5065M and 5075M (IT4), 5085M, 5095M, 5095MH, 5105M and 5105ML (Tier 3) Tractors Operator's Manual (North American, April 2010)

JOHN DEERE

OPERATOR'S MANUAL

5065M and 5075M (IT4), 5085M, 5095M, 5095MH, 5105M and 5105ML (Tier 3) Tractors (North American, April 2010)

OMSJ10032 ISSUE L3 (ENGLISH)

CALIFORNIA

Proposition 65 Warning

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

If this product contains a gasoline engine:

⚠ WARNING

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

The State of California requires the above two warnings.

John Deere Augusta Works
North American Edition
Printed in U.S.A.

Introduction

Foreword

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

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

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

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

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

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

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

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

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

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

Required Emission-Related Information

Service Provider

A repair shop or person of the owner's choosing may maintain, replace, or repair emission control devices and systems with original or equivalent replacement parts. However, warranty, recall, and all other services paid for by John Deere must be performed at an authorized John Deere service center.

DX,EMISSIONS,REQINFO-19-08DEC23-1/1

Identification Views

Deluxe Open Operator's Station

PULV000185—UN—12DEC07

Low Profile Open Operator's Station

PULV004902—UN—04JUN09

Continued on next page

Cab

PULV004590—UN—02JUL09

SH20560,0000373-19-06JUL09-2/2

Contents

Continued on next page

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

Continued on next page

Recognize Safety Information

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

Follow recommended precautions and safe operating practices.

T81389—UN—28JUN13

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

Understand Signal Words

TS187—19—30SEP88

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

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

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

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

DX,SIGNAL-19-05OCT16-1/1

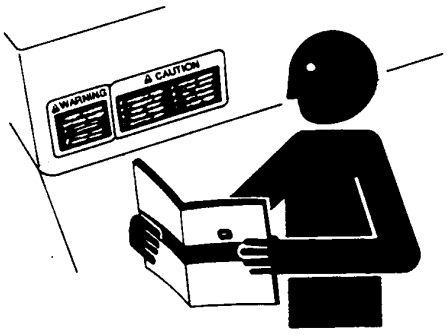
Follow Safety Instructions

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

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

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

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



TS201—UN—15APR13

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

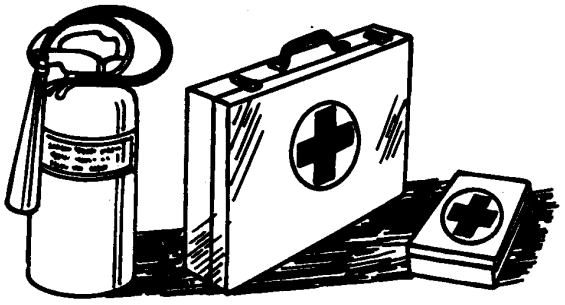
DX,READ-19-01AUG22-1/1

Prepare for Emergencies

Be prepared if a fire starts.

Keep a first aid kit and fire extinguisher handy.

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



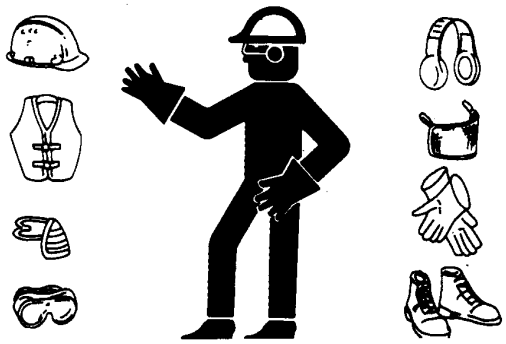
TS291—UN—15APR13

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

Wear Protective Clothing

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

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



TS206—UN—15APR13

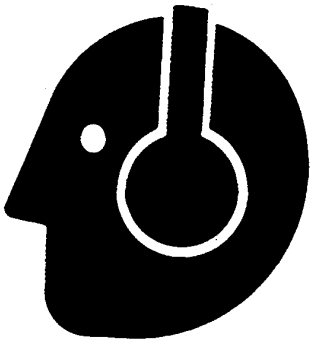
DX,WEAR2-19-03MAR93-1/1

Protect Against Noise

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

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

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



TS207—UN—23AUG88

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

Handle Fuel Safely—Avoid Fires

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

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

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

Use only an approved fuel container for transporting flammable liquids.

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

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

TS202—UN—23AUG88

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

Handle Starting Fluid Safely

Starting fluid is highly flammable.

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

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

Do not incinerate or puncture a starting fluid container.

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

TS1356—UN—18MAR92

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

Fire Prevention

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

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

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

DX,WW,TRACTOR,FIRE,PREVENTION-19-12OCT11-1/1

In Case of Fire

CAUTION: Avoid personal injury.

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

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

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

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

TS227—UN—15APR13

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

DX,FIRE4-19-22AUG13-1/1

Avoid Static Electricity Risk When Refueling

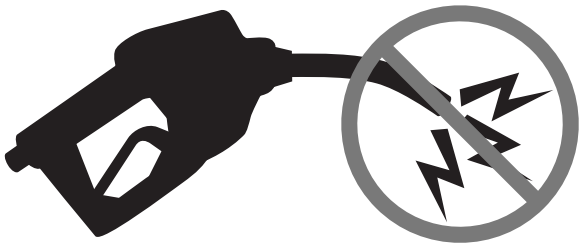
The removal of sulfur and other compounds in Ultra-Low Sulfur Diesel (ULSD) fuel decreases its conductivity and increases its ability to store a static charge.

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

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

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

RG22142—UN—17MAR14



RG21992—UN—21AUG13

DX,FUEL,STATIC,ELEC-19-12JUL13-1/1

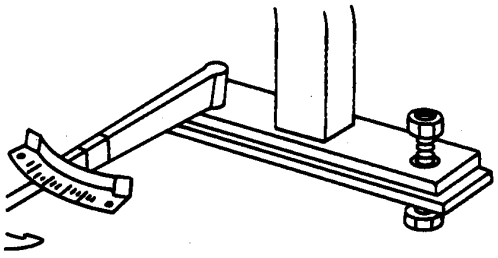
Keep ROPS Installed Properly

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

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

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

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



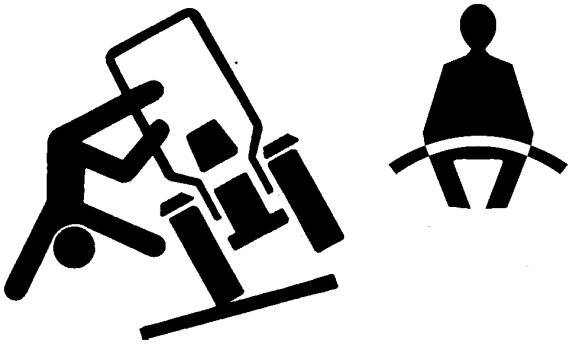
TS212—UN—23AUG88

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

Use Foldable ROPS and Seat Belt Properly

Avoid crushing injury or death during rollover.

- If this machine is equipped with a foldable rollover protective structure (ROPS), keep the ROPS in the fully extended and locked position. USE a seat belt when you operate with a ROPS in the fully extended position.
  - Hold the latch and pull the seat belt across the body.
  - Insert the latch into the buckle. Listen for a click.
  - Tug on the seat belt to make sure that the belt is securely fastened.
  - Snug the seat belt across the hips.
- If this machine is operated with the ROPS folded (for example, to enter a low building), drive with extreme caution. DO NOT USE a seat belt with the ROPS folded.
- Return the ROPS to the raised, fully extended position as soon as the machine is operated under normal conditions.



TS1729—UN—24MAY13

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

Stay Clear of Rotating Drivelines

Entanglement in rotating driveline can cause serious injury or death.

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

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

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

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

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

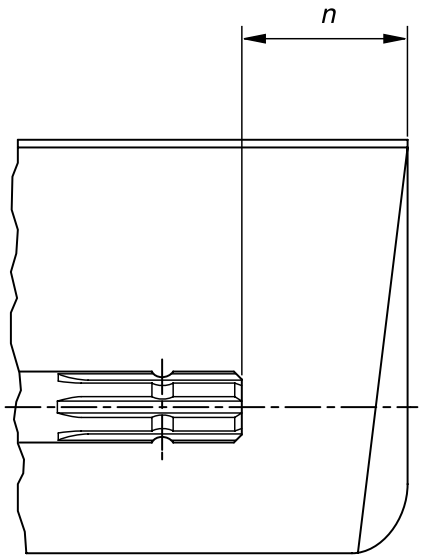
The angle at which the primary implement PTO driveshaft can be inclined may be reduced depending on the shape and size of the tractor master shield and the shape and size of the guard of the primary implement PTO driveshaft.

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

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

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

TS1644—UN—22AUG95



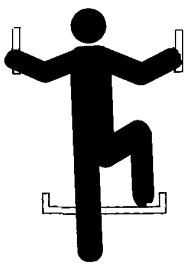
H96219—UN—29APR10

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

Use Steps and Handholds Correctly

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

Use extra care when mud, snow, or moisture present slippery conditions. Keep steps clean and free of grease or oil. Never jump when exiting machine. Never mount or dismount a moving machine.



T133468—UN—15APR13

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

Read Operator's Manuals for ISOBUS Controllers

In addition to GreenStar™ Applications, this display can be used as a display device for any ISOBUS Controller that meets ISO 11783 standard. This includes capability to control ISOBUS implements. When used in this manner, information and control functions placed on the display are provided by the ISOBUS Controller and are the responsibility of the ISOBUS Controller manufacturer.

GreenStar is a trademark of Deere & Company

Some of these functions could pose a hazard to either the operator or a bystander. Read the Operator's Manual provided by the ISOBUS Controller manufacturer and observe all safety messages in manual and on ISOBUS Controller product prior to use.

NOTE: ISOBUS refers to the ISO Standard 11783

DX,WW,ISOBUS-19-15JUL15-1/1

Use Seat Belt Properly

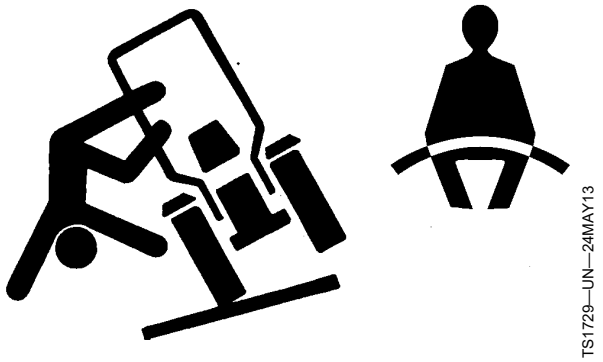
Avoid crushing injury or death during rollover.

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

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

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

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



TS1729—UN—24MAY13

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

Operating the Tractor Safely

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

- Use your tractor only for jobs it was designed to perform, for example, pushing, pulling, towing, actuating, and carrying a variety of interchangeable equipment designed to conduct agricultural work.
- Operators must be mentally and physically capable of accessing the operator's station and/or controls, and operating the machine properly and safely.
- Never operate machine when distracted, fatigued, or impaired. Proper machine operation requires the operator's full attention and awareness.
- This tractor is not intended to be used as a recreational vehicle.
- Read this operator's manual before operating the tractor and follow operating and safety instructions in the manual and on the tractor.
- Follow operation and ballasting instructions found in the operator's manual for your implements/attachments, such as front loaders.
- Follow the instructions outlined in the operator's manual of any mounted or trailed machinery or trailer. Do not operate a combination of tractor-machine or tractor-trailer unless all instructions have been followed.
- Make sure that everyone is clear of machine, attached equipment, and work area before starting engine or operation.
- Stay clear of the three-point linkage and pickup hitch (if equipped) when controlling them.
- Keep hands, feet, and clothing away from power-driven parts.

Driving Concerns

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

Heated and Ventilated Operator's Seat

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

Towing Loads

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

Parking and Leaving the Tractor

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

Common Accidents

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

The most common accidents involving tractors are:

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

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

Avoid Backover Accidents

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

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

PC10857XW—UN—15APR13

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

Limited Use in Forestry Operation

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

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

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

Operating the Loader Tractor Safely

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

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

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

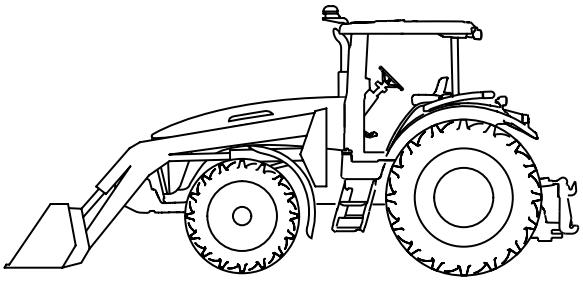
Never allow anyone to walk or work under a raised loader.

Do not use loader as a work platform.

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

Lower loader to ground before leaving operators station.

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



TS1692—UN—09NOV09

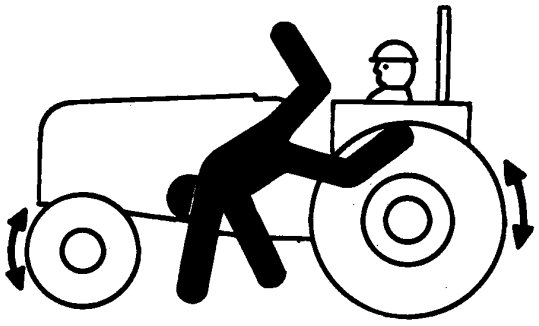
Ballast tractor in accordance to Ballast Recommendations in PREPARE TRACTOR section.

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

Keep Riders Off Machine

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

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



TS290—UN—23AUG88

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

Instructional Seat

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

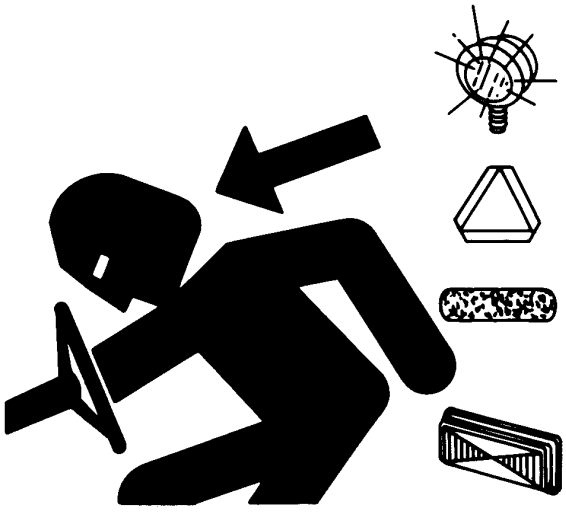
TS1730—UN—24MAY13

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

Use Safety Lights and Devices

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

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



TS951—UN—12APR90

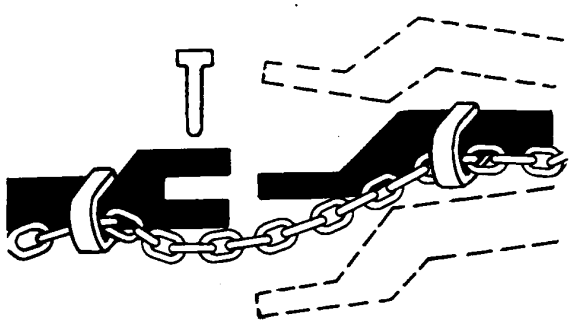
DX,FLASH-19-07JUL99-1/1

Use a Safety Chain

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

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

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



TS217—UN—23AUG88

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

Transport Towed Equipment at Safe Speeds

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

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

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

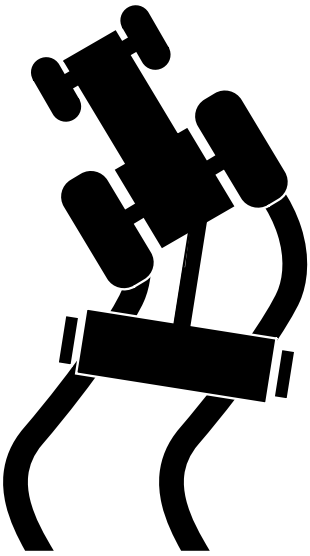
Implements shall be equipped with brakes if the maximum fully loaded weight is greater than 1500 kg (3307 lbs) and greater than 1.5 times the weight of the towing unit.

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

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

Implements with brakes:

- If the manufacturer does not specify a maximum transport speed, do not tow at speeds greater than 40 km/h (25 mph).



TS1686—UN—27SEP06

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

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

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

Use Caution on Slopes, Uneven Terrain, and Rough Ground

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

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

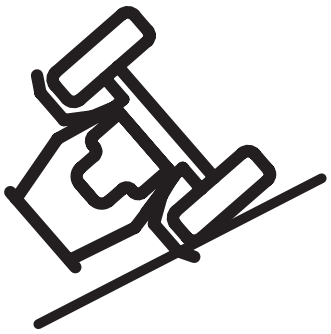
Danger of overturn increases greatly with narrow tread setting, at high speed.

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

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

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

Never drive near the edge of a gully, drop-off, ditch, steep embankment, or a body of water. The machine could



RXA0103437—UN—01JUL09

suddenly roll over if a wheel goes over the edge or the ground caves in

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

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

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

DX,WW,SLOPE-19-28FEB17-1/1

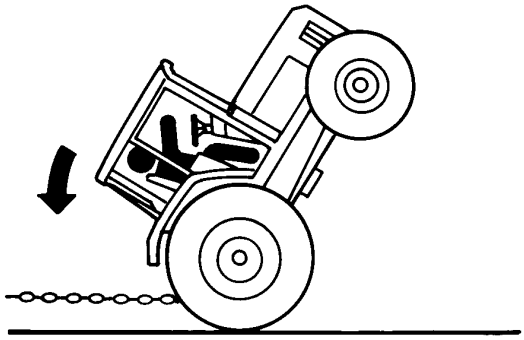
Freeing a Mired Machine

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

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

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

Always hitch to the drawbar of the towing unit. Do not hitch to the front pushbar attachment point. Before moving, clear the area of people. Apply power smoothly to take up the slack: a sudden pull could snap any towing device causing it to whip or recoil dangerously.



TS1645—UN—15SEP95

TS263—UN—23AUG88

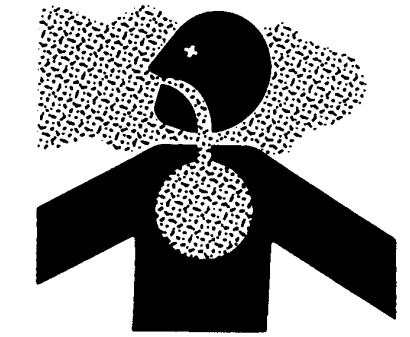
DX,MIRED-19-07JUL99-1/1

Avoid Contact with Agricultural Chemicals

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

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

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



TS220—UN—15APR13

TS272—UN—23AUG88

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

Handle Agricultural Chemicals Safely

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

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

Reduce risk of exposure and injury:

- Wear appropriate personal protective equipment as recommended by the manufacturer. In the absence of manufacturer's instructions, follow these general guidelines:
  - Chemicals labeled **'Danger'**: Most toxic. Generally require use of goggles, respirator, gloves, and skin protection.
  - Chemicals labeled **'Warning'**: Less toxic. Generally require use of goggles, gloves, and skin protections.
  - Chemicals labeled **'Caution'**: Least toxic. Generally require use of gloves and skin protection.
- Avoid inhaling vapor, aerosol or dust.
- Always have soap, water, and towel available when working with chemicals. If chemical contacts skin, hands, or face, wash immediately with soap and water. If chemical gets into eyes, flush immediately with water.
- Wash hands and face after using chemicals and before eating, drinking, smoking, or urination.
- Do not smoke or eat while applying chemicals.
- After handling chemicals, always bathe or shower and change clothes. Wash clothing before wearing again.
- Seek medical attention immediately if illness occurs during or shortly after use of chemicals.
- Keep chemicals in original containers. Do not transfer chemicals to unmarked containers or to containers used for food or drink.
- Store chemicals in a secure, locked area away from human or livestock food. Keep children away.
- Always dispose of containers properly. Triple rinse empty containers and puncture or crush containers and dispose of properly.

TS220—UN—15APR13

A34471

A34471—UN—11OCT88

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

Handling Batteries Safely

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

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

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

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

Avoid hazards by:

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

If acid is spilled on skin or in eyes:

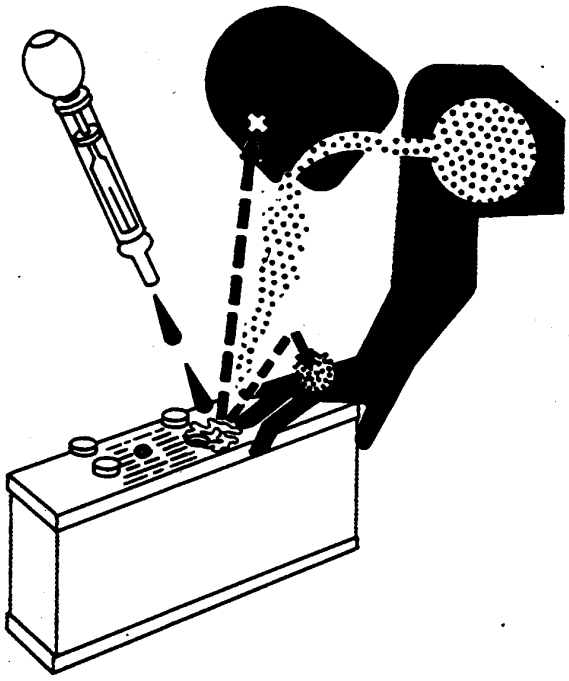
1. Flush skin with water.
2. Apply baking soda or lime to help neutralize the acid.
3. Flush eyes with water for 15—30 minutes. Get medical attention immediately.

If acid is swallowed:

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

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

TS204—UN—15APR13



TS203—UN—23AUG88

DX,WW,BATTERIES-19-02DEC10-1/1

Avoid Heating Near Pressurized Fluid Lines

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

TS953—UN—15MAY90

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

Remove Paint Before Welding or Heating

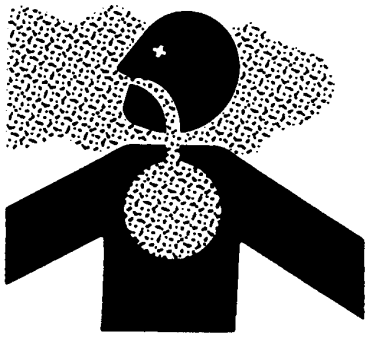
Avoid potentially toxic fumes and dust.

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

Remove paint before heating:

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

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



TS220—UN—15APR13

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

Dispose of paint and solvent properly.

DX,PAINT-19-24JUL02-1/1

Handle Electronic Components and Brackets Safely

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

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

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

TS249—UN—23AUG88

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

Practice Safe Maintenance

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

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

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

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

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

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

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

TS218—UN—23AUG88

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

Avoid Hot Exhaust

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

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

RG17488—UN—21AUG09

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

Clean Exhaust Filter Safely

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

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

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

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

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

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

Avoid contact with these components until cooled to safe temperatures.

If service procedure requires engine to be running:

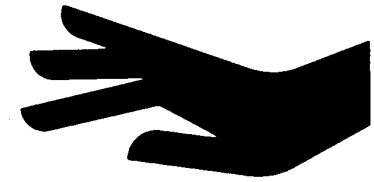
- Only engage power-driven parts required by service procedure
- Ensure that other people are clear of operator station and machine

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

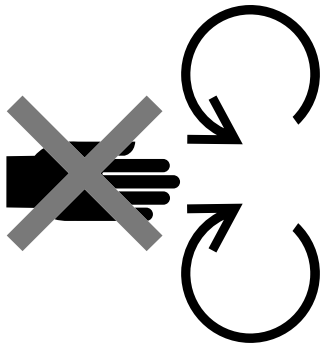
Always disable movement (neutral), set the parking brake or mechanism and disconnect power to attachments or tools before leaving the operator's station.

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

TS227—UN—15APR13



TS271—UN—23AUG88



TS1693—UN—09DEC09

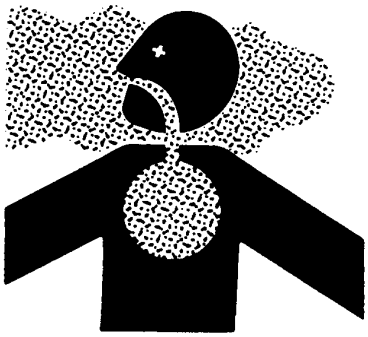
TS1695—UN—07DEC09

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

Work In Ventilated Area

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

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



TS220—UN—15APR13

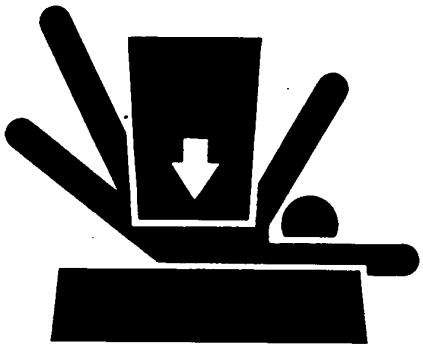
DX,AIR-19-17FEB99-1/1

Support Machine Properly

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

Do not support the machine on cinder blocks, hollow tiles, or props that may crumble under continuous load. Do not work under a machine that is supported solely by a jack. Follow recommended procedures in this manual.

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



TS229—UN—23AUG88

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

Prevent Machine Runaway

Avoid possible injury or death from machinery runaway.

