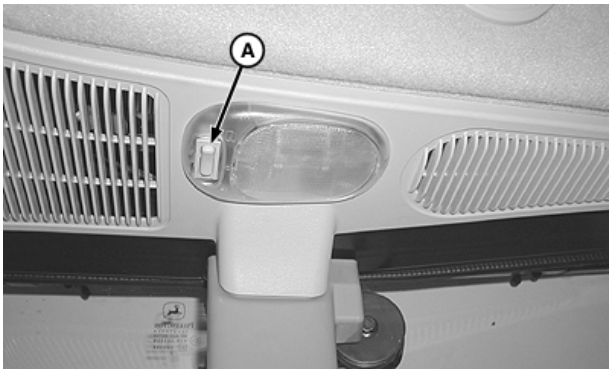
Using Dome Light

Dome light switch (A) has three positions:

- ON turns the dome light on.
- Dome light comes on when left-hand door is opened and off when left-hand door is closed.
- OFF turns the dome light off.

IMPORTANT: Before exiting cab, turn dome light to OFF or DOOR position to avoid causing battery to lose its charge.

A—Dome Light Switch



LV8418 —UN—14JUL03

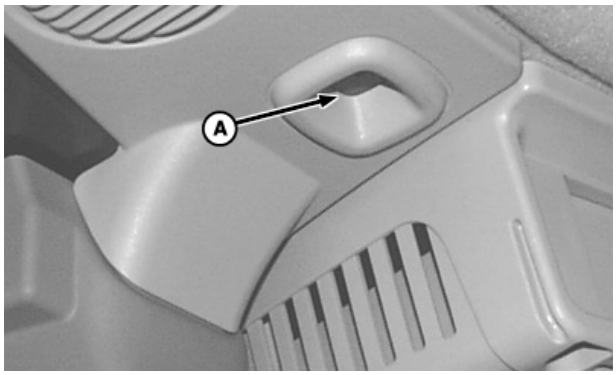
OUO1023,00028C5 -19-25MAR08-1/1

Using Courtesy Light

Courtesy light (A) is on when light switch is in the following positions:

- Triangle (Warning)
- Position 1 (Road Lights)
- Position 2 (Field Lights)

A—Courtesy Light



LV09217 —UN—22JUL04

Light above Right-Hand Control Panel

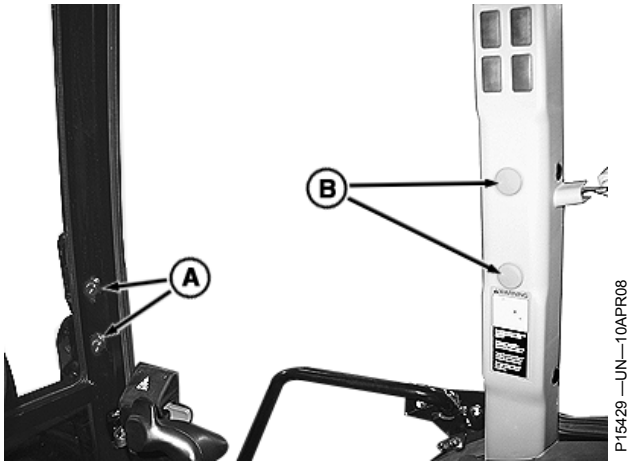
OUMX005,000291D -19-30JAN08-1/1

Using Monitor Mounts

There are two locations to attach monitors and controls in the cab:

- Front right post (A).
- Right center post (remove plugs [B]).

A—Mounting Locations **B—Plugs (Mounting Locations)**



OUMX005,000291E -19-10APR08-1/1

Engine Operation—*Break-In Check*

IMPORTANT: The engine is ready for normal operation. Extra care during the first 100 hours of operation will result in more satisfactory long-term engine performance and life. DO NOT exceed 100 hours of operation with break-in oil.

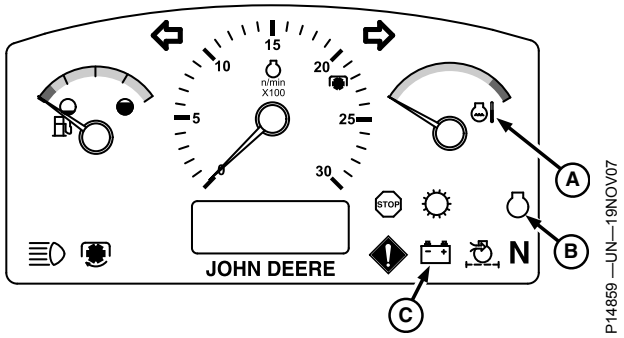
1. Warm up engine at slow rpm. Check coolant temperature gauge (A), oil pressure (B) and charging (C) warning indicators.
2. **Operate the engine at heavy loads with minimal idling during the break-in period.**
   During the first 20 hours, avoid prolonged periods of engine idling or sustained maximum load operation. If engine will idle longer that 5 minutes, stop the engine.
3. Check engine oil, coolant, transmission/hydraulic, and mechanical front wheel drive (if equipped) fluid levels frequently. Watch for fluid leaks.

NOTE: Some increase in oil consumption may be expected when low viscosity oils are used. Check oil levels more frequently.

If air temperature is below -10° C (14° F), use an engine block heater.

IMPORTANT: This engine is factory-filled with John Deere ENGINE BREAK-IN OIL.

If the engine has significant operating time at idle, constant speeds, and/or light load usage, or makeup oil is required in the first 100 hour period,



P14859 —UN—19NOV07

A—Coolant Temperature Gauge
B—Oil Pressure Indicator
C—Charging Indicator

a longer break-in period may be required. In these situations, an additional 100 hour break-in period is recommended, using a new change of John Deere Engine BREAK-IN OIL and a new John Deere oil filter.

Check engine oil level more frequently during engine break-in period.

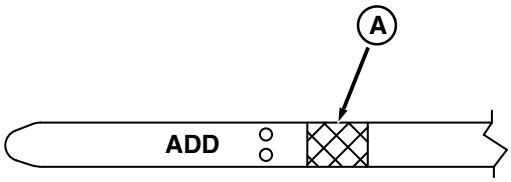
DO NOT add makeup oil until the oil level is BELOW the ADD mark on dipstick. John Deere ENGINE BREAK-IN OIL should be used to make up any oil consumed during the break-in period.

NS43404,0000455 -19-18APR08-1/2

DO NOT fill above the crosshatch pattern (A) or the FULL mark, whichever is present. Oil levels anywhere within the crosshatch are considered in the acceptable operating range.

After the first 100 hours (maximum), change engine oil and replace engine oil filter. See CHANGING ENGINE OIL AND REPLACING FILTER in Lubrication and Maintenance/500 Hour/12 Month Section. Fill crankcase with seasonal viscosity grade oil. See DIESEL ENGINE OIL in Fuel, Lubricants and Coolant section.

If John Deere BREAK-IN OIL is not available, see ENGINE BREAK-IN OIL, in Fuels, Lubricants and Coolant Section.



P15487 —UN—15APR08

Dipstick Crosshatch Pattern

A—Crosshatch Pattern

NS43404,0000455 -19-18APR08-2/2

Break-In Service—*During First 10 Hours of Operation*

IMPORTANT: Keep wheel hardware tight to avoid tractor damage. Check torque on wheel bolts before operating, twice during first ten hours of operation, after fifty hours of operation, and periodically thereafter.

- **Use only John Deere ENGINE BREAK-IN OIL if needed. (See DIESEL ENGINE BREAK-IN OIL in Fuels, Lubricants and Coolant section.)**
- **Perform service listed for 10 hours in SERVICE INTERVAL CHART in Maintenance and Service Intervals section.)**
- **Tighten wheel bolts. (See Wheels, Tires and Treads section.)**

NS43404,0000456 -19-02APR08-1/1

Break-In Check—*After First 50 Hours of Operation*

- **Tighten wheel bolts. (See Wheels, Tires and Treads section.)**
- **Check alternator/fan belt tension.**
- **Tighten air intake hose clamps. (See CHECK ENGINE AIR INTAKE SYSTEM in General Maintenance and Inspection section.)**
- **Check cooling system hose clamps. (See CHECK COOLING SYSTEM FOR LEAKS in Maintenance—Cooling System section.)**
- **Check brake linkage and brake pedal adjustment. (See ADJUST BRAKE PEDAL FREE TRAVEL in General Maintenance and Inspection section.)**
- **Perform service listed for 50 hours in SERVICE INTERVAL CHART in Maintenance and Service Intervals section.**

RW29387,0000121 -19-02APR08-1/1

Break-In Check—*After First 100 Hours of Operation*

IMPORTANT: If tractor was used under light load conditions during first 100 hours, refill with John Deere Break-in Oil for an additional 100 hours to allow engine to break-in properly. (See Fuel, Lubricants and Coolant section.)

- **Change engine oil and filter. (See procedure in Lubrication section.)**
- **Replace transmission/hydraulic oil filter. (See procedure in Lubrication section.)**
- **Change MFWD axle oil and MFWD wheel hub oil. (See procedures in Lubrication section.)**

RW29387,0000120 -19-02APR08-1/1

Prestarting Checks

Service Daily Before Start-Up

1. Check engine oil level. (See CHECK ENGINE OIL LEVEL in Lubrication section.)
2. Check hydraulic oil level through sight glass. (See CHECK TRANSMISSION/HYDRAULIC SYSTEM OIL LEVEL in Lubrication section.)
3. Drain water and sediment from fuel filters. (See procedure in Maintenance—Fuel System section.)
4. Check level in coolant overflow reservoir. (See CHECK COOLANT LEVEL in Maintenance—Cooling System section.)

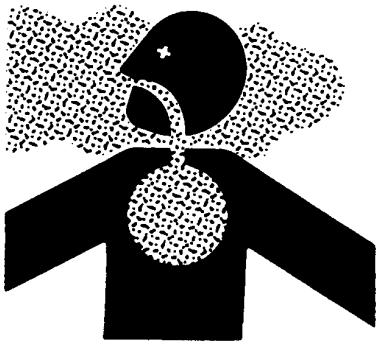
IMPORTANT: If operating in extremely wet or muddy conditions, lubricate several additional components daily.

5. If operating in extremely wet or muddy conditions, lubricate the following at 10-hour service intervals (See procedures in Lubrication section):
   - Front axle pivot pin
   - Steering linkage
   - MFWD shaft
   - Front wheel bearings (2WD)
   - Rear axle bearings
   - Hood latch

OUMX005,000290A -19-27MAY09-1/1

Before Starting the Engine

CAUTION: Prevent asphyxiation by providing adequate ventilation. If operating indoors, use an exhaust pipe extension to remove the exhaust fumes or open doors and windows to thoroughly ventilate the area.



TS220 —UN—23AUG88

Continued on next page

NS43404,000055C -19-07APR08-1/2

1. **Standard Transmission:** Put gear shift lever (B) in NEUTRAL.

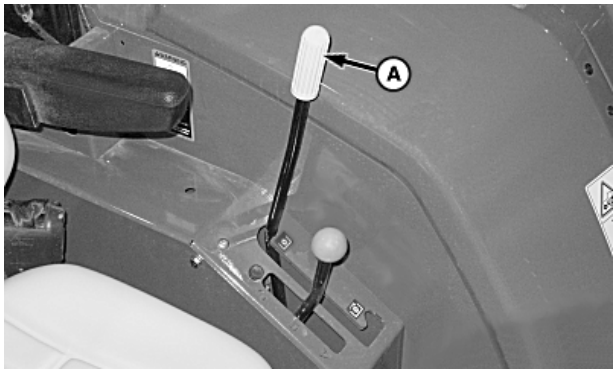
   Transmission with PowrReverser™: Put lever (D) in NEUTRAL.

2. **PTO:** Pull lever (A) back to disengaged position (shown).
3. **Rockshaft:** Push hitch control lever (C) forward.
4. Turn key to RUN position.

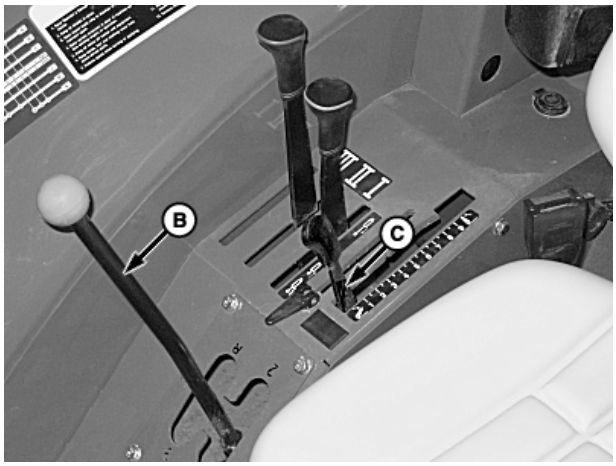
   - All indicator bulbs light momentarily
   - Check fuel level gauge to be sure tractor has plenty of fuel
   - Charging system (battery) and Neutral (N) indicators stay on
   - Numbers display in hour meter window
   - An audible “beep” will sound briefly

   If any indicator does not function properly, see your John Deere dealer.

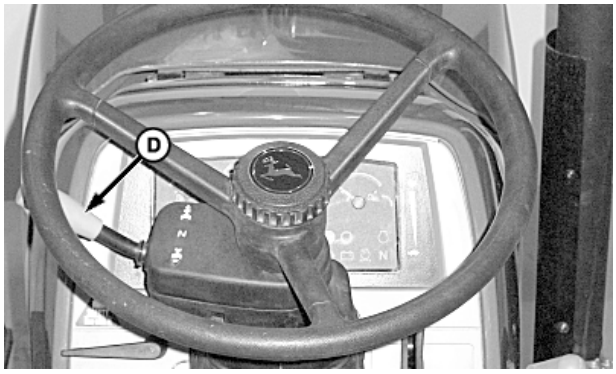
A—PTO Lever
B—Gear Shift Lever
C—Hitch Control Lever
D—PowrReverser Lever (If Equipped)



P14860 —UN—20NOV07



P14861 —UN—20NOV07



P14862 —UN—20NOV07

PowrReverser Lever (If Equipped)

NS43404,000055C -19-07APR08-2/2

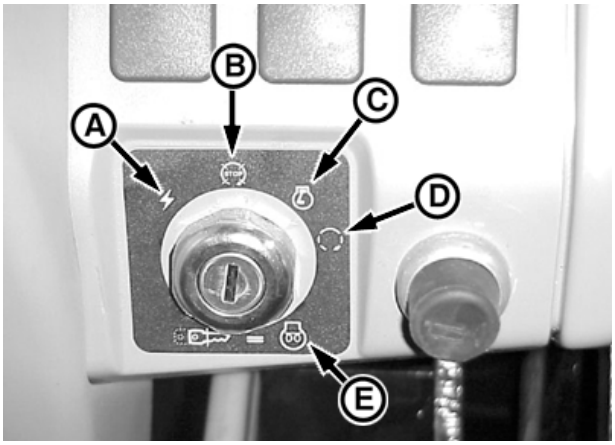
Operating Ignition Switch

Accessory Position (A): Turn key to ACCESSORY position to power electrical functions.

Stop Position (B): Turn key to STOP position to turn off electrical accessories and to shut down engine.

Run Position (C): Turn key to RUN position and check to see if all indicator bulbs light before advancing to START position. Also use RUN position to activate cold weather starting devices (if equipped). If temperature is below 5°C (41°F), refer to STARTING IN COLD WEATHER in this section.

Start Position (D): Turn key to START position to crank and start engine. Key returns to RUN position when released.



P12951 —UN—31MAR04

A—Accessory Position
B—Stop Position
C—Run Position
D—Start Position
E—Cold Weather Start Symbol

OUMX005,000291F -19-30JAN08-1/1

Starting the Engine

CAUTION: NEVER start engine while standing on ground. Do not start engine by shorting across starter terminals. Machine will start in gear and move if normal circuitry is bypassed.

IMPORTANT: DO NOT run a cold engine at full throttle. Idle engine at 1200 rpm until it warms to operating temperature.

DO NOT use starting fluid. An intake air heater is available from your John Deere dealer.

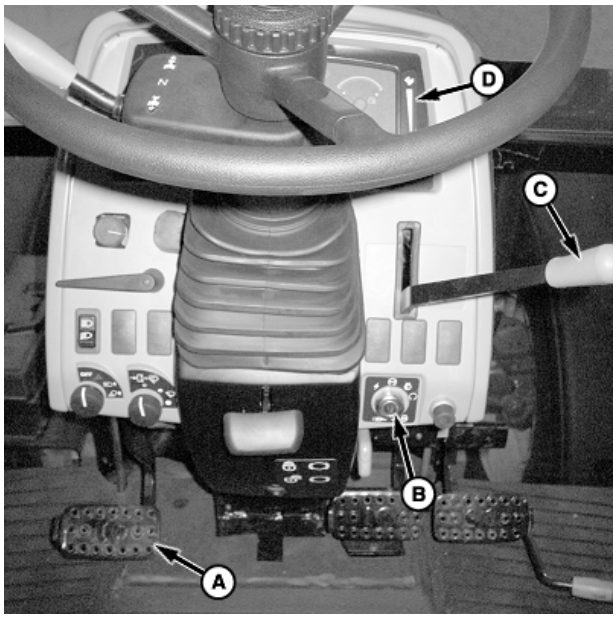
NOTE: If temperature is below 5 °C (40 °F), refer to STARTING IN COLD WEATHER in this section.

1. Start from operator's seat with gear shift lever or PowrReverser™ lever (if equipped) in NEUTRAL.
2. Make sure PTO lever is in disengaged position.
3. Push hand throttle (C) forward, approximately 1/3 of full throttle, as shown on fast/slow indicator (D). Engine may not start with throttle pulled completely down.

IMPORTANT: DO NOT operate starter more than 20 seconds at a time. If engine does not start, wait at least 2 minutes for the starter motor to cool before trying again.

4. Depress clutch pedal (A) and turn key (B) to START position. Release key when engine starts. If key is released before engine starts, wait until starter and engine stop turning before trying again.
5. Warm up tractor carefully. Charging and oil pressure warning indicators should go off and stay off. Coolant temperature gauge should begin to move into normal range.
6. Avoid unnecessary engine idling.

TS177 —UN—11JAN89



P14863 —UN—10APR08

Cab Shown

A—Clutch Pedal
B—Ignition Switch
C—Hand Throttle
D—Fast/Slow Indicator

OUMX005,0002920 -19-07APR08-1/1

Starting in Cold Weather (If Equipped)

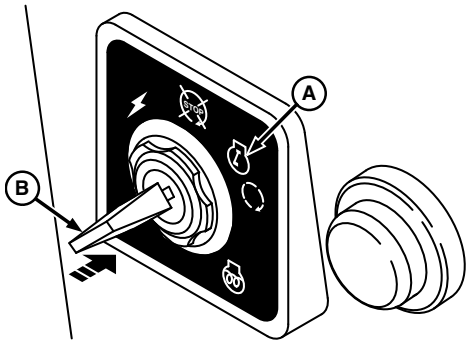
CAUTION: Never use ether or starting fluid when starting the engine using the cold weather starting aid. The heating coils in the device may cause such flammable materials to ignite, resulting in bodily harm or damage to machine.

1. To activate cold weather starting aid, turn key (B) to RUN position (A), push in and hold:
   - 10 or 15 seconds for temperatures above 0°C (32°F)
   - 30 seconds for temperatures below 0°C (32°F)

IMPORTANT: Never turn key to START position while still pressing key into switch.

2. Depress clutch pedal and turn key to START position.

IMPORTANT: If the engine fails to start, do not operate starter for more than 30 seconds at one time. Turn key back to OFF position and wait at least two minutes before trying again, to allow starter motor to cool off.



P9853 —UN—20NOV00

A—RUN Position **B—Ignition Key**

3. After engine starts, do not adjust hand throttle lever. If engine runs rough, press in on key to reactivate cold weather starting aid until engine runs smoothly.
4. Idle engine at 1200 rpm until it warms to operating temperature.

OUMX005,0002921 -19-30JAN08-1/1

Using Engine Coolant Heater (If Equipped)

CAUTION: To avoid shock or hazardous operation, always use a three-wire heavy-duty electrical cord (minimum gauge 10 AWG and no longer than 7.6 m [25 ft]) equipped with three connectors. If a two-to-three contact adapter is used at the wall receptacle, connect green wire to a good ground.

Immerse element in coolant before connecting heater to power source. NEVER energize heater in air.

Located on side of the engine, the 110-volt coolant heater warms the engine coolant, reduces oil drag, eases starting, and shortens warm-up time.

TS210 —UN—23AUG88

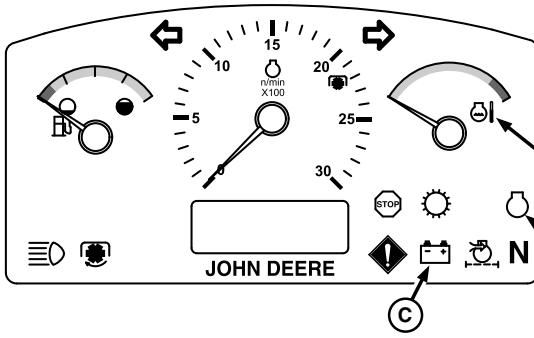
Connect heater plug to a ground fault protected 110-volt electrical outlet.

OUMX005,0002922 -19-30JAN08-1/1

Check Instruments After Starting (PowrReverser™ and Wet Clutch Tractors)

IMPORTANT: If coolant temperature gauge (A) goes into the red zone, or either oil pressure or charging system indicators (B or C) remain on, stop engine and determine the cause.

A—Coolant Temperature Gauge
B—Engine Information Indicator
C—Charging System Indicator



P14859 —UN—19NOV07

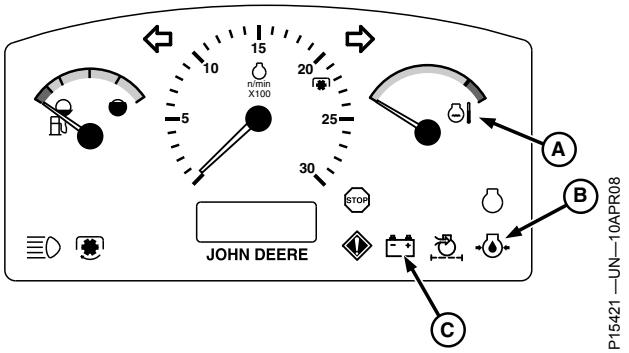
Instrument Panel PowerReverser/Wet Clutch Tractors

NS43404,000045D -19-21MAY09-1/1

Check Instruments After Starting (Dry Clutch Tractors)

IMPORTANT: If coolant temperature gauge (A) goes into the red zone, or either oil pressure or charging system indicators (B or C) remain on, stop engine and determine the cause.

A—Coolant Temperature Gauge
B—Oil Pressure Indicator
C—Charging System Indicator



Instrument Panel Dry Clutch Tractors

OU1092A,00001E9 -19-10APR08-1/1

Stop/Operator Alert Indicator

ENGINE STOP Indicator (A): Light illuminates and audible alarm beeps to alert operator that a serious malfunction has occurred, which requires immediate attention or the tractor will be damaged.

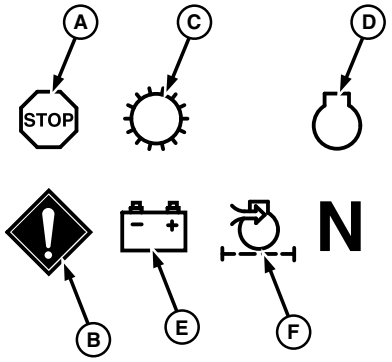
Immediately stop operations, reduce engine speed to idle, then shut down engine. Correct problem before restarting.

Malfunctions that will cause STOP indicator light to come on include:

- Low engine oil pressure
- High hydraulic oil temperature (PowrReverser/Wet Clutch Tractors)
- High coolant temperature
- Water in fuel
- High manifold air temperature

Service ALERT Indicator (B): Light illuminates and audible alarm beeps to inform operator that a performance or operational problem has been detected, which needs to be resolved as soon as possible. Continued operations can cause a Operator Alert to escalate into a STOP indicator. If appropriate corrective action is not taken soon (serviced, repaired, operated in a different manner), a significant reduction in performance will occur, resulting in machine damage.

Malfunctions that will cause Service indicator light to come on include:



STOP Indicator

A—STOP Indicator
B—Operator Alert Indicator
C—Transmission Information Indicator (PowrReverser/Wet Clutch Tractors)
D—Engine Information Indicator
E—Charging System Indicator
F—Engine Air cleaner Restriction indicator

- Low engine oil pressure
- High hydraulic oil temperature (PowrReverser/Wet Clutch Tractors)
- High coolant temperature
- Rear PTO switch on and operator out of seat
- Water in fuel
- High manifold air temperature

OU1092A,00001CD -19-17APR08-1/1

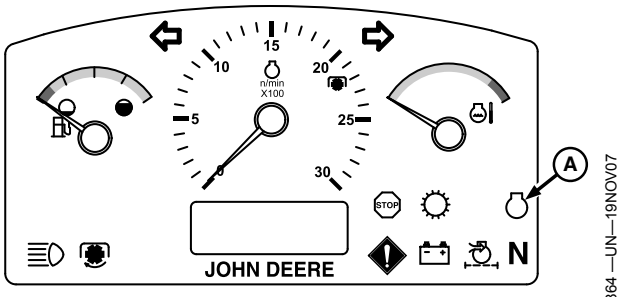
Oil Pressure Indicator (PowrReverser™ and Wet Clutch Tractors)

Oil pressure indicator (A) will light if engine oil pressure is low. Indicator should be on when key is turned to RUN position and off when engine starts.

IMPORTANT: NEVER operate engine without sufficient oil pressure. If indicator light stays on for longer than five seconds under normal operating conditions, stop engine and check for cause.

If low oil level is not the problem, see your John Deere dealer.

A—Oil Pressure Indicator



Instrument Panel (PowerReverser and Wet Clutch Tractors)

NS43404,000045E -19-21MAY09-1/1

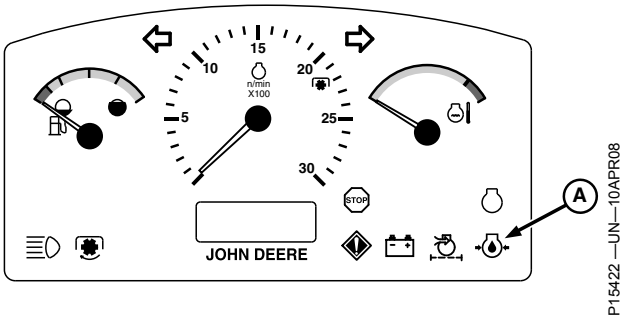
Oil Pressure Indicator (Dry Clutch Tractors)

Oil pressure indicator (A) will light if engine oil pressure is low. Indicator should be on when key is turned to RUN position and off when engine starts.

IMPORTANT: NEVER operate engine without sufficient oil pressure. If indicator light stays on for longer than five seconds under normal operating conditions, stop engine and check for cause.

If low oil level is not the problem, see your John Deere dealer.

A—Oil Pressure Indicator



Instrument Panel (Dry Clutch Tractors)

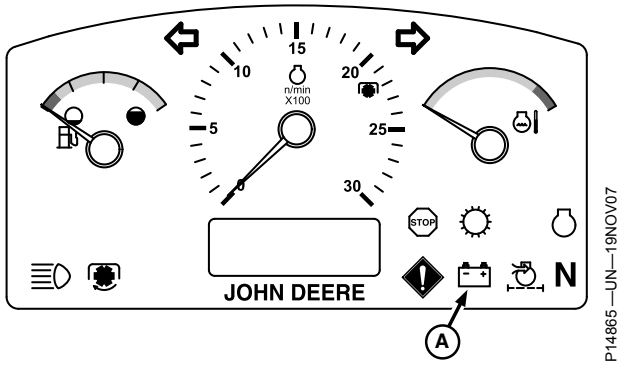
OU1092A,00001EA -19-10APR08-1/1

Charging System Indicator

Charging system indicator (A) will light when alternator output is low. Indicator should light when key is turned to RUN position and go out when engine starts.

If indicator stays on for longer than five seconds in normal operation, stop engine and check for cause. If loose or broken fan belt is not the cause, see your John Deere dealer.

A—Charging System Indicator



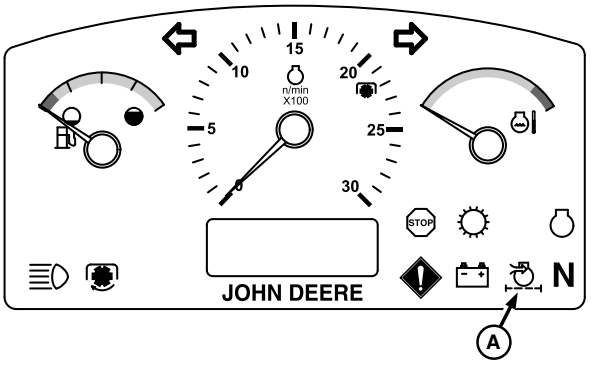
NS43404,000045F -19-30JAN08-1/1

Air Restriction Indicator

Air restriction indicator (A) will light if air cleaner becomes plugged. Service air cleaner as soon as possible.

Indicator should light momentarily when key is turned to START position and go off when engine starts.

A—Air Restriction Indicator



P14866 —UN—19NOV07

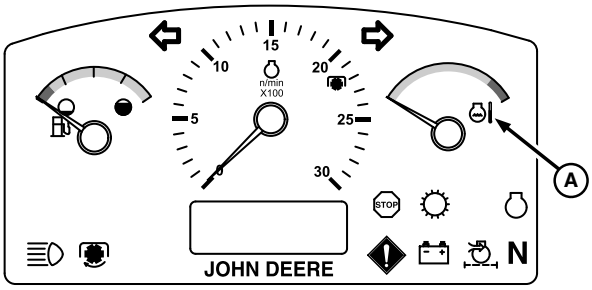
NS43404,0000460 -19-30JAN08-1/1

Coolant Temperature Gauge

The needle on coolant temperature gauge (A) rises as engine warms up. If needle reaches red zone, stop engine and determine the cause.

CAUTION: Do not remove reservoir cap until coolant has had a chance to cool down. Always loosen reservoir cap slowly to relieve any excess pressure.

A—Coolant Temperature Gauge



P14867 —UN—19NOV07

NS43404,0000461 -19-27MAR08-1/2

Check coolant level in coolant reservoir when engine cools. Also check front grille, radiator and radiator side screens for plugging. Check fan belt tension. If problem is not corrected, see your John Deere dealer.

P15301 —UN—03NOV10

NS43404,0000461 -19-27MAR08-2/2

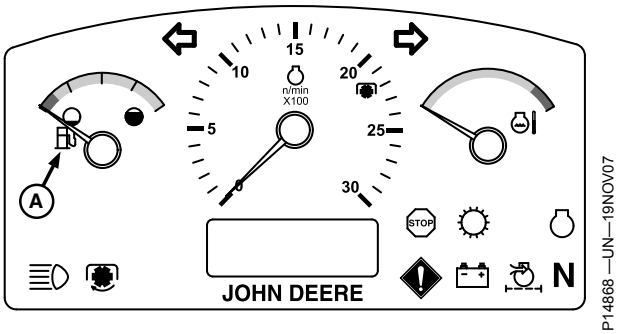
Fuel Level Gauge

Stop to refuel before gauge (A) reaches empty mark.

IMPORTANT: Use diesel fuel only. (See Fuels, Lubricants and Coolant section for fuel specifications.)

Should tractor run out of fuel and not start in several tries, bleed air from fuel system. (See BLEED FUEL SYSTEM in Maintenance—Fuel System section.)

A—Fuel Level Gauge



P14868 —UN—19NOV07

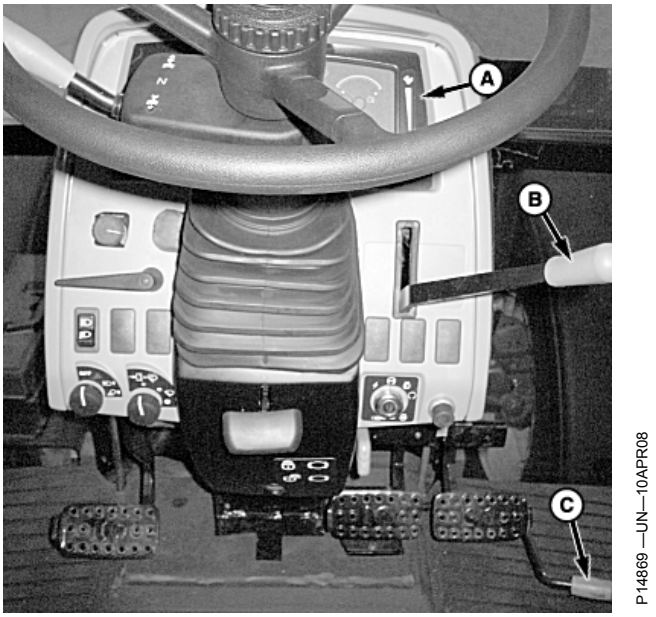
NS43404,0000462 -19-30JAN08-1/1

Changing Engine Speed

To increase or decrease engine speed, use hand throttle (B). Engine will maintain set speed until hand throttle is moved again. Maximum speed is attained with lever all the way up, and minimum speed with lever all the way down, as indicated by the fast/slow indicator (A) on instrument panel.

To temporarily increase engine speed, use foot throttle (C). Engine speed will return to prior speed as soon as foot throttle lever is released.

A—Fast/Slow Indicator
B—Hand Throttle
C—Foot Throttle



P14869 —UN—10APR08

Cab Shown

NS43404,0000463 -19-30JAN08-1/1

Warming Up the Engine

Do not place tractor under full load until it is properly warmed up.

1. Idle engine at about 1500 rpm for several minutes.
2. Run engine at about 1900 rpm and under light load until engine reaches normal operation condition.

PX07220,0000018 -19-16APR04-1/1

Restart Stalled Engine

IMPORTANT: Be sure to observe the following, or damage to turbocharger could occur.

Should the engine stall when operating under load, depress clutch and restart it immediately to prevent abnormal heat build up. Continue with normal operation or run engine at slow idle for one or two minutes before stopping.

PX07220,0000019 -19-16APR04-1/1

Avoid Low Speed Idling

Allowing engine to idle for long periods at low speed uses fuel inefficiently, and can cause a buildup of carbon in the engine.

If tractor must be left with the engine running more than three or four minutes, minimum engine speed should be 1200 rpm.

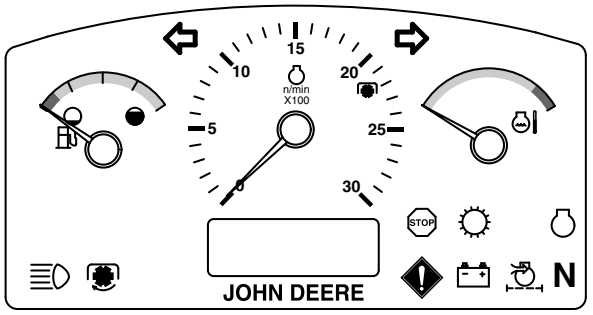
PX07220,000001A -19-25MAR08-1/1

Observe Engine Work and Idle Speeds

Slow idle speed should be 850 or 900 rpm depending on model. At light or no load, full throttle speed will increase to 2200 or 2275 depending on model. See slow and fast idle in Specifications Section.

Normal working speed is 1600—2100 rpm rated speed. Within these limits, engine can be put under full load.

IMPORTANT: When using tractor under heavy loads, always use full throttle (maximum engine rpm), do not set throttle at low speeds to work with heavy tillage or implements requiring high power.



P14525 —UN—22NOV07

NS43404,0000467 -19-16APR08-1/1

Working With Speed and Hour Meters (PowrReverser™/Wet Clutch Tractors)

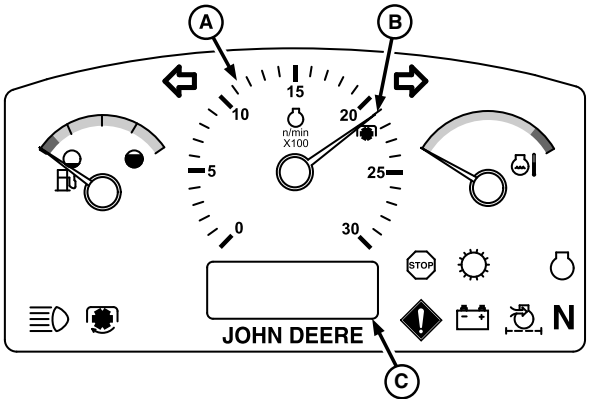
Tachometer (A) shows engine revolutions per minute, read in hundreds.

For 540 or 1000 rpm PTO, increase engine speed until tachometer needle is aligned with 2100 rpm mark (B).

Tractor Stopped: Hour meter (C) shows hours of engine operation in full hours and tenths.

Tractor Moving: Ground Speed meter (C) shows tractor speed in either km/h or mph.

NOTE: Hour Meter/Ground Speed (LCD Digital) (C) displays hours when tractor is not moving. When tractor is moving, display switches to ground speed. When tractor is stopped, display changes back to hours.



P15311 —UN—26MAR08

A—Tachometer
B—2100 rpm Mark
C—Hour Meter/Ground Speed (LCD Digital)

NS43404,0000468 -19-29JUL09-1/1

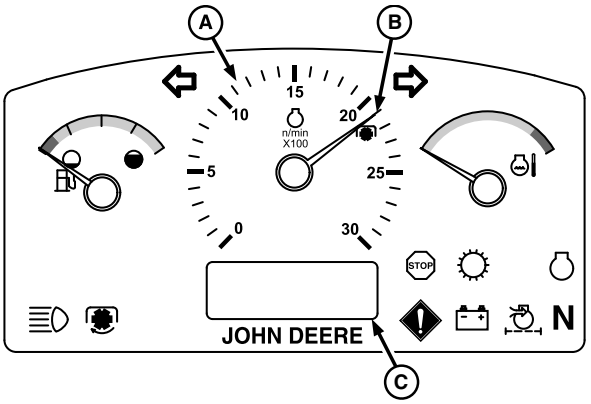
Working With Speed and Hour Meters (Dry Clutch Tractors)

Tachometer (A) shows engine revolutions per minute, read in hundreds.

For 540 or 1000 rpm PTO, increase engine speed until tachometer needle is aligned with 2100 rpm mark (B).

Hour meter (C) shows hours of engine operation in full hours and tenths.

A—Tachometer
B—2100 rpm Mark
C—Hour Meter (LCD Digital)



P15311 —UN—26MAR08

HP51992,0000092 -19-31JUL09-1/1

Stopping the Engine

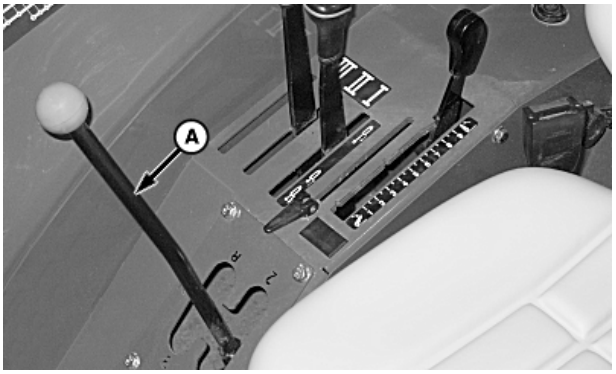
IMPORTANT: Certain engine parts are cooled by engine oil. Stopping a hot engine could cause damage by overheating or lack of lubrication.

1. Pull hand throttle (E) down to slow idle position.
2. Put gear shift lever (A) or PowrReverser™ lever (B) (if equipped) in NEUTRAL.
3. Lock brake pedals together using bar (C).
4. Push brake pedals down and pull up on lever (D) to set parking brake.
5. Lower all equipment to the ground, put all SCV levers in NEUTRAL and disengage PTO.
6. Allow engine to idle for one to two minutes.

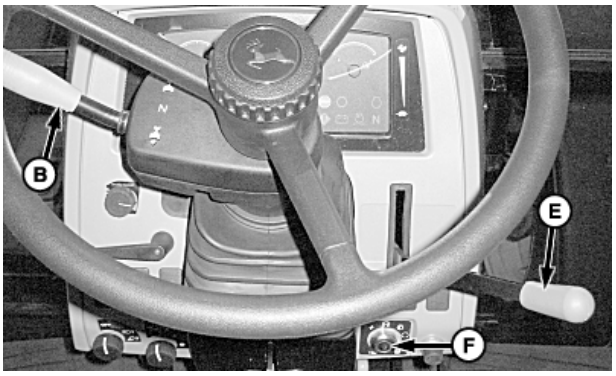
CAUTION: Remove key from ignition switch to prevent operation by untrained personnel.

7. Turn key (F) to STOP and remove from switch.

A—Gear Shift Lever
B—PowrReverser™ Lever (If Equipped)
C—Brake Pedals Locking Bar
D—Parking Brake Lever (If Equipped)
E—Hand Throttle Lever
F—Key

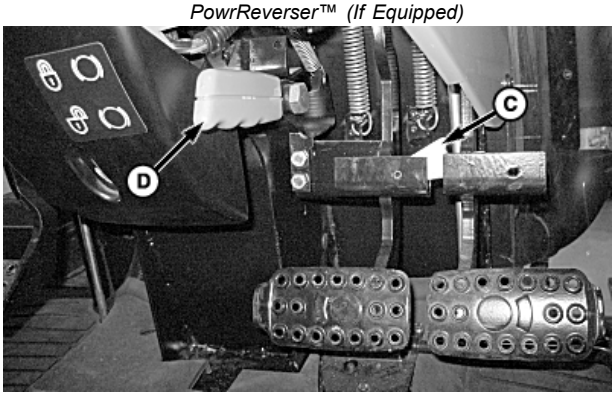


P14873 —UN—20NOV07



P14871 —UN—20NOV07

PowrReverser™ (If Equipped)



P14872 —UN—20NOV07

PX03972,0000546 -19-17DEC08-1/1

Using a Booster Battery or Charger

CAUTION: Battery gas is explosive. Keep sparks and flames away from battery. Make last connection and first disconnection at a point away from booster battery.

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

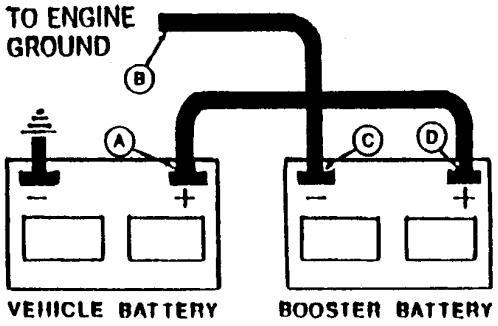
When using two or more booster batteries, batteries MUST be connected in PARALLEL. DO NOT connect batteries in SERIES.

TS204 —UN—23AUG88

NS43404,000056B -19-30JAN08-1/2

Booster Battery

1. Access battery. (See procedure in Maintenance—Electrical System section.)
2. Connect red positive (+) booster cable to booster battery positive post (D).
3. Connect other end of positive (+) booster cable to tractor battery positive (+) post (A).
4. Connect black negative (—) booster cable to booster battery negative (—) post (C).
5. Connect other end of negative (—) booster cable to engine ground (B), away from battery and starter.
6. Turn key to START position.
7. When engine starts, remove negative (—) cable first, then positive (+) cable.



M71044 —19—24JUL90

A—Tractor Battery Positive (+) Post
B—Engine Ground
C—Booster Battery Negative (—) Post
D—Booster Battery Positive (+) Post

Battery Charger

1. With charger OFF, attach red positive lead to positive (+) battery terminal and negative charger lead to a good ground on the engine block, away from battery.

IMPORTANT: DO NOT set battery charger to higher than 12 VOLTS.

2. Switch charger ON and charge battery according to charger manufacturer's instructions.
3. Switch charger OFF. Disconnect negative charger lead first, then positive lead.

NS43404,000056B -19-30JAN08-2/2

Operator Training Required

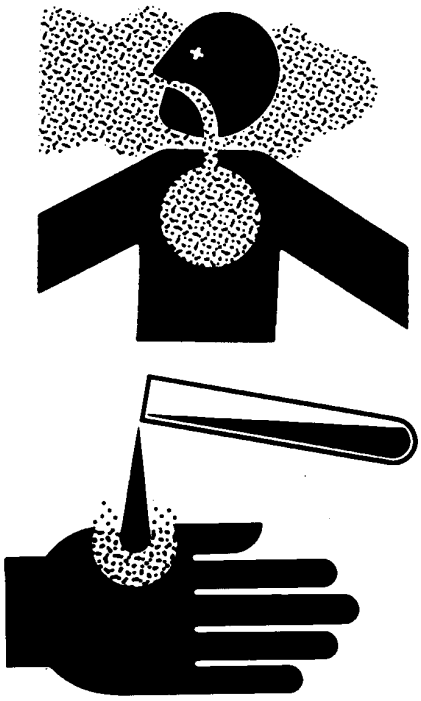
- First, study Operating the Engine section, then this section of the manual before operating tractor.
- Operate tractor in an open, unobstructed area under the direction of an experienced operator.
- Learn use of all controls.
- Operator experience is required to learn moving, stopping, turning and other characteristics of tractor.

PX07220,000001F -19-16APR04-1/1

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—23AUG88

TS272 —UN—23AUG88

DX,CABS1 -19-25MAR09-1/1

Cleaning Tractor of Hazardous Pesticides

CAUTION: Avoid personal injury. Clean inside of cab and outside of tractor after application of hazardous pesticides. Pesticide residue can build up.

Clean exterior and interior of tractor daily to prevent contamination:

1. Sweep or vacuum the floor of cab.
2. Clean headliners and inside cowlings of cab.
3. Wash entire exterior of tractor.
4. Dispose of any wash water with hazardous concentrations of active or non-active ingredients according to published regulations or directives.

AG,RX15494,1680 -19-26AUG99-1/1

Driving on Public Roads

CAUTION: When transporting on a public road or highway, use accessory lights and devices for adequate warning to operators of other vehicles. Check local governmental regulations. Various safety devices are available from your John Deere dealer. Keep safety items in good condition. Replace missing or damaged items.

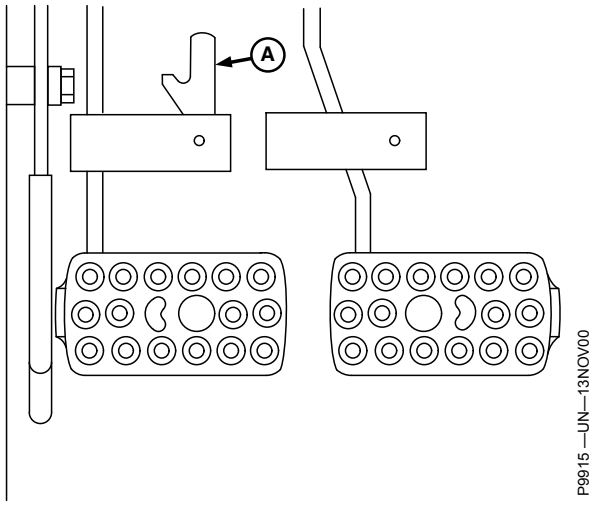
Observe the following precautions when driving tractor on roads:

1. Ballast tractor correctly.
2. **Cab:** Clean windows and adjust rear-view mirrors.
3. Use foot throttle instead of hand throttle.

CAUTION: Before operating tractor on a road, lock brake pedals together. Use brakes lightly and cautiously at transport speeds.

IMPORTANT: To prevent unnecessary wear, never "ride" the brakes by resting a foot on the pedals.

4. Couple brake pedals together using brake pedal locking bar (A). Avoid hard application of brakes. Reduce speed if towed load weighs more than the tractor and is not equipped with brakes. (Consult implement operator's manual for recommended transport speeds.)



A—Brake Pedal Locking Bar

Use additional caution when transporting towed loads under adverse surface conditions and when turning or braking on inclines. Be sure wheel tread is adjusted wide to provide maximum stability.

Continued on next page

NS43404,000046D -19-07APR08-1/2

5. Check local laws and regulations for lighting requirements. Clean Slow Moving Vehicle (SMV) emblem (A), warning lights (B) and tail lights/brake lights (C). If towed or rear-mounted equipment obstructs view of safety devices, install SMV emblem and warning lights on equipment. (See your John Deere dealer.)

   A seven-terminal outlet at rear of tractor supplies power to warning lights on towed or rear-mounted equipment. (See description of outlet in Lights section.)

6. **MFWD (if equipped):** To reduce tire wear, disengage front wheel drive.

7. **Loader Cylinders (if equipped):** Engage transport lock to eliminate possibility of loader movement during transport by inadvertently bumping the multi-function control lever.

8. Rear Hitch: Lock hitch in transport position to eliminate the possibility of lowering an implement during transport by inadvertently bumping the raise/lower lever.

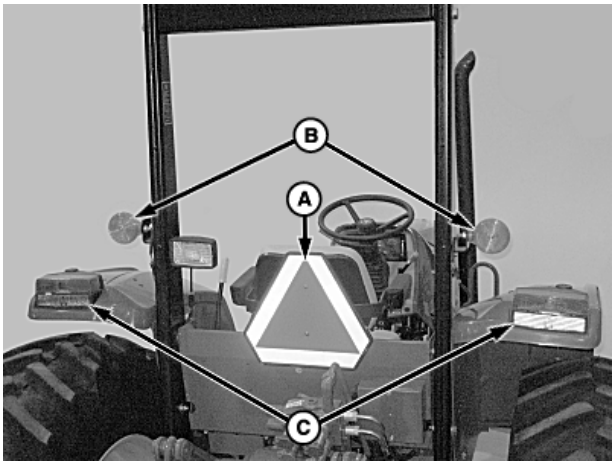
9. Use turn signal lever (D) when turning. Return lever to center position after turning.

10. Turn light switch to position (E).

11. Move switch (F) to low beam position (down) when meeting another vehicle. Never use floodlights or any lights which could blind or confuse other drivers.

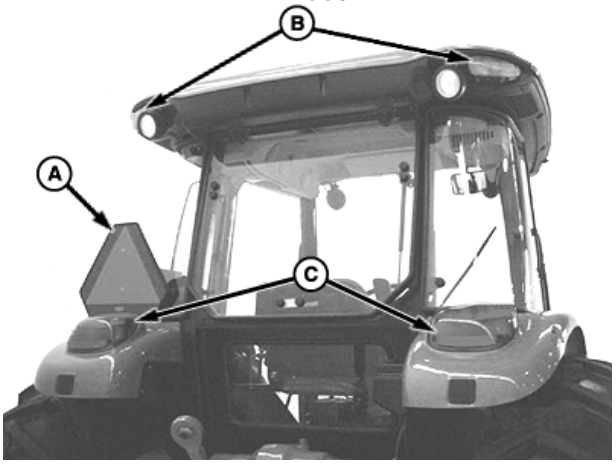
12. Drive slowly to maintain safe control. Before descending a hill, shift to a gear low enough to control speed without using brakes. Slow down for rough ground and sharp turns, especially when transporting heavy, rear-mounted equipment.

A—SMV Emblem
B—Warning Lights
C—Tail Lights/Brake Lights (If Equipped)
D—Turn Signal Lever
E—Road Lights-1
F—High/Low Beam Switch



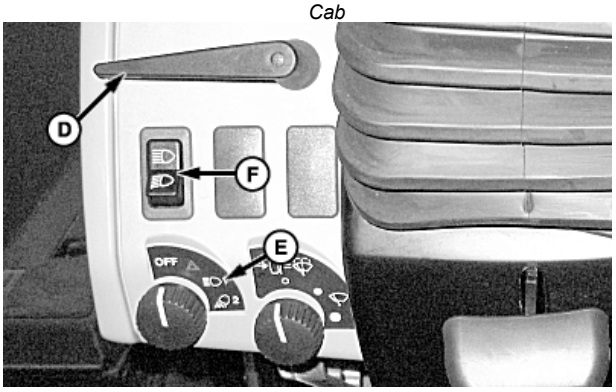
P14875 —UN—20NOV07

OOS



P14874 —UN—20NOV07

Cab



P14876 —UN—20NOV07

NS43404,000046D -19-07APR08-2/2

Using Emergency Exit (Cab)

Rear window opening provides a large exit path if the cab door(s) or sides of cab are blocked in an emergency situation.

P15329 —UN—27MAR08

OUMX005,0002923 -19-27MAR08-1/1

Use Caution on Hillsides

OOS: Operate only with the Roll-Over Protective Structure (ROPS) in the UP or extended position whenever possible. Always use your seat belt when the ROPS is in the UP or extended position to minimize chance of injury from an overturn accident.

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

Never drive near the edge of a gully or steep embankment—it might cave in.

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

MFWD (if equipped): While mechanical front wheel drive greatly increases traction, it does not increase the stability of the tractor. With MFWD engaged, the tractor can climb steeper slopes, but does NOT become more stable. When this option is used, extra caution is needed on slopes. Compared to 2-wheel drive, a front-wheel drive tractor maintains traction on steeper slopes, increasing the possibility of a tip-over.

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

Hitch towed loads only to drawbar. When using a chain, take up the slack slowly.

NS43404,000046E -19-02FEB08-1/1

Operating Collar Shift Transmission (CST) (If Equipped)

Range shift lever (A) provides three speed ranges: A, B and C.

Gear shift lever (B) provides three forward travel speeds (1, 2, 3) and reverse:

- Nine forward speeds are available when using range and gear shift levers
- Three reverse speeds are available when using range shift lever

IMPORTANT: To prevent transmission damage, do not attempt to change gear or range while in motion. When shifting gears or ranges; decrease engine speed, depress clutch pedal fully, and depress brake pedals to stop the tractor.

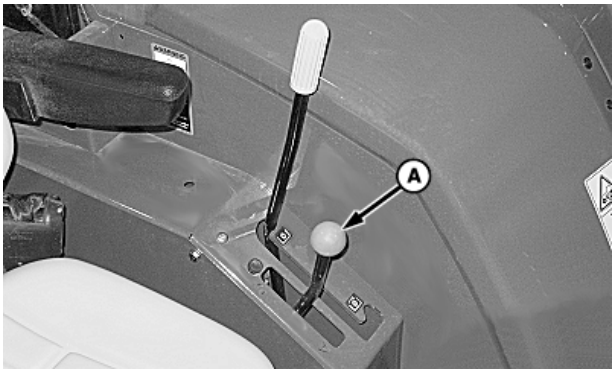
If the clutch pedal free travel is out of specification, see your John Deere dealer to readjust clutch pedal linkage.

To prevent unnecessary clutch wear, never "ride" the clutch by resting foot on the pedal.

The transmission requires tractor to come to a **complete stop** when shifting into any gear or speed range.

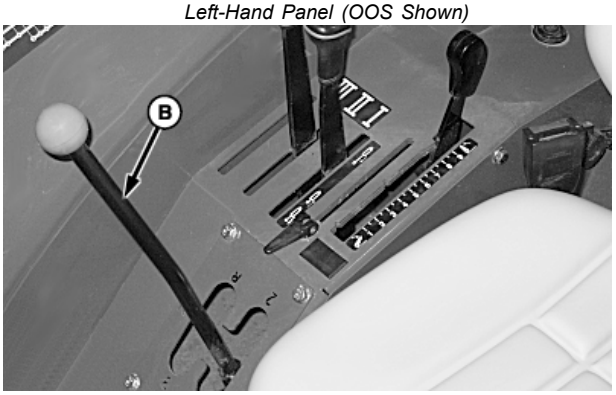
1. After the tractor has stopped, lower engine rpm to idle speed.
2. Depress clutch pedal (C) FULLY.
3. Select desired gear and/or speed range.
4. Slowly release clutch pedal to gradually take up load.
5. Increase engine speed once shift is completed.

A—Range Shift Lever
B—Gear Shift Lever
C—Clutch Pedal



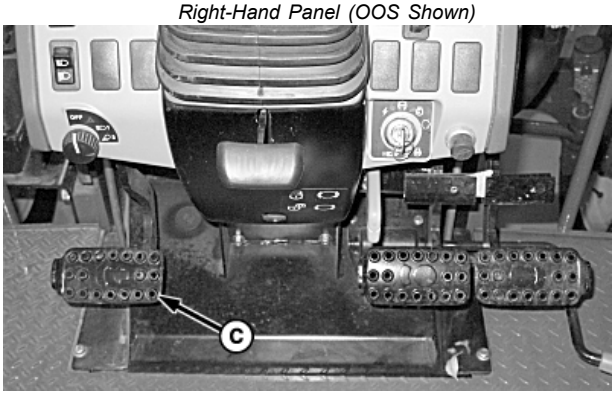
P14882 —UN—02FEB08

Left-Hand Panel (OOS Shown)



P14881 —UN—02FEB08

Right-Hand Panel (OOS Shown)



P14880 —UN—02FEB08

NS43404,0000470 -19-07APR08-1/1

Operating Top Shaft Synchronized Transmission (TSS) (If Equipped)

Range shift lever (A) provides three speed ranges: A, B and C.

Gear shift lever (B) provides three forward travel speeds (1, 2, 3) and reverse:

- Nine forward speeds are available when using range and gear shift levers
- Three reverse speeds are available when using range shift lever

IMPORTANT: Top shaft synchronizer works only on speed gears, including reverse. To prevent transmission damage, do not attempt to change range while in motion. To shift into a different range; stop tractor, depress clutch pedal fully and decrease engine speed.

The clutch pedal must be FULLY depressed in order to make a gear (speed) shift. If the clutch pedal is not fully depressed, the shift lever can not be moved beyond neutral. Should this occur, depress the clutch pedal further. If the clutch pedal free travel is out of specification, see your John Deere dealer to readjust clutch pedal linkage.

To prevent unnecessary clutch wear, never "ride" the clutch by resting foot on the pedal.

Range Shift: Tractor must come to a **complete stop** when shifting into any speed range.

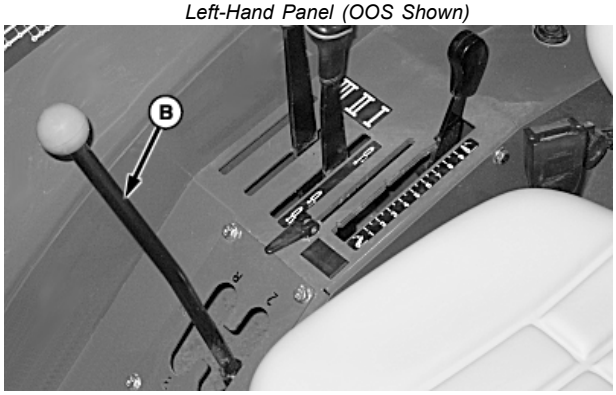
1. After the tractor has stopped, lower engine rpm to idle speed.
2. Depress clutch pedal (C) FULLY.
3. Select desired speed range (A, B, C).
4. Slowly release clutch pedal to gradually take up load.
5. Increase engine speed once shift is completed.

Gear (speed) Shift: Changing gears can be made **on-the-go**, without stopping.

1. With tractor in motion, depress clutch pedal (C) FULLY.
2. Select desired forward speed (1, 2, 3) or reverse.
3. Slowly release clutch pedal to gradually take up load.

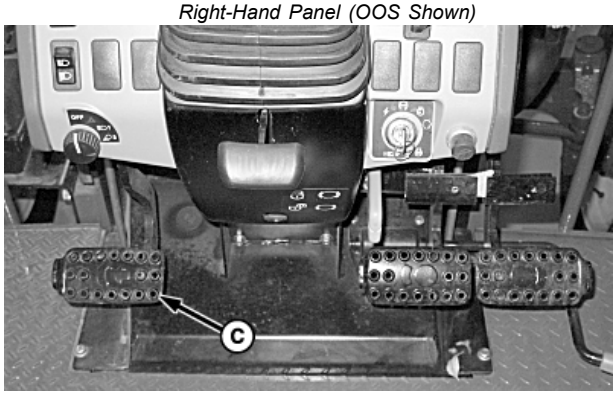
P14882 —UN—02FEB08

Left-Hand Panel (OOS Shown)



P14881 —UN—02FEB08

Right-Hand Panel (OOS Shown)



P14880 —UN—02FEB08

A—Range Shift Lever
B—Gear Shift Lever
C—Clutch Pedal

NS43404,0000471 -19-14APR08-1/1

Operating PowrReverser™ Transmission (PRT) (If Equipped)

Range shift lever (A) provides three speed ranges: A, B and C.

Gear shift lever (B) provides three forward and reverse travel speeds (1, 2, 3).

PowrReverser lever (C) provides travel direction (forward or reverse).

NOTE: The clutch pedal must be fully depressed one time after engine is started.

This is normally done when engaging a speed gear from neutral. When the tractor is started with speed gear engaged (FNR is in neutral), the tractor will not move when the PowrReverser lever is set to F or R, until the clutch pedal has been fully depressed one time.

- Nine forward and reverse speeds are available when using range and gear shift levers

IMPORTANT: Top shaft synchronizer works only on speed gears. To prevent transmission damage, do not attempt to change range while in motion. To shift into a different range; stop tractor, depress clutch pedal fully and decrease engine speed.

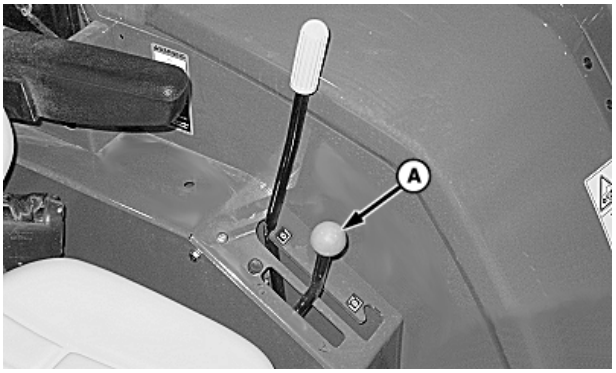
The clutch pedal must be FULLY depressed in order to make a gear (speed) shift. If the clutch pedal is not fully depressed, the shift lever can not be moved beyond neutral. Should this occur, depress the clutch pedal further. If the clutch pedal free travel is out of specification, see your John Deere dealer to readjust clutch pedal linkage.

To prevent unnecessary clutch wear, never "ride" the clutch by resting foot on the pedal.

PowrReverser lever: With tractor stopped, select desired travel direction (forward or reverse). Travel direction change can be done without depressing the clutch pedal.

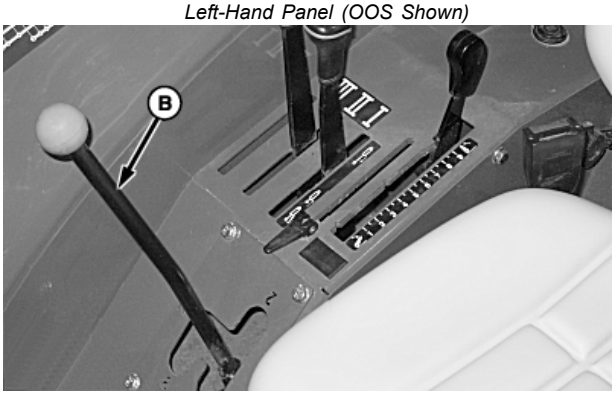
Range Shift: Tractor must come to a **complete stop** when shifting into any speed range.

1. After the tractor has stopped, lower engine rpm to idle speed.
2. Depress clutch pedal FULLY.
3. Select desired speed range (A, B, C).
4. Slowly release clutch pedal to gradually take up load.
5. Increase engine speed once shift is completed.

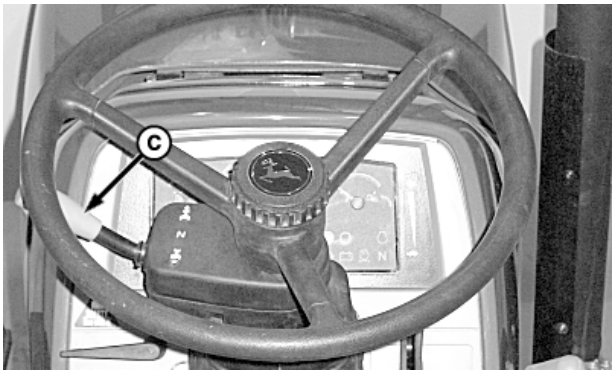


P14882 —UN—02FEB08

Left-Hand Panel (OOS Shown)



P14890 —UN—02FEB08



P14535 —UN—14APR08

A—Range Shift Lever
B—Gear Shift Lever
C—PowrReverser Lever

Gear (speed) Shift: Changing gears can be made **on-the-go**, without stopping.

1. With tractor in motion, depress clutch pedal (C) FULLY.
2. Select desired speed (1, 2, 3).
3. Slowly release clutch pedal to gradually take up load.

NS43404,000056A -19-07APR08-1/1

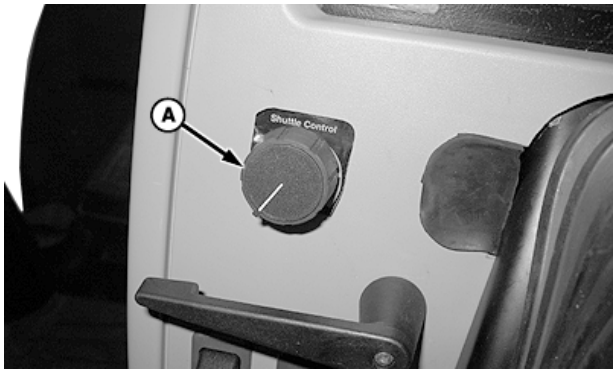
Using Infinitely Variable Shuttle (If Equipped)

Infinitely variable shuttle (A) adjusts load take-up and acceleration when making directional changes with PowrReverser™ lever during repetitive cycle work (loader operation).

In full left (counterclockwise) position (shown) load take-up and acceleration ramp-up are slow to respond.

When operating with high load and ballast, turn control knob clockwise to speed-up acceleration and load take-up response.

IMPORTANT: When operating in full right (clockwise) position on concrete or paved surfaces, premature tire wear can occur.



P15229 —UN—02FEB08

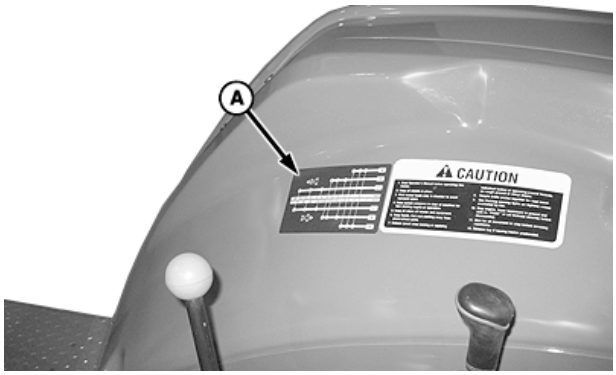
A—Infinitely Variable Shuttle

OUMX005,0002925 -19-07APR08-1/1

Speed Label

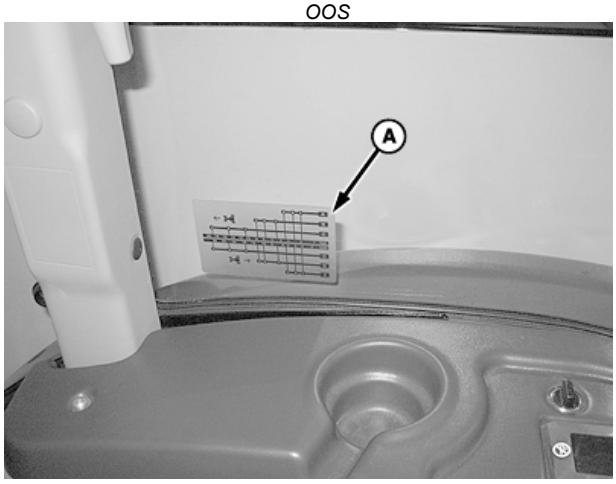
Speed label (A) shows machine speed in any given range and gear. (See GROUND SPEEDS in Specifications section, for detailed information.)

A—Speed Label



P15230 —UN—02FEB08

OOS



P15231 —UN—02FEB08

Cab

OUMX005,0002924 -19-02FEB08-1/1

Selecting a Gear

IMPORTANT: To extend drive train life and avoid excessive soil compaction and rolling resistance when using ballast, operate one gear lower than normal.

The tractor may be operated in any gear with engine speeds between 1600 and 2100 rpm. Within these limits, the engine can be put under full load. For light load operation, use a higher gear and lower engine speed. This saves fuel and reduces wear.

PX07220,0000023 -19-16APR04-1/1

Using Brakes

CAUTION: Before operating tractor on a road, lock pedals together with locking bar (A). Use brakes lightly and cautiously at transport speeds.