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

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

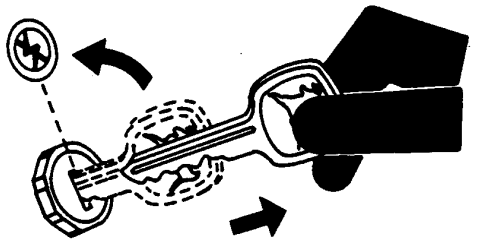
TS177—UN—11JAN89

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

Park Machine Safely

Before working on the machine:

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



TS230—UN—24MAY89

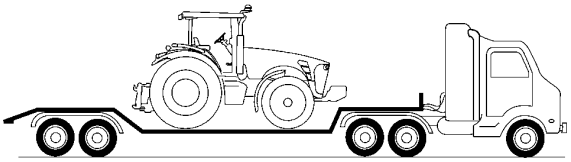
DX,PARK-19-04JUN90-1/1

Transport Tractor Safely

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

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

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



RXA0103709—UN—01JUL09

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

Service Cooling System Safely

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

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

TS281—UN—15APR13

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

Service Accumulator Systems Safely

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

Relieve pressure from the pressurized system before removing accumulator.

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

Accumulators cannot be repaired.

TS281—UN—15APR13

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

Service Tires Safely

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

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

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

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

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

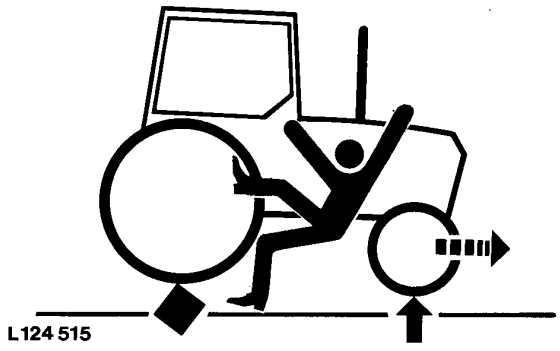
RXA0103438—UN—11JUN09

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

DX,WW,RIMS-19-28FEB17-1/1

Service Front-Wheel Drive Tractor Safely

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

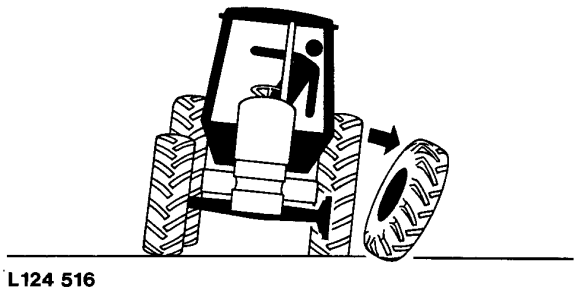


L124515—UN—06AUG94

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

Tightening Wheel Retaining Bolts/Nuts

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



L124516—UN—03JAN95

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

Avoid High-Pressure Fluids

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

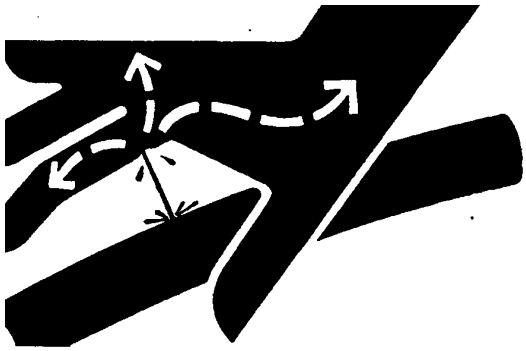
Replace worn or damaged hose assemblies immediately with John Deere approved replacement parts.

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

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

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

If an accident occurs, see a doctor immediately. Any fluid injected into the skin must be surgically removed within a few hours or gangrene may result. Doctors unfamiliar with 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-19-12OCT11-1/1

Do Not Open High-Pressure Fuel System

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

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

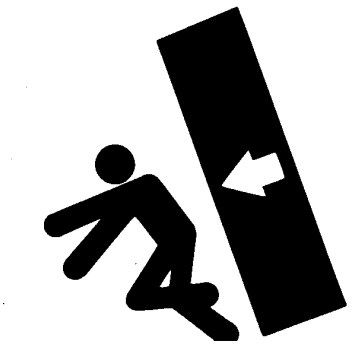
TS1343—UN—18MAR92

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

Store Attachments Safely

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

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



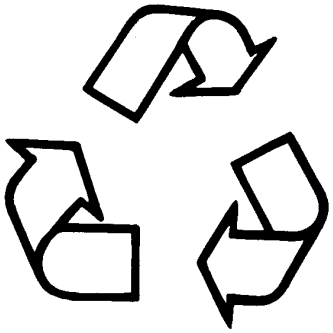
TS219—UN—23AUG88

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

Decommissioning — Proper Recycling and Disposal of Fluids and Components

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

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



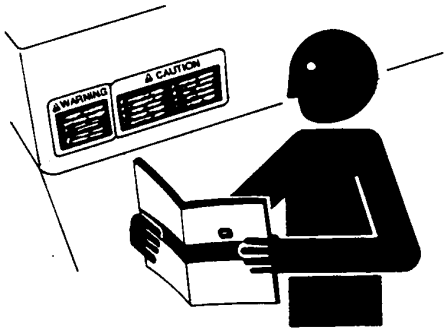
TS1133—UN—15APR13

DX,DRAIN-19-01JUN15-1/1

Replace Safety Signs

Replace missing or damaged safety signs. Use this operator's manual for correct safety sign placement.

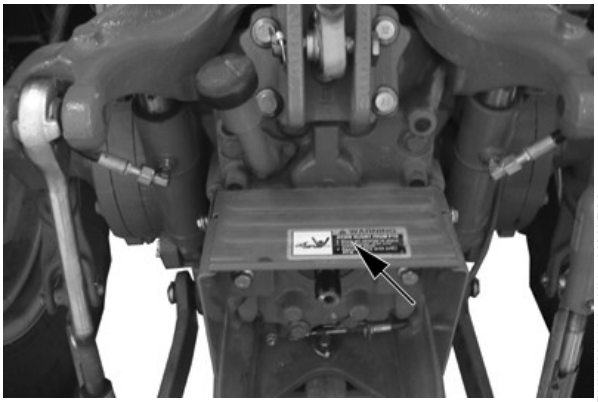
There can be additional safety information contained on parts and components sourced from suppliers that is not reproduced in this operator's manual.



TS201—UN—15APR13

DX,SIGNS-19-18AUG09-1/1

Safety Signs—All



PULV000194—UN—06MAR08

PTO Shield

LV6379—19—14MAR01

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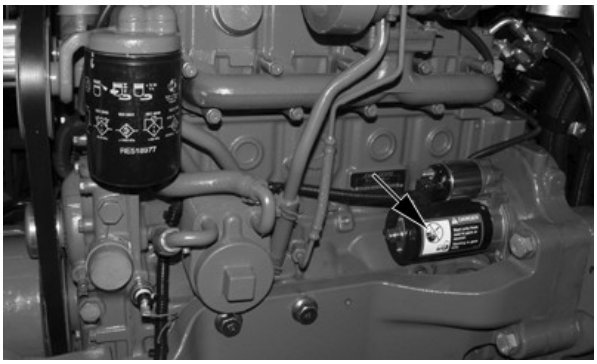


PULV000196—UN—06MAR08

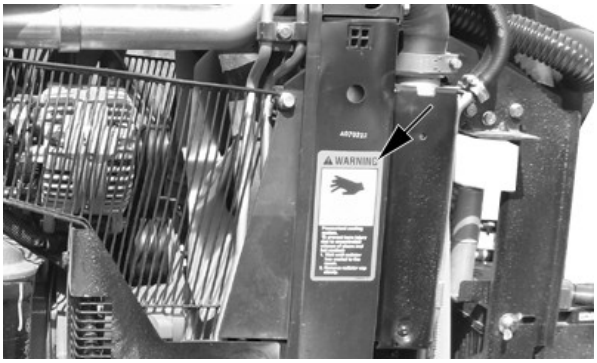
5065M and 5075M

PULV000195—UN—06MAR08

5085M, 5095M, 5095MH, 5105M and 5105ML

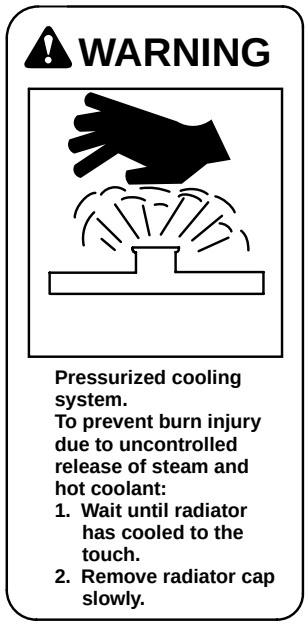
LV1932—19—02JUN97

SH20560,00000C5-19-18JUN09-2/3



PULV000197—UN—06MAR08

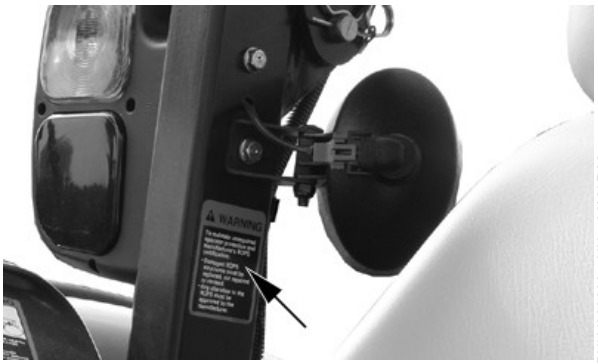
Radiator (Right-Hand Side)



LV09135—19—08JUL04

SH20560,00000C5-19-18JUN09-3/3

Safety Signs—ROPS



PULV000203—UN—06MAR08

Right-Hand Side

⚠ WARNING

To maintain unimpaired operator protection and manufacturer's ROPS certification:
— Damaged ROPS structures must be replaced, not repaired or revised.
— Any alteration to the ROPS must be approved by the manufacturer.

LV1689—19—04JUN96

PULV004692—UN—18JAN10

Front Left-Hand ROPS (Low Profile)

SH20560,00000C6-19-18JAN10-1/2

PULV000202—UN—06MAR08

Right-Hand Side

⚠WARNING

If a canopy or sunshade is attached to the ROPS structure, the weight MUST be limited to 100 lb (45 kg) or less.

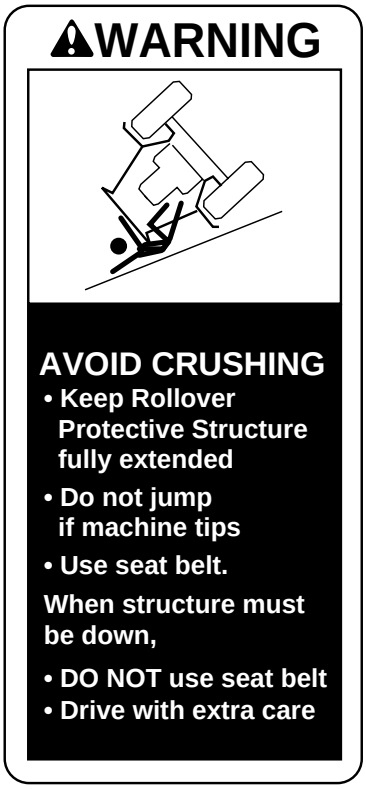
LV6525—19—14MAR01

SH20560,00000C6-19-18JAN10-2/2

Safety Signs—OOS

PULV000205—UN—06MAR08

Left-Hand Side Fender



LV6526—19—14MAR01

SH20560,00003DE-19-14JUL08-1/3

PULV000206—UN—06MAR08

Left-Hand Side Fender

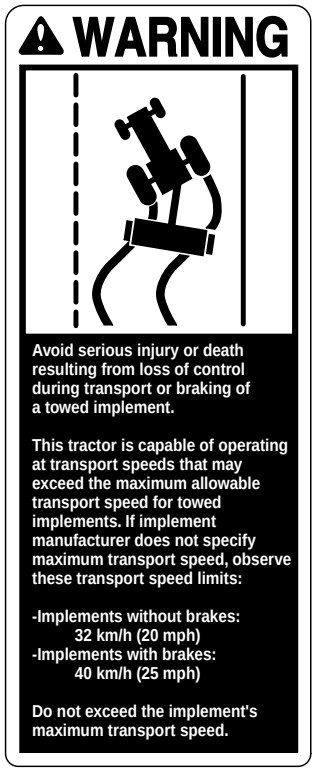
PULV000209—19—22FEB08

Continued on next page

SH20560,00003DE-19-14JUL08-2/3

PULV000210—UN—06MAR08

Left-Hand Side Fender



RXA0068063—19—08JUL04

SH20560,00003DE-19-14JUL08-3/3

Safety Signs—Cab

PULV000550—UN—21APR08

Left-Hand Door Post

LV09136—19—07JUL04

Continued on next page

SH20560,00003DC-19-14JUL08-1/3

PULV000551—UN—21APR08

Left-Hand Door Post

CAUTION

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

LV5411—19—17NOV00

Continued on next page

SH20560,00003DC-19-14JUL08-2/3

Left-Hand Door Post

PULV000552—UN—21APR08

IMPORTANT

1. After starting engine, operate engine at approximately 1200 rmp (no load) for one to two minutes. If temperature is below freezing point, operate engine for two to four minutes (no load).
2. Start engine immediately if stalled while working to provide turbocharger lubrication.
3. Before stopping warm engine, idle several minutes under 1000 rpm to cool turbocharger turbine.
4. After prolonged idle periods, see Operator's Manual for starting instructions.

1. Drive train and tire life can be extended by avoiding high loads at travel speeds below 4.0 mph (6.4 km/h).
2. Refer to Operator's manual prior to towing tractor.

LV12660—19—02MAY05

SH20560,00003DC-19-14JUL08-3/3

Safety Signs—Mid Mount and Rear SCV (If Equipped)

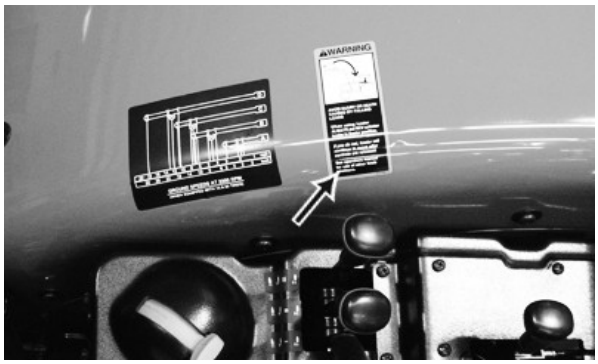
PULV000211—UN—06MAR08

OOS (Right-Hand Side Console)

RXA0068062—19—29JUN05

PULV000553—UN—21APR08

Cab (Right-Hand Door Post)

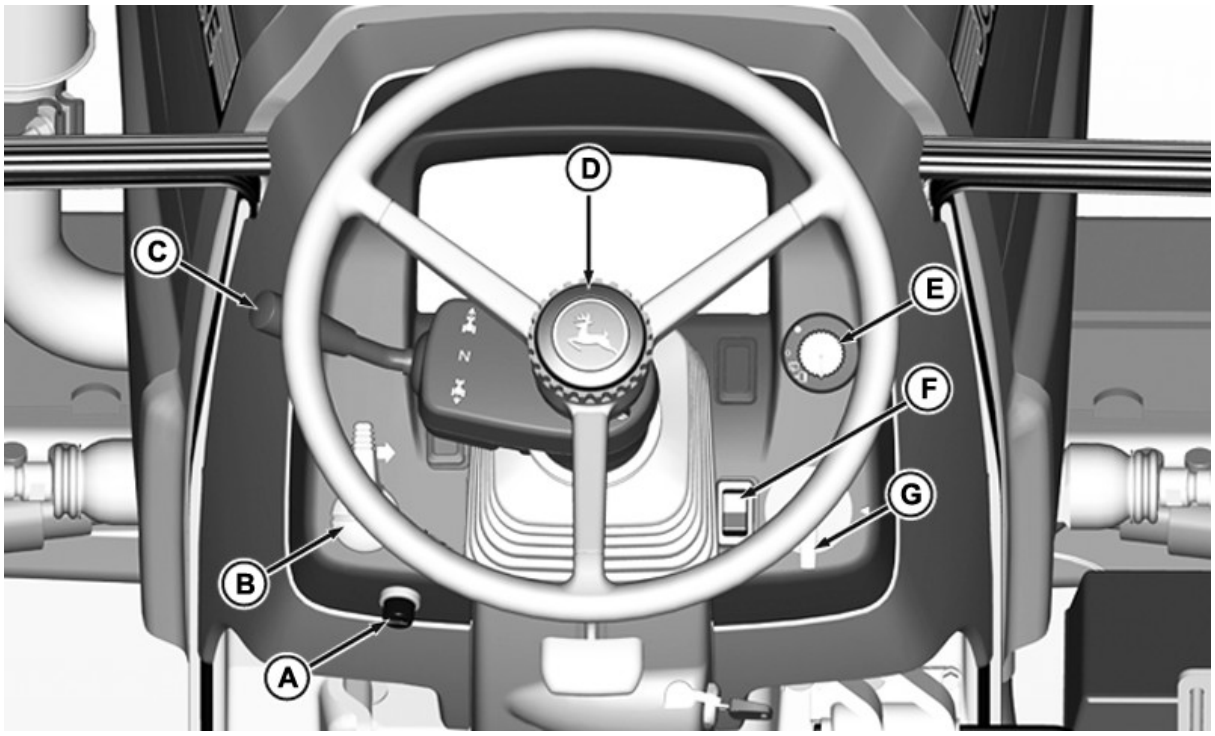


PULV004905—UN—17JUN09

Low Profile (Right-Hand Side Fender)

SH20560,00000C7-19-02MAR10-1/1

Front Console Switches and Controls

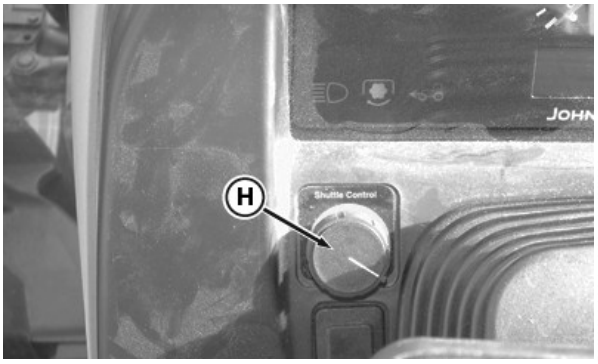


PULV004908—UN—18JUN09

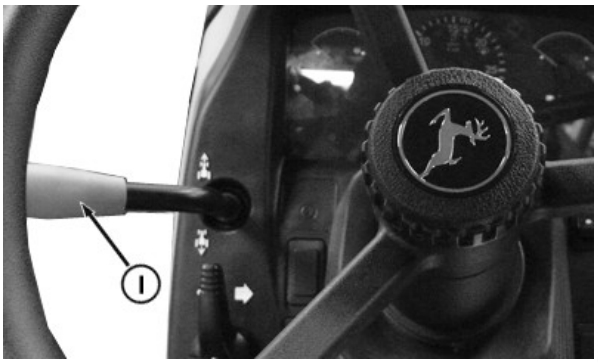
Front Console

NOTE: Cab controls shown. Open Operator's Station Controls similar.

A—Horn Switch (If Equipped)
B—Turn Signal Switch
C—PowrReverser™ Lever (If Equipped)
D—Steering Wheel Telescopic Knob
E—Windshield Wiper/Washer Switch (Cab Only)
F—MFWD Switch (If Equipped)
G—Light Switch
H—PowrReverser™ Modulation (If Equipped)
I—SyncReverser™ Lever (If Equipped)



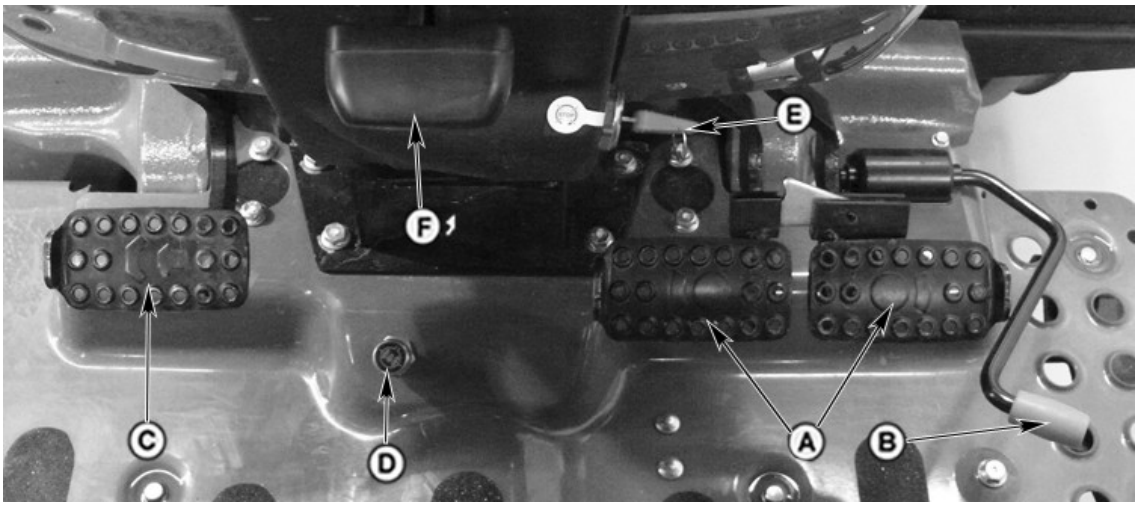
PULV004921—UN—18JUN09



PULV004920—UN—18JUN09

SH20560,00000CA-19-23JUN09-1/1

Steering Column, Foot Operated Controls and Switches



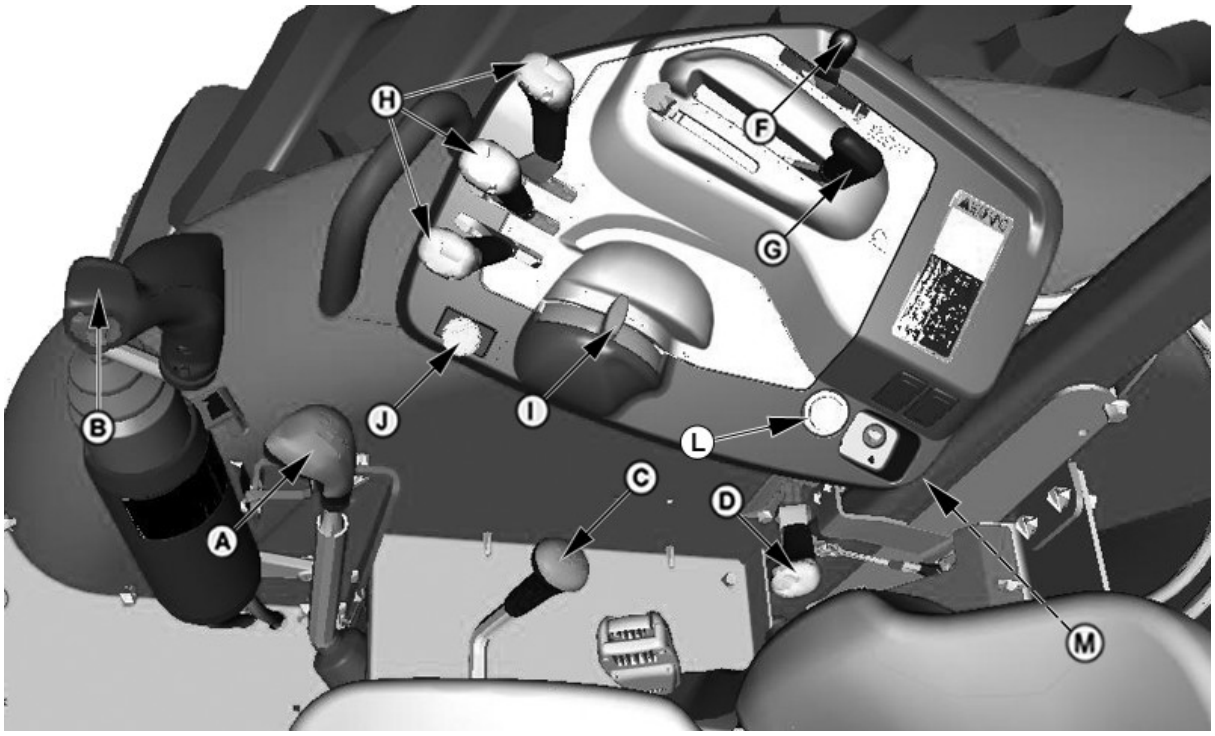
PULV000054—UN—05OCT07

A—Brake Pedals
B—Foot Throttle Pedal
C—Clutch Pedal
D—Differential Lock Switch
E—Key Switch
F—Steering Column Tilt Lever

NOTE: OOS shown, Cab similar.

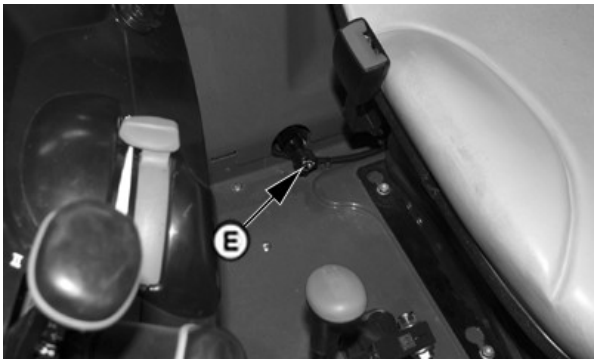
SH20560,00000DA-19-14JUL08-1/1

Right-Hand Console Controls—Open Operator's Station



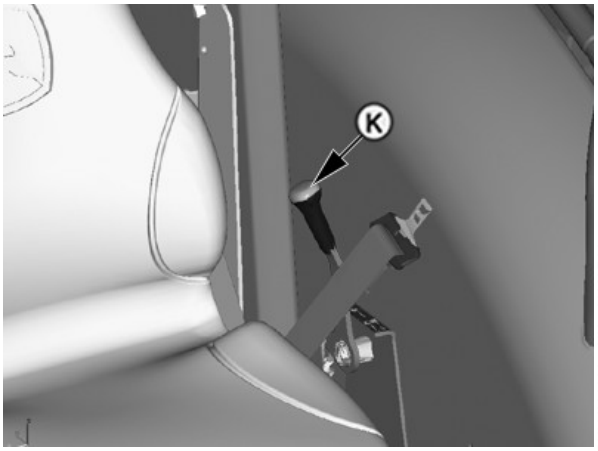
PULV002249—UN—19JAN09

Mechanical Hitch Control Shown



PULV000577—UN—07MAY08

Rear Hitch Rate of Drop Knob



PULV000220—UN—06MAR08

Left-Hand Side Rear Corner

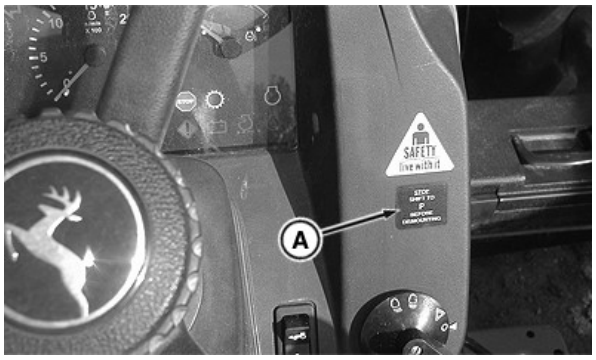
A—Speed Shift Lever
B—Multifunction Control Lever (If Equipped)
C—Range Shift Lever
D—PTO Speed Shift Lever (If Equipped)
E—Rear Hitch Rate of Drop Knob (Located Behind Seat)
F—Rear Hitch Draft Control Lever
G—Rear Hitch Position Control Lever
H—Selective Control Valve Levers (If Equipped)
I—Hand Throttle
J—PTO Engagement Switch
K—Creeper Lever (If Equipped)
L—Power Outlet
M—Convenience Outlet (If Equipped)

NOTE: Open Operator's Station (OOS), mechanical rear hitch and 12x4 transmission controls shown.

NOTE: Electrohydraulic Hitch Controls are similar on tractors with Cab. (Refer to "Right-Hand Console Controls - Cab" in Section 20.)

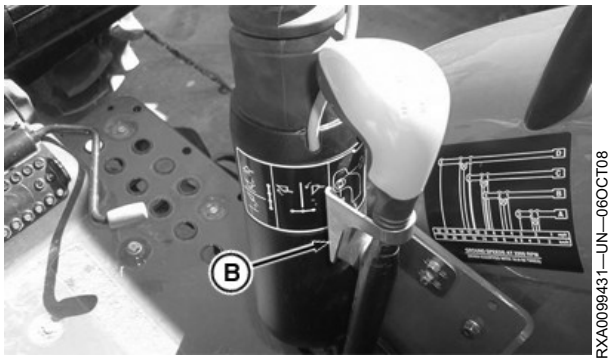
Continued on next page

SH20560,00000DB-19-23JAN09-1/2



RXA0099432—UN—06OCT08

Park Position Decal

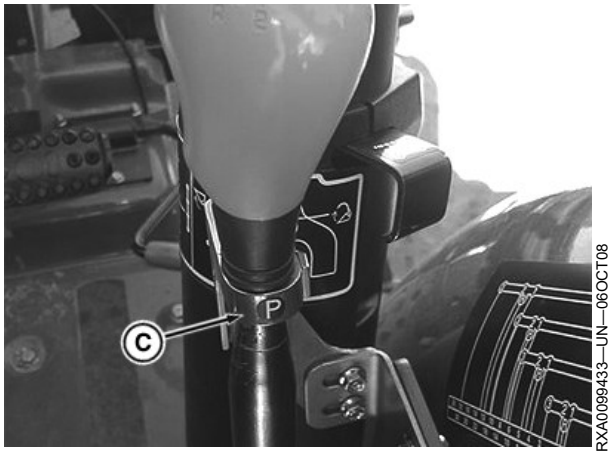


RXA0099431—UN—06OCT08

Park Position Bracket

NOTE: Ensure speed lever placed into park position before operator leaves seat.

A—Park Position Decal
B—Park Position Bracket
C—Speed Lever In Park Position

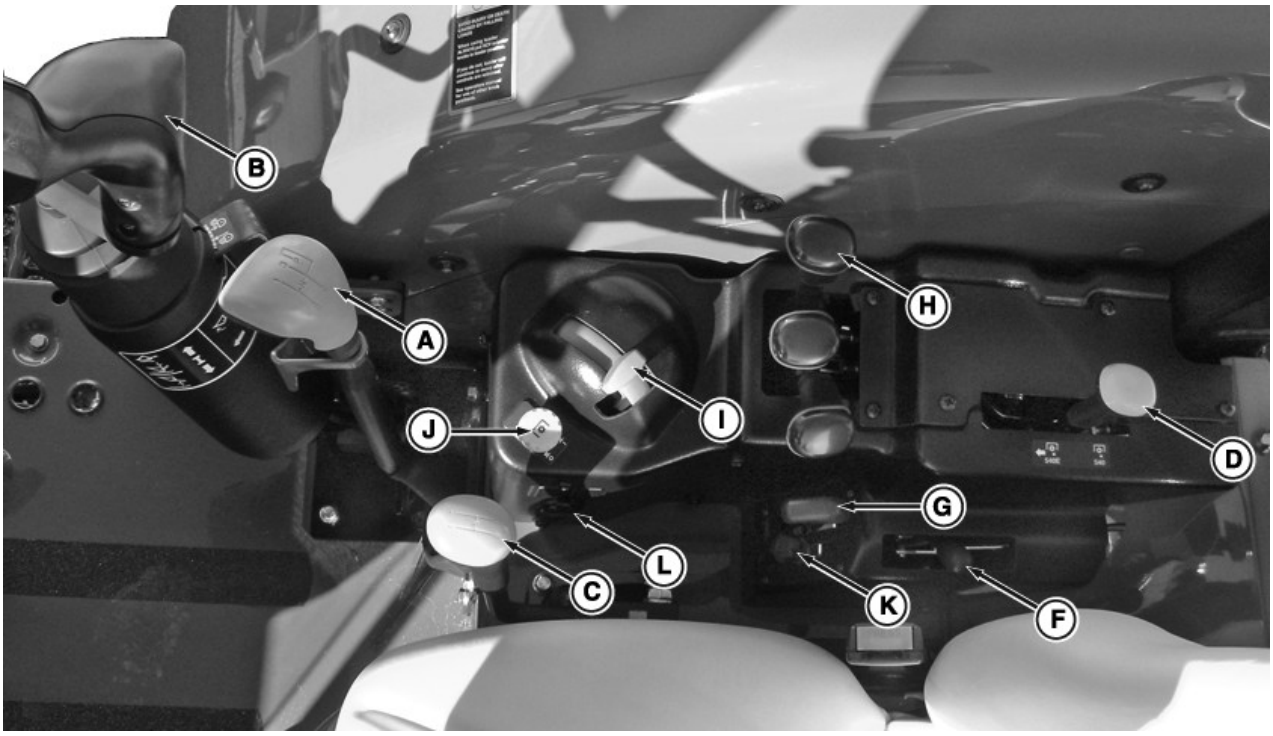


RXA0099433—UN—06OCT08

Speed Lever In Park Position

SH20560,00000DB-19-23JAN09-2/2

Right-Hand Console Controls—Low Profile

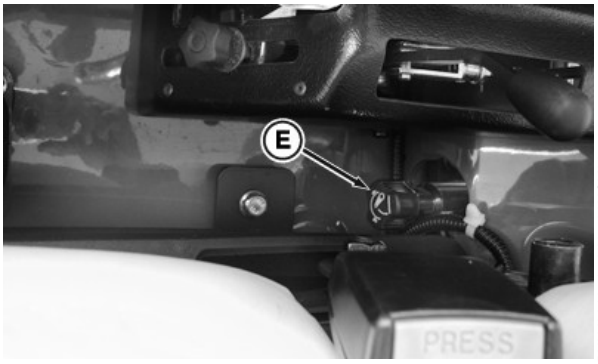


PULV004674—UN—16DEC09

Floor Mounted Controls

NOTE: Low profile OOS, dual mid-mount SCV, triple rear SCV, PowrReverser™ transmission controls shown.

A—Speed Shift Lever
B—Multifunction Control Lever (If Equipped)
C—Range Shift Lever
D—PTO Speed Shift Lever (If Equipped)
E—Rear Hitch Rate of Drop Knob (Located Behind Seat)
F—Rear Hitch Draft Control Lever
G—Rear Hitch Position Control Lever
H—Selective Control Valve Levers (If Equipped)
I—Hand Throttle
J—PTO Engagement Switch
K—Control Lever Stop
L—Power Outlet



PULV004654—UN—30NOV09

Rear Hitch Rate of Drop Knob

PowrReverser is a trademark of Deere & Company

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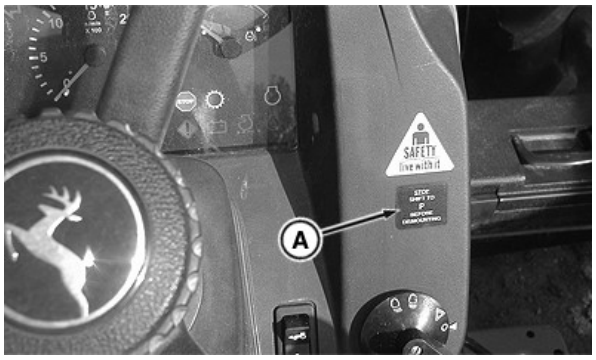
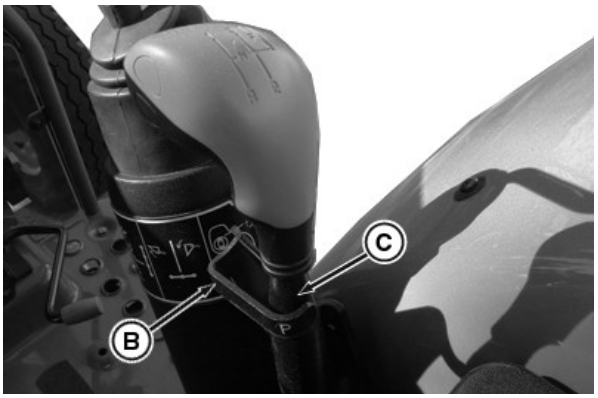
SH20560,00000CB-19-16DEC09-1/2



RXA0099432—UN—06OCT08

Park Position Decal



PULV0049I0—UN—17JUN09

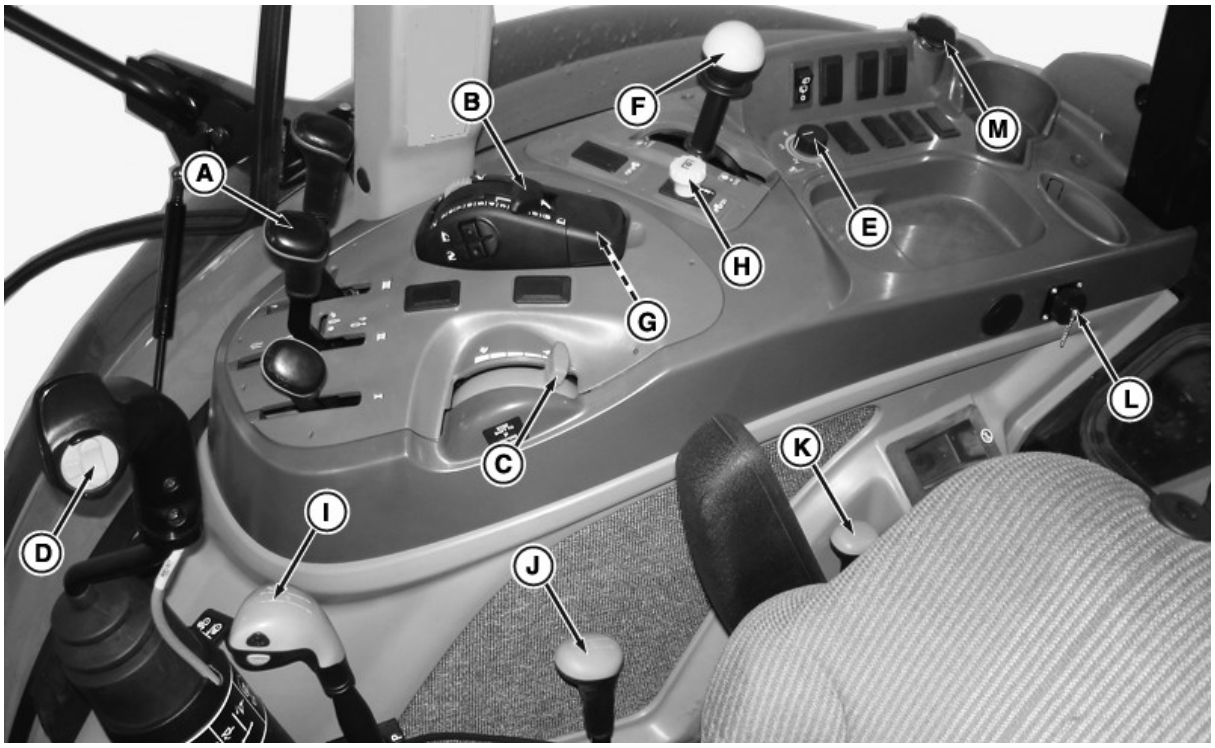
Speed Lever in Park Position Bracket

A—Park Position Decal **B—Park Position Bracket** **C—Speed Lever In Park Position**

NOTE: Ensure speed lever placed into park position before operator leaves seat.

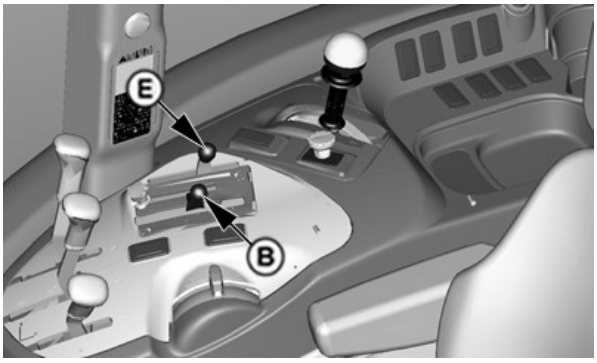
SH20560,00000CB-19-16DEC09-2/2

Right-Hand Console Controls—Cab



PULV004947—UN—06JUL09

Electrohydraulic Hitch Control



PULV000221—UN—06MAR08

Mechanical Hitch Control

PULV004693—UN—28JAN10

Left-Hand Side Rear Corner—Mechanical Shown

A—Selective Control Valve Levers (If Equipped)
B—Rear Hitch Control
C—Hand Throttle
D—Multifunction Control Lever (If Equipped)
E—Rear Hitch Draft Control Knob
F—PTO Speed Shift Lever (If Equipped)
G—Rear Hitch Rate of Drop Control and Rear Hitch Height Limit Control
H—PTO Engagement Switch
I—Speed Shift Lever
J—Range Shift Lever
K—Creeper Lever (If Equipped)
L—Convenience Outlet
M—Power Outlet

NOTE: Cab, electrohydraulic rear hitch controls, PowrReverser Plus™ transmission controls shown.

PowrReverser Plus is a trademark of Deere & Company

Continued on next page

SH20560,00000DC-19-28JAN10-1/2

RXA0099430—UN—06OCT08

Park Position Decal

RXA0099429—UN—06OCT08

Park Position Bracket

NOTE: Ensure speed lever placed into park position before operator leaves seat.

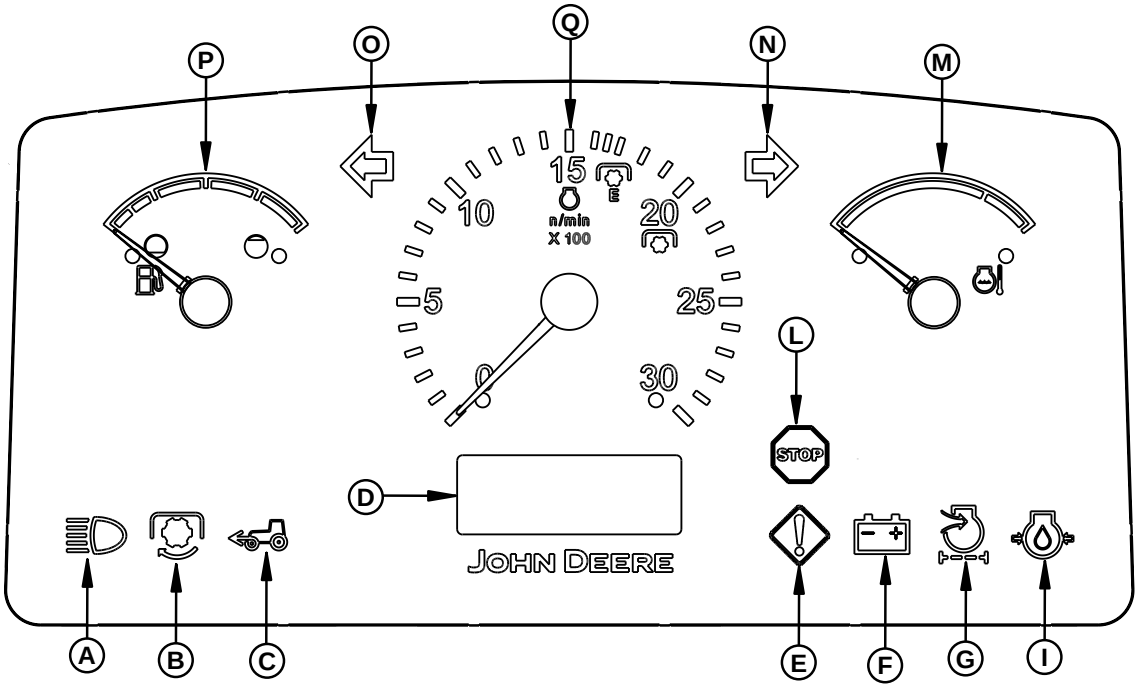
A—Park Position Decal
B—Park Position Bracket
C—Speed Lever In Park Position

PULV004694—UN—28JAN10

Speed Lever In Park Position

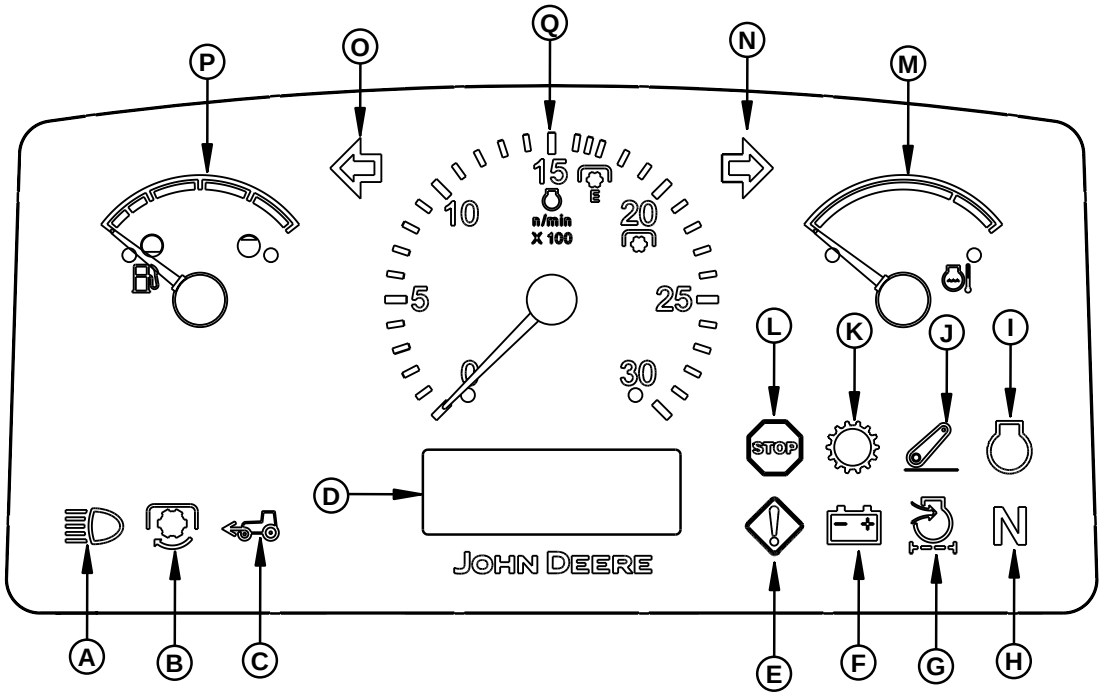
SH20560,00000DC-19-28JAN10-2/2

Gauges and Indicator Lights



PULV002237—UN—29DEC08

Standard Instrument Panel



PULV000535—UN—20MAR08

Deluxe Instrument Panel

Continued on next page

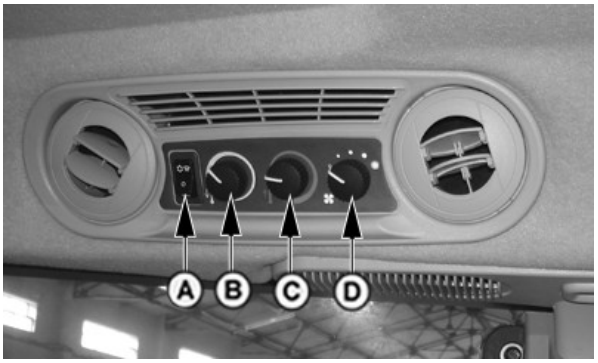
SH20560,00000DD-19-17NOV10-1/2

A	**High Beam Indicator**	Illuminates when the headlights are switched on high beam.
B	**PTO Engaged Indicator**	Illuminates when rear PTO is switched on.
C	**MFWD Engaged Indicator**	Illuminates when mechanical front-wheel drive is engaged.
D	**Information Display**	Displays speedometer, hour meter, transmission speed selection (Hi, Lo, or R) (if equipped), diagnostic trouble codes (if equipped), and on-board diagnostics (if equipped) information.
E	**Service Alert Indicator**	Illuminates when a malfunction occurs (review error message in Information Display). If necessary, have John Deere dealer diagnose vehicle.
F	**Charging System Indicator**	Illuminates when alternator malfunction occurs. If necessary, have John Deere dealer diagnose vehicle.
G	**Engine Air Cleaner Restriction Indicator**	Illuminates when air cleaner element clogged (clean or replace element). If necessary, have John Deere dealer diagnose vehicle.
H	**Neutral Indicator**	Illuminates when transmission reverser (if equipped) in neutral position. Flashes when operator improperly shifted reverse. If necessary cycle reverser lever back to neutral. If flashing and Transmission Information indicator are illuminated at the same time, this indicates a malfunction (review error message in Information Display). If necessary, have John Deere dealer diagnose vehicle.
I	**Engine Information Indicator**	Illuminates when engine malfunction occurs (check oil level and review error message in Information Display). If necessary, have John Deere dealer diagnose vehicle.
J	**Electrohydraulic Hitch Indicator**	Illuminates when hitch malfunction occurs (review error message in Information Display). If necessary, have John Deere dealer diagnose vehicle.
K	**Transmission Information Indicator**	Illuminates when transmission malfunction occurs (review error message in Information Display). If necessary, have John Deere dealer diagnose vehicle.
L	**STOP Indicator**	Illuminates when a serious malfunction occurs. SHUT OFF engine IMMEDIATELY and determine cause (review error message in Information Display). If necessary, have John Deere dealer diagnose vehicle.
M	**Engine Coolant Temperature Gauge**	Indicates engine coolant temperature. Red area indicates overheat (coolant level too low, dirty radiator, or clogged screen). SHUT OFF engine IMMEDIATELY to prevent damage. If necessary, have John Deere dealer diagnose vehicle.
N	**Right Turn Indicator**	Illuminates when turn signal switch is switched to right-hand side.
O	**Left Turn Indicator**	Illuminates when turn signal switch is switched to left-hand side.
P	**Fuel Level Gauge**	Indicates amount of fuel remaining in tank.
Q	**Tachometer**	Indicates engine speed, revolutions per minute (RPM).

SH20560,00000DD-19-17NOV10-2/2

Heater and Air Conditioner Controls—Cab

A—Air Conditioner/Defrost Switch
B—Air Conditioner Temperature Control Knob
C—Heater Temperature Knob
D—Blower Speed Knob



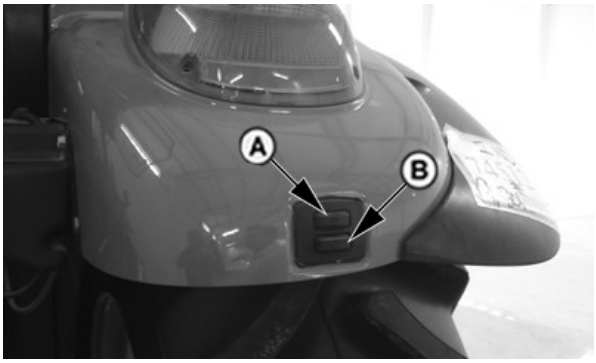
Heater and Air Conditioning Controls

SH20560,00000DE-19-24APR08-1/1

External Rear Hitch Raise/Lower Switches—If Equipped

NOTE: Fender-mounted switches on left side are part of electrohydraulic rear hitch package. Switches on right side are available as an option.