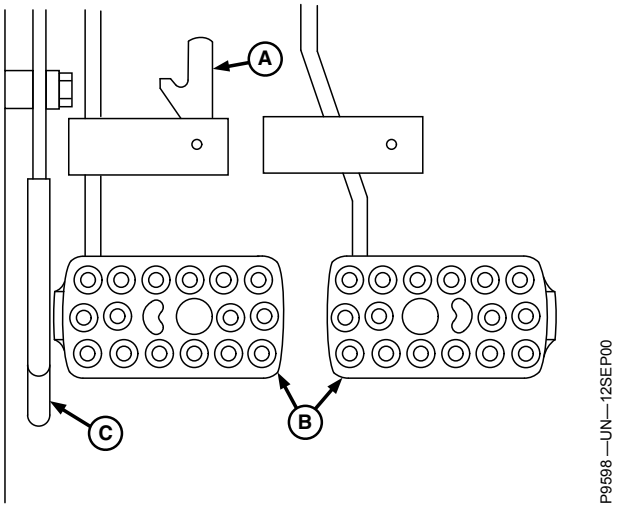
For field work, brake pedals (B) should NOT be locked together. Instead, apply right brake pedal lightly to assist in making sharp right-hand turns and left pedal for left-hand turns.

CAUTION: Always set parking brake before dismounting. Leaving transmission in gear with engine off WILL NOT prevent tractor from moving.

To set parking brake, lock brake pedals together with locking bar, depress brake pedals and pull up on parking brake lever (C) after coming to a complete stop. Parking brake lever keeps brake pedals down. To release lever, push down briefly on brake pedals. Lever will drop down on its own.

IMPORTANT: To prevent unnecessary wear, never "ride" the brakes by resting a foot on the pedals.

Reduce speed if towed load is not equipped with brakes and weighs more than the tractor. Avoid hard braking applications. Consult implement operator's manual for recommended transport speeds.



A—Brake Pedal Locking Bar
B—Brake Pedals
C—Parking Brake Lever

Use additional caution when transporting towed loads under adverse conditions, and when turning or stopping on inclines.

PX07220,0000024 -19-25JUN08-1/1

Using Differential Lock

CAUTION: Do not operate tractor at high speed or attempt to turn with differential lock engaged.

IMPORTANT: To prevent damage to drive train, do not engage differential lock when one wheel is spinning and the other is completely stopped.

When one wheel starts to lose traction, engage differential lock by depressing pedal (A) down. Tractor wheels must be turning before engaging differential lock. If possible, engage differential lock before entering conditions where tires may slip.

Unequal traction will keep the lock engaged. When traction equalizes, lock will disengage itself by spring action. If lock does not disengage, depress one brake pedal and then the other.

If tires repeatedly slip, then get traction, and then slip again, hold pedal in the engaged position.

A—Differential Lock Pedal

PX07220,0000025 -19-27MAR08-1/1

Operating Mechanical Front-Wheel Drive (If Equipped)

Use front-wheel drive as required for better traction.

CAUTION: Front-wheel drive greatly increases traction. When using this option, extra caution is needed on slopes. Compared to two-wheel drive, front-wheel drive maintains traction on steeper slopes, increasing the possibility of a tip over.

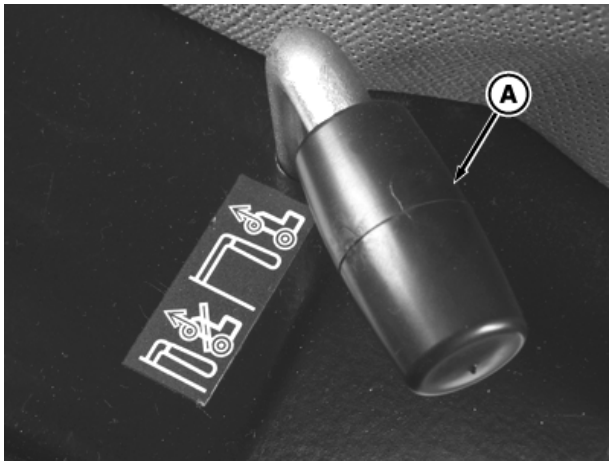
When driving on icy, wet or gravel surfaces, reduce speed and be sure tractor is properly ballasted to avoid skidding and to prevent loss of steering control. Front-wheel drive provides better control under these road conditions.

IMPORTANT: To extend front tire life, engage front-wheel drive only when needed in the field. Front tires turn slightly faster than rear tires with MFWD engaged and will wear very quickly if driven in MFWD mode on hard surface for an extended period. Unless absolutely necessary, do not engage MFWD when driving on hard surfaces.

Do not install tire chains on front wheels: chains will strike and damage tractor.

While towing an implement and pushing down on MFWD lever to disengage, lever may resist to disengage MFWD. When this occurs the load must first be relieved from the power train. See step 3 below.

Front-wheel drive may be engaged and disengaged while in motion.



P15331 —UN—27MAR08

A—MFWD Lever

1. To engage, pull up on MFWD lever (A).
2. To disengage, push lever back down.
3. If lever will not go down easily, this means the load must first be relieved from power train. Operator may push down on lever while doing one of the following in order to relieve load:
   - Reduce speed and drive tractor straight ahead at for a few feet.
   - Stop tractor, then operate in reverse direction for a short distance, if changing from a forward direction.

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Stopping Tractor

1. Stop tractor travel by depressing on clutch pedal first or while using the brakes.
2. Put gear shift lever (A) or PowrReverser lever (B) (if equipped) in NEUTRAL before or while using the brakes.

IMPORTANT: Cooling of certain engine parts is provided by engine oil. Stopping a hot engine suddenly could cause damage to these parts by overheating or lack of lubrication.

3. Pull hand throttle (E) down to slow idle position. Allow engine to idle for 1—2 minutes.

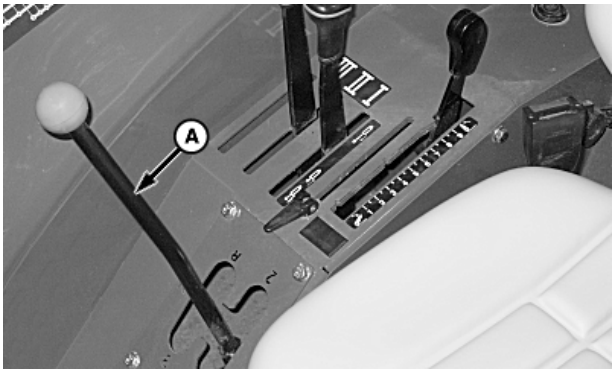
CAUTION: Always set parking brake before dismounting. Leaving transmission in gear with engine off WILL NOT prevent tractor from moving.

4. Lock brake pedals together with locking bar (C). Push brake pedals down and pull up on lever (D) to set parking brake.
5. Move rockshaft lever forward and lower all equipment to the ground.
6. Put all SCV levers in NEUTRAL.
7. Disengage PTO.

CAUTION: Remove key from ignition switch to prevent operation by untrained personnel.

8. Turn key (F) to STOP position and remove from switch.

A—Gear Shift Lever
B—PowrReverser™ Lever (If Equipped)
C—Brake Pedals and Locking Bar
D—Parking Brake Lever (If Equipped)
E—Hand Throttle
F—Key



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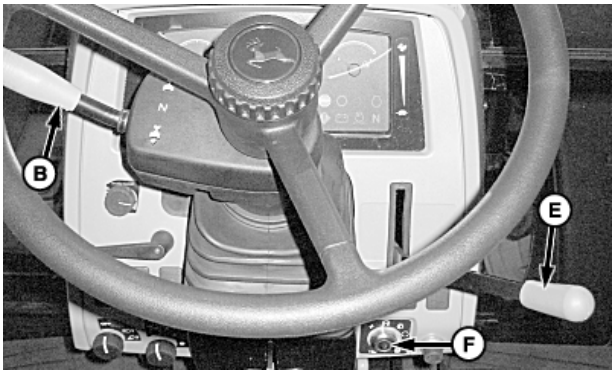
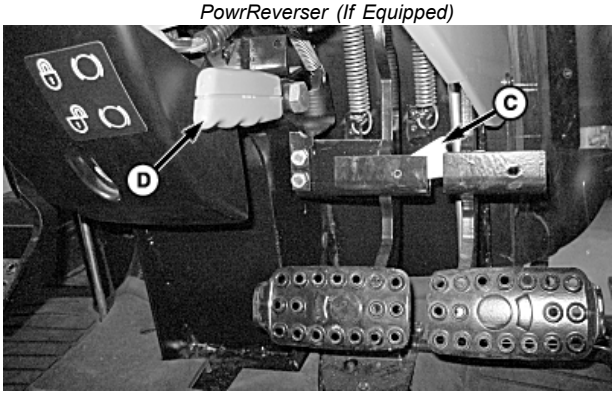


P14871 —UN—20NOV07

PowrReverser (If Equipped)



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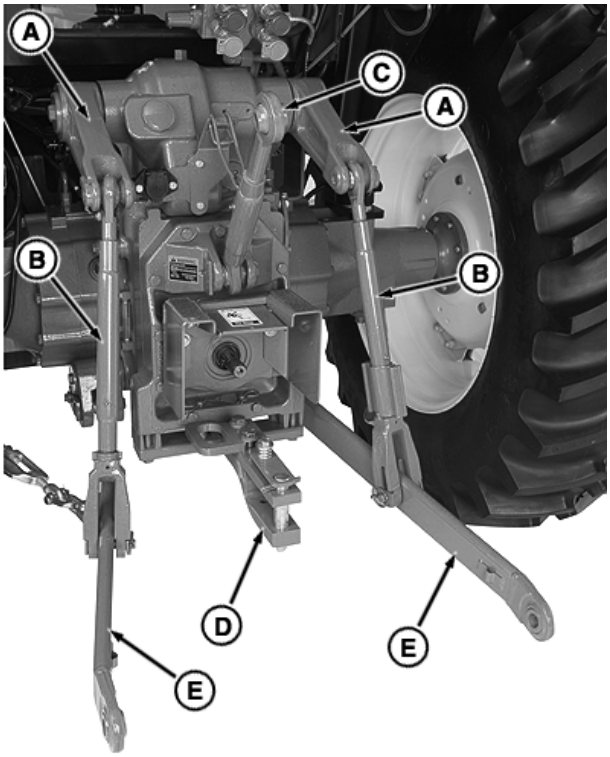
3-Point Hitch Component Identification

IMPORTANT: Tractor power should be matched to the size of certain implements. Excessive power can damage an implement, and too large an implement can damage the tractor. (Refer to your implement operator's manual for minimum and maximum power requirements before attaching an implement.)

A—Lift Arms
B—Lift Links
C—Center Link
D—Drawbar
E—Draft Links



P15332 —UN—27MAR08

OOS Shown

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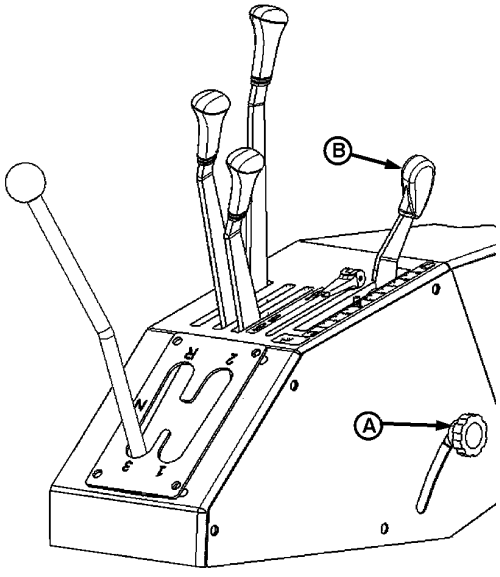
Rockshaft Control Levers

The rockshaft is controlled by position control lever (B) and draft control knob (A). Position control lever raises the hitch when pulled rearward, and lowers the hitch when moved forward. (See USING ROCKSHAFT POSITION CONTROL in this section for more information.)

Draft control knob controls hitch position relative to draft loads. (See USING DRAFT CONTROL in this section for more information.)

A—Rockshaft Draft Control Knob
B—Rockshaft Position Control Lever



P12972 —UN—12APR04

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Using Rockshaft Position Control

CAUTION: To prevent unexpected movement of rockshaft, push draft control knob (A) all the way down before attaching an implement.

Loosen draft control knob (A) and push all the way down when you do not want rockshaft to adjust automatically to draft load, such as when attaching implement to tractor. Tighten control knob.

Use position control lever (B) to control hitch movement and depth. Position control should be used for the following applications:

CONSTANT DEPTH USE OF IMPLEMENTS on level terrain and for implements that do not engage the ground, such as spreaders or sprayers. Place position control lever at depth desired.

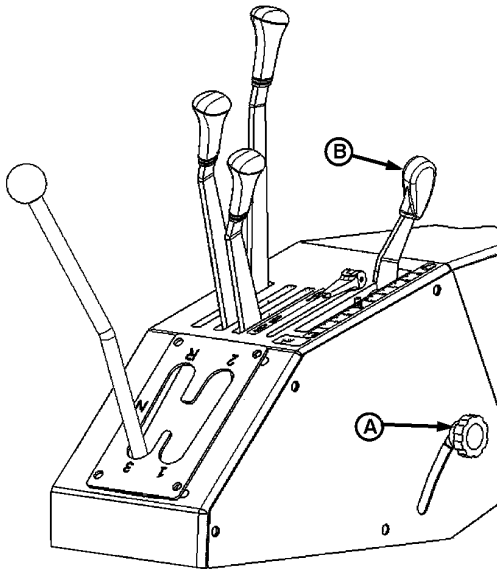
TRANSPORT OF IMPLEMENTS and end of field turnaround. Position control lever should be moved fully rearward during transport for usage with or without load sensing.

FLOAT OPERATION for implements with skids or depth gauge wheels designed to carry full implement weight. Push position control lever all the way forward and draft control knob all the way down so implement can follow the ground contour.

NOTE: Lift links can be adjusted for implement float. (See ADJUSTING IMPLEMENT FLOAT in this section.)

A—Rockshaft Draft Control Knob

B—Rockshaft Position Control Lever



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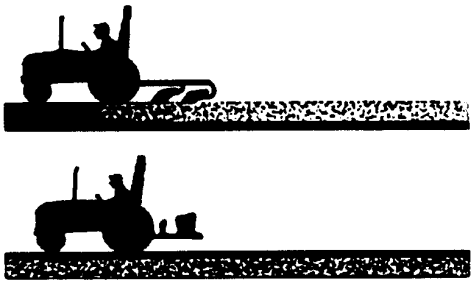

P9043 —UN—01AUG00

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Setting Position Control Lever Stop

NOTE: Position control lever stop is used when operating depth or height needs to be repeated often.

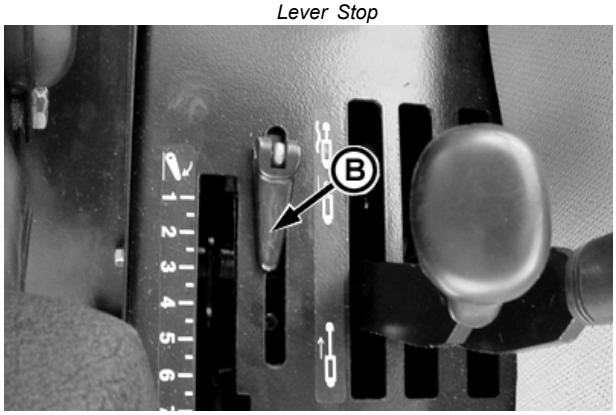
1. Operate implement for a few minutes to determine proper depth or height.
2. Raise lever stop (A), and slide against position control lever. Lock stop in position by pressing lever down (B). Rockshaft will now lower to same position each time control lever is pushed forward to the stop.

A—Lever Stop

B—Lever Stop in Down Position

P12670A —UN—05JUL05

Lever Stop



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Lever Stop in Down position

PX07220,0000004 -19-31MAR04-1/1

Using Draft Control

The rockshaft is equipped with variable draft control system.

Use draft load sensing when one of the following conditions apply:

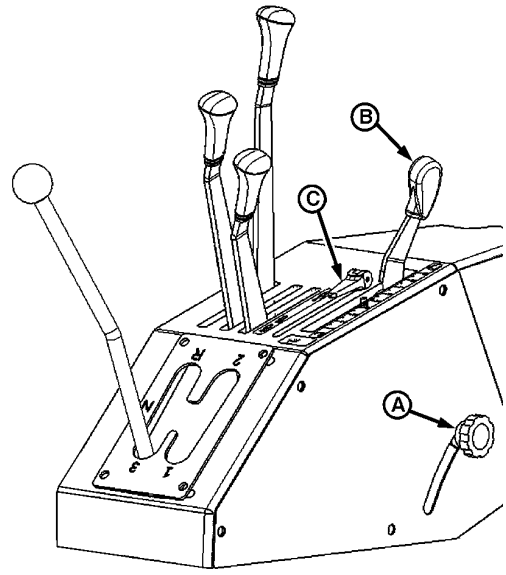
- Operating with a fully mounted implement in uneven terrain. The implement will rise and lower to follow the ground contours while maintaining a nearly constant depth.
- Operating in varying soil conditions. The implement is raised slightly to get through tough spots so you do not have to shift to a lower gear.

Draft control knob (A) controls amount of load required before hitch responds. With knob placed all the way down, there is no draft sensing. Pulling the knob up reduces the amount of draft load required to override the position set by position control lever (B) and to raise the rockshaft.

For draft load sensing operation:

- Initially, place position control lever in its fully forward position and draft control knob in the lowest (least draft) position.
- With tractor moving, pull position control lever backward to set implement operating depth. Set position control lever stop (C) so control lever can be brought back to the same exact position. When the tractor begins to slip, pull draft control knob upward until desired draft sensing level is obtained.
- Position control lever can also be raised slightly to override the draft control setting, in order to help get through slippery spots without getting stuck.
- Position control lever can be moved fully rearward to raise the hitch at the end of the field.

A—Rockshaft Draft Control Knob
B—Rockshaft Position Control Lever
C—Position Control Lever Stop



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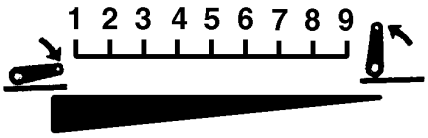

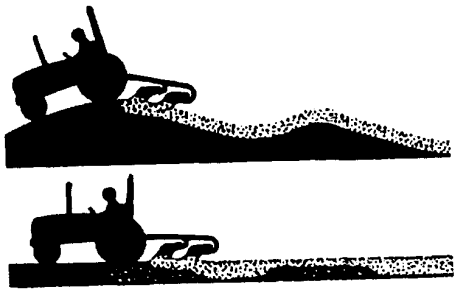

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PX07220,000002B -19-16APR04-1/1

Adjusting Rockshaft Rate-of-Drop

CAUTION: Excessive rate-of-drop may cause damage to equipment or injury to machine operator. Fully lowering implement should require at least two seconds.

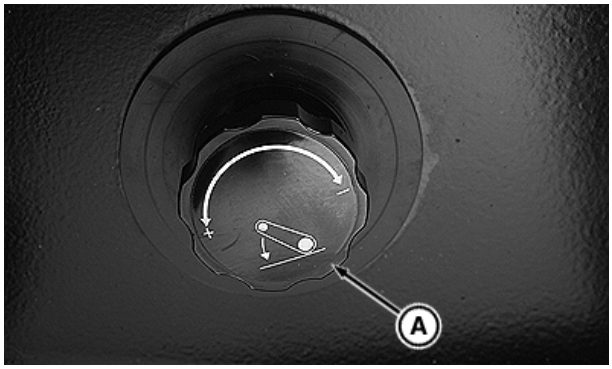
Rockshaft drops faster when a heavy implement is attached. Adjust rate-of-drop knob (A) so that it is slow enough to be safe and prevent implement damage.

Adjust rockshaft rate-of-drop. Turn knob:

- Clockwise—Slow rate-of-drop
- Counterclockwise—Fast rate-of-drop

Adjust rockshaft position:

- Lock—Turn knob clockwise to the stop
- Unlock—Turn knob counterclockwise and readjust rate-of-drop



P15289 —UN—12MAR08

Floor Behind Seat

A—Rockshaft Rate-of-Drop Knob

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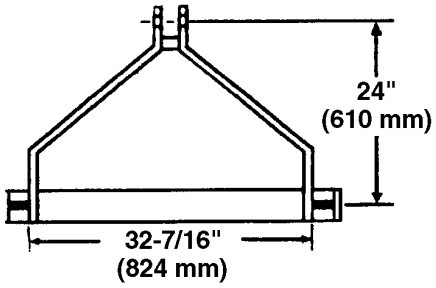
Preparing Implement

Category II implements should have the top hole of the implement mast located 610 mm (24 in.) above the lower pins. Drill another hole in top mast or extend top mast if necessary.

Mast Height	Width Between Lower Pins	Pin Size	
		Lower	Upper
610 mm (24 in.)	824 mm (32-7/16 in.)	28 mm (1-1/8 in.)	25.4 mm (1 in.)



P10112 —UN—27FEB01

Implement Mast

PX07220,000002D -19-16APR04-1/1

Attaching Implements to 3-Point Hitch

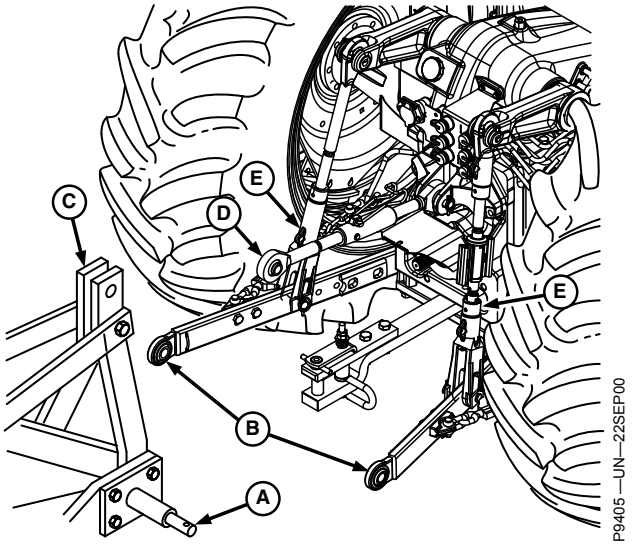
1. Be sure drawbar will not interfere. If necessary, move drawbar forward or remove it. Check for any other potential interference.

CAUTION: Prevent unexpected movement of rockshaft by placing draft sensing knob all the way down before attaching implement to hitch.

2. Back tractor up to implement so hitch points align. Place gear shift lever or PowrReverser™ lever (if equipped) in NEUTRAL and set parking brake.
3. Pull hand throttle all the way down and allow engine to idle for 1—2 minutes, then turn engine off.
4. Slip draft links (B) over implement hitch pins (A) on both sides and retain with locking pins.

NOTE: Locking pins can be stored on draft links through holes in sway chain ears when not in use.

5. Lift locking clip (F) and rotate tab (G) to rear to release center link (D) from transport hook.
6. Attach center link to implement top mast (C). Retain with pin and locking pin.
7. Adjust center link and lift links (E) as necessary. (See LEVELING THE HITCH in this section.)



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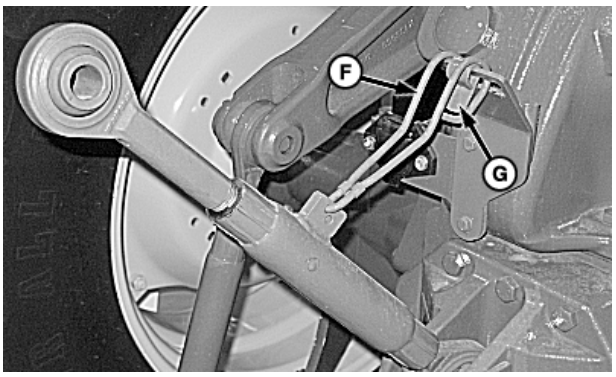

P14900 —UN—27NOV07

A—Implement Hitch Pins
B—Draft Links
C—Implement Top Mast
D—Center Link
E—Lift Links
F—Center Link Locking Clip
G—Tab

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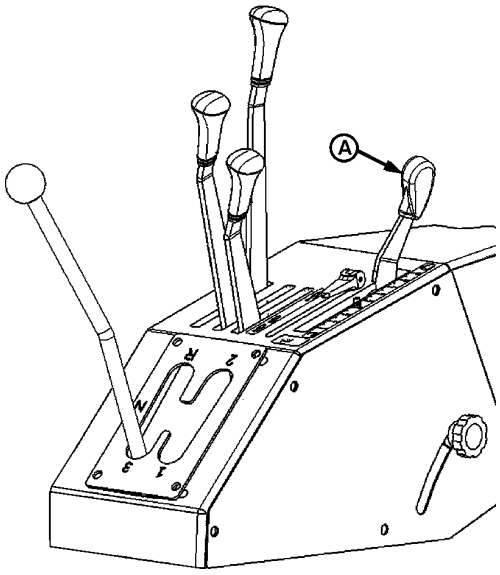
NS43404,000047F -19-07APR08-1/2

CAUTION: To avoid bodily injury or machine damage whenever an implement, implement quick coupler, or other attachment is connected to the 3-Point Hitch, check full range of operation for interference, binding or PTO separation.

8. Start engine. Using rockshaft position control lever (A), raise and lower implement slowly and check for any interference.

A—Rockshaft Position Control Lever



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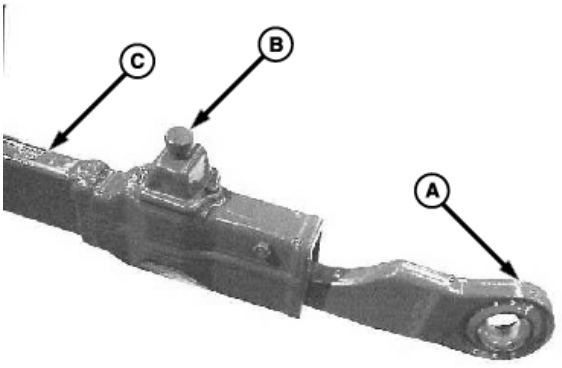
NS43404,000047F -19-07APR08-2/2

Attaching Implement with Telescoping Draft Links (If Equipped)

1. Position tractor in line with implement hitch pins. Back tractor up close to implement. Place gear shift lever or PowrReverser™ lever (if equipped) in NEUTRAL and set parking brake.
2. Pull hand throttle all the way down and allow engine to idle for 1—2 minutes, then turn engine off.
3. Pull up knob (B) and pull out draft link end (A). Slip draft link end over implement hitch pin and retain with quick-lock pin. Repeat procedure on opposite side.
4. Raise or lower each draft link body (C) to align it with link end.
5. Slowly back up tractor to lock link ends into place.



P9663 —UN—15SEP00

A—Draft Link End
B—Release Knob
C—Draft Link Body

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Adjusting Hitch Side Sway

NOTE: Check implement operator's manual for instructions on whether to allow side sway.

Top hole (B): No side-to-side movement (sway).

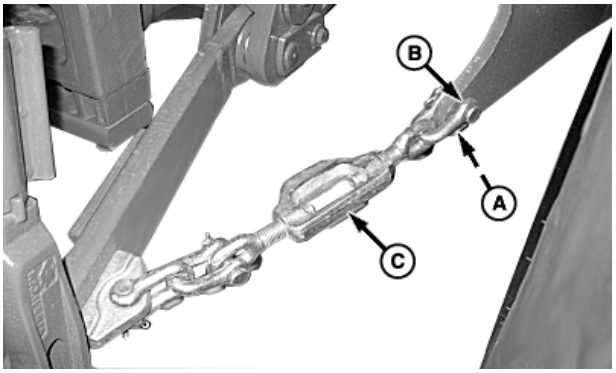
Bottom hole (A): Allow side-to-side movement (sway chains will tighten as the implement is raised and loosened, allowing side-to-side movement when the implement is lowered).

Use sway chain turnbuckle (C) to take up chain slack as needed.

IMPORTANT: Do not shorten chains so short they do not allow hitch to be raised completely. If chain prevents hitch from rising, hydraulic relief valve will open, causing excessive oil heating and pump or equipment damage.

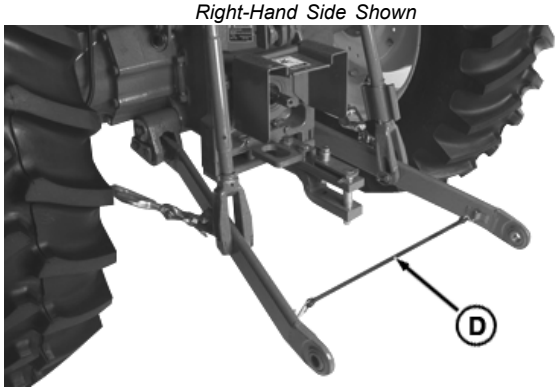
NOTE: Use spring or rubber strap (D) to keep draft links clear of rear tires when draft links are not attached to implement.

A—Axle Bracket Bottom Hole
B—Axle Bracket Top Hole
C—Sway Chain Turnbuckle
D—Strap



P14901 —UN—04FEB08

Right-Hand Side Shown



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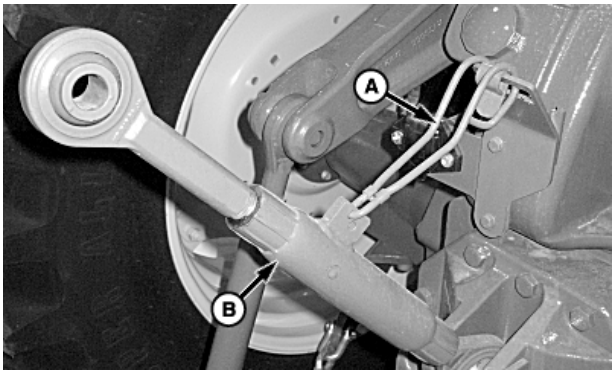
Leveling the Hitch

1. Lower implement to take weight off hitch.

IMPORTANT: Do NOT attempt to extend center link beyond limits of locking clip or to raise lift links past the stops. Link body threads could be damaged.

NOTE: Maximum adjustment range of the center link can only be obtained if the ends are positioned equally within the body when attached to an implement.

2. Adjust center link to level implement front-to-rear.
   a. Unlatch locking clip (A). Rotate center link body (B):
      - CLOCKWISE—Lengthen center link (Maximum length: 725 mm [28.5 in.])
      - COUNTERCLOCKWISE—Shorten center link (Minimum length: 530 mm [20.9 in.])



P14902 —UN—27NOV07

A—Locking Clip **B—Center Link Body**

   b. Latch locking clip.

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3. Adjust right-hand lift link to level implement side-to-side.

   a. Lift locking handle (A) and turn:

      - CLOCKWISE—Lower lift link
      - COUNTERCLOCKWISE—Raise lift link

   b. Lower handle and turn it to engage slot onto lower body to prevent change of adjustment during operation.

4. Adjust left-hand lift link to level implement side-to-side:

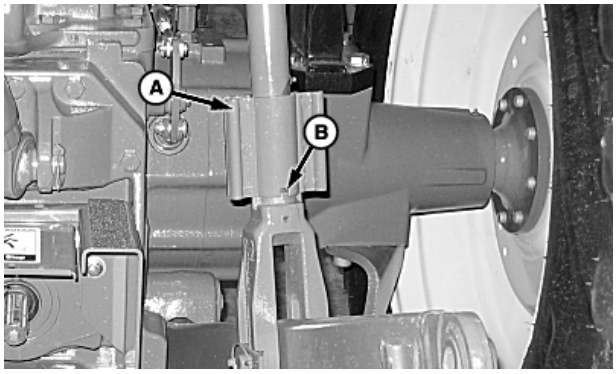
   a. Remove locking pin and lower link pin (C). Rotate lower end assembly (D):

      - CLOCKWISE—Shorten (raise) lift link
      - COUNTERCLOCKWISE—Lengthen (lower) lift link

   b. Install lower link pin and locking pin.

Adjust left and right-hand lift links to accommodate various tire sizes or implement heights. For greatest range of up and down hitch motion, set lift links so that when fully lowered, draft link balls are approximately 178 mm (7 in.) off the ground.

A—Locking Handle
B—Slot
C—Lower Link Pin
D—Lower End Assembly



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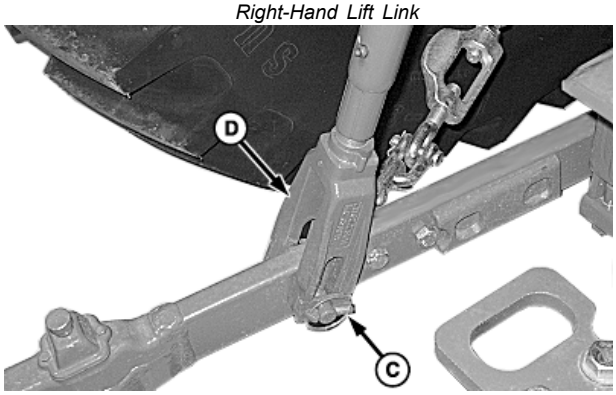
Right-Hand Lift Link



P14904 —UN—04FEB08

Left-Hand Lift Link

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Adjusting Lateral Float

To allow the draft link to raise slightly as implement follows ground contour, place head of pin and rectangular washer (A) in vertical position.

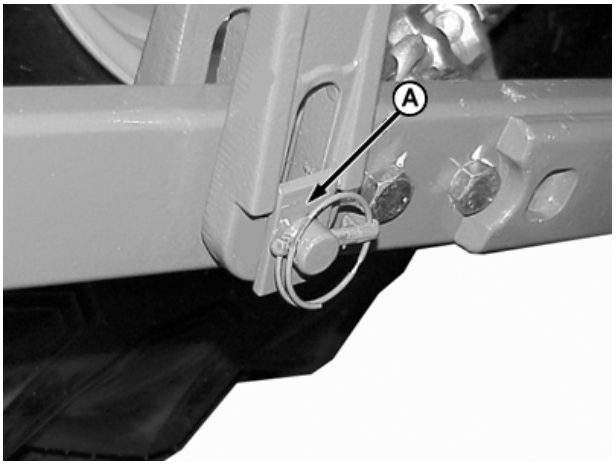
To hold implement rigid, place head of pin and rectangular washer (B) in horizontal position.

Vertical (float) position: Hitch-mounted implements (cultivator or mower), equipped with ground gauging skids or wheels which may cause the implement to twist relative to the tractor.

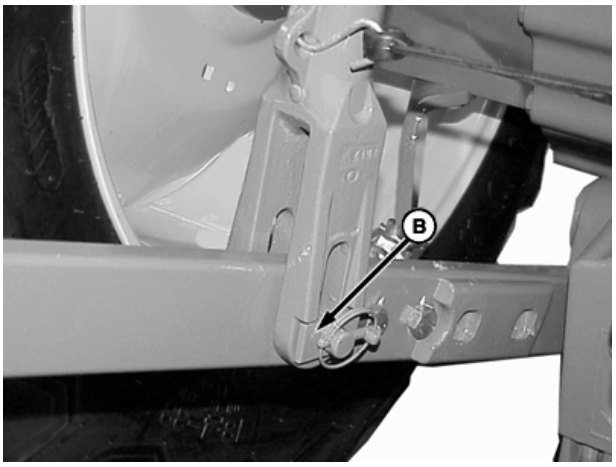
Horizontal (rigid) position: Plows and ground engaging implements that should not twist relative to the tractor.

A—Pin in Vertical (Float) Position

B—Pin in Horizontal (Rigid) Position



P11549 —UN—26JUL02



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Open Center Hydraulic System

IMPORTANT: The hydraulic system design used on this tractor is known as an open center system. In general, it is not recommended to use continuous flow hydraulic motors with this type of system. Some hydraulic motors designed for open centered systems (high flow at low pressure) can be used if a pressure compensated flow control valve is used to control speed. The deluxe three-function SCV has a pressure compensating flow control valve built into the 1st SCV. If the tractor is equipped with a dual function SCV, you will need to control motor speed with an independent pressure compensated flow control valve. Using a non-compensated flow control valve such as a needle valve may cause over heating of the hydraulic system. Consult your nearest John Deere dealer or service facility for more information regarding this type of application.

Hydraulic motor applications such as those used in vacuum blower motors, centrifugal sprayer pumps, hydraulically driven rakes or other similar applications may cause overheating of the hydraulic system if the hydraulic motors are not correctly sized for an open center system. In such cases, the use of a PTO-driven hydraulic pump is strongly recommended.

Open center systems cannot be used for implements requiring "active" down force such as no-till, folding, air disk and no-till air drills as well as used to maintain optimum press wheel down-force on air hoe-drills.

Open center hydraulic systems with Deluxe Three-Function SCV's can be used with hydraulic motors requiring high flow at low pressure but not on motors requiring low flow at high pressure or overheating will occur and possible damage to hydraulic system.

Anytime one of above applications is considered, consult your nearest John Deere dealer or service facility for information on how to open center system in these applications.

Failure to observe this application information will likely cause serious damage to tractor hydraulic system.

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Warming Transmission-Hydraulic System Oil

CAUTION: Overheated hydraulic oil can cause personal injury and component malfunctions. To prevent hydraulic oil from overheating, DO NOT hold SCV or multifunction control lever (if equipped) in operating position for an extended period of time.

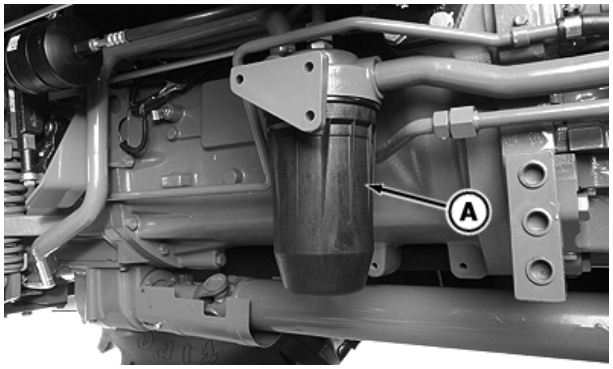
Hydraulic system may be slow to function when tractor is started in cold weather. Cold oil will not flow easily through the hydraulic system filter (A).

Steering may be slow until system warms up.

Hydraulic system will function normally when oil warms up.

1. Depress clutch pedal, start engine and idle at about 1000 rpm.

IMPORTANT: To prevent damaging hydraulic pump or relief valve, DO NOT exceed 2—3 minutes warm-up time with steering wheel held in full left or full right turn position.



P15394 —UN—07APR08

A—Hydraulic Oil Filter

2. Turn and hold steering wheel in full left or full right turn, for no more than 3 minutes.

OUMX005,000292A -19-10APR08-1/1

Use Correct Hose Tips

If your tractor is equipped with selective control valves (SCV), the coupler receptacles accept a standard hose tip as recommended by ISO and SAE. Adapters to allow connecting older John Deere hose tips to the ISO couplers in your tractor are available from your John Deere dealer.

P14905 —UN—10FEB08

NS43404,0000486 -19-28NOV07-1/1

SCV Control Levers and Couplers

NOTE: Lever location is the same for both Cab and OOS. Cab shown.

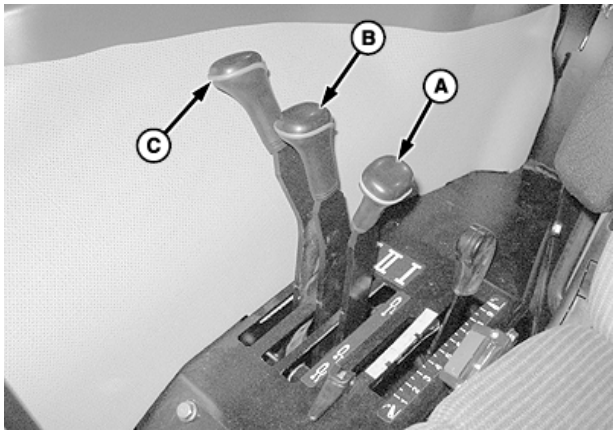
SCV levers control oil flow to hydraulic hose couplers at the rear of the tractor.

SCV I Lever (A) operates couplers (D).

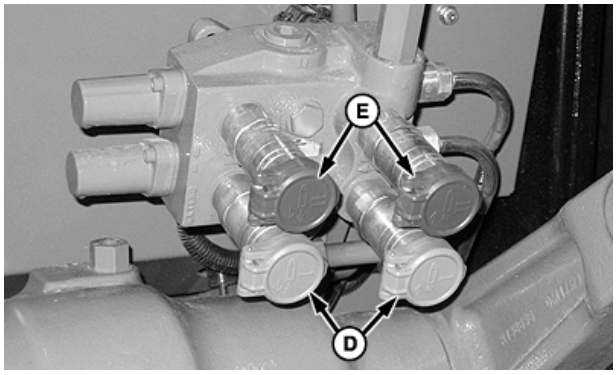
SCV II Lever (B) operates couplers (E).

SCV III Lever (C) operates couplers (F).

A—SCV I Lever (Green)
B—SCV II Lever (Blue)
C—SCV III Lever (Brown) (if Equipped)
D—SCV I Couplers (Green Cover)
E—SCV II Couplers (Blue Cover)
F—SCV III Couplers (Brown Cover) (if Equipped)

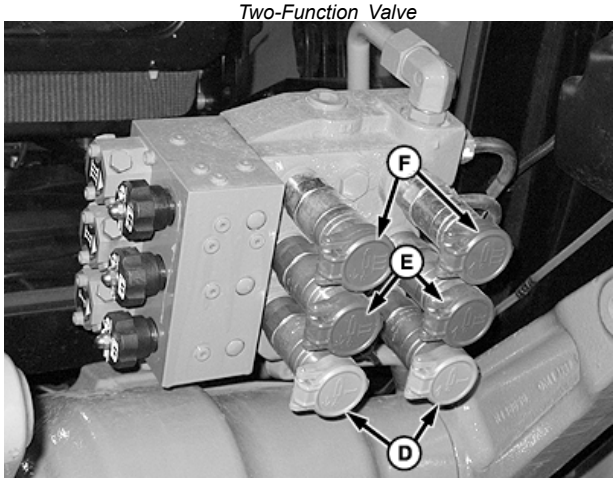


P15243 —UN—10FEB08



P15244 —UN—10FEB08

Two-Function Valve



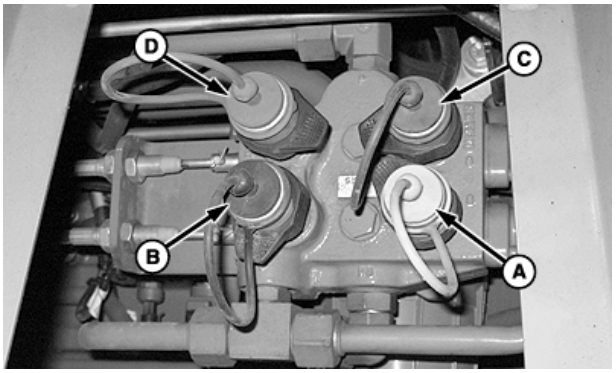
P15245 —UN—10FEB08

Three-Function Deluxe Valve (If Equipped)

OUMX005,000292B -19-25MAR08-1/1

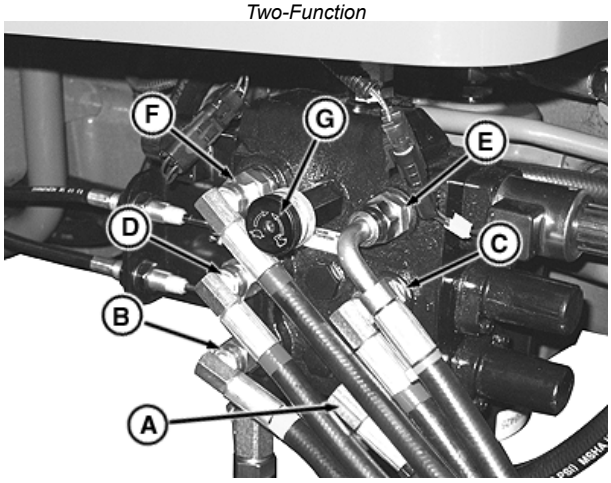
Mid-Mount Valve Coupler Identification (If Equipped)

A—Bucket Cylinder—Rod End (Black)
B—Bucket Cylinder—Head End (Yellow)
C—Lift Cylinder—Head End (Blue)
D—Lift Cylinder—Rod End (Red)
E—Third-Function Cylinder—Head End (Orange)
F—Third-Function Cylinder—Rod End (Green)
G—Flow Adjustment



P15246 —UN—10FEB08

Two-Function



P15488 —UN—16APR08

Three-Function Deluxe Valve (If Equipped)

OUMX005,000292C -19-16APR08-1/1

Connecting or Disconnecting High-Pressure Hoses

CAUTION: Escaping fluid under pressure can penetrate the skin causing serious injury. Avoid the hazard by relieving pressure before disconnecting hydraulic or other lines. Tighten all connections before applying pressure. Search for leaks with a piece of cardboard. Protect hands and body from high-pressure fluids.

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

1. If possible, retract remote cylinder as much as possible to protect rod from damage.

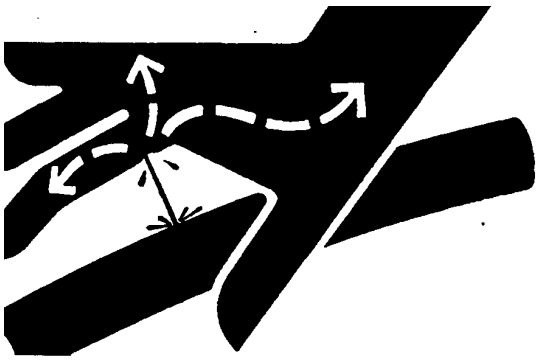
IMPORTANT: Implement must be raised slightly, by pulling back on lever to reset coupler check valves, before it can be lowered.

   a. If hose accidentally pulls from tractor during use, clean hose tip and coupler before reconnecting. Hoses can be reinstalled with minimal loss of oil.

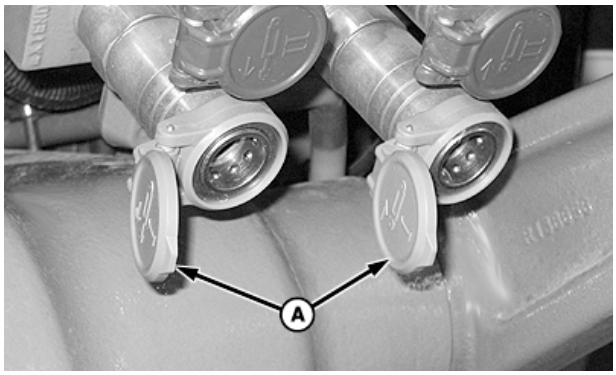
   b. After reinstalling hose, extend and retract cylinder to properly seat connector and reset check valve.

2. With as much hydraulic pressure relieved as possible from hoses, pull hoses from couplers.

3. **Rear SCV:** Wipe clean, then close coupler covers (A). Install dust caps on hose ends.



X9811 —UN—23AUG88



P15247 —UN—10FEB08

Rear SCV Shown

A—Coupler Covers

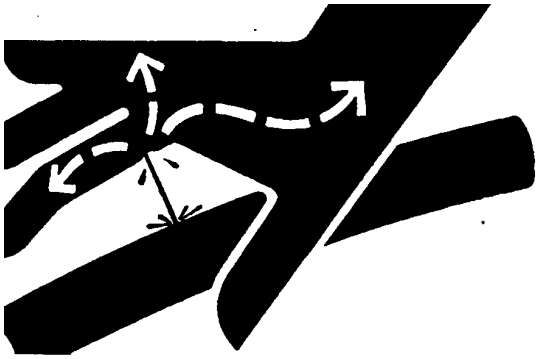
Mid-Mount Valve (If Equipped): Make sure coupler dust plugs and hose end dust caps are clean, then install.

OUMX005,000292D -19-10FEB08-1/1

Connecting Cylinder Hoses—Rear SCV

CAUTION: Escaping fluid under pressure can penetrate the skin causing serious injury. Avoid the hazard by moving all rear SCV control levers and mid-mount joystick in all directions to relieve pressure before disconnecting hydraulic or other lines. Tighten all connections before applying pressure. Search for leaks with a piece of cardboard. Protect hands and body from high pressure fluids.

If an accident occurs, see a doctor immediately. Any fluid injected into the skin must be surgically removed within a few hours or gangrene may result. Doctors unfamiliar with this type of injury should reference a knowledgeable medical source. Such information is available



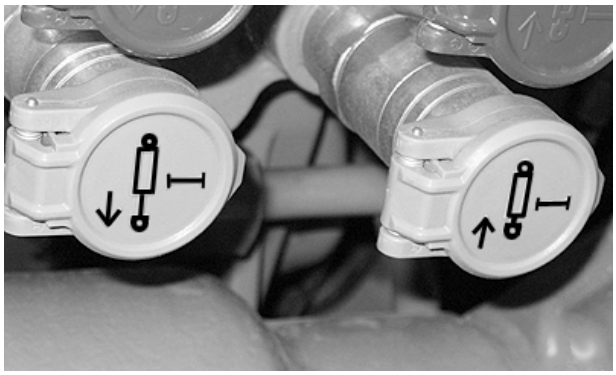
X9811 —UN—23AUG88

from Deere & Company Medical Department in Moline, Illinois, U.S.A.

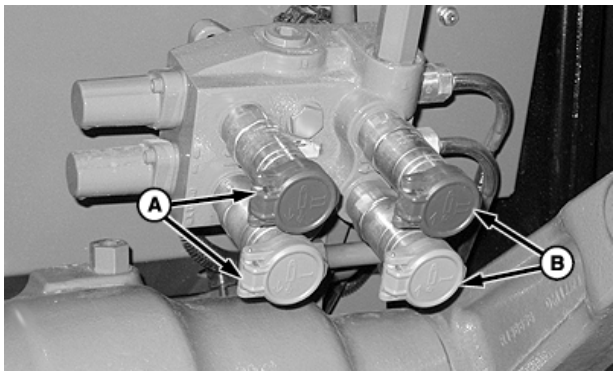
1. Identify extend and retract hoses.

Continued on next page

OUMX005,000292E -19-10FEB08-1/3



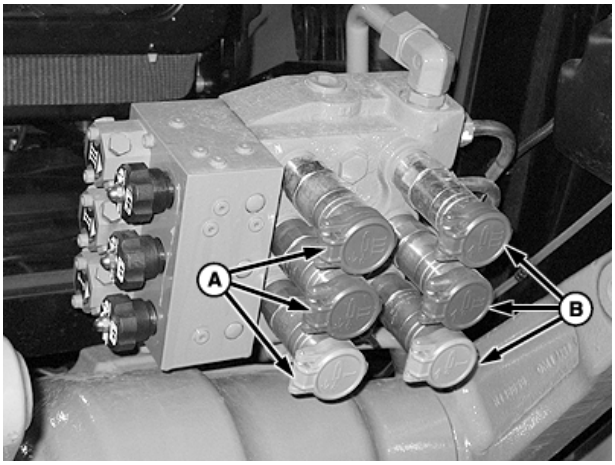
Symbols on Covers



Two-Section Valve

2. SCV couplers are identified by symbols on the covers:
   - EXTEND—Left-hand side couplers (A)
   - RETRACT—Right-hand side couplers (B)

A—EXTEND Couplers **B—RETRACT Couplers**



Three-Section Deluxe Valve (If Equipped)

OUMX005,000292E -19-10FEB08-2/3

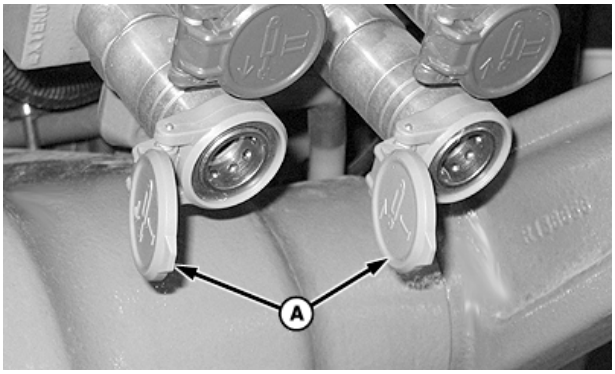
3. Remove dust caps (if equipped) from hose ends.
4. Open coupler covers (A).

CAUTION: Hydraulic hoses can fail due to physical damage, kinks, age and exposure. Check hoses regularly. Replace damaged hoses.

5. Making sure hose end and coupler are clean, push hose tip firmly into coupler. Pull on hose to make sure positive connection was made.

CAUTION: Hoses that have been reversed when connecting pose a serious hazard. If SCV lever is pushed all the way forward to float or regenerate position, implement would drop suddenly, potentially causing serious injury or death. Never attempt to use float or regenerate position before you have performed the following verification step.

6. To make sure hoses have been connected to correct receptacle, pull SCV lever I slightly back of center.

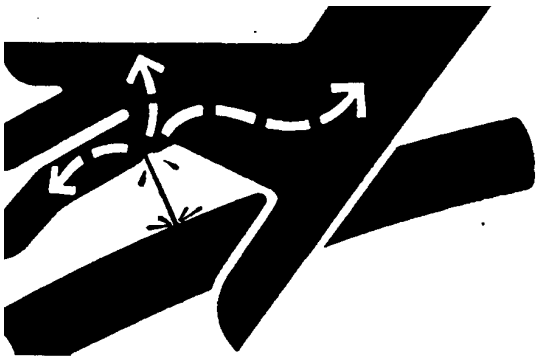


A—Coupler Covers

This should raise implement. If implement lowers instead of rising, hoses are reversed and need to be connected correctly.

OUMX005,000292E -19-10FEB08-3/3

Connecting Cylinder Hoses—Mid-Mount Valve (If Equipped)



X9811 —UN—23AUG88

CAUTION: Escaping fluid under pressure can penetrate the skin causing serious injury. Avoid the hazard by moving all rear SCV control levers and mid-mount joystick in all directions to relieve pressure before disconnecting hydraulic or other lines. Tighten all connections before applying pressure. Search for leaks with a piece of cardboard. Protect hands and body from high pressure fluids.

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

OUMX005,000292F -19-16APR08-1/2

NOTE: Hose connections at mid-mount valve are color-coded.

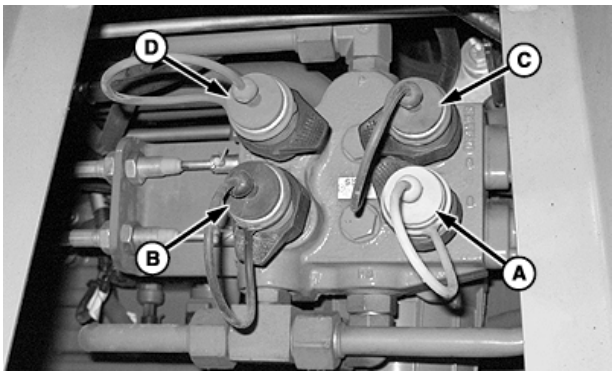
1. Match hoses to couplers using color-coded dust caps/plugs.

Key	Tie Band/Plug/Cap Color	Hydraulic Function
A	Black	Bucket Cylinder—Rod End
B	Yellow	Bucket Cylinder—Head End
C	Blue	Lift Cylinder—Head End
D	Red	Lift Cylinder—Rod End
E	Orange	Attachment Cylinder—Head End
F	Green	Attachment Cylinder—Rod End

2. Remove dust caps from hose ends.
3. Pull dust plugs from valve couplers.

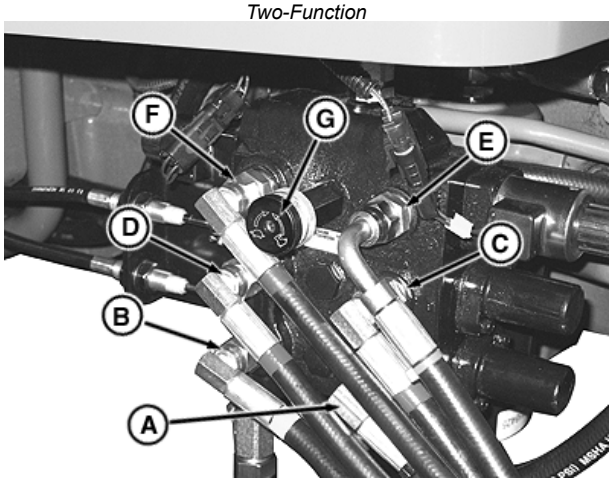
CAUTION: Hydraulic hoses can fail due to physical damage, kinks, age and exposure. Check hoses regularly. Replace damaged hoses.

4. Making sure hose end and couplers are clean, push hose tip firmly into coupler. Pull on hose to make sure positive connection was made.
5. Connect mating (color-coded) plugs and caps together.



P15246 —UN—10FEB08

Two-Function



P15488 —UN—16APR08

Three-Function Deluxe Valve (If Equipped)

OUMX005,000292F -19-16APR08-2/2

Connecting and Operating Single-Acting Cylinder

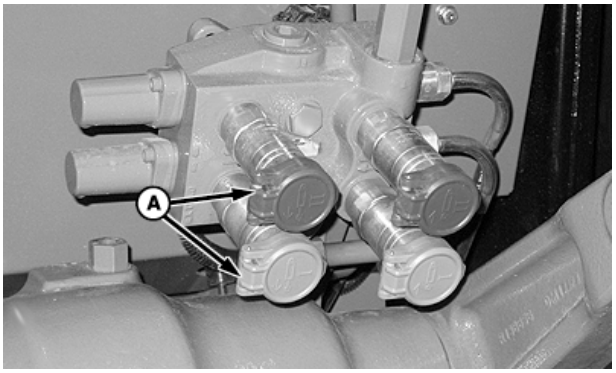
Single-acting cylinder should only be connected to EXTEND couplers (A).

IMPORTANT: Volume of oil required to extend cylinder will lower transmission-hydraulic oil level. With cylinder fully extended, check oil level and fill to proper level. (See CHECKING TRANSMISSION-HYDRAULIC SYSTEM OIL LEVEL in Lubrication section.)

Pull SCV control lever back to pressurize and extend single-acting cylinder.

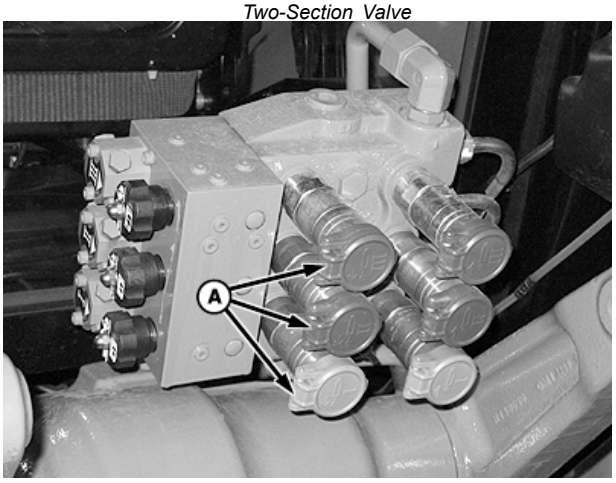
Push SCV control lever full forward to “float” position to retract cylinder.

A—Extend Couplers



P15251 —UN—10FEB08

Two-Section Valve



P15252 —UN—10FEB08

Three-Section Deluxe Valve (If Equipped)

OUMX005,0002930 -19-10FEB08-1/1

Operating SCV Control Levers—Single or Two-Function Valve

CAUTION: Overheated hydraulic oil can cause personal injury and component malfunctions. To prevent hydraulic oil from overheating, DO NOT hold SCV control lever in operating position for an extended period of time.

Extend and Retract Cylinders

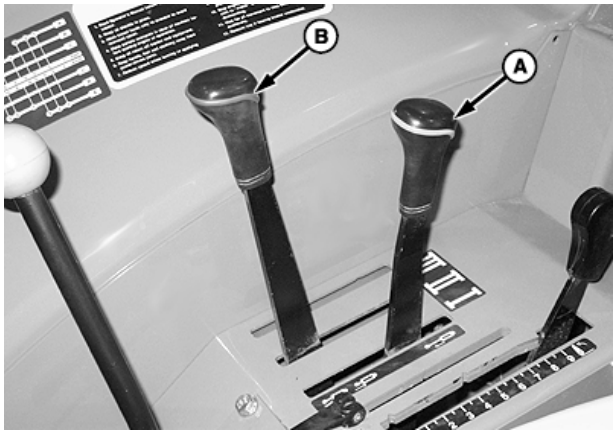
With hoses properly connected to couplers, pull lever back against spring pressure to extend remote cylinder. Spring pressure returns lever to neutral when released. With lever in neutral, remote cylinder is hydraulically locked in position. Push lever forward against spring pressure to retract cylinder.

Float Position

Push lever forward, through retract, into detent to operate “float” feature.

“Float” operation allows cylinder to extend and retract freely, such as when an implement follows ground contour.

Manually return lever to neutral when “float” is no longer required.



P15253 —UN—10FEB08

OOS Shown

A—SCV I Lever **B—SCV II Lever**

Hydraulic Motor Operation

See USING REAR SCV TO OPERATE HYDRAULIC MOTOR in this section.

OUMX005,0002932 -19-10FEB08-1/1

Setting Detents and Operating SCV Control Levers—Three-Function Deluxe Valve (If Equipped)

Setting Control Lever Detents

Each section of the deluxe SCV has selectable detents, used to change control lever operations to meet operating requirements of different implements. Detent settings only affect extend and retract lever positions, not “float”.

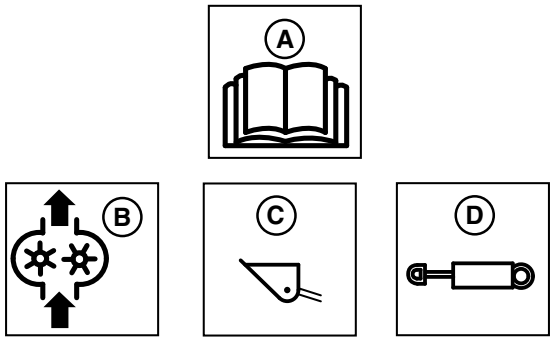
NOTE: Read operator’s manual symbol (A) is for reference only and is not a selectable setting.

The three settings are:

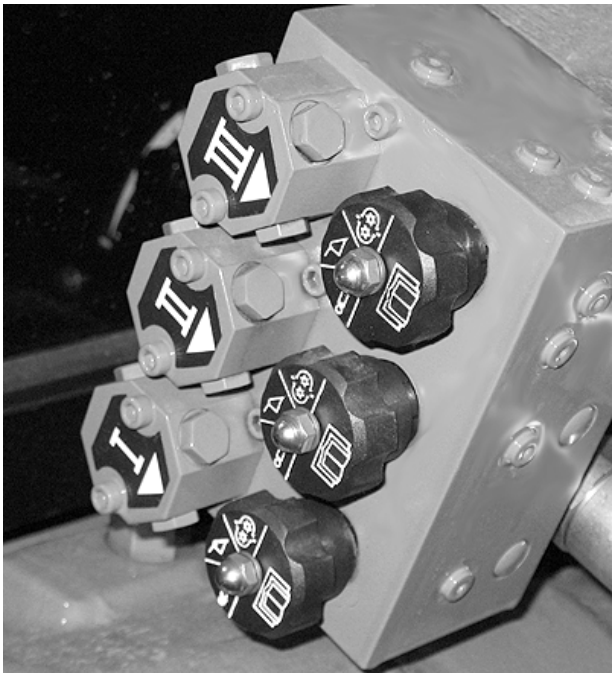
- (B)—Continuous Detent (Motor)
- (C)—No Detent (Loader)
- (D)—Automatic Detent (Cylinder)

NOTE: Knob setting stop is in the front, center position (white triangles).

SCV Knob Position—Operation	Control Lever Detent
Centered—Loader operation	No Detent—Lever returns to neutral when released
Turn counterclockwise—Motor operation	Continuous Detent—Holds lever in operating position until manually returned to neutral
Turn clockwise—Cylinder operation	Automatic Detent—Lever automatically returns to neutral when cylinder reaches end of stroke



LV9660 —UN—19AUG04



P15254 —UN—11FEB08

A—Read Operator’s Manual
B—Continuous Detent (Motor)
C—No Detent (Loader)
D—Automatic Detent (Cylinder)

IMPORTANT: To avoid overheating hydraulic oil and damage to tractor, use SCV I when long duration “continuous” (motor) operation is required. Section I of the deluxe SCV has a flow control valve which, when properly adjusted, provides flow to operate an implement at required speed. Only motors requiring high flow at low pressure can be used on open center hydraulic systems. Do not use with motors requiring low flow at high pressure, oil will overheat and cause damage to hydraulic system. See your nearest John Deere dealer for more information on hydraulic motor applications.

Valve sections II and III can be set to “continuous” (motor) detent, but should only be used for intermittent applications (not exceeding 10 min/hr maximum) or hydraulic oil will overheat and damage tractor.

Continued on next page

OUMX005,0002931 -19-14APR08-1/2

Operating Control Levers

Extend and Retract Cylinders: With hoses properly connected to couplers, pull lever back to extend remote cylinder or push forward to retract.

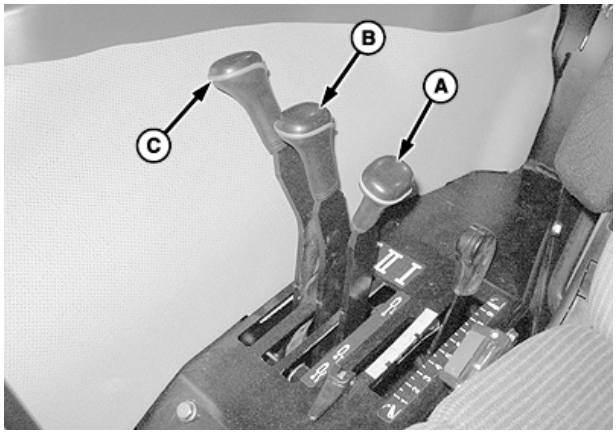
- When selector knob is set to **No Detent (Loader)** position, lever returns to neutral when released.
- When selector knob is set to **Automatic Detent (Cylinder)** position, lever automatically returns to neutral when cylinder reaches the end of stroke.
- When selector knob is set to **Continuous Detent (Motor)** position, lever must be manually returned to neutral.

With lever in neutral, remote cylinder is hydraulically locked in position.

Float Position: Push lever forward, through retract, into detent to operate “float” feature. “Float” operation allows cylinder to extend and retract freely, such as when an implement follows ground contour. Manually return lever to neutral when “float” is no longer required.

Hydraulic Motor Operation

See USING REAR SCV TO OPERATE HYDRAULIC MOTOR in this section.



P15243 —UN—10FEB08

Cab Shown

A—SCV I Lever
B—SCV II Lever
C—SCV III Lever

OUMX005,0002931 -19-14APR08-2/2

Using Rear SCV to Operate Hydraulic Motor

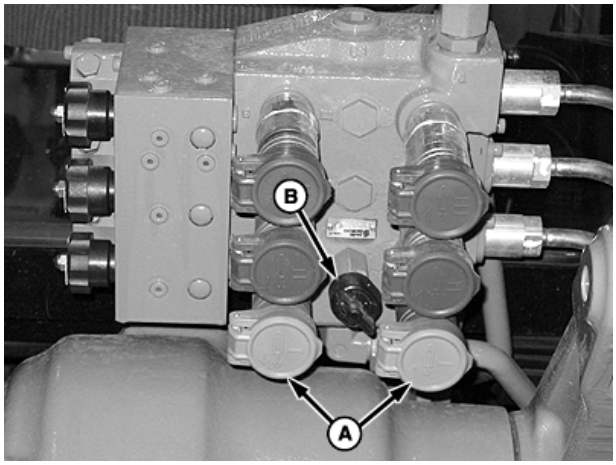
Three-Function Deluxe Valve Section I Only

IMPORTANT: Use SCV I (A), with adjustable (internal) flow control valve (B) for hydraulic motor operations. Only motors requiring high flow at low pressure can be used on open center hydraulic systems. Do not use with motors requiring low flow at high pressure, oil will overheat and cause damage to hydraulic system. See your nearest John Deere dealer for more information on hydraulic motor applications.

IMPORTANT: Never regulate SCV I oil flow with an external flow control valve. Having two flow control valves in the same hydraulic circuit can overheat oil causing component malfunctions and damage.

Deluxe Valve Sections II or III

Use external flow control valve to regulate oil flow when operating a hydraulic motor three-function deluxe valve sections II or III, without internal flow control.