A—Rear Raise Switch **B—Rear Lower Switch**

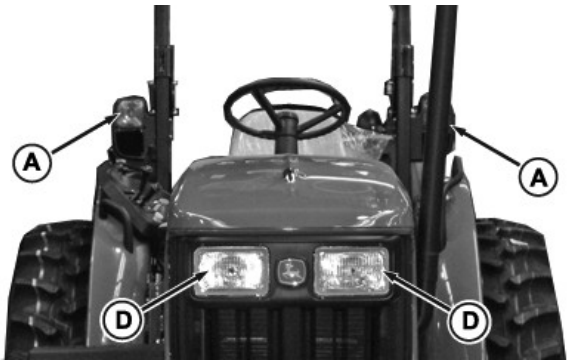


PULV000217—UN—06MAR08

Right-Hand Side Fender Shown

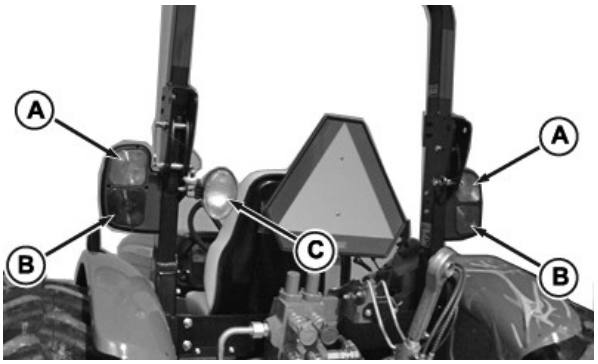
SH20560,00000DF-19-15MAR08-1/1

Light Location



PULV004696—UN—28JAN10

OOS

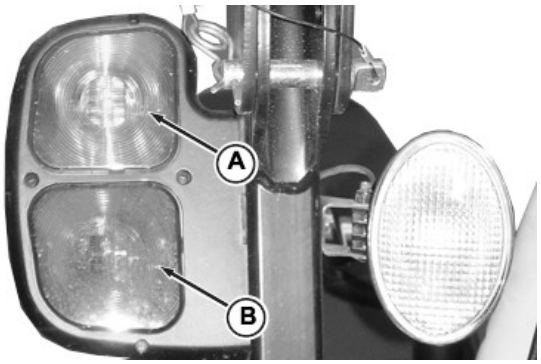


PULV004695—UN—28JAN10

OOS

PULV004578—UN—20JUN09

Front Side

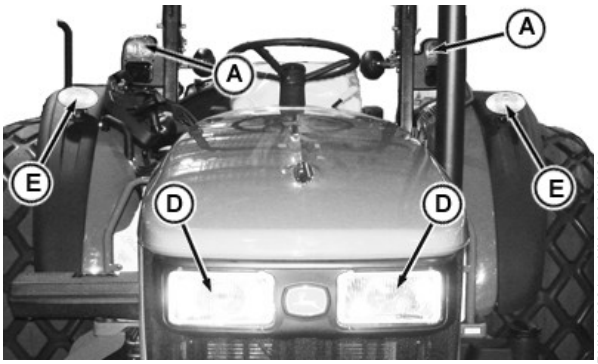


PULV004579—UN—20JUN09

Rear Side

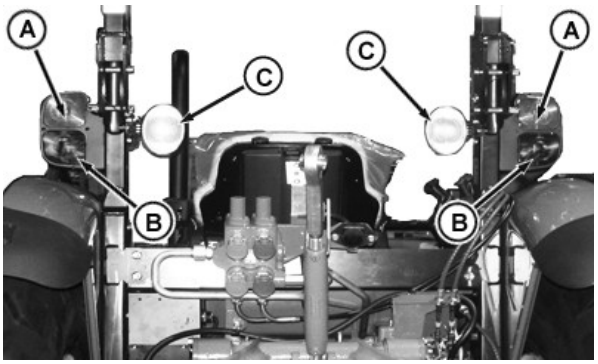
A—Turn/Warning Light **B—Tail Light** **C—Rear Field/Work Light** **D—Head Light**

SH20560,0000454-19-10FEB10-1/3



PULV002247—UN—06JAN09

Deluxe OOS



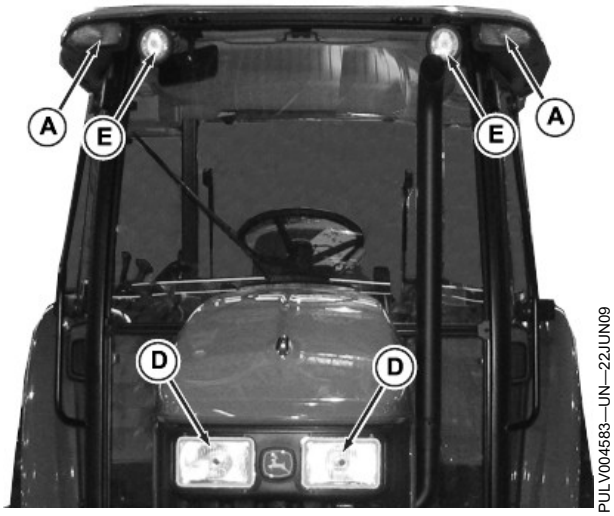
PULV002246—UN—06JAN09

Deluxe OOS

A—Turn/Warning Light **C—Rear Field/Work Light** **E—Front Field/Work Light**
B—Tail Light **D—Head Light**

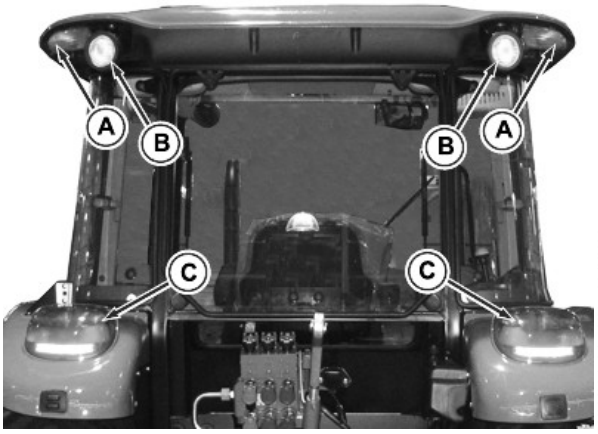
Continued on next page

SH20560,0000454-19-10FEB10-2/3



PULV004583—UN—22JUN09

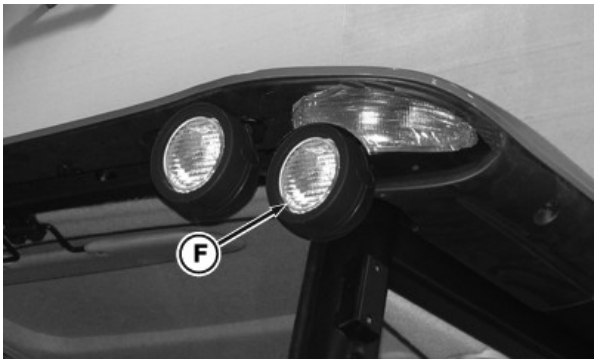
Cab



PULV004584—UN—22JUN09

Cab

A—Turn/Warning Light
B—Rear Field/Work Light
C—Tail Light
D—Head Light
E—Front Field Light
F—Auxiliary Work Light (If Equipped)

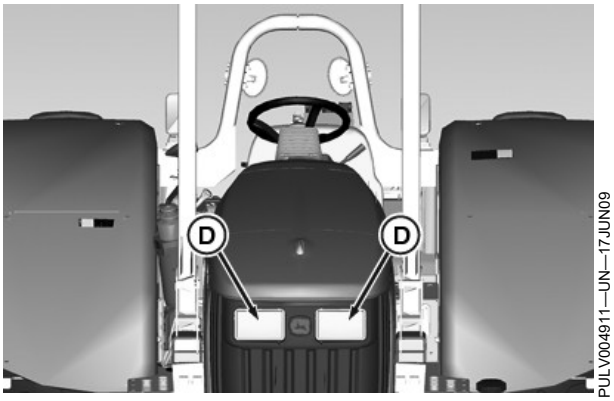


PULV004585—UN—22JUN09

Cab

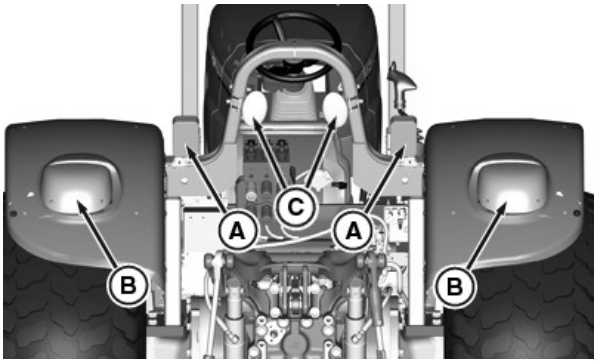
SH20560,0000454-19-10FEB10-3/3

Light Location—Low Profile



PULV004911—UN—17JUN09

Low Profile



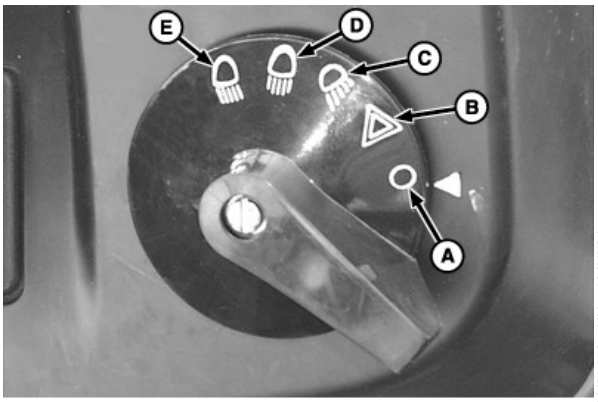
PULV004907—UN—17JUN09

Low Profile

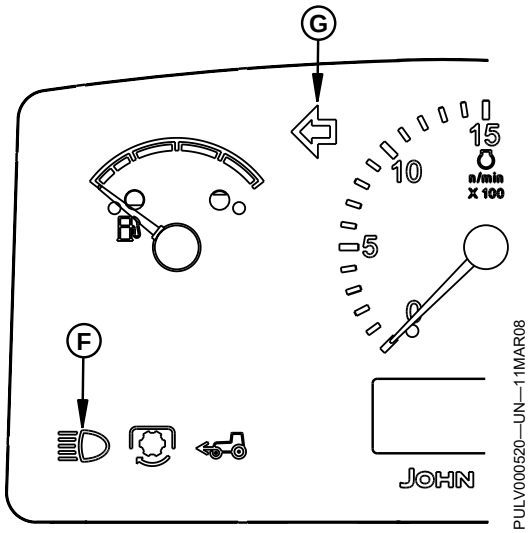
A—Turn/Warning Light
B—Tail Light
C—Rear Field/Work Light
D—Head Light

SH20560,00000CD-19-18JUN09-1/1

Transport, Work And Warning Lights



LV09152—UN—12JUL04



PULV000520—UN—11MAR08

A—Off Position
B—Warning Position
C—Work Light Position
D—Transport 1 Position
E—Transport 2 Position
F—High Beam Indicator Light
G—Warning Light Indicator

CAUTION: When on public roads, do not use work lights and ensure light switch set to Warning, or Transport 1, or Transport 2 dependent on climate conditions.

Bright clear lights can blind or confuse drivers of other vehicles.

IMPORTANT: Adjust, repair, or replace damaged lights immediately, in accordance with Maintenance Guide.

Switch Position	Use	Warning Lights Amber	Tail Lights Red	Work Light	Headlights Front Grille
A—Off	Field, Day Time	Off	Off	Off	Off
B—Warning	Road, Day Time	On Flashing	Off	Off	Off
C—Work Light	Off Road, Night Time	Off	Off	On	On—High Beam
D—Transport 1	On Road, No Traffic, Night Time	On Flashing	On Steady	Off	On—High Beam
E—Transport 2	On Road, In Traffic, Night Time	On Flashing	On Steady	Off	On—Low Beam

SH20560,000017C-19-14JUL08-1/1

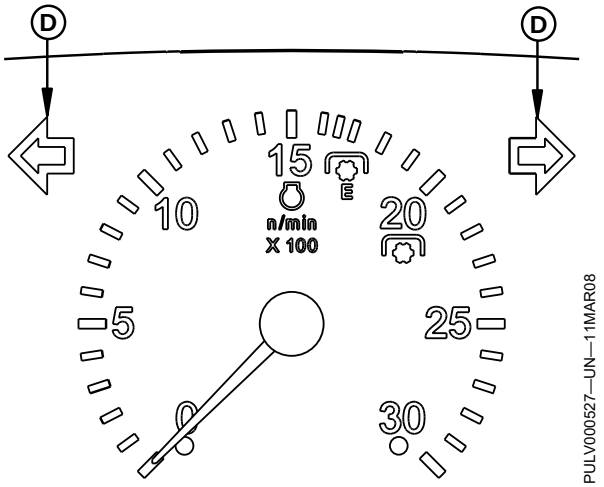
Turn Signal Lights

NOTE: Use flashing turn signal lights during travel on public roads.

Switch Position	Right Turn and Warning Signals	Left Turn and Warning Signals
Off	Off	Off
Left	On Steady	On Flashing
Right	On Flashing	On Steady

D—Turn Signal Indicator

Turn Signal Indicator Switch



SH20560,00001FA-19-08JAN09-1/1

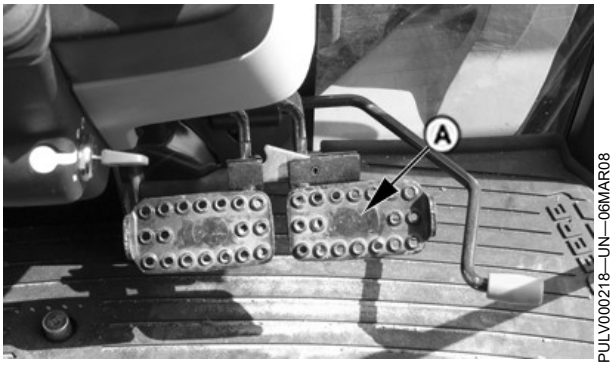
Brake Light—If Equipped

NOTE: If brake lights not equipped, use tail lights during travel on public roads. Tail lights are ON when light switch is in the transport 1 or transport 2 position.

Brake lights will only function if the brake light kit has been installed on the vehicle.

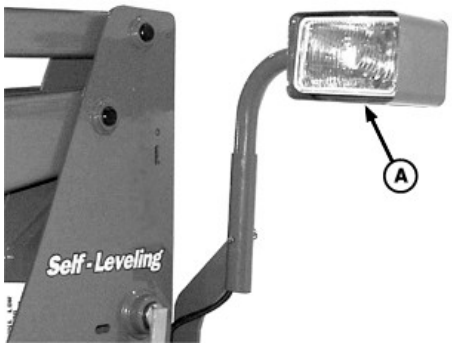
Pedal Position	Brake Light
Released	Off
Applied	Steady

A—Brake Pedal



GS25068,0001AB6-19-23JUN15-1/1

Loader Auxiliary Driving Lights—If Equipped



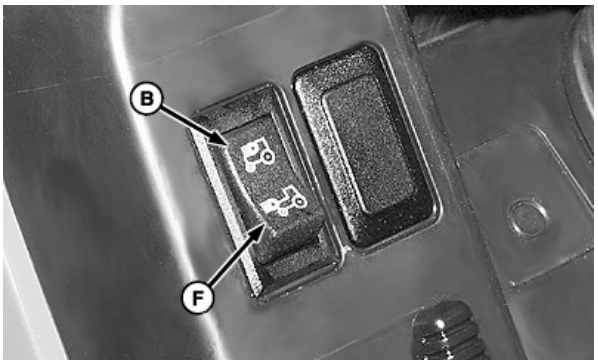
LV9465—UN—03SEP04

Auxiliary Driving Light Assembly (Left Side Shown)

Auxiliary driving lights can be used as an alternative for obscured driving headlights mounted in front grille.

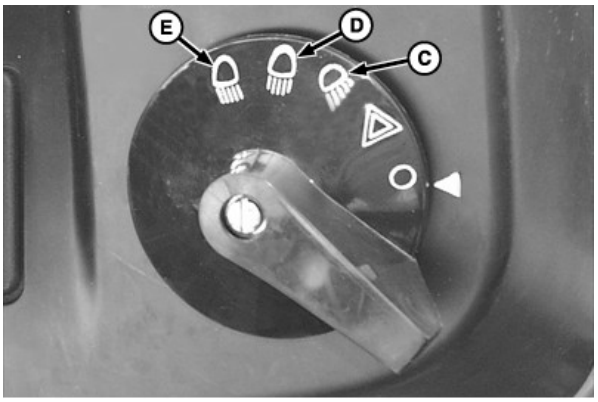
NOTE: Auxiliary light arms swing toward loader frame for storage. Auxiliary driving lights are only available with loader.

Auxiliary Light Switch	Main Light Switch	Auxiliary Driving Lights	Grille Headlights
B - On	C - Work	On High Beam	Off
	D - Transport 1	On High Beam	Off
	E - Transport 2	On Low Beam	Off
F - Off	C - Work	Off	On High Beam
	D - Transport 1	Off	On High Beam
	E - Transport 2	Off	On Low Beam



LV9466—UN—26JUL04

Auxiliary Driving Light Switch



LV9484—UN—26JUL04

Tractor Light Switch

A—Auxiliary Driving Light Assembly
B—Auxiliary Driving Lights On Position
C—Work Light Position
D—Transport 1 Position
E—Transport 2 Position
F—Front Grille Headlight On Position

SH20560,000006B-19-17JUN09-1/1

Implement/Trailer Outlet

NOTE: Always use auxiliary light on towed implement when tractor lights are obscured.

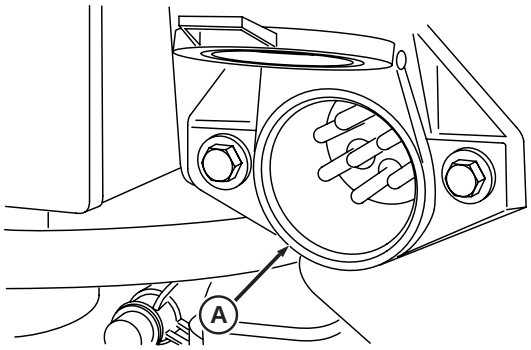
Outlet (A) is used to connect lights, turn signals, and remote electrical equipment on trailers or implements.

If implement harness is properly wired and connected to outlet, implement lights operate in conjunction with tractor warning and signal lights.

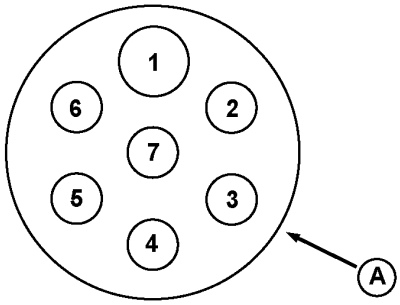
NOTE: Matching plug is available through your John Deere dealer.

Terminal	Function
1	Ground
2	Work Light
3	Left Turn
4	Brakes-If Equipped
5	Right Turn
6	Tail Light
7	Auxiliary Power

A—Seven-Terminal Outlet



RXA0068234—UN—27JUN03



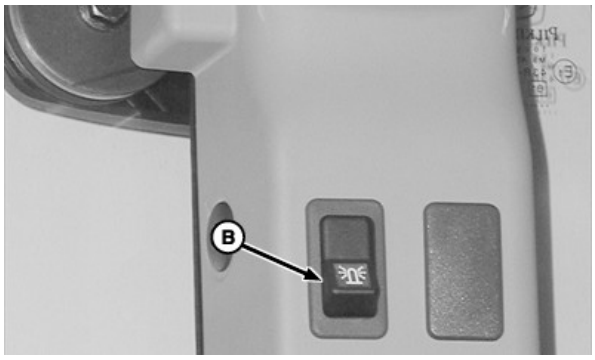
RW21249A—UN—29APR99

SH20560,000006E-19-25FEB08-1/1

Rotary Beacon Light—If Equipped

LV9687—UN—19AUG04

Cab

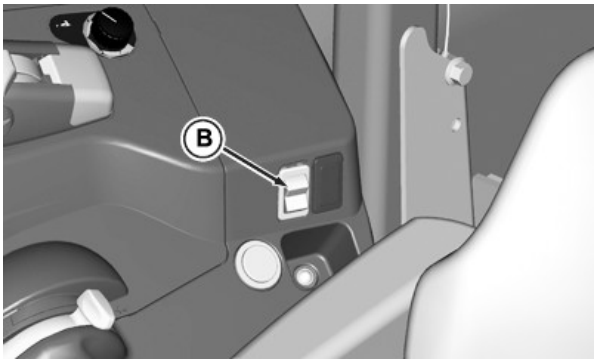


LV9688—UN—19AUG04

Cab

PULV004524—UN—03JUN09

OOS



PULV004551—UN—15JUN09

OOS

A—Beacon Light **B—Switch**

Depress switch (B) to activate beacon 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.

NOTE: Rotary beacon light is also available for OOS.

SH20560,000006F-19-18JUN09-1/1

Operate Foldable ROPS

CAUTION: Make certain all parts are installed correctly if roll-over protective structure (ROPS) is loosened or removed for any reason. Replace and tighten mounting cap screws 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 manufacturer approved.

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

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

NOTE: OOS shown, Deluxe OOS similar.

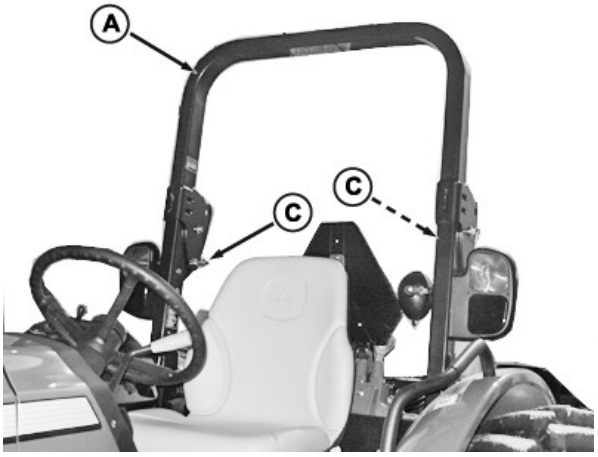
Lower ROPS Crossbar (A):

1. Remove quick-lock pins (B) and headed pins (C).
2. Lower crossbar (A) of ROPS onto stops.
3. Reinstall pins (C and B) into holes in ROPS to lock crossbar down.

Raise ROPS Crossbar (A):

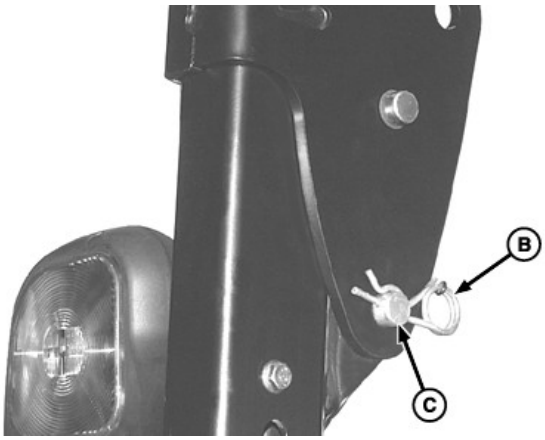
1. Remove headed pins (C) and quick-lock pins (B).
2. Lift crossbar (A) of ROPS to vertical position.
3. Reinstall pins (C and B) into holes in ROPS to lock in position.

A—ROPS Crossbar
B—Quick-Lock Pins
C—Headed Pins



PULV004687—UN—06JAN10

ROPS — Vertical Operating Position



LV09203—UN—22JUL04

PULV004686—UN—06JAN10

ROPS—Folded

AJ20558,0000333-19-06JAN10-1/1

Operate Foldable ROPS—Low Profile

NOTE: Right side ROPS crossbar locking system shown, left side similar.

CAUTION: Make certain all parts are installed correctly if roll-over protective structure (ROPS) is loosened or removed for any reason. Replace and tighten mounting cap screws 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 manufacturer approved.

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

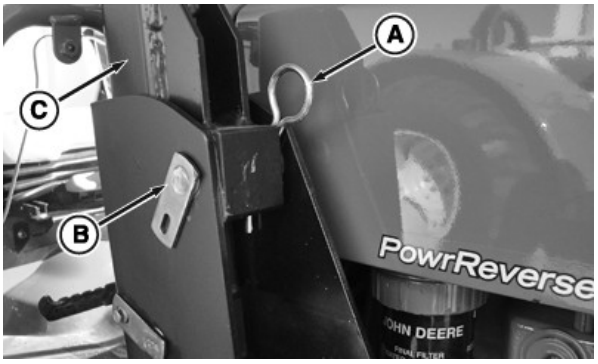
Lift the ROPS up again and pin in vertical position as soon as the tractor is operated under normal conditions.

Lower ROPS Crossbar (C):

1. Remove quick-lock pin (A) and headed pin (B).
2. Lower crossbar (C) of ROPS onto stops.
3. Reinstall quick-lock pin (A) and pin (B) into holes in ROPS to lock crossbar down.

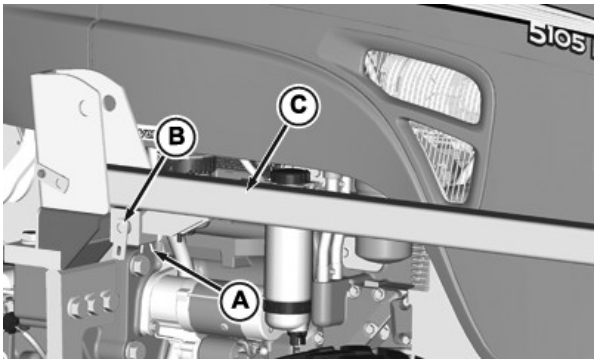
Raise ROPS Crossbar (C):

1. Remove quick-lock pin (A) and headed pin (B).
2. Lift crossbar (C) of ROPS to vertical position.



PULV004675—UN—16DEC09

Front ROPS — Right Side View



PULV004587—UN—23JUN09

ROPS — Folded

A—Quick-Lock Pin
B—Headed Pin
C—ROPS Crossbar

3. Reinstall quick-lock pin (A) and pin (B) into holes in ROPS to lock crossbar in position.

SH20560,00000CE-19-16DEC09-1/1

Adjust Seat—Open Operator's Station

CAUTION: To avoid accidents, adjust seat before driving.

IMPORTANT: While adjusting seat, make sure all controls can be easily accessed.

Adjust to suit operator. Two seat adjustments are available:

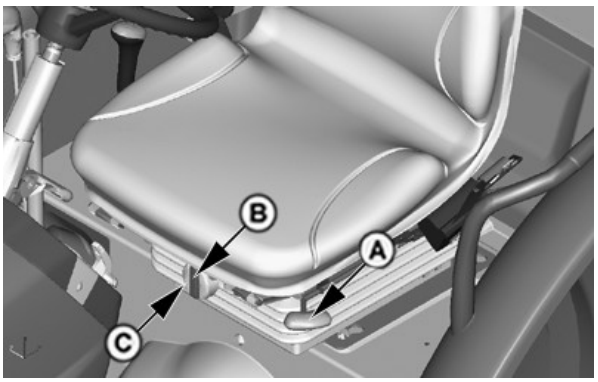
Forward/Backward Adjustment

1. Lift forward/backward adjustment lever (A).
2. Slide seat to desired position.
3. Release forward/backward lever (A) to lock seat in position.

Weight Adjustment

1. Flip out handle (B) on weight adjustment knob (C).
2. Turn handle (B) clockwise or counterclockwise to reach desired suspension travel for operator weight.

NOTE: Suspension should not bottom out when properly adjusted.



PULV000219—UN—10MAR08

OOS Seat-Standard

A—Forward/Backward Adjustment Lever
B—Handle
C—Weight Adjustment Knob

3. Return handle (B) to closed position.

SH20560,0000072-19-09APR08-1/1

Adjust Seat—Deluxe Open Operator's Station

CAUTION: To avoid accidents, adjust seat before driving.

IMPORTANT: While adjusting seat, make sure all controls can be easily accessed.

Adjust to suit operator. Five seat adjustments are available:

Weight Adjustment

1. Flip out weight adjustment lever (A).
2. Turn lever clockwise (increase load) or counterclockwise (decrease load) to reach desired weight setting in display window.

IMPORTANT: Stop turning lever (A) counterclockwise (decreasing load) when seat reaches minimum weight position and lever resistance increases. Seat mechanism could be damaged.

NOTE: Adjustable weight range is 50-130 kg (110-285 lb). Suspension should not bottom out when properly adjusted.

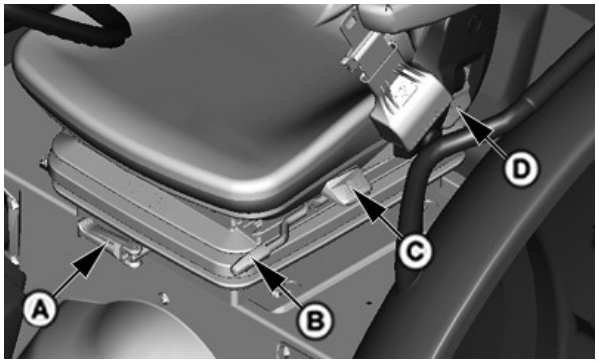
3. Return lever (A) to lock seat in position.

Forward/Backward Adjustment

1. Lift forward/backward adjustment lever (B) up.
2. Slide seat to desired position.
3. Release forward/backward adjustment lever (B) to lock seat in position.

Swivel Adjustment

1. Lift swivel adjustment lever (C) up.
2. Rotate seat to desired position. The seat turns 15° to the left and right. The seat locks at 7.5° intervals.



PULV000559—UN—21APR08

OOS Seat - Deluxe

A—Weight Adjustment Lever
B—Forward/Backward Adjustment Lever
C—Swivel Adjustment Lever
D—Backrest Tilt Adjustment Lever

3. Release swivel adjustment lever (C) to lock seat in position.

Backrest Tilt Adjustment

1. Lift backrest tilt adjustment lever (D).
2. Tilt backrest forward or rearward as desired.
3. Release backrest tilt adjustment lever (D) to lock seat in position.

Height Adjustment

1. Lift seat pan up until a click is heard.

NOTE: There are three height positions.

2. Lift seat pan up past highest position, then lower into desired position.

SH20560,00003EB-19-10APR08-1/1

Adjust Seat—Low Profile

CAUTION: To avoid accidents, adjust seat before driving.

IMPORTANT: While adjusting seat, make sure all controls can be easily accessed.

Adjust to suit operator. Three seat adjustments are available:

Weight Adjustment

1. Flip out weight adjustment lever (A).
2. Turn lever clockwise (increase load) or counterclockwise (decrease load) to reach desired weight setting in display window.

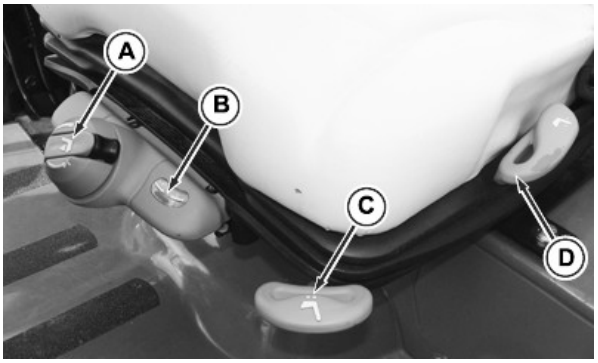
IMPORTANT: Stop turning lever (A) counterclockwise (decreasing load) when seat reaches minimum weight position and lever resistance increases. Seat mechanism could be damaged.

NOTE: Adjustable weight range is 54-145 kg (120-320 lb). Suspension should not bottom out when properly adjusted.

3. Return lever (A) to lock seat in position.

Forward/Backward Adjustment

1. Lift forward/backward adjustment lever (C) up.
2. Slide seat to desired position.
3. Release forward/backward adjustment lever (C) to lock seat in position.



PULV004580—UN—20JUN09

Low Profile

A—Weight Adjustment Lever
B—Weight Adjustment Indicator
C—Forward/Backward Adjustment Lever
D—Backrest Tilt Adjustment Lever

Backrest Tilt Adjustment

1. Lift backrest tilt adjustment lever (D).
2. Tilt backrest forward or rearward as desired.
3. Release backrest tilt adjustment lever (D) to lock seat in position.

Height Adjustment

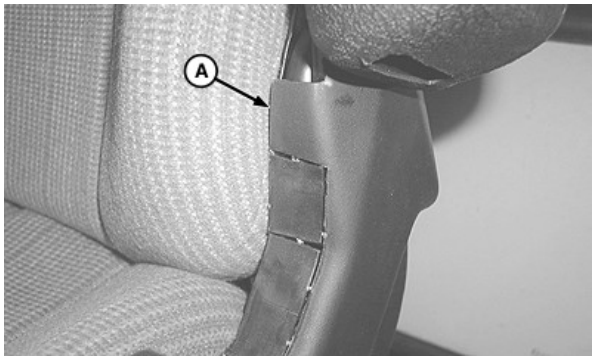
1. Lift seat pan up until a click is heard.
2. Lift seat pan up past highest position, then lower into desired position.

SH20560,00000D0-19-14DEC09-1/1

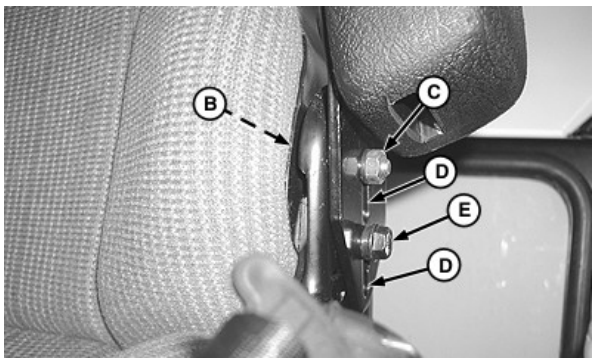
Adjust Seat Arm Rests—If Equipped

1. Pry plastic cover (A) away from seat.
2. Loosen cap screws (B and E).
3. Slide arm rest up or down to desired height, and tighten hardware.

A—Plastic Cover
B—Cap Screw
C—Nut
D—Adjustment Slot
E—Cap Screw



LV9044—UN—17NOV03



LV9045—UN—17NOV03

SH20560,0000073-19-18JUN09-1/1

Use Seat Belt

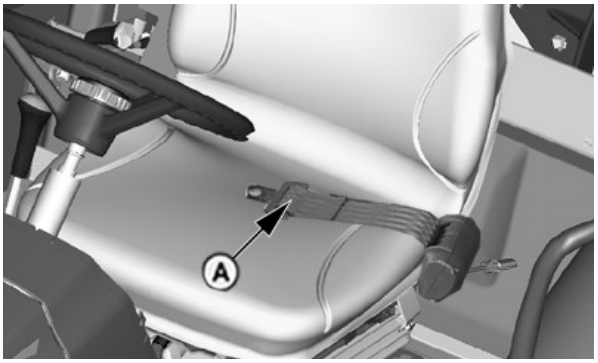
CAUTION: Use the seat belt when operating with a Roll-Over Protective Structure (ROPS). DO NOT use seat belt when ROPS is folded down.

NOTE: OOS shown, Deluxe OOS and low profile similar.

Fit seat belt snugly across abdomen.

Inspect seat belt and mounting hardware annually.

A—Seat Belt



PULV000224—UN—06MAR08

SH20560,00000D1-19-18JUN09-1/1

Adjust Steering Wheel Tilt and Height

NOTE: Cab is shown, OOS and low profile similar.

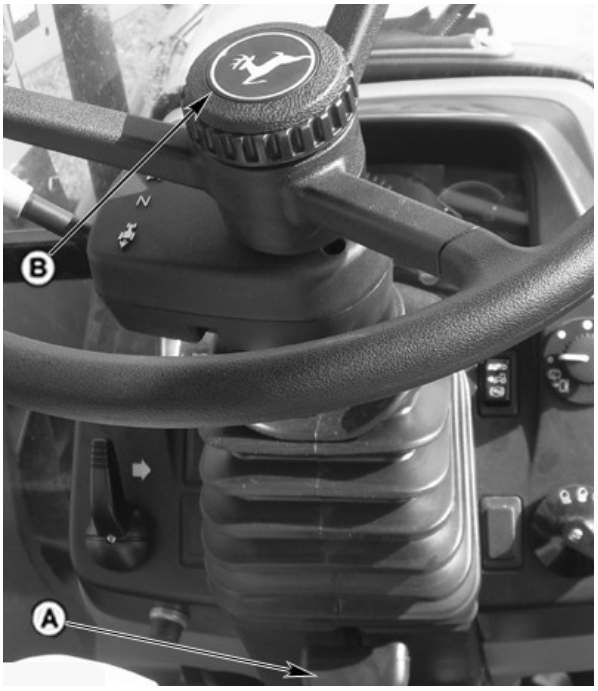
SH20560,00000D2-19-18JUN09-1/2

Tilt: Lift lever (A) and move steering column to desired angle.

Telescoping: Loosen telescope release ring (B) and adjust steering wheel to desired height. Tighten ring to lock into position.

A—Steering Wheel Tilt Lever

B—Steering Wheel Telescope Release Ring



PULV000064—UN—28SEP07

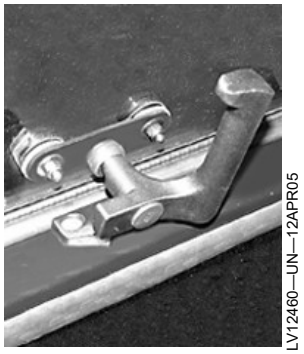
SH20560,00000D2-19-18JUN09-2/2

Door and Windows

Side and rear windows can be opened. Release latch and push window out to open.

If cab doors are blocked in an emergency situation rear window provides a large exit path.

Side window



Rear window

SH20560,0000076-19-01JUL09-1/1

Adjust Seat—Mechanical Suspension

CAUTION: To avoid accidents, adjust seat before driving.

IMPORTANT: While adjusting seat, make sure all controls can be easily accessed.

Adjust to suit operator. Four seat adjustments are available:

Weight Adjustment

1. Flip out weight adjustment lever (A).
2. Turn lever clockwise (increase load) or counterclockwise (decrease load) to reach desired suspension travel for operator weight.

IMPORTANT: Stop turning lever (A) counterclockwise (decreasing load) when seat reaches minimum weight position and lever resistance increases. Seat mechanism could be damaged.

NOTE: Adjustable weight range is 50-130 kg (110-285 lb). Suspension should not bottom out when properly adjusted.

3. Return lever (A) to lock seat in position.

Forward/Backward Adjustment

1. Lift forward/backward adjustment lever (B) up.
2. Slide seat to desired position.
3. Release forward/backward adjustment lever (B) to lock seat in position.

Backrest Tilt Adjustment

Seat Cab-Mechanical Suspension

A—Weight Adjustment Lever
B—Forward/Backward Adjustment Lever
C—Backrest Tilt Adjustment Lever

1. Lift backrest tilt adjustment lever (C).
2. Tilt backrest forward or rearward as desired.
3. Release backrest tilt adjustment lever (C) to lock seat in position.

Height Adjustment

1. Lift seat pan up until a click is heard.

NOTE: There are three height positions.

2. Lift seat pan up past highest position, then lower into desired position.

SH20560,00003ED-19-11NOV10-1/1

Adjust Seat—Air Suspension (If Equipped)

CAUTION: To avoid accidents, adjust seat before driving.

IMPORTANT: While adjusting seat, make sure all controls can be easily accessed.

Adjust to suit operator. Eight seat adjustments are available:

Forward/Backward Adjustment

1. Lift forward/backward adjustment lever (A) up.
2. Slide seat to desired position.
3. Release forward/backward adjustment lever (A) to lock seat in position.

Forward/Backward Suspension Adjustment

- Flip lever (B) forward for forward/backward suspension.
- Flip lever (B) rearward for NO forward/rearward suspension.

Weight Adjustment

1. Lift weight adjustment lever (C) up.
2. Reach desired suspension travel for operator weight.

NOTE: Suspension should not bottom out when properly adjusted.

3. Release lever (C) to lock seat in position.

Backrest Tilt Adjustment

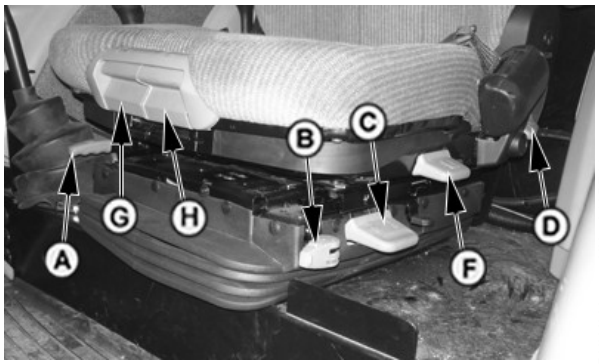
1. Lift backrest tilt adjustment lever (D).
2. Tilt backrest forward or rearward as desired.
3. Release backrest tilt adjustment lever (D) to lock seat in position.

Lumbar Adjustment

Turn lumbar adjustment knob (E) to increase or decrease support to lower back.

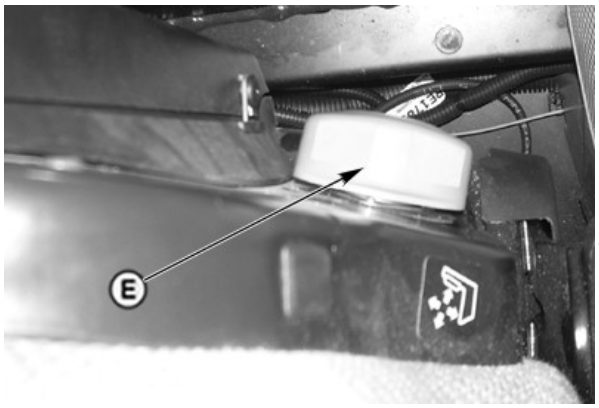
Swivel Adjustment

1. Lift swivel adjustment lever (F) up.
2. Rotate seat to desired position. The seat turns 15° to the left and right. The seat locks at 7.5° intervals.



PULV000555—UN—21APR08

Cab Seat-Air Suspension Seat



PULV000066—UN—28SEP07

A—Forward/Backward Adjustment Lever
B—Forward/Backward Suspension Adjustment Lever
C—Weight Adjustment Lever
D—Backrest Tilt Adjustment Lever
E—Lumbar Support Adjustment Knob
F—Swivel Adjustment Lever
G—Cushion Position Adjustment Lever
H—Lower Cushion Tilt Adjustment Lever

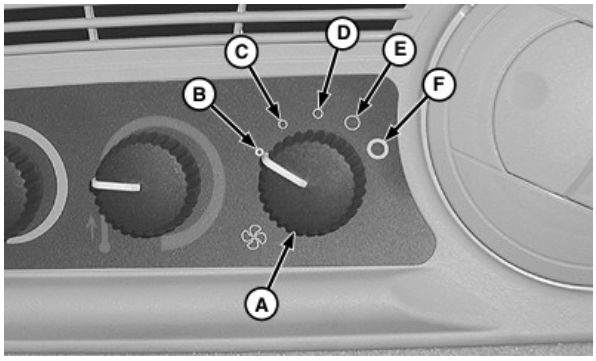
3. Release swivel adjustment lever (F) to lock seat in position.

SH20560,0000077-19-21APR08-1/1

HVAC Blower Speed

Turn HVAC blower speed knob (A) to desired heater, ventilation, or air conditioner 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

SH20560,0000078-19-09OCT07-1/1

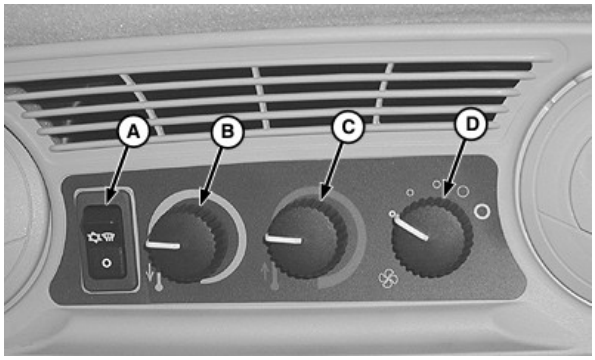
HVAC Temperature

Push top half of switch (A) to turn on air conditioner/defrost.

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

Turn control knob (C) to adjust heater temperature.

A—Air Conditioner and Defrost Switch
B—Air Conditioner Temperature Control Knob
C—Heater Temperature Control Knob
D—Blower Speed Control Knob



LV8415—UN—14JUL03

SH20560,0000079-19-02JUN08-1/1

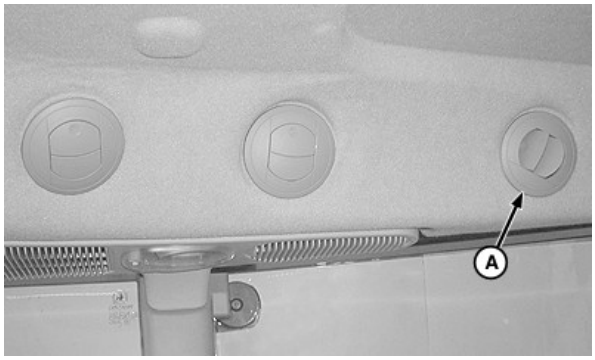
Defrost Windshield

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

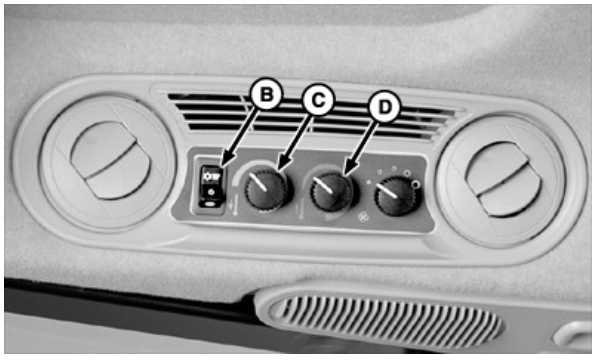
NOTE: Closing middle and rear vents helps clear windshield faster.

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

A—Front Vent
B—Defrost Switch
C—Air Conditioner Temperature Control Knob
D—Heater Temperature Control Knob



LV8596—UN—14AUG03



LV10324—UN—21SEP04

SH20560,000007A-19-02JUN08-1/1

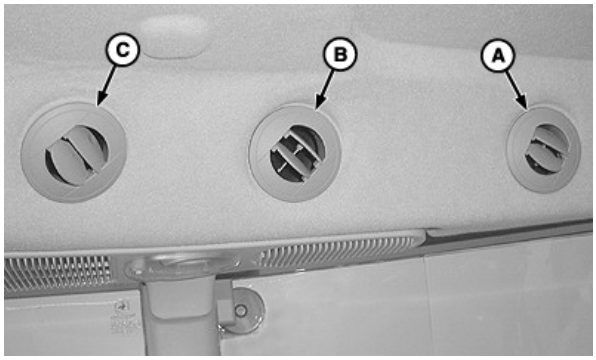
Air Conditioner and Heater Performance

Adjust individual vents to target heating or cooling:

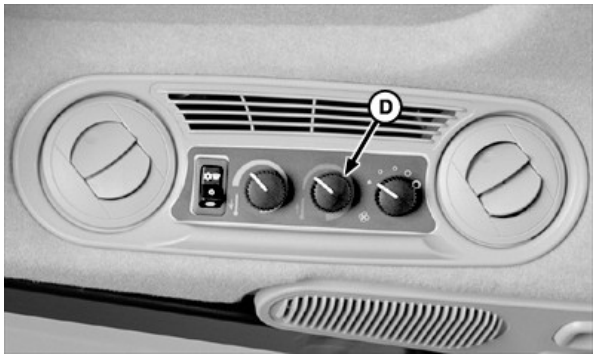
- Aim front vents (A) toward legs and mid-body.
- Aim middle vents (B) toward your head.
- Aim rear vents (C) toward your back.
- Aim all vents (A, B, and C) down to heat the floor and feet.

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

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



LV10325—UN—21SEP04



LV10326—UN—21SEP04

SH20560,000007B-19-09OCT07-1/1

Windshield Wiper and Washer

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

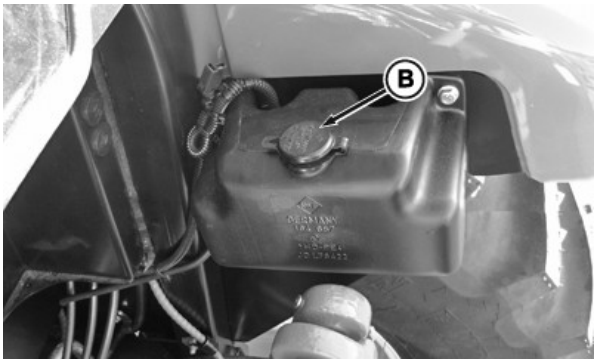
Push switch knob to activate windshield washer.

Fill reservoir (B) with non-freezing windshield washer fluid.

A—Windshield Wiper/Washer Switch
B—Washer Fluid Reservoir

PULV000126—UN—09OCT07

Windshield Wiper Switch



PULV004683—UN—17DEC09

Reservoir

AJ20558,0000331-19-06JAN10-1/1

Rear Window Wiper and Washer—If Equipped

Switch (A) has three positions:

- **Switch Top Down:** Washer ON.
- **Switch Bottom Down:** All OFF.
- **Switch Centered:** Wiper ON.

A—Rear Window Wiper and Washer Switch

PULV000225—UN—06MAR08

SH20560,000007D-19-28MAR08-1/1

Use Dome Light

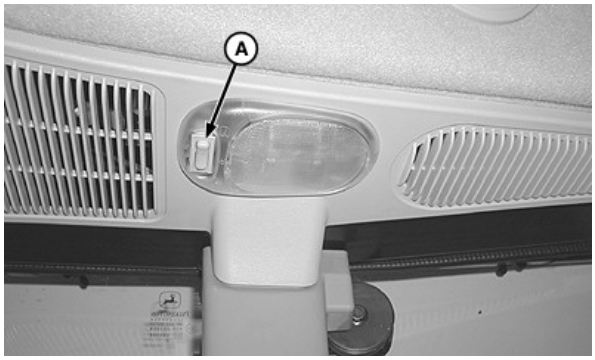
IMPORTANT: Before exiting cab, turn dome light to OFF or DOOR position to avoid causing battery to lose its charge.

SH20560,000007F-19-09OCT07-1/2

Dome light switch (A) has three positions:

- Left Position = light on with door opened or closed.
- Center Position = light on with door opened or light off with door closed.
- Right Position = light off with door opened or closed

A—Dome Light Switch



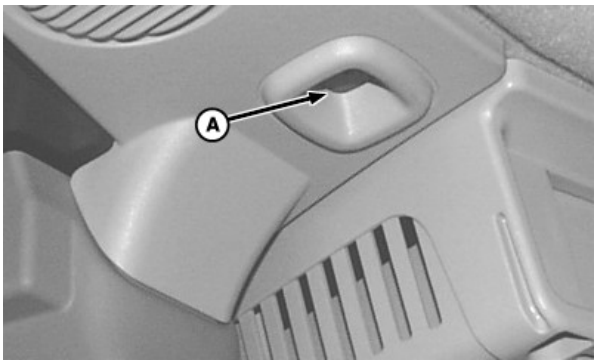
LV8418—UN—14JUL03

SH20560,000007F-19-09OCT07-2/2

Right-Hand Console Control Illumination Light

Only ON when light switch in work, transport 1, or transport 2 position.