P15255 —UN—11FEB08

Three-Function Deluxe Valve Shown

A—SCV I
B—Adjustable Flow Control Valve

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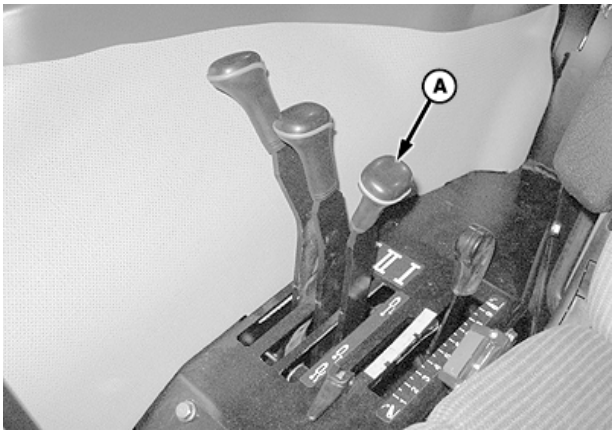
OUMX005,0002933 -19-15APR08-1/2

Hydraulic Motor Hose Connections and Control Lever Operations

1. Shut off engine.
2. Move SCV control lever full forward, into “float” detent. With three-function deluxe valve, use SCV I control lever (A).

IMPORTANT: Motor must receive oil from retract port of SCV so when stopping motor, lever doesn’t have to move through neutral to get to float position. Neutral standby pressure may cause back-pressure damage to hydraulic motor or hoses.

3. Connect hydraulic motor hoses to SCV couplers **(pressure to retract, return to extend)** that correspond to selected control lever. With three-function deluxe valve, use SCV I couplers. Return oil may also be routed to a hydraulic motor return port (If Equipped) (See Using Hydraulic Motor Return Connection).
4. Some hydraulic motors have a separate case drain line for internal leakage. The case drain line must be routed to the drain port to direct oil to sump (zero back pressure) (See Using Hydraulic Motor Case Drain Connection—If Equipped).
5. **Three-Function Deluxe Valve:** Set control lever detent for continuous “motor” operation. See SETTING DETENTS AND OPERATING SCV CONTROL LEVERS—THREE-FUNCTION DELUXE VALVE (IF EQUIPPED).
6. Start engine.
7. Activate SCV by moving lever forward to retract detent position and adjust hydraulic flow rate per pump manufacturers guidelines.



Cab Shown

A—SCV I Control Lever

8. Shut off spray pump by moving SCV control lever to float position (full forward). Stopping spray pump by moving SCV to neutral position will cause high pressure oil to be trapped between SCV and motor. This may cause damage to motor seals. This also applies to other pumps and motors using the SCV pressure and return couplers.

IMPORTANT: Do not use “neutral” lever position to stop hydraulic motor; use “float”. Neutral standby pressure may cause back-pressure damage to hydraulic motor or hoses.

9. To stop hydraulic motor, move control lever full forward into “float” detent.
10. Shut off engine and disconnect hoses from couplers.

OUMX005,0002933 -19-15APR08-2/2

Using Three-Function Deluxe SCV to Operate Loader

CAUTION: Avoid injury or death caused by falling loads. When using Three-Function Deluxe SCV to operate loader, detents must be set in No Detent (Loader) positions, for loader movement to stop when control lever is released. Moving control lever to a detented position would cause the loader to unexpectedly rise to full height and the load to fall back on the operator or suddenly lower to the ground causing crushing injury.

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P15254 —UN—11FEB08

No Detent (Loader) Position

OUMX005,0002934 -19-11FEB08-1/1

Operating Multifunction Control Lever (If Equipped)

CAUTION: Overheated hydraulic oil can cause personal injury and component malfunctions. To prevent hydraulic oil from overheating, DO NOT hold multifunction control lever in operating position for an extended period of time.

While multifunction control lever (A) can be used to operate other hydraulically driven devices, it is most commonly used to operate a loader attachment.

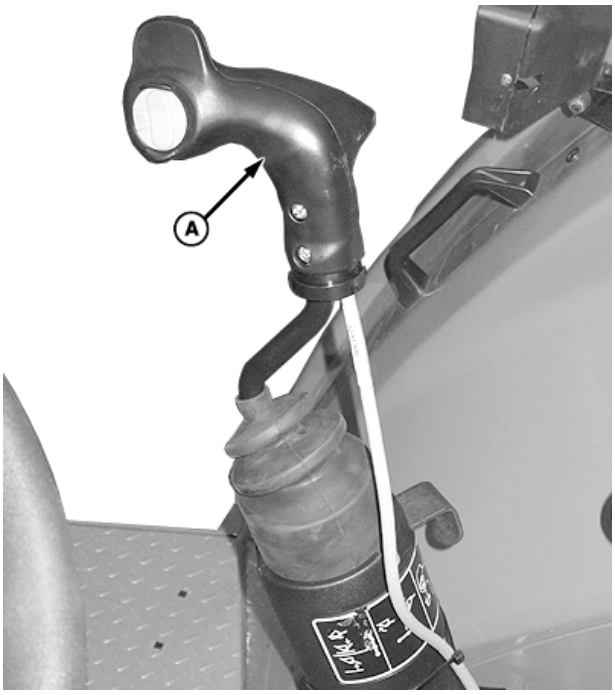
Lever controls lifting and lowering of the boom as well as tilting (dump) and rollback (curl) of the bucket.

Both two-function and three-function control levers use full forward detented position, for “FLOAT” operation.

Two-function control lever has a momentarily detented position (full right) used to fast dump the bucket.

Additional third-functions are controlled by handle-mounted switch.

A—Multifunction Control Lever



P15257 —UN—11FEB08

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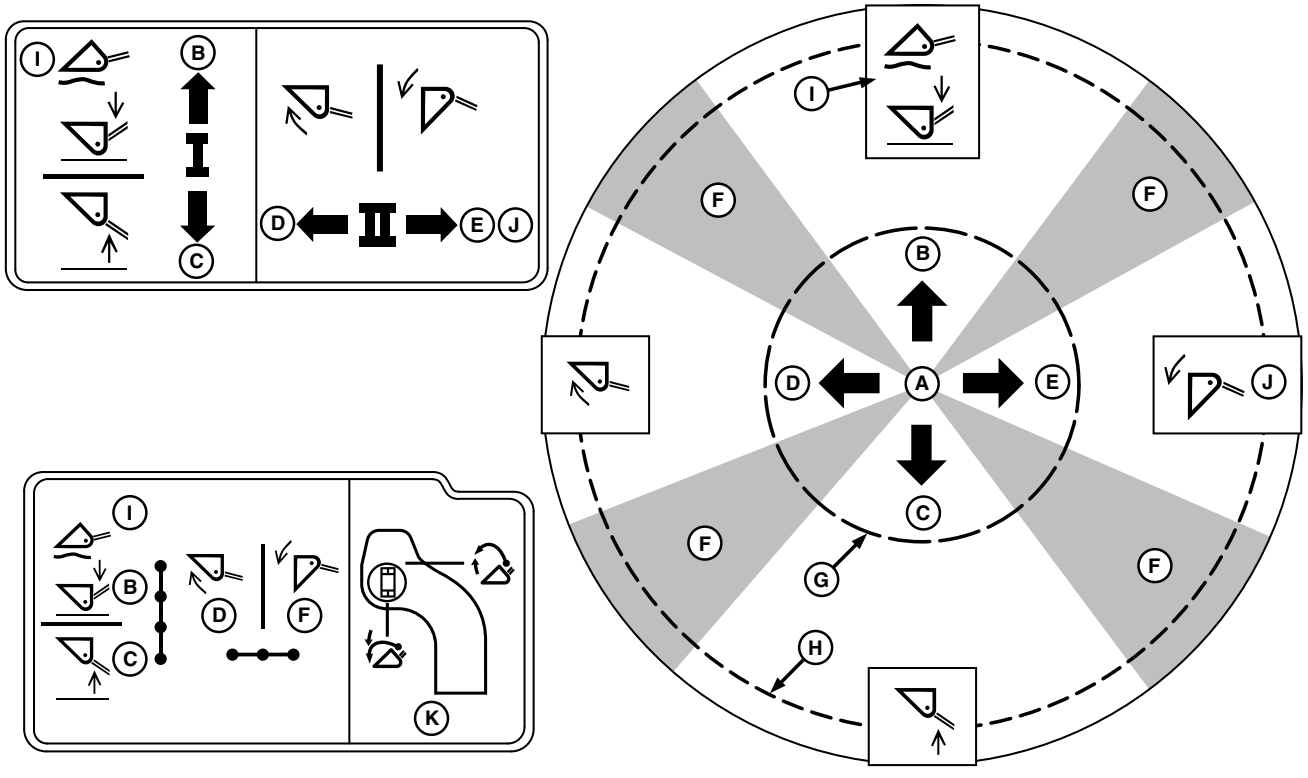


A—Control Lever—Neutral Position
B—Front—Boom Lower
C—Back—Boom Raise
D—Left—Bucket Rollback (Curl)
E—Right—Bucket Tilt (Dump)
F—Two-Function Zone
G—Slow Speed
H—Fast Speed
I— Detented "Float" Position
J—Fast Dump Position (Two-Function Control Lever only)
K—Third-Function Operations (See next page)

NOTE: Roman numerals do not apply to this application.

1. A single function operates when control lever (A) is moved straight away from center, in one-of-four primary directions (front, back, left or right).
   - Front—Boom Lower (B)
     - Full-front (I) is a detented position used for "float" operations
   - Back—Boom Raise (C)
   - Left—Bucket Rollback (Curl) (D)
   - Right—Bucket Tilt (Dump) (E)
     - **Two-Function Control Lever:** Full-right (J) is a momentarily detented regenerative position where return oil is used to fast dump the bucket
2. Two functions operate simultaneously when lever is moved at 45° angles from primary directions, into a two-function zone (F). Two-function zones are: Boom Lower/Bucket Dump, Bucket Dump/Boom Raise, Boom Raise/Bucket Curl, Bucket Curl/Boom Lower.
3. When lever is released to spring-centered neutral position, mid-mount valve holds boom and bucket in position.
4. Cylinder operating speed depends on how far from center the control lever is moved. When lever is first moved from center, hydraulic functions operate slowly (G), then move progressively faster as lever is moved further away from center, out to fast speed operating position (H).

"Float": Push lever full forward into detent, when "float" is desired. "Float" position (I) allows loader boom to move up and down freely, while traveling over rough ground. Manually return lever to neutral, when "float" is no longer needed.

Continued on next page

OUMX005,0002935 -19-11FEB08-2/5

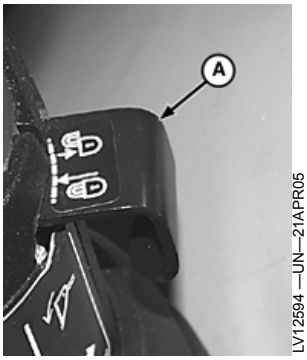
Transport Lock

CAUTION: To prevent loader movement, engage control lever transport lock (A) before dismounting tractor. Control lever must be in center (neutral) position for lock to engage.

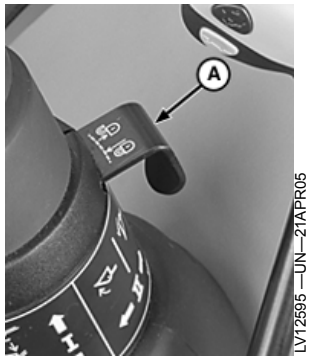
Transport lock does not lock out switch operated third-function hydraulics, which are active anytime the key is ON.

- Push IN—Lock
- Pull OUT—Unlock

NOTE: Lock is engaged when dashed line is in against body and lever does not move.



Locked



Unlocked

A—Transport Lock

OUMX005,0002935 -19-11FEB08-3/5

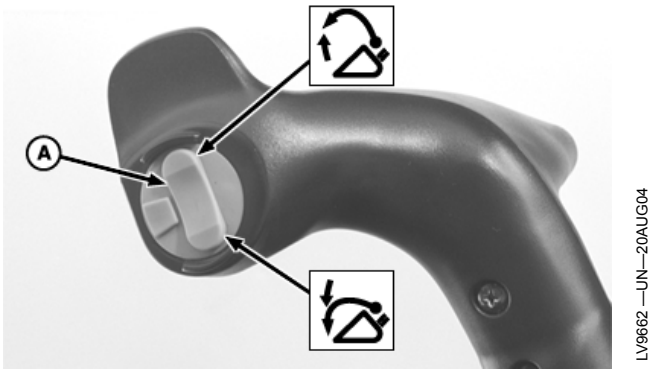
Third-Function (Electro-Hydraulic)

Switch (A) controls third-function hydraulics connected to three-function mid-mount valve. Third-function hydraulics are active anytime the key is ON.

- Top half pressed: Attachment retract/raise (grapple open)
- Bottom half pressed: Attachment extend/lower (grapple close)

NOTE: Front switch is not operational in this application.

A—Switch



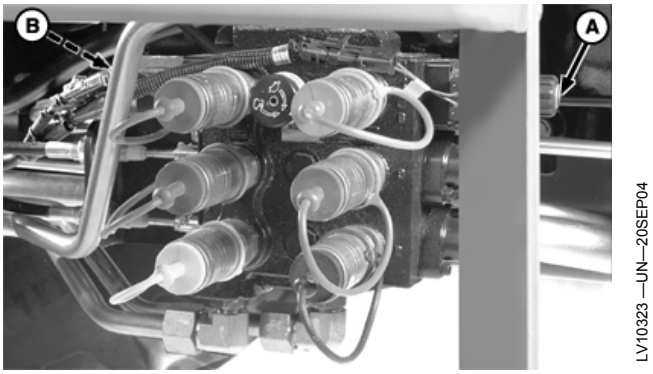
OUMX005,0002935 -19-11FEB08-4/5

Manually Operating Third-Function (Electro-Hydraulic) Valve Section

Third-function (grapple) valve section can be manually operated, if an electrical malfunction occurs.

Insert a small diameter punch through access hole (A or B) and push spool to either extend or retract cylinders as needed to release load.

A—Access Hole (Extend) **B—Access Hole (Retract)**



Mid-Mount Valve

OUMX005,0002935 -19-11FEB08-5/5

Adjusting Flow Control—Three-Function Deluxe Valve (If Equipped)

CAUTION: Excessive operating speed may cause injury or machine damage.

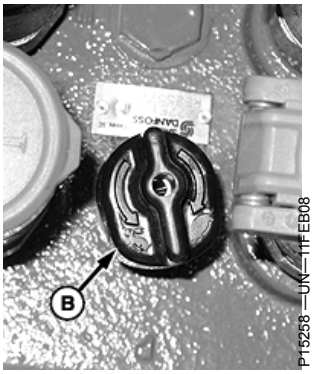
Decrease flow rate if hydraulic oil overheats, remote cylinder moves too quickly or if hydraulic motor turns too fast.

Flow control adjustment only affects the number I section of rear SCV and the electro-hydraulic (grapple) section of the mid-mount control valve. Other valve sections are not affected by this adjustment.

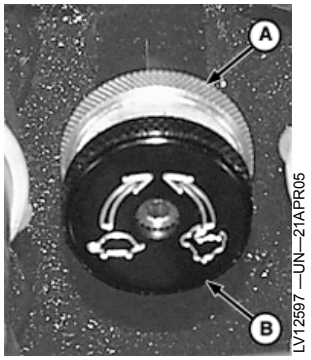
To adjust flow rate and operating speed, loosen lock nut (A) (if equipped) and turn flow control knob (B):

- Counterclockwise “Rabbit”—Increase flow rate and speed
- Clockwise “Turtle”—Decrease flow rate and speed

NOTE: Rear SCV: If detent kicks out before end of cycle, use SCV I and adjust flow control.



SCV (Rear)



Mid-Mount Valve

A—Lock Nut (If Equipped) **B—Flow Control Knob**

OUMX005,0002936 -19-11FEB08-1/1

Using Power Beyond Attachment (If Equipped)

IMPORTANT: Only hydraulic motors requiring high flow at low pressure can be used on open center hydraulic systems. Do not use with motors requiring low flow at high pressure, oil will overheat and cause damage to hydraulic system. See your nearest John Deere dealer for more information on hydraulic motor applications.

Power Beyond is used as a pressure/flow source for auxiliary functions equipped with independent flow control valves. Use Power Beyond when:

- Tractor SCV control is not needed
- No other SCV outlet is available

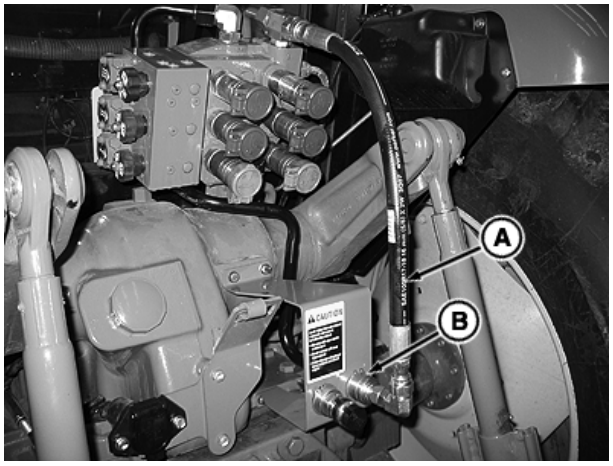
Power beyond is designed for operations where continuous high volume, low pressure oil flow is needed.

IMPORTANT: Power beyond must either be kept in the storage position as shown (return hose plugged into coupler) or attached to implement pressure and return circuit. Not connecting in this manner will cause tractor to overheat.

To use power beyond feature, push in on hose (A) to remove from coupler (B) and attach to implement’s “return” port. To complete the hydraulic circuit, attach implement’s “pressure” hose to open coupler (B).

When not in use, plug hose end into coupler for storage.

Power Beyond Kit is available from your John Deere dealer.



Power Beyond (In Storage Position)

A—Power Beyond Hose **B—Hose Coupler**

OUMX005,0001A03 -19-23JUN08-1/1

Using Hydraulic Motor Case Drain Connection (If Equipped)

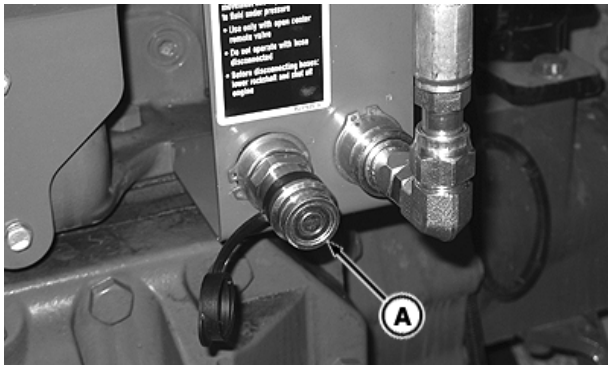
Some implement motors have a case drain line used to bleed oil off the motor case and protect the shaft seal.

If implement motor is equipped with a case drain hose, attach it to flat-faced drain connector (A). Make sure hose coupler and drain connector are clean before attaching.

Install protective dust cap when connector is not in use.

Parts for this attachment are available from your John Deere dealer.

A—Flat-Faced Drain Connector



P15312 —UN—26MAR08

OUMX005,0001A05 -19-15APR08-1/1

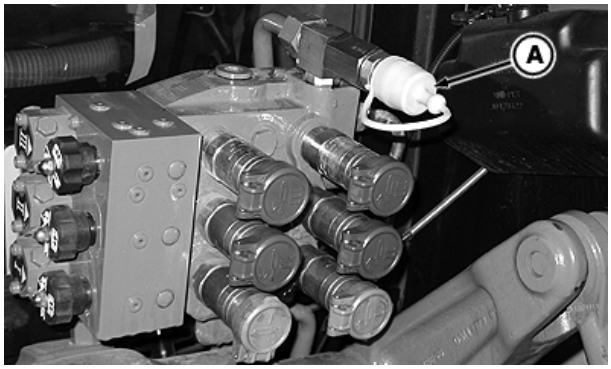
Using Hydraulic Motor Return Connection (If Equipped)

Some implements, such as a post pounder, require use of a high flow or fast return-to-sump connection.

If a high flow return connection is needed, remove cap (A) on valve stack housing and attach hose fitting to connector.

Motor return parts are available from your John Deere dealer.

A—Motor Return Connector Cap



P15309 —UN—26MAR08

OUMX005,0001A04 -19-15APR08-1/1

Observe Drawbar Load Limitations

IMPORTANT: Certain heavy equipment, such as a loaded single-axle trailer, can place excessive strain on drawbar. Strain is greatly increased by speed and rough ground.

For drawn PTO-driven implements, drawbar must be in the extended hole position.

Static vertical load on drawbar should not exceed specification.

Drive slowly with heavy loads.

Specification	
Static Vertical Load, Short Position—Capacity	1900 kg (4189 lb)
Static Vertical Load, Extended Position—Capacity	800 kg (1764 lb)

OUO6070,0000052 -19-15APR08-1/1

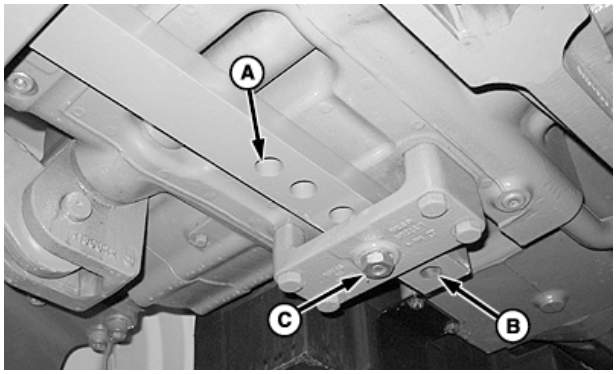
Adjusting Drawbar Length

Hole (A): SHORT position

Hole (B): EXTENDED position

1. Loosen and remove drawbar retaining pin and nut (C).
2. Slide drawbar forward or rearward to desired position.
3. Align holes and install retaining pin and nut. Tighten to specifications.

Specification	
Drawbar Retaining Pin Nut—Torque	410 N·m (300 lb-ft)



P15232 —UN—06FEB08

A—Hole, RETRACTED (short) Drawbar Position
B—Hole, EXTENDED Drawbar Position
C—Retaining Pin and Nut

NS43404,0000493 -19-06FEB08-1/1

Adjusting Drawbar Height

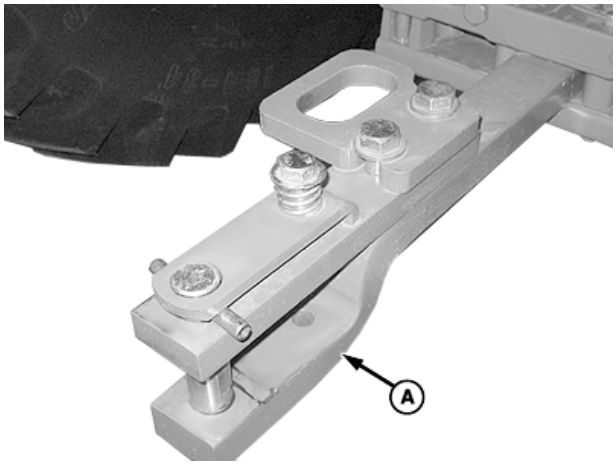
Height of drawbar is adjusted by turning offset (A) up or down.

Remove clevis assembly (if equipped) and slide drawbar out and turn it over. (See ADJUSTING DRAWBAR LENGTH in this section.)

Install drawbar and attach clevis assembly (if equipped) to the top of the drawbar.

IMPORTANT: If equipped, clevis assembly must always be on top of drawbar if used.

A—Offset



P15233 —UN—06FEB08

Offset DOWN (Optional Clevis Assembly Shown)

OUMX005,0002926 -19-06FEB08-1/1

Adjusting Drawbar Side-to-Side

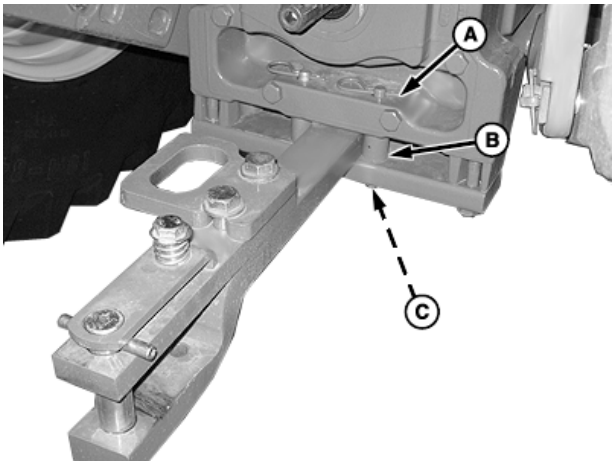
CAUTION: To avoid personal injury, use retaining pins to hold drawbar stationary when operating PTO-driven implements.

Right Side Swing: Support bottom of pin (C) and remove spring clip (A), pin and spacer (B).

Left Side Swing: Repeat procedure on left-hand side pin assembly.

Full Swing (side-to-side): Remove both pin assemblies.

A—Spring Clip
B—Spacer
C—Retaining Pin



P15234 —UN—06FEB08

OUMX005,0002927 -19-06FEB08-1/1

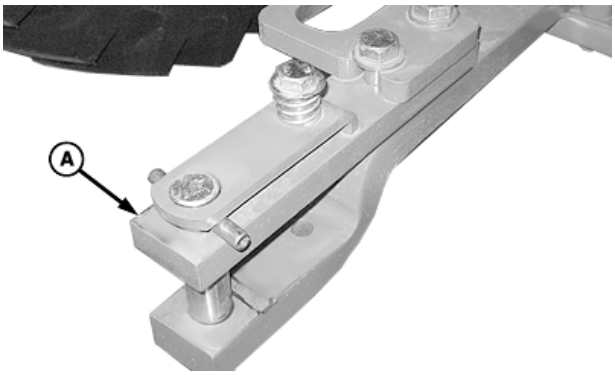
Using Clevis Assembly (If Equipped)

IMPORTANT: Remove clevis assembly before attaching PTO-driven equipment. Clevis may cause interference with PTO shaft.

Clevis assembly (A) must be attached ONLY to top of drawbar. If drawbar is turned over, remove clevis assembly and attach to top of drawbar.

Connect implement to drawbar, using pin of clevis assembly.

A—Clevis Assembly



P15235 —UN—06FEB08

OUMX005,0002928 -19-06FEB08-1/1

Changing Reversible PTO Stub Shaft (If Equipped)

CAUTION: 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.

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

Avoid personal injury. PTO shaft may be hot from operation. Wear gloves and allow shaft to cool before changing.

IMPORTANT: Implements can be operated at 540 rpm only if the power input never exceeds 56 PTO kW (75 PTO hp). Operating PTO at lower speeds under heavy load could damage PTO.

For implement power requirements of 56 PTO kW (75 PTO hp) up to 86 PTO kW (115 PTO hp), PTO shaft must be switched to 1000 rpm end, as described below.

TS1644 —UN—22AUG95

NOTE: The 1000 rpm stub shaft has 21 splines for heavy PTO loads. The 540 rpm stub shaft has 6 splines for loads requiring less than 56 PTO kW (75 PTO hp). Consult implement operator's manual to determine shaft suitability, depending on implement power requirement.

1. Raise PTO shield (If equipped).

OUMX005,0002929 -19-07APR08-1/2

2. Rotate ends of snap ring (A) to align with flat surface of PTO stub shaft.
3. Remove snap ring and pull out shaft.
4. Clean stub shaft thoroughly. Coat splines with John Deere HD Non-Clay grease.

IMPORTANT: Avoid damage to PTO. Clean bore (C) thoroughly when installing PTO shaft for 1000 rpm use.

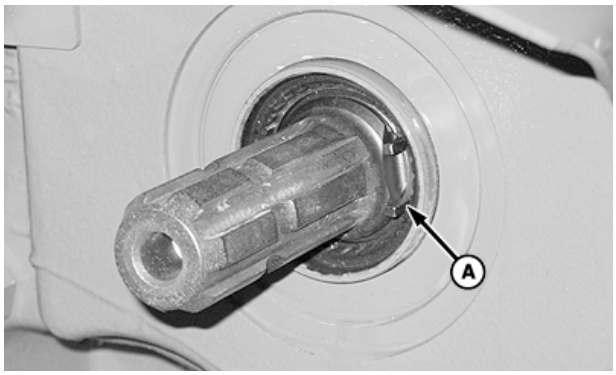
5. Install shaft into PTO housing.

   540 rpm shaft: Rotate shaft back and forth while installing, to ensure shaft is properly seated in housing; continue to push shaft in while installing snap ring.

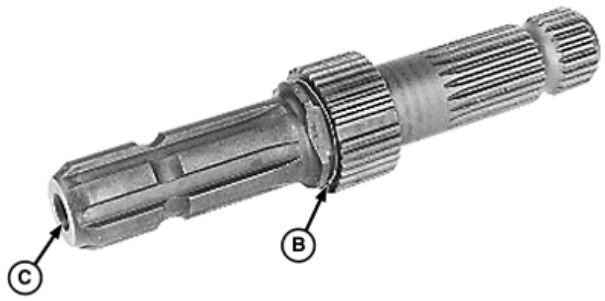
   1000 rpm shaft: Rotate shaft back and forth while installing until engagement is felt.

NOTE: Shaft is properly engaged when shaft turns with high effort.

6. Install snap ring in groove (B) to retain shaft.
7. Lower PTO shield (if equipped).



P15236 —UN—06FEB08



LV12604 —UN—26APR05

A—Snap Ring
B—Snap Ring Groove
C—Bore

OUMX005,0002929 -19-07APR08-2/2

Attaching PTO-Driven Implement

TS1644 —UN—22AUG95

CAUTION: 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.

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

To avoid injury, stop engine before attaching implement or working in area of implement hitch.

1. Stop engine and remove key. (See procedure in Operating the Engine section.)

NS43404,0000497 -19-15APR08-1/2

IMPORTANT: If equipped, remove clevis assembly on drawbar when using PTO-driven equipment.

The drawbar must be in extended hole position to attach PTO-driven implement.

Short position hole should never be used for PTO-driven implement.

2. Lock drawbar in center, no-sway position. (See ADJUSTING DRAWBAR SIDE-TO-SIDE in this section.)
3. Put drawbar in EXTENDED position. (See ADJUSTING DRAWBAR LENGTH in this section.)
4. Remove clevis assembly, if equipped.

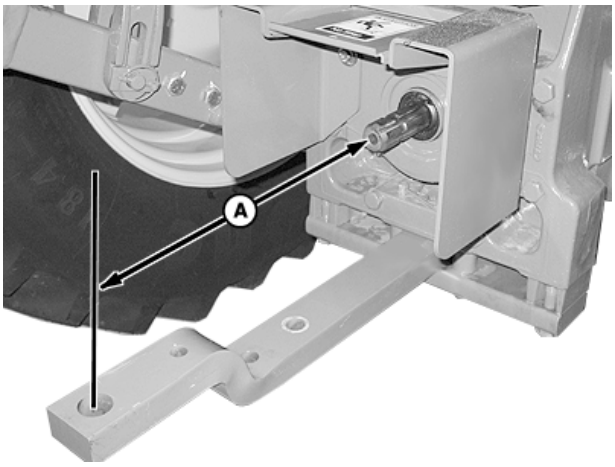
PTO Shaft	Distance from PTO Shaft End to Hitch Pin Hole (A)
540 rpm - 6 Splines[a]	356 mm (14.0 in.)
1000 rpm - 21 Splines[a]	406 mm (16.0 in.)

[a]35 mm (1-3/8 in.) Shaft Diameter

5. Attach implement to drawbar before connecting PTO driveline. Raise hitch to full-up (transport) position if not used.

   If implement will be connected to 3-point hitch, be sure drawbar will not interfere. Remove if necessary.

6. Lift up PTO shield (if equipped).



P15237 —UN—07FEB08

A—PTO Shaft-to-Pin Hole Distance

7. Turn PTO shaft by hand to line up splines. Connect driveline to PTO shaft. Pull out on shaft to be sure driveline is locked to PTO shaft.
8. Lower PTO shield (if equipped) to centered position.
9. Check for interference.

NS43404,0000497 -19-15APR08-2/2

Using Adjustable PTO Shield (If Equipped)

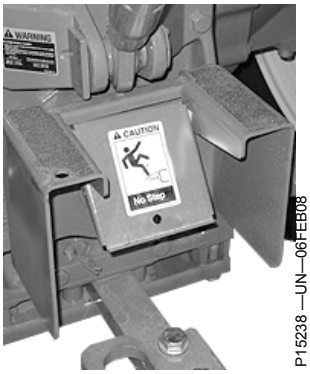
CAUTION: Avoid personal injury. The PTO shield must be in the correct position at all times. Do not use shield as a step.

Lowered position: Normal position. Drawbar visibility is improved for attaching an implement.

Center position: Use with PTO-driven implements.

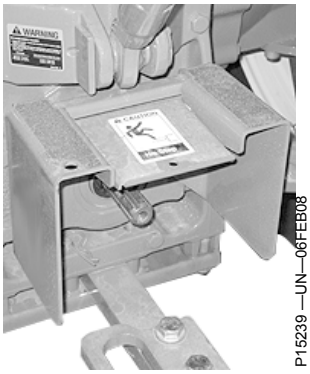
Raised position: Provides clearance while connecting implement driveline to the PTO shaft.

Move the PTO shield to center position before engaging PTO.



P15238 —UN—06FEB08

Lowered (Normal) Position



P15239 —UN—06FEB08

Centered Position

P15240 —UN—06FEB08

Raised Position

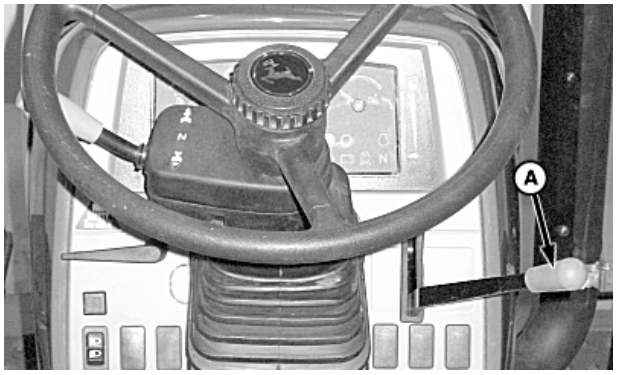
NS43404,0000498 -19-06FEB08-1/1

Operating Tractor PTO

NOTE: Engine will not start if PTO control lever is engaged.

1. Depress clutch pedal, start engine and push hand throttle lever (A) forward until engine tachometer indicates PTO rated speed of 2100 rpm.

A—Hand Throttle Lever



P14828 —UN—15APR08

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NS43404,0000499 -19-15APR08-1/2

NOTE: If operator is NOT on seat when PTO lever is ENGAGED:

- ***OOS:*** *Operator Alert Indicator (C) will turn ON*
- ***Cab:*** *Audible alarm will sound*

2. Move control lever (A) forward to engage PTO. Indicator light (B) will turn on when PTO is engaged.

CAUTION: Avoid personal injury. Stop engine and allow PTO driveline to stop before adjusting, connecting or cleaning PTO-driven implement.

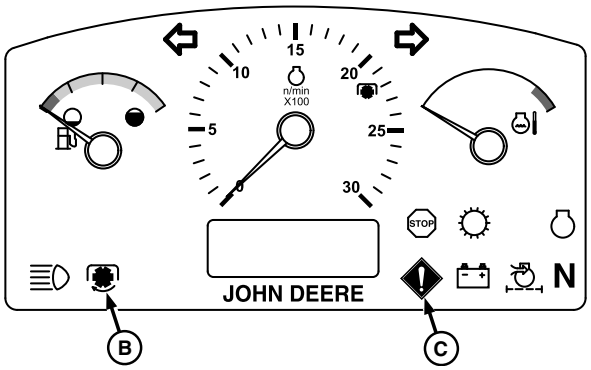
To avoid entanglement with rotating shaft, always disengage PTO when not in use.

3. Pull control lever back to disengage PTO.

A—PTO Control Lever
B—PTO Indicator Light
C—Operator Alert Indicator

P15334 —UN—19DEC08

Left-Side Panel



P15241 —UN—07FEB08

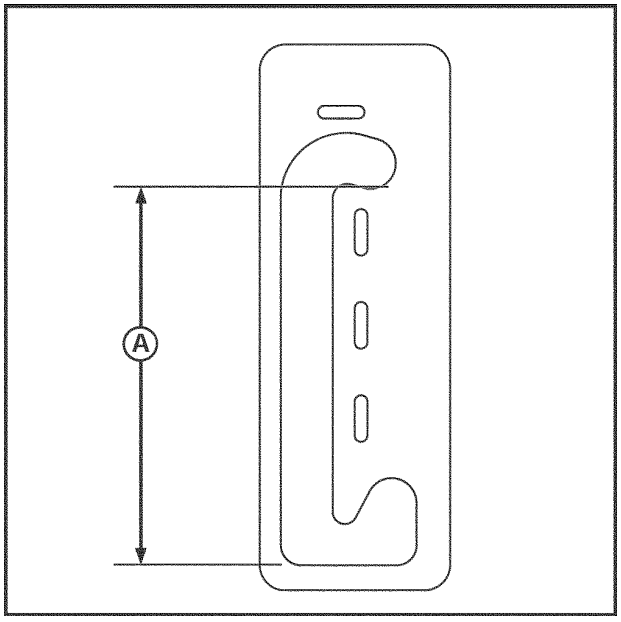
NS43404,0000499 -19-15APR08-2/2

Determine PTO Clutch Linkage Adjustment Procedure

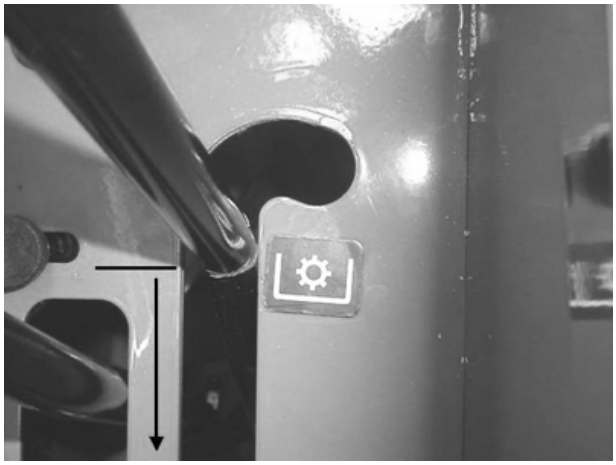
IMPORTANT: Do NOT adjust PTO clutch linkage until the engagement lever slot in operators station is measured. If incorrect adjustment procedure is performed, premature failure to PTO clutch throw out bearing can occur.

1. Measure the distance (A) of engagement lever slot.
2. Move the PTO lever forward in console slot until a slight increase in resistance is felt (this is the point where all free travel has been removed from PTO clutch linkage). Take care of not touching the edge of slot with lever, since this could mislead the position. Put a mark on console for future reference.
3. Measure the distance from the previous mark to end of engagement slot.
4. The difference between the two distances taken during Step 1 and Step 3 should be 21—27 mm (0.827—1.063 in.). This assures the proper PTO clutch linkage free travel of 3 mm (0.118 in.). Adjust PTO clutch linkage, if necessary. (See procedure in this section.)

A—Distance



P10531A —UN—28JUL04



P10531B —UN—28JUL04

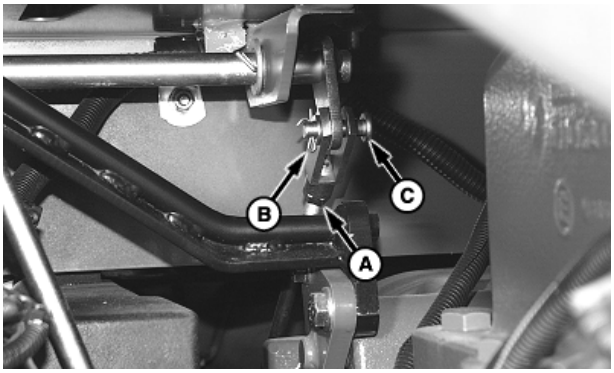
NS43404,000049A -19-07FEB08-1/1

Adjust PTO Clutch Linkage-TSS Transmission (OOS)

IMPORTANT: Do NOT adjust PTO clutch linkage until the slot in operators station is measured to determine correct procedure. Incorrect adjustment may cause premature failure to PTO clutch throw out bearing. (See DETERMINE PTO CLUTCH LINKAGE ADJUSTMENT PROCEDURE in this group.)

1. Move control lever rearward to its disengaged position.
2. Loosen jam nut (A).
3. Remove cotter pin (B) and pin (C).

IMPORTANT: Applying more than 5 lbs. of force will begin to depress the clutch fingers causing inaccurate clutch adjustment leading to potential clutch damage.

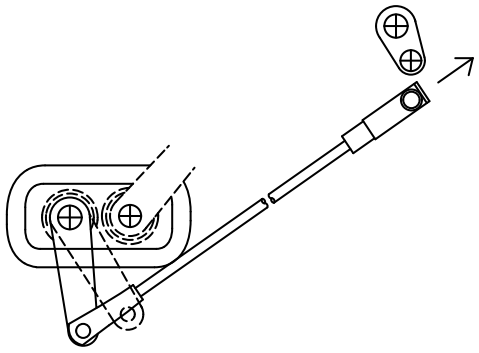


P10465 —UN—20NOV01

A—Jam Nut
B—Cotter Pin
C—Pin

PX03972,00004AB -19-17APR08-1/4

4. Pull linkage rearward (in direction of arrow) without exceeding 5 lbs. of force, until resistance is felt to remove free play.



P10464 —UN—19NOV01

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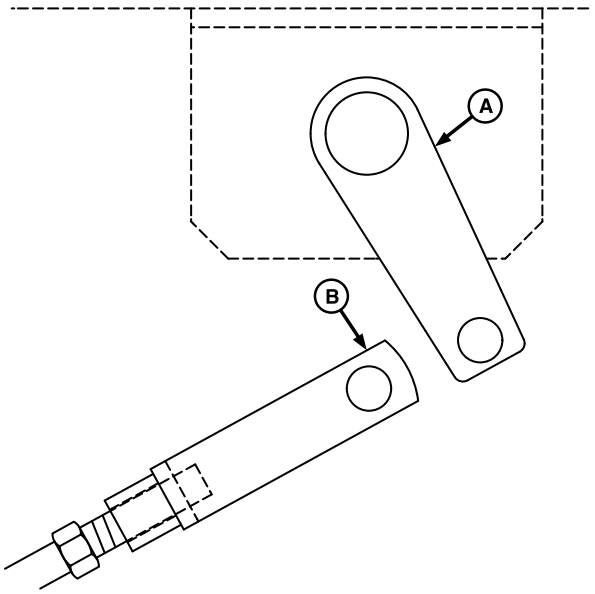
PX03972,00004AB -19-17APR08-2/4

5. Adjust yoke (B) of PTO rod to align the holes on yoke (B) and lever arm (A).
6. Engage and disengage PTO five times and make sure pin still gets in freely, if not readjust yoke and align holes again.
7. Put a mark on the yoke and remove pin.
8. Lengthen the rod and yoke by rotating the yoke (B) 2.5 turns counterclockwise (TSS).
9. Install pin and cotter pin.
10. Hold yoke and tighten jam nut.

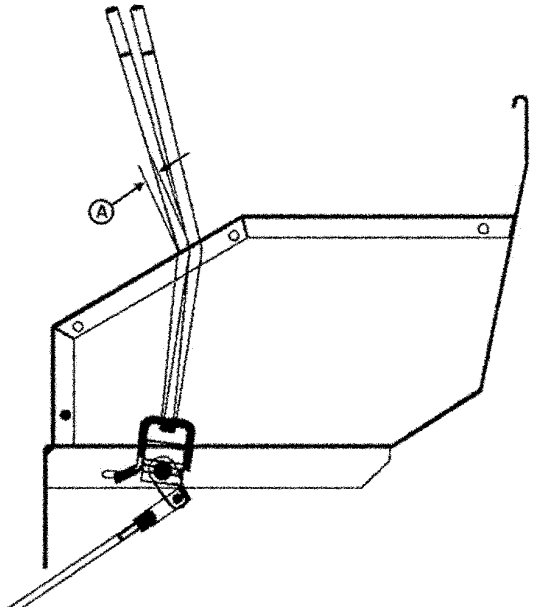
A—Engagement Arm **B—Yoke**



P10466 —UN—19NOV01

PX03972,00004AB -19-17APR08-3/4

11. To verify proper adjustment, check free play at PTO engagement lever in operator station. The free play (A) should be approximately 3 mm measured as shown in drawing.



P12390 —UN—19AUG03

PX03972,00004AB -19-17APR08-4/4

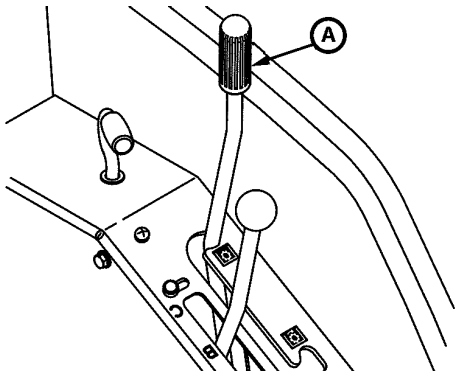
Adjust PTO Clutch Cable - TSS and CST Transmissions (Cab Tractors)

1. Move PTO lever (A) to rear (disengaged) position.

NOTE: On Cab Tractor adjustment assembly is located behind fuel tank on PTO clutch lever.

2. Remove spring lock pin (B).
3. Rotate PTO lever (E) counter clockwise until free play is removed (Slight resistance encountered).
4. Adjust yoke (D) until spring lock pin can be installed through yoke and lever.
5. Return the yoke (D) 2.5 full rotations.
6. Install spring lock pin through yoke and lever.

A—PTO Clutch Lever
B—Spring Lock Pin
C—Cable
D—Yoke
E—PTO Lever



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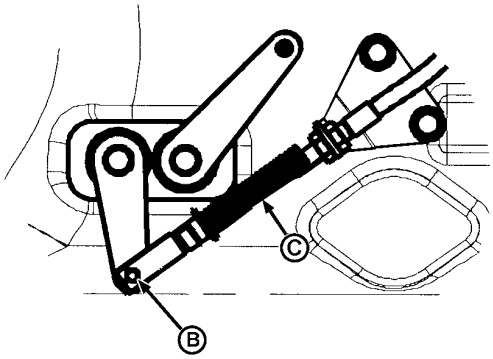

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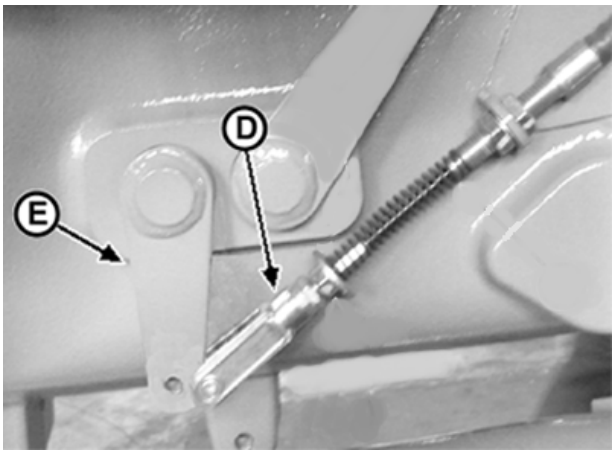

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Performance Ballasting

Planning for Maximum Productivity

Proper ballasting is an important factor in tractor performance. Maximum productivity can be achieved only if tractor weight is appropriate for the job.

John Deere provides additional information on performance ballasting in two of the manuals in the series "Fundamentals of Machine Operations".

(See John Deere Service Literature Available in this manual.):

- "Tractors" provides information on determining correct tractor weight and ballast selection.
- "Machinery Management" provides information on implement matching and increasing productivity.
- Your John Deere dealer can assist you with information on these subjects.

OUO1023,00028F5 -19-28MAR08-1/1

Selecting Ballast Carefully

Match amount of ballast needed for each job. What is right for one job may be wrong for another job. Ballast for traction and stability.

Factors determining amount of ballast:
- Soil surface—loose or firm
- Type of implement—integral/semi-integral or towed
- Travel speed—slow or fast
- Tractor power output—partial or full load
- Tire size

Ballasting MFWD-Equipped Tractors

Ideal tire slippage for MFWD-equipped tractors is 8—12%. To reduce wheel slip to this level, more weight is needed on the front than with two-wheel-drive tractors. The ideal weight split is 40% front, 60% rear, of total tractor weight. In some cases liquid ballast will be needed in front tires to obtain this weight split.

If equipped with a loader, provide adequate ballast to rear wheels.

NOTE: Implement codes are used to determine proper ballast for stability and steering control. Refer to the implement code in your implement operator's manual, along with USING IMPLEMENT CODES in this section, to determine the minimum number of front weights that are required for your tractor model. In some cases, additional front ballast is required for optimum field performance. If more assistance is needed, see your John Deere dealer.

Matching Ballast to Work Load

Use no more ballast than necessary, and remove ballast when it is no longer needed.

Rather than weighing tractor down to pull heavy loads, try to reduce load. Pulling a lighter load at a higher speed is more economical and more efficient.

Too Little Ballast		Too Much Ballast	
1.	Excessive wheel slip	1.	Increased load
2.	Power loss due to churning soil	2.	Power loss due to carrying extra weight
3.	Tire wear	3.	Tire strain
4.	Fuel waste	4.	Soil compaction
5.	Lower productivity	5.	Fuel waste
		6.	Lower productivity

Ballast Limitations

Ballast should be limited by either tire capacity or tractor capacity. Each tire has a recommended carrying capacity which should not be exceeded (see Wheels, Tires and Treads section). If a greater amount of weight is needed for traction, a larger single tire should be considered.

Ballast can be added as either liquid or cast iron.

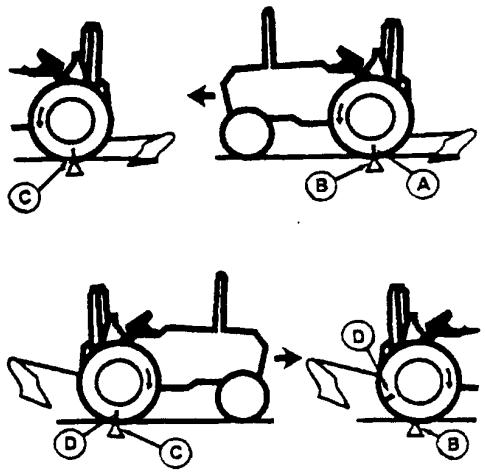
Checking for Correct Ballast

The best way to check for correct ballast is to measure amount of travel reduction (% slip) of the drive wheels. Under normal field conditions, travel reduction should be 10—15% (8— 12% for MFWD tractors)..

Add more weight to drive wheels if slip is excessive. If there is less than minimum recommended slip, weight should be removed.

OUO1023,00028D7 -19-27MAY09-1/1

Measuring Wheel Slip—Manually



M47166 —UN—31JAN92

A—Initial Tire Mark **B—Ground Starting Point** **C—10 Revolutions Ground Mark** **D—Second Tire Mark**

1. Place a mark (A) on a rear tire which is easily observed (a chalk mark is recommended).
2. With tractor working and implement lowered, mark a starting point (B) on the ground at the place where tire mark (A) meets the ground.
3. Mark the ground again where tire mark (A) completes 10 full revolutions (C).
4. With implement raised, return in the opposite direction. At the second mark on the ground (C), mark tire a second time (D).
5. While driving the tractor along the same path (implement raised), count the tire revolutions required to reach starting point (B).
6. Use the non-loaded wheel revolutions count in “Wheel Slippage Chart” to determine slippage.

NOTE: Ideal wheel slippage is 10-15 % for 2WD tractors, 8-12 % for tractors with MFWD.

7. Adjust ballast or load to give correct slippage.

NOTE: Available horsepower is greatly reduced when wheel slip drops below minimum percentage.

WHEEL SLIPPAGE CHART		
Non-Loaded Wheel Revolutions (Step 5)	**Estimated % Slip**	**Recommended Action**
10	0	Remove Ballast
9-1/2	5	Remove Ballast
9	10	CORRECT BALLAST
8-1/2	15	CORRECT BALLAST
8	20	Add Ballast
7-1/2	25	Add Ballast
7	30	Add Ballast

OUO6070,0000059 -19-26JAN08-1/1

Ballasting Front End for Transport

CAUTION: Additional front ballast may be needed for transporting rear-mounted implements. When implement is raised, drive slowly over rough ground, regardless of how much ballast is used.

CAUTION: Weights are heavy. Use proper lifting equipment.

Front weight support (A) and additional weights can be installed.

Specification

Front Weight Support—Weight	84 kg (185 lb)
Additional Weight—Weight (each)	47 kg (104 lb)

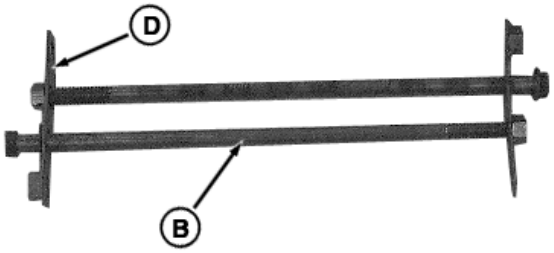
1. Install desired number of weights (C) on front weight support, up to maximum allowed.
   - 18 Total Additional Weights
2. To hold weights in place, insert two retaining bolts (B) in opposite direction, one right-to-left, the other left-to-right. Place retainers (D) as shown. Tighten retaining bolts to specification.

Specification

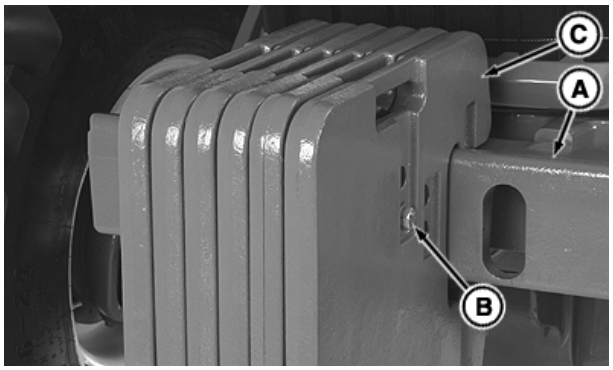
Weight Retaining Bolt—Torque	230 N·m (170 lb-ft)

A—Front Weight Support
B—Retaining Bolt (2 Used)
C—Additional Weights
D—Retainers and Nuts (2 Used)

P15327 —UN—27MAR08



P15328 —UN—27MAR08



P15324 —UN—27MAR08

NS43404,00004A2 -19-28MAR08-1/1

Determining Maximum Rear Ballast

IMPORTANT: Do not overload tires. If maximum weight shown in chart is not enough for safety, reduce load or install heavier ply tires.

Too much ballast will cause excessive soil compaction and rolling resistance, and shorten drive train life. Ballast should never exceed the weight required to provide traction for continuous full power loads in third gear. Remove ballast if tractor engine labors when pulling heavy loads in the first three gears.

Rear wheel ballast should never be such that the engine cannot support full load 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), this indicates there is too much ballast on the rear wheels.

Chart shows carrying capacity per tire.

MAXIMUM LOAD PER WHEEL		
Tire Size Bias Ply Tires	Ply Rating	Capacity kg (lb)
18.4-34	8	2550 (5623)
18.4-38	8	2700 (5954)

OUO6070,000005C -19-12OCT00-1/1

Determining Maximum Front Ballast

Use appropriate front ballast for a particular operating condition. Two-wheel drive tractors should only have enough ballast to maintain safe steering control. Remove ballast when it is no longer needed.

Chart shows carrying capacity per tire.

IMPORTANT: Do not overload tires. If maximum weight shown in chart is not enough for safety, reduce load or install tires with a higher load rating.

MAXIMUM LOAD PER WHEEL		
Tire Size	Ply Rating	Capacity kg (lb)
10.0-16	6	965 (2128)
13.6-24	6	1350 (2977)
14.9-24	8	1510 (3330)

OUO6070,000005D -19-28MAR08-1/1

Adding Rear Ballast For Front Loader

CAUTION: To help prevent personal injury or death from tractor/loader rollover, add recommended amount of ballast to tractor. The amount of ballast listed is the minimum required for normal loader operation. For some operations, additional ballast may be required to maximize stability. Select one of the following ballasting options.

Rear Ballast with 563 Loader[a]—6100D, 6110D * and 6115D Tractors				
MFWD TRACTORS		**Ballast**	**Heavy Duty Front Tire Load Index**	**Regular Duty Front Tire Load Index**
		563 SL Loader		
Option 1	3-Point Hitch Rear Axle	750 kg (1653 lb) 0	119 0	109 0
Option 2	Rear Axle	1282 kg (2826 lb)	122	113
		563 NSL Loader		
Option 1	3-Point Hitch Rear Axle	450 kg (992 lb) 0	117 0	108 0
Option 2	Rear Axle	775 kg (1709 lb)	117	111
2WD TRACTORS				
		563 SL Loader		
Option 1	3-Point Hitch Rear Axle	700 kg (1543 lb) 0	117 0	105 0
Option 2	Rear Axle	1352 kg (2981 lb)	120	110
		563 NSL Loader		
Option 1	3-Point Hitch Rear Axle	500 kg (1102 lb) 0	115 0	104 0
Option 2	Rear Axle	850 kg (1974 lb)	117	107

***** For Mexico - Central America

Ballast Notes:

- Due to some tractor loader combinations resulting in high front axle loads, 3-point hitch ballast is required as noted.
- Open operator station tractors require additional 350 kg (772 lb) rear axle ballast when hitch is used.
- Open operator station tractors require additional 1102 kg (500 lb) rear axle ballast when hitch is not used.
- Rear axle ballast based on steel wheel equipment.

[a] *Minimum required with rear tread set at 1825 mm (72 in.) is recommended.*

Rear Ballast with 673 Loader[a]—6100D, 6110D *, 6115D, 6125D *, 6130D and 6140D Tractors				
MFWD TRACTORS		**Ballast**	**Heavy Duty Front Tire Load Index**	**Regular Duty Front Tire Load Index**
		673 SL Loader		
Option 1	3-Point Hitch Rear Axle	1000 kg (2205 lb) 400 (882 lb)	124 0	113 0
Option 2	Rear Axle	N/A	N/A	
		673 NSL Loader		
Option 1	3-Point Hitch Rear Axle	700 kg (1543 lb) 0	119 0	111 0
Option 2	Rear Axle	1180 kg (2601 lb)	122	115
2WD TRACTORS				
		673 SL Loader		
Option 1	3-Point Hitch Rear Axle	1000 kg (2205 lb) 600 kg (1323 lb)	122 0	110 0
Option 2	Rear Axle	N/A	N/A	
		673 NSL Loader		
Option 1	3-Point Hitch Rear Axle	1000 kg (2205 lb) 0	116 0	105 0
Option 2	Rear Axle	N/A	N/A	

Continued on next page

Rear Ballast with 673 Loader[a]—6100D, 6110D *, 6115D, 6125D *, 6130D and 6140D Tractors				
MFWD TRACTORS		**Ballast**	**Heavy Duty Front Tire Load Index**	**Regular Duty Front Tire Load Index**
673 SL Loader				
* For Mexico - Central America				
Ballast Notes: • Due to some tractor loader combinations resulting in high front axle loads, 3-point hitch ballast is required as noted. • Open operator station tractors require additional 350 kg (772 lb) rear axle ballast when hitch is used. • Open operator station tractors require additional 1102 kg (500 lb) rear axle ballast when hitch is not used. • Rear axle ballast based on steel wheel equipment.				

[a] *Minimum required with rear tread set at 1825 mm (72 in.) is recommended.*

RW29387,000011F -19-18APR08-2/2

Using Cast Iron Weights

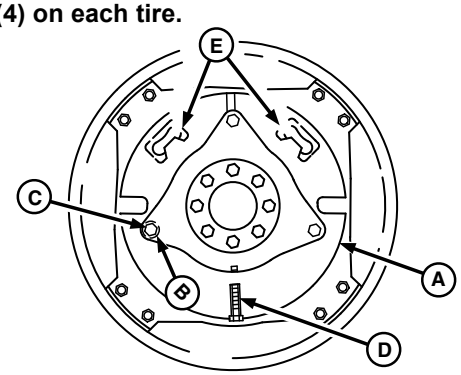
Cast iron weights are available for rear tires. They can be installed on the inside or outside of wheel. See your John Deere dealer for more information and recommendations on weight use and placement.

	Specification
Cast Iron Weights—Weight	55 kg (121 lb)

OUO6070,000005E -19-12OCT00-1/1

Installing Rear Cast Iron Weights

IMPORTANT: Maximum number of weights that can be installed on rear tires is four (4) on each tire.



P10192 —UN—04APR08

CAUTION: Rear weights weigh 55 kg (121 lb) each. Handle with care! Use appropriate equipment or have the job done by your John Deere dealer.

CAUTION: When installing or removing QUICK-TATCH weights, always position wheels so that weight retainer jaws are at the top. This prevents weights from falling when retaining bolt is removed.

NOTE: Spacers are required when weights won't fit into rim's dish. If weights do fit, spacers are optional.

1. Attach FIRST weight (A) to wheel disk, using three spacers (B) if necessary, with bolts, washers and nuts (C). Note that bolts go through first weight and into the rim so that washers and nuts tighten onto rim, not onto weights. This makes it easy to check regularly for tightness.
2. To install ADDITIONAL weights, position wheel so that one of retainer jaws (E) is at top. Hang next weight in retainer jaw and secure with bolt, washer and nut (D) as shown. Proceed in similar fashion with other additional weights, up to maximum allowable.
3. Tighten all bolt retaining nuts to specification. Tighten again after a few hours of service. Check tightness regularly.

Specification	
Retaining Bolts—Torque	230 N·m (170 lb-ft)

P10151 —UN—26MAR01

Four Maximum Weights Installed

A—First Weight
B—Spacer (3 Used)
C—First Weight Retaining Bolt, Washer and Nut (3 Sets Used)
D—Additional Weight Retaining Bolt, Washer and Nut
E—Retainer Jaws

OUO6070,000005F -19-12OCT00-1/1

Using Liquid Weight

CAUTION: Installing liquid ballast requires special equipment and training. Have the job done by your John Deere dealer or a tire service store.

IMPORTANT: NEVER fill tire to more than 90 percent full. More solution would leave too little air space to absorb shocks. Damage to tire could occur.

A solution of water and calcium chloride provides safe, economical ballast. Used properly, it will not damage tires, tubes, or rims.

Use calcium chloride to prevent water from freezing. A mixture of 0.6 kg per liter (5 lb of calcium chloride per gallon) will not freeze solid above —45°C (—53°F).

NOTE: Use of alcohol as liquid ballast is not recommended. Calcium chloride solution is heavier and more economical.

Fill tubeless tires slightly above valve level (minimum 75 percent full). Less solution would expose part of rim, possibly causing corrosion. Tube-type tires may be filled to any level below 90 percent.

Charts on this page show how much each tire size holds if filled to 75 percent full.

LIQUID WEIGHT FOR FRONT TIRES With 0.6 kg/L (5 lb/gal) Calcium Chloride Solution	
Tire Size	**Liquid Weight per Tire kg (lb)—75% Full**
10.0-16	64 kg (142 lb)
13.6-24	144 kg (317 lb)
14.9-24	178 kg (392 lb)

LIQUID WEIGHT FOR REAR TIRES With 0.6 kg/L (5 lb/gal) Calcium Chloride Solution	
Tire Size	**Liquid weight per Tire kg (lb)—75% Full**
18.4-34	378 kg (834 lb)
18.4-38	503 kg (1110 lb)

OUO6070,0000060 -19-28MAR08-1/1

Match Tractor Power to Implement

IMPORTANT: Tractor power should be matched to the size of certain implements. Excessive power can damage an implement, and too large an implement can damage the tractor. (Refer to your implement operator's manual for minimum and maximum power requirements before attaching an implement.)

PX07220,0000027 -19-16APR04-1/1

Using Implement Codes

CAUTION: Do not attempt to transport an implement without adequate front ballast. Lack of steering control may result.

With maximum front ballast, do not attempt to transport an implement whose code exceeds:

- **217 for 2WD**
- **225 for MFWD**

John Deere engineers have developed a code to determine how much front ballast is needed for stability and steering control.

1. Find implement code in implement operator's manual.
2. Use the following charts to determine how many front weights are required on your tractor model and configuration.

   Example: An implement with a code 194 to be used 2WD tractor requires 10 front weights.

Implement Code Charts

Following charts give Implement Codes for the various combinations of tractors and tire sizes.

2WD Tractor with 10.0-16 front tires	
BALLAST	**CODE**
Front Support Only	128
1 Starter Weight	137
2 Weights	149
4 Weights	160
6 Weights	171
8 Weights	183
10 Weights	194
12 Weights	205
14 Weights	217

MFWD Tractor with 14.9-24 or 13.6-24 front tires	
BALLAST	**CODE**
Front Support Only	137
1 Starter Weight	146
2 Weights	157
4 Weights	168
6 Weights	180
8 Weights	191
10 Weights	202
12 Weights	214
14 Weights	225

NS43404,00004A9 -19-07APR08-1/1

Service Tires Safely

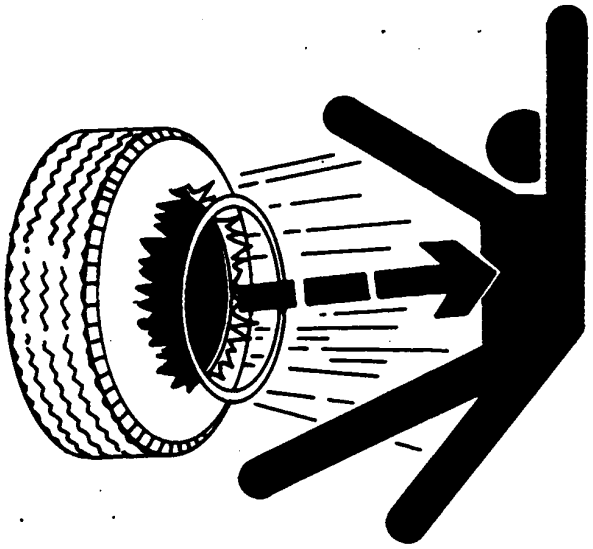
Explosive separation of a tire and rim parts can cause serious injury or death.

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.



TS211 —UN—23AUG88

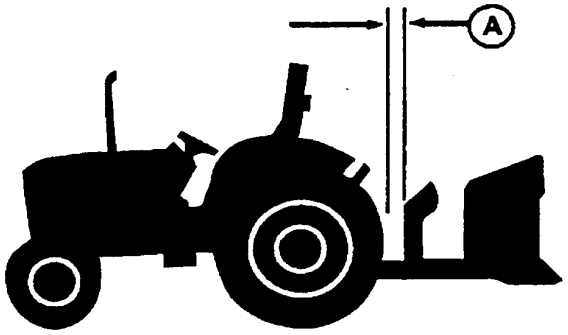
DX,RIM -19-24AUG90-1/1

Check Implement-to-Tire Clearance

IMPORTANT: Check for adequate clearance (A) between outside diameter of the tire and implement with hitch in raised position.

When large diameter rear tires are installed on a tractor with a 3-point hitch, a quick coupler or similar device may be required to provide adequate implement-to-tire clearance.

A—Clearance



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MX,WTIP,AA1 -19-21APR94-1/1

Check Tire Inflation Pressure

Check tires daily for damage or noticeably low pressure.

At least every 100 hours of operation, check inflation pressure with a gauge. Use an accurate gauge having 10 kPa (0.1 bar) (1 psi) graduations.

If tires contain liquid ballast, use a special air-water gauge and measure with valve stem at bottom.

NOTE: When furrow plowing or during hillside operation, tire pressure can be increased 28 kPa (0.28 bar) (4 psi) ABOVE maximum to prevent tire wrinkling or buckling.

NOTE: Following inflation information applies to both front and rear tires and Tire Inflation Pressure Chart.

1. All inflation pressures are calculated for 29 km/h (18 mph) travel speeds.
2. Check tire inflation pressure while tires are cool, using an accurate dial or stick-type gauge having 10 kPa (0.1 bar) (1 psi) graduations. Over-inflation reduces performance and increases strain on both tire and rim.
3. Operation of tires at the inflation pressures listed on chart will result in optimum tractive performance of the tire/vehicle system.
4. Inflation pressures less than 80 kPa (12 psi) should be monitored regularly because of the increased risk of low pressure air leaks (especially due to leaking valve cores.)
5. Tractors operating on steep side slopes should increase inflation pressures 28 kPa (4 psi) above the values listed to compensate for lateral weight transfer.
6. Tires run as singles in high traction conditions sometimes experience bead slip if the bead was not fully seated or if too much lubricant was used to mount the tire. Increasing the inflation pressure will compensate for this condition but will not cause reduced traction. Consult your tire dealer if this problem occurs.
7. If higher load capacities are needed, contact your John Deere dealer for tire manufacturer's load and inflation table information.