A—Control Illumination Light



LV092217—UN—22JUL04

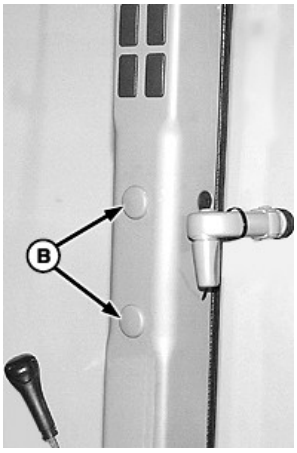
SH20560,0000080-19-15MAR08-1/1

Monitor Installation

Install monitor at front right corner post (A) or right side post (B).

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

Front Post



Side Post

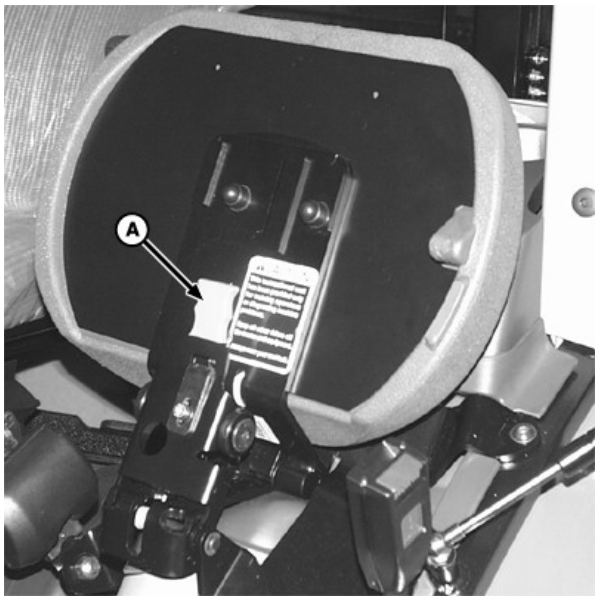
SH20560,0000081-19-19NOV10-1/1

Use Instructional Seat—If Equipped

CAUTION: Only use instructional seat for training operators or diagnosing vehicle problems.

Release lock lever (A) and fold down seat bottom.

A—Lock Lever



SH20560,0000082-19-09OCT07-1/1

Accessory Electrical Outlet—If Equipped

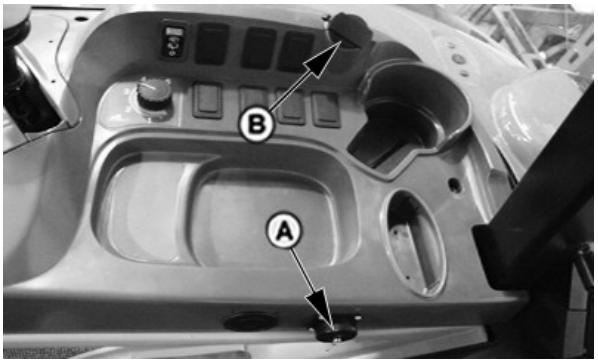
Accessory 12 V electrical convenience outlet (A) is used when connecting auxiliary equipment.

Power outlet (B) is an additional accessory 12 V electrical outlet for connecting auxiliary equipment.

Electrical convenience outlet (A) is protected by fuse F11 (30A) and electrical power outlet (B) is protected by fuse F06 (30A).

NOTE: For fuse location, see Fuse and Relay Size and Function, in Maintenance Guide, Section 75.

A—12 V electrical convenience outlet B—12 V electrical power outlet



PULV002248—UN—19JAN09

SH20560,00003E1-19-03JUL09-1/1

Use Auxiliary Power Strip—If Equipped

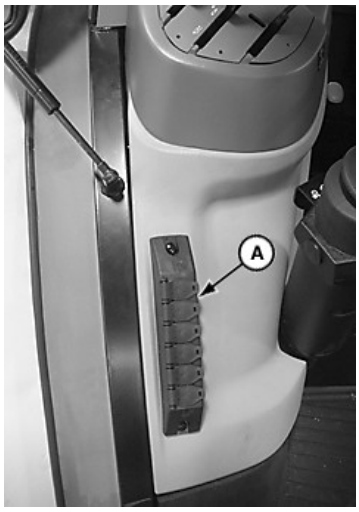
IMPORTANT: Power strip is not a surge suppressor. Electrical equipment with program memory requires protection from electrical surges and spikes.

The power strip provides six outlets of 12 V power with grounds to connect auxiliary equipment. This power is 30 amp switched (key accessory on position) and 30 amp unswitched (key off position).

*NOTE: Positive symbol (+) on cover indicates circuit is **unswitched**. Circle symbol (O) on cover indicates circuit is **switched**.*

Adapters are available from your John Deere dealer.

A—Auxiliary power strip



LV14830—UN—29SEP11

SH20560,0000083-19-28SEP11-1/1

Use Field Office—If Equipped

CAUTION: Do not use the Field Office as a seat. The contents of the briefcase should not exceed 10 kg (22 lb.). Never drive the tractor with an open briefcase.

Press handle (A) down until it ”clicks” into the rack to secure portable Field Office briefcase to the storage rack.

A—Handle

PULV000227—UN—06MAR08

Briefcase in Storage Rack

SH20560,0000084-19-15MAR08-1/1

Operating Radio (AM/FM)

Press DSPL/TIME (A) to switch to time set mode between displays. When the receiver is in AM, FM1, FM2, FM3 or WX, the display will switch between frequency and time of day.

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

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

Press SETUP (D) to control volume/adjusts bass, treble, balance, fade, seek sensitivity, dim and speakers.

Press TUNE/SEEK Next (E) to switch to next radio station.

Press TUNE/SEEK Previous (F) to switch to previous station.

Press BAND (G) to select FM1, FM2, FM3, AM or WX (Weather).

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

Press Preset Stations (I) buttons 1-6.

Press AUX INPUT (J) for external audio devices.

Press AUTO STORE (K) to preset strongest stations.

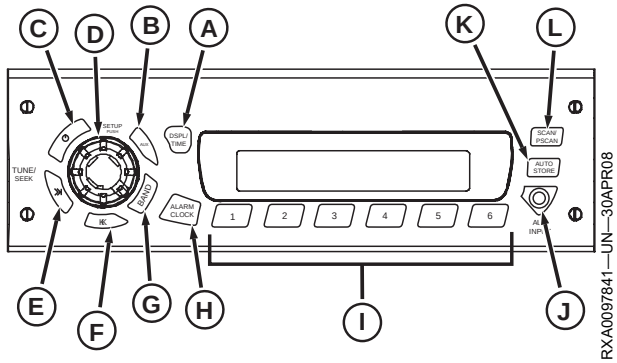
SCAN/PSCAN (L) to scan all stations. When a strong enough signal is found, the station will play for 5 seconds then continue to scan until SCAN/PSCAN is pressed again.

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/PSCAN (L)

Storing Preset Stations:

1. Select FM1, FM2, FM3, AM or WX.
2. Tune to desired station.
3. Press and hold one of the six preset buttons (I) to store the selected station.



RXA0097841—UN—30APR08

A—Display/Time Set
B—AUX Mode
C—On/Off
D—SETUP Push
E—Tune/Seek Next Station
F—Tune/Seek Previous Station
G—Band
H—Alarm Clock
I—Preset Stations
J—Auxiliary Input
K—Auto Store
L—Scan/Pscan

4. Repeat procedure for remaining preset buttons.

Press AUTO STORE (K) 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.

Adjust volume, bass, treble, fade, and balance by pressing and releasing SETUP (D) button repeatedly until desired function appears on display. Rotate knob for adjustment.

Adjust brightness of display by pressing SETUP (D) until ”DIM” appears on display. Rotate knob to adjust.

Display change option to dwell on time or station frequency:

1. Use set up mode to press and hold (A) button for 3 seconds.
2. Observe slow flash on display.
3. Press preset station (I) button #6.
4. Wait a few seconds, then toggle to dwell on time or station frequency.
5. Press and hold to set.

RW29387,0000136-19-07MAY08-1/1

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 DSPL/TIME (A) to switch to time set mode between displays. When the receiver is in AM, FM1, FM2, FM3 or WX, the display will switch between frequency and time of day.

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

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

Press SETUP (D) to control volume/adjusts bass, treble, balance, fade, seek sensitivity, dim and speakers.

Press TUNE/SEEK Next (E) to switch to next radio station.

Press TUNE/SEEK Previous (F) to switch to previous station.

Press BAND (G) to select FM1, FM2, FM3, AM or WX (Weather).

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

Press Pause/Play (I) to pause CD. Repeat to play CD.

Press RDM (J) to play CD tracks randomly.

Pre RPT (K) to repeat same CD track until cancelled.

Press Preset Stations (L) buttons 1-6.

Press FF (M) to fast forward CD track.

Press REV (N) to fast reverse CD track.

Press AUX INPUT (O) for external audio devices.

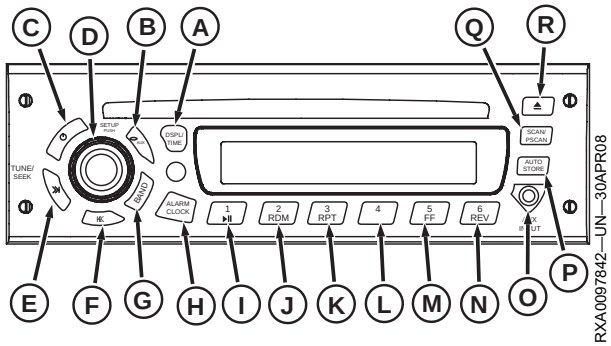
Press AUTO STORE (P) to preset strongest stations.

Press SCAN/PSCAN (Q) to scan all stations. When a strong enough signal is found, the station will play for 5 seconds then continue to scan until SCAN/PSCAN is pressed again.

Press Eject (R) to eject CD.

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/PSCAN (L)



A—Display/Time Set
B—AUX Mode
C—On/Off
D—SETUP
E—Tune/Seek Next Station
F—Tune/Seek Previous Station
G—Band
H—Alarm Clock
I—Pause/Play CD
J—RDM
K—RPT
L—Preset Stations
M—FF
N—REV
O—Auxiliary Input
P—Auto Store
Q—Scan/Pscan
R—Eject CD

Storing Preset Stations:

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

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

Adjust volume, bass, treble, fade, and balance by pressing and releasing SETUP (D) button repeatedly until desired function appears on display. Rotate knob for adjustment.

Adjust brightness of display by pressing (D) until ”DIM” appears on display. Rotate knob to adjust.

Display change option to dwell on time or station frequency:

1. Use set up mode to press and hold (A) button for 3 seconds.
2. Observe slow flash on display.
3. Press preset station (N) button #6.
4. Wait a few seconds, then toggle to dwell on time or station frequency.
5. Press and hold to set.

RW29387,0000137-19-30JUL08-1/1

Operating Compact Disc Player (If Equipped)

Switch ignition and receiver to ON position.

Insert compact disc partway into slot (A), label side up. The player will automatically pull the disc in once it has been partially inserted. The CD will begin to play.

Press FF (C) to forward to the next track. The CD will play 10 seconds of that track and then play each successive track for 10 seconds. Press (C) again to cancel.

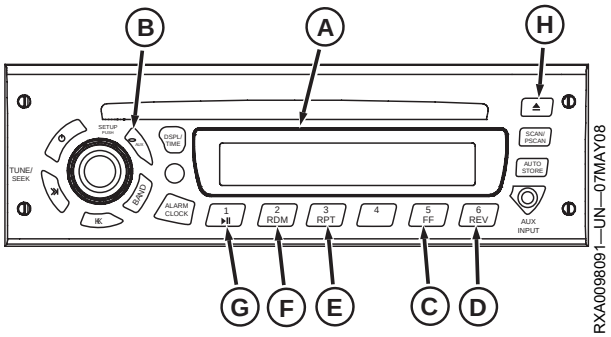
Press (D) to reverse to the beginning of the track.

Press (E) to repeat the current track. Press (F) for random track selection.

Press (H) to eject CD.

Press (G) to pause CD. Press again to play.

Press AUX (B) to play CD if you are listening to AM/FM/WX radio.

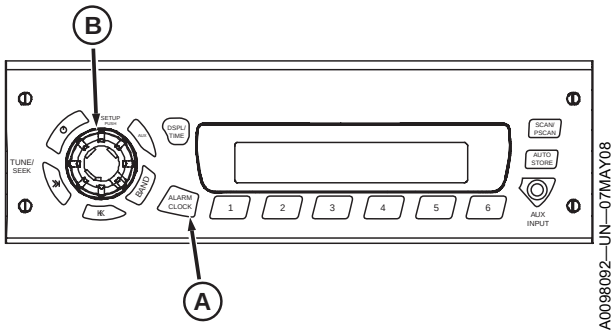


A—CD Slot
B—AUX Mode
C—FF-Fast Forward
D—REV-Fast Reverse
E—RPT-Repeat
F—RDM-Random
G—Pause
H—Eject CD

RW29387,0000138-19-08MAY08-1/1

Setting Alarm

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



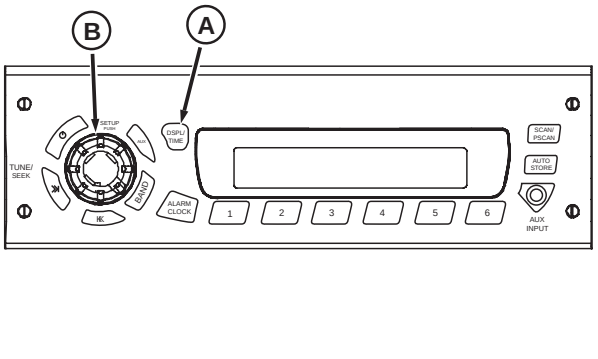
A—ALARM CLOCK
B—SETUP

NOTE: If you do not press any button or rotate knob for 5 seconds during alarm set process, alarm clock setup will be cancelled and radio will return to normal operation, keeping whatever setting changes have been made.

OU1092A,0000227-19-30JUL08-1/1

Setting Clock

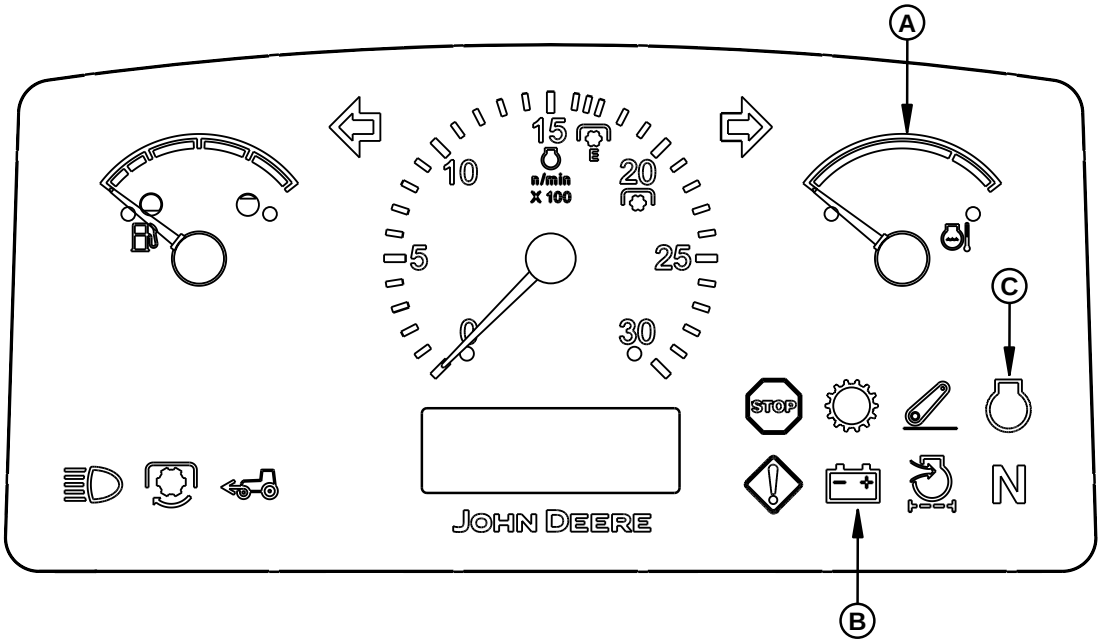
1. Switch ignition to ON position.
2. Press and hold DSPL/TM SET (A) button until the ”hours” and “minutes” digits flash and you hear a beep.
3. Press DSPL/TM SET (A) button again until “hours” digits flash.
4. Rotate SETUP (B) knob to change the hour. Rotate the knob clockwise to increase and counterclockwise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



A—DSPL/TM SET **B—SETUP**

RW29387,0000139-19-30JUL08-1/1

Observe Engine Operation



PULV000521—UN—11MAR08

A—Coolant Temperature Gauge B—Charging Indicator

C—Oil Pressure Indicator

IMPORTANT: Use extra caution during the first 100 hours to become thoroughly familiar with the sound and feel of your new tractor.

Warm up tractor and check coolant temperature gauge (A), oil pressure (C), charging (B), and warning indicators.

Avoid unnecessary engine idling.

Check fluid levels frequently for engine oil, coolant, transmission-hydraulic, and mechanical front-wheel drive (if equipped). Watch for fluid leaks.

NOTE: If engine oil is added, use seasonal viscosity grade oil.

SH20560,0000088-19-14JUL08-1/1

Break-In Service

IMPORTANT: Keep wheel hardware tight for safety. Check wheel hardware torque before operating, twice during first ten hours of operation and thereafter every week/50 hours of operation.

For 5065M and 5075M: New engines are filled with John Deere Plus-50™ oil. If oil is required in first 300 hours, be sure to use John Deere Plus-50™ oil. Change oil and filter after first 300 hours of operation.

For 5085M, 5095M, 5095MH, 5105M and 5105ML: New engines are filled with John Deere DIESEL ENGINE BREAK-IN OIL. If oil is required in first 100 hours, be sure to use BREAK-IN oil. Change oil and filter after first 100 hours of operation.

Plus-50 is a trademark of Deere & Company

[1] See DIESEL ENGINE OIL—5085M, 5095M, 5095MH, 5105M and 5105ML in Fuel, Lubricants and Coolant section for additional information.

[2] See DIESEL ENGINE OIL—5065M and 5075M in Fuel, Lubricants and Coolant section for additional information.

For 5085M, 5095M, 5095MH, 5105M and 5105ML: If tractor is 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.

After first 100 hours of operation:

- ☐ **For 5085M, 5095M, 5095MH, 5105M and 5105ML:** Replace engine oil after first 100 hours of operation.[1]
- ☐ Tighten Air Intake System and Cooling System Hose Clamps
- ☐ Inspect Tractor for Loose Hardware

After first 300 hours of operation:

- ☐ **For 5065M and 5075M:** Replace engine oil after first 300 hours of operation.[2]

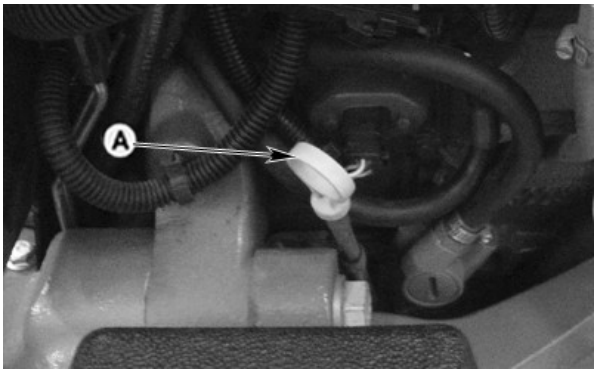
SH20560,00000D3-19-18JUN09-1/1

Service Daily Before Start-Up

IMPORTANT: Do not operate when oil level is below lower mark on dipstick.

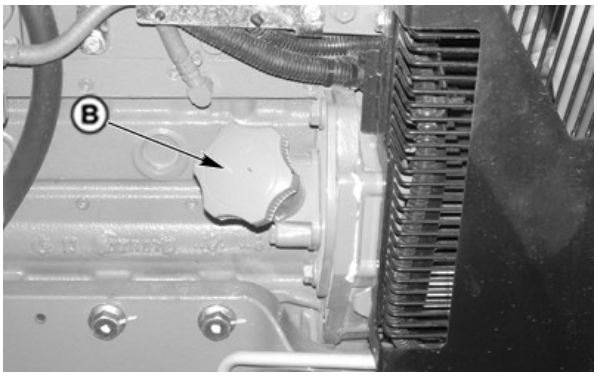
1. Check engine oil level. Wipe dipstick (A) off and reinsert it fully. Remove and check oil level.
2. If operating in extremely wet or muddy conditions, lubricate the following at the 10-hour service interval with multipurpose grease:
   - Front axle pivot pin
   - Steering spindles and cylinder ends (adjustable front axle)
   - Rear axle bearings
3. Lubricate with multipurpose grease:
   - Hood latch
   - Operator's seat slide rails

A—Engine Oil Dipstick **B—Engine Oil Filler Cap**



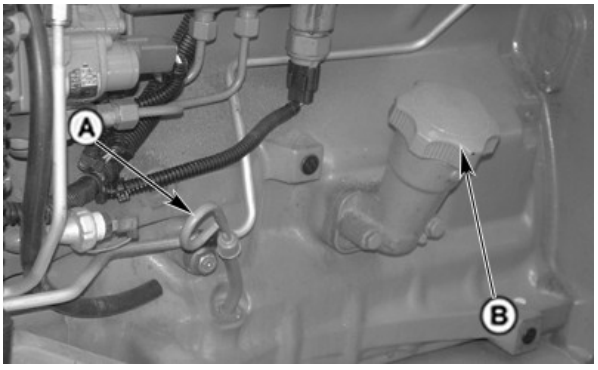
PULV000071—UN—01OCT07

5065M and 5075M



PULV000069—UN—01OCT07

5065M and 5075M



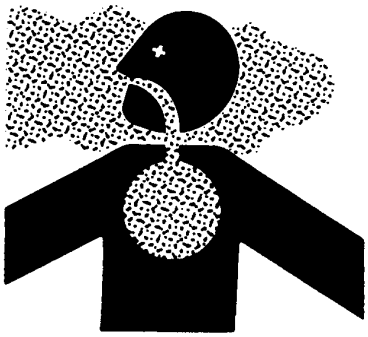
PULV000060—UN—01OCT07

5085M, 5095M, 5095MH and 5105M Shown, 5105ML Similar

SH20560,00000D4-19-29JAN14-1/1

Before Starting the Engine

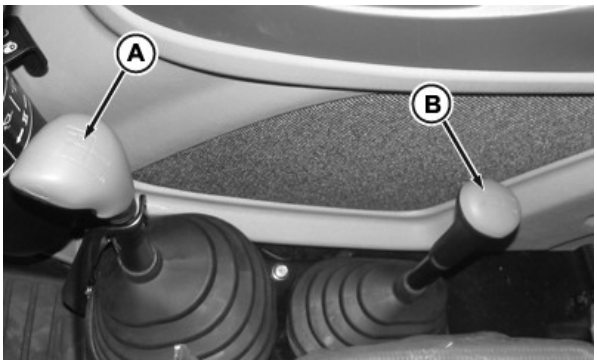
CAUTION: Prevent asphyxiation by providing adequate ventilation. If operating indoors, use an exhaust pipe extension to remove the exhaust fumes or open doors and windows to thoroughly ventilate the area.



TS220—UN—15APR13

Engine Exhaust Fumes

SH20560,00000D5-19-16DEC09-1/4



PULV004926—UN—18JUN09

Speed Shift Lever and Range Shift Lever

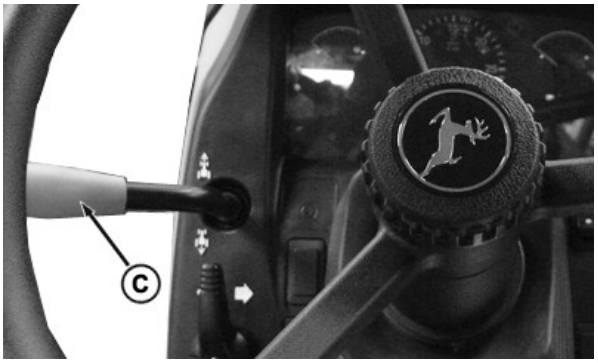
1. **Transmission Controls:** Put speed shift lever (A) in PARK and range shift lever (B) in NEUTRAL.

   If equipped, put reverser lever (C) in NEUTRAL.