OUO6070,0000062 -19-14APR08-1/1

Tire Inflation Pressure Chart

Front Tires			With Little or No Added Weight			With Maximum Ballast or Heavy Mounted Implement		
Tire Size	**Ply Rating**	**Tread**	**kPa**	**(bar)**	**(psi)**	**kPa**	**(bar)**	**(psi)**
7.50-16	6	F2	170	(1.7)	(24)	303	(3.0)	(44)
10.0-16	6	F2	165	(1.65)	(24)	220	(2.22)	(32)
13.6-24	6	R1	83	(0.83)	(12)	152	(1.52)	(22)
14.9-24	8	R1	83	(0.83)	(12)	137	(1.37)	(20)
Rear Tires			**With Little or No Added Weight**			**With Maximum Ballast or Heavy Mounted Implement**		
Tire Size	**Ply Rating**	**Tread**	**kPa**	**(bar)**	**(psi)**	**kPa**	**(bar)**	**(psi)**
18.4-34	8	R1	83	(0.83)	(12)	137	(1.37)	(20)
18.4-38	8	R1	83	(0.83)	(12)	137	(1.37)	(20)

OU1092A,00001CE -19-28MAY09-1/1

Front and Rear Tire Combinations—2WD Axle

Rear Tire Size	Front Tire Size	6100D, 6110D, 6115D	6125D, 6130D, 6140D
18.4-34	10.6-16	Optional	No
18.4-38	10.6-16	Optional	No

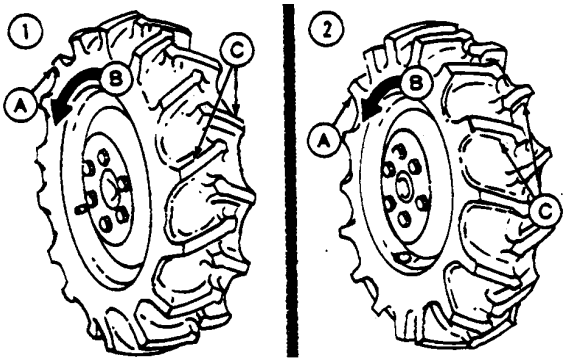
OUMX005,000290D -19-07APR08-1/1

Front and Rear Tire Combinations—MFWD

Rear Tire Size	Front Tire Size	6100D, 6110D, 6115D	6125D, 6130D, 6140D
18.4-34	13.6-24	Optional	Standard
18.4-38	14.9-24	No	Optional

OUMX005,000290E -19-28MAR08-1/1

Selecting Front Tire Rolling Direction



RW510 —UN—06APR89

Left Tire (Viewed From Rear)

A—Front Tire (Viewed from Rear) B—Rolling Direction of Tire C—Tire Lugs

(1)—Under most conditions, front tires (A) should be mounted with the direction of tire lugs (C) the same as the tire rolling direction (B).

(2)—If tractor is mainly used for loader operations, lug direction may be reversed on the MFWD axle for improved tire wear.

MX,WTIP,HA2 -19-07DEC06-1/1

Tighten Wheel/Axle Hardware Correctly

CAUTION: NEVER operate tractor with a loose rim, wheel, hub, or axle.

Any time hardware is loosened, tighten to specified torque.

NOTE: Follow checking procedure when a new tractor is first used, or wheels have been off.

1. After driving tractor about 100 m (109 yd), and before placing it under load, tighten hardware to specified torque.
2. Check hardware after working three hours and again after 10 hours.
3. Check all hardware frequently and keep it tight.

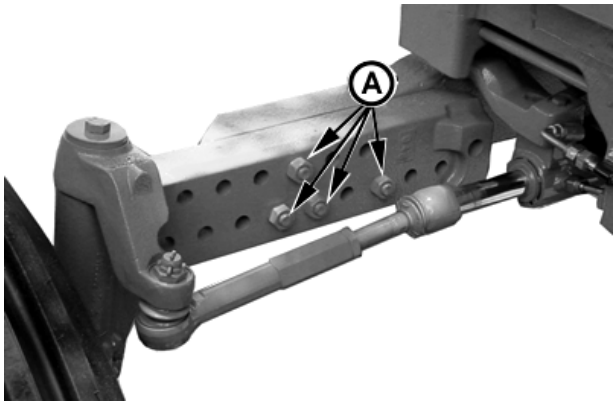
OUO6070,0000064 -19-12OCT00-1/1

Tighten Bolts—Adjustable Front Axle

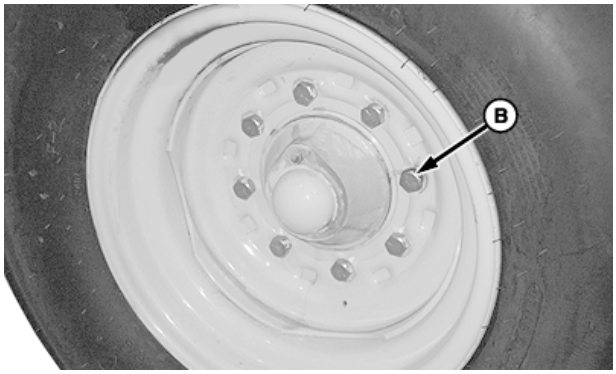
Specification	
Adjustable Front Axle—Axle-to-Knee Bolts—Torque	480 N·m (350 lb-ft)
Adjustable Front Axle—Disk-to-Flange Bolts—Torque	250 N·m (185 lb-ft)

A—Axle-to-Knee Bolts (4 used each side)

B—Wheel Disk-to-Axle Flange Bolts (8 used each side)



P9064A —UN—08JUL05



P15210 —UN—26JAN08

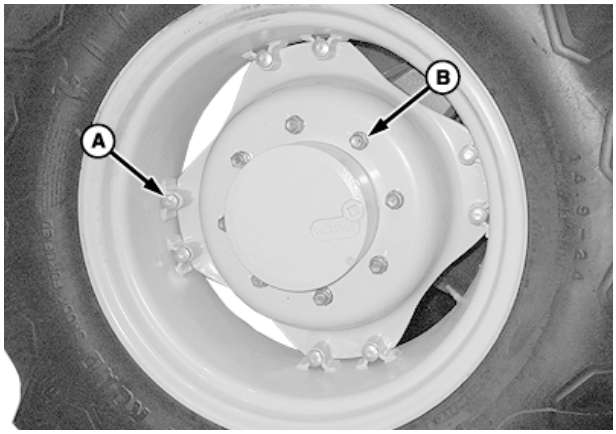
NS43404,00004AF -19-26JAN08-1/1

Tighten Bolts—MFWD Axle

Specification	
Wheel Rim-to-Disk Bolts—Torque	245 N·m (180 lb-ft)
Wheel Disk-to-Axle Flange Bolts—Torque	300 N·m (220 lb-ft)

A—Wheel Rim-to-Disk Bolts (8 used each side)

B—Wheel Disk-to-Axle Flange Bolts (8 used each side)



P15211 —UN—26JAN08

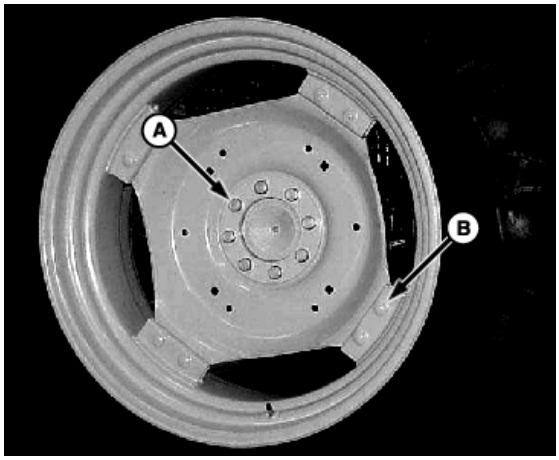
NS43404,00004B0 -19-26JAN08-1/1

Tighten Bolts—Rear Axle

Specification	
Wheel Rim-to-Disk Bolts—Torque	310 N·m (230 lb-ft)
Wheel Disk-to-Flange Bolts (Steel Disk)—Torque	500 N·m (370 lb-ft)

A—Wheel Disk-to-Axle Flange Bolts (8 used each side)

B—Wheel Rim-to-Disk Bolts (8 used each wheel)



P9188 —UN—16MAR01

Steel Disk

NS43404,00004B1 -19-26JAN08-1/1

Tread Settings—Adjustable Front Axle (2WD Axle)

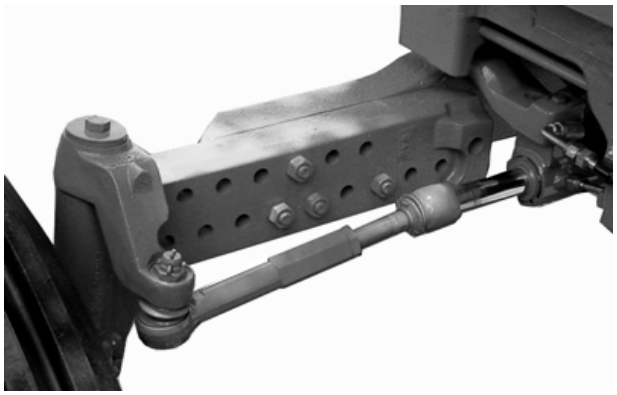
Each side of the front axle can be adjusted in increments of 51 mm (2 in.). Make sure adjustment is equal on both sides.

Wheel rim can be positioned as shown by (C) or (D) in the diagram. Positioning wheel rim as (D) provides an additional 44 mm (1.75 in.) tread width.

NOTE: Number 1 wheel position corresponds to axle adjustment at most inward location, resulting in narrowest tread.

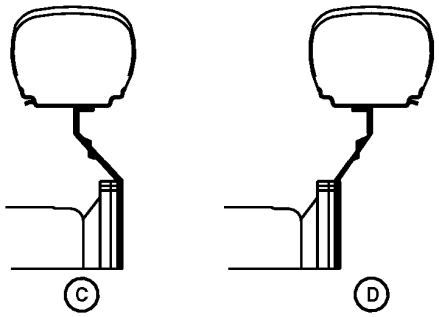
The extension provided with the tractor is 102 mm (4 in.) long. Contact your John Deere dealer to order the optional 204 mm (8 in.) extension.

NOTE: Replace 102 mm (4 in.) extension with optional 204 mm (8 in.) extension. Do NOT use together.



P9190A —UN—08JUL05

Adjustable Front Axle with 102 mm (4 in.) Extension



LV1515 —UN—05MAR96

TREAD WIDTH Centerline-to-Centerline		
Tire Size	**10.00-16**	
Wheel Position	**C**	**D**
1 Without Extension	—	1533 mm (60.4 in.)
2 Without Extension	1591 mm (62.7 in.)	1635 mm (64.4 in.)
3 With 102 mm (4 in.) Extension	1693 mm (66.7 in.)	1737 mm (68.4 in.)
4 With 102 mm (4 in.) Extension	1795 mm (70.7 in.)	1839 mm (72.4 in.)
5 With Optional 204 mm (8 in.) Extension	1896 mm (74.7 in.)	1941 mm (76.4 in.)
6 With Optional 204 mm (8 in.) Extension	1998 mm (78.7 in.)	2043 mm (80.4 in.)

NS43404,00004B2 -19-28MAR08-1/1

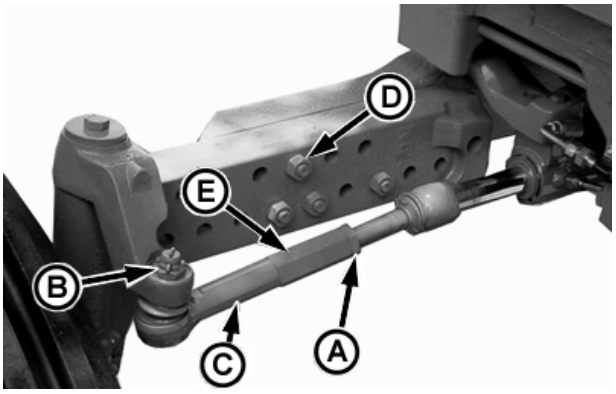
Adjusting Front Wheel Tread (2WD Axle)

IMPORTANT: Do not place jack under engine oil pan.

1. Jack up front end of tractor.
2. Loosen nut (A). Remove cotter pin, slotted nut (B) and tie-rod (C).
3. Remove extensions (E), if equipped, to obtain a minimum of 1700 mm (66.9 in.) tread width.
4. Remove axle bolts and nuts (D).
5. Reposition axle ends to the desired front wheel tread. Install axle bolts and nuts. Tighten to specification.

Specification	
Front Axle	
Nuts—Torque	400 N·m (295 lb-ft)

6. Adjust (C and E) as required. Tighten nut (A).
7. Install slotted nut and cotter pin .
8. When making large tread adjustments, it may be necessary to adjust toe-in. (See procedure in this section.)



P12349A —UN—08JUL05

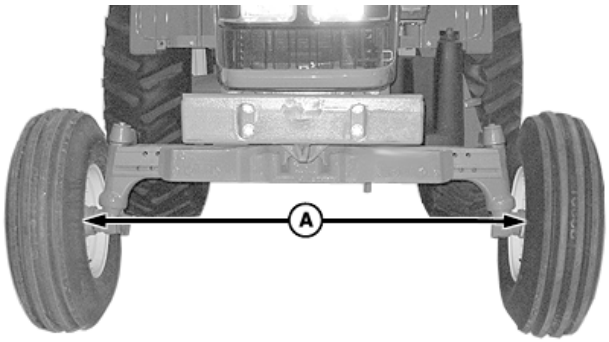
Front Axle With Extension

A—Nut
B—Slotted Nut
C—Tie-Rod
D—Bolt and Nut (4 used each side)
E—Tie-Rod Extension

NS43404,00004B3 -19-17APR08-1/1

Checking Toe-In—Adjustable Front Axle (2WD)

1. Park machine on level surface.
2. Turn steering wheel so front wheels are in the straight-ahead position. Stop engine.
3. Measure distance (A) between rim flange-to-rim flange at hub level in front of axle. Record measurement and mark the tires.
4. Move tractor back about 1 m (3 ft), so mark is at hub level behind the axle. Again, measure distance between rim flanges at same point on tire. Record measurement.
5. Determine the difference between front and rear measurements. If the front measurement is smaller, toe is in. If the rear is smaller, toe is out.
6. Distance (A) at **front** of tires should be 3—9 mm (1/8—3/8 in.) less than distance measured at **rear** of tires. Adjust toe-in if necessary. (See procedure in this section.)



P15212 —UN—28JAN08

A—Front Axle Toe-In Distance

OUMX005,000290F -19-28JAN08-1/1

Adjusting Toe-In—Adjustable Front Axle (2WD)

NOTE: Adjust toe-in equally at both tie-rods.

1. Loosen jam nut (A).
2. Remove cotter pin and slotted nut (B).
3. Remove tie-rod (C) from spindle assembly.
4. Turn tie-rod end to lengthen or shorten, as needed, to desired toe-in.
5. Install tie-rod end and slotted nut. Tighten nut to specification. Install cotter pin.

Specification

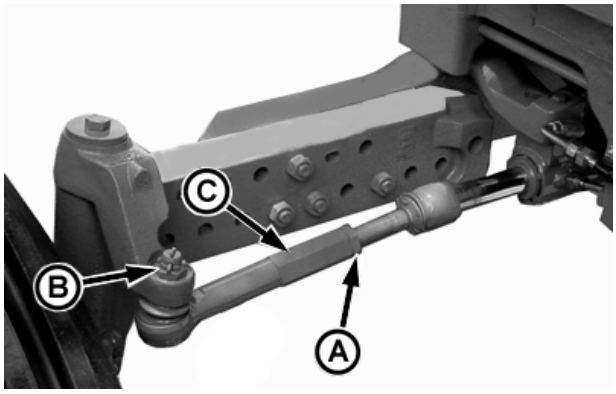
Slotted Nut (B)—Torque..... 100 N·m (74 lb-ft)

6. Tighten jam nut (A) to specification.

Specification

Jam Nut (A)—Torque..... 250 N·m (185 lb-ft)

7. Repeat on opposite side.



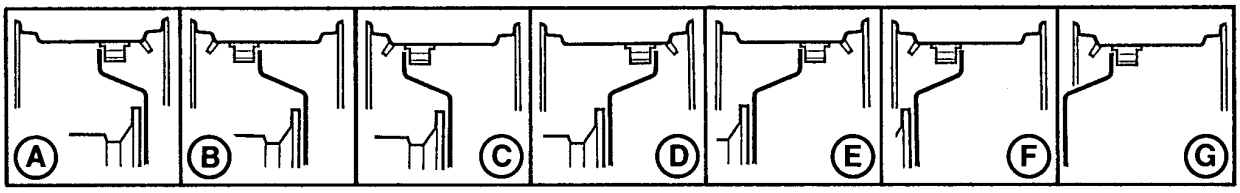
P12349B —UN—08JUL05

Front Axle with 102 mm (4 in.) Extension

A—Jam Nut
B—Slotted Nut
C—Tie-rod (with extension)

NS43404,00004B5 -19-26AUG10-1/1

Tread Settings—MFWD Axle



LX012555

LX012555 —UN—27JUN96

Front wheel tread can be adjusted by repositioning or by reversing wheel rims. In addition, the complete wheel can be reversed by installing it on the opposite side of the tractor. When using this option, make sure the arrow on the tire sidewall is pointing in the direction of forward travel.

TREAD WIDTH							
Rims and Wheel Disk Positions							
Tire Size	**A**	**B**	**C**	**D**	**E**	**F**	**G**
12.4-24	1541.9 mm (60.7 in.)	1634.1 mm (64.3 in.)	1743.5 mm (68.6 in.)	1632.5 mm (64.3 in.)	1741.9 mm (68.6 in.)	1834.1 mm (72.2 in.)	1943.5 mm (76.5 in.)
13.6-24	N/A	1516 mm (59.7 in.)	1616 mm (63.6 in.)	1720 mm (67.7 in.)	1820 mm (71.7 in.)	1916 mm (75.4 in.)	2016 mm (79.4 in.)
14.9-24	N/A	N/A	1616 mm (63.6 in.)	1720 mm (67.7 in.)	1820 mm (71.7 in.)	1916 mm (75.4 in.)	2016 mm (79.4 in.)

PX03972,00009C1 -19-11NOV10-1/1

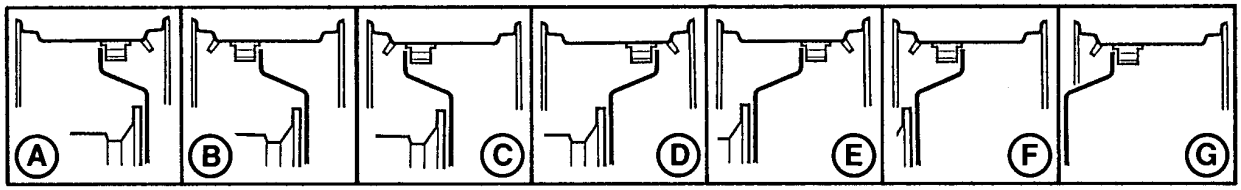
Tread Settings—Multi-Position Rear Wheels (Steel Disks)

Wheel tread on rear axle with multi-position wheels can be adjusted by repositioning or exchanging the rims or by reversing the wheel disks.

Wheel tread can also be adjusted by exchanging the complete wheel to the opposite side of the tractor. (This maneuver permits the change from disk dished-in to disk dished-out operations without disassembling the wheel.) When changing rear wheels from one side to the other, the arrow on side wall of tire should point in the direction of forward rotation.

The relationship of the wheel disk and rim in obtaining the different tread settings is shown in the following diagrams.

A study of these diagrams before attempting to change tread settings will save unnecessary labor.



LX012555

LX012555 —UN—27JUN96

IMPORTANT: After setting wheel spacing, tighten rim-to-disk and disk-to-flange bolts. Drive tractor 100 m (109 yd) and tighten again.

Specification

Multi-Position Rear Wheels Rim-to-Disk Bolts (Steel Disk)—Torque.....245 N·m (180 lb-ft)

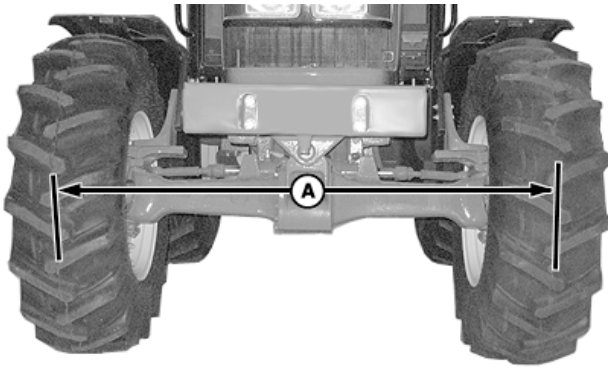
Multi-Position Rear Wheels Disk-to-Flange Bolts (Steel Disk)—Torque.....175 N·m (130 lb-ft)

TREAD WIDTH Centerline-to-Centerline				
Diagram		**Tire Sizes**		
	12.4-42	16.9-38	18.4-34	18.4-38
A	N/A	N/A	N/A	N/A
B	1504 mm (59.2in.)	N/A	1512 mm (59.5 in.)	N/A
C	N/A	1612 mm (63.5 in.)	1612 mm (63.5 in.)	1612 mm (63.5 in.)
D	1828 mm (72.0 in.)	1716 mm (67.6 in.)	1716 mm (67.6 in.)	1716 mm (67.6 in.)
E	N/A	1812 mm (71.3 in.)	1812 mm (71.3 in.)	1812 mm (71.3 in.)
F	N/A	1916 mm (75.4 in.)	1916 mm (75.4 in.)	1916 mm (75.4 in.)
G	N/A	2016 mm (79.4 in.)	2016 mm (79.4 in.)	2016 mm (79.4 in.)

PX03972,00009C2 -19-11NOV10-1/1

Checking Toe-In—MFWD Axle

1. Park machine on level surface.
2. Turn steering wheel so front wheels are in the straight-ahead position. Stop engine.
3. Measure distance (A) between tire tread midpoint at hub level in front of axle. Record measurement and mark the tires.
4. Move tractor back about 1 m (3 ft), so mark is at hub level behind the axle. Again, measure distance between tire midpoints. Record measurement.
5. Determine the difference between front and rear measurements. If the front measurement is smaller, toe is “in”. If the rear is smaller, toe is “out”.
6. Distance between midpoints at **front** of tires should be 3—6 mm (1/8—1/4 in.) less than distance measured at **rear** of tires. Adjust toe-in if necessary. (See procedure in this section.)



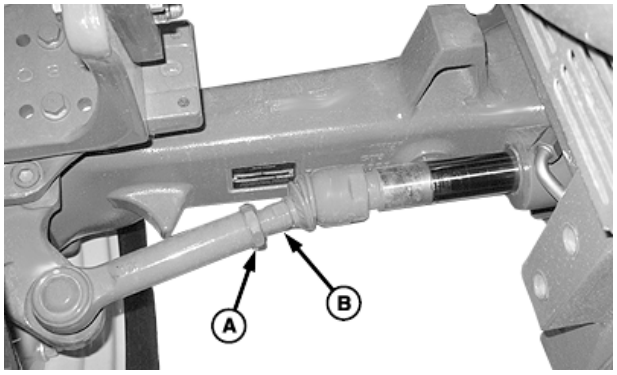
P15213 —UN—28JAN08

NS43404,00004B8 -19-28JAN08-1/1

Adjusting Toe-In—MFWD Axle

1. Loosen jam nut (A) on right and left-hand side tie rod.
2. Adjust each side by rotating inner rod (B) to lengthen or shorten tie rod as needed, to obtain toe-in of no more than 3 mm (1/8 in.).
3. Tighten jam nuts after adjustment.

Specification	
Tie Rod Jam Nut—Torque	328 to 363 N·m (242 to 267 lb-ft)



P15214 —UN—28JAN08

Left-Hand Side Shown

A—Jam Nut **B—Inner Rod**

NS43404,00004B9 -19-25AUG10-1/1

Steering Stop Adjustment (MFWD Axle)

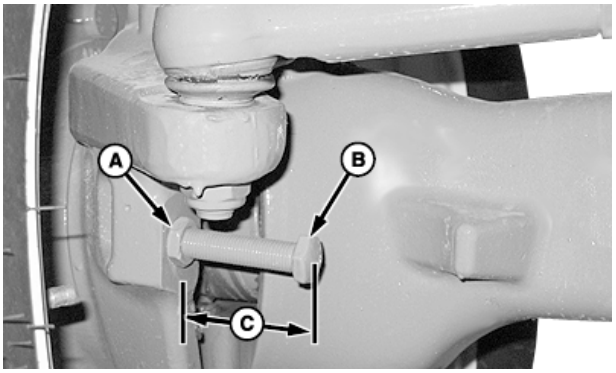
IMPORTANT: Check for interference with front weights, tie rods, side frames and/or grille screen during full turn and full oscillation. A minimized turn radius may be obtained by utilizing a shorter stop position.

NOTE: Make sure dimension (C) is set to same value on right-and left-hand wheels.

Front wheel steering angle must be kept within certain limits according to tire size and tread width. Refer to one of the following tables to set adjustment dimension (C) by loosening lock nut (A) and turning adjusting screw (B). Tightening lock nut to specification.

Specification

Lock Nut—Torque.....200 N·m (150 lb-ft)



P15215 —UN—28JAN08

Left-Hand Side Shown

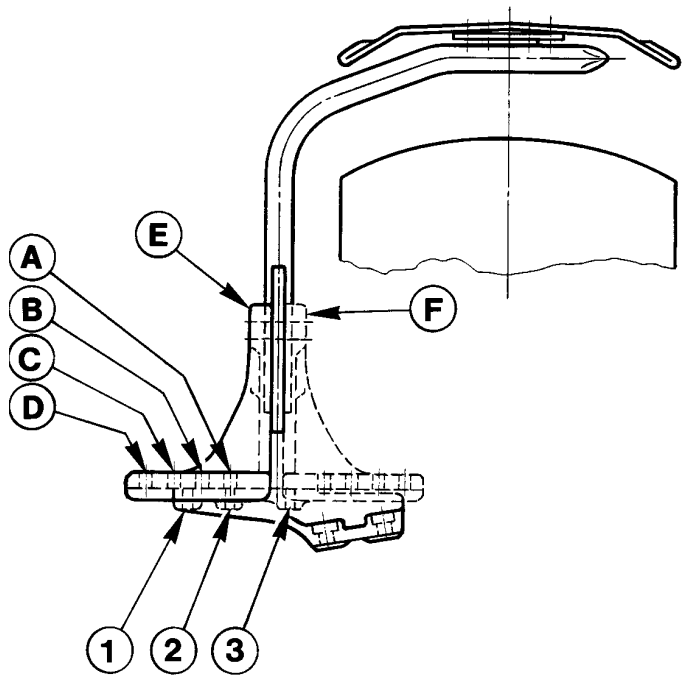
A—Lock Nut
B—Adjusting Screw
C—Dimension

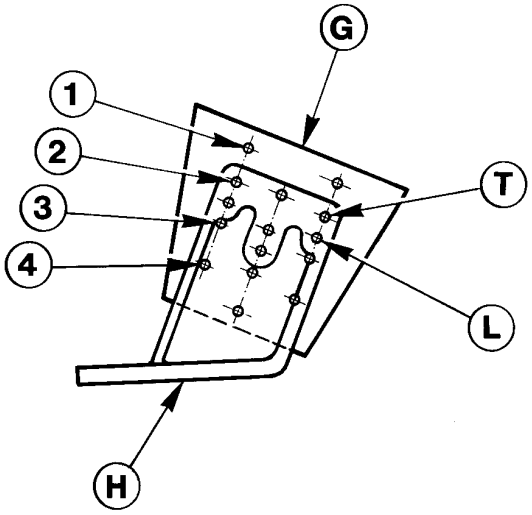
Without Fenders							
Rim and Wheel Disk Positions (See TREAD SETTING—MFWD AXLE in this section.)							
	A	B	C	D	E	F	G
Tire Size	Dimension (C)	Dimension (C)	Dimension (C)	Dimension (C)	Dimension (C)	Dimension (C)	Dimension (C)
13.6-24	N/A	44 mm (1.8 in.)	25 mm (1 in.)	*	*	*	*
14.9-24	N/A	48 mm (1.9 in.)	36 mm (1.4 in.)	*	*	*	*
* Steering stop turned all the way in							

With Fenders							
Rim and Wheel Disk Positions							
	A	B	C	D	E	F	G
Tire Size	Dimension (C)	Dimension (C)	Dimension (C)	Dimension (C)	Dimension (C)	Dimension (C)	Dimension (C)
13.6-24	N/A	97 mm (3..8 in.)	64 mm (2.5 in.)	48 mm (1.9 in.)	41 mm (1.6 in.)	36 mm (1.4 in.)	25 mm (1 in.)
14.9-24	N/A	N/A	64 mm (2.5 in.)	48 mm (1.9 in.)	41 mm (1.6 in.)	36 mm (1.4 in.)	25 mm (1 in.)

NS43404,00004BA -19-17APR08-1/1

Front Fender Adjustment (MFWD Axle)

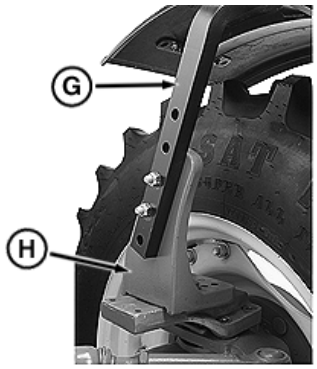




LX007817

LX007817 —UN—16AUG94

Fenders must be installed in correct position depending on tire size and tread width. Fender width is 400 mm (15.7 in.). The following table indicates correct position for a given tire size, wheel and rim disk position.



P15337 —UN—28MAR08

E—Bracket Facing Out
F—Bracket Facing In
G—Fender
H—Bracket

Explanation of Table Positions

D-2—Indicates which holes (1, 2, or 3 and A, B, C or D) are bolted together.

NOTE: Every time bracket position is reversed, left-hand side bracket must be installed on right-hand side of tractor and vice versa.

L/2—Shows whether upper (T) or lower (L) bracket holes must be used, together with corresponding holes (1, 2, 3 or 4) in fender.

NOTE: Upper holes (T) in bracket are not used in this particular machine and tire sizes.

Fender Position and Height—indicates correct fender position and height on axle, for example : D-2 , L3.

Continued on next page

NS43404,00004BB -19-28MAR08-1/2

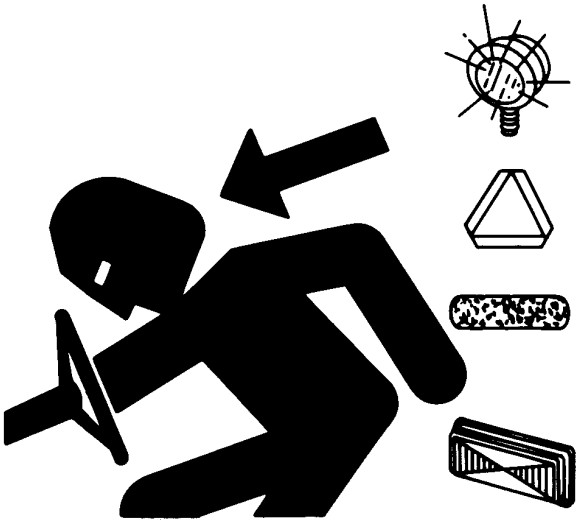
Position of Adjustable Rims and Wheel Disks								
		A	**B**	**C**	**D**	**E**	**F**	**G**
Tire Size								
13.6-24	Fender Position	N/A	A-2, L/3	B-3, L/3	B-1, L/3	B-2, L/3	D-2, L/3	C-3, L/3
14.9-24	Fender Position	N/A	N/A	B-3, L/4	A-3, L/4	C-1, L/4	A-3, L/4	C-3, L/4

NS43404,00004BB -19-28MAR08-2/2

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

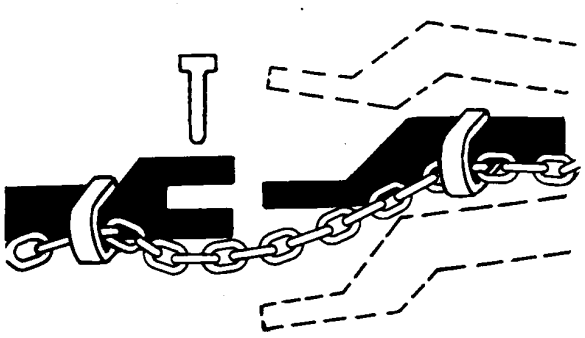
DX,FLASH -19-07JUL99-1/1

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

Driving Tractor on Roads

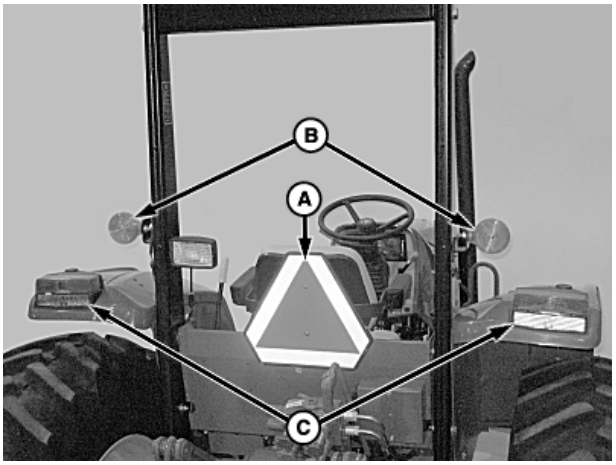
CAUTION: Observe the following precautions when operating on a road.

1. Before operating tractor on highway be sure tail lights (C) and flashing warning lights (B) work properly. Install Slow Moving Vehicle (SMV) emblem (A), reflectors and auxiliary lighting equipment as required by local safety regulations. Clean SMV emblem for best visibility.

CAUTION: Never operate floodlights (if equipped) when transporting tractor. Clear bright light(s) at the rear of the tractor could confuse drivers of other vehicles as they approach from behind. Use only road lights for transporting.

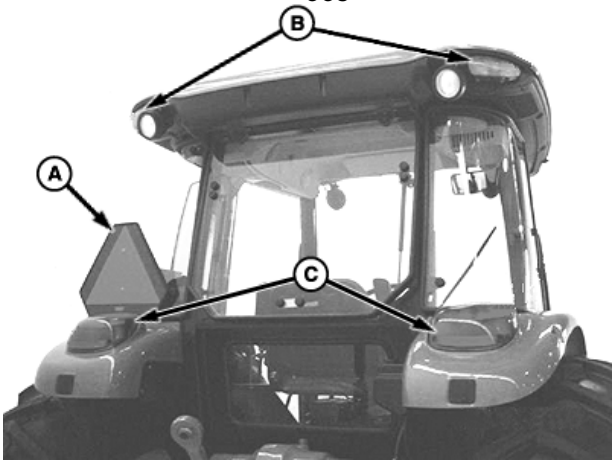
IMPORTANT: Refer to Lights section for detailed description of lighting operations and functions.

A—SMV Emblem
B—Warning Lights
C—Tail Lights



P14875 —UN—20NOV07

OOS



P14874 —UN—20NOV07

Cab

NS43404,00004BE -19-28JAN08-1/5

2. Use turn signals when turning. Be sure to return turn signal lever (A) to center position after turning.

A—Turn Signal Lever

P14851 —UN—10APR08

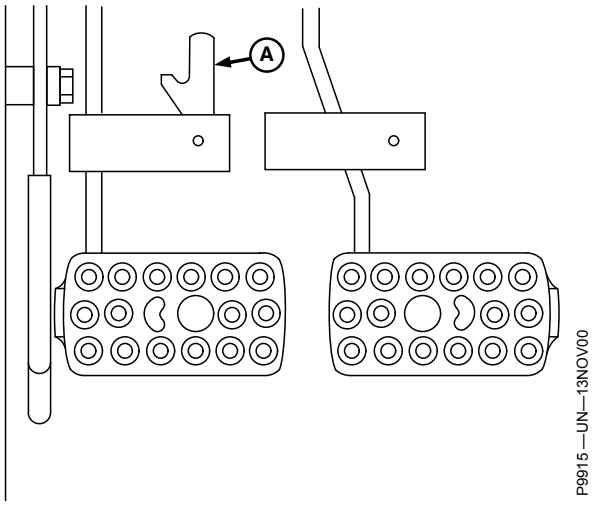
Cab Shown

Continued on next page

NS43404,00004BE -19-28JAN08-2/5

3. Before driving on a road, couple brake pedals together using locking bar (A). Avoid hard applications of brakes.
4. Drive slowly enough to maintain safe control at all times. Slow down for hillsides, rough ground, and sharp turns, especially when transporting heavy, rear-mounted equipment.
5. Before going down a hill, shift to a gear low enough to control speed without using brakes. Never coast down hill with clutch disengaged. This can overspeed clutch disc and cause severe clutch damage.
6. When transporting downhill on icy or graveled grades, be alert for skids which could result in loss of steering control. To decrease chance of skids, reduce speed and be sure tractor has proper ballast.

A—Locking Bar

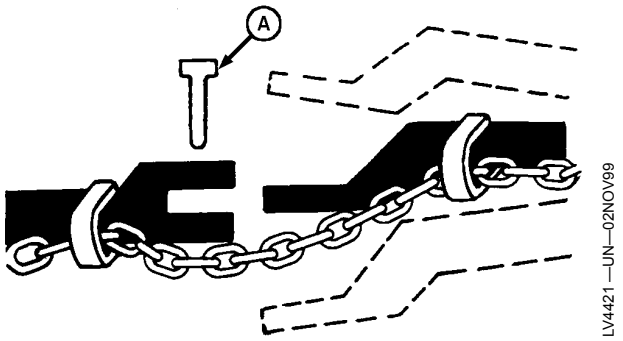


NS43404,00004BE -19-28JAN08-3/5

CAUTION: A safety chain will help 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.

IMPORTANT: Safety chain is provided for transport only. It must not be used for pulling or towing implements or other items not attached to drawbar, or damage to your tractor may result.

7. **Transporting towed loads**: Lock drawbar pin (A) in place and use safety chain to help control drawn equipment should it accidentally separate from drawbar while transporting.



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NS43404,00004BE -19-28JAN08-4/5

CAUTION: 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.

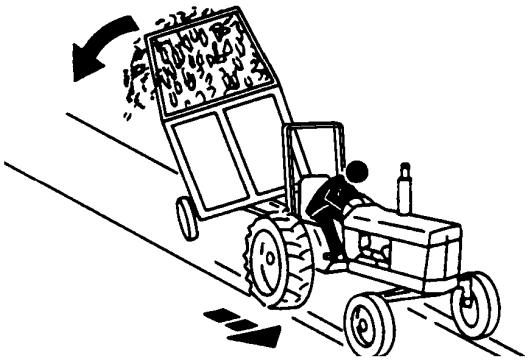
Observe these recommended maximum road speeds, or local speed limits which may be lower:

If towed equipment does not have brakes, do not go faster than 32 km/h (20 mph) and do not tow loads more than 1.5 times the tractor weight.

If towed equipment has brakes, do not go faster than 40 km/h (25 mph) and do not tow loads more than 4.5 times the tractor weight.

Make sure the load does not exceed the recommended weight ratio. Add ballast to recommended maximum for tractor, lighten the load, or get a heavier towing unit. The tractor must be heavy and powerful enough with adequate braking power for the towed load. Use additional caution when towing loads under adverse surface conditions, when turning, and on inclines.

8. Use caution when operating tractor at transport speeds. Reduce speed if towed load weighs more than tractor and is not equipped with brakes. (See towed equipment operator's manual for recommended transport speeds.)



LV4042 —UN—09JUL99

9. Use additional caution when transporting towed loads under adverse surface conditions, when turning and on inclines.
10. Heavy towed or rear mounted implements may start swaying in transport. Excessive swaying will result in loss of steering control. Drive slowly and avoid quick turns of steering wheel. Refer to your implement operator's manual regarding maximum travel speed limitations.

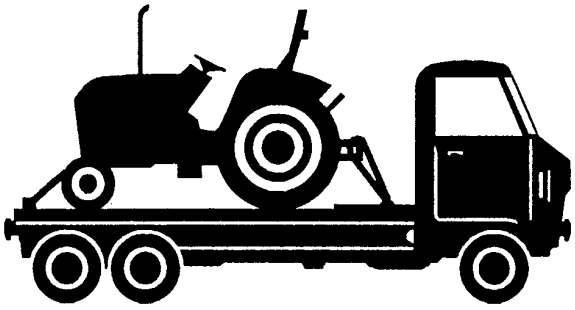
NS43404,00004BE -19-28JAN08-5/5

Transporting on Carrier

CAUTION: Avoid personal injury from unexpected machine movement. Chain tractor to carrier securely. DO NOT chain around mechanical front wheel-drive (MFWD) shaft or axle housing. Drive carrier slowly.

A disabled tractor is best transported on a flatbed carrier. Use chains to secure the tractor to the carrier.

IMPORTANT: Seal exhaust to prevent dirt from entering and damaging engine and/or turbocharger.



LV610 —UN—22APR94

OUO1023,00028BE -19-13APR06-1/1

Towing Tractor

CAUTION: Never tow tractor faster than 16 km/h (10 mph). Have an operator steer and brake tractor.

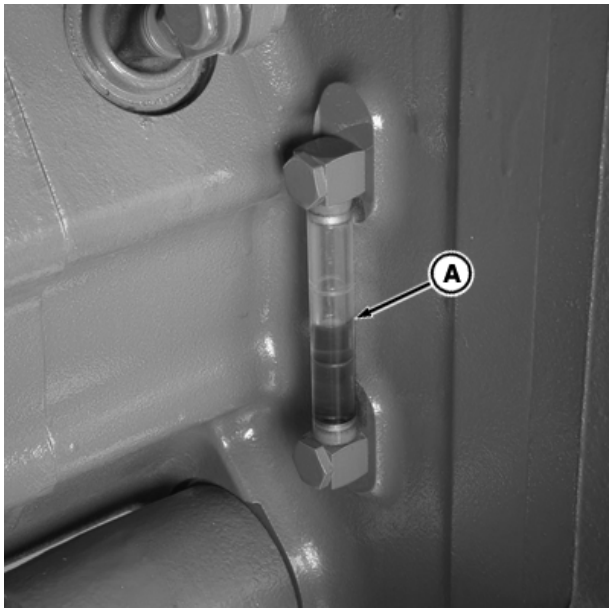
IMPORTANT: To avoid damaging transmission/hydraulic system, observe the following precautions prior to towing tractor:

1. Be sure transmission/hydraulic system oil is up to the full level line on sight glass (A). If the tractor is to be towed with the front wheels raised, add 1 liter (1 qt) of oil to hydraulic fill port (B) for each 90 mm (3-1/2 in.) the wheels are raised. Do not raise front wheels more than 305 mm (12 in.) above ground.

NOTE: After transporting tractor, drain oil that was added for towing.

2. Make sure differential lock is disengaged and gear shift lever is in neutral position, “N”.
3. Range selector lever must be placed in tow lock position (C), located between B and C range marks. Loosen lock knob (D) to bring locking plate out into range slot. Move range lever into lock position, then tighten lock knob down. Range gearbox is now locked in neutral so no power can be transmitted to rear wheels.

A—Oil Level Sight Glass
B—Hydraulic Oil Fill Port
C—Tow Lock Position
D—Tow Lock Knob



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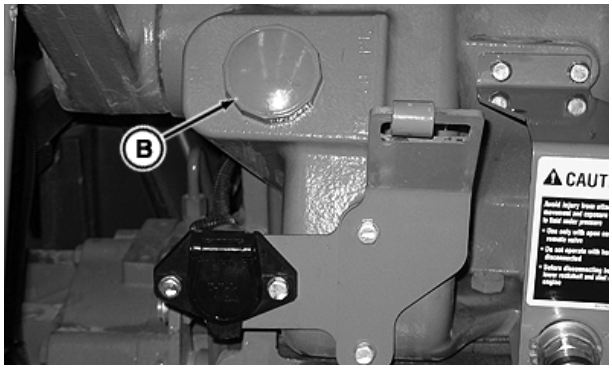

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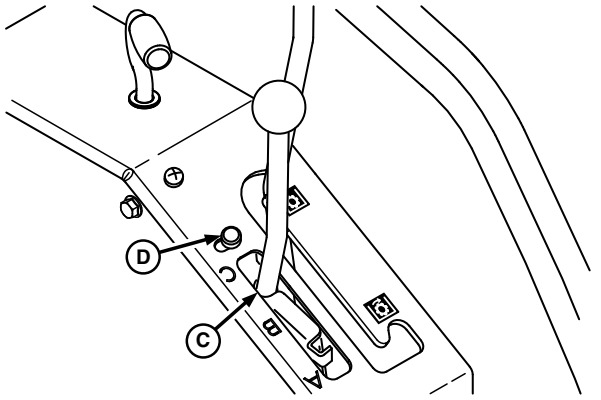


P9955 —UN—30OCT01

OUO6070,000006E -19-26MAR08-1/1

Fuels, Lubricants and Coolant

Handle Fuel Safely—Avoid Fires

Use only diesel fuel.

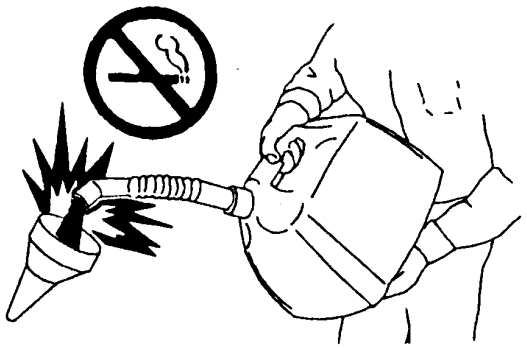
Handle fuel with care, it is highly flammable.

Do not refuel machine:
- While you smoke.
- When machine is near open flame or sparks.
- When engine is running. Stop engine.

Fill fuel tank outdoors.

Help prevent fires:
- Clean oil, grease and dirt from machine.
- Clean up spilled fuel immediately.

Do not store machine with fuel in tank in a building where fumes may reach an open flame or spark.



M73115 —UN—09MAR90

MX,FIRE,5A1 -19-22JUL94-1/1

Handle Fluids Safely—Avoid Fires

When you work around fuel, do not smoke or work near heaters or other fire hazards.

Store flammable fluids away from fire hazards. Do not incinerate or puncture pressurized containers.

Make sure machine is clean of trash, grease, and debris.

Do not store oily rags; they can ignite and burn spontaneously.

TS227 —UN—23AUG88

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

Cold Weather Operation

IMPORTANT: Viscosity grade selection is critical for cold weather operation of the transmission. Preheat procedures are required when operating transmission at temperatures lower than the oil's MINIMUM critical temperature.

NOTE: See TRANSMISSION AND HYDRAULIC OIL, in this section, for MINIMUM viscosity grade for a given transmission operating temperature.

Warm-Up Procedures

If preheating transmission with Auxiliary Source, preheat transmission oil to MINIMUM temperature before operating.

As an Alternate Procedure, operate tractor with transmission in neutral for approximately 20 minutes, or until oil has warmed to MINIMUM temperature as recommended above.

MX,FLIP,B -19-18MAR92-1/1

Hot Weather Operation

NOTE: See TRANSMISSION AND HYDRAULIC OIL, in this section, for correct viscosity grade for a given transmission operating temperature.

Use higher than normal viscosity grade under following conditions:

- Ambient temperatures consistently above 30° C (86° F).
- Frequent stop-and-go driving in hot weather.
- Repeated climbing of high grades in hot weather.

OUO6070,00000DF -19-15FEB01-1/1

Diesel Fuel

Consult your local fuel distributor for properties of the diesel fuel available in your area.

In general, diesel fuels are blended to satisfy the low temperature requirements of the geographical area in which they are marketed.

Diesel fuels specified to EN 590 or ASTM D975 are recommended. Renewable diesel fuel produced by hydrotreating animal fats and vegetable oils is basically identical to petroleum diesel fuel. Renewable diesel that meets EN 590 or ASTM D975 is acceptable for use at all percentage mixture levels.

Required Fuel Properties

In all cases, the fuel shall meet the following properties:

Cetane number of 43 minimum. Cetane number greater than 47 is preferred, especially for temperatures below –20°C (–4°F) or elevations above 1500 m (5000 ft).

Cold Filter Plugging Point (CFPP) should be at least 5°C (9°F) below the expected lowest temperature or **Cloud Point** below the expected lowest ambient temperature.

Fuel lubricity should pass a maximum scar diameter of 0.45 mm as measured by ASTM D6079 or ISO 12156-1.

Sulfur Content for Interim Tier 4 and EU Stage IIIB Engines

- Diesel fuel quality and fuel sulfur content must comply with all existing emissions regulations for the area in which the engine operates.
- Use ONLY ultra low sulfur diesel (ULSD) fuel with a maximum of 0.0015% (15 mg/kg) sulfur content.

Sulfur Content for Other Engines

- Diesel fuel quality and fuel sulfur content must comply with all existing emissions regulations for the area in which the engine operates.
- Use of diesel fuel with sulfur content less than 0.10% (1000 mg/kg) is STRONGLY recommended.
- Use of diesel fuel with sulfur content 0.10% (1000 mg/kg) to 0.50% (5000 mg/kg) may result in REDUCED oil and filter change intervals. Refer to table in Diesel Engine Oil and Filter Service Intervals.
- BEFORE using diesel fuel with sulfur content greater than 0.50% (5000 mg/kg), contact your John Deere dealer.

IMPORTANT: Do not mix used diesel engine oil or any other type of lubricating oil with diesel fuel.

Improper fuel additive usage may cause damage on fuel injection equipment of diesel engines.

DX,FUEL1 -19-03AUG09-1/1

Handling and Storing Diesel Fuel

CAUTION: 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 practicable to minimize condensation.

Ensure that all fuel tank caps and covers are installed properly to prevent moisture from entering.

Monitor water content of the fuel regularly.

When using bio-diesel 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 and prevent water condensation. Contact your fuel supplier for recommendations.

DX,FUEL4 -19-19DEC03-1/1

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 0.45 mm as measured by ASTM D6079 or ISO 12156-1.

If fuel of low or unknown lubricity is used, add John Deere PREMIUM DIESEL FUEL CONDITIONER (or equivalent) at the specified concentration.

Lubricity of Biodiesel Fuel

Significant improvement in lubricity can occur with biodiesel blends up to B20. The gain in lubricity above a 20% blend is limited.

DX,FUEL5 -19-05OCT07-1/1

Testing Diesel Fuel

DIESELSCAN™ is a John Deere fuel analysis program that can be used to monitor the quality of your fuel. The DIESELSCAN analysis verifies fuel type, cleanliness, water content, suitability for cold weather operation, and whether the fuel meets specifications.

Check with your John Deere dealer for availability of DIESELSCAN kits.

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DX,FUEL6 -19-14NOV05-1/1

Biodiesel Fuel

Biodiesel is a fuel comprised of mono-alkyl 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.

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.bq-9000.org.

While 5% blends are preferred (B5), biodiesel concentrations up to a 20% blend (B20) in petroleum diesel fuel can be used in all John Deere engines. Biodiesel blends up to B20 can be used ONLY if the biodiesel (100% biodiesel or B100) meets ASTM D6751 (US), EN 14214 (EU), or equivalent specification. Expect a 2% reduction in power and a 3% reduction in fuel economy when using B20.

John Deere approved fuel conditioners containing detergent/dispersant additives are recommended when using lower biodiesel blends, but are required when using blends of B20 or greater.

John Deere engines can also operate on biodiesel blends above B20 (up to 100% biodiesel) ONLY if the biodiesel meets the EN 14214 specification (primarily available in Europe). Engines operating on biodiesel blends above B20 may not fully comply with 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 approved fuel conditioners containing detergent/dispersant additives are required.

The petroleum diesel portion of biodiesel blends must meet the requirements of ASTM D975 (US) or EN 590 (EU) commercial standards.

Biodiesel blends up to B20 must be used within 90 days of the date of biodiesel manufacture. Biodiesel blends from B21 to B100 must be used within 45 days of the date of biodiesel manufacture.

Request a certificate of analysis from your fuel distributor to ensure that the fuel is compliant with the above specifications.

Consult your John Deere dealer for approved biodiesel fuel conditioners to improve storage and performance with biodiesel fuels.

When using biodiesel fuel, the engine oil level must be checked daily. If oil becomes diluted with fuel, shorten oil change intervals. Refer to Diesel Engine Oil and Filter Service Intervals for more details regarding biodiesel and engine oil change intervals.

The following must be considered when using biodiesel blends up to B20:

- Cold weather flow degradation
- Stability and storage issues (moisture absorption, oxidation, 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
- Possible reduction of service life of engine components

The following must also be considered when using biodiesel blends above B20.

- Possible coking and/or blocked injector nozzles, resulting in power loss and engine misfire if John Deere approved fuel conditioners containing detergent/dispersant additives are not used
- Possible crankcase oil dilution, requiring more frequent oil changes
- Possible corrosion of fuel injection equipment
- Possible lacquering and/or seizure of internal components
- Possible formation of sludge and sediments
- Possible thermal oxidation of fuel at elevated temperatures
- Possible elastomer seal and gasket material degradation (primarily an issue with older engines)
- Possible compatibility issues with other materials (including copper, lead, zinc, tin, brass, and bronze) used in fuel systems and fuel handling equipment
- Possible reduction in water separator efficiency
- Potential high acid levels within fuel system
- Possible damage to paint if exposed to biodiesel

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 -19-04OCT07-1/1

Fill Fuel Tank

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

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

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

TS202 —UN—23AUG88

Fuel tank is filled through fill cap (A). Fill fuel tank at end of each day's operation. This prevents condensation in tank as moist air cools.

Specification

Fuel Tank—Capacity..... 158 L (41.7 gal)

NOTE: To reduce fuel gelling and control wax separation during cold weather, John Deere Fuel Flow Improver, or equivalent, may be added to fuel or bulk storage tank.

P15486 —UN—15APR08

A—Fuel Tank Filler Cap

OUMX005,000290B -19-15APR08-1/1

Diesel Engine Break-In Oil

IMPORTANT: Do not use PLUS-50 oil or engine oils meeting API CH-4, API CG4, API CF4, ACEA E3, or ACEA E2 performance levels during the first 100 hours of operation of a new or rebuilt engine. These oils will not allow the engine to break-in properly.

New engines are filled at the factory with John Deere ENGINE BREAK-IN OIL. During the break-in period, add John Deere ENGINE BREAK-IN OIL as needed to maintain the specified oil level.

Change the oil and filter after the first 100 hours of operation of a new or rebuilt engine.

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After engine overhaul, fill the engine with John Deere ENGINE BREAK-IN OIL.

If John Deere ENGINE BREAK-IN OIL is not available, use a diesel engine oil meeting one of the following during the first 100 hours of operation:

- API Service Classification CE
- ACEA Specification E1

After the break-in period, use John Deere PLUS-50 ® or other diesel engine oil as recommended in this manual.

DX,ENOIL4 -19-24JAN00-1/1

Diesel Engine Oil

Use oil viscosity based on the expected air temperature range during the period between oil changes.

John Deere Plus-50™ II oil is preferred.

John Deere Plus-50™ is also recommended.

Other oils may be used if they meet one or more of the following:

- John Deere Torq-Gard Supreme™
- API Service Category CJ-4
- API Service Category CI-4 PLUS
- API Service Category CI-4
- API Service Category CH-4
- ACEA Oil Sequence E9
- ACEA Oil Sequence E7
- ACEA Oil Sequence E6
- ACEA Oil Sequence E5
- ACEA Oil Sequence E4
- ACEA Oil Sequence E3

Multi-viscosity diesel engine oils are preferred.

Diesel fuel quality and fuel sulfur content must comply with all existing emissions regulations for the area in which the engine operates.

DO NOT use diesel fuel with sulfur content greater than 1.0% (10 000 mg/kg).

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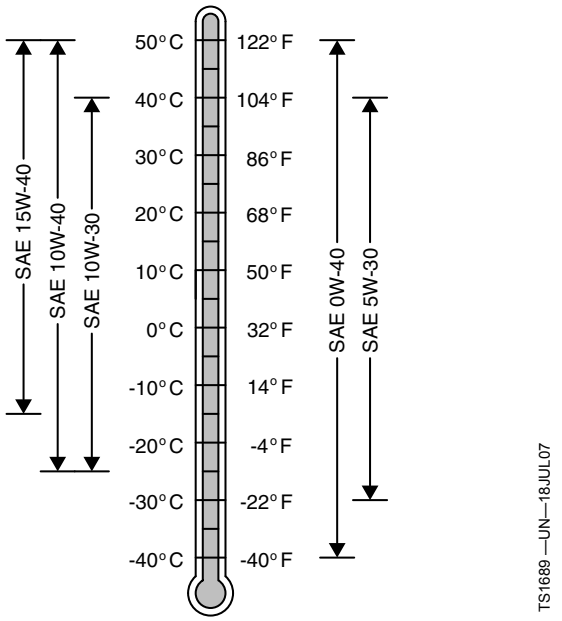
Torq-Gard Supreme is a trademark of Deere & Company



Oil Viscosities for Air Temperature Ranges

DX,ENOIL7 -19-03AUG09-1/1

Extended Diesel Engine Oil Service Intervals

When John Deere Plus-50™ II or John Deere Plus-50™ oil is used with the specified John Deere filter, the service interval for engine oil and filter changes may be increased by 50% but not to exceed a maximum of 500 hours.

When ACEA E9, ACEA E7, ACEA E6, ACEA E5, or ACEA E4 oils are used with specified John Deere filter, use engine oil analysis to determine if the service interval for engine oil and filter changes may be increased by a maximum of 50% but not to exceed 500 hours.

If John Deere Plus-50™ II or John Deere Plus-50™, ACEA E9, ACEA E7, ACEA E6, ACEA E5, or ACEA E4 oils are used with other than the specified John Deere filter, change the engine oil and filter at the normal service interval.

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Torq-Gard Supreme is a trademark of Deere & Company

If John Deere Torq-Gard Supreme™, API CJ-4, API CI-4 PLUS, API CI-4, API CH-4, or ACEA E3 oils are used, change the engine oil and filter at the normal service interval.

If API CG-4, API CF-4, or ACEA E2 oils are used, change the engine oil and filter at 50% of the normal service interval.

IMPORTANT: When using biodiesel blends greater than B20, reduce the oil and filter service interval by 50% or monitor engine oil based on test results from Oilscan.

DX,ENOIL6 -19-03AUG09-1/1

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

Heavy Duty Diesel Engine Coolant

The engine cooling system is filled to provide year-round protection against corrosion and cylinder liner pitting, and winter freeze protection to -37°C (-34°F). If protection at lower temperatures is required, consult your John Deere dealer for recommendations.

John Deere COOL-GARD™ II Premix Coolant is preferred.

John Deere COOL-GARD II Premix is available in a concentration of 50% ethylene glycol.

Additional Recommended Coolants

The following engine coolants are also recommended:

- John Deere COOL-GARD II Concentrate in a 40% to 60% mixture of concentrate with quality water.
- John Deere COOL-GARD Premix (available in a concentration of 50% ethylene glycol).
- John Deere COOL-GARD Concentrate in a 40% to 60% mixture of concentrate with quality water.
- John Deere COOL-GARD PG Premix (available in a concentration of 55% propylene glycol).

John Deere COOL-GARD II Premix and COOL-GARD II Concentrate coolants do not require use of supplemental coolant additives.

John Deere COOL-GARD Premix, COOL-GARD Concentrate, and COOL-GARD PG Premix do not require use of supplemental coolant additives, except for periodic replenishment of additives during the drain interval.

Use John Deere COOL-GARD PG Premix when a non-toxic coolant formulation is required.

Other Coolants

It is possible that John Deere COOL-GARD II, COOL-GARD, and COOL-GARD PG coolants are unavailable in the geographical area where service is performed.

If these coolants are unavailable, use a coolant concentrate or prediluted coolant intended for use with heavy duty diesel engines and with a minimum of the following chemical and physical properties:

- Is formulated with a quality nitrite-free additive package.
- 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.
- Protects the cooling system metals (cast iron, aluminum alloys, and copper alloys such as brass) from corrosion.

The additive package must be part of one of the following coolant mixtures:

- ethylene glycol or propylene glycol base prediluted (40% to 60%) heavy duty coolant
- ethylene glycol or propylene glycol base heavy duty coolant concentrate in a 40% to 60% mixture of concentrate with quality water

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.

IMPORTANT: Do not use cooling system sealing additives or antifreeze that contains sealing additives.

Do not mix ethylene glycol and propylene glycol base coolants.

Do not use coolants that contain nitrites.

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DX,COOL3 -19-03NOV08-1/1

Operating in Warm Temperature Climates

John Deere engines are designed to operate using glycol base engine coolants.

Always use a recommended glycol base engine coolant, even when operating in geographical areas where freeze protection is not required.

John Deere COOL-GARD™ II Premix is available in a concentration of 50% ethylene glycol. However, there are situations in warm temperature climates where a coolant with lower glycol concentration (approximately 20% ethylene glycol) has been approved. In these cases, the low glycol formulation has been modified to provide the same level of corrosion inhibitor as John Deere COOL-GARD II Premix (50/50).

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IMPORTANT: Water may be used as coolant *in emergency situations only.*

Foaming, hot surface aluminum and iron corrosion, scaling, and cavitation will occur when water is used as the coolant, even when coolant conditioners are added.

Drain cooling system and refill with recommended glycol base engine coolant as soon as possible.

DX,COOL6 -19-03NOV08-1/1

Liquid Coolant Conditioner

John Deere Liquid Coolant Conditioner is recommended for wet-sleeve diesel engines not having a coolant filter option. See your John Deere dealer. Other conditioners may be used if they contain non-chromate inhibitors.

CAUTION: Coolant conditioner contains alkali. Avoid contact with eyes. Avoid prolonged or repeated contact with skin. Do not take internally. In case of contact, immediately wash skin with soap and water. For eyes, flush with large amounts of water for at least 15 minutes. Call physician. Keep out of reach of children.

Do not remove reservoir cap or drain coolant until coolant is cold. Always loosen reservoir cap slowly to relieve any excess pressure.

IMPORTANT: Do not use liquid conditioner if engine is equipped with a John Deere Coolant Filter Conditioner, since the correct inhibitors are already contained inside the filter. If both are used, a gel-type deposit is created which could inhibit heat transfer and block coolant flow. John Deere Liquid Coolant Conditioner does not protect against freezing.

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Add 30 ml of John Deere Liquid Coolant Conditioner for every liter of coolant added (1 fluid ounce per quart). When servicing cooling system at 2000 hours, only 1/2 of the original charge is required.

Coolant Conditioner Required		
Coolant Capacity	**With Fresh Coolant**	**At 2000 Hour Service**
13.5 L (14.3 qt)	405 ml (14.4 oz)	203 ml (7.2 oz)

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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.

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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. 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

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 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 COOLANT EXTENDER as directed.

Add only the recommended concentration of John Deere COOL-GARD II COOLANT EXTENDER. DO NOT add more than the recommended amount.

When Using John Deere COOL-GARD

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.

CoolScan and CoolScan PLUS

For a more thorough evaluation of your coolant, perform a CoolScan™ or CoolScan PLUS™ analysis, where available. See your John Deere dealer for information.

COOL-GARD is a trademark of Deere & Company
CoolScan is a trademark of Deere & Company
CoolScan PLUS is a trademark of Deere & Company

DX,COOL9 -19-03NOV08-1/1

Transmission and Hydraulic Oil

Use oil viscosity based on the expected air temperature range during the period between oil changes.

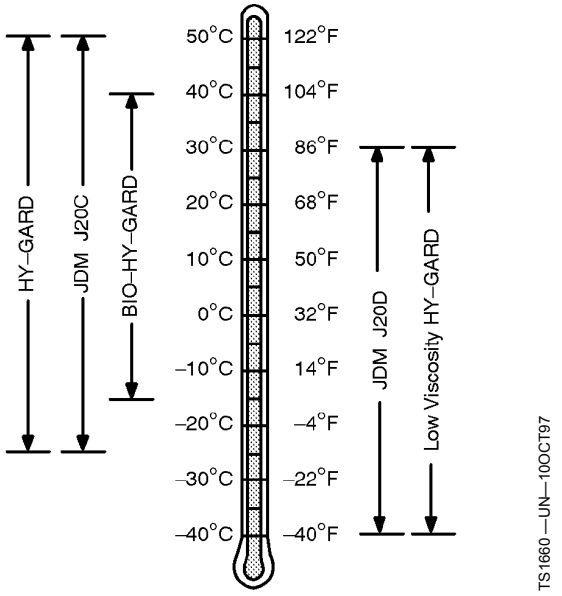
The following oils are preferred:

- John Deere HY-GARD™
- John Deere Low Viscosity HY-GARD™

Other oils may be used if they meet one of the following:

- John Deere Standard JDM J20C
- John Deere Standard JDM J20D

Use John Deere BIO-HY-GARD™ oil when a biodegradable fluid is required.[1]



HY-GARD is a trademark of Deere & Company
BIO-HY-GARD is a trademark of Deere & Company

[1] BIO-HY-GARD meets or exceeds the minimum biodegradability of 80% within 21 days according to CEC-L-33-T-82 test method. BIO-HY-GARD should not be mixed with mineral oils, because this reduces the biodegradability and makes proper oil recycling impossible.

DX,ANTI -19-07NOV03-1/1

Use Correct Transmission/Hydraulic Filter Element

To protect systems, replace transmission/hydraulic oil filter with a John Deere service filter element. Minimum and maximum performance specifications are printed on John Deere filters. Other filters may be used if they meet these performance specifications.

See Lubrication and Maintenance section for recommended filter change intervals.

MX,FLIP,H -19-18MAR92-1/1

MFWD Axle and Wheel Hub Oil

Use oil viscosity based on the expected air temperature range during the period between oil changes. Refer to temperature chart.

The following oils are preferred:

- API Service Classification GL-5
- John Deere Standard JDM J20C
- John Deere Standard JDM J20D

OUMX005,000290C -19-26JAN08-1/1

Grease

Use grease based on NLGI consistency numbers and the expected air temperature range during the service interval.

John Deere SD POLYUREA GREASE is preferred.

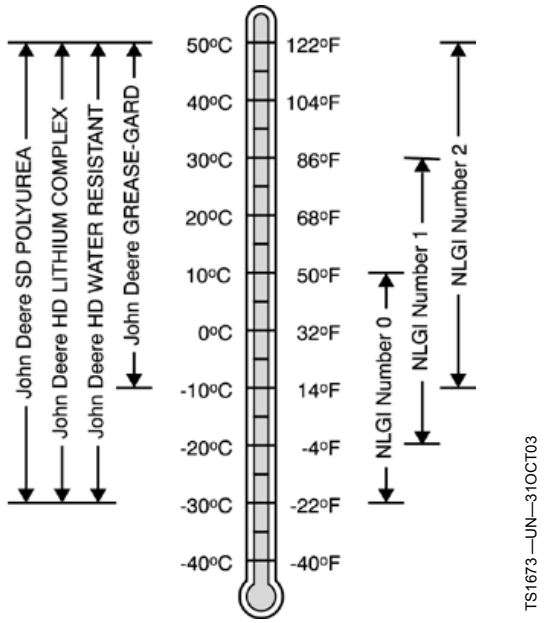
The following greases are also recommended

- John Deere HD LITHIUM COMPLEX GREASE
- John Deere HD WATER RESISTANT GREASE
- John Deere GREASE-GARD™

Other greases may be used if they meet the following:

NLGI Performance Classification GC-LB

IMPORTANT: Some types of grease thickeners are not compatible with others. Consult your grease supplier before mixing different types of grease.



GREASE-GARD is a trademark of Deere & Company

DX,GREA1 -19-07NOV03-1/1

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.

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 both conventional and synthetic oils.

Re-refined base stock products may be used if the finished lubricant meets the performance requirements.

Avoid mixing different brands or types of oils. Oil manufacturers blend base stock and additives to create their oils and to meet certain specifications and performance requirements. Mixing different oils can interfere with proper functioning of these formulations and degrade lubricant performance.

Consult your authorized John Deere dealer to obtain specific information and recommendations.

DX,ALTER -19-11NOV09-1/1

Lubricant Storage

Your equipment can operate at top efficiency only when clean lubricants are used.