A—Speed Shift Lever
B—Range Shift Lever
C—Reverser Lever

PULV004928—UN—18JUN09

PowrReverser™ Lever



PULV004927—UN—18JUN09

SyncReverser™ Lever

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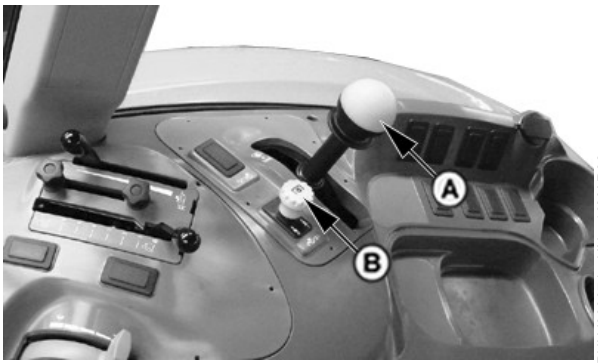
SH20560,00000D5-19-16DEC09-2/4



PULV000074—UN—10MAR08

Cab

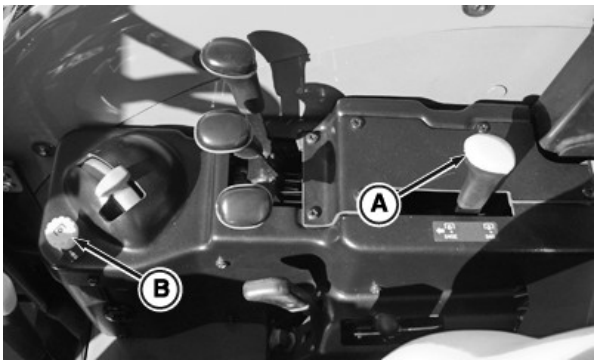
PULV000146—UN—06MAR08

OOS

2. Disengage PTO: Push PTO switch (B) down then place PTO speed shift lever (A) in neutral.

NOTE: Do not engage or disengage PTO using PTO speed shift lever (A).

A—PTO Speed Shift Lever **B—Rear PTO Switch**



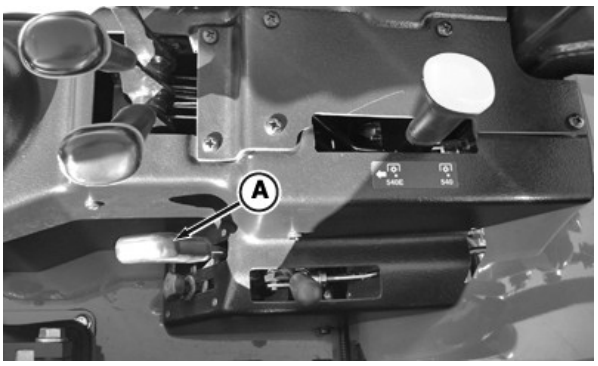
PULV004676—UN—16DEC09

Low Profile

SH20560,00000D5-19-16DEC09-3/4

PULV000075—UN—06MAR08

Mechanical Hitch—OOS



PULV004677—UN—16DEC09

Mechanical Hitch—Low Profile

3. Push hitch position control lever (A) forward to lower equipment to the ground.
4. Turn key to RUN position and check gauges and indicator lights.

A—Hitch Control Lever

PULV000076—UN—11NOV07

Electrohydraulic Hitch—Cab

SH20560,00000D5-19-16DEC09-4/4

Operate Key Switch

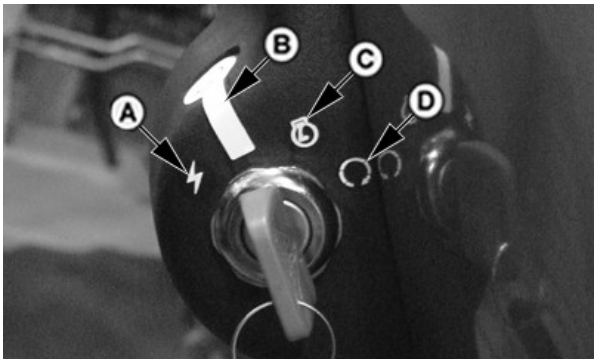
NOTE: If temperature is below 5°C (41°F), refer to Cold Weather Starting procedure in this section.

Accessory Position (A): Push in and 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 gauges and indicator light before advancing to START position. Also use RUN position to activate cold weather starting devices.

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



PULV000230—UN—10MAR08

A—Accessory Position
B—Stop Position
C—Run Position
D—Start Position

SH20560,0000161-19-10APR08-1/1

Start Engine

TS177—UN—11JAN89

Machinery Runaway

⚠ CAUTION: NEVER start engine while standing on ground. Do not start engine by shorting across starter terminals. If normal circuitry is bypassed machine may start in gear and move.

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

	Temperature Below 0 °C (32 °F)	Temperature Above 30 °C (89.6 °F)
Mechanical Engine	1000 rpm	900 rpm
Electronic Engine	1000 rpm	900 rpm

NOTE: For temperature ranging 0°C - 30°C , run engine between 900 rpm and 1000 rpm.

1. Begin procedure from operator's seat with transmission in neutral or park.
2. Push hand throttle (A) forward from idle position (approximately 1/3 of full throttle).

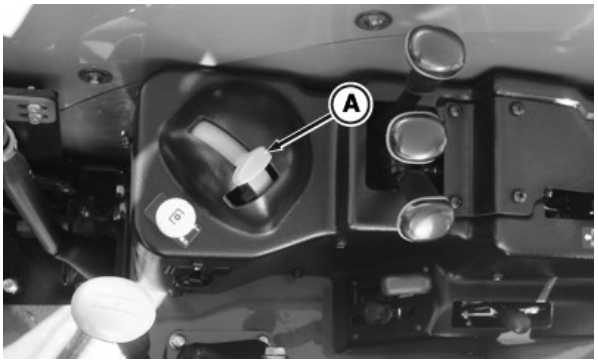
NOTE: Engine may not start with throttle pulled completely rearward.

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.

3. Depress clutch pedal and turn key (B) to START position. Release key when engine starts.
4. Warm up tractor and monitor control panel. Charging and oil pressure warning indicators should go off and stay off. Coolant temperature gauge should begin to move into normal range.
5. Monitor fluid leaks: engine oil, engine coolant, transmission/hydraulic oil, and front axle oil (if MFWD equipped)
6. Avoid unnecessary engine idle.

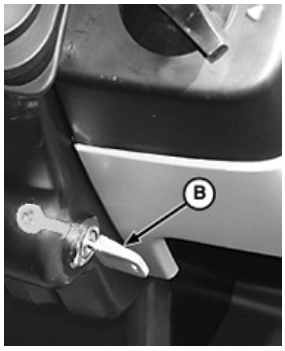
PULV000077—UN—01OCT07

Hand Throttle (Cab)



PULV004678—UN—16DEC09

Hand Throttle (Low Profile)



LV12487—UN—12APR05

A—Hand Throttle **B—Key Switch Off**

SH20560,00000D6-19-16DEC09-1/1

Cold Weather Start Aid

NOTE: Hydraulic and Steering functions may be slow until hydraulic oil warms up to operating temperature. If hydraulic functions operate slowly, warm the transmission-hydraulic system oil. (Refer to "Warm Transmission-Hydraulic System Oil" in Section 70.)

CAUTION: DO NOT use starting fluid.

5065M and 5075M

Tractors are equipped with glow plugs as a standard equipment starting aid.

1. To activate cold weather starting device, turn key (B) to RUN position:
   - Deluxe Instrument cluster will start 30 second count down for glow plugs.
   - Standard Instrument cluster will flash engine symbol for glow plugs.

NOTE: For 5065M and 5075M: DO NOT push and hold key to start cold weather starting device.

2. Depress clutch pedal and turn key to START position.
3. If engine runs rough, press in on key to reactivate cold weather starting device until engine runs smoothly.
4. Idle engine until it warms to operating temperature.

	Temperature Below 0 °C (32 °F)	Temperature Above 30 °C (89.6 °F)
Mechanical Engine	1000 rpm	900 rpm
Electronic Engine	1000 rpm	900 rpm

NOTE: For temperature ranging 0°C - 30°C , run engine between 900 rpm and 1000 rpm.

NOTE: If hydraulic functions operate slowly, warm the transmission-hydraulic system oil. (Refer to "Warm Transmission-Hydraulic System Oil" in Section 70.)

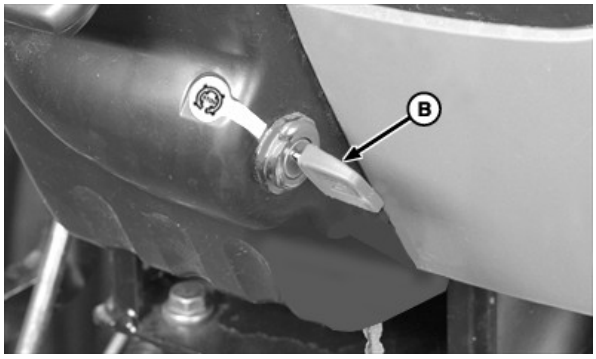
5085M, 5095M, 5095MH, 5105M and 5105ML

Tractors can be equipped with an optional intake air heater system. An electric heating element (A) warms the intake air.

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

PULV000078—UN—03OCT07

5085M, 5095M, 5095MH, 5105M and 5105ML



LV9552—UN—13AUG04

Key Switch

A—Electric Heating Element B—Key

NOTE: For 5065M and 5075M: DO NOT push and hold key to start cold weather starting device.

2. Depress clutch pedal and turn key to START position.
3. If engine runs rough, press in on key to reactivate cold weather starting device until engine runs smoothly.
4. Idle engine until it warms to operating temperature.

	Temperature Below 0 °C (32 °F)	Temperature Above 30 °C (89.6 °F)
Mechanical Engine	1000 rpm	900 rpm
Electronic Engine	1000 rpm	900 rpm

NOTE: For temperature ranging 0°C - 30°C , run engine between 900 rpm and 1000 rpm.

NOTE: If hydraulic functions operate slowly, warm the transmission-hydraulic system oil. (Refer to "Warm Transmission-Hydraulic System Oil" in Section 70.)

SH20560,00000D7-19-23JUL09-1/1

Engine Block 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 terminals.

If a two-to-three contact adapter is used at the wall receptacle, connect green wire to a good ground.

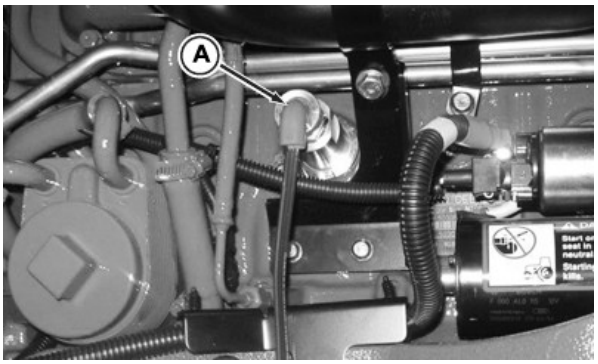
Immerse element in coolant before connecting heater to power source. NEVER energize heater in air.

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

Connect block heater plug to a ground fault protected 110 V electrical outlet.

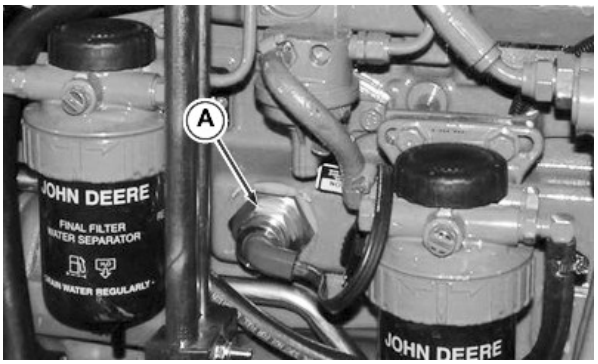
A—Engine Coolant Block Heater

TS210—UN—23AUG88



PULV004612—UN—29JUL09

5065M and 5075M



PULV004611—UN—29JUL09

5085M, 5095M, 5095MH, 5105M and 5105ML

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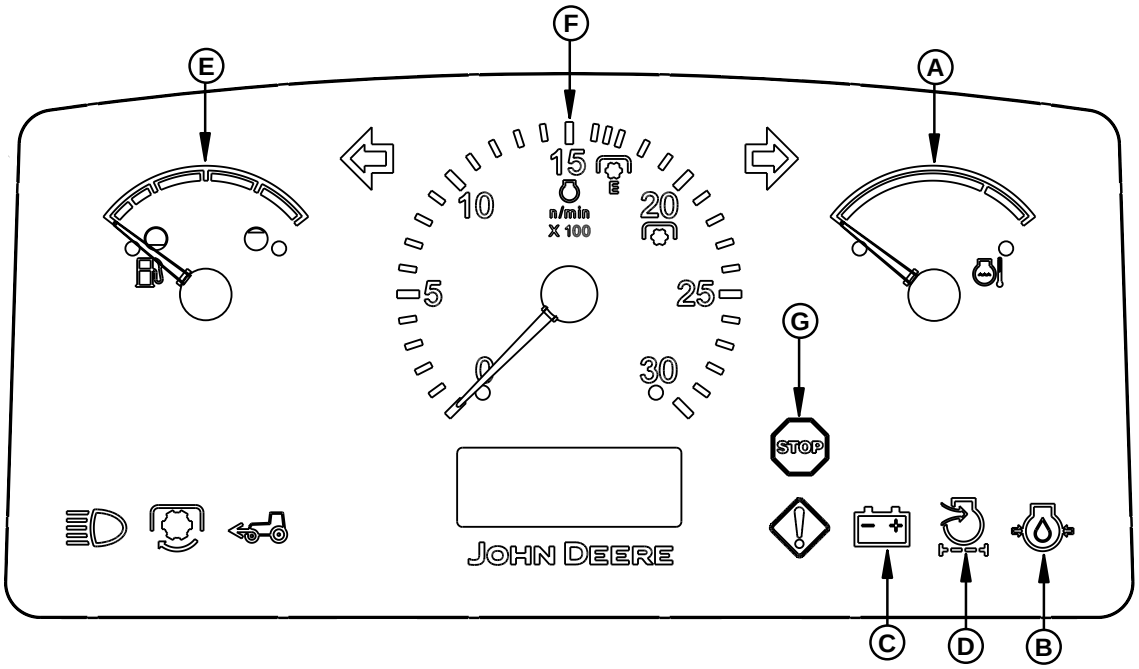
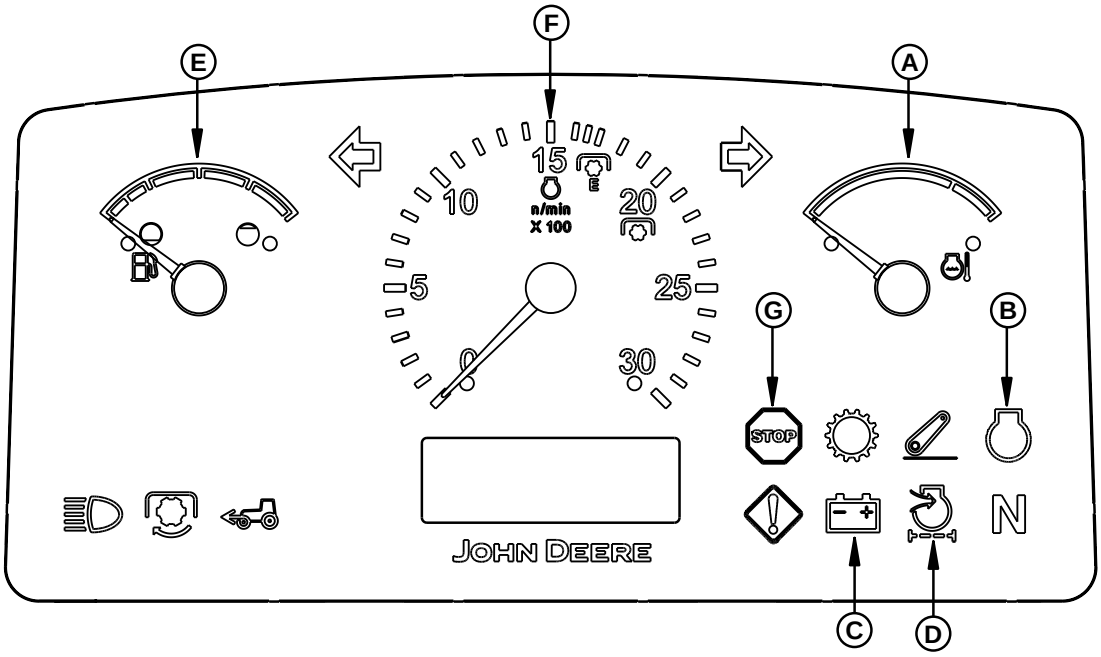
Check Engine Indicators and Gauges



PULV000585—UN—07MAY08

Standard Instrument Panel



PULV000522—UN—11MAR08

Deluxe Instrument Panel

A—Coolant Temperature Gauge
B—Engine Information Indicator
C—Charging System Indicator
D—Air Restriction Indicator
E—Fuel Level Gauge
F—Tachometer
G—STOP Indicator

IMPORTANT: If temperature gauge (A) indicates hot (red zone), or either charging system or oil pressure indicators (B or C) fail to go out, stop engine and determine the cause.

Coolant Temperature Gauge (A)

If coolant temperature gauge needle reaches red zone, stop engine immediately.

Check coolant level in recovery tank and radiator when

Continued on next page

SH20560,0000165-19-07MAY08-1/2

engine cools. Also check grille, radiator and radiator screen for plugging. Check fan belt tension.

IMPORTANT: NEVER operate engine without sufficient oil pressure. If indicator stays illuminated for longer than 5 seconds under normal operating conditions, stop engine and check for cause.

Engine Information Indicator (B)

If engine information indicator remains illuminated after engine started, stop engine immediately.

Check engine oil level, engine oil cooler, and engine oil filter.

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

Charge System Indicator (C)

If electrical charge indicator remains illuminated after engine started, for longer than 5 seconds, stop engine immediately.

Check battery connections. Check fan belt tension.

Air Restriction Indicator (D)

If air filter restriction indicator illuminates while engine is running, stop engine immediately.

Clean out plugged air cleaner.

Fuel Level Gauge (E)

Refuel before fuel level gauge needle reaches empty.

Check fuel lines, fuel filter, and in-line screen. If run completely empty, bleed air out of fuel system.

IMPORTANT: Use diesel fuel only.

Tachometer (F)

Engine revolutions per minute (rpm) are represented in hundreds.

STOP Indicator (G)

Light flashes and alarm sounds continuously to alert operator that a serious malfunction has occurred, which requires immediate attention or the tractor will be damaged.

Immediately stop operations, reduce engine to idle, then SHUT OFF engine.

NOTE: Correct problems before restarting.

SH20560,0000165-19-07MAY08-2/2

Change Engine Speeds

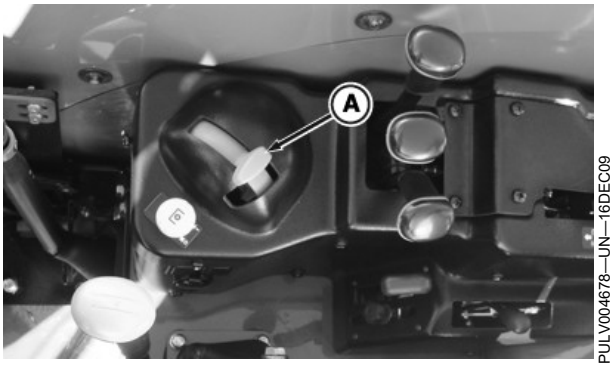
Hand Throttle (Cab Shown)

Push hand throttle (A) forward to increase speed.

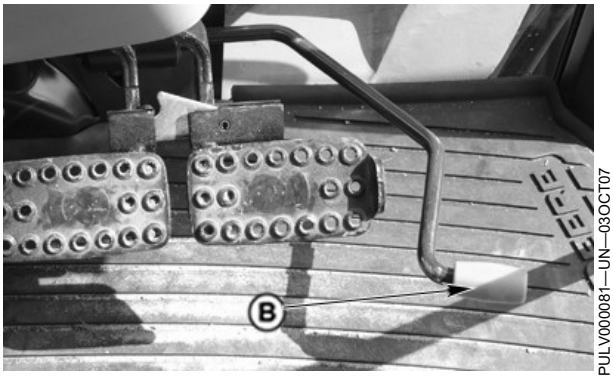
Depress foot throttle (B) to increase engine speed temporarily above hand throttle setting.

NOTE: Use hand throttle only when operating in the field.

A—Hand Throttle **B—Foot Throttle**



Hand Throttle (Low Profile)



Foot Throttle (Cab Shown)

SH20560,00000D8-19-16DEC09-1/1

Recommended Engine Speeds and Operational Procedures

Warm Up Engine

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

1. Idle engine at 1200—1500 rpm for several minutes.
2. Run engine at about 1900 rpm and under light load until engine reaches normal operating condition.

NOTE: If its hard to start engine during cold weather, operate cold weather start aid, if equipped. (Refer to "Cold Weather Start Aid—If Equipped" in this Section.)

NOTE: If hydraulic functions operate slowly, warm the transmission-hydraulic system oil. (Refer to "Warm Transmission-Hydraulic System Oil" in Section 70.)

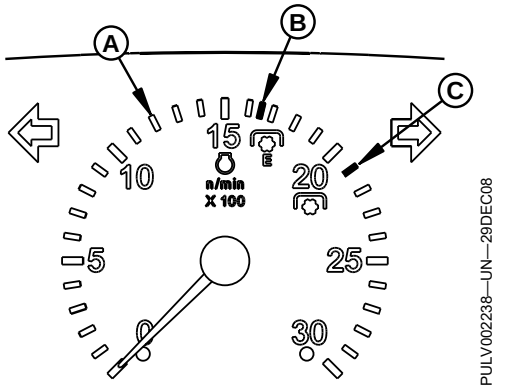
Avoid Idling Engine

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

If tractor must be left with the engine running more than 3 or 4 minutes, minimum engine speed should be 1200 rpm.

Observe Engine Work and Idle Speeds

1. Low idle speed:
   - 900±25 rpm for 5065M, 5075M, 5105M and 5105ML.
   - 850±50 rpm for 5085M, 5095M and 5095MH.
2. Full throttle speed, at light or no load:
   - 2300±25 rpm for 5065M, 5075M, 5105M and 5105ML.
   - 2375±25 rpm for 5085M, 5095M and 5095MH.
3. Engine (not vehicle) nominal full load speed is 1600—2200 rpm.



A—Tachometer
B—1645 rpm Mark (540E)
C—2100 rpm Mark (Standard 540/Optional 1000)

NOTE: With PTO shift lever in 540E position, engine high idle speed is limited to 1815 rpm.

4. Engine speed at PTO operation:
   - For economy 540E PTO operations (light PTO implement load), run engine at 1645 rpm (B).
   - For standard 540 PTO operations (PTO load demands full engine power), run engine at 2100 rpm (C).
   - For 1000 PTO operations, run engine at 2100 rpm (C).

Restart Stalled Engine

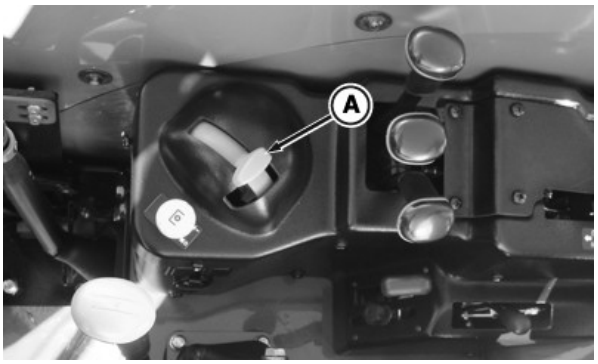
If engine stops running due to overload, immediately restart engine. A running engine causes oil and coolant to circulate, which prevents abnormal heat buildup. If engine stalls, but does not stop running due to overload, run at low idle for one or 2 minutes in order to dissipate heat buildup.

SH20560,00000DB-19-13AUG09-1/1

Stop Engine

PULV000077—UN—01OCT07

Hand Throttle (Cab Shown)



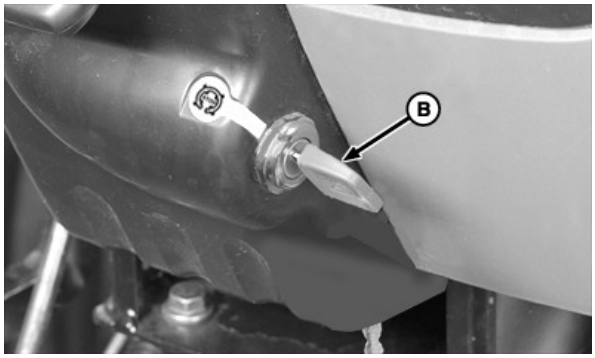
PULV004678—UN—16DEC09

Hand Throttle (Low Profile)

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 (A) back to low idle.
2. Check if range shift lever is in NEUTRAL position. If not, depress clutch pedal and place range shift lever in NEUTRAL.
3. Put speed shift lever in PARK (C), and allow engine to idle for 2—5 minutes.
4. If equipped, place reverser lever into NEUTRAL.
5. Lower all equipment to the ground, put all selective control valve levers in NEUTRAL, and disengage PTO.
6. Turn key (B) to STOP and remove from switch.

A—Hand Throttle
B—Key
C—Speed Lever In Park Position



LV9552—UN—13AUG04

RXA0099433—UN—06OCT08

Speed Lever In Park Position

SH20560,00000D9-19-16DEC09-1/1

Use 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 battery.

IMPORTANT: Reversed polarity may damage electrical system or cause battery to explode.

Booster Battery

1. Attach red power cable to starter positive terminal and positive terminal of booster battery.
2. Attach black ground cable to negative terminal of booster battery and to a good ground on the engine block.
3. Turn key to START position.
4. When engine starts, remove ground cable first, then power cable.

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.
2. Charge battery according to charger manufacturer instructions.
3. Disconnect negative charger lead first, then positive lead.

TS204—UN—15APR13

SH20560,0000169-19-09JUL09-1/1

Front End Ballast

Front ballast maintains additional stability and steering control.

CAUTION: Additional front ballast may be needed for transporting rear-mounted implements. Heavy pulling and heavy rear-mounted implements tend to lift front wheels. When handling weights, use proper lifting equipment.