Use clean containers to handle all lubricants.

Whenever possible, 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 -19-18MAR96-1/1

Maintenance and Service Intervals

Additional Service Information

This is not a detailed service manual. It contains only information needed for operation and routine maintenance.

If you want more detailed service information, order a Technical Manual through your John Deere dealer.

PX03972,00004B1 -19-06FEB07-1/1

Service Tractor Safely

Disengage power to attachments and stop engine before making any repairs or adjustments.

Do not overspeed engine.

Keep the vehicle and attachments in good operating condition.

Keep safety devices in place and in working condition.

Keep all nuts, bolts and screws tight to be sure the equipment is in safe working 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 or PowrReverser™ lever (if equipped) is in NEUTRAL position.

Be careful to prevent clothing, jewelry or long hair from getting caught in the fan blades, drive belt or any other moving engine parts.

P15338 —UN—28MAR08

Unauthorized modifications to the machine may impair performance and/or safety and affect machine life.

NS43404,00004D6 -19-07APR08-1/1

Service Interval Chart—Daily or 10 Hours / Weekly or 50 Hours / FIRST 100 Hours / 250 Hours

Item	Daily or 10 Hours	Weekly or 50 Hours	FIRST 100 Hours	250 Hours
Check engine oil level	•			
Check coolant level	•			
Drain water from fuel filters	•			
Check transmission-hydraulic system oil level	•			
Lubricate steering linkage [a]	•			
Lubricate front axle pivot pins [a]	•			
Clean and check battery		•		
Inspect all tires		•		
Lubricate front axle pivot pins		•		
Lubricate steering linkage		•		
Lubricate rear axle bearings [a]		•		
Lubricate MFWD axle shaft		•		
Inspect tractor for loose hardware		•		
Adjust clutch pedal free travel		•		
Replace transmission-hydraulic oil filter			•	
Change engine oil and filter			•	
Change MFWD axle and wheel hub oil			•	
Inspect engine air intake filters				•
Check oil level in MFWD axle and wheel hubs				•
Inspect alternator/fan belt				•
Lubricate 3-point hitch				•
Inspect and clean fuel tank filler cap				•
Drain water from fuel tank				•
Check neutral start system				•
Check and adjust brake pedal free travel				•
Inspect ROPS/Cab mounting hardware				•
Clean cab air filters				•

[a] *Only necessary in extremely wet or muddy conditions*

NS43404,00004D7 -19-14FEB08-1/1

Service Interval Chart—500 Hours / 1000 Hours / Annually / 2000 Hours or Two Years / 5000 Hours or Five Years

Item	500 Hours	1000 Hours	Annually	2000 Hours / Two Years	5000 Hours / Five Years
Change engine oil and filter * [a]	•				
Replace fuel filters	•				
Replace transmission-hydraulic oil filter	•				
Lubricate front wheel bearings (2WD axle)	•				
Tighten all hose clamps	•				
Check cooling system for leaks	•				
Lubricate rear axle bearings	•				
Check engine idle speed	•				
Inspect air intake hose, turbo air cooler pipes and hose clamps	•				
Clean cab air filters	•				
Change transmission-hydraulic oil and filter		•			
Change MFWD axle and wheel hub oil		•			
Clean engine crankcase vent tube		•			
Change engine oil and filter			•		
Replace engine air intake filters			•		
Inspect seat belt			•		
Drain, flush and refill engine cooling system[b]				•	
Adjust engine valve clearance[c]				•	
Drain, flush and refill engine cooling system[d]					•
Test or replace thermostat					•
Replace crankshaft vibration damper[c]					•

[a] When using any lubricant other than John Deere TorqGARD or PLUS 50 oil and filter, lower this service interval to 250 hours
[b] Can be extended to 5000 hours or 5 years if John Deere COOL-GARD is used.
[c] See your John Deere dealer for service.
[d] If John Deere COOL-GARD is used.

NS43404,00004D8 -19-24MAR08-1/1

Service—As Required

- Adjust Hand Throttle Friction
- Inspect Engine Air Cleaner Elements[1]
- Inspect Engine Air Intake System[1]
- Clean Front Grille, Side Screens, Radiator, Condenser (cab) and Oil, Fuel or Air Coolers (if equipped)
- Bleed Fuel System[2]
- Clean and Check Battery
- Charge Battery
- Lubricate Operator Seat Slide Rails [3]
- Lubricate Hood Latch[3]
- Replace Bulbs; Floodlights, Headlights, Tail/Turn Lights and Warning Lights
- Adjust Headlights

[1] Service more often if operated in extremely dusty conditions.
[3] See your John Deere dealer for service.
[4] Only necessary after pressure washing.

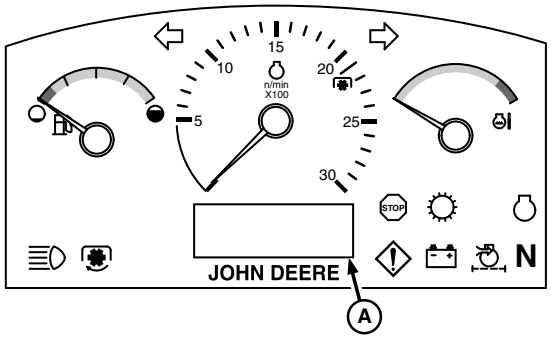
OUMX005,0002937 -19-17JUN09-1/1

Observe Service Intervals

Using hour meter (A) as a guide, perform all services at the hourly intervals indicated. Keep a service record on charts provided in the Lubrication and Maintenance Record Charts section.

IMPORTANT: Recommended service intervals are for average conditions. Service more often if tractor is operated under adverse conditions.

A—Hour Meter

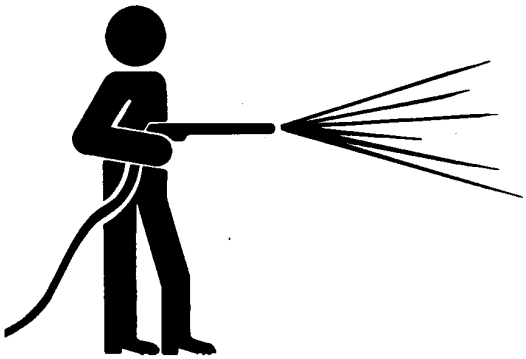


P14447 —UN—20NOV07

NS43404,00004DA -19-30OCT07-1/1

Using High-Pressure Washers

IMPORTANT: Directing pressurized water at electronic/electrical components or connectors, bearings and hydraulic seals, fuel injection pumps or other sensitive parts and components may cause product malfunctions. Reduce pressure, and spray at a 45 to 90 degree angle.



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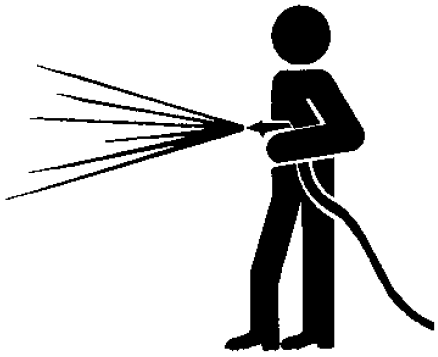
FX,CLEAN -19-06FEB95-1/1

Using Compressed Air

IMPORTANT: Directing pressurized air at electronic/electrical components or connectors, may cause build-up of static electricity and product malfunctions.



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AG,RF30435,2492 -19-22MAR05-1/1

Opening Hood

Pull latch handle (A) and lift hood up.

A—Handle

P15392 —UN—07APR08

OUMX005,000293B -19-15APR08-1/1

Inspect Engine Air Intake Filters

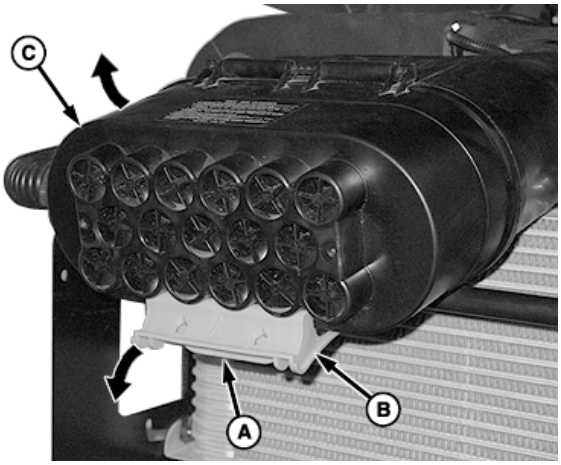
Service Interval—250 Hours

A dual element air cleaner is standard. A dirty primary element is indicated when air restriction indicator on instrument panel illuminates. A dirty element can result in loss of power or excessive smoke.

Clean primary element when indicator on instrument panel illuminates or every 250 hours.

Both elements should be replaced at the same time annually, regardless of condition.

1. Raise hood.
2. Pull lug (A) forward and swing catch (B) down. Raise cover (C).



P15259 —UN—11FEB08

A—Lug
B—Catch
C—Cover

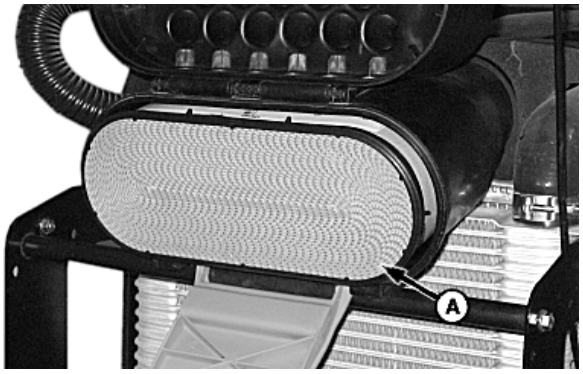
Continued on next page

NS43404,00004DB -19-07APR08-1/3

IMPORTANT: Do not use compressed air to clean filter, resulting in filter damage.

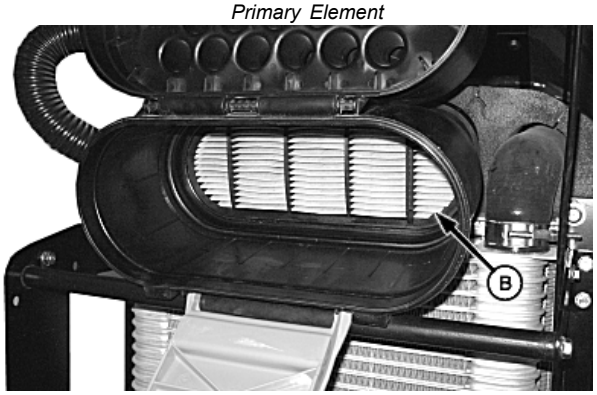
3. Pull out primary filter element (A). Do not use excessive force. If filter does not pull out with ease, move side-to-side to remove safely.
4. Clean primary element by tapping on palm of your hand.
5. Check rubber seal around filter element for cracks and holes. Replace if element shows any imperfections.
6. Secondary filter element (B) should only be removed when being replaced. If it looks dirty or damaged do not attempt to clean, replace it.

A—Primary Filter Element **B—Secondary Filter Element**



P14448 —UN—30OCT07

Primary Element



P14449 —UN—30OCT07

Secondary Element

NS43404,00004DB -19-07APR08-2/3

7. Reinstall primary element with rubber seal first (arrows on label pointing into filter housing). Push in all the way.

IMPORTANT: If primary filter is not damaged and indicator on instrument panel remains illuminated, replace both filters.

8. Close cover and raise catch.
9. Lower hood.

P15396 —UN—07APR08

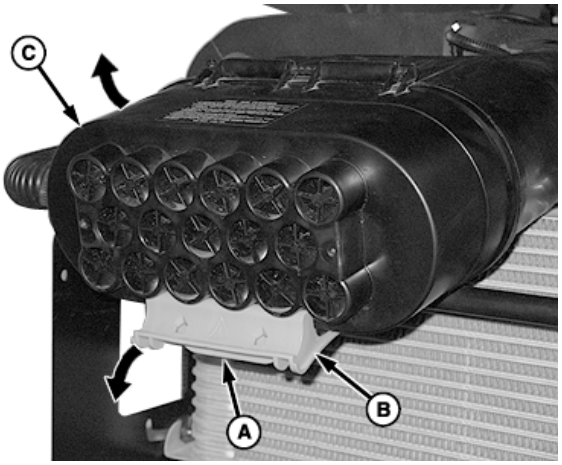
NS43404,00004DB -19-07APR08-3/3

Replace Engine Air Intake Filters

Service Interval—Annually*
** Interval can vary according to operating conditions*

1. Raise hood.
2. Pull lug (A) forward and swing catch (B) down. Raise cover (C).

A—Lug
B—Catch
C—Cover

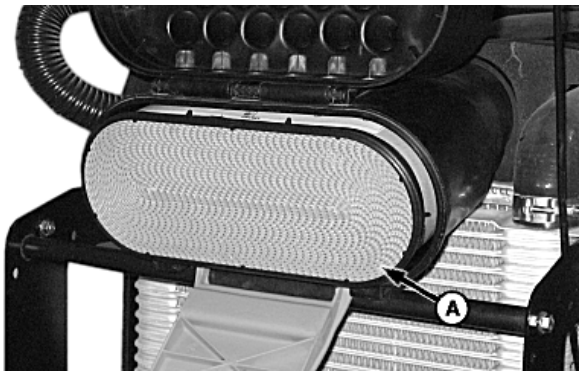


P15259 —UN—11FEB08

NS43404,00004DC -19-07APR08-1/3

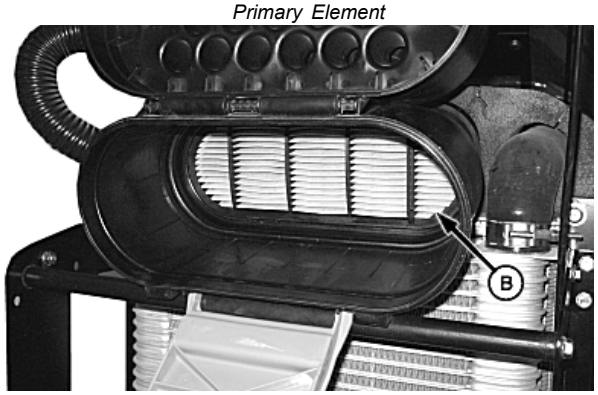
3. Pull out primary filter element (A). Do not use excessive force. If filter does not pull out with ease, move side-to-side to remove safely.
4. Pull out secondary element (B) using handle on filter's frame.
5. Install new secondary element. Push in all the way.

A—Primary Filter Element
B—Secondary Filter Element



P14448 —UN—30OCT07

Primary Element



P14449 —UN—30OCT07

Secondary Element

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NS43404,00004DC -19-07APR08-2/3

6. Install new primary element with rubber seal first (arrows on label pointing into filter housing). Push in all the way.
7. Close cover and raise catch.
8. Lower hood.

NS43404,00004DC -19-07APR08-3/3

Inspect Engine Air Intake System

IMPORTANT: Do not overtighten clamps.

Make sure all air intake clamps are tight.

Check all pipes for dents and other imperfections. Replace as necessary.

Check all hoses for cracks that may cause leaks or possible failure. Replace as necessary.

NS43404,0000545 -19-12FEB08-1/1

Adjust Brake Pedal Free Travel

Service Interval—250 Hours

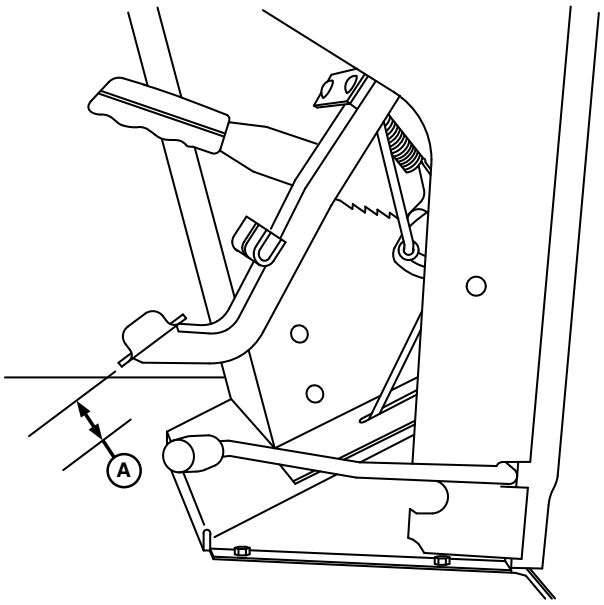
1. Park on level surface. Chock wheels to prevent machine movement.
2. Unlock brake pedals.
3. Apply approximately 10 kg (20 lb) force on one brake pedal and measure distance (A) between engaged pedal and disengaged pedal. If free travel is not within specification, adjust linkage.

Specification

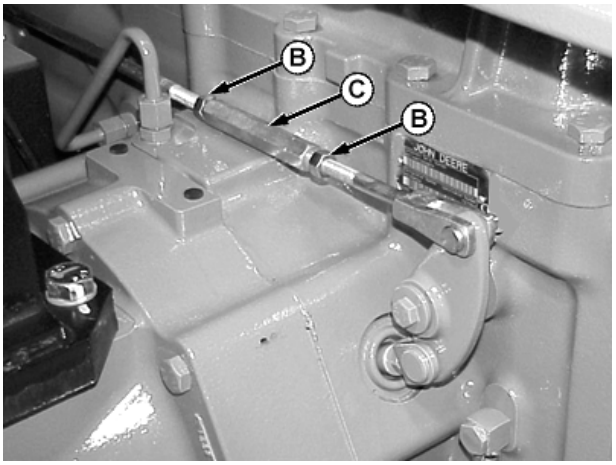
Brake Pedal—Free Travel..... 70 ±3 mm (2.75 ±0.12 in.)

4. Adjust each brake pedal separately. Each side of tractor has an adjustment rod with turnbuckle and jam nuts. To adjust linkage, on each side of turnbuckle (C).
   a. Loosen jam nuts (B).
   b. Rotate turnbuckle (C) as needed to increase or decrease tension on adjustment rod in order to obtain free travel specification.
   c. Tighten jam nuts.
5. Repeat on opposite side.

A—Brake Pedal Travel
B—Jam Nuts
C—Turnbuckle



P9095 —UN—28SEP00



P11553 —UN—26JUL02

Left-Hand Side Shown

NS43404,00004E0 -19-13FEB08-1/1

Adjust Clutch Pedal Free Travel—*Mechanical Activated Clutch*

Service Interval—Weekly/50 Hours

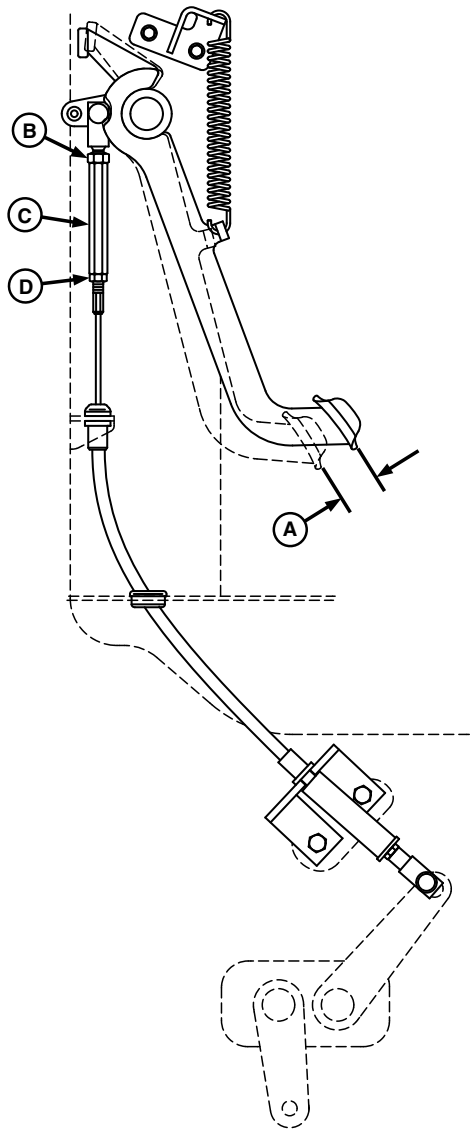
IMPORTANT: The adjustment of the cable attached to the clutch pedal has been set by the factory and does not require further adjustment during the life of the tractor, unless the cable is removed or disconnected.

Measure distance clutch pedal travels before clutch engagement is felt. If free travel (C) is not within specification, adjust linkage.

Specification	
Clutch Pedal Free Travel—Distance	32 ± 5 mm (1-1/2 ± 3/16 in.)

1. Loosen jam nuts (A).
2. Turn turnbuckle (B):
   - Counterclockwise to increase free play
   - Clockwise to decrease free play
3. Tighten jam nuts.

A—Jam Nuts
B—Turnbuckle
C—Free Travel Distance



NS43404,00004E1 -19-13FEB08-1/1

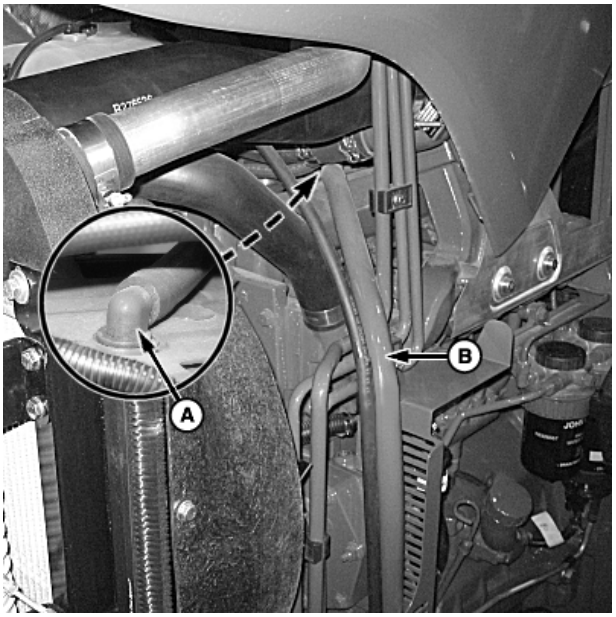
Clean Engine Crankcase Vent Tube

Service Interval—1000 Hours

CAUTION: Reduce compressed air to less than 210 kPa (2 bar) (30 psi) when using for cleaning purposes. Clear area of bystanders, guard against flying chips and wear personal protection equipment, including eye protection.

1. Locate crankcase vent port (A) on top right-hand side of engine.
2. Remove crankcase vent tube (B).
3. Wash in solvent or blow clean with compressed air. Inspect tube for damage, replace if necessary.
4. Install vent tube. Make sure vent tube is not kinked or pinched.

A—Crankcase Vent Port **B—Crankcase Vent Tube**



P15298 —UN—28MAR08

Left-Hand Side Shown

NS43404,00004E2 -19-26MAR08-1/1

Check Engine Idle Speeds

Service Interval—500 Hours

Slow (turtle) idle speed is attained with hand throttle all the way down.

Fast (rabbit) idle speed is attained with hand throttle all the way up.

NOTE: Hand throttle position will directly relate with label on right-hand side of instrument panel.

If idle speeds are not correct, see your John Deere dealer.

6100D, 6110D and 6125D—Specification

Slow Idle—Speed	850 rpm
Fast Idle—Speed	2275 rpm

6115D, 6130D and 6140D—Specification

Slow Idle—Speed	900 rpm
Fast Idle—Speed	2200 rpm

NS43404,00004E3 -19-15APR08-1/1

Engine Valve Adjustment

Service Interval—2000 Hours / Two Years

Have your John Deere dealer check and adjust engine valve clearance.

NS43404,00004E4 -19-13FEB08-1/1

Tighten Hose Clamps

Service Interval—500 Hours

IMPORTANT: Do not overtighten clamps causing washers to be over compressed.

Check the following system hose clamps. Tighten as necessary.

Specification

Hose Clamps—Torque	5 N·m (44 lb-in.)

- Engine Air Induction System
- Engine Cooling System
- Hydraulic System
- Fuel System

NS43404,00004E6 -19-13FEB08-1/1

Inspect Tractor for Loose Hardware

Service Interval—Weekly / 50 Hours

Specification	
Front Ballast Weight Retaining Bolts—Torque	230 N·m (170 lb-ft)
Adjustable Front Axle-to-Knee Bolts—Torque	480 N·m (350 lb-ft)
Adjustable Front Axle Disk-to-Flange Bolts—Torque	175 N·m (130 lb-ft)
Rear Axle Rim-to-Disk Bolts (Steel Disk) —Torque	245 N·m (180 lb-ft)
Rear Axle Disk-to-Flange Bolts (Steel Disk) —Torque	175 N·m (130 lb-ft)
Multi-Position Rear Wheels Rim-to-Disk Bolts (Steel Disk)—Torque	245 N·m (180 lb-ft)
Multi-Position Rear Wheels Disk-to-Flange Bolts (Steel Disk)—Torque	175 N·m (130 lb-ft)
Front Axle Bolts—Torque	480 N·m (350 lb-ft)
ROPS Mounting Bolts—Torque	610 N·m (450 lb-ft)
Cab Mounting Bolts—Torque	220 N·m (162 lb-ft)

NS43404,00004E7 -19-24MAR08-1/1

Check Neutral Start System—Collar Shift and Top Shaft Synchronized Transmissions

Service Interval—250 Hours

Transmission Control

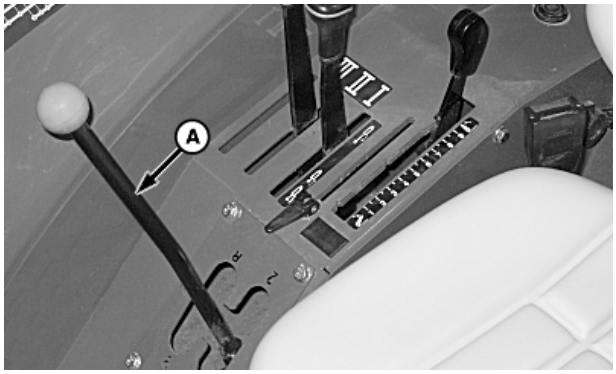
1. Make sure everyone is clear of tractor.
2. Fully depress clutch and brake pedals.
3. Move gear shift lever (A) to any position except NEUTRAL.
4. Start engine. If engine starts in any of these positions, neutral start system should be repaired. See your John Deere dealer **immediately**.

Engine should start with lever in NEUTRAL position only.

PTO Lever

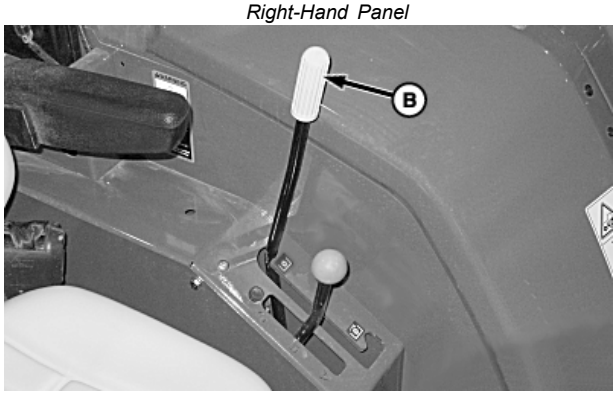
1. Fully depress clutch and brake pedals.
2. Move PTO lever (B) forward to ENGAGED position.
3. Start engine. If engine starts in this position, neutral start system should be repaired. See your John Deere dealer **immediately**.

Engine should start with lever in DISENGAGED position only.



P14873 —UN—20NOV07

Right-Hand Panel



P14887 —UN—21NOV07

Left-Hand Panel

A—Gear Shift Lever **B—PTO Control Lever**

NS43404,00004E8 -19-13FEB08-1/1

Check Neutral Start System—PowrReverser™ Transmission (If Equipped)

Service Interval—250 Hours

Transmission Control

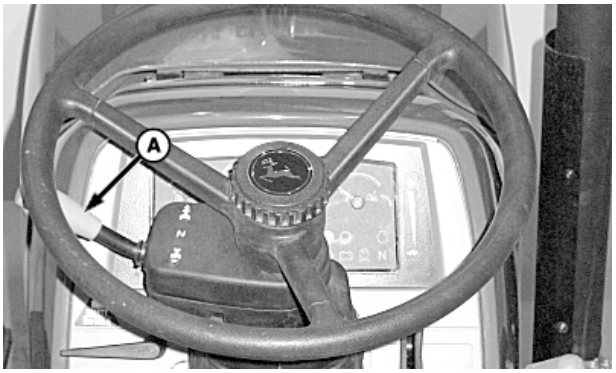
1. Make sure everyone is clear of tractor.
2. Fully depress clutch and brake pedals.
3. Move PowrReverser lever (A) to FORWARD or REVERSE position.
4. Start engine. If engine starts in either of these positions, neutral start system should be repaired. See your John Deere dealer **immediately**.

Engine should start with lever in NEUTRAL position only.

PTO Lever

1. Fully depress clutch and brake pedals.
2. Move PTO lever (B) forward to ENGAGED position.
3. Start engine. If engine starts in this position, neutral start system should be repaired. See your John Deere dealer **immediately**.

Engine should start with lever in DISENGAGED position only.



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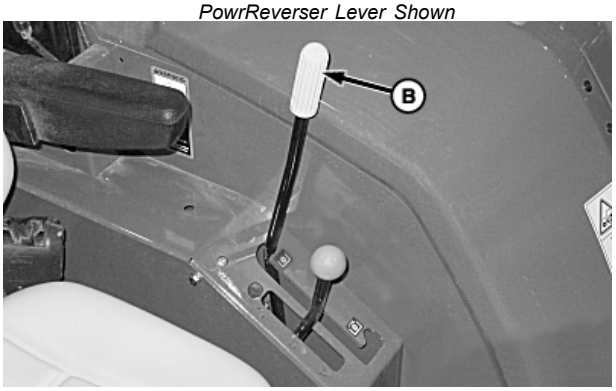
PowrReverser Lever Shown



P14887 —UN—21NOV07

Left-Hand Panel

A—PowrReverser Lever **B—PTO Control Lever**

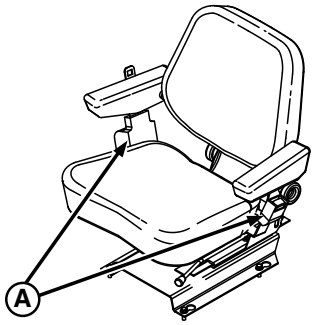
OUMX005,000293C -19-07APR08-1/1

Inspect Seat Belt

Service Interval—Annually

⚠ CAUTION: If the seat belt system, including the mounting hardware, buckle, belt or retractor show any sign of damage such as cuts, fraying, extreme or unusual wear, discoloration or abrasion, the entire seat belt system should be replaced immediately. Replace the belt system only with replacement parts approved for your machine.

Inspect seat belts (A) and mounting hardware. If seat belts need to be replaced, see your John Deere dealer.



P10205 —UN—09JUL01

A—Seat Belt

NS43404,00004EA -19-13FEB08-1/1

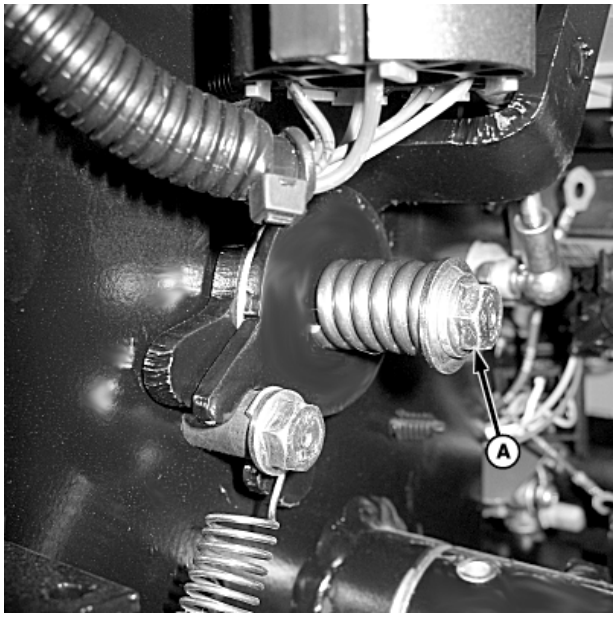
Adjust Hand Throttle Friction

Adjust spring tension by loosening or tightening cap screw and lock nut (A) until throttle lever movement is smooth throughout range of travel with only slight drag.

Adjust throttle friction cap screw until specified amount of resistance is measured at throttle lever knob.

Specification	
Throttle Friction Cap Screw—Resistance	49 N (11 lb-force)

A—Cap Screw and Lock Nut



P14829 —UN—13FEB08

Under Dashboard

NS43404,00004EC -19-24MAR08-1/1

Inspect Tires

Service Interval—Weekly/50 Hours

- Check tires daily for damage or noticeably low pressure.
- Have any cuts or breaks repaired as soon as possible.
- Protect tires from exposure to sunlight, petroleum products and chemicals.
- Drive carefully. Try to avoid rocks and sharp objects.

IMPORTANT: Minimum pressures may be used only for light loads and only if tractor has no added weight. If you install ballast or mounted implements, or if you pull heavy loads, increase pressure.

- Check tires with an accurate gauge having 10 kPa (0.1 bar) (1 psi) graduations. If tires contain liquid ballast, use a special air-water gauge and measure with valve stem positioned toward bottom.

Refer to TIRE INFLATION PRESSURE CHART in Wheels, Tires and Treads section.

NS43404,00004ED -19-13FEB08-1/1

Tubeless Tire Repair

Certain sizes of tires are tubeless. Small tubeless tire punctures can be temporarily repaired without dismounting tire, avoiding down time during busy season. (See your John Deere dealer or tire service store for repair kits and instructions.)

IMPORTANT: A permanent, inside-out repair should be made as soon as possible to prevent tire damage.

MX,SEIP,NN -19-18MAR92-1/1

Clean Cab Air Filters

Service Interval—250 Hours*
** Interval can vary according to operating conditions*

CAUTION: The air quality system air filters are not designed to filter out harmful chemicals. Follow the instructions in the implement operator's manual and those given by the chemical manufacturer when using agricultural chemicals.

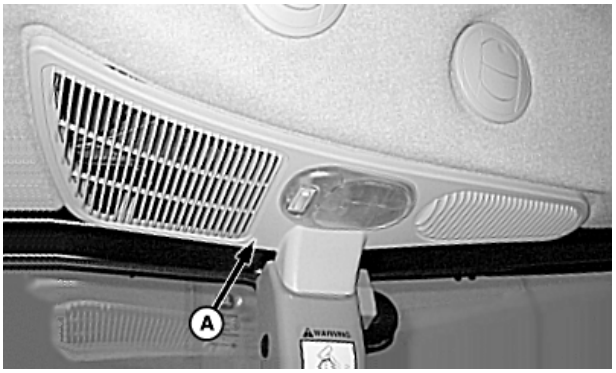
NOTE: There are filters on BOTH sides of cab. Left-hand side is shown.

1. Pry off cover (A). (Pull down along window.)
2. Remove wing screw (B), retainer (C) and filter (D).
3. Inspect filter for holes or damage. Inspect rubber seal for cracks or wear. Replace as necessary.

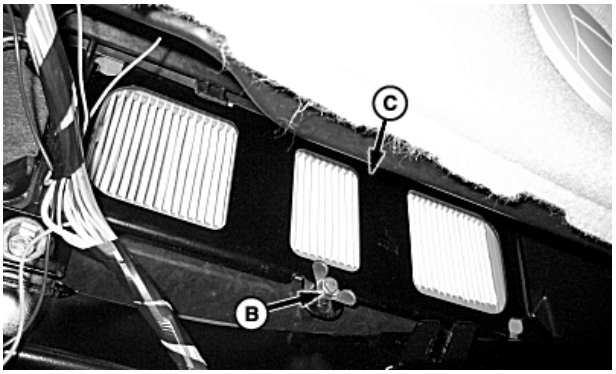
NOTE: Do not clean filter with water or compressed air. Cleaning the filter is not recommended and should be replaced as needed.

4. Replace filter when it becomes dirty. It may require replacing filter more often in dusty conditions.
5. Install filter with rubber seal toward retainer (C).
6. Install retainer, wing screw and cover.
7. Repeat procedure on opposite side.

A—Cover
B—Wing Screw
C—Filter Retainer
D—Filter



P14487 —UN—30OCT07



P14488 —UN—30OCT07

P14490 —UN—30OCT07

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OU1092A,00001F6 -19-17APR08-1/2

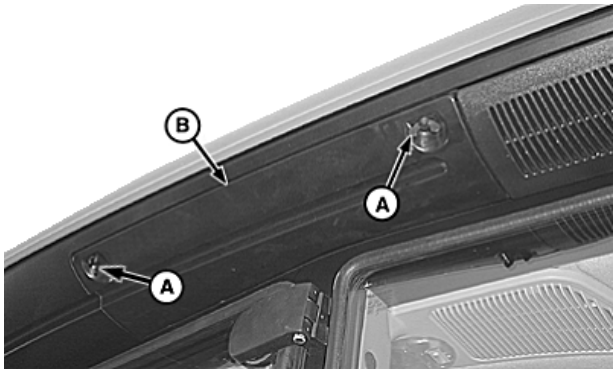
Fresh Air Filters (Outside Cab)

1. Remove two wing screws (A) and cover (B).
2. Remove wing screws (C), retainer (D) and filter (E).
3. Inspect filter for holes or damage. Inspect rubber seal for cracks or wear. Replace as necessary.

NOTE: Do not clean filter with water or compressed air. Cleaning the filter is not recommended and should be replaced as needed.

4. Replace filter when it becomes dirty. It may require replacing filter more often in dusty conditions.
5. Install filter with rubber seal toward cab.
6. Install retainer and wing screws.
7. Install cover and wing screws.
8. Repeat procedure on opposite side.

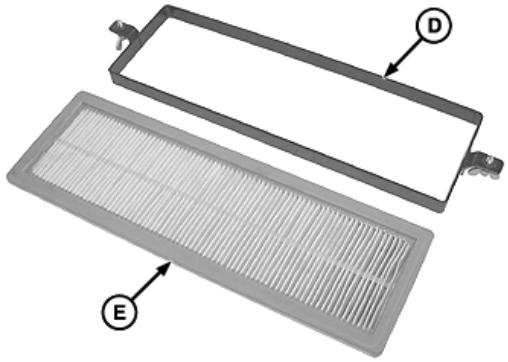
A—Wing Screws
B—Filter Cover
C—Wing Screws
D—Filter Retainer
E—Filter



P14491 —UN—30OCT07

Under Roof, Above Cab Door

P14489 —UN—30OCT07



P14492 —UN—30OCT07

OU1092A,00001F6 -19-17APR08-2/2

Service Air Conditioner (Cab)

CAUTION: Refrigerant under pressure. Improper servicing may cause refrigerant to penetrate eyes and skin or cause burns.

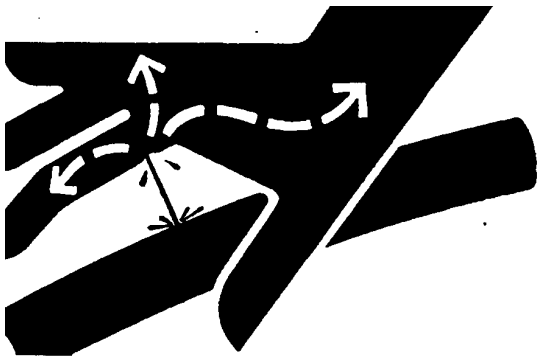
IMPORTANT: R134a refrigerant must be used. This requires special equipment and procedures. See your John Deere dealer.

NOTE: Some oil seepage from compressor shaft seal is normal.

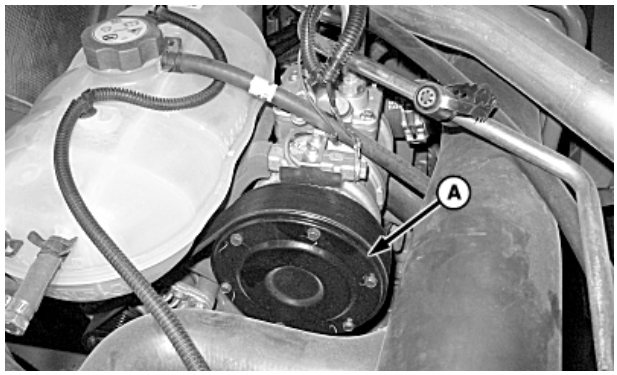
Check the following if air conditioner will not cool, or if cooling is intermittent:

- If air conditioner clutch slips after tractor has been in storage, compressor may be stuck. Stop engine and turn key switch to OFF position. Remove six cap screws and clutch cover (A). Rotate clutch hub back and forth to free compressor.

A—Clutch Cover



X9811 —UN—23AUG88

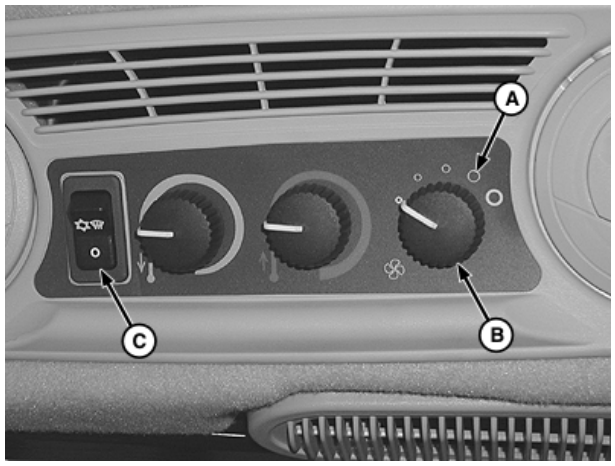


P14493 —UN—13FEB08

NS43404,00004F0 -19-13FEB08-1/2

- Run engine at 2000 rpm. Push top half of A/C and defrost switch (C) and set blower control knob (B) to HIGH position (A). If air flow is not cool, system may be low on refrigerant. See your John Deere dealer.
- If cooling is intermittent, clean front grille, side vents, radiator and condenser . If problem is not solved, see your John Deere dealer.
- Inspect operator enclosure (cab) filters for restriction. (See CLEAN CAB AIR FILTERS in this section). If problem persists, see your John Deere dealer.

A—High Position
B—Blower Control Knob
C—A/C and Defrost Switch



LV8577 —UN—14AUG03

NS43404,00004F0 -19-13FEB08-2/2

Cleaning Engine Compartment

Clean as necessary, especially around potential hot spots such as turbocharger, exhaust manifold and muffler.

IMPORTANT: DO NOT use steam cleaner or high pressure washer in area of fan drive. High pressure could force dirt past seals in drive hub.

Never steam clean or pour cold water on an injection pump that is operating or hot. Pump could seize.

OUMX005,000293D -19-13FEB08-1/1

ROPS Maintenance or Replacement (OOS)

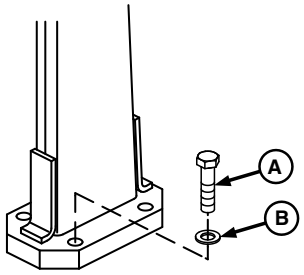
Service Interval—250 Hours

CAUTION: Make certain all parts are installed correctly if 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, as in an overturn incident, or is in any way altered by welding, bending, drilling, or cutting. A damaged ROPS should be replaced, not reused. Any alteration to the ROPS must be approved by the manufacturer.

Check torque values on all ROPS mounting hardware.

	Specification
ROPS Mounting Bolts—Torque	610 N·m (450 lb-ft)



P10072 —UN—05FEB01

A—Mounting Bolt (8 used) **B—Flat Washer (8 used)**

NOTE: When installation of equipment on a machine requires loosening or removing Roll Over Protective Structure (ROPS), mounting bolts (A) with washers (B) should be tightened to specification upon re-installation.

NS43404,00004E9 -19-13FEB08-1/1

Keep Cab Protection System Installed Properly

Service Interval—250 Hours

CAUTION: Make certain all parts are installed correctly if cab protection system is loosened or removed for any reason. Tighten mounting cap screws to specification.

The protection offered by cab protection system will be impaired if cab protection system is subjected to structural damage, as in an overturn incident, or is in any way altered by welding, bending, drilling, or cutting. A damaged cab protection system should be replaced, not reused. Any alteration to the cab protection system must be approved by the manufacturer.

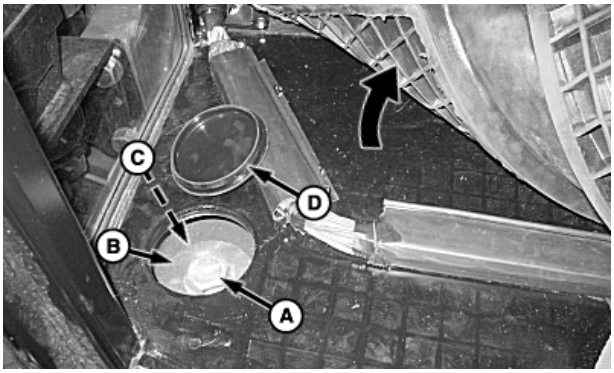
When installation of equipment on a machine necessitates loosening or removing cab protection system, mounting cap screws should be tightened to specification

Lift up rubber floor mat and pry out plugs (D) to access FRONT mounting hardware.

Check front and rear mounting hardware (A—C) for proper torque.

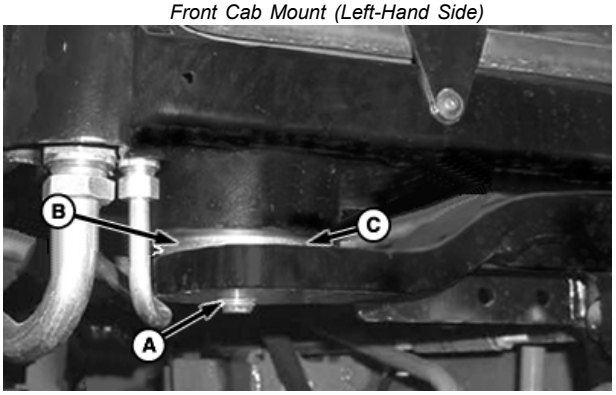
Specification	
Cab Protection System Mounting Cap Screws—Torque	220 N·m (162 lb-ft)

A—Cap Screw
B—Washer
C—Isolator
D—Plug



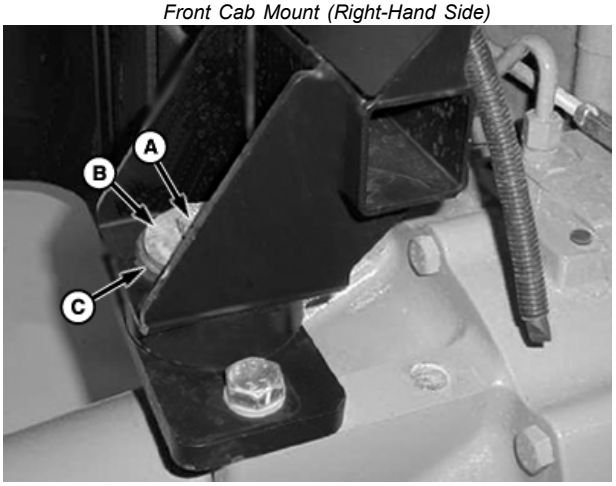
P14496 —UN—30OCT07

Front Cab Mount (Left-Hand Side)



P14497 —UN—30OCT07

Front Cab Mount (Right-Hand Side)



P14498 —UN—30OCT07

Rear Cab Mount (Left-Hand Side)

NS43404,00004F1 -19-13FEB08-1/1

Replace Engine Crankshaft Vibration Damper

Service Interval—5000 Hours / 5 Years

Have your John Deere dealer replace engine crankshaft vibration damper.

OUMX005,000293E -19-13FEB08-1/1

Use Correct Lubricant

IMPORTANT: Use only lubricants meeting specifications outlined in Fuels, Lubricants and Coolant section when performing tractor service.

OUO6070,0000072CONV1 -19-12OCT00-1/1

Check Engine Oil Level

Service Interval—Daily / 10 Hours

1. If engine has not been running, proceed to check oil level.

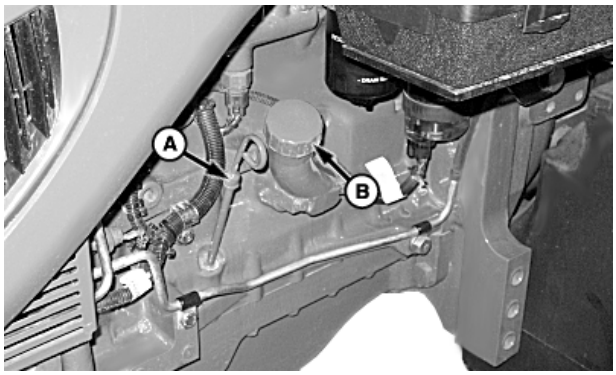
   If engine has been running, turn speed down to low idle and let it run for 2—3 minutes. Stop engine and wait 2—3 minutes.

NOTE: Make sure to push dipstick all the way in to check oil.

Oil levels within the crosshatch are considered in the acceptable operating range. Cross-hatch area is considered FULL.

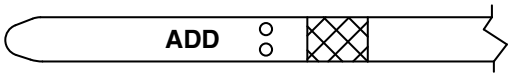
2. Remove dipstick (A), wipe off and reinsert fully.
3. Remove again and locate oil level.
4. If oil does not show in crosshatched area of dipstick, add through filler hole (B).
5. Repeat procedure until adequate oil level is achieved. DO NOT overfill.

IMPORTANT: Do not operate engine with oil level below the "ADD" mark on dipstick.



Left-Hand Side

P14499 —UN—14FEB08



P9204 —UN—25AUG00

A—Engine Oil Dipstick **B—Engine Oil Filler Hole**

NS43404,00004F3 -19-20MAR08-1/1

Change Engine Oil and Filter

Service Interval

Initial—100 Hours

Regular—250 Hours*

Regular—500 Hours**

**** 250 hours** when using any lubricant other than TorqGARD or PLUS 50.*

***** 500 hours** when using John Deere TorqGARD or PLUS 50 lubricant and filter.*

1. If engine has not been running, start engine and let it run at low idle for 2—3 minutes. Stop engine and wait 2—3 minutes for oil to drain back into oil sump.

   If engine has been running, slow speed down to low idle and let it run for 2—3 minutes. Stop engine and wait 2—3 minutes.
2. Remove filler cap (B).
3. Remove plug (C) and drain oil.
4. Remove engine oil filter (D).
5. Apply a film of oil on new oil filter gasket and install filter. Hand-tighten plus 1/2 turn.
6. Install and tighten drain plug.

NOTE: Oil levels within the crosshatch are considered in the acceptable operating range. Cross-hatch area is considered FULL.

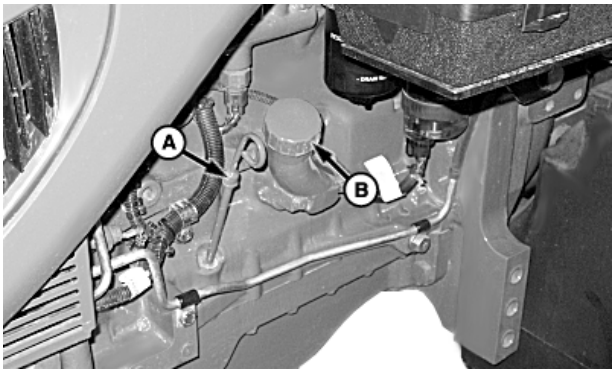
7. Add oil.

Specification

Engine Crankcase Oil
with Filter—Capacity..... 15 L
(16 qt)

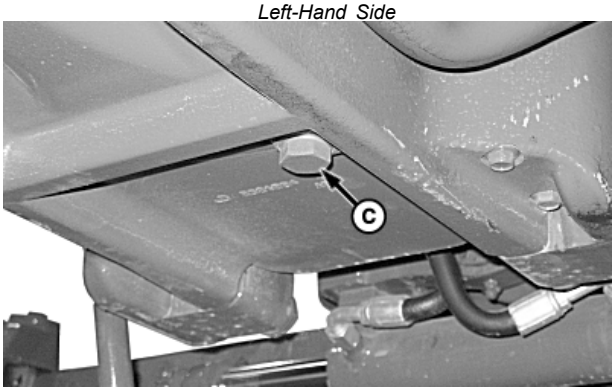
8. Start engine and check for leaks.
9. Stop engine and remove key. Recheck oil level.

A—Dipstick
B—Filler Cap
C—Drain Plug
D—Oil Filter

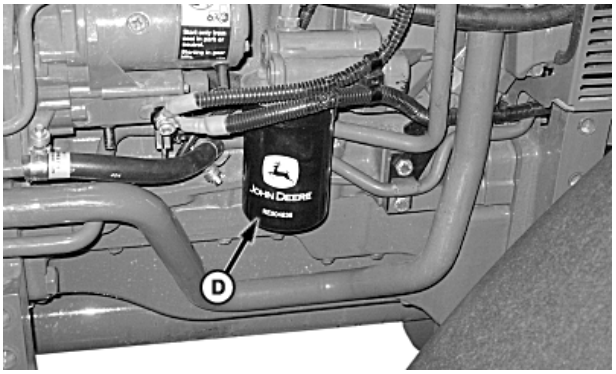


P14499 —UN—14FEB08

Left-Hand Side



P14500 —UN—30OCT07



P14501 —UN—30OCT07

Right-Hand Side

NS43404,00004F4 -19-18MAY10-1/1

Engine Oil Filter Change (If Equipped with Loader Frames)

When loader mounting frames are installed on tractor, the access to the engine oil filter becomes limited and some conventional filter wrenches may not fit in the opening or may experience interference while turning the filter. A jaws type filter wrench is recommended for this application.

Removal (With Wrench):

1. Hook up filter wrench to an extension bar and ratchet.
2. Place wrench on filter (wrench base should be in contact with filter).
3. Turn the ratchet to grab and loosen the filter.

Installation (Without Wrench):

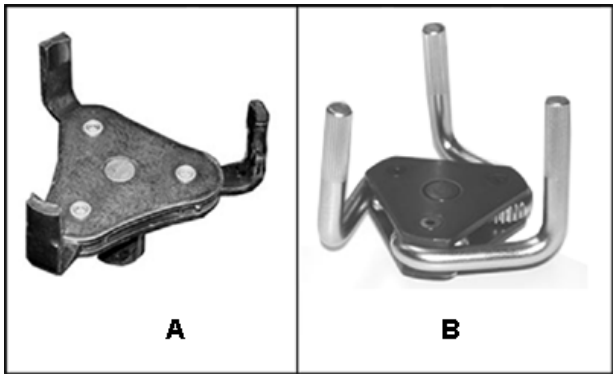
1. Apply a layer of clean engine oil on new filter seal.
2. Install the filter and hand-tighten plus 1/2 turn.

Installation (With Wrench Capable for Tightening):

1. Apply a layer of clean engine oil on new filter seal.
2. Install filter and hand-tighten until filter seal contacts filter base.
3. Hook up the filter wrench to ratchet with extension bar.
4. Place the wrench on the filter and rotate the wrench carefully until the jaws grab the filter, from this point, tighten 1/2 turn.

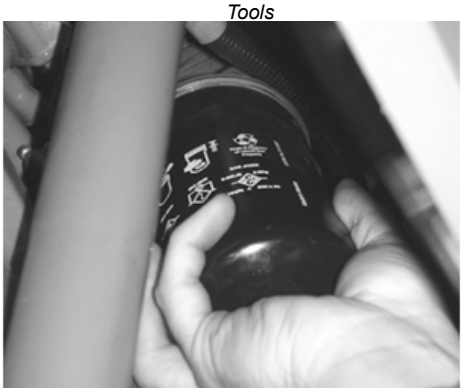
IMPORTANT: Be careful while tightening the filter using a wrench. DO NOT tighten the filter more than 1/2 — 3/4 turn after the filter packing contacts the filter base to avoid filter damages.

A—Capable of Loosening and Tightening **B—Loosening Only**



P15524F —UN—23JUN10

Tools



P15524 —UN—18JUN08

Installation By Hand

P15524A —UN—18JUN08

Using Suggested Tools

DP51502,0000088 -19-24JUN10-1/1

Check Transmission-Hydraulic Oil Level

Service Interval—Daily / 10 Hours

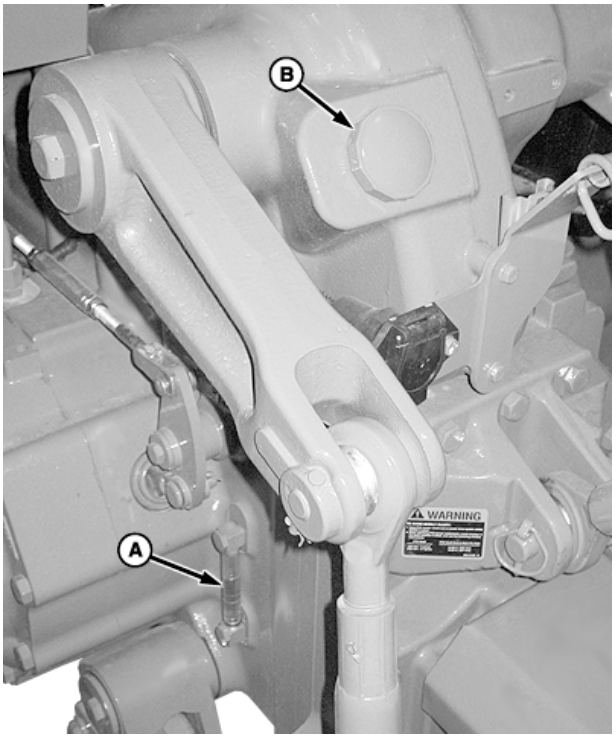
IMPORTANT: Routine checks will help prevent downtime. The operator can aid in preventive maintenance by documenting all leak and malfunction problems. Since the transmission operates in oil, it is very important to keep oil clean and at correct level at all times.

NOTE: Oil temperature should be approximately 45° C (113° F). Sight glass observations will be significantly higher with hotter oil temperatures and lower with colder oil.

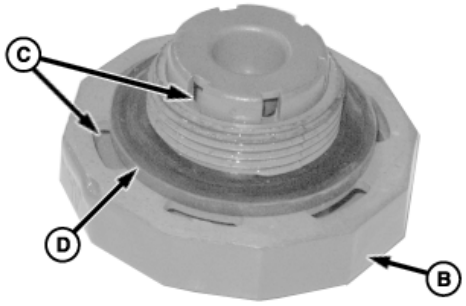
1. Operate engine at approximately 1000 rpm for at least one minute.
2. Move rockshaft lever full forward to lower hitch all the way down.
3. Stop engine and wait an additional three minutes before checking oil level.
4. Check level at sight glass (A). Oil level should be between upper and lower lines on sight glass.

IMPORTANT: Oil level above the top mark on sight glass can result in power loss and heat generation during transport.

5. If oil level is below the lower mark, remove filler cap (B) and add oil.
6. Inspect and thoroughly clean all filler cap vents (C).
7. Inspect rubber seal (D) for cracks or other imperfections. Replace if necessary.
8. Install filler cap.



P15261 —UN—14FEB08

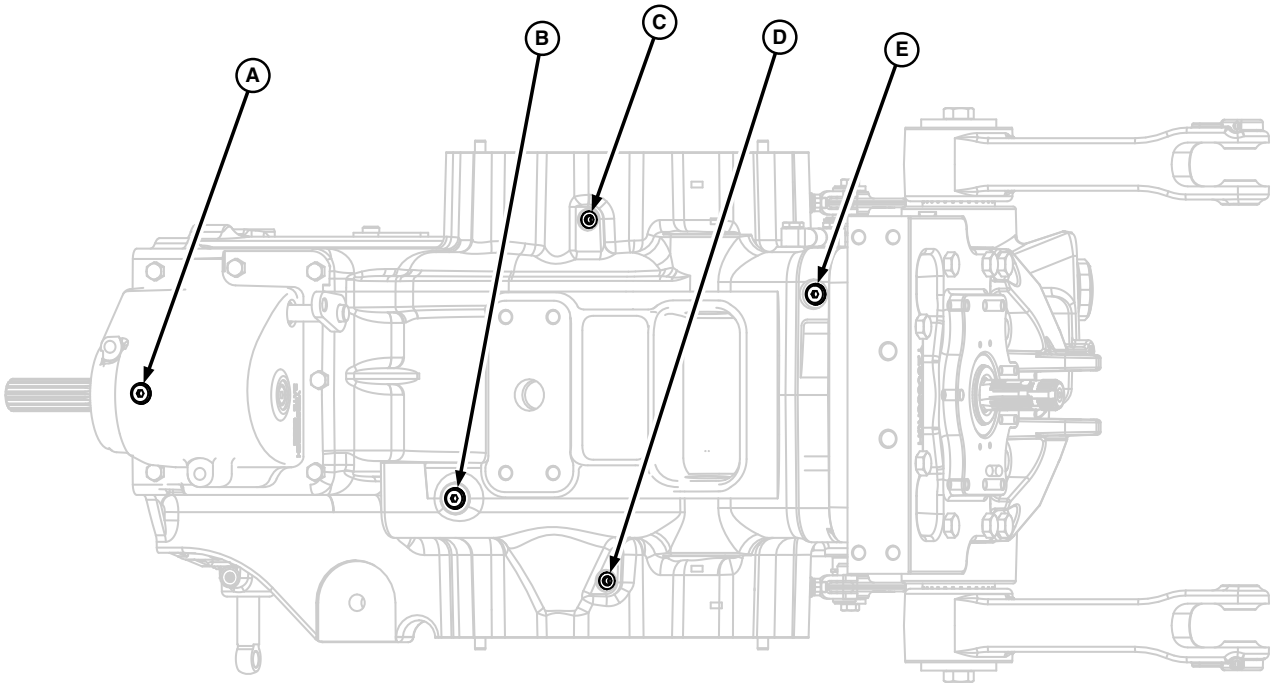


P14531 —UN—15FEB08

A—Sight Glass
B—Filler Cap
C—Vents
D—Rubber Seal

NS43404,00004F5 -19-20MAR08-1/1

Change Transmission-Hydraulic Oil



P14515 —UN—20NOV07

View From Below

A—MFWD Axle Drop Gear Box Drain Plug (If Equipped)
B—Transmission Main Case Drain Plug
C—Left-Side Final Drive Drain Plug
D—Right-Side Final Drive Drain Plug
E—PTO Case Drain Plug

Service Interval—1000 Hours

1. Move rockshaft lever full forward to lower hitch all the way down.
2. Remove drain plugs (A—E).
3. Replace transmission-hydraulic oil filter. (See procedure in this section.)

NOTE: Always dispose of used oil in accordance with applicable laws and regulations.

4. Install all plugs.

Continued on next page

NS43404,00004FF -19-16FEB08-1/2

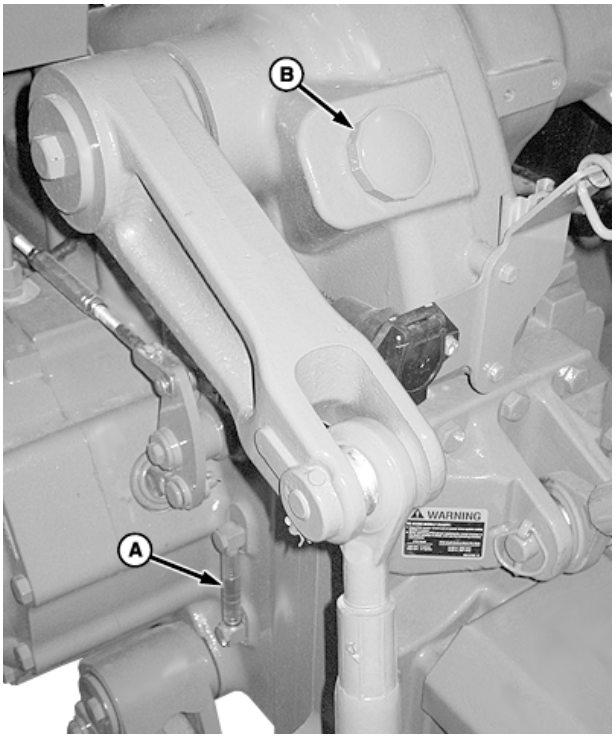
IMPORTANT: Do not overfill transmission. This will cause overheating and result in transmission damage.

5. Remove cap (B) and fill system with oil as specified in Fuels, Lubricants and Coolant section.

Specification	
Transmission-Hydraulic Oil—Capacity	58 L (15.3 gal)

6. Check oil level at sight glass (A) after filling.
7. Install filler cap.
8. Start engine and operate for five minutes.
9. Shut off engine and check oil level. Add oil if necessary.

A—Sight Glass **B—Filler Cap**



P15261 —UN—14FEB08

NS43404,00004FF -19-16FEB08-2/2

Replace Transmission-Hydraulic Oil Filter

Service Interval
Initial—100 Hours
Regular—500 Hours

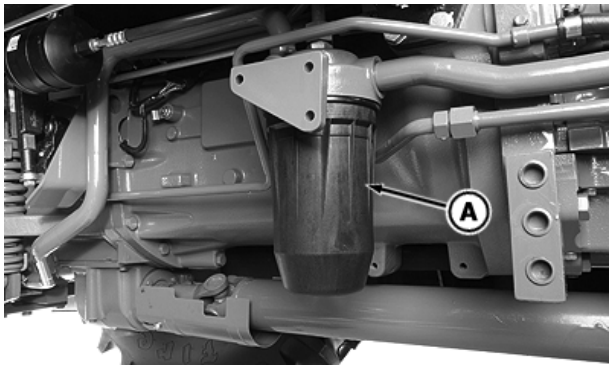
NOTE: Replace hydraulic filter housing and filter as a complete assembly.

1. Remove filter housing assembly (A) and filter seal (B).
2. Discard filter housing assembly (A) and O-ring seal (B).
3. Inspect new filter assembly and seal for any possible damage.
4. Apply hydraulic oil to new filter O-ring seal (B) and install on filter assembly.
5. Install new filter assembly and tighten to specification.

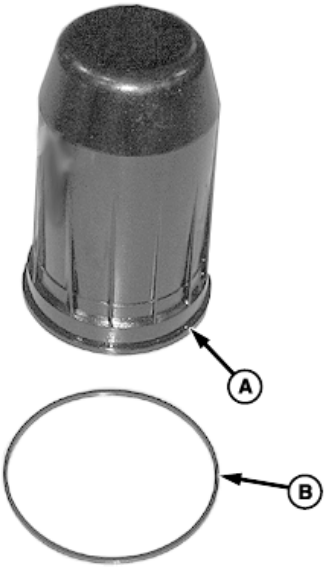
Specification

Hydraulic Oil Filter—Torque..... 24 N·m (212 lb-in)

6. Run engine for five minutes.
7. Shut off engine and check oil level. Add hydraulic as required. (See CHECK TRANSMISSION-HYDRAULIC OIL LEVEL in this section.)



P15394 —UN—07APR08



P15271 —UN—07APR08

A—Filter Housing Assembly **B—Filter O-Ring Seal**

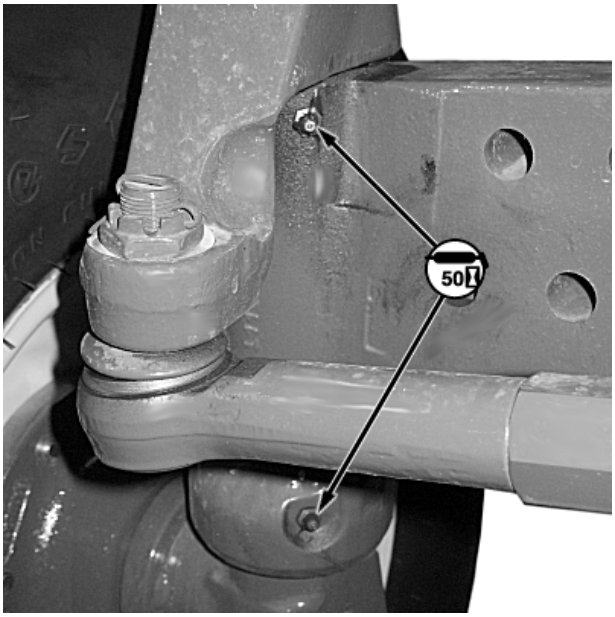
NS43404,00004F6 -19-07APR08-1/1

Lubricate Steering Linkage

Service Interval—Weekly / 50 Hours*
** Daily / 10 Hours if operated in extremely wet or muddy conditions*

2WD Axle

Apply several shots of grease to steering spindle fittings, on both left and right-hand sides.



P14506 —UN—16FEB08

Left-Hand Side Shown

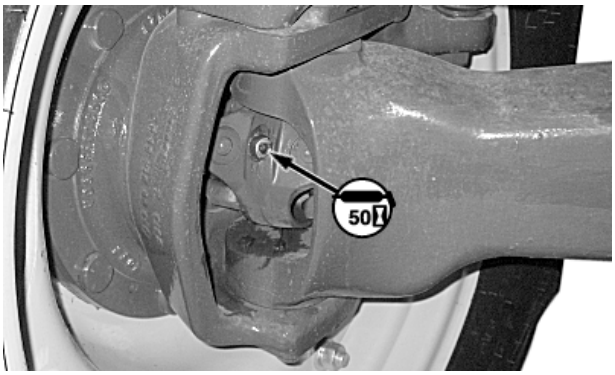
NS43404,00004F7 -19-26MAR08-1/2

MFWD Axle

Service Interval—Weekly / 50 Hours*
** Daily / 10 Hours if operated in extremely wet or muddy conditions*

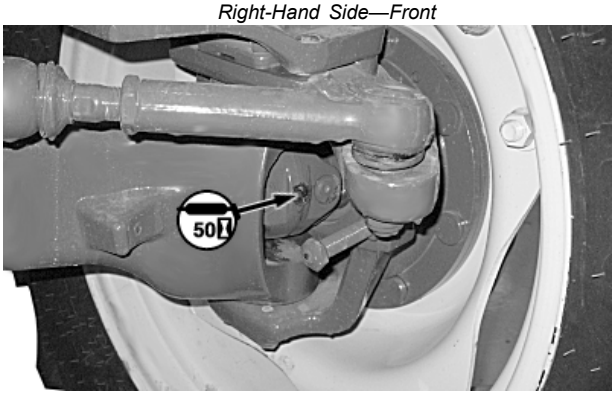
Turn steering wheel full left or right to access lube fittings.

- Left-hand turn
  - Front fitting on left-hand side
  - Rear fitting on right-hand side
- Right-hand turn
  - Rear fitting on left-hand side
  - Front fitting on right-hand side



P14504 —UN—16FEB08

Right-Hand Side—Front



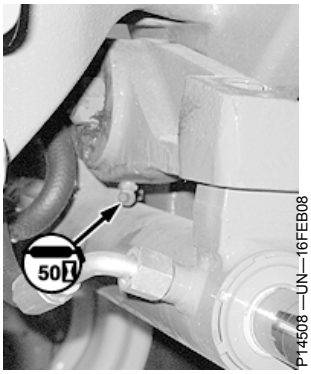
P14505 —UN—16FEB08

Right-Hand Side—Rear

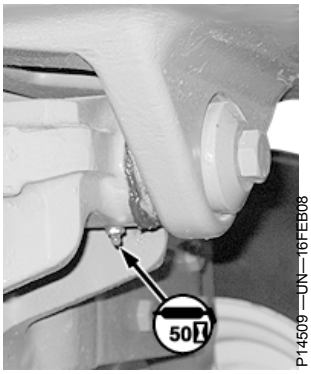
NS43404,00004F7 -19-26MAR08-2/2

Lubricate Front Axle Pivot Pins

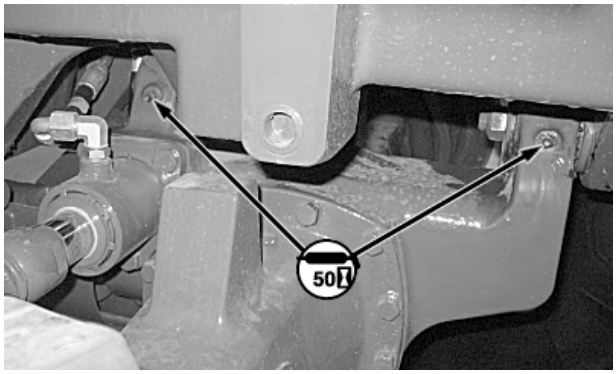
Service Interval—Weekly / 50 Hours*
** Daily / 10 Hours if operated in extremely wet or muddy conditions*



2WD Axle—Rear



2WD Axle—Front

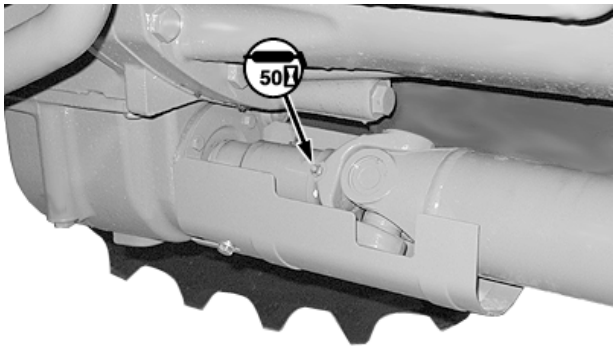


MFWD Axle (Right-Hand Side)

NS43404,00004F8 -19-16FEB08-1/1

Lubricate MFWD Axle Shaft

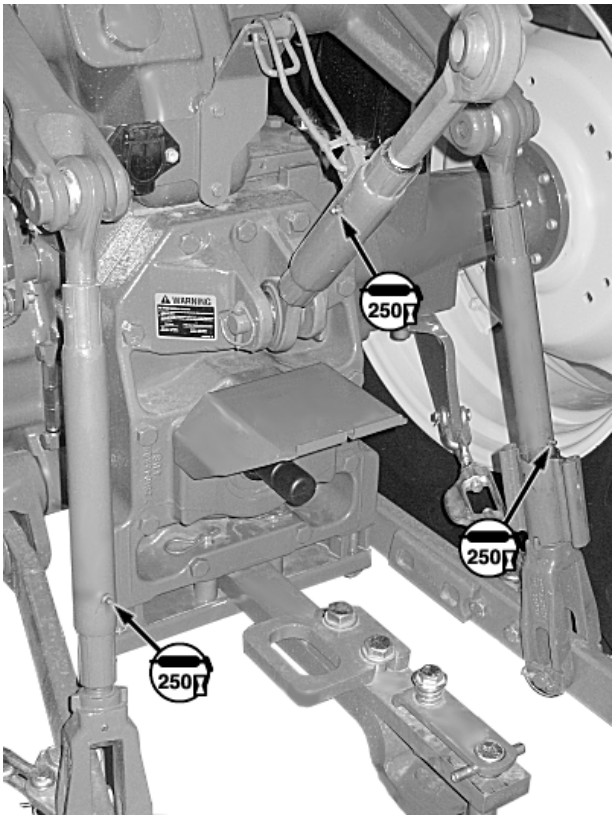
Service Interval—Weekly / 50 Hours*
** Daily / 10 Hours if operated in extremely wet or muddy conditions*



NS43404,00004F9 -19-16FEB08-1/1

Lubricate Hitch Components

Service Interval—250 Hours



P14511 —UN—16FEB08

NS43404,00004FA -19-16FEB08-1/1

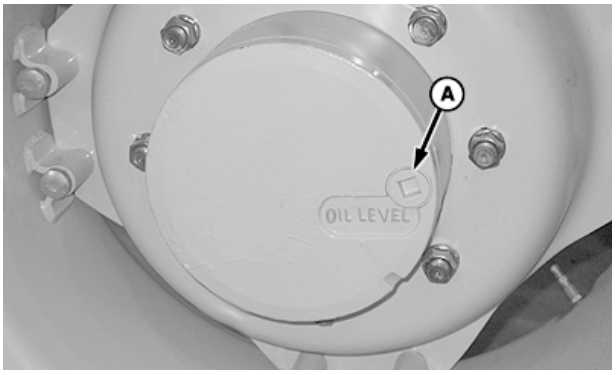
Check MFWD Axle Wheel Hub Oil Level

Service Interval—250 Hours

1. Park tractor on level surface.
2. Turn wheel hubs until the words OIL LEVEL are horizontal.
3. Remove plug (A). Oil level should be just below plug hole.
4. If low, add oil through same hole. John Deere Standard JDM J20C oil is recommended. (See MFWD AXLE AND WHEEL HUB OIL in Fuels, Lubricants and Coolant section.)
5. Apply pipe sealant with TEFLON®, or equivalent, to threads of plug.
6. Install plug and tighten to specifications.

Specification	
Plug-to-Hub—Torque	150 N·m (110 lb-ft)

TEFLON is a trademark of Du Pont Co.



P14513 —UN—16FEB08

A—Plug

7. Repeat procedure on opposite wheel hub.

NS43404,00004FC -19-16FEB08-1/1

Change MFWD Axle Wheel Hub Oil

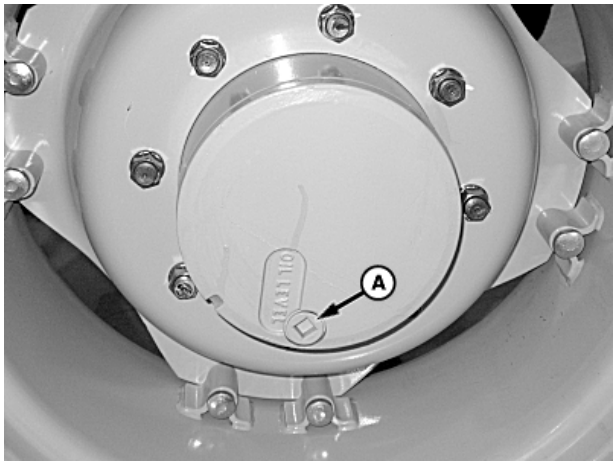
Service Interval
Initial—100 Hours
Regular—1000 Hours

NOTE: Approximate wheel hub oil level is 0.8 L (0.85 qts).

1. Park tractor on level surface.
2. Rotate wheel until drain/fill port plug (A) is at bottom of hub.
3. Remove plug and drain oil.
4. After oil has drained, rotate wheel until drain/fill port is positioned horizontally.
5. Add oil until level is just below edge of hole. John Deere Standard JDM J20C oil is recommended. (See MFWD AXLE AND WHEEL HUB OIL in Fuels, Lubricants and Coolant section.)
6. Apply pipe sealant with TEFLON®, or equivalent, to threads of plug.
7. Install plug and tighten to specifications.

Specification	
Plug-to-Hub—Torque	150 N·m (110 lb-ft)

TEFLON is a trademark of Du Pont Co.



P14517 —UN—30OCT07

A—Drain/Fill Port Plug

8. Repeat procedure on opposite wheel hub.

NS43404,0000502 -19-16FEB08-1/1

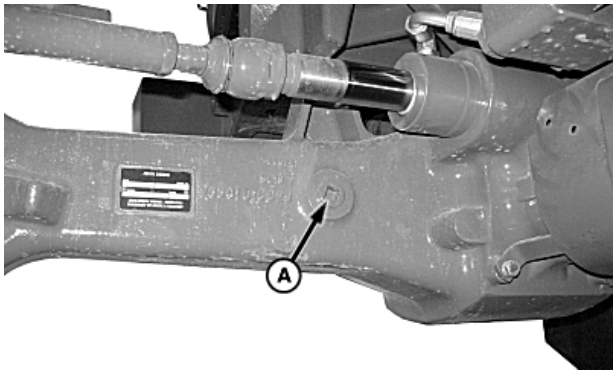
Check MFWD Axle Housing Oil Level

Service Interval—250 Hours

1. Park tractor on level surface.
2. Remove plug (A). Oil level should be approximately 12 mm (1/2 in.) below edge of plug hole.
3. If low, add oil through same hole. John Deere Standard JDM J20C oil is recommended. (See MFWD AXLE AND WHEEL HUB OIL in Fuels, Lubricants and Coolant section.)
4. Apply pipe sealant with TEFLON®, or equivalent, to threads of plug.
5. Install plug and tighten to specifications.

Specification	
Plug-to-Axle Housing—Torque	150 N·m (110 lb-ft)

TEFLON is a trademark of Du Pont Co.



P14512 —UN—30OCT07

A—Plug

NS43404,00004FB -19-16FEB08-1/1

Change MFWD Axle Housing Oil

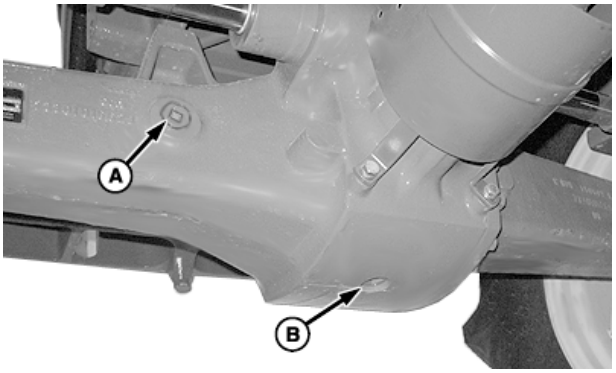
Service Interval
Initial—100 Hours
Regular—1000 Hours

NOTE: Approximate wheel hub oil level is 5.0 L (5.3 qts).

1. Park tractor on level surface.
2. Remove plugs (A and B).
3. After oil has drained, apply pipe sealant with TEFLON®, or equivalent, to threads of plug (B).
4. Install plug and tighten to specifications.
5. Add oil until approximately 12 mm (1/2 in.) below edge of plug port (A). John Deere Standard JDM J20C oil is recommended. (See MFWD AXLE AND WHEEL HUB OIL in Fuels, Lubricants and Coolant section.)
6. Install plug and tighten to specifications.

Specification	
Plugs-to-Axle Housing—Torque	150 N·m (110 lb-ft)

TEFLON is a trademark of Du Pont Co.



P14516 —UN—16FEB08

A—Inspection/Fill Plug **B—Drain Plug**

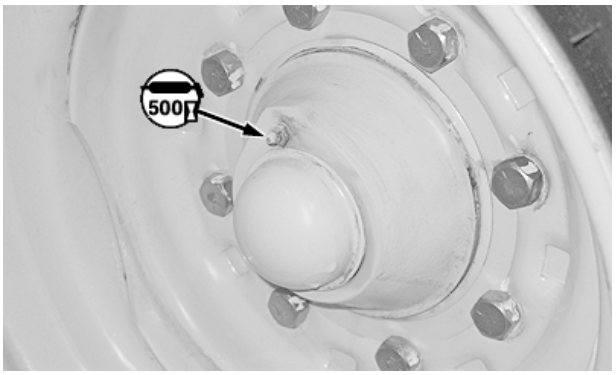
IMPORTANT: To avoid damage to internal axle components, check oil level after 30 minutes.

7. After approximately 30 minutes of operation, recheck oil level. (See procedure in this section.)

NS43404,0000501 -19-16FEB08-1/1

Lubricate Front Wheel Bearings (2WD Axle)

Service Interval—500 Hours

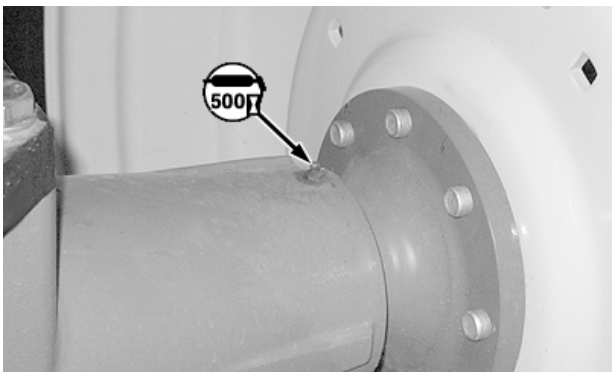


P14514 —UN—16FEB08

NS43404,00004FD -19-16FEB08-1/1

Lubricate Rear Axle Bearings

Service Interval—500 Hours*
** Weekly / 50 Hours if operated in extremely wet or muddy conditions*



P14534 —UN—16FEB08

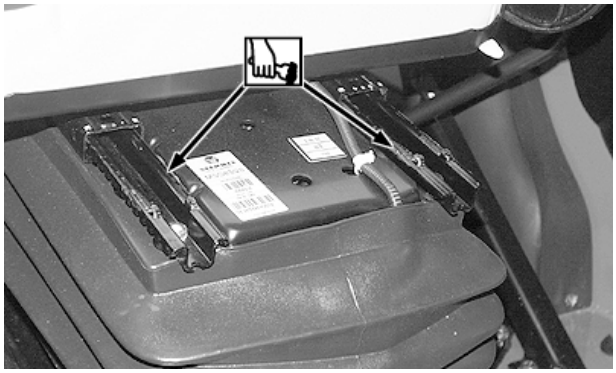
Right-Hand Side Shown

NS43404,00004FE -19-16FEB08-1/1

Lubricate Operator's Seat Slide Rails (OOS)

NOTE: This procedure is only necessary after pressure washing.

Move seat full forward and apply multipurpose grease to slide rails.

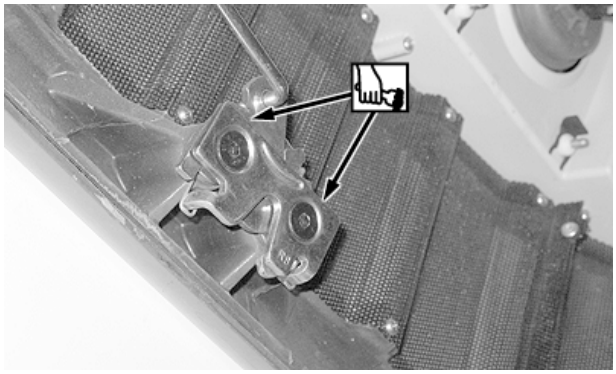


LV9636 —UN—14SEP04

NS43404,0000560 -19-16FEB08-1/1

Lubricate Hood Latch

NOTE: This procedure is only necessary after pressure washing.



P15263 —UN—16FEB08

OUMX005,000293F -19-16FEB08-1/1

Clean Front Grille, Side Screens, Radiator, Condenser (Cab) and Coolers (If Equipped)

Front Grille and Side Screens

CAUTION: Reduce compressed air to less than 210 kPa (2 bar) (30 psi) when using for cleaning.

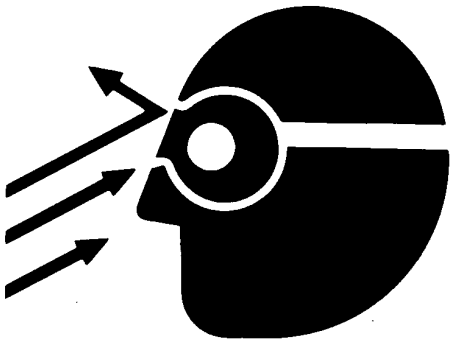
Clear area of bystanders, guard against flying chips and wear personal protection equipment, including eye protection.

Whenever trash builds up on front grille (A) or either side screen (B), stop engine and brush clean.

If a more thorough cleaning is necessary, raise hood and clean from the inside with compressed air or water.

A—Front Grille

B—Left-Hand Side Screen



TS266 —UN—23AUG88

P15325 —UN—27MAR08

NS43404,0000504 -19-26MAR08-1/4

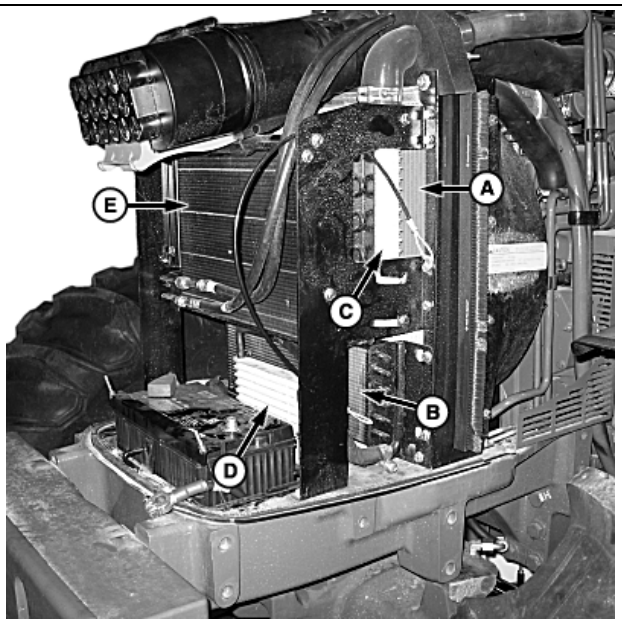
Radiator, Condenser (cab) and Coolers (Air, Oil and Fuel—If Equipped)

CAUTION: Reduce compressed air to less than 210 kPa (2 bar) (30 psi) when using for cleaning.

Clear area of bystanders, guard against flying chips and wear personal protection equipment, including eye protection.

1. Raise hood.
2. Check for debris buildup around radiator (A), condenser (E) and coolers (B—D). Carefully remove trash buildup using a brush and compressed air or water. Straighten any bent fins.

A—Radiator
B—Oil Cooler (If Equipped)
C—Air Cooler (If Equipped)
D—Fuel Cooler (If Equipped)
E—A/C Condenser (Cab)



P14527 —UN—30OCT07

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NS43404,0000504 -19-26MAR08-2/4

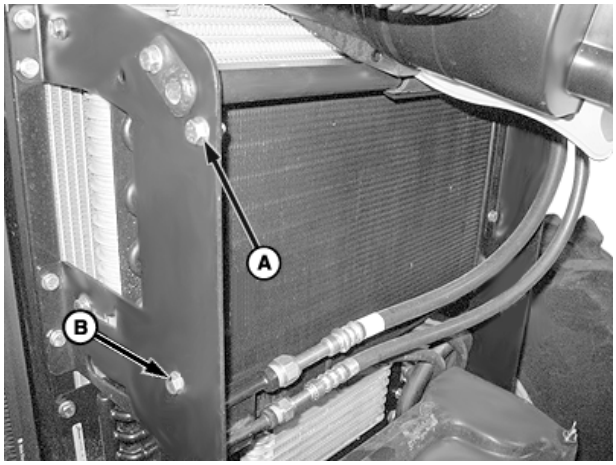
IMPORTANT: Condenser and coolers (if equipped) can be moved away from radiator WITHOUT disconnecting hoses.

3. If a more thorough cleaning is necessary:

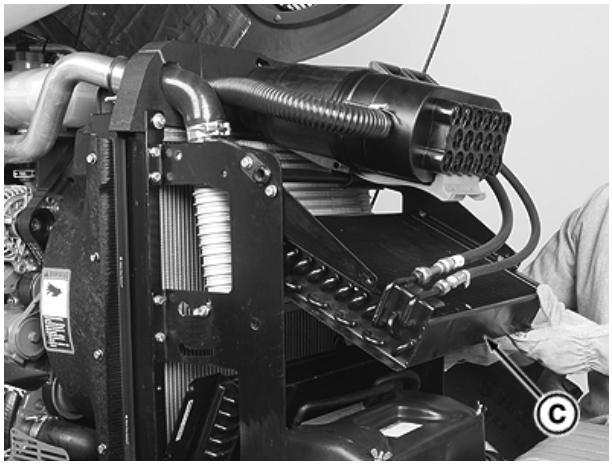
   a. **Condenser (cab):** Support condenser and loosen cap screws (A) on both sides of support. Move out of the way.

   b. Remove cap screws (B) on both sides of cooler support and tilt bottom of condenser (C) forward.

A—Cap Screw
B—Cap Screw
C—Condenser



P15310 —UN—28MAR08



P15322 —UN—26MAR08

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NS43404,0000504 -19-26MAR08-3/4

c. **Oil Cooler and Fuel Cooler (if equipped):** Loosen two cap screws (B) on both sides of cooler. Slide cooler assembly toward left-hand side and pull away from radiator.

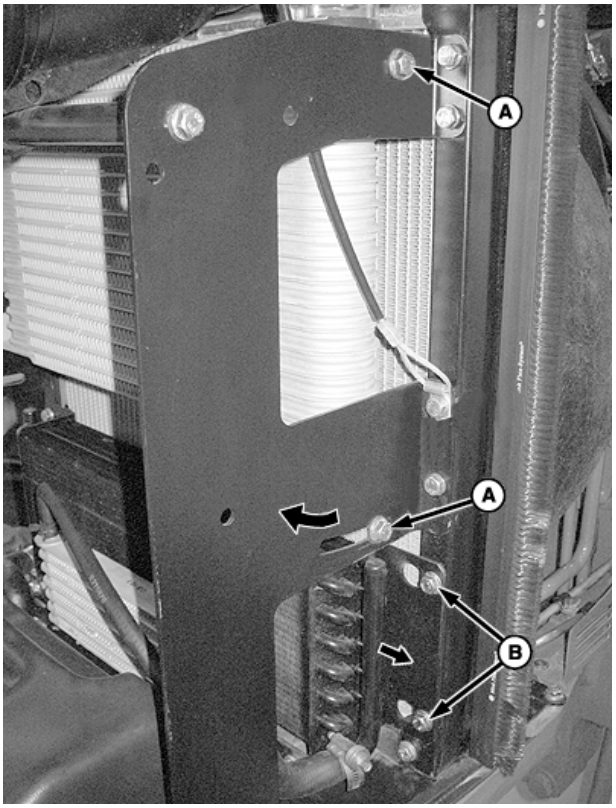
d. **Air Cooler (if equipped):** Loosen two cap screws (A) on both sides of support. Pull bottom of cooler away from radiator.

e. Carefully remove trash buildup using a brush and compressed air or water. Straighten any bent fins.

f. Install coolers and condenser (cab) in reverse order of removal.

g. Close hood.

A—Cap Screws **B—Cap Screws**



P15300 —UN—28MAR08

NS43404,0000504 -19-26MAR08-4/4

Check Coolant Level

Service Interval—Daily / 10 Hours

TS281 —UN—23AUG88

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

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

Never pour cold water into the cooling system of a hot engine, as it might crack cylinder block or head. Do not operate engine without coolant for even a few minutes.

P15301 —UN—03NOV10

1. Raise hood.

NOTE: Coolant level should be checked when engine is COOL.

2. Check level in coolant reservoir BEFORE starting tractor.
3. If engine is COOL and level is below **MIN COLD** mark, remove cap and add coolant to reservoir to bring level between **MIN** and **MAX COLD** mark.
4. Install cap and lower hood.

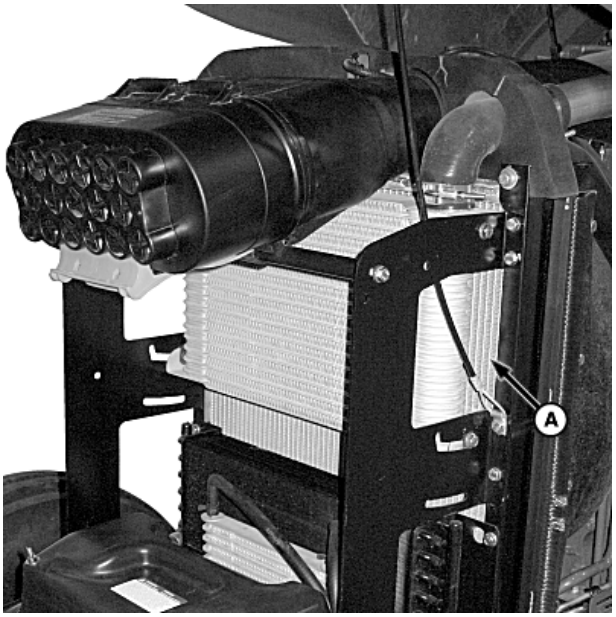
NS43404,0000505 -19-26MAR08-1/1

Check Cooling System for Leaks

Service Interval—500 Hours

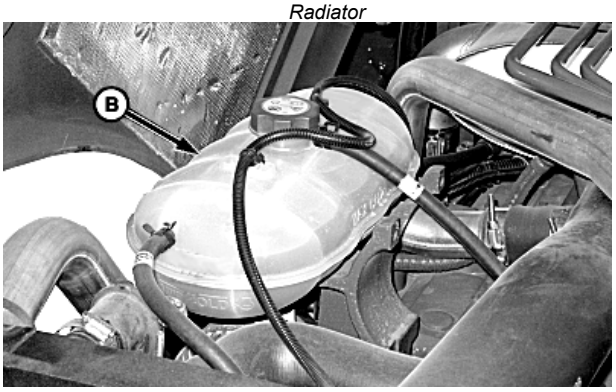
1. Check around base of radiator (A) for pinholes, cracks or any sign of coolant leakage.
2. Inspect coolant reservoir (B) for holes, cracks or any sign of coolant leakage.
3. Inspect area around thermostat housing (C) for cracks, or any sign of coolant leakage.

A—Radiator
B—Coolant Reservoir
C—Thermostat Housing

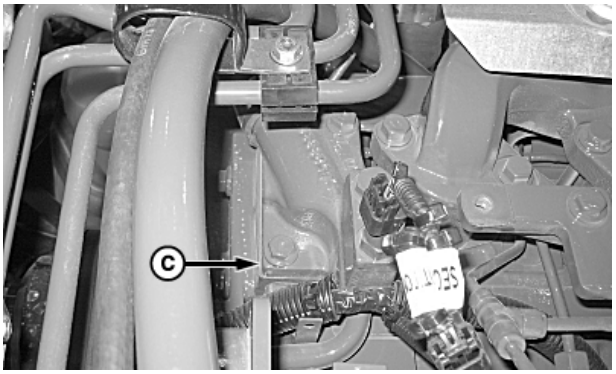


P14518 —UN—30OCT07

Radiator



P15302 —UN—03NOV10



P14521 —UN—30OCT07

Left-Hand Side of Engine

NS43404,0000506 -19-27MAY09-1/1

Flush Cooling System and Replace Thermostat

Service Interval —2000 Hours / 2 Years*

**** 5000 hours / 5 Years** if John Deere COOL-GARD is used.*

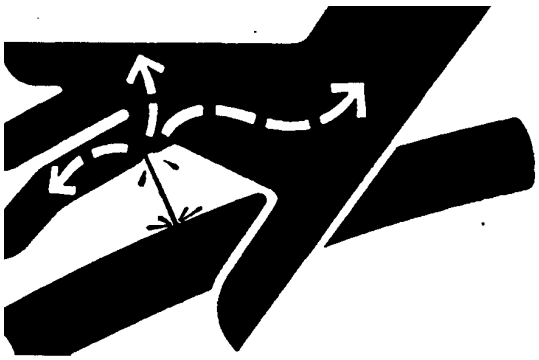
Have your John Deere dealer drain old coolant, flush the entire system, install new thermostat and fill with clean antifreeze solution.

NS43404,0000507 -19-21FEB08-1/1

Do Not Modify Fuel System

CAUTION: Escaping fluid under pressure can penetrate the skin, causing serious injury. Avoid the hazard by relieving system pressure before disconnecting pressurized lines. Search for leaks with a piece of cardboard. Protect hands and body from high pressure fluids.

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



X9811 —UN—23AUG88

IMPORTANT: Use only Fuel outlined in "Fuels, Lubricants and Coolant" section.

Modification or alteration of the injection pump, the injection pump timing, or the fuel injectors in ways not recommended by the manufacturer will terminate the warranty obligation to the purchaser. (See warranty information inside front cover.)

Do not attempt to service injection pump or fuel injectors yourself. Special training and special tools are required. (See your John Deere dealer.)

NS43404,0000549 -19-21FEB08-1/1

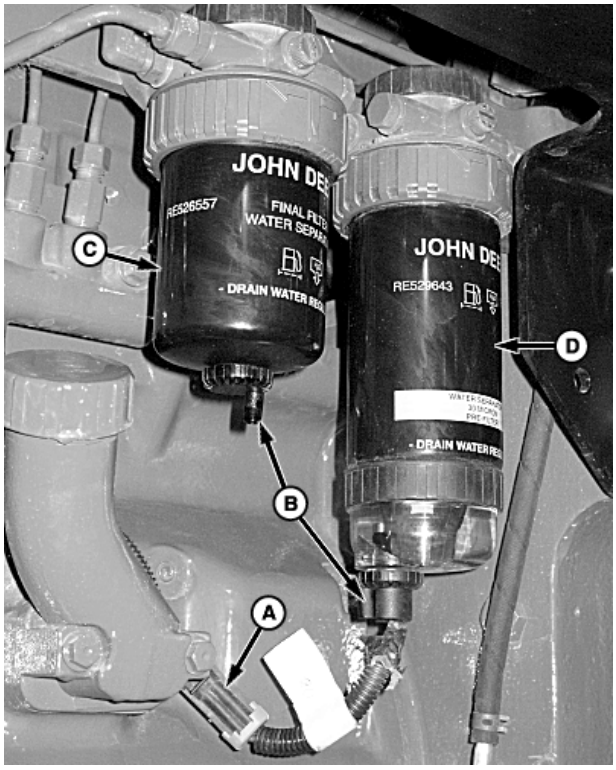
Drain Water and Sediment From Fuel Filters

Service Interval—Daily / 10 Hours

NOTE: When loader is installed, servicing of fuel filter will be easier if fuel filter relocation kit is used.

1. Disconnect wiring harness (A).
2. Connect a small hoses to end of drains (B).
3. Place a suitable container under drains.
4. Open fuel filter drains (B) to drain moisture and sediment from filters (C and D).
5. Tighten drains when fuel runs clear.
6. Remove drain hoses and connect wiring harness.

A—Wiring Harness
B—Drains
C—Final Fuel Filter
D—Primary Fuel Filter



P14563 —UN—07NOV07

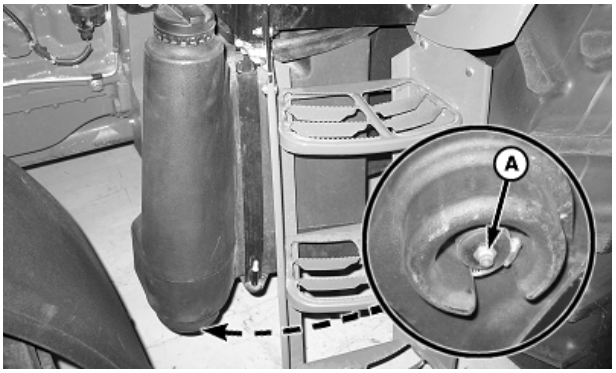
Left-Hand Side of Engine

NS43404,0000561 -19-21JUN10-1/1

Drain Water and Sediment From Fuel Tank

Service Interval—250 Hours

1. Remove filler cap.
2. Place suitable container under drain plug (A).
3. Loosen drain plug to drain moisture and sediment from fuel tank.
4. Tighten drain plug when fuel runs clear.
5. Inspect and thoroughly clean all filler cap vents.
6. Inspect rubber seal for cracks or other imperfections. Replace if necessary
7. Install filler cap.



P14564 —UN—01NOV07

A—Fuel Tank Drain Plug

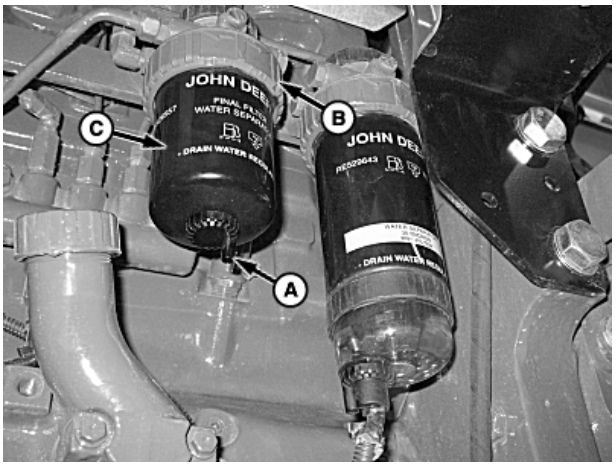
NS43404,0000564 -19-21FEB08-1/1

Replace Prefilter / Water Separator

Service Interval—500 Hours

NOTE: When loader is installed, servicing of fuel filter will be easier if fuel filter relocation kit is used.

1. Connect a drain line to drain port (A) and place a suitable container under drain.
2. Loosen drain and drain fuel from filter.
3. Loosen retaining ring (B) and fuel filter (C) and filter seal.
4. Discard old filter. Inspect filter seal for cracks, breaks or other signs of leaking. Replace as necessary.
5. Install new filter and seal. Tighten retaining ring until it snaps into place. Do not overtighten.
6. Bleed fuel system. (See procedure in this section.)



P14566 —UN—01NOV07

A—Drain Port
B—Retaining Ring
C—Fuel Filter

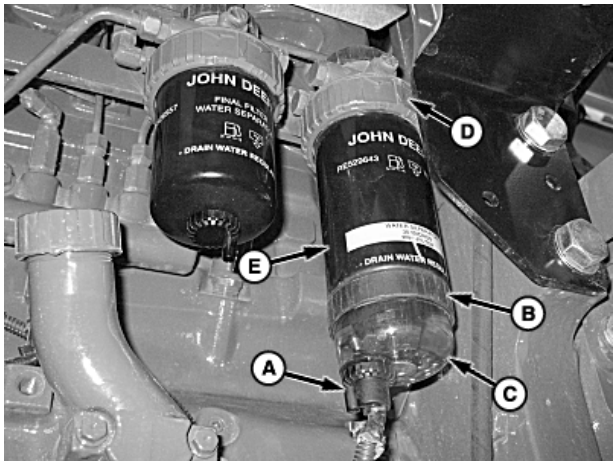
OUMX005,0002942 -19-21JUN10-1/1

Replace Primary Fuel Filter / Water Separator

Service Interval—500 Hours

NOTE: When loader is installed, servicing of fuel filter will be easier if fuel filter relocation kit is used.

1. Connect a drain line to drain port (A) and place a suitable container under drain.
2. Loosen drain and drain fuel from filter.
3. Loosen bottom retaining ring (B). Remove water separator bowl (C). Disconnect wiring harness.
4. Loosen top retaining ring (D) and remove primary fuel filter (E) and filter seal.
5. Discard old filter. Inspect filter seal for cracks, breaks or other signs of leaking. Replace as necessary.
6. Clean and dry water separator bowl (C).
7. Install water separator bowl on new primary fuel filter. Tighten retaining ring (B) until it snaps into place. Do not overtighten.
8. Install new primary fuel filter and filter seal to machine. Tighten retaining ring (D) until it snaps into place. Do not overtighten.



P14565 —UN—01NOV07

A—Drain Port
B—Bottom Retaining Ring
C—Water Separator Bowl
D—Top Retaining Ring
E—Primary Fuel Filter

9. Connect wiring harness.
10. Bleed fuel system. (See procedure in this section.)

NS43404,0000563 -19-21JUN10-1/1

Bleed Fuel System

IMPORTANT: Any time the fuel system has been opened up for service (lines disconnected or filters removed), it will be necessary to bleed air from the system.

NOTE: A second person will be needed for the following procedure.

The fuel system can be bled at two locations:
- Final Fuel Filter
- Fuel Injection Pump

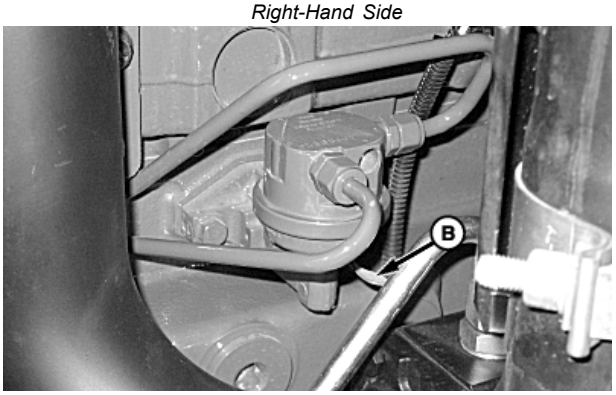
Final Fuel Filter

1. Open bleed vent screw (A).
2. Have a second person pump hand primer (B).
3. When no air bubbles are seen close vent screw.
4. Pump the hand primer until resistance is felt.
5. Repeat until no air bubbles flow from vent screw.

A—Bleed Vent Screw **B—Hand Primer**

P14536 —UN—01NOV07

Right-Hand Side



P14537 —UN—01NOV07

Left-Hand Side

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NS43404,0000508 -19-21FEB08-1/2

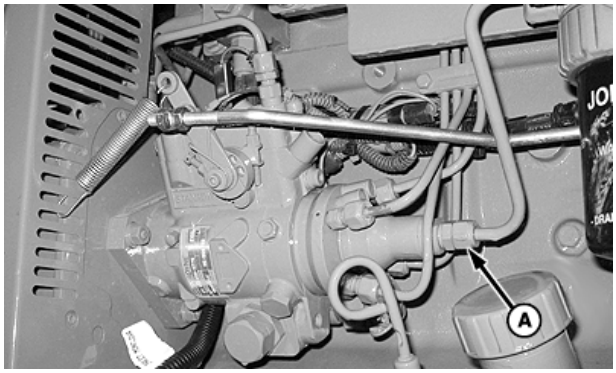
Fuel Injection Pump

1. Loosen fuel return line (A) at fuel injection pump.
2. Have a second person pump hand primer (B).
3. When no air bubbles are seen tighten fuel return line.
4. Pump the hand primer until resistance is felt.
5. Repeat until no air bubbles flow from fuel return line.

Specification

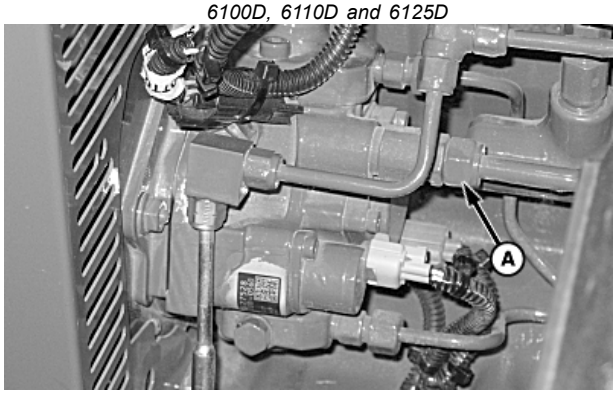
Fuel Return Line—Torque.....27 N·m (20 lb-ft)

A—Fuel Return Line **B—Hand Primer**



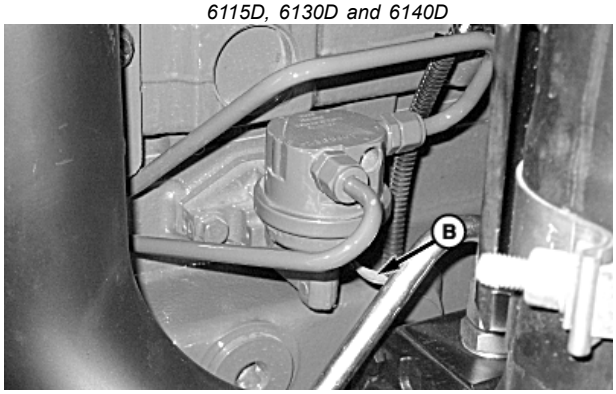
P15269 —UN—21FEB08

6100D, 6110D and 6125D



P14562 —UN—01NOV07

6115D, 6130D and 6140D



P14537 —UN—01NOV07

Right-Hand Side

NS43404,0000508 -19-21FEB08-2/2

Electrical Service Precautions

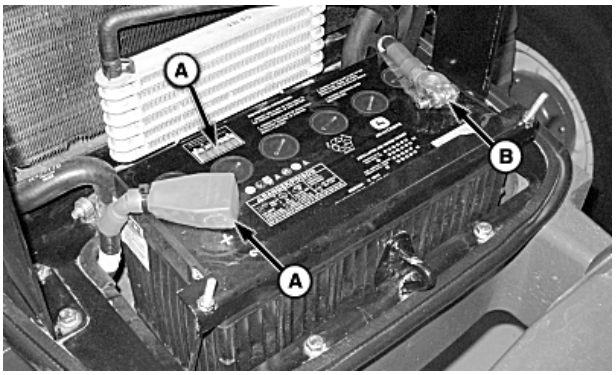
CAUTION: Keep all sparks and flames away from batteries, as gas given off by electrolyte is explosive. When using a booster battery, follow instructions in Operating the Engine section.

To avoid shocks and burns, disconnect negative (-) cable (B) before servicing any part of the electrical system.

Keep battery cover (not shown) and all electrical shields in place.

TS204 —UN—23AUG88

A—Positive (+) Battery Cable **B—Negative (—) Battery Cable**



P14567 —UN—25MAR08

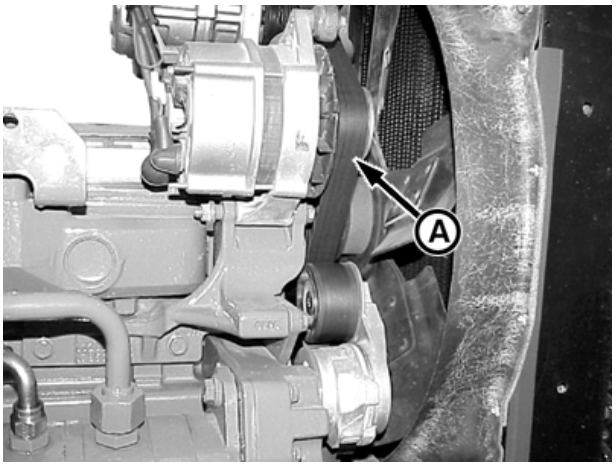
NS43404,000050D -19-21FEB08-1/1

Inspect Alternator/Fan Belt Tensioner

NOTE: Pulley and spring tensioner are not serviceable.

1. Remove belt (A). (See procedure in this section.)

A—Belt



P12693 —UN—25NOV03

Continued on next page

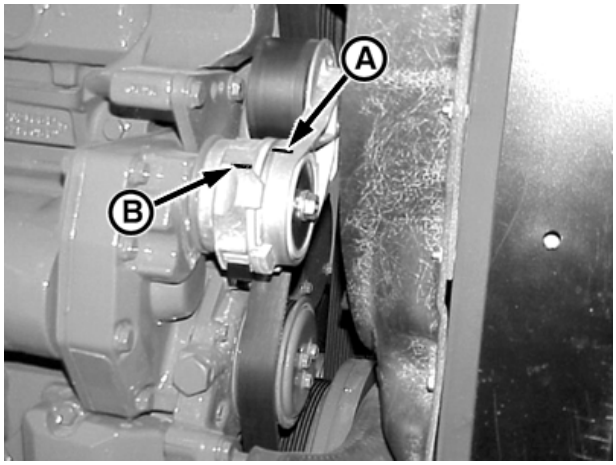
NS43404,000050F -19-15APR08-1/3

NOTE: A belt tension gauge will not give an accurate measurement of the belt tension when automatic belt tensioner is used. Measure tensioner spring tension using a torque wrench and procedure outlined below.

2. Put a mark (A) on swing arm of tensioner as shown.
3. Measure 21 mm (0.83 in.) from (A) and put a mark (B) on tensioner mounting base.

A—Swing Arm Mark

B—Tensioner Mounting Base Mark



P12694 —UN—25NOV03

NS43404,000050F -19-15APR08-2/3

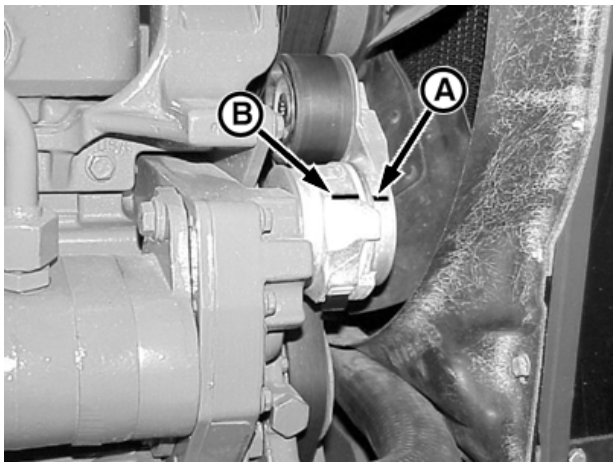
4. Rotate the swing arm using a torque wrench until marks (A and B) are aligned.
5. Record torque wrench measurement and compare with specification. Replace belt tensioner assembly if recorded measurement is below specification.

Specification	
Swing Arm Spring Tension—Torque	18—22 N·m (159—195 lb-in.)

6. Install belt. (See procedure in this section.)

A—Swing Arm Mark

B—Tensioner Mounting Base Mark



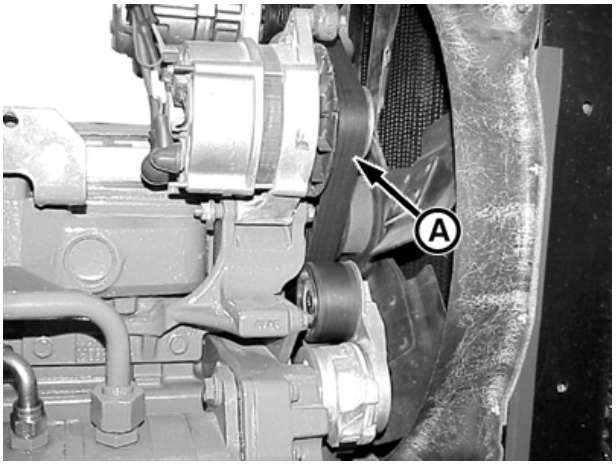
P12695 —UN—25NOV03

NS43404,000050F -19-15APR08-3/3

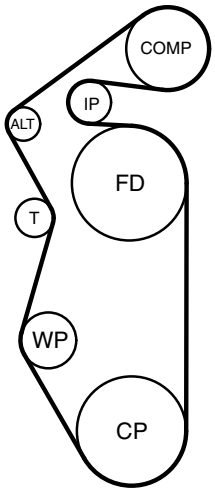
Replace Alternator/Fan Belt

1. Raise hood.
2. Release tension on belt using a 1/2 in. drive long-handle breaker bar. Remove belt (A) from alternator pulley over fan.
3. Install new belt in reverse order of removal.

A—Belt
ALT— Alternator
COMP—Compressor (Air Conditioning System)
CP—Crankshaft Pulley
FD—Fan Drive Pulley
IP— Idler Pulley
T—Tensioner Idler
WD—Water Pump

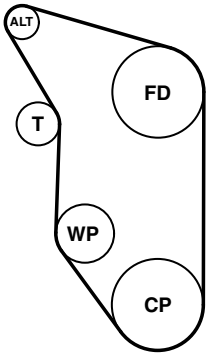


P12693 —UN—25NOV03



P14714 —UN—20NOV07

Cab Belt Diagram



P9719 —UN—27SEP00

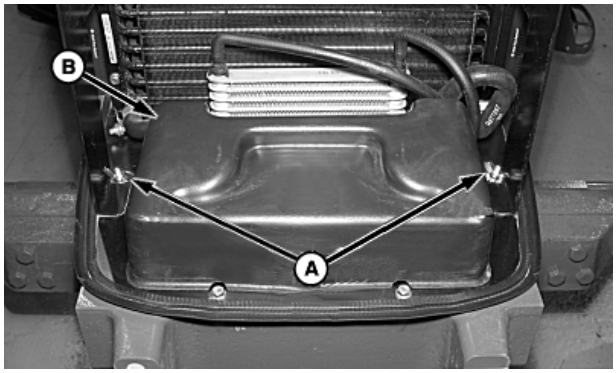
OOS Belt Diagram

NS43404,0000511 -19-21FEB08-1/1

Access Battery

1. Raise hood.
2. Remove wing nuts (A) and lift battery cover (B).

A—Wing Nuts **B—Battery Cover**



P15336 —UN—02APR08

NS43404,0000512 -19-15APR08-1/1

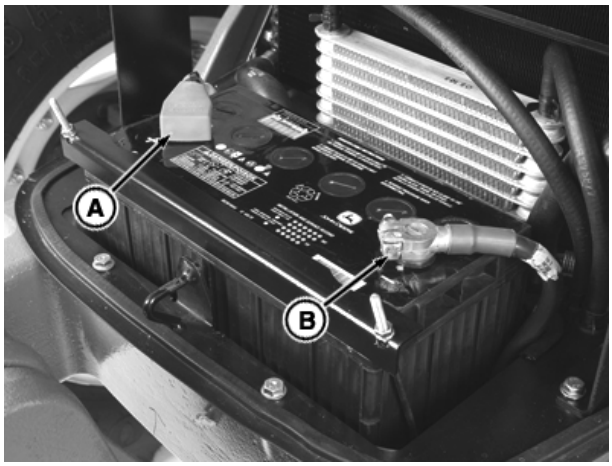
Charge Battery

CAUTION: Gas given off by battery is explosive. Keep sparks and flames away from battery. Before connecting or disconnecting a battery charger, turn charger off. Make last connection and disconnection at a point away from battery.

1. With charger off, attach positive battery charger lead to positive (+) battery terminal (A). Attach negative charger lead to tractor frame, away from the battery.
2. Follow the instructions provided by the charger.
3. To disconnect battery charger, turn charger off. Remove negative charger lead first, then positive lead.

A—Positive (+) Battery Terminal **B—Negative (-) Battery Terminal**

TS204 —UN—23AUG88



P15326 —UN—27MAR08

NS43404,0000513 -19-26MAR08-1/1

Clean Battery

Service Interval—50 Hours / Weekly

1. Stop engine. (See procedure in Operating the Engine section.)
2. Remove battery cover. (See ACCESS BATTERY in this section.)
3. Wipe battery with a damp cloth. Clean and tighten connections, if needed.
4. Install cover and lower hood.

NS43404,0000514 -19-21FEB08-1/1

Check Battery Condition

Service Interval—50 Hours / Weekly

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

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

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

TS204 —UN—23AUG88

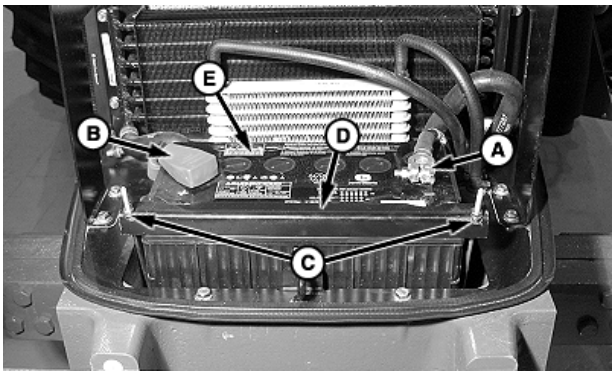
1. Use a battery hydrometer to check specific gravity of electrolyte in each cell. Charge battery if reading is below 1.215. Replace battery if difference between cells is more than 0.050 or if battery will not charge above 1.225.
2. Always correct specific gravity reading for electrolyte temperature variation. Add 0.004 to the reading obtained in step one for every 10 °F above 80 °F (add 0.007 to the reading for every 10° above 27 °C). Subtract at same rate if electrolyte temperature is below 80 °F (27 °C). Correct specific gravity of a fully charged battery is 1.265 to 1.280.
3. A battery is considered fully charged when three consecutive hydrometer readings, taken at hourly intervals, show no rise in specific gravity.

NS43404,0000515 -19-21FEB08-1/1

Remove Battery

CAUTION: To avoid sparks, disconnect negative cable (A) first and connect it last.

1. Raise hood.
2. Remove battery cover.
3. Disconnect negative (—) battery cable (A).
4. Disconnect positive (+) battery cable (B).
5. Remove nuts (C) and bracket (D).
6. Remove battery (E) from machine.



P14569 —UN—05NOV07

A—Negative Terminal (—)
B—Positive Terminal (+)
C—Nuts
D—Bracket
E—Battery

NS43404,0000516 -19-21FEB08-1/1

Battery Replacement Specifications

When replacing battery, use John Deere battery or equivalent. See your John Deere dealer.

	Specification
995 CCA Battery (6115D, 6130D—Volts	12 Volts
BCI Group	31 H
Cold Cranking Amps at -17.8 °C (0 °F)	925

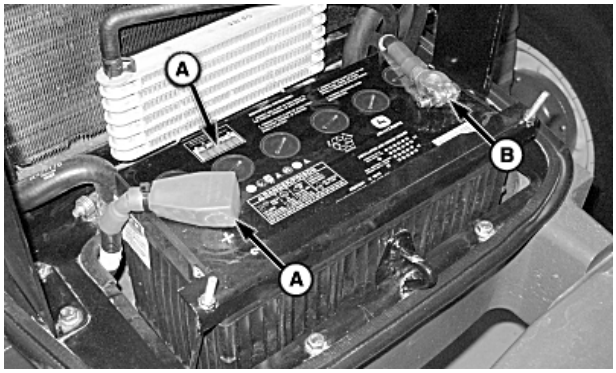
NS43404,0000517 -19-26MAY09-1/1

Service Battery

1. Keep battery clean by wiping with a damp cloth. Keep terminals (A and B) clean and tight. To remove any corrosion, wash terminals with a solution of four parts water to one part baking soda.

CAUTION: To avoid sparks, disconnect negative (ground) cable first and connect it last.

2. Keep battery fully charged, especially during cold weather. If a battery charger is connected, attach positive cable to the positive (+) battery terminal (A). Connect the negative (-) battery charger cable to a good ground on tractor frame.
3. Coat terminals with a small amount of grease.



P14567 —UN—25MAR08

A—Positive (+) Battery Terminal

B—Negative (—) Battery Terminal

NS43404,0000518 -19-21FEB08-1/1

Access Fuses and Relays

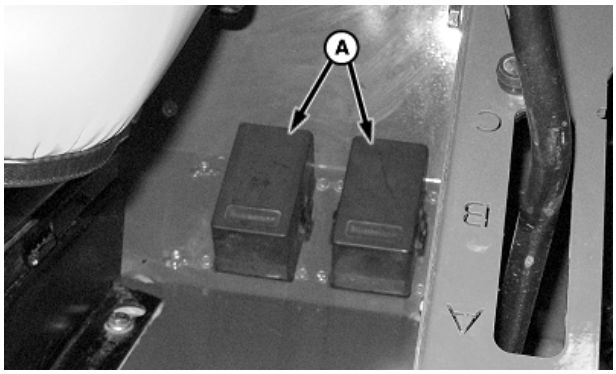
To remove fuse box cover:
- **OOS** — Pinch tabs and pull off cover (A).
- **Cab** — Pry off cover (B).

Fuse Rating	Color
5 Amp	Orange
10 Amp	Red
15 Amp	Blue
20 Amp	Yellow
30 Amp	Green

IMPORTANT: Do not replace original fuse with higher rated fuse or machine damage may occur.

If original size fuse will not carry electrical load and continues to blow contact your John Deere dealer.

A—Fuse Box Cover (OOS) **B—Fuse Box Cover (Cab)**



P14570 —UN—05NOV07

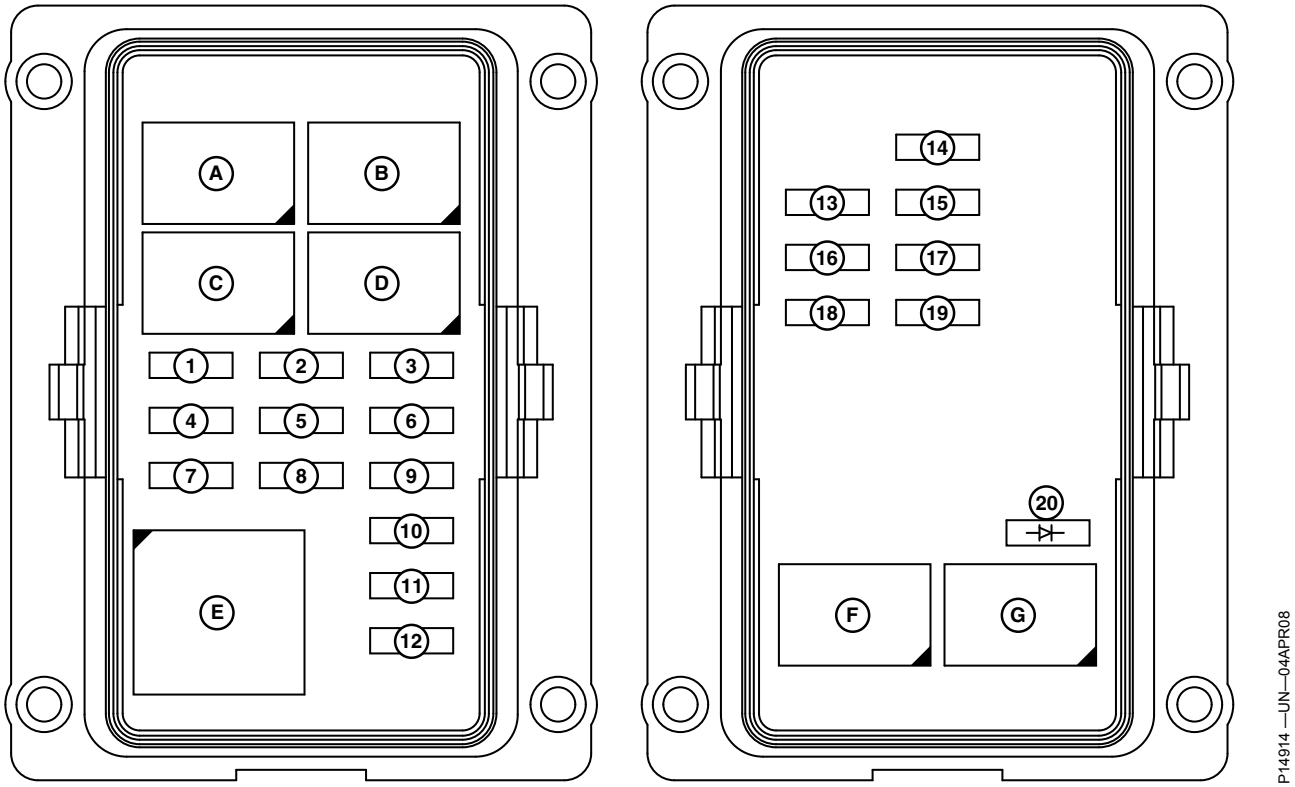
OOS Fuse Box Location

P14571 —UN—05NOV07

Cab Fuse Box Location

NS43404,000051B -19-11JUN10-1/1

Load Center Fuses and Relays-OOS (6100D/6110D/6125D with Dry Clutch)

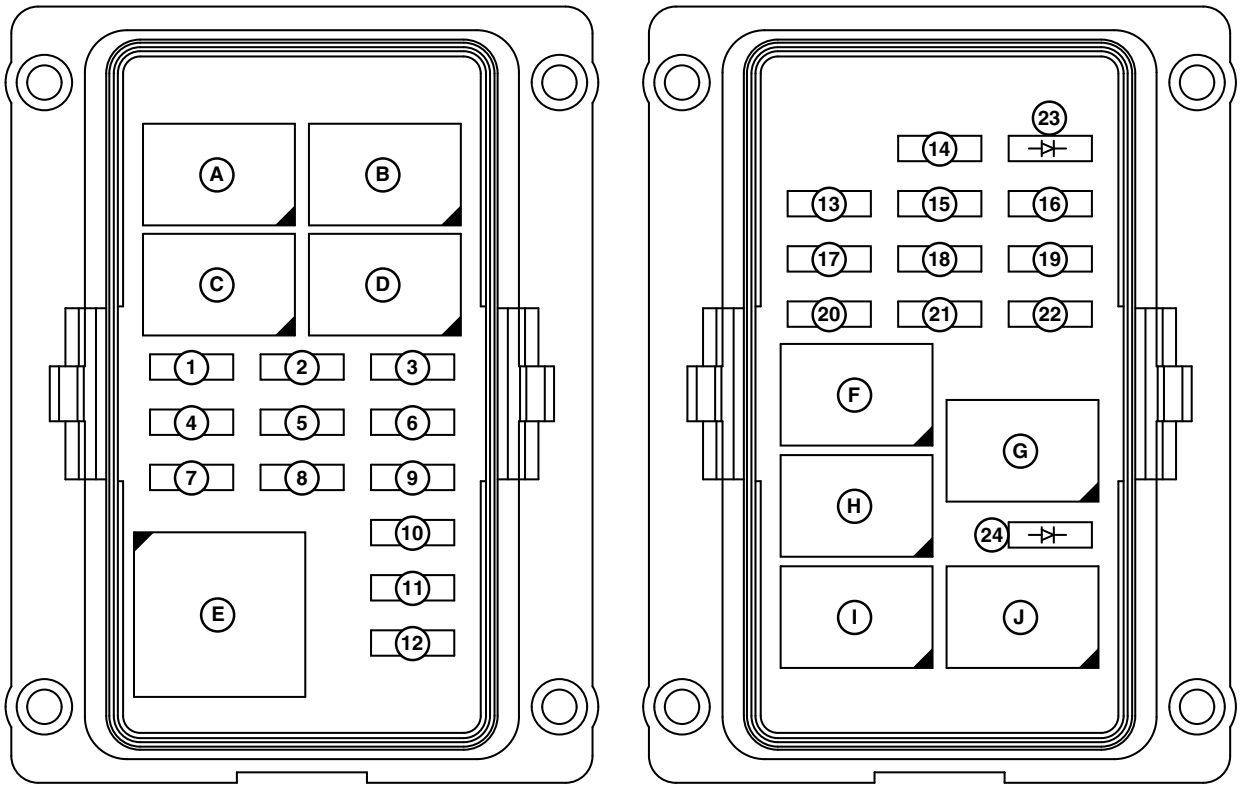


A—Left Turn Relay (K02)
B—Right Turn Relay (K03)
C—Left Flash Relay (K07)
D—Right Flash Relay (K27)
E—Turn/Hazard Relay (K05)
F—Fuel Flow Relay (K10)
G—Neutral Latch Relay (K12)

1— Key Switch Fuse (F01) — 30 A
2— ELX Fuse (F02) — 10 A
3— Headlight Fuse (F03) — 15 A
4— Light Switch Fuse (F04) — 20 A
5— Tail, Brake, and Turn Light Fuse (F05) — 15 A
6— Turn Signal Fuse (F06) — 10 A
7— Unswitched Auxiliary Power Fuse (F10) — 30 A
8— Switched Auxiliary Power Fuse (F11) — 30 A
9— 7-Pin Outlet Auxiliary Power Fuse (F12) — 30 A
10— Instrument Panel Fuse (F18) — 10 A
11— Rear Work Light Fuse (F07) — 30 A
12— Hazard Light Fuse (F24) — 30 A
13— Seat Switch and Horn Fuse (F28) — 10 A
14— Spare Fuse — 10 A
15— Spare Fuse — 15 A
16— Brake Light Fuse (F29) — 15 A
17— Spare Fuse — 20 A
18— Fuel Flow Relay Fuse (F30) — 10 A
19— Spare Fuse — 30 A
20— Fuel Flow and Latch Relay Diode (V07)

PX03972,0000548 -19-17DEC08-1/1

Load Center Fuses and Relays-OOS (6110D/6125D with Wet Clutch)

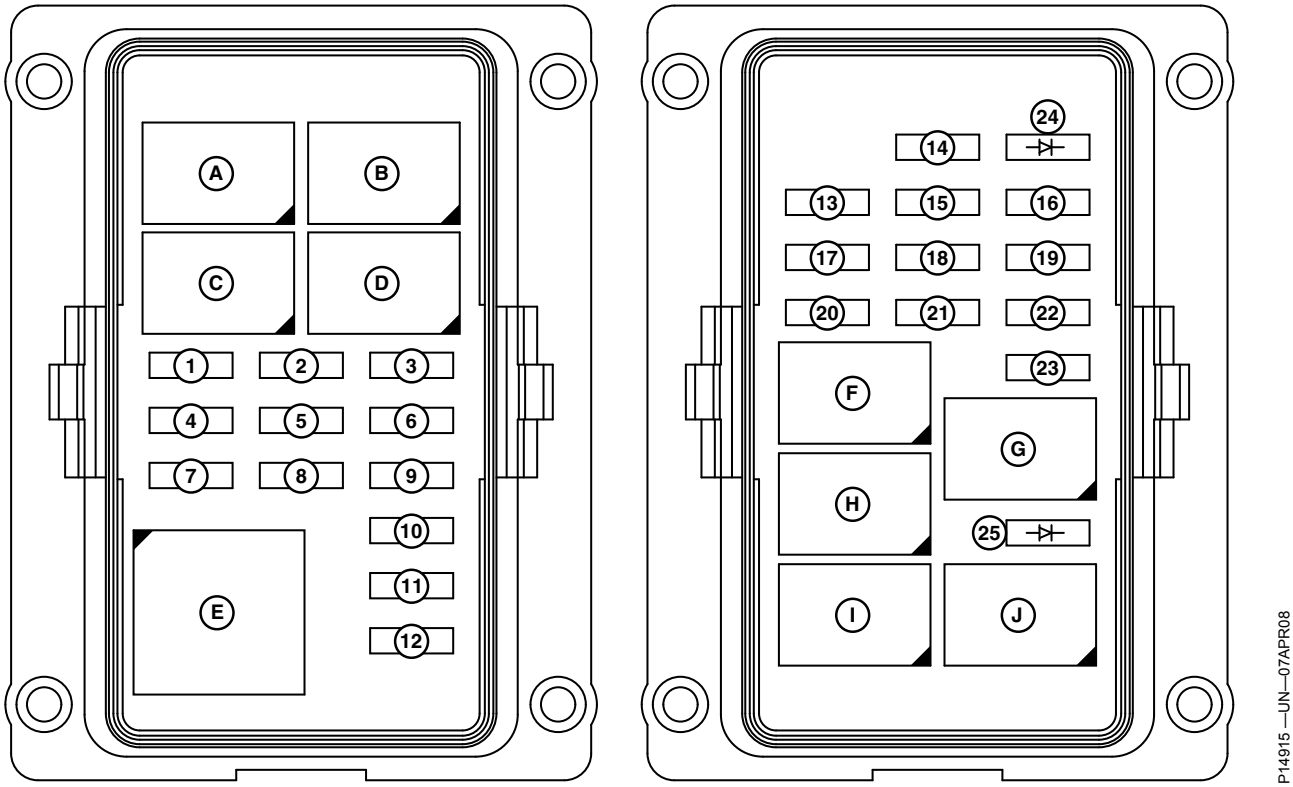


P14895 —UN—04APR08

A—Left Turn Relay (K02)
B—Right Turn Relay (K03)
C—Left Flash Relay (K07)
D—Right Flash Relay (K27)
E—Turn/Hazard Relay (K05)
F—Not Neutral Relay (K16)
G—Transmission Enable Relay (K17)
H—Transmission Controller Switched Power Relay (K24)
I—Fuel Flow Relay (K10)
J—Neutral Latch Relay (K12)
1—Key Switch Fuse (F01) — 30 A
2—ELX Fuse (F02) — 10 A
3—Headlight Fuse (F03) — 15 A
4—Light Switch Fuse (F04) — 20 A
5—Tail, Brake, and Turn Light Fuse (F05) — 15 A
6—Turn Signal Fuse (F06) — 10 A
7—Unswitched Auxiliary Power Fuse (F10) — 30 A
8—Switched Auxiliary Power Fuse (F11) — 30 A
9—7-Pin Outlet Auxiliary Power Fuse (F12) — 30 A
10—Instrument Panel Fuse (F18) — 10 A
11—Rear Work Light Fuse (F07) — 30 A
12—Hazard Light Fuse (F24) — 30 A
13—Seat Switch and Horn Fuse (F28) — 10 A
14—Spare Fuse — 10 A
15—Spare Fuse — 15 A
16—PTR Controller; Switched Power Fuse (F20) — 10 A
17—Brake Light Fuse (F29) — 15 A
18—Spare Fuse — 20 A
19—Sensor Excitation Fuse (F21) — 10 A
20—Fuel Flow Relay Fuse (F30) — 10 A
21—Spare Fuse — 30 A
22—PTR Controller Unswitched Power Fuse (F22) — 10 A
23—Transmission Control Unit Relay Diode (V04)
24—Fuel Flow and Latch Relay Diode (V07)

PX03972,0000549 -19-17DEC08-1/1

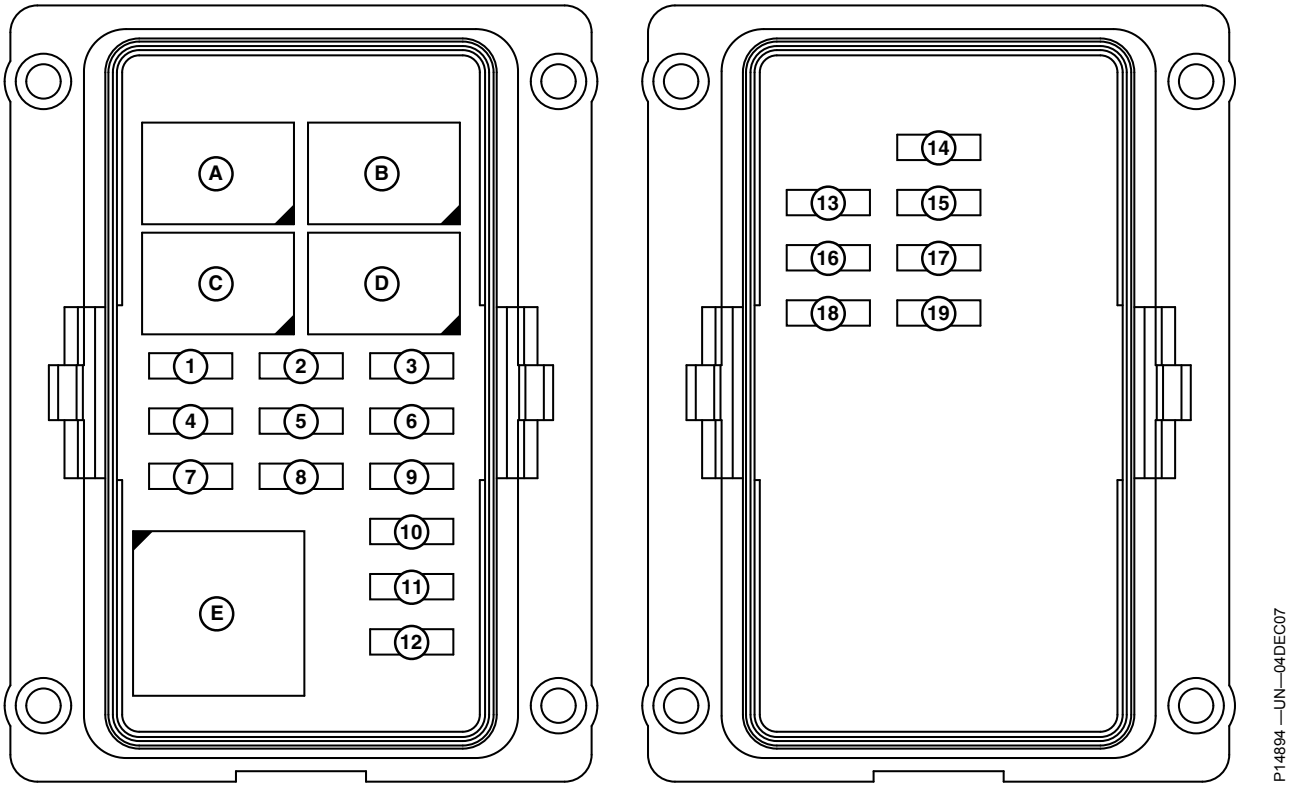
Load Center Fuses and Relays-OOS (6100D/6110D/6125D with PowrReverser)



A—Left Turn Relay (K02)
B—Right Turn Relay (K03)
C—Left Flash Relay (K07)
D—Right Flash Relay (K27)
E—Turn/Hazard Relay (K05)
F—Not Neutral Relay (K16)
G—Transmission Enable (K17)
H—Transmission Controller Switched Power Relay (K24)
I—Fuel Flow Relay (K10)
J—Neutral Latch Relay (K12)
1—Key Switch Fuse (F01) — 30 A
2—Instrument Cluster Fuse (F02) — 10 A
3—Headlight Fuse (F03) — 15 A
4—Light Switch Fuse (F04) — 20 A
5—Tail, Brake, and Turn Light Fuse (F05) — 15 A
6—Turn Signal Fuse (F06) — 10 A
7—Unswitched Auxiliary Power Fuse (F10) — 30 A
8—Switched Auxiliary Power Fuse (F11) — 30 A
9—7-Pin Outlet Auxiliary Power Fuse (F12) — 30 A
10—Instrument Panel Fuse (F18) — 10 A
11—Rear Work Light Fuse (F07) — 30 A
12—Hazard Light Fuse (F24) — 30 A
13—Seat Switch and Horn Fuse (F28) — 10 A
14—Spare Fuse — 10 A
15—Backup Alarm Fuse (F27) — 5 A
16—PTR Controller; Switched Power Fuse (F20) — 10 A
17—Brake Light Fuse (F29) — 15 A
18—Spare Fuse — 20 A
19—Sensor Excitation Fuse (F21) — 10 A
20—Fuel Flow Relay Fuse (F30) — 10 A
21—Spare Fuse — 30 A
22—PTR Controller; Unswitched Power Fuse (F22) — 10 A
23—PowrReverser Lever Fuse (F25) — 10 A
24—Transmission Control Unit Relay Diode (V04)
25—Fuel Flow and Latch Relay Diode (V07)

PX03972,000054A -19-17DEC08-1/1

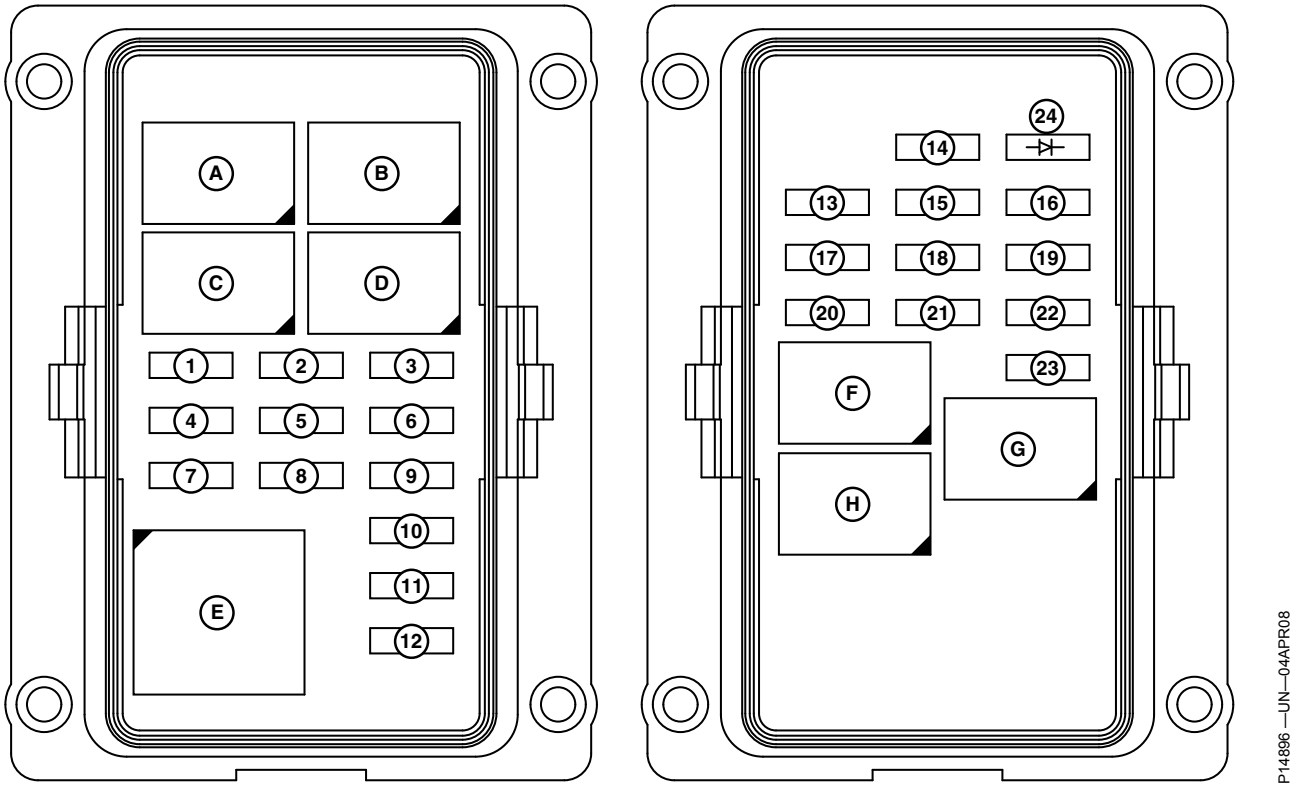
Load Center Fuses and Relays-OOS (6115D/6130D/6140D without PowrReverser)



A—Left Turn Relay (K02)
B—Right Turn Relay (K03)
C—Left Flash Relay (K07)
D—Right Flash Relay (K27)
E—Turn/Hazard Relay (K05)
1— Key Switch Fuse (F01) — 20 A
2— ELX Fuse (F02) — 20 A
3— Headlight Fuse (F03) — 15 A
4— Light Switch Fuse (F04) — 20 A
5— Tail, Brake, and Turn Light Fuse (F05) — 10 A
6— Turn Signal Fuse (F06) — 10 A
7— Unswitched Auxiliary Power Fuse (F10) — 30 A
8— Switched Auxiliary Power Fuse (F11) — 30 A
9— 7-Pin Outlet Auxiliary Power Fuse (F12) —30 A
10— Instrument Panel Fuse (F18) — 10 A
11— Rear Work Light Fuse (F07) — 30 A
12— Hazard Light Fuse (F24) — 30 A
13— Seat Switch and Horn Fuse (F28) — 10 A
14— Spare Fuse — 10 A
15— Spare Fuse — 15 A
16— Brake Light Fuse (F29) — 15 A
17— Spare Fuse — 20 A
18— ECU Fuse (F23) — 20 A
19— Spare Fuse — 30 A

PX03972,000054B -19-17DEC08-1/1

Load Center Fuses and Relays-OOS (6115D/6130D/6140D with PowrReverser)

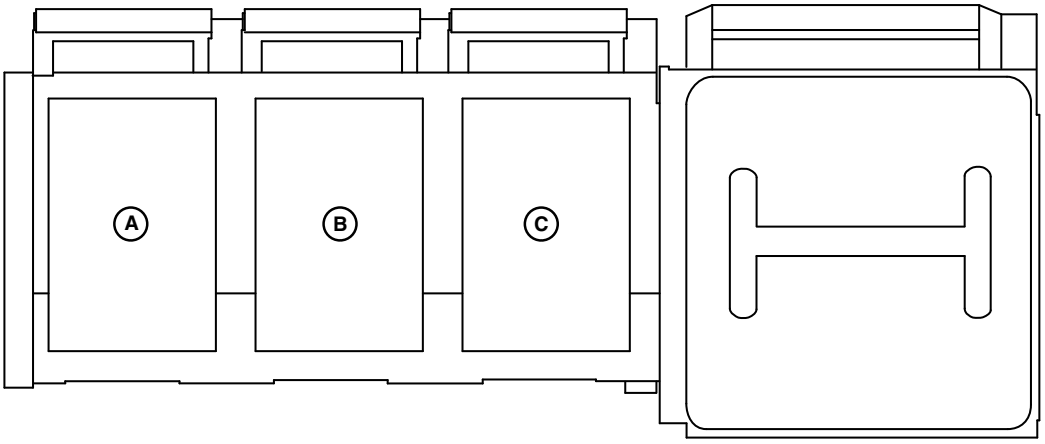


A—Left Turn Relay (K02)
B—Right Turn Relay (K03)
C—Left Flash Relay (K07)
D—Right Flash Relay (K27)
E—Turn/Hazard Relay (K05)
F—Not Neutral Relay (K16)
G—Transmission Enable (K17)
H—Transmission Controller Switched Power Relay (K24)

1— Key Switch Fuse (F01) — 30 A
2— ELX Fuse (F02) — 10 A
3— Headlight Fuse (F03) — 15 A
4— Light Switch Fuse (F04) — 20 A
5— Tail, Brake, and Turn Light Fuse (F05) — 15 A
6— Turn Signal Fuse (F06) — 10 A
7— Unswitched Auxiliary Power Fuse (F10) — 30 A
8— Switched Auxiliary Power Fuse (F11) — 30 A
9— 7-Pin Outlet Auxiliary Power Fuse (F12) — 30 A
10— Instrument Panel Fuse (F18) — 10 A
11— Rear Work Light Fuse (F07) — 30 A
12— Hazard Light Fuse (F24) —30 A
13— Seat Switch and Horn Fuse (F28) — 10 A
14— Spare Fuse — 10 A
15— Backup Alarm Fuse (F27) — 5 A
16— PTR Controller; Switched Power Fuse (F20) — 10 A
17— Brake Light Fuse (F29) — 15 A
18— Spare Fuse — 20 A
19— Sensor Excitation Fuse (F21) — 10 A
20— ECU Fuse (F23) — 20 A
21— Spare Fuse — 30 A
22— PTR Controller Unswitched Power Fuse (F22) — 10 A
23— PowrReverser Lever Fuse (F25) — 10 A
24— Transmission Control Unit Relay Diode (V04)

PX03972,000054C -19-17DEC08-1/1

Load Center Fuses and Relays-OOS—Behind Instrument Panel



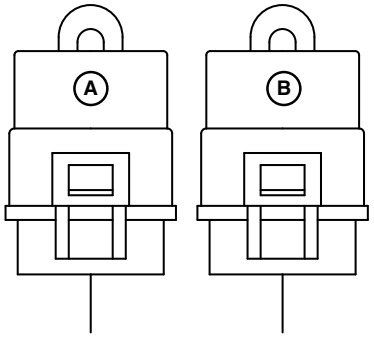
P14913 —UN—29NOV07

A—Accessory Relay (K26) **B—High-Low Beam Relay (K25)** **C—PTO Off/Neutral Relay (K04)**

OU1092A,00001EF -19-10APR08-1/1

Load Center Fuses and Relays-OOS—Behind Panel at Left Rear Corner of Operators Station

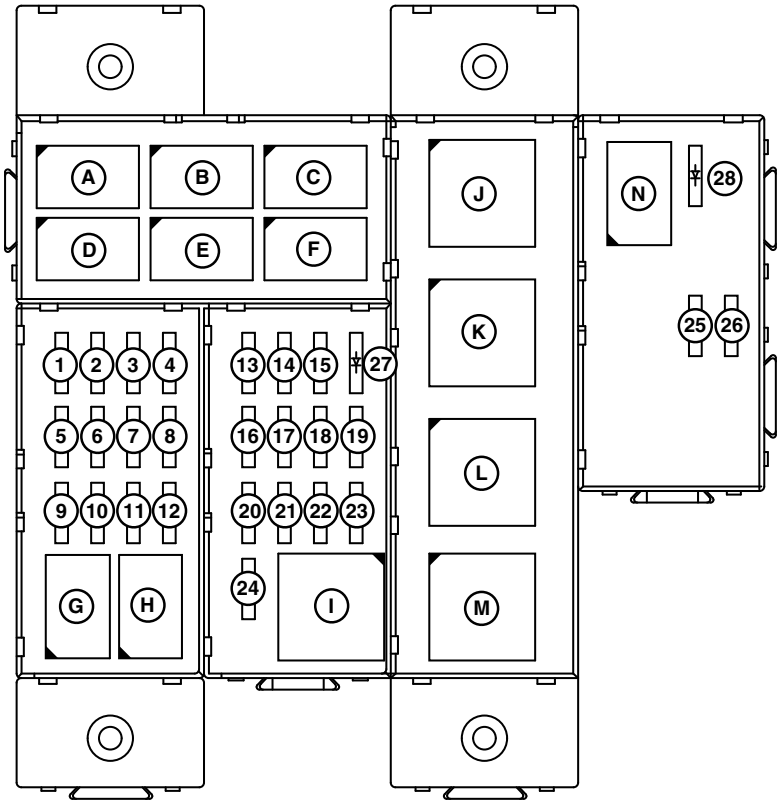
A—7-Pin Outlet Relay (K06) **B—Rear Work Light Relay (K08)**



P15390 —UN—04APR08

OU1092A,00001F0 -19-10APR08-1/1

Load Center Fuses and Relays—Cab (6100D/6110D/6125D with Dry Clutch)

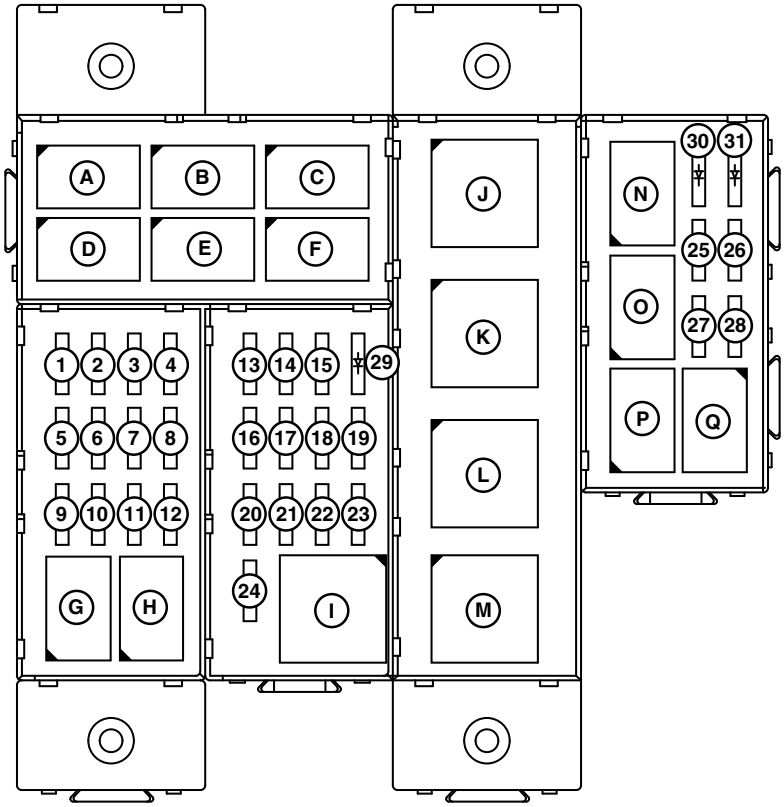


P14898 —UN—10APR08

A—Right Flash Relay (K27)
B—Left Flash Relay (K07)
C—Right Blower Relay (K23)
D—Left Turn Relay (K02)
E—Right Turn Relay (K03)
F—Left Blower Relay (K22)
G—Neutral Latch Relay (K12)
H—Fuel Flow Relay (K10)
I— Turn/Hazard Relay (K05)
J— 7-Pin Outlet Relay (K06)
K—Rear Work Light Relay (K08)
L— Front Work Light Relay (K09)
M—HVAC Relay (K20)
N—PTO Off/Neutral Relay (K04)
1— Key Switch Fuse (F01) — 30 A
2— Unswitched Auxiliary Power Fuse (F10) — 30 A
3— HVAC, Right Blower Purge Fuse (F13) — 30 A
4— Rear Work Light Fuse (F07) — 30 A
5— Hazard Light Fuse (F24) — 30 A
6— Instrument Panel Fuse (F18) — 10 A
7— Wiper Relay Fuse (F15) — 20 A
8— Front Work Light Fuse (F08) — 30 A
9— Light Switch Fuse (F04) — 20 A
10— 7-Pin Outlet Auxiliary Power Fuse (F12) — 30 A
11— Left Blower Purge Fuse (F14) — 20 A
12— Seat Switch and Horn Fuse (F28) — 10 A
13— Unswitched Radio Power and Dome Light Fuse (F16) — 10 A
14— Turn Signal Fuse (F06) — 10 A
15— ELX Fuse (F02) — 10 A
16— Headlight Fuse (F03) — 15 A
17— Switched Auxiliary Power Fuse (F11) — 30 A
18— Brake Light Fuse (F29) — 15 A
19— Spare Fuse — 15 A
20— Fuel Flow Relay Fuse (F30) — 10 A
21— Switched Radio Power Fuse (F17) — 10 A
22— Tail, Brake, and Turn Light Fuse (F05) — 15 A
23— Spare Fuse — 10 A
24— Diagnostic fuse
25— Spare Fuse — 20 A
26— Spare Fuse — 30 A
27— Neutral Latch Relay Diode (V06)
28— Fuel Flow and Latch Relay Diode (V07)

PX03972,000054D -19-17DEC08-1/1

Load Center Fuses and Relays—Cab (6110D/6125D with Wet Clutch)

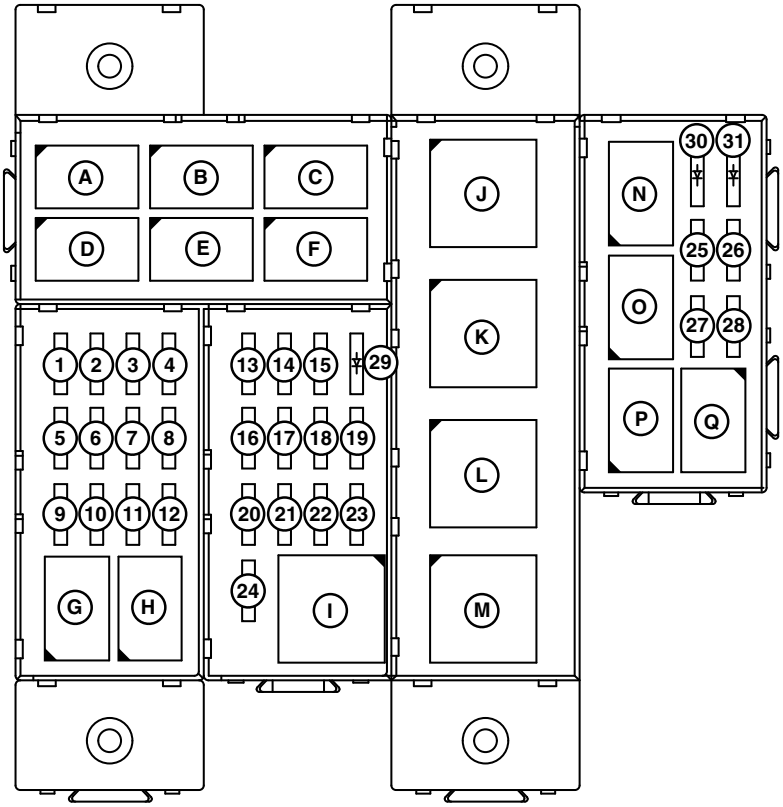


P14891 —UN—10APR08

A—Right Flash Relay (K27)
B—Left Flash Relay (K07)
C—Right Blower Relay (K23)
D—Left Turn Relay (K02)
E—Right Turn Relay (K03)
F—Left Blower Relay (K22)
G—Neutral Latch Relay (K12)
H—Fuel Flow Relay (K10)
I— Turn/Hazard Relay (K05)
J—7-Pin Outlet Relay (K06)
K—Rear Work Light Relay (K08)
L—Front Work Light Relay (K09)
M—HVAC Relay (K20)
N—PTO Off/Neutral Relay (K04)
O—Not Neutral Relay (K16)
P—Transmission Enable Relay (K17)
Q—Transmission Controller Switched Power Relay (K24)
1—Key Switch Fuse (F01) — 30 A
2—Unswitched Auxiliary Power Fuse (F10) — 30 A
3—HVAC, Right Blower Purge Fuse (F13) — 30 A
4—Rear Work Light Fuse (F07) — 30 A
5—Hazard Light Fuse (F24) — 30 A
6—Instrument Panel Fuse (F18) — 10 A
7—Wiper Relay Fuse (F15) — 20 A
8—Front Work Light Fuse (F08) — 30 A
9—Light Switch Fuse (F04) — 20 A
10—7-Pin Outlet Auxiliary Power Fuse (F12) — 30 A
11—Left Blower Purge Fuse (F14) — 20 A
12—Seat Switch and Horn Fuse (F28) — 10 A
13—Unswitched Radio Power and Dome Light Fuse (F16) — 10 A
14—Turn Signal Fuse (F06) — 10 A
15—ELX Fuse (F02) — 10 A
16—Headlight Fuse (F03) — 15 A
17—Switched Auxiliary Power Fuse (F11) — 30 A
18—Brake Light Fuse (F29) — 15 A
19—Spare Fuse — 15 A
20—Fuel Flow Relay Fuse (F30) — 10 A
21—Switched Radio Power Fuse (F17) — 10 A
22—Tail, Brake, and Turn Lights Fuse (F05) — 15 A
23—Spare Fuse — 10 A
24—Diagnostic fuse
25—Sensor Excitation Fuse (F21) — 10 A
26—PTR Controller Unswitched Power Fuse (F22) — 10 A
27—PTR Controller Switched Power Fuse (F20) — 10 A
28—Spare Fuse — 30 A
29—Neutral Latch Relay Diode (V06)
30—Fuel Flow and Latch Relay Diode (V07)
31—Transmission Controller Relay Diode (V04)

PX03972,000054E -19-17DEC08-1/1

Load Center Fuses and Relays—Cab (6100D/6110D/6125D with PowrReverser™)

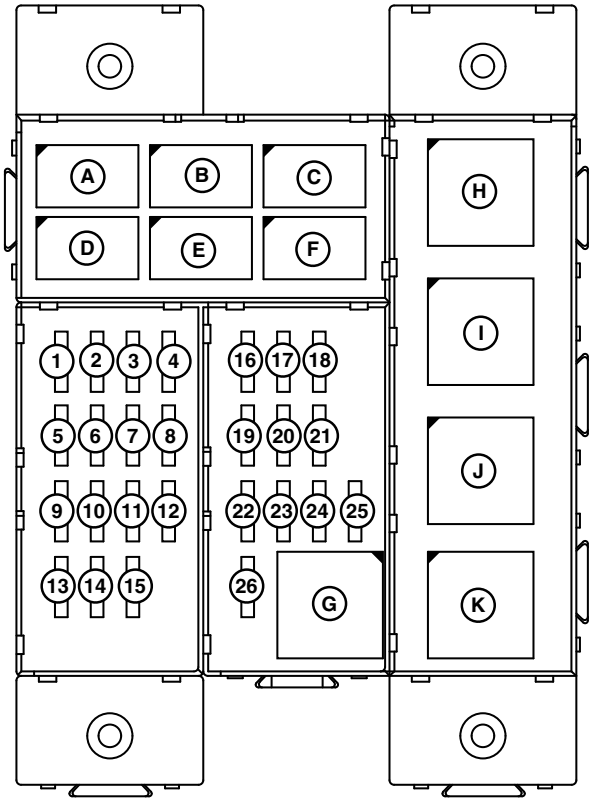


P14891 —UN—10APR08

A—Right Flash Relay (K27)
B—Left Flash Relay (K07)
C—Right Blower Relay (K23)
D—Left Turn Relay (K02)
E—Right Turn Relay (K03)
F—Left Blower Relay (K22)
G—Neutral Latch Relay (K12)
H—Fuel Flow Relay (K10)
I— Turn/Hazard Relay (K05)
J—7-Pin Outlet Relay (K06)
K—Rear Work Light Relay (K08)
L—Front Work Light Relay (K09)
M—HVAC Relay (K20)
N—PTO Off/Neutral Relay (K04)
O—Not Neutral Relay (K16)
P—Transmission Enable Relay (K17)
Q—Transmission Controller Switched Power Relay (K24)
1— Key Switch Fuse (F01) — 30 A
2— Unswitched Auxiliary Power Fuse (F10) — 30 A
3— HVAC, Right Blower Purge Fuse (F13) — 30 A
4— Rear Work Light Fuse (F07) — 30 A
5— Hazard Light Fuse (F24) — 30 A
6— Instrument Panel Fuse (F18) — 10 A
7— Wiper Relay Fuse (F15) — 20 A
8— Front Work Light Fuse (F08)— 30 A
9— Light Switch Fuse (F04) — 20 A
10— 7-Pin Outlet Auxiliary Power Fuse (F12) — 30 A
11— Left Blower Purge Fuse (F14) — 20 A
12— Seat Switch and Horn Fuse (F28) — 10 A
13— Unswitched Radio Power and Dome Light Fuse (F16) — 10 A
14— Turn Signal Fuse (F06) — 10 A
15— ELX Fuse (F02) — 10 A
16— Headlight Fuse (F03) — 15 A
17— Switched Auxiliary Power Fuse (F11) — 30 A
18— Brake Light Fuse (F29) — 15 A
19— PowrReverser Lever Fuse (F25) — 10 A
20— Fuel Flow Relay Fuse (F30) — 10 A
21— Switched Radio Power Fuse (F17) — 10 A
22— Tail, Brake, and Turn Lights Fuse (F05) — 15 A
23— Spare Fuse — 10 A
24— Diagnostic fuse
25— Sensor Excitation Fuse (F21) — 10 A
26— PTR Controller Unswitched Power Fuse (F22) — 10 A
27— PTR Controller Switched Power Fuse (F20) — 10 A
28— Spare Fuse — 30 A
29— Neutral Latch Relay Diode (V06)
30— Fuel Flow and Latch Relay Diode (V07)
31— Transmission Controller Relay Diode (V04)

PX03972,000054F -19-17DEC08-1/1

Load Center Fuses and Relays—Cab (6115D/6130D/6140D without PowrReverser)

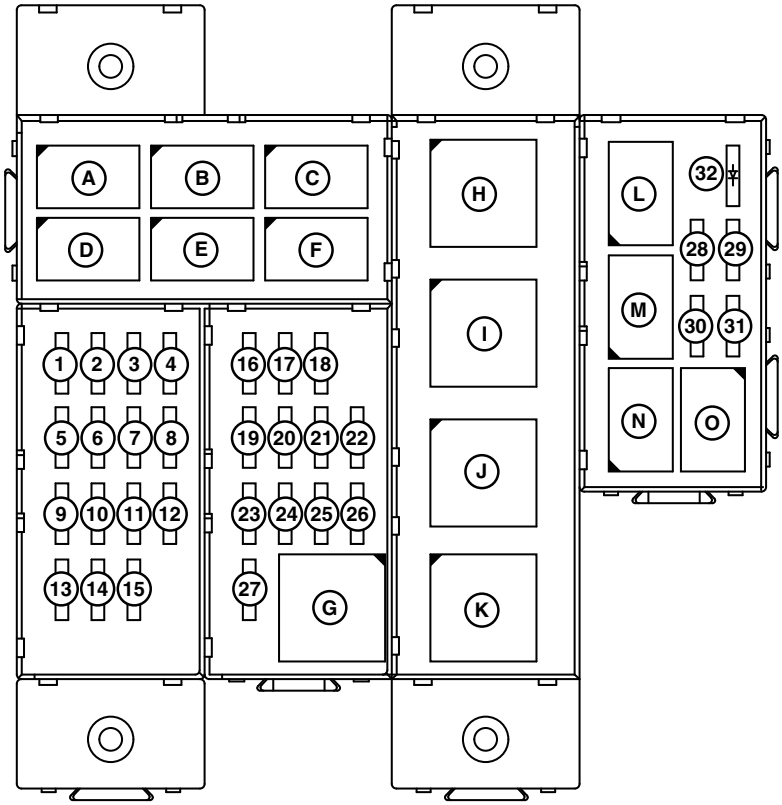


P14893 —UN—10APR08

A—Right Flash Relay (K27)
B—Left Flash Relay (K07)
C—Right Blower Relay (K23)
D—Left Turn Relay (K02)
E—Right Turn Relay (K03)
F—Left Blower Relay (K22)
G—Turn/Hazard Relay (K05)
H—7-Pin Outlet Relay (K06)
I— Rear Work Light Relay (K08)
J— Front Work Light Relay (K09)
K—HVAC Relay (K20)
1— Key Switch Fuse (F01) — 30 A
2— Unswitched Auxiliary Power Fuse (F10) — 30 A
3— HVAC, Right Blower Purge Fuse (F13) — 30 A
4— Rear Work Light Fuse (F07) — 30 A
5— Hazard Light Fuse (F24) — 30 A
6— Instrument Panel Fuse (F18) — 10 A
7— Wiper Relay Fuse (F15) — 20 A
8— Front Work Light Fuse (F08) — 30 A
9— Light Switch Fuse (F04) — 20 A
10— 7-Pin Outlet Auxiliary Power Fuse (F12) — 30 A
11— Left Blower Purge Fuse (F14) — 20 A
12— Seat Switch and Horn Fuse (F28) — 10 A
13— Spare Fuse — 30 A
14— Spare Fuse — 20 A
15— Spare Fuse — 15 A
16— Unswitched Radio Power and Dome Light Fuse (F16) — 10 A
17— Turn Signal Fuse (F06) — 10 A
18— ELX Fuse (F02) — 10 A
19— Headlight Fuse (F03) — 15 A
20— Switched Auxiliary Power Fuse (F11) — 30 A
21— Brake Light Fuse (F29) — 15 A
22— ECU Fuse (F23) — 20 A
23— Switched Radio Power Fuse (F17) — 10 A
24— Tail, Brake and Turn Light Fuse (F05) — 15 A
25— Spare Fuse — 10 A
26— Diagnostic fuse

PX03972,0000550 -19-17DEC08-1/1

Load Center Fuses and Relays—Cab (6115D/6130D/6140D with PowrReverser)

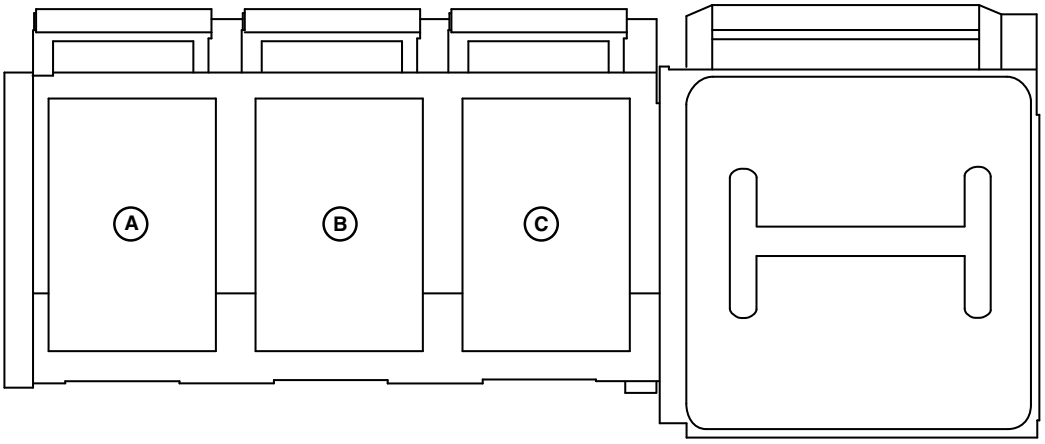


P14892 —UN—10APR08

A—Right Flash Relay (K27)
B—Left Flash Relay (K07)
C—Right Blower Relay (K23)
D—Left Turn Relay (K02)
E—Right Turn Relay (K03)
F—Left Blower Relay (K22)
G—Turn/Hazard Relay (K05)
H—7-Pin Outlet Relay (K06)
I— Rear Work Light Relay (K08)
J— Front Work Light Relay (K09)
K—HVAC Relay (K20)
L—PTO Off/Neutral Relay (K04)
M—Not Neutral Relay (K16)
N—Transmission Enable (K17)
O—Transmission Controller Switched Power Relay (K24)
1— Key Switch Fuse (F01) — 30 A
2— Unswitched Auxiliary Power Fuse (F10) — 30 A
3— HVAC, Right Blower Purge Fuse (F13) — 30 A
4— Rear Work Light Fuse (F07) — 30 A
5— Hazard Light Fuse (F24) — 30 A
6— Instrument Panel Fuse (F18) — 10 A
7— Wiper Relay Fuse (F15) — 20 A
8— Front Work Light Fuse (F08) — 30 A
9— Light Switch Fuse (F04) — 20 A
10— 7-Pin Outlet Auxiliary Power Fuse (F12) — 30 A
11— Left Blower Purge Fuse (F14) — 20 A
12— Seat Switch and Horn Fuse (F28) — 10 A
13— Spare Fuse — 30 A
14— Spare Fuse — 20 A
15— Spare Fuse — 15 A
16— Unswitched Radio Power and Dome Light Fuse (F16) — 10 A
17— Turn Signal Fuse (F06) — 10 A
18— ELX Fuse (F02) — 10 A
19— Headlight Fuse (F03) — 15 A
20— Switched Auxiliary Power Fuse (F11) — 30 A
21— Brake Light Fuse (F29)— 15 A
22— PowrReverser Lever Fuse (F25) — 10 A
23— ECU Fuse (F23) — 20 A
24— Switched Radio Power Fuse (F17) — 10 A
25— Tail, Brake and Turn Light Fuse (F05) — 15 A
26— Spare Fuse — 10 A
27— Diagnostic fuse
28— Sensor Excitation Fuse (F21) — 10 A
29— PTR Controller Unswitched Power Fuse (F22) — 10 A
30— PTR Controller Switched Power Fuse (F20) — 10 A
31— Backup Alarm Fuse (F27) — 5 A
32— Transmission Controller Relay Diode (V04)

PX03972,0000551 -19-17DEC08-1/1

Load Center Fuses and Relays—Cab—Behind Instrument Panel



P14913 —UN—29NOV07

A—Accessory Relay (K26) **B—Wiper Relay (K21)** **C—High-Low Beam Relay (K25)**

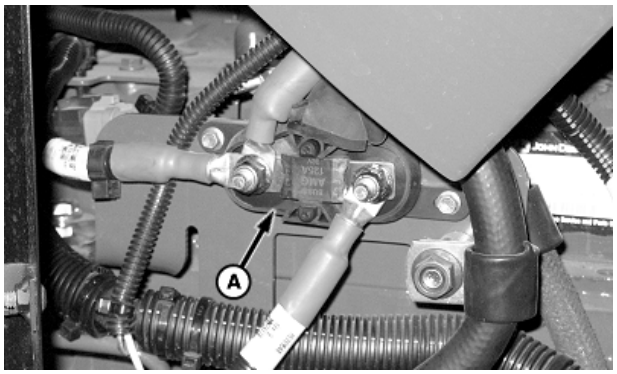
OU1092A,00001F5 -19-15APR08-1/1

Fusible Link Location

Electrical circuits are protected by a fusible link.

Raise hood. Fusible link junction block (A) is located on right-hand side of engine.

A—Fusible Link Junction Block (F26)



P14572 —UN—05NOV07

NS43404,000051F -19-17APR08-1/1

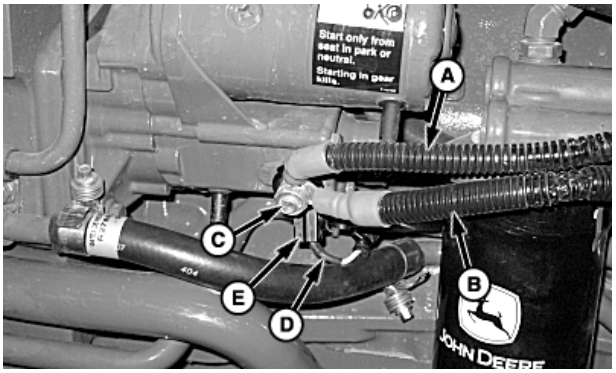
Starter Wiring Connections

CAUTION: To avoid shocks and burns, disconnect negative (-) cable before servicing any part of the electrical system.

Make all connections before reconnecting ground cable.

Cable (A) from fusible link and positive battery cable (B) are connected to large terminal (C).

To remove small wire (D) open tab and loosen screw on small terminal (E). To reinstall small wire reinsert wire, tighten screw and close tab.



P14575 —UN—05NOV07

Right Hand Side

A—Cable From Fusible Link
B—Positive Battery Cable
C—Large Terminal
D—Small Wire
E—Small Terminal

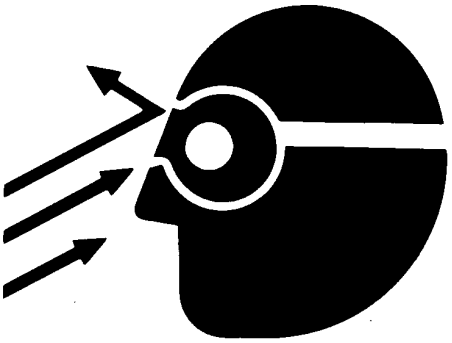
NS43404,000054C -19-05NOV07-1/1

Handling Halogen Light Bulbs Safely

CAUTION: Halogen bulbs (A) contain gas under pressure. Handling a bulb improperly could cause it to shatter into flying fragments. To avoid possible injury:

- **Handle bulb by its base. Keep bulb oil free; wear gloves to avoid touching glass.**
- **Turn off light switch and allow bulbs to cool before changing. Leave switch off until bulb change is done.**
- **Wear eye protection.**
- **Do not drop or scratch bulb. Keep away moisture.**
- **Place used bulb in the new bulb's carton and dispose of properly. Keep out of reach of children.**

A—Halogen Bulb



TS266 —UN—23AUG88

H39474 —UN—30JUN00

OUO1011,0005396 -19-16AUG10-1/1

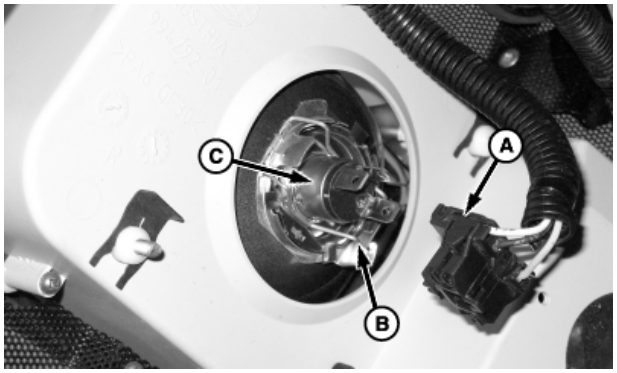
Replace Headlight Element

CAUTION: To guard against personal injury, wear protective eyeglasses and clothing when handling bulb. Turn power off when installing and before removing bulb. Dispose of bulb with care.

Allow bulb to cool before removing.

Read and follow all bulb manufacturer's installation instructions.

1. Raise hood.
2. Remove connector (A).
3. Remove retaining clip (B).
4. Remove and discard old bulb (C).
5. Insert new bulb and close retaining clip.
6. Reattach connector (A) to new bulb and close hood.



P14574 —UN—05NOV07

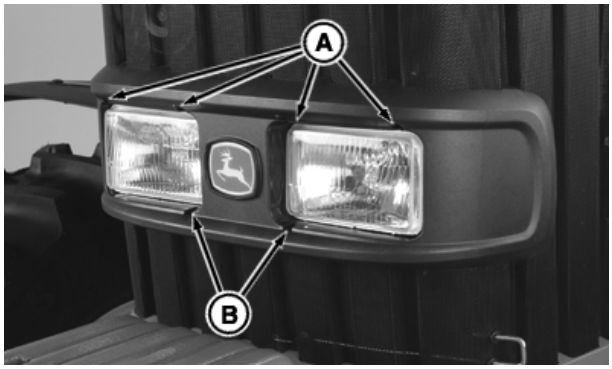
A—Connector
B—Clip
C—Bulb

NS43404,000054D -19-20NOV07-1/1

Adjust Headlights

IMPORTANT: Apply penetrating spray lubricant to the threads of top and bottom adjusting screws before starting procedure. If this is not done, it will be quite hard to turn adjusting screws in either direction.

- To raise light beam, turn top adjusting screws (A) counterclockwise.
- To lower light beam, turn top adjusting screws (A) clockwise.
- To turn light beam inward, turn bottom adjusting screw (B) counterclockwise.
- To turn light beam outward, turn bottom adjusting screw (B) clockwise.



P15335 —UN—27MAR08

A—Top Adjusting Screws
B—Bottom Adjusting Screws

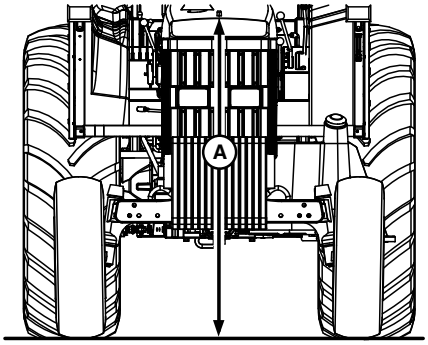
Continued on next page

NS43404,0000520 -19-28MAR08-1/2

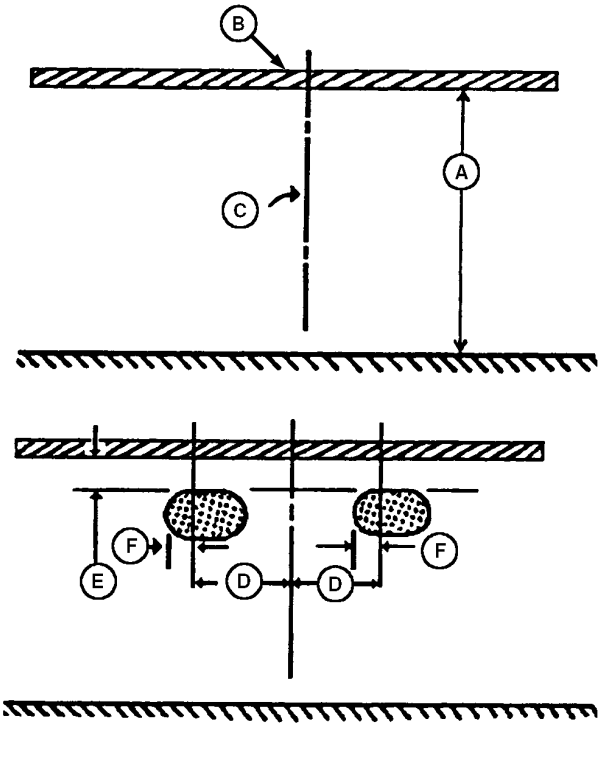
Aim Headlights

1. Park tractor on level ground, with lights 8 m (25 ft) from a wall.
2. Measure from top of hood to the ground (A). Place a strip of masking tape (B) on the wall at the same height.
3. Place a piece of tape, folded in the middle to make a point, on the top front center of the hood.
4. Using the hood tape as a guide, sight across steering wheel and hood to locate tractor centerline. Mark tractor centerline (C) on wall.
5. From tractor centerline (C), mark a point 130 mm (5 in.) out in each direction (D). This mark locates a point directly in front of each headlight center.
6. Turn light switch to road lights position, then set headlight dimmer switch to low beam.
7. Locate small zone of bright light projected by each lamp. Cover other lamps if necessary. Top of zone (E) should be 130 mm (5 in.) below the tape. Left edge of zone (F) should be 130 mm (5 in.) left of lamp location marked (D).
8. Adjust as necessary.

A—Hood-to-Ground Distance
B—Masking Tape
C—Tractor Centerline
D—Center of Headlight
E—Top of Zone
F—Left Edge of Zone



P9136 —UN—22SEP00



LV3020 —UN—10JUN99

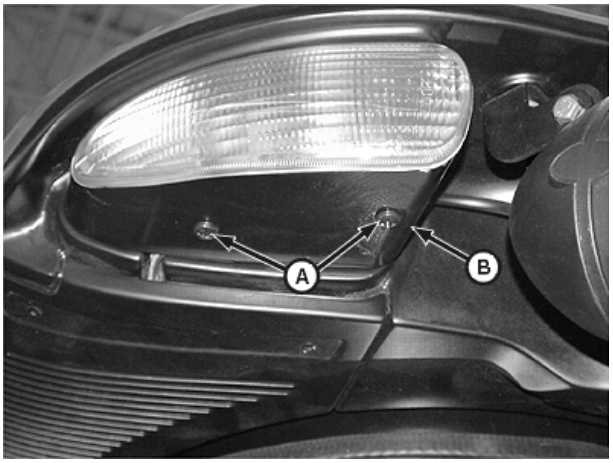
NS43404,0000520 -19-28MAR08-2/2

Replace Roof Hazard Light Bulb—Cab

NOTE: Procedure is the same for all warning lights on machine.

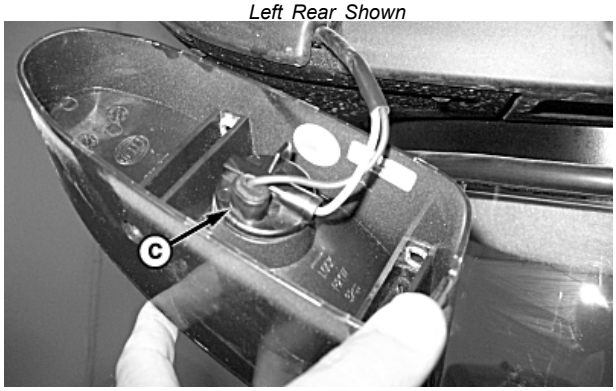
1. Remove socket head screws (A) and lens (B).
2. Twist and pull to remove bulb socket (C) from lens.
3. Gently push and turn bulb (D) to remove.
4. Install new bulb.
5. Reinstall bulb sockets to lens.
6. Inspect rubber seal for cracks that may cause leaks. Replace if necessary.
7. Reinstall lens (B) with previously removed socket head screws (A).

A—Socket Head Screws
B—Lens
C—Bulb Socket
D—Bulb



LV5559 —UN—29NOV00

Left Rear Shown



P14710 —UN—05NOV07

P14711 —UN—05NOV07

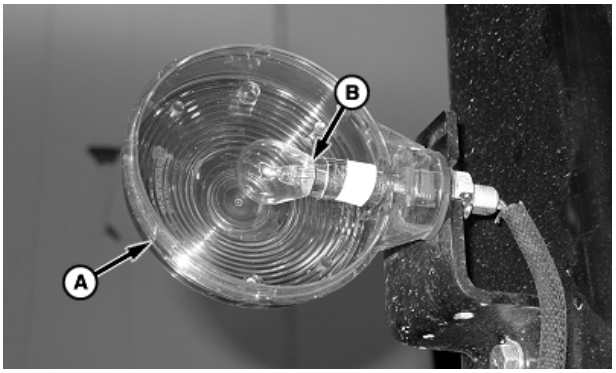
NS43404,0000566 -19-17APR08-1/1

Replace Hazard Light Bulb—OOS

NOTE: Procedure is the same for both sides of machine.

1. Pry off half of lens (A) to reveal bulb (B).
2. Gently turn bulb counterclockwise to remove.
3. Insert new bulb and turn clockwise until it sets in.
4. Snap on previously removed lens.
5. Repeat procedure of right hand side if necessary.

A—Lens **B—Bulb**



P14561 —UN—05NOV07

Left Side Shown

NS43404,000054E -19-17APR08-1/1

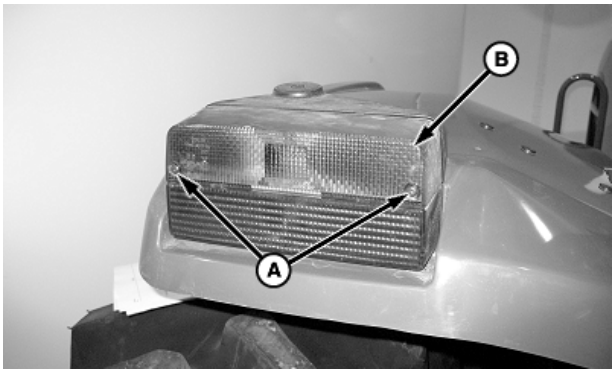
Replace Tail and Turn Light Bulbs

OOS

NOTE: Procedure is the same for both sides of machine.

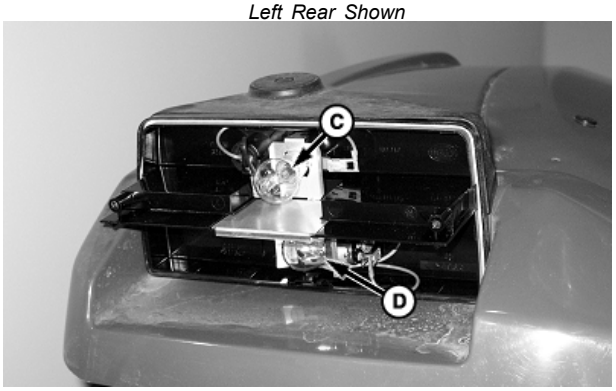
1. Remove screws (A) and lens (B).
2. Gently push and turn bulb (C) and (D) to remove.
3. Gently push and turn new bulb to install.
4. Reinstall cover (B) with previously removed screws (A).

A—Screws **C—Turn Signal Bulb**
B—Lens **D—Tail Light Bulb**



P14706 —UN—05NOV07

Left Rear Shown



P14707 —UN—05NOV07

Continued on next page

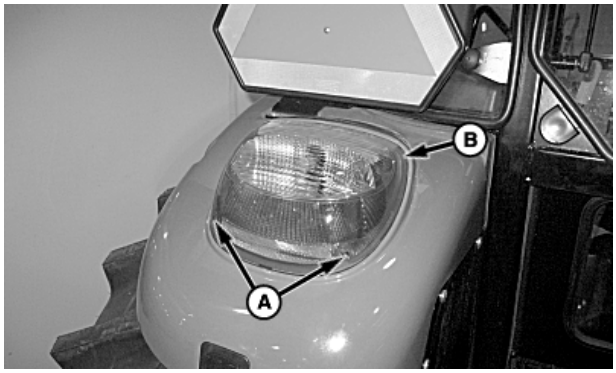
NS43404,0000524 -19-17APR08-1/2

Cab

NOTE: Procedure is the same for both sides of machine.

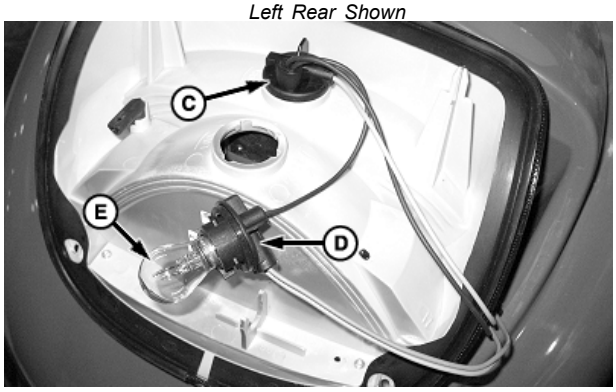
1. Remove screws (A) and cover (B).
2. Twist and pull to remove sockets (C) and (D) from lens.
3. Gently push and turn bulb (E) to remove.
4. Install new bulb.
5. Reinstall sockets to lens.
6. Inspect rubber seal for cracks that may cause leaks. Replace if necessary.
7. Reinstall lens (B) with previously removed screws (A).

A—Screws
B—Lens
C—Turn Signal Socket
D—Tail Light Socket
E—Bulb



P14708 —UN—05NOV07

Left Rear Shown



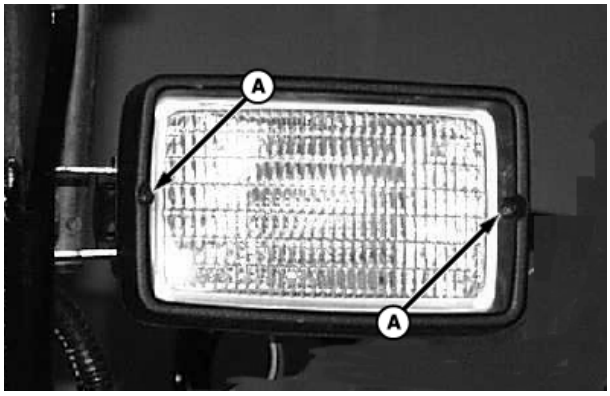
P14709 —UN—05NOV07

NS43404,0000524 -19-17APR08-2/2

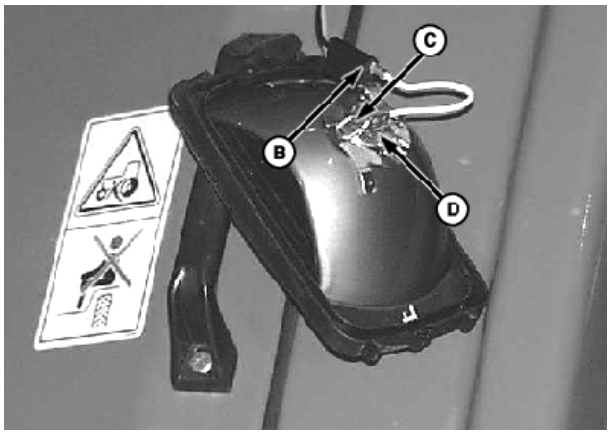
Replace Floodlight Element—OOS

1. Remove screws (A) and bezel.
2. Disconnect connector (B).
3. Release clip (C) across bottom of light fixture.
4. Grasp bulb base (D) and pull it straight out. Properly dispose of old bulb.
5. Slide new bulb assembly into fixture housing and reapply clip (C).
6. Inspect rubber seal for cracks that may cause leaks. Replace if necessary.
7. Connect bezel to connector (B).
8. Reinstall bezel and screws.

A—Screw
B—Connector
C—Clip
D—Bulb



P10222 —UN—21SEP01



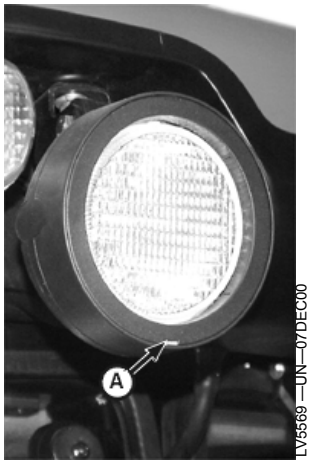
P10221 —UN—21SEP01

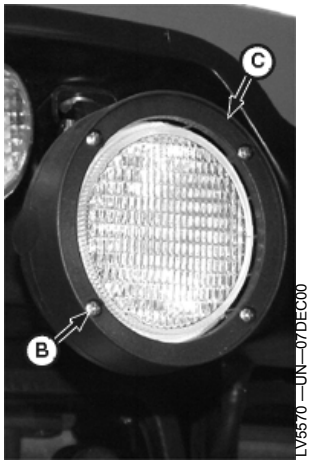
NS43404,000054B -19-15APR08-1/1

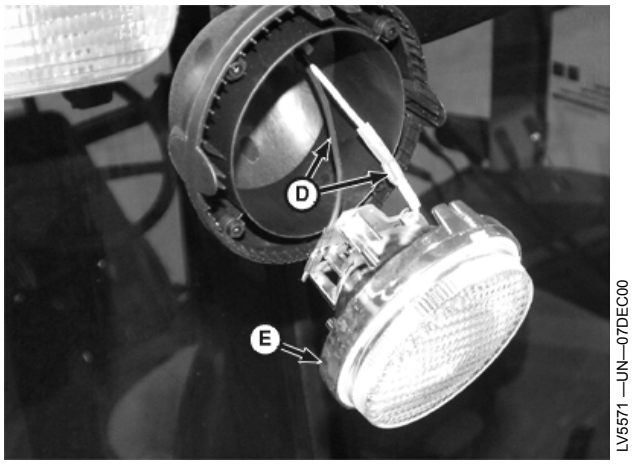
Replace Floodlight Element—Cab

1. Pry off cover (A).
2. Remove screws (B), retaining ring (C) and floodlight bezel (E) from housing.
3. Disconnect connectors (D).
4. Release clip. Remove and discard old bulb.
5. Inspect rubber seal for cracks that may cause leaks. Replace if necessary.
6. Slide new bulb into floodlight bezel (E) and reapply clip.
7. Connect bezel to connector.
8. Reinstall bezel, screws, and cover.

A—Cover
B—Screw (4 used)
C—Retaining Ring
D—Wiring Connector
E—Floodlight Bezel





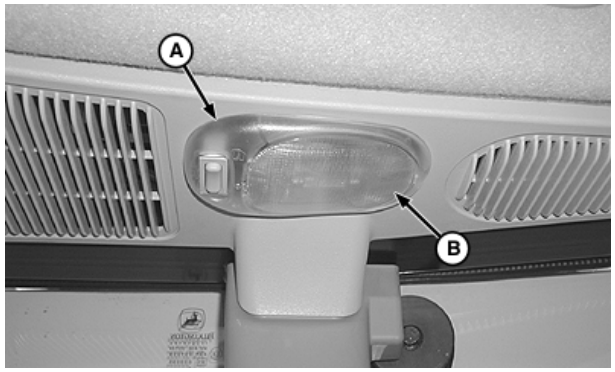


NS43404,0000567 -19-15APR08-1/1

Replace Dome Light Bulb—Cab

1. Remove dome light cover (B) from dome light housing (A) using a screwdriver.
2. Pull dome light bulb (C) from socket. Replace dome light bulb.
3. Install dome light cover to dome light housing.

A—Dome Light Housing
B—Dome Light Cover
C—Dome Light Bulb



LV8588 —UN—14AUG03

LV8587 —UN—14AUG03

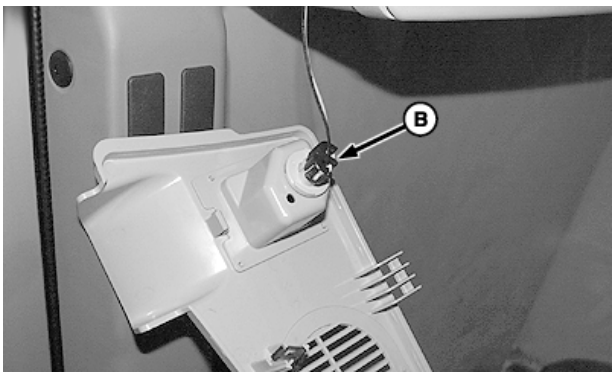
NS43404,0000527 -19-17APR08-1/1

Replacing Controls Illumination Light Bulb (Cab)

1. Pry off panel (A).
2. Rotate light bulb retainer (B) counterclockwise approximately 1/4 turn and remove.
3. Pull out light bulb.
4. Install new bulb in reverse order of removal.

A—Panel
B—Light Bulb Retainer

LV9515 —UN—07AUG04



LV9598 —UN—07AUG04

OUMX005,0001960 -19-31JUL04-1/1

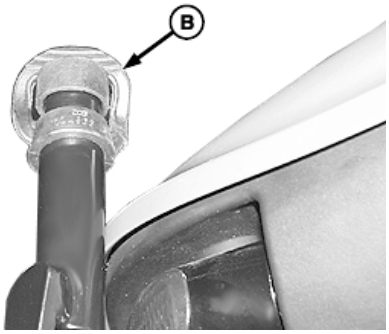
Replacing Rotary Beacon Light Bulb (If Equipped)

CAUTION: Halogen bulbs contain gas under pressure. Handling a bulb improperly could cause it to shatter into flying fragments. (See HANDLING HALOGEN LIGHT BULBS SAFELY in this section.)

1. Loosen wing nut (A) and remove rotary beacon light assembly.
2. Install rubber cap (B).

A—Wing Nut
B—Rubber Cap

LV9693 —UN—19AUG04

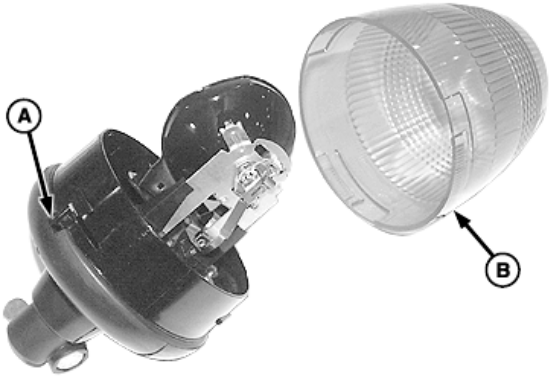


LV9694 —UN—19AUG04

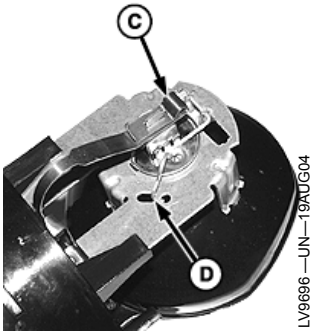
OUMX005,00019A1 -19-19AUG04-1/2

3. Depress tab (A) and rotate lens (B) counterclockwise to remove.
4. Pull tab (C) away from bulb.
5. Unlatch retaining spring (D) and remove light bulb (E).
6. Install new bulb in reverse order of removal.

A—Tab
B—Lens
C—Tab
D—Retaining Spring
E—Bulb



LV9695 —UN—19AUG04



LV9696 —UN—19AUG04

LV9697 —UN—19AUG04

OUMX005,00019A1 -19-19AUG04-2/2

Engine Troubleshooting

Symptom	Problem	Solution
Engine hard to start or will not start	Improper starting procedure	Review starting procedure
	No fuel	Check fuel tank
	Air in fuel tank	Bleed fuel tank
	Fuel pump hand primer left raised	Push primer down
	Slow starter speed	See “Starter Cranks Slowly”
	Crankcase oil too heavy	Use oil of proper viscosity
	Improper type of fuel	Consult fuel supplier; use proper type fuel for operating conditions
	Water, dirt, or air in fuel system	Drain, flush, fill and bleed system
	Clogged fuel filters	Replace filter elements
	Dirty or faulty injectors	Have John Deere dealer check injectors
Engine knocks	Insufficient oil	Add oil
	Incorrect injection pump timing	See your John Deere dealer
	Low coolant temperature	See your John Deere dealer
	Engine overheating	See “Engine Overheats”
Engine runs irregularly or stalls frequently	Low coolant temperature	See your John Deere dealer
	Clogged fuel filters	Replace filter elements
	Water, dirt, or air in fuel system	Drain, flush, fill, and bleed system
	Dirty or faulty injectors	Have John Deere dealer check injectors
	Improper type of fuel	Use proper fuel
Below normal engine temperature	Defective temperature gauge or sender	Check gauge and sender
Lack of power	Engine overloaded	Reduce load or shift to lower gear
	Low fast idle speed	See your John Deere dealer
	Intake air restriction	Service air cleaner
	Clogged fuel filters	Replace filter elements

Continued on next page

Symptom	Problem	Solution
	Improper type of fuel	Use proper fuel
	Overheated engine	See “Engine Overheats”
	Below normal engine temperature	See your John Deere dealer
	Improper valve clearance	See your John Deere dealer
	Dirty or faulty injectors	Have John Deere dealer check injectors
	Incorrect injection pump timing	See your John Deere dealer
	Turbocharger not functioning	See your John Deere dealer
	Restricted fuel line	See your John Deere dealer
	Restricted return line	See your John Deere dealer
	Improper ballast	Adjust ballast to load
Low oil pressure	Low oil level	Add oil
	Improper type of oil	Drain, fill crankcase with oil of proper viscosity and quality
High oil consumption	Crankcase oil too light	Use proper viscosity oil
	Oil leaks	Check for leaks in lines, around gaskets and drain plugs
	Restricted crankcase vent tube	Clean vent tube
Engine emits black or gray exhaust smoke	Improper type of fuel	Use proper fuel
	Clogged or dirty air cleaner	Service air cleaner
	Engine overloaded	Reduce load or shift to a low gear
	Injection nozzles dirty	See your John Deere dealer
	Defective turbocharger	See your John Deere dealer
	Incorrect engine timing	See your John Deere dealer
Engine emits white smoke	Improper type fuel	Use proper fuel
	Engine out of time	See your John Deere dealer
	Defective thermostat	Replace thermostat

Continued on next page

Symptom	Problem	Solution
	Defective injection nozzles	See your John Deere dealer
	Turbocharger not functioning	See your John Deere dealer
	Cold start advance or light load advance not functioning	See your John Deere dealer
	Cold engine	Bring engine to operating temperature
Engine overheats	Dirty radiator core or grille screens	Remove all trash
	Engine overloaded	Shift to lower gear or reduce load
	Low engine oil level	Check oil level. Add oil as required
	Low coolant level	Fill radiator to proper level, check radiator and hoses for loose connection or leaks
	Faulty reservoir cap	Replace cap
	Loose or defective fan belt	Replace belt
	Cooling system needs flushing	Flush cooling system
	Defective thermostat	See your John Deere dealer
	Defective temperature gauge or sender	See your John Deere dealer
High fuel consumption	Improper type of fuel	Use proper fuel type
	Incorrect grade of fuel	Use correct grade of fuel
	Clogged or dirty air cleaner	Service air cleaner
	Engine overloaded	Reduce load or shift to a lower gear
	Improper valve clearance	See your John Deere dealer
	Injection nozzles dirty	See your John Deere dealer
	Incorrect engine timing	See your John Deere dealer
	Implement improperly adjusted	See implement operator’s manual
	Low engine temperature	See your John Deere dealer
	Excessive ballast	Adjust ballast to load
	Restricted air intake system	Check system

NS43404,0000528 -19-23JAN08-3/3

Symptom	Problem	Solution
	Plugged crankcase vent tube	Clean vent tube
	Defective turbocharger	See your John Deere dealer

NS43404,0000528 -19-23JAN08-4/3

Electrical System Troubleshooting

Symptom	Problem	Solution
Battery will not charge	Loose or corroded connections	Clean and tighten connections
	Sulfated or worn-out battery	Check electrolyte level and specific gravity
	Loose or defective alternator/fan belt	Replace belt
Charging system indicator glows with engine running	Low engine speed	Increase speed
	Defective battery	Check electrolyte level and specific gravity
	Defective alternator	See your John Deere dealer
	Slipping alternator/fan belt	Replace belt
Starter inoperative	Shift lever or power reverse lever in gear	Move shift lever or power reverse lever to neutral
	PTO lever in engaged position	Move PTO lever to disengaged position
	Low battery output	See your John Deere dealer
	Blown fuse	Replace fuse
Starter cranks slowly	Low battery output	Check electrolyte level and specific gravity
	Crankcase oil too heavy	Use proper viscosity oil
	Loose or corroded connections	Clean and tighten battery connection
Light system does not function; rest of electrical system functions	Blown fuse	Replace fuse
Entire electrical system does not function	Fusible link blown	See your John Deere dealer
	Faulty battery connections	Clean and tighten connections
	Sulfated or worn-out battery	Check electrolyte level and specific gravity
	Blown fuse	Replace fuse
Relay(s) sticking or nonfunctional; repeated failures	Failed diode(s)	See your John Deere dealer

NS43404,000052D -19-23JAN08-1/1

Transmission Troubleshooting

Symptom	Problem	Solution
Transmission oil overheats	Low oil supply	Fill system with correct oil
	Clogged transmission/hydraulic oil filter	Replace filter
	Internal hydraulic leak	See your John Deere dealer
	Dirty or clogged oil cooler	Clean or flush oil cooler
Low transmission oil pressure	Low oil supply	Fill system with correct oil
	Clogged transmission/hydraulic oil filter	Replace filter
	Failed pressure relief valve	Check valve, replace if necessary
Transmission stuck in neutral or it is hard to shift any gear	Speed shift linkage stuck or rusty	Clean or lubricate the speed shift lever linkages
	Interlock cable misadjusted	Adjust interlock cable per technical repair manual

AG, OUO6070, -19-23JAN08-1/1

Rockshaft and 3-Point Hitch Troubleshooting

Symptom	Problem	Solution
Insufficient transport clearance	Center link too long	Adjust center link
	Lift links too long	Adjust lift links
	Implement not level	Level implement
	Implement not properly adjusted	See implement operator's manual
	Sway chains adjusted too short	Lengthen sway chains
Hitch drops slowly	Rockshaft rate-of-drop control not properly set	Adjust rate-of-drop control knob
Hitch fails to lift or lifts slowly	Excessive load on hitch	Reduce load
	Low oil level	Fill system with proper oil
	Hydraulic oil too cold	Allow oil to warm
	Transmission/hydraulic oil filter clogged	Replace filter
Implement will not operate at desired depth	Lift links too short	Adjust lift links
	Lack of penetration	See implement operator's manual
	Improper setting of limit stop	Reset limit stop
	Improper setting of draft control lever	See Rockshaft and 3-Point Hitch section
Insufficient or no hitch response to draft load	Draft control knob in "Min" position	Pull knob upward
	Lift links too short	Adjust lift links
	Lack of penetration	See implement operator's manual
	Rate-of-drop too slow	Adjust rate-of-drop control knob
Hitch too responsive	Improper draft sensing adjustment	Push knob down
Hitch drops too fast	Rate-of-drop set too fast	Adjust rate-of-drop control knob

OUO6070,00000A9 -19-23JAN08-1/1

Brakes Troubleshooting

Symptom	Problem	Solution
No solid pedal feel	Pedals adjusted incorrectly	See your John Deere dealer
Excessive pedal travel	Pedals adjusted incorrectly	See your John Deere dealer
Brakes drag during transport	Brakes out of adjustment	See your John Deere dealer

OUO6070,00000A8 -19-23JAN08-1/1

Hydraulic System Troubleshooting

Symptom	Problem	Solution
Entire hydraulic system fails to function	Low oil supply	Fill system with correct oil
	Clogged transmission/hydraulic filter	Replace filter
	High-pressure internal leak	See your John Deere dealer
Hydraulic oil overheats	Low oil supply	Fill system with correct oil
	Clogged transmission/hydraulic oil filter	Replace filter
	Internal hydraulic leak	See your John Deere dealer
	Hitch feedback linkage improperly adjusted	Reset linkage. See your John Deere dealer
	Dirty or clogged oil cooler	Clean or flush oil cooler

AG, OUO6070 -19-23JAN08-1/1

Deluxe Selective Control Valve Troubleshooting (If Equipped)

Symptom	Problem	Solution
Flow control knob will not turn	Dirt build-up.	Clean dirt from flow control knob and shaft.
Remote cylinder rate-of-travel too fast or too slow	Incorrect flow control adjustment.	Adjust flow control.
Detent does not hold SCV lever or releases too soon	Detent selector in wrong position.	Turn selector to correct position.
	Pressure restriction with some implements.	Reduce oil flow by changing flow control setting.
	Flow control or detent setting incorrect.	Adjust flow control and/or detent setting.
SCV lever does not release	Detent selector not in automatic detent position.	Turn selector to correct position.
	Built-in pressure leakage with some implements.	Increase oil flow by changing flow control setting.
	Flow control or detent setting incorrect.	Adjust flow control and/or detent setting.

OUMX005,0001AB9 -19-29SEP04-1/1

Remote Hydraulic Cylinder Troubleshooting

Symptom	Problem	Solution
Direction of remote cylinder travel is reversed	Improper hose connections.	Reverse hose connections.
Hoses will not couple	Improper hose male tips.	Replace tip with ISO standard tips.
Remote cylinder will not lift load	Excessive load.	Reduce load.
	Hoses not completely installed.	Attach hoses correctly.
	Incorrect remote cylinder size.	Use correct size cylinder.

OUMX005,0001ABA -19-29SEP04-1/1

Heater and A/C System (Cab) Troubleshooting

Symptom	Problem	Solution
All cab electrical switches do not work	Loose, defective or blown fusible link.	See your John Deere dealer.
Blower malfunctioning	Blower does not work.	Check both blower fuses.
Blower operates only in purge position	One of two fuses blown.	Replace fuse.
	Blown blower resistance assembly.	See your John Deere dealer.
Heater does not work	Low coolant level.	Check coolant level; add if necessary.
	Faulty thermostat.	See your John Deere dealer.
	Heater control valve not functioning properly.	See your John Deere dealer.
	Heater core or hoses clogged or damaged.	Flush cooling system. Replace heater core or hoses. See your John Deere dealer.
Air conditioning does not work	Compressor belt loose or slipping.	Replace belt if necessary.
	Blown fuse.	Replace fuse.
	Defective switch.	See your John Deere dealer.
	Faulty wiring or loose connections.	See your John Deere dealer.
	Defective compressor clutch.	See your John Deere dealer.
Drafts	Poor air distribution	Adjust directional air louvers. Set blower switch to medium or low positions.
Inadequate air flow	Clogged air filters.	Clean filters.
	Evaporator core air flow restricted.	Clean evaporator and housing with compressed air.
	Faulty blower fan motors.	See your John Deere dealer.
	Defective blower switch.	See your John Deere dealer.
	Faulty wiring or loose connections.	See your John Deere dealer.
Water leaking or dripping from evaporator core compartment	Loose hose clamp.	Tighten clamp.
	A/C drip pan dirty.	Clean evaporator pan and outlet with compressed air.

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NS43404,000052E -19-23JAN08-1/3

Symptom	Problem	Solution
	A/C drain tubes plugged.	Clean drain tubes.
Strange odors inside operator's cab	Dirty air filters.	Clean filters.
	Evaporator condenser pan dirty.	Clean pan and outlet with compressed air.
	Drain tubes plugged.	Clean drain tubes.
	Tobacco smoke and tar on evaporator exterior.	Clean filters.
Partial frosting and sweating of lines combined with poor cooling	Compressor belt slipping.	Replace belt.
	Loss of refrigerant.	Check system for leaks. See your John Deere dealer.
	Restricted or clogged liquid line.	See your John Deere dealer.
	Expansion valve malfunctioning.	See your John Deere dealer.
Ice flecks blowing from evaporator	Control dial set too low.	Adjust the temperature control to a warmer position.
Failure to cool	Insufficient blower speed.	Increase blower speed.
	Dirty air filters.	Clean filters.
	Debris on front grille and side screens.	Clean grille and screens.
	Lint or dirt on condenser fins.	Blow out condenser fins with compressed air.
	Refrigerant is lost or extremely low.	See your John Deere dealer.
	Loose compressor drive belt.	Replace belt.
	Compressor clutch not engaging.	See your John Deere dealer.
	Expansion valve not functioning.	See your John Deere dealer.
	Restriction in refrigerant system.	See your John Deere dealer.
	Faulty wiring or loose connections.	See your John Deere dealer.
	Defective temperature control switch.	See your John Deere dealer.
	Outside temperature too low. Below 21 °C (70 °F).	Wait until day gets warmer. If there is a malfunction in system, see your John Deere dealer.
	Condenser is overheating.	Clean condenser screens, cores and fins of condenser and radiator.

Continued on next page

Symptom	Problem	Solution
	Severe restriction in high side.	See your John Deere dealer.
	Burned out clutch field or faulty field.	See your John Deere dealer.
	Short circuit in control circuit or failure of a switch in circuit.	See your John Deere dealer.
Hissing noise at expansion valve	Loss of refrigerant.	Check system for leaks. See your John Deere dealer.
	Restriction in refrigerant system.	Check for kinks in hoses.
		Check receiver-dryer for uniformity of temperature. If temperature is not uniform, see your John Deere dealer.

NS43404,000052E -19-23JAN08-3/3

Wiper(s), Floodlights, Dome Light and Radio (Cab) Troubleshooting

Symptom	Problem	Solution
All cab electrical switches do not work	Loose, defective or blown fusible link.	See your John Deere dealer.
Window wiper(s) and washer will not run	Blown fuse.	Replace fuse.
	Defective switch(es).	See your John Deere dealer.
	Defective motor(s).	See your John Deere dealer.
	Faulty wiring or loose connections.	See your John Deere dealer.
Floodlights do not work	Blown fuse.	Replace fuse.
	Defective switch.	See your John Deere dealer.
	Faulty wiring or loose connections.	See your John Deere dealer.
Dome light does not work	Blown fuse.	Replace fuse.
	Defective bulb or switch.	Replace bulb or see your John Deere dealer.
	Defective door switch(es).	See your John Deere dealer.
	Faulty wiring or loose connections.	See your John Deere dealer.
Radio does not work	Blown fuse.	Replace fuse.

NS43404,000052F -19-23JAN08-1/1

Place Tractor in Long-Term Storage

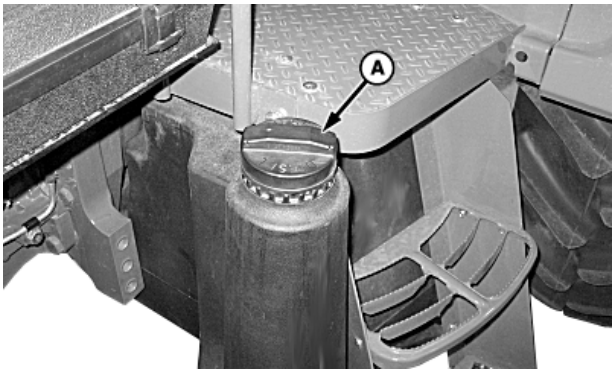
IMPORTANT: If the tractor will not be used for several months, the following recommendations for storage and removal from storage will minimize corrosion and deterioration.

NOTE: Use Engine Storage Kit available from your John Deere dealer.

Perform the following steps for long-term tractor storage:

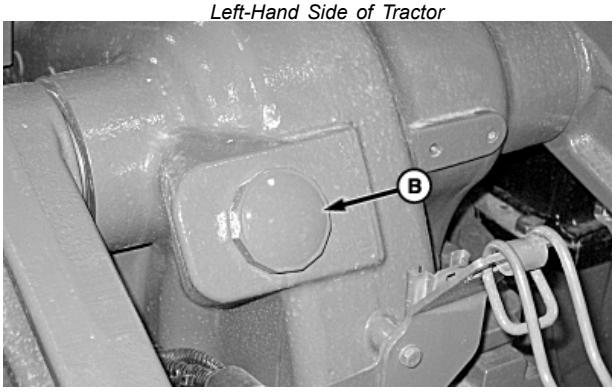
1. Service engine air cleaner. (See SERVICE ENGINE AIR INTAKE AND PRE-CLEANER in General Maintenance and Inspection section.)
2. If coolant in tractor is more than two years old, flush cooling system. (See DRAIN, FLUSH AND REFILL COOLING SYSTEM in Maintenance—Cooling System section). Add 50% antifreeze water mixture. Test coolant for adequate cold weather protection.
3. Change engine oil and filter (See procedure in Lubrication section).
4. Drain fuel tank. Remove fuel tank fill cap (A) and add 4 L (1 gal) of fuel. Then add 0.4 L (12 oz) of corrosion inhibitor. Install cap.
5. Remove transmission/hydraulic oil fill cap (B) and add 0.25 L (1 pt) of corrosion inhibitor. Install cap.
6. Depress clutch and start engine. Run engine until it reaches operating temperature. Raise and lower rockshaft several times. Shut off engine.
7. Remove fuel tank fill cap and add 0.5 L (16 oz) inhibitor. Install cap.
8. Remove engine oil fill cap (C) and add 0.5 L (16 oz) inhibitor. Install cap.

A—Fuel Tank Fill Cap
B—Transmission/Hydraulic Oil Fill Cap
C—Engine Oil Fill Cap



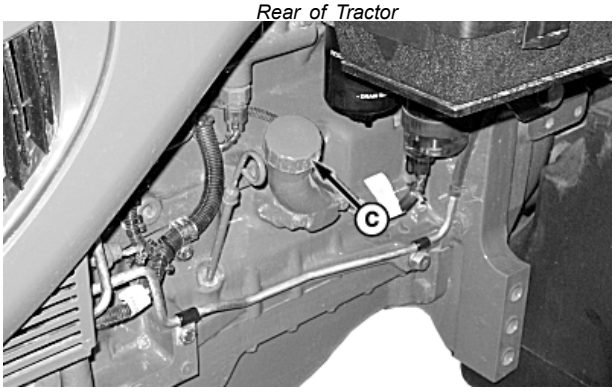
P14716 —UN—23JAN08

Left-Hand Side of Tractor



P14503 —UN—30OCT07

Rear of Tractor



P14715 —UN—23JAN08

Left-Hand Side of Engine

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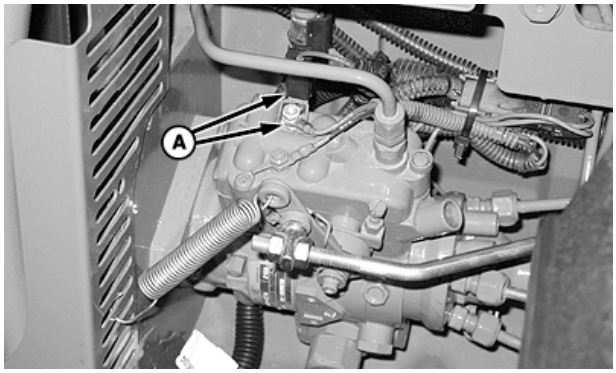
NS43404,0000530 -19-24JAN08-1/3

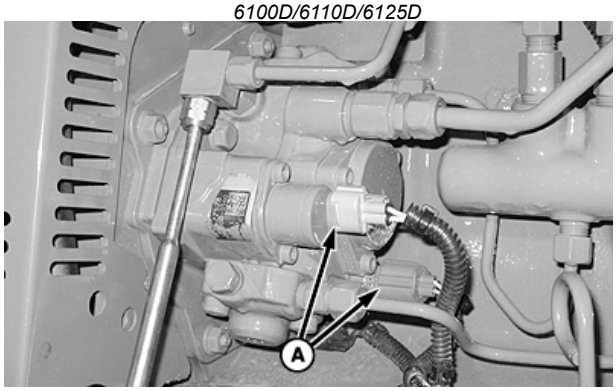
9. Disconnect fuel shut-off solenoid wiring leads/connectors (A). (This will prevent engine from starting while cranking.)
10. Remove air intake hose at manifold. Pour 0.1 L (3 oz) inhibitor into manifold and replace hose. Pull hand throttle back to slow idle position. Crank engine only a few revolutions.
11. Remove alternator/fan belt after it has cooled.
12. Remove and clean battery. Store in a cool, dry place. Keep it charged.[1]
13. Tie or block clutch pedal in the disengaged position.
14. Coat exposed metal surfaces such as adjustable front axles, if extended, with grease or a corrosion inhibitor.

A—Fuel Shut-off Solenoid Wiring Leads/Connectors



P15197 —UN—23JAN08

6100D/6110D/6125D



P15198 —UN—23JAN08

6115D/6130D/6140D

[1]Disconnect battery ground cable for short-term storage periods (20 to 90 days).

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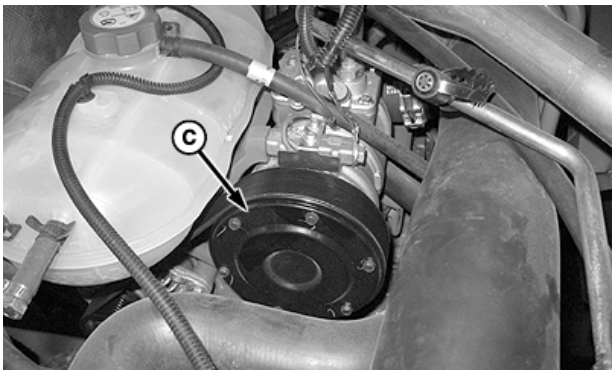
NS43404,0000530 -19-24JAN08-2/3

15. Use tape to seal engine air cleaner inlet (A), dust unloader valve (B), exhaust pipe, crankcase fill cap, fuel fill cap, coolant recovery tank, and transmission/hydraulic system fill cap.
16. Cover dash with opaque material to prevent gauges from fading.
17. Raise tires off ground. Protect from heat and sunlight.
18. Thoroughly clean tractor. Touch up any painted surfaces that are scratched or chipped.
19. If tractor must be stored outside, cover it with a waterproof material.
20. **Cab:** Rotate A/C compressor pulley (C) several turns once a month to prevent seizure of compressor.

A—Air Cleaner Inlet
B—Dust Unloader Valve
C—A/C Compressor Pulley (Cab)

P15199 —UN—23JAN08



P15200 —UN—23JAN08

NS43404,0000530 -19-24JAN08-3/3

Remove Tractor From Storage

Perform the following steps to remove tractor from storage:

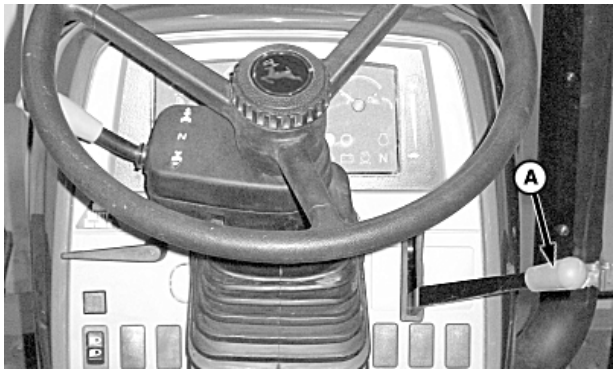
1. Check tire inflation pressure. (See Wheels, Tires and Treads section.) Lower tires to ground.
2. Remove all coverings.
3. Unseal all openings sealed during storage.
4. Install battery.
5. Remove ties or block which secured clutch pedal down.

IMPORTANT: Cab tractor: If air conditioning compressor is seized, engine operation with compressor clutch engaged will damage belt or compressor.

6. **Cab:** Check that A/C compressor pulley moves freely and is not seized.
7. Install alternator/fan belt.
8. Check levels of engine oil, transmission/hydraulic oil and engine coolant. Add fluids as needed.
9. Drain a small amount of fuel from fuel tank to purge any moisture condensation that has collected.
10. Fill fuel tank.
11. Perform all appropriate services listed in Maintenance and Service Intervals section, as dictated by elapsed storage period.
12. Check instruments and indicators by turning key switch to RUN position.

IMPORTANT: Do not operate starter more than 20 seconds at a time, and wait at least two minutes for starter to cool before trying again.

13. Make sure gear shift lever and PowrReverser™ lever (if equipped) is in neutral (“N”) and PTO control lever is in disengaged position. Pull hand throttle (A) all the way back, depress clutch pedal and crank engine until oil pressure rises. Turn key switch to OFF position.



P14828 —UN—15APR08

Tractor with PowrReverser Shown

14. Connect fuel shut-off solenoid wiring leads/connectors.
15. Depress clutch pedal and start engine. Operate engine at slow idle for several minutes. Warm up carefully and check all systems before placing tractor under load.

NS43404,0000531 -19-07APR08-1/1

Paint Finish Care

Washing tractor regularly will preserve the finish. Wash tractor in indirect sunlight. All cleaning agents should be flushed promptly and not allowed to dry on the paint surface.

IMPORTANT: Do not use hot water, strong soaps or chemical detergents. Use liquid hand, dish or car washing (non detergent) soaps. Cleaning agents containing acid or abrasives should not be used.

Waxing tractor occasionally may be necessary to remove residue from paint finish. Do not use waxes containing abrasive compounds.

Inspect paint surface, during washing or waxing, for chips and scratches. Repaint any areas where paint has been removed. Paint materials are available from your John Deere dealer.

AG,RX15494,1914 -19-06SEP99-1/1

General Specifications

NOTE: Specifications and design subject to change without notice.

Tractor Model	6100D *[a]	6110D **[b]	6115D *[a]	6125D **[b]	6130D *[a]	6140D *[a]
ENGINE						
Engine Model	4045T	4045T	4045H	4045H	4045H	4045H
EPA Tier Level	1 PowerTech™[c]	0 PowerTech™[d]	3 PowerTech ™ E[e]	0 PowerTech™[d]	3 PowerTech ™ E[e]	3 PowerTech ™ E[e]
Engine Horsepower 97/68/EC ps[f] @ Rated Speed	72.7 kW (98.9 hp)	79 kW (106 hp)	87 kW (118.4 hp)	91.8 kW (123 hp)	95.4 kW (129.8 hp)	101.3 kW (137.8 hp)
Aspiration	Turbocharged	Turbocharged	Turbocharged, intercooled	Turbocharged, intercooled	Turbocharged, intercooled	Turbocharged, intercooled
PTO Horsepower (Factory Observed)	61.1 kW (82 hp)	67.1 kW (90 hp)	70.8 kW (95 hp)	78.3 kW (105 hp)	78.3 kW (105 hp)	85.8 kW (115 hp)
Rated Engine Speed	2100 rpm					
Cylinders	4					
Bore	106 mm (4.19 in.)					
Stroke	127 mm (5.0 in.)					
Displacement	4.5 L (276 cu in.)					
Compression	17.0:1	17.0:1	17.0:1	17.0:1	19.0:1	17.0:1
Firing Order	1-3-4-2					
Intake Valve Clearance	0.36 mm (0.014 in.)					
Exhaust Valve Clearance	0.46 mm (0.018 in.)					
Slow Idle (rpm)	850	850	900	850	900	900
Fast Idle (rpm)	2275	2275	2200	2275	2200	2200
Lubrication	Full pressure, full flow filtration					
FUEL AND AIR SYSTEM						
Fuel Injection Type	Rotary	Rotary	HPCR	Rotary	HPCR	HPCR
Injection Pump	Stanadyne	Stanadyne	Denso	Stanadyne	Denso	Denso
Governor	Mechanical	Mechanical	Electronic	Mechanical	Electronic	Electronic
Air Cleaner	Dry Type with Safety Element and Pre-Cleaner					
ELECTRICAL SYSTEM—12-VOLT, NEGATIVE GROUND						
Battery Model	925 CCA	550 CCA	925 CCA	550 CCA	925 CCA	925 CCA
Cold Cranking Amps	925	550	925	550	925	925
Reserve Capacity (minutes)	180	102	180	102	180	180
Battery BCI Group Size	31	27	31	27	31	31
Alternator Amperage	OOS: 70 Cab: 90					
7-Pin Connector	In Base					
TRANSMISSION						
Collar Shift Transmission (CTS)	N/A	In Base	N/A	In Base	N/A	N/A
Top Shaft Synchronizer (TSS)	Optional	Optional	Optional	Optional	Optional	N/A
PowrReverser™ (PRT)	In Base	N/A	In Base	N/A	In Base	In Base
Gears Forward	9					
Gears Reverse	WITHOUT PowrReverser: 3 WITH PowrReverser: 9					
Speed Ranges	3					
Clutch Type						
Mechanically Actuated Dry Clutch	Optional	In Base	Optional	In Base	Optional	N/A
Hydraulic Actuated Multi-Disk Wet Master Clutch	N/A	Optional	N/A	Optional	N/A	N/A
Hydraulic Actuated Multi-Disk Wet Master Clutch—PowrReverser Option	In Base	N/A	In Base	N/A	In Base	In Base

Continued on next page

Tractor Model	6100D *[a]	6110D **[b]	6115D *[a]	6125D **[b]	6130D *[a]	6140D *[a]
FRONT AXLE						
Non-Powered (2WD)	In Base	In Base	In Base	N/A	N/A	N/A
Mechanical Front Wheel Drive (MFWD)	Optional	Optional	Optional	In Base	In Base	In Base
BRAKES	Mechanically Actuated, Wet Disk					
POWER TAKE-OFF (PTO)						
Control	Independent					
Activation	Mechanical					
Size	35 mm (13/8 in.)					
540/1000 rpm Switchable, Rear	In Base					
Engine Speed	2100 rpm					
PTO Shield, Foldable	Optional					
HYDRAULIC SYSTEM						
Type	Open Center					
Pump General Specification	External Gear Pump					
Implement Pump	In Base					
Steering Pump	In Base					
Transmission Pump	Optional	Optional	Optional	Optional	Optional	Optional
Implement Pump Capacity (2100 rpm)	66.62 L/min (17.6 gpm)					
Implement Pump Flow at Idle Speed (900 rpm)	28.6 L/min (7.6 gpm)					
Maximum Pressure	19,500 kPa (2830 psi)					
Power Steering	Hydrostatic					
Steering Pump Capacity (2100 rpm)	26.3 L/min (6.9 gpm)					
Transmission Pump Capacity (2100 rpm)	26.3 L/min (6.9 gpm)					
Hitch Lift Capacity at Hitch Point	3469 kg (7649 lb)					
Hitch Lift Capacity at 610 mm (24 in.)	3150 kg (6946 lb)					
SELECTIVE CONTROL VALVE (SCV)						
One Standard SCV	N/A	In Base	N/A	In Base	N/A	N/A
Two Standard SCV	In Base	N/A	In Base	N/A	In Base	In Base
Three Deluxe SCV	Optional	Optional	Optional	Optional	Optional	Optional
THREE-POINT HITCH						
Type	Category II					
Fixed Draft Links	In Base					
Telescopic Draft Links	Optional	N/A	Optional	N/A	Optional	Optional
DRAIN AND REFILL CAPACITIES						
Fuel Tank	158 L (41.7 gal)					
Cooling System	16.5 L (17.4 qt)					
Crankcase, including filter	15 L (16 qt)					
Transmission Case	58 L (15.3 gal)					
MFWD Axle Housing	6.5 L (6.9 qt)					
MFWD Wheel Hub (Each Side)	2 L (2.1 qt)					
OPERATOR SEAT						
OOS						
Mexico Standard	N/A	In Base	N/A	In Base	N/A	N/A
Mexico Upgrade	N/A	Optional	N/A	Optional	N/A	N/A
Vinyl Seat, Mechanical Suspension with Operator Presence Switch	In Base	N/A	In Base	N/A	In Base	In Base
Cab						
Fabric Seat, Mechanical Suspension, Adjustable with Operator Presence Switch	In Base	In Base	In Base	In Base	In Base	In Base
Fabric Seat, Air Suspension, Adjustable with Operator Presence Switch	Optional	N/A	Optional	N/A	Optional	Optional

Continued on next page

PX03972,00009AA -19-10NOV10-2/3

Tractor Model	6100D *[a]	6110D **[b]	6115D *[a]	6125D **[b]	6130D *[a]	6140D *[a]
ADDITIONAL EQUIPMENT OPTIONS						
Mechanical Hand/Foot Throttle	In Base	In Base	N/A	In Base	N/A	N/A
Electronic Hand/Foot Throttle	N/A	N/A	In Base	N/A	In Base	In Base
Engine Block Heater	Optional					
Front Fenders (MFWD only)	Optional					
STEERING COLUMN						
Fixed (OOS)	N/A	In Base	N/A	In Base	N/A	N/A
Tilt/Telescoping—OOS	In Base	Optional	In Base	Optional	In Base	In Base
Tilt/Telescoping—Cab	In Base					

*[a] * North America - Canada*
*[b] ** Mexico - Central America*
[c] Tier 1 Emission certified (PowerTech) engines can be identified by letter "C, E or F" within the engine serial number. Example is PE4045CXXXXXX
[d] Tier 0 Non-certified (PowerTech) engines can be identified by letter "B" within the engine serial number. Example is PE4045BXXXXXX
[e] Tier 3 Emission certified (PowerTech E) engines can be identified by letter "L, M, N or P" within the engine serial number. Example is PE4045LXXXXXX
[f] Unit of German origin for horse strength similar to English "horse power"

PX03972,00009AA -19-10NOV10-3/3

Overall Dimensions and Weights

NOTE: Specifications and design subject to change without notice.

All dimensions are of a machine equipped with in base tires.

Tractor Model	6100D *[a]	6110D **[b]	6115D *[a]	6125D **[b]	6130D *[a]	6140D *[a]
DIMENSIONS						
Wheelbase—2WD	2350 mm (92.5 in.)	2350 mm (92.5 in.)	2350 mm (92.5 in.)	N/A	N/A	N/A
Wheelbase—MFWD	2350 mm (92.5 in.)	2350 mm (92.5 in.)	2350 mm (92.5 in.)	2350 mm (92.5 in.)	2350 mm (92.5 in.)	2350 mm (92.5 in.)
Overall Length—2WD	4280 mm (168.5 in.)	4280 mm (168.5 in.)	4280 mm (168.5 in.)	N/A	N/A	N/A
Overall Length—MFWD	4216 mm (166 in.)	4216 mm (166 in.)	4216 mm (166 in.)	4216 mm (166 in.)	4216 mm (166 in.)	4216 mm (166 in.)
Overall Width Flange-to-Flange	1829 mm (72 in.)	1829 mm (72 in.)	1829 mm (72 in.)	1829 mm (72 in.)	1829 mm (72 in.)	1829 mm (72 in.)
Overall Height (top of exhaust)	2692 mm (106 in.)	2692 mm (106 in.)	2692 mm (106 in.)	2692 mm (106 in.)	2692 mm (106 in.)	2692 mm (106 in.)
Ground-to-Cab Top	2731 mm (107.5 in.)	2731 mm (107.5 in.)	2731 mm (107.5 in.)	2731 mm (107.5 in.)	2731 mm (107.5 in.)	2731 mm (107.5 in.)
Rear Axle Centerline-to-Cab Top	1930 mm (76 in.)	1930 mm (76 in.)	1930 mm (76 in.)	1930 mm (76 in.)	1930 mm (76 in.)	1930 mm (76 in.)
GROUND CLEARANCE						
Front Axle						
2WD (10.00-16 tires)	597 mm (23.5 in.)	597 mm (23.5 in.)	597 mm (23.5 in.)	N/A	N/A	N/A
MFWD Front Differential	457 mm (18 in.)	457 mm (18 in.)	457 mm (18 in.)	457 mm (18 in.)	457 mm (18 in.)	457 mm (18 in.)
MFWD Output Gearbox	495 mm (19.5 in.)	495 mm (19.5 in.)	495 mm (19.5 in.)	495 mm (19.5 in.)	495 mm (19.5 in.)	495 mm (19.5 in.)
Rear Axle Housing						
With 18.4-34 tires	673 mm (26.5 in.)	673 mm (26.5 in.)	673 mm (26.5 in.)	673 mm (26.5 in.)	673 mm (26.5 in.)	673 mm (26.5 in.)
With 18.4-38 tires	711 mm (28 in.)	711 mm (28 in.)	711 mm (28 in.)	711 mm (28 in.)	711 mm (28 in.)	711 mm (28 in.)
Drawbar						
With 18.4-34 tires	457 mm (18 in.)	457 mm (18 in.)	457 mm (18 in.)	457 mm (18 in.)	457 mm (18 in.)	457 mm (18 in.)
With 18.4-38 tires	495 mm (19.5 in.)	495 mm (19.5 in.)	495 mm (19.5 in.)	495 mm (19.5 in.)	495 mm (19.5 in.)	495 mm (19.5 in.)
SHIPPING WEIGHT						
OOS						
2WD	3591 kg (7916 lb)				—	—
MFWD	3871 kg (8533 lb)					
Cab						
2WD	3700 kg (8200 lb)				—	—
MFWD	4259 kg (9389 lb)					
ADDITIONAL BALLAST						
Front Weight Support	84 kg (185 lb)					
Front Weights, 47 kg (104 lb) each, Maximum Number	18	18	18	18	18	18
Rear Weights, 55 kg (121.3 lb)	8	8	8	8	8	8

Continued on next page

% Front Weight (MFWD/Cab)	34%					
% Rear Weight (MFWD/Cab)	66%					
Roll-Over Protective Structure (ROPS) (OOS)						
Foldable	In Base	N/A	In Base	N/A	In Base	In Base
Fixed	Optional	In Base	Optional	In Base	Optional	Optional
TIRE SIZES						
2WD Front						
10.00-16	In Base	In Base	In Base	N/A	N/A	N/A
2WD Rear						
16.9-38		Optional				
18.4-34	In Base	In Base	In Base	N/A	N/A	N/A
18.4-38	Optional	Optional	Optional	N/A	N/A	N/A
MFWD Front						
13.6-24	In Base	In Base	In Base	N/A	In Base	In Base
14.9-24	Optional	Optional	Optional	In Base	Optional	Optional
MFWD Rear						
16.9-38	N/A	Optional	N/A	N/A	N/A	N/A
18.4-34	In Base	In Base	In Base	N/A	In Base	In Base
18.4-38	Optional	Optional	Optional	In Base	Optional	Optional

[a]* North America - Canada
[b]** Mexico - Central America

PX03972,00005D4 -19-06MAR09-2/2

Turning Radius—MFWD Axle

NOTE: All measurements are with 8-position wheels and without using brakes.

Tire Size		Tread	1516 mm (59.7 in.)	1616 mm (63.6 in.)	1720 mm (67.7 in.)	1820 mm (71.7 in.)	1915 mm (75.4 in.)	2016 mm (79.4 in.)
Without Front Fenders								
13.6-24	MFWD Off		4.7 m (15.3 ft)	4.4 m (14.3 ft)	4.2 m (13.7 ft)	4.2 m (13.9 ft)	4.3 m (14.0 ft)	4.3 m (14.1 ft)
13.6-24	MFWD On		5.1 m (16.8 ft)	4.8 m (15.8 ft)	4.7 m (15.5 ft)	4.8 m (15.7 ft)	4.8 m (15.8 ft)	5.0 m (16.4 ft)
With 400 mm (15.7 in.) Front Fenders								
13.6-24	MFWD Off		7.2 m (23.6 ft)	5.3 m (17.3 ft)	4.8 m (15.8 ft)	4.7 m (15.4 ft)	4.7 m (15.4 ft)	4.4 m (14.4ft)
13.6-24	MFWD On		7.7 m (25.2 ft)	5.9 m (19.2 ft)	5.3 m (17.4 ft)	5.0 m (16.5 ft)	5.1 m (16.8 ft)	4.9 m (16.1 ft)
Without Front Fenders								
14.9-24	MFWD Off		4.8 m (15.6 ft)	4.4 m (14.3 ft)	4.1 m (13.5 ft)	4.2 m (13.8 ft)	4.2 m (13.7 ft)	4.4 m (14.4 ft)
14.9-24	MFWD On		5.2 m (16.9 ft)	4.7 m (15.5 ft)	4.5 m (14.8 ft)	4.7 m (15.4 ft)	4.6 m (15.1 ft)	4.7 m (15.3 ft)
With 400 mm (15.7 in.) Front Fenders								
14.9-24	MFWD Off		7.0 m (23.1 ft)	5.3 m (17.5 ft)	4.8 m (15.6 ft)	4.6 m (15.2 ft)	4.6 m (15.1 ft)	4.4 m (14.3 ft)
14.9-24	MFWD On		7.2 m (23.5 ft)	5.5 m (18.1 ft)	5.0 m (16.6 ft)	5.0 m (16.3 ft)	4.9 m (16.0 ft)	4.7 m (15.5 ft)

NS43404,0000534 -19-18APR08-1/1

Turning Radius—2WD Axle

Tread: 1635 mm (64.4 in.)	
Front Tire Size: 10.00-16, 6PR F2	
Brakes Applied: 2134 mm (7 ft)	No Brakes: 2896 mm (9.50 ft)

NS43404,0000536 -19-25JAN08-1/1

Ground Speeds—Collar Shift (CST) or Top Shaft Synchronized (TSS) Transmission

18.4-34 Rear Tires			
Range	**Gear**	**km/h**	**mph**
A	1	2.8	1.7
A	2	3.9	2.4
A	3	5.0	3.1
B	1	6.6	4.1
B	2	9.2	5.7
B	3	11.8	7.3
C	1	16.0	9.9
C	2	22.0	13.7
C	3	28.3	17.6
A	R	4.7	2.9
B	R	11.1	6.9
C	R	26.6	16.5

18.4-38 Rear Tires			
Range	**Gear**	**km/h**	**mph**
A	1	3	1.9
A	2	4.2	2.6
A	3	5.3	3.3
B	1	7.1	4.4
B	2	9.8	6.1
B	3	12.6	7.8
C	1	17.0	10.6
C	2	23.5	14.6
C	3	30.2	18.8
A	R	5.0	3.1
B	R	11.8	7.3
C	R	28.3	17.6

NS43404,0000537 -19-07APR08-1/1

Ground Speeds—PowrReverser™ Transmission (PRT)

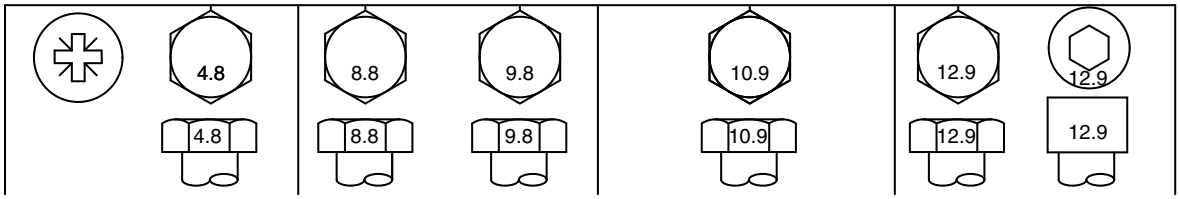
18.4-34 Rear Tires				
PowrReverser Lever	**Range**	**Gear**	**km/h**	**mph**
F	A	1	2.8	1.7
F	A	2	3.9	2.4
F	A	3	5.0	3.1
F	B	1	6.6	4.1
F	B	2	9.2	5.7
F	B	3	11.8	7.3
F	C	1	16.0	9.9
F	C	2	22.0	13.7
F	C	3	28.3	17.6
R	A	1	2.9	1.8
R	A	2	4.0	2.5
R	A	3	5.2	3.2
R	B	1	6.9	4.3
R	B	2	9.5	5.9
R	B	3	12.2	7.6
R	C	1	16.5	10.3
R	C	2	22.8	14.2
R	C	3	29.3	18.2

18.4-38 Rear Tires				
PowrReverser Lever	**Range**	**Gear**	**km/h**	**mph**
F	A	1	3	1.9
F	A	2	4.2	2.6
F	A	3	5.3	3.3
F	B	1	7.1	4.4
F	B	2	9.8	6.1
F	B	3	12.6	7.8
F	C	1	17.0	10.6
F	C	2	23.5	14.6
F	C	3	30.2	18.8
R	A	1	3.1	1.9
R	A	2	4.3	2.7
R	A	3	5.5	3.4
R	B	1	7.3	4.6
R	B	2	10.1	6.3
R	B	3	13.0	8.1
R	C	1	17.6	10.9
R	C	2	24.3	15.1
R	C	3	31.2	19.4

NS43404,0000569 -19-07APR08-1/1

Metric Bolt and Screw Torque Values

TS1670 —UN—01MAY03



Bolt or	Class 4.8				Class 8.8 or 9.8				Class 10.9				Class 12.9			
Screw	Lubricated[a]		Dry[b]		Lubricated[a]		Dry[b]		Lubricated[a]		Dry[b]		Lubricated[a]		Dry[b]	
Size	N·m	lb.-in.	N·m	lb.-in.	N·m	lb.-in.	N·m	lb.-in.	N·m	lb.-in.	N·m	lb.-in.	N·m	lb.-in.	N·m	lb.-in.
M6	4.7	42	6	53	8.9	79	11.3	100	13	115	16.5	146	15.5	137	19.5	172
									N·m	lb.-ft.	N·m	lb.-ft.	N·m	lb.-ft.	N·m	lb.-ft.
M8	11.5	102	14.5	128	22	194	27.5	243	32	23.5	40	29.5	37	27.5	47	35
			N·m	lb.-ft.	N·m	lb.-ft.	N·m	lb.-ft.								
M10	23	204	29	21	43	32	55	40	63	46	80	59	75	55	95	70
	N·m	lb.-ft.														
M12	40	29.5	50	37	75	55	95	70	110	80	140	105	130	95	165	120
M14	63	46	80	59	120	88	150	110	175	130	220	165	205	150	260	190
M16	100	74	125	92	190	140	240	175	275	200	350	255	320	235	400	300
M18	135	100	170	125	265	195	330	245	375	275	475	350	440	325	560	410
M20	190	140	245	180	375	275	475	350	530	390	675	500	625	460	790	580
M22	265	195	330	245	510	375	650	480	725	535	920	680	850	625	1080	800
M24	330	245	425	315	650	480	820	600	920	680	1150	850	1080	800	1350	1000
M27	490	360	625	460	950	700	1200	885	1350	1000	1700	1250	1580	1160	2000	1475
M30	660	490	850	625	1290	950	1630	1200	1850	1350	2300	1700	2140	1580	2700	2000
M33	900	665	1150	850	1750	1300	2200	1625	2500	1850	3150	2325	2900	2150	3700	2730
M36	1150	850	1450	1075	2250	1650	2850	2100	3200	2350	4050	3000	3750	2770	4750	3500

Torque values listed are for general use only, based on the strength of the bolt or screw. DO NOT use these values if a different torque value or tightening procedure is given for a specific application. For stainless steel fasteners or for nuts on U-bolts, see the tightening instructions for the specific application. Tighten plastic insert or crimped steel type lock nuts by turning the nut to the dry torque shown in the chart, unless different instructions are given for the specific application.

Shear bolts are designed to fail under predetermined loads. Always replace shear bolts with identical property class. 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 fastener threads are clean and that you properly start thread engagement. When possible, lubricate plain or zinc plated fasteners other than lock nuts, wheel bolts or wheel nuts, unless different instructions are given for the specific application.

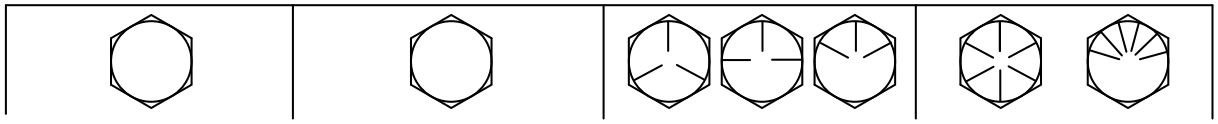
[a] *"Lubricated" means coated with a lubricant such as engine oil, fasteners with phosphate and oil coatings, or M20 and larger fasteners with JDM F13C zinc flake coating.*

[b] *"Dry" means plain or zinc plated without any lubrication, or M6 to M18 fasteners with JDM F13B zinc flake coating.*

DX,TORQ2 -19-08DEC09-1/1

Unified Inch Bolt and Screw Torque Values

TS1671 —UN—01MAY03



Bolt or	SAE Grade 1				SAE Grade 2[a]				SAE Grade 5, 5.1 or 5.2				SAE Grade 8 or 8.2			
Screw	Lubricated[b]		Dry[c]		Lubricated[b]		Dry[c]		Lubricated[b]		Dry[c]		Lubricated[b]		Dry[c]	
Size	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	3.7	33	4.7	42	6	53	7.5	66	9.5	84	12	106	13.5	120	17	150
													N·m	lb.-ft.	N·m	lb.-ft.
5/16	7.7	68	9.8	86	12	106	15.5	137	19.5	172	25	221	28	20.5	35	26
									N·m	lb.-ft.	N·m	lb.-ft.				
3/8	13.5	120	17.5	155	22	194	27	240	35	26	44	32.5	49	36	63	46
			N·m	lb.-ft.	N·m	lb.-ft.	N·m	lb.-ft.								
7/16	22	194	28	20.5	35	26	44	32.5	56	41	70	52	80	59	100	74
	N·m	lb.-ft.														
1/2	34	25	42	31	53	39	67	49	85	63	110	80	120	88	155	115
9/16	48	35.5	60	45	76	56	95	70	125	92	155	115	175	130	220	165
5/8	67	49	85	63	105	77	135	100	170	125	215	160	240	175	305	225
3/4	120	88	150	110	190	140	240	175	300	220	380	280	425	315	540	400
7/8	190	140	240	175	190	140	240	175	490	360	615	455	690	510	870	640
1	285	210	360	265	285	210	360	265	730	540	920	680	1030	760	1300	960
1-1/8	400	300	510	375	400	300	510	375	910	670	1150	850	1450	1075	1850	1350
1-1/4	570	420	725	535	570	420	725	535	1280	945	1630	1200	2050	1500	2600	1920
1-3/8	750	550	950	700	750	550	950	700	1700	1250	2140	1580	2700	2000	3400	2500
1-1/2	990	730	1250	930	990	730	1250	930	2250	1650	2850	2100	3600	2650	4550	3350

Torque values listed are for general use only, based on the strength of the bolt or screw. DO NOT use these values if a different torque value or tightening procedure is given for a specific application. For plastic insert or crimped steel type lock nuts, for stainless steel fasteners, or for nuts on U-bolts, see the tightening instructions for the specific application. Shear bolts are designed to fail under predetermined loads. Always replace shear bolts with identical grade.

Replace fasteners with the same or higher grade. If higher grade fasteners are used, tighten these to the strength of the original. Make sure fastener threads are clean and that you properly start thread engagement. When possible, lubricate plain or zinc plated fasteners other than lock nuts, wheel bolts or wheel nuts, unless different instructions are given for the specific application.

[a] Grade 2 applies for hex cap screws (not hex bolts) up to 6. in (152 mm) long. 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] "Lubricated" means coated with a lubricant such as engine oil, fasteners with phosphate and oil coatings, or 7/8 in. and larger fasteners with JDM F13C zinc flake coating.

[c] "Dry" means plain or zinc plated without any lubrication, or 1/4 to 3/4 in. fasteners with JDM F13B zinc flake coating.

DX,TORQ1 -19-08DEC09-1/1

Limited Battery Warranty

NOTE: Applicable in North America only. For complete machine warranty, reference a copy of the John Deere warranty statement. Contact your John Deere dealer to obtain a copy.

To Secure Warranty Service

The purchaser must request warranty service from a John Deere dealer authorized to sell John Deere batteries, and present the battery to the dealer with the top cover plate codes intact.

Free Replacement

Any new battery which becomes unserviceable (not merely discharged) due to defects in material or workmanship within 90 days of purchase will be replaced free of charge. Installation costs will be covered by warranty if (1) the unserviceable battery was installed by a John Deere factory or dealer, (2) failure occurs within 90 days of purchase, and (3) the replacement battery is installed by a John Deere dealer.

Pro Rata Adjustment

Any new battery which becomes unserviceable (not merely discharged) due to defects in material or workmanship more than 90 days after purchase, but before the expiration of the applicable adjustment period, will be replaced upon payment of the battery's current list price less a pro rata credit for unused months of service. The applicable adjustment period is determined from the Warranty Code printed at the top of the battery and chart below. Installation costs are not covered by warranty after 90 days from the date of purchase.

This Warranty Does Not Cover

Breakage of the container, cover, or terminals.

Depreciation or damage caused by lack of reasonable and necessary maintenance or by improper maintenance.

Transportation, mailing, or service call charges for warranty service.

Limitation of Implied Warranties and Purchaser's Remedies

To the extent permitted by law, neither John Deere nor any company affiliated with it makes any warranties, representations or promises as to the quality, performance or freedom from defect of the products covered by this warranty. IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, TO THE EXTENT APPLICABLE, SHALL BE LIMITED IN DURATION TO THE APPLICABLE ADJUSTMENT PERIOD SET FORTH HERE. THE PURCHASER'S ONLY REMEDIES IN CONNECTION WITH THE BREACH OR PERFORMANCE OF ANY WARRANTY ON JOHN DEERE BATTERIES ARE THOSE SET FORTH HERE. IN NO EVENT WILL THE DEALER, JOHN DEERE OR ANY COMPANY AFFILIATED WITH JOHN DEERE BE LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES. (Note: Some states do not allow limitations on how long an implied warranty lasts or the exclusion or limitation of incidental or consequential damages. So these limitations and exclusions may not apply to you.) This warranty gives you specific legal rights, and you may also have some rights which vary from state to state.

No Dealer Warranty

The selling dealer makes no warranty of it's own and the dealer has no authority to make any representation or promise on behalf of John Deere, or to modify the terms or limitations of this warranty in any way.

Pro Rata Months of Adjustment

Warranty Code	Warranty Period
A	40 Months
B	36 Months
C	24 Months

NOTE: If your battery is not labeled with a warranty code, it is a warranty code "B".

DX,BATWAR,NA -19-16APR92-1/1

Identification Numbers

Identification Numbers

Each tractor has the identification plates/labels shown. The letters and numbers on the plates/labels identify a component or assembly. ALL these characters are needed when ordering parts or identifying a tractor or component for any John Deere product support program. They are also needed for law enforcement to trace your tractor if it is ever stolen. ACCURATELY record these characters in the spaces provided.

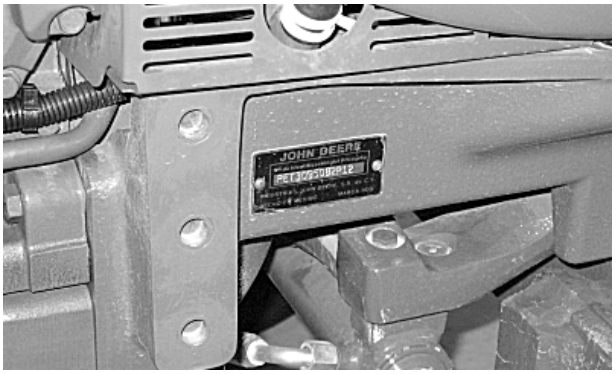
NS43404,000053A -19-22JAN08-1/1

Product Identification Number

Product identification number (PIN) plate is located on the right-hand side of front support.

Record serial number below.

Tractor Serial Number _____



P14821 —UN—09NOV07

PX03972,0000552 -19-17DEC08-1/1

MFWD Axle Serial Number (If Equipped)

Serial number plate is located on rear side of left-hand axle housing.

Record serial number below.

MFWD Axle Serial Number _____

P14822 —UN—09NOV07

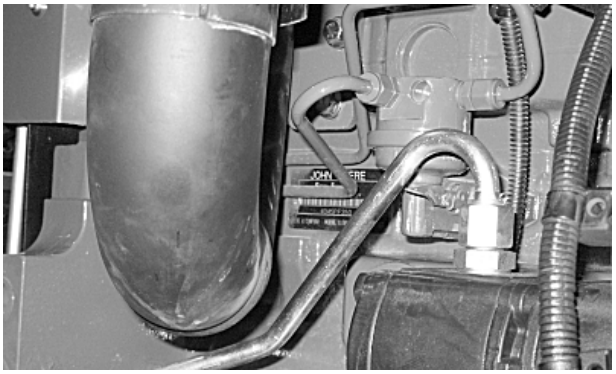
NS43404,0000551 -19-24JAN08-1/1

Engine Serial Number

Serial number plate is located on the right-hand side of the engine block.

Record serial number below.

Engine Serial Number _____



P14823 —UN—09NOV07

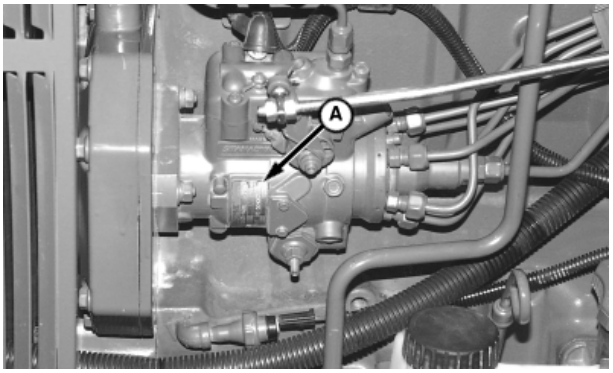
NS43404,0000552 -19-24JAN08-1/1

Fuel Injection Pump Serial Number

Serial number plate (A) is located on the side of pump.

Record serial number below.

Fuel Injection Pump Serial Number _____



P9675 —UN—18OCT00

6100D/6110D/6125D Shown

OUMX005,0002904 -19-24JAN08-1/1

Transaxle Serial Number

Transaxle (drive train) serial number plate is located at the rear of the machine, behind left-hand brake linkage.

Record serial number below.

Transaxle Serial Number _____

P14827 —UN—09NOV07

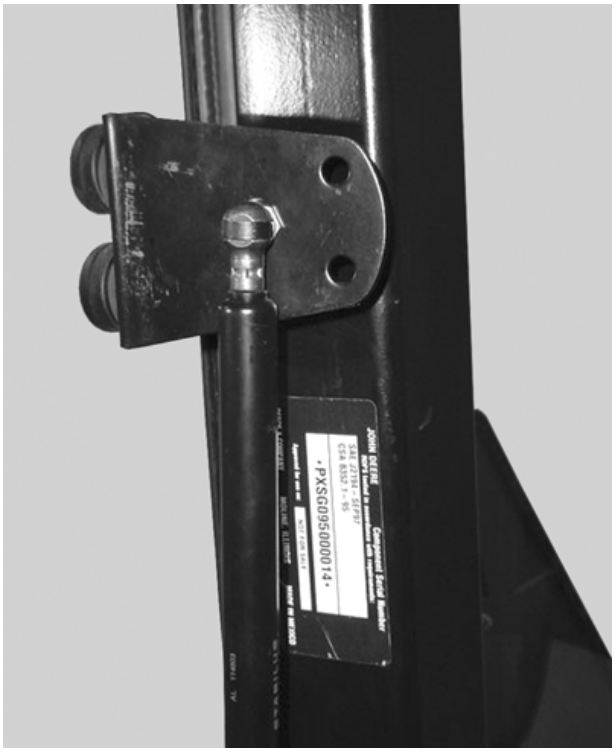
NS43404,0000553 -19-24JAN08-1/1

Cab Serial Number

Serial number is located on rear left-hand post.

Record serial number below.

Cab Serial Number _____



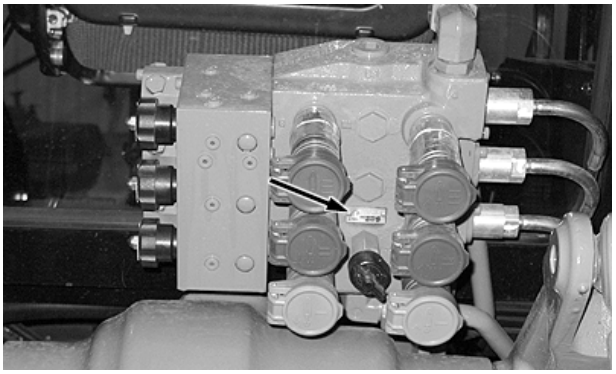
P12688 —UN—24NOV03

NS43404,0000554 -19-24JAN08-1/1

Selective Control Valve (SCV) Serial Number

Record serial number below.

SCV Serial Number _____



P15196 —UN—23JAN08

OUMX005,0002907 -19-24JAN08-1/1

Keep Proof of Ownership

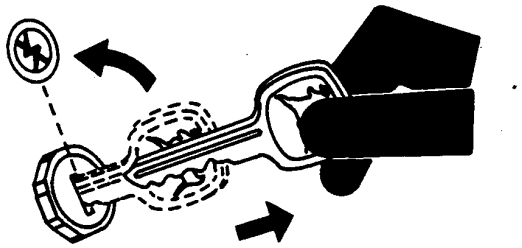
1. Maintain in a secure location an up-to-date inventory of all product and component serial numbers.
2. Regularly verify that identification plates have not been removed. Report any evidence of tampering to law enforcement agencies and order duplicate plates.
3. Other steps you can take:
   - Mark your machine with your own numbering system
   - Take color photographs from several angles of each machine

TS1680 —UN—09DEC03

DX,SECURE1 -19-18NOV03-1/1

Keep Machines Secure

1. Install vandal-proof devices.
2. When machine is in storage:
   - Lower equipment to the ground
   - Set wheels to widest position to make loading more difficult
   - Remove any keys and batteries
3. When parking indoors, put large equipment in front of exits and lock your storage buildings.
4. When parking outdoors, store in a well-lighted and fenced area.
5. Make note of suspicious activity and report any thefts immediately to law enforcement agencies.
6. Notify your John Deere dealer of any losses.



TS230 —UN—24MAY89

DX,SECURE2 -19-18NOV03-1/1

Lubrication and Maintenance Records

Daily / 10 Hour Service Record

- Check engine oil level
- Check coolant level
- Drain water from fuel filters
- Check transmission-hydraulic system oil level
- Lubricate steering linkage [1]
- Lubricate front axle pivot pins [1]

Hours					Hours				
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[1] *Only necessary in extremely wet or muddy conditions*

OUMX005,0002938 -19-11FEB08-1/1

Weekly / 50 Hour Service Record

- Clean and check battery
- Inspect all tires
- Lubricate front axle pivot pins
- Lubricate steering linkage
- Lubricate rear axle bearings [1]
- Lubricate MFWD axle shaft
- Inspect tractor for loose hardware
- Check and adjust clutch pedal free travel

Hours					Hours				
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[1] *Only necessary in extremely wet or muddy conditions*

NS43404,0000540 -19-11FEB08-1/1

First 100 Hour Service Record

☐ Replace transmission-hydraulic oil filter
☐ Change engine oil and filter
☐ Change MFWD axle and wheel hub oil

Date: ____________________

Hours: ____________________

OUMX005,0002939 -19-12NOV08-1/1

250 Hour Service Record

- Inspect engine air intake filters
- Check oil level in MFWD axle and wheel hubs
- Inspect alternator/fan belt
- Lubricate 3-point hitch
- Inspect and clean fuel tank vent
- Drain water from fuel tank
- Check neutral start system
- Check and adjust brake pedal free travel
- Inspect ROPS/Cab mounting hardware
- Clean cab air filters
- Change engine oil and filter [1]

Hours					Hours				
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[1]When using any lubricant other than TorqGARD or PLUS 50, service interval is 250 hours.

OUMX005,0002905 -19-14FEB08-1/1

500 Hour Service Record

- Change engine oil and filter [1]
- Replace fuel filters
- Replace transmission-hydraulic oil filter
- Lubricate front wheel bearings (2WD axle)
- Check and tighten all hoses and hose clamps
- Check cooling system for leaks
- Lubricate rear axle bearings
- Check engine idle speed
- Inspect air intake hose, turbo air cooler pipes and hose clamps
- Clean cab air filters

Hours					Hours				
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[1]When using John Deere TorqGARD or PLUS 50 lubricant and filter, service interval is 500 hours

OUMX005,0002906 -19-14FEB08-1/1

1000 Hour Service Record

- Change transmission-hydraulic oil and filter
- Change MFWD axle and wheel hub oil
- Clean engine crankcase vent tube

Hours					Hours				
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NS43404,0000541 -19-11FEB08-1/1

Annual Service Record

- Change engine oil and filter
- Replace engine air intake filters
- Inspect seat belt

Hours					Hours				
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NS43404,0000542 -19-11FEB08-1/1

2000 Hour / Two Year Service Record

- Drain, flush and refill engine cooling system[1]
- Adjust engine valve clearance (See your John Deere dealer)

Hours					Hours				
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[1]Can be extended to 5000 hours or 5 years if John Deere COOL-GARD is used.

NS43404,0000543 -19-11FEB08-1/1

5000 Hour / Five Year Service Record

- Drain, flush and refill engine cooling system[1]
- Test or replace thermostat
- Replace crankshaft vibration damper (See your John Deere dealer)

Hours					Hours				
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[1]If John Deere COOL-GARD is used.

OUMX005,000293A -19-12FEB08-1/1

As Required Service Record

- Adjust hand throttle friction
- Inspect engine air cleaner elements
- Check engine air intake system
- Clean front grille, side screens, radiator, condenser (cab) and oil, fuel or air coolers (if equipped)
- Bleed fuel system (See your John Deere dealer)
- Clean and check battery
- Charge battery
- Lubricate operator seat slide rails
- Lubricate hood latch
- Replace bulbs; floodlights, headlights, tail/turn lights and warning lights
- Adjust headlights

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NS43404,0000544 -19-17JUN09-1/1

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John Deere Service Literature Available

Technical Information

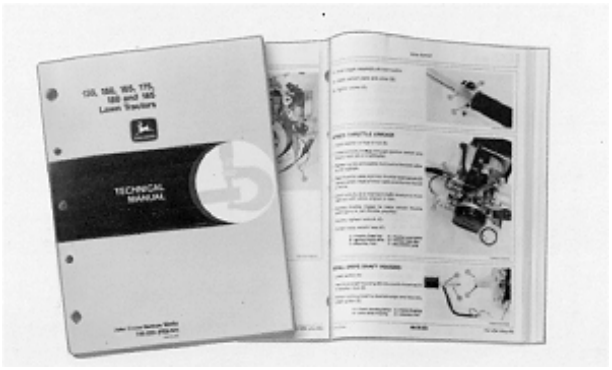
Technical information can be purchased from John Deere. Some of this information is available in electronic media, such as CD-ROM disks, and in printed form. There are many ways to order. Contact your John Deere dealer. Call **1-800-522-7448** to order using a credit card. Search online from http://www.JohnDeere.com. Please have available the model number, serial number, and name of the product.

Available information includes:

- PARTS CATALOGS list service parts available for your machine with exploded view illustrations to help you identify the correct parts. It is also useful in assembling and disassembling.
- OPERATOR'S MANUALS providing safety, operating, maintenance, and service information. These manuals and safety signs on your machine may also be available in other languages.
- OPERATOR'S VIDEO TAPES showing highlights of safety, operating, maintenance, and service information. These tapes may be available in multiple languages and formats.
- TECHNICAL MANUALS outlining service information for your machine. Included are specifications, illustrated assembly and disassembly procedures, hydraulic oil flow diagrams, and wiring diagrams. Some products have separate manuals for repair and diagnostic information. Some components, such as engines, are available in separate component technical manuals
- FUNDAMENTAL MANUALS detailing basic information regardless of manufacturer:
  - Agricultural Primer series covers technology in farming and ranching, featuring subjects like computers, the Internet, and precision farming.
  - Farm Business Management series examines "real-world" problems and offers practical solutions in the areas of marketing, financing, equipment selection, and compliance.
  - Fundamentals of Services manuals show you how to repair and maintain off-road equipment.
  - Fundamentals of Machine Operation manuals explain machine capacities and adjustments, how to improve machine performance, and how to eliminate unnecessary field operations.

TS189 —UN—17JAN89

TS191 —UN—02DEC88



TS224 —UN—17JAN89

TS1663 —UN—10OCT97

DX,SERVLIT -19-31JUL03-1/1

John Deere Service Keeps You On The Job

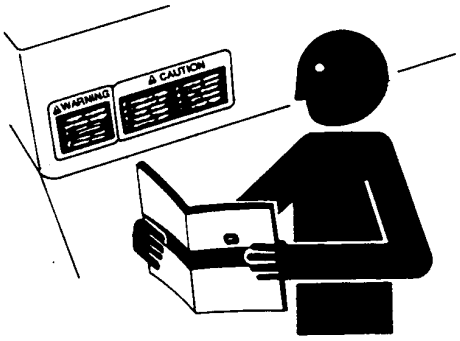
John Deere Is At Your Service

CUSTOMER SATISFACTION is important to John Deere.

Our dealers strive to provide you with prompt, efficient parts and service:

–Maintenance and service parts to support your equipment.

–Trained service technicians and the necessary diagnostic and repair tools to service your equipment.



TS201—UN—23AUG88

CUSTOMER SATISFACTION PROBLEM RESOLUTION PROCESS

Your John Deere dealer is dedicated to supporting your equipment and resolving any problem you may experience.

1. When contacting your dealer, be prepared with the following information:

–Machine model and product identification number

–Date of purchase

–Nature of problem

2. Discuss problem with dealer service manager.

3. If unable to resolve, explain problem to dealership manager and request assistance.

4. If you have a persistent problem your dealership is unable to resolve, ask your dealer to contact John Deere for assistance. Or contact the Ag Customer Assistance Center at 1-866-99DEERE (866-993-3373) or e-mail us at www.deere.com/en_US/ag/contactus/.

DX,IBC,2 -19-02APR02-1/1