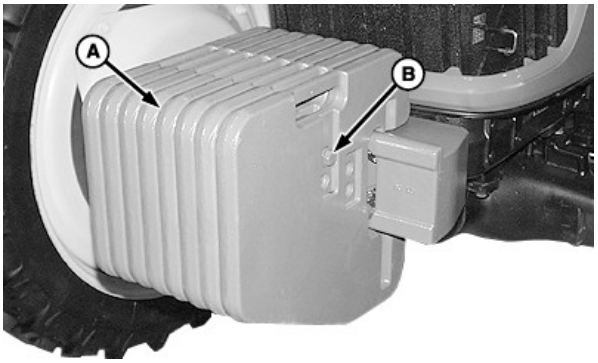
Determine the minimum number of front weights required from implement code in implement operator's manual.

NOTE: Approximate weight of QUIK-TATCH weights is 47 kg (104 lb). Drive slowly over rough ground when implement is raised.

Up to 14 QUIK-TATCH™ weights can be installed on the front of the tractor.

1. Install weights in pairs, one on each side of center (A).
2. To hold weights in place, insert retaining bolts (B) through holes from side-to-side. Tighten to specification.

QUIK-TATCH is a trademark of Deere & Company



LV9683—UN—17AUG04

A—Ballast Center **B—Ballast Retaining Bolt**

Specification	
Ballast Weights Retaining Bolts—Torque	215 N·m (159 lb-ft)

SH20560,00003EE-19-22JUN09-1/1

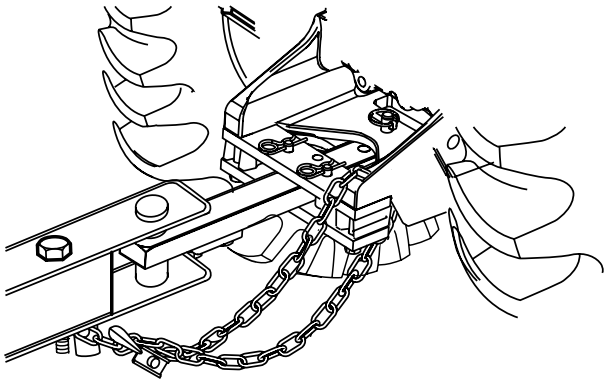
Safety Chain

CAUTION: Avoid possible accident and injury by using a safety chain on drawn equipment. Use a safety chain with a strength rating equal to or greater than the gross weight of equipment. Provide only enough slack in the chain to permit turning.

Attach the safety chain to the drawbar support or other specified anchor locations.

IMPORTANT: DO NOT use safety chain for towing, or possible damage to tractor, implement and drawbar may result. Safety chain is provided only for transport.

SLOW DOWN when transporting heavy implements.



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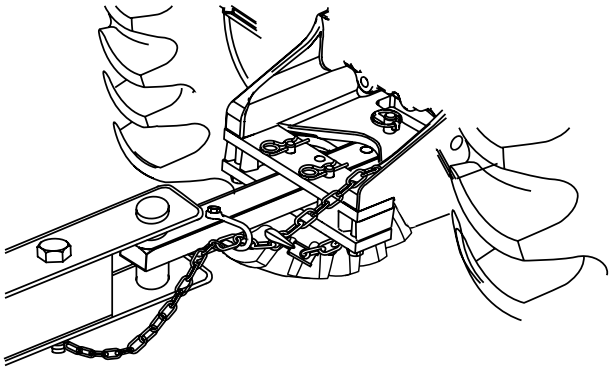


PULV000531—UN—11MAR08

SH20560,00003EF-19-28MAR08-1/1

Road Transportation

CAUTION: Slow-moving tractors with attachments or towed equipment are difficult to see on public roads. Frequently check for traffic from the rear, especially in turns. Use your turn signals.

1. Before driving tractor on roads:
   - Ballast tractor correctly.
   - Clean windows and adjust rear-view mirrors.
   - Use foot throttle instead of hand throttle.

CAUTION: Use brakes lightly and cautiously when slowing from transport speed.

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

IMPORTANT: Couple brake pedals together using brake locking bar (A).

PULV000083—UN—03OCT07

A—Brake Locking Bar

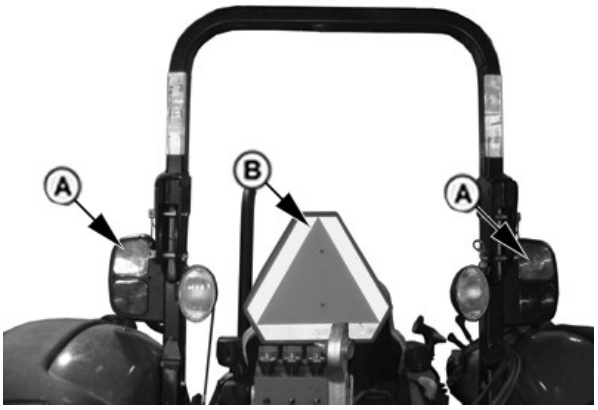
2. Tap brake pedal to ensure differential lock is NOT engaged.

Continued on next page

SH20560,00000DC-19-18JUN09-1/2

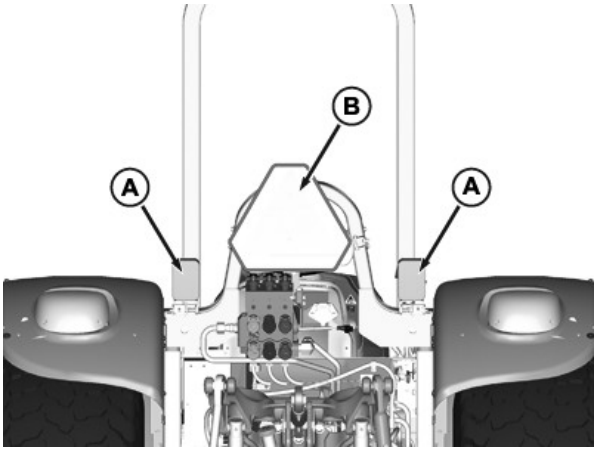
3. Check local laws and regulations for lighting requirements. Clean Slow Moving Vehicle (SMV) emblem (B) and warning lights (A). If towed or rear-mounted equipment obstructs view of safety devices, install SMV emblem and warning lights on equipment.
4. **Differential Lock (if equipped):** Remove foot from differential lock switch and tap (apply) brakes.
5. **MFWD (if equipped):** Disengage front-wheel drive when transporting tractor. When driving on roads, engage BRAKE ASSIST (if equipped) position of MFWD switch to provide four-wheel braking.
6. **Loader Cylinders (if equipped):** Engage transport lock to eliminate possibility of loader movement during transport by inadvertently bumping the multi-function control lever.
7. **Rear Hitch:** Lock hitch in transport position to eliminate the possibility of lowering an implement during transport by inadvertently bumping the raise/lower lever.
8. Drive slowly to maintain safe control. Before descending a hill, shift to a lower gear to control speed without using brakes. Slow down for rough ground and sharp turns, especially when transporting heavy, rear-mounted equipment.

A—Warning Lights **B—SMV Emblem**



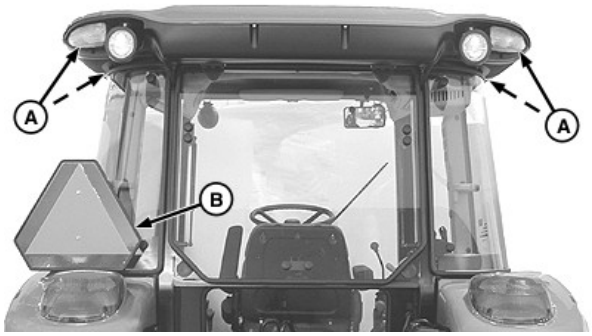
PULV000231—UN—06MAR08

OOS



PULV004922—UN—18JUN09

Low Profile

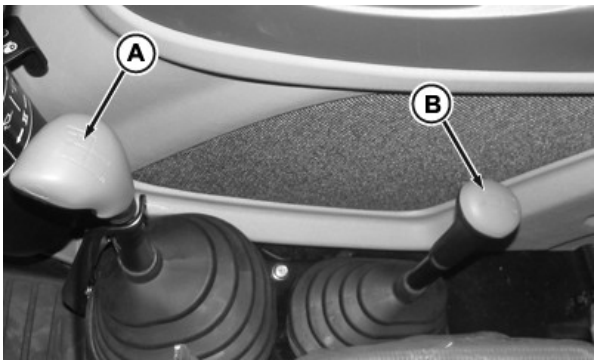


LV8507—UN—24JUL03

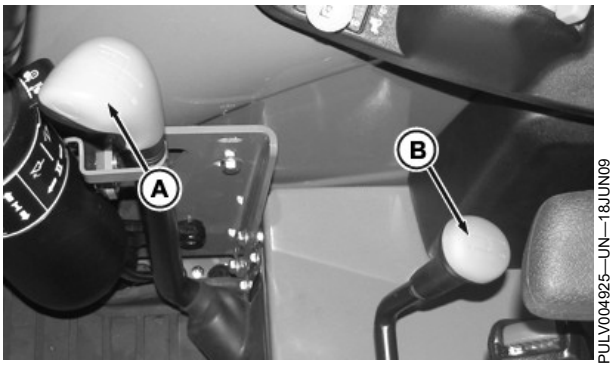
Cab

SH20560,00000DC-19-18JUN09-2/2

Operate SyncShuttle Plus™ Transmission



Speed Shift Lever and Range Shift Lever (Cab)



Speed Shift Lever and Range Shift Lever (OOS)

NOTE: No separate shuttle lever mounted to left of steering wheel.

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

Twelve forward and four reverse speeds are available when using speed and range shift levers.

NOTE: Slow speed gearing (creeper) is available on separate lever. It provides a fifth and sixth speed range.

Range shift lever must be in neutral position to shift into creeper.

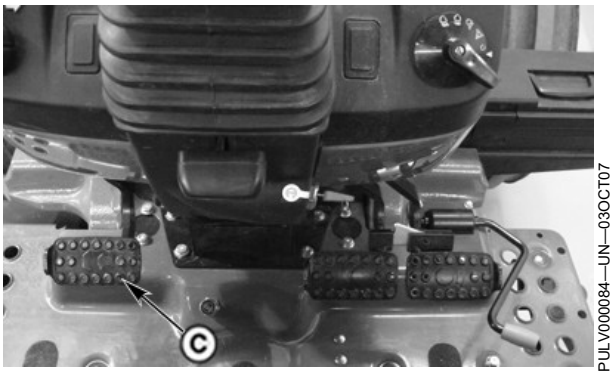
IMPORTANT: To prevent unnecessary clutch wear, never "ride" the clutch by resting a foot on the clutch pedal (C).

Speed (1, 2, 3) and direction shifts (forward and reverse) can be made on-the-go, without stopping. Release clutch pedal gradually to take up load smoothly.

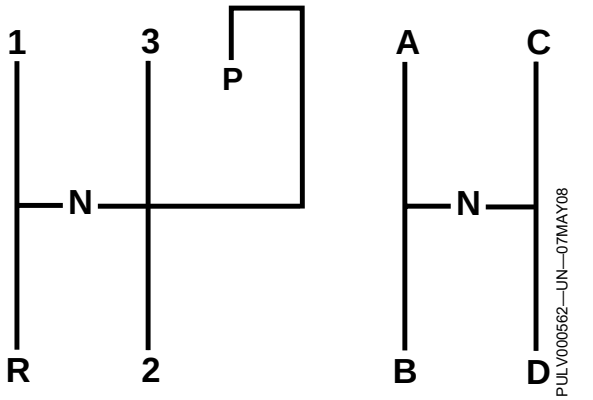
Range (A, B, C and D) shift can be made after stopping.

NOTE: Refer to "Gauges and Indicator Lights" in Section 20 for instrument panel indicators.

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



Clutch Pedal (OOS)



Speed Shift and Range Shift Pattern

SH20560,00003F1-19-19JUN09-1/1

Ground Speed Estimates—SyncShuttle Plus™ Transmission

Speeds are calculated using 16.9-30 R1 rear tires. To calculate ground speeds for tractors equipped with rear tires other than 16.9-30 R1 tires, see “Correction Factors for Other Tire Sizes” in this section.

FORWARD		
Range-Gear	**2200 RPM**	
	km/h	mph
A-1	2.7	1.7
A-2	3.3	2.1
A-3	4.6	2.9
B-1	6.2	3.9
B-2	7.7	4.8
B-3	10.8	6.7
C-1	9.8	6.1
C-2	12.1	7.5
C-3	16.9	11.0
D-1	16.6	10.0
D-2	20.7	13.0
D-3	28.8	18.0
REVERSE		
A-R	3.1	1.9
B-R	7.1	4.4
C-R	11.2	7.0
D-R	19.1	12.0

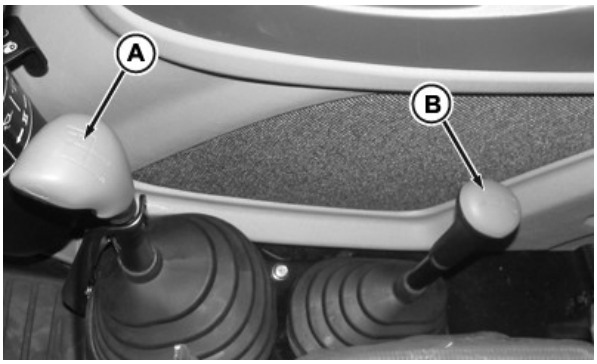
SH20560,00003F2-19-12AUG11-1/1

Operate SyncReverser™ Transmission or PowrReverser™ Transmission

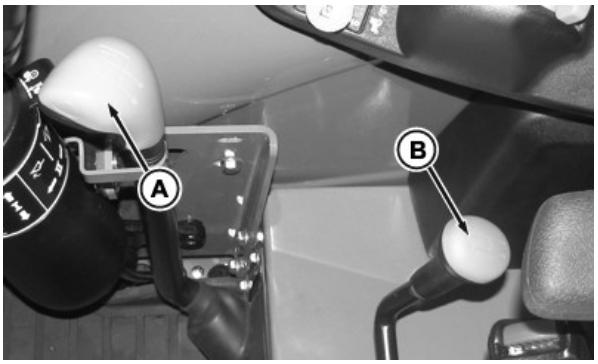
CAUTION: Leaving transmission in gear with engine stopped WILL NOT prevent tractor from moving. Put transmission speed shift lever (A) in PARK and electrohydraulic directional reverser lever in NEUTRAL before dismounting.

Continued on next page

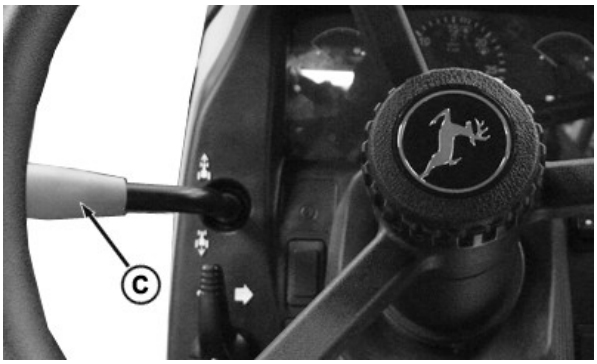
SH20560,00003F3-19-23JUN09-1/3



Speed and Range Shift Levers (Cab)



Speed and Range Shift Levers (OOS)



SyncReverser™ Lever

PowrReverser™ Lever

Speed shift lever (A) provides four forward and reverse travel speeds (1, 2, 3, 4).

Range shift lever (B) provides four forward and reverse speed ranges (A, B, C and D).

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

When using range and speed shift levers in different combinations, 16 forward and reverse speeds are available.

NOTE: Slow speed gearing (creeper) is available on separate lever.

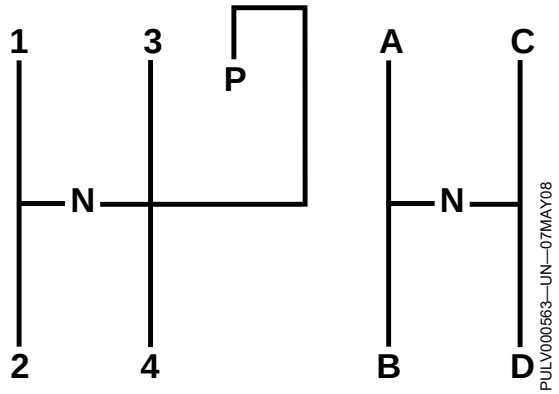
Range shift lever must be in neutral position to shift into creeper.

1. When starting tractor, put reverser lever in neutral and depress clutch pedal.

NOTE: If reverser lever (C) is not in NEUTRAL, and/or speed shift lever (A) is in position except NEUTRAL or PARK, and/or range shift lever (B) is not in NEUTRAL, tractor will not start. Put reverser lever (C), speed shift lever (A) and range shift lever (B) in NEUTRAL to start tractor.

While starting tractor refer to "Before Starting the Engine" and "Start Engine" in Section 50.

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



Speed Shift and Range Shift Pattern

A—Speed Shift Lever
B—Range Shift Lever
C—Reverser Lever

2. Depress clutch pedal and stop tractor before shifting range shift lever (B).
3. For PowrReverser™: Use reverser lever (C) to select forward or reverse travel direction. You can change travel direction without depressing the clutch pedal.
4. For SyncReverser™: Use reverser lever (C) to select forward or reverse travel direction. Clutch pedal must be depressed to shift reverser lever.
5. Depress clutch pedal when shifting speed. Speed shifts (1, 2, 3, 4) can be made on-the-go, without stopping. Release clutch pedal gradually to take up load smoothly.

Continued on next page

NOTE: Refer to "Gauges and Indicator Lights" in Section 20 for instrument panel indicators.

SH20560,00003F3-19-23JUN09-3/3

Ground Speed Estimates—SyncReverser™ Transmission and PowrReverser™ Transmission

Speeds are calculated using 16.9-30 R1 rear tires. To calculate ground speeds for tractors equipped with rear tires other than 16.9-30 R1 tires, see "Correction Factors for Other Tire Sizes" in this section.

	FORWARD		REVERSE	
Range-Gear	**2200 RPM**			
	km/h	mph	km/h	mph
A-1	1.9	1.18	2.1	1.3
A-2	2.4	1.49	2.6	1.6
A-3	2.9	1.80	3.2	2.00
A-4	3.5	2.17	3.8	2.37
B-1	4.5	2.80	5.0	3.12
B-2	5.7	3.54	6.3	3.93
B-3	7.0	4.35	7.7	4.81
B-4	8.3	5.16	9.2	5.75
C-1	11.0	6.83	12.2	7.62
C-2	14.1	8.76	15.5	9.68
C-3	17.1	10.62	18.8	11.75
C-4	20.4	12.67	22.5	14.06
D-1	17.0	10.56	18.8	11.75
D-2	21.8	13.54	24.0	15.0
D-3	26.4	16.40	29.1	18.18
D-4	31.5	19.57	34.8	21.75

SH20560,00003F4-19-23JUN09-1/1

Operate PowrReverser Plus™ Transmission

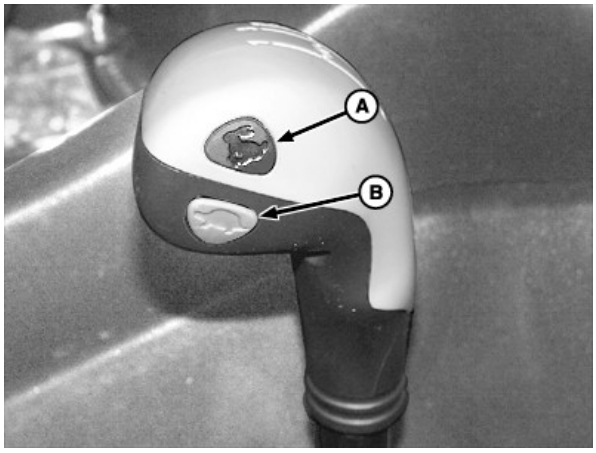
PowrReverser Plus™ transmission is available with push-button high/low split-shift feature, where each range and gear combination is split for more exact speed control.

High/Low split-shift feature doubles forward speeds to 32 forward and 16 reverse.

Use the high/low switches to up-shift and down-shift within the selected range and gear. "Hi" appears when high speed is selected.

NOTE: "Lo" appears at same location (C) when low speed is selected.

A—High Speed
B—Low Speed
C—High Speed Indicator



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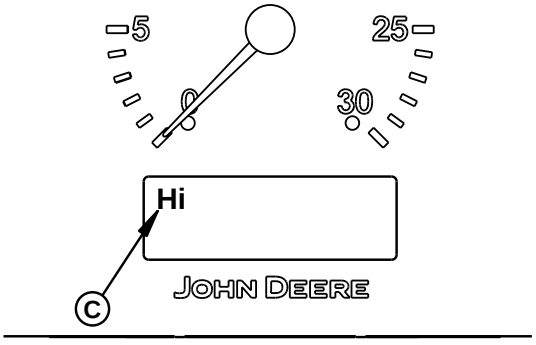
High/Low Switches



PULV000534—UN—11MAR08

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SH20560,00003F5-19-24APR08-1/1

Ground Speed Estimates—PowrReverser Plus™ Transmission

Speeds are calculated using 16.9-30 R1 rear tires. To calculate ground speeds for tractors equipped with rear tires other than 16.9-30 R1 tires, see ”Correction Factors for Other Tire Sizes" in this section.

	FORWARD (Low)	FORWARD (High)	REVERSE
Range-Gear	2200 RPM km/h (mph)	2200 RPM km/h (mph)	2200 RPM km/h (mph)
A-1	1.9 (1.18)	2.2 (1.37)	2.1 (1.31)
A-2	2.4 (1.5)	2.9 (1.81)	2.6 (1.62)
A-3	2.9 (1.81)	3.5 (2.18)	3.2 (2.00)
A-4	3.5 (2.18)	4.1 (2.56)	3.8 (2.37)
B-1	4.5 (2.81)	5.4 (3.37)	5.0 (3.12)
B-2	5.7 (3.56)	6.9 (4.31)	6.3 (3.93)
B-3	7.0 (4.37)	8.4 (5.25)	7.7 (4.81)
B-4	8.3 (5.18)	10.0 (6.25)	9.2 (5.75)
C-1	11.0 (6.87)	13.3 (8.31)	12.2 (7.62)
C-2	14.1 (8.81)	16.9 (10.56)	15.5 (9.68)
C-3	17.1 (10.68)	20.5 (12.81)	18.8 (11.75)
C-4	20.4 (12.75)	24.5 (15.31)	22.5 (14.06)
D-1	17.0 (10.62)	20.5 (12.81)	18.8 (11.75)
D-2	21.8 (13.62)	26.2 (16.37)	24.0 (15.0)
D-3	26.4 (16.5)	31.7 (19.81)	29.1 (18.18)
D-4	31.5 (19.68)	37.9 (23.68)	34.8 (21.75)

SH20560,00003F6-19-28MAR08-1/1

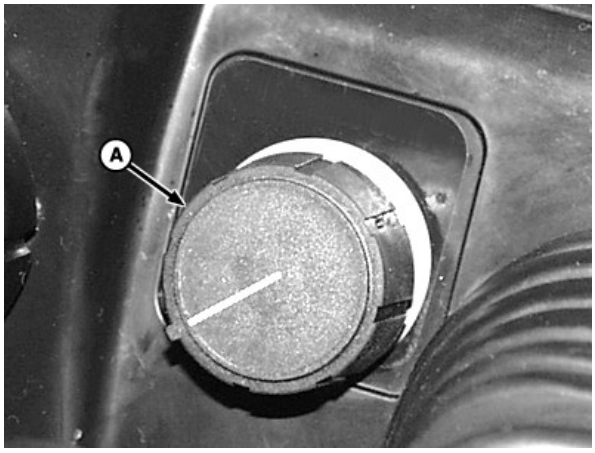
Use PowrReverser™ Modulation—If Equipped

PowrReverser™ Modulation (A) adjusts load take-up and acceleration when making directional changes with PowrReverser™ lever, during repetitive cycle work such as loader operation:

1. In full left (counterclockwise) position (as shown), load take-up and acceleration ramp-up are slow to respond.
2. When operating with high load and ballast, turn control knob clockwise to increase acceleration ramp-up and load take-up response.

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

A—PowrReverser™ Modulation



SH20560,00003F7-19-28MAR08-1/1

Electrohydraulic Transmission System Indicator—If Equipped

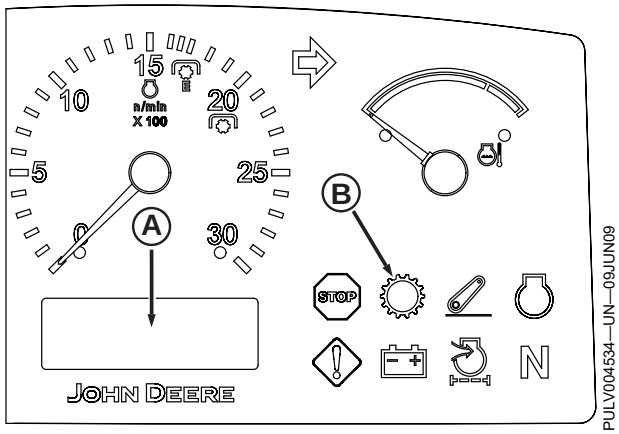
Indicator (B) warns of a malfunction in the electrohydraulic transmission control system (see your John Deere dealer.) A diagnostic trouble code may be present at display (A). Electrohydraulic transmission control is available with PowrReverser™ and PowrReverser Plus™ tractors.

NOTE: Under certain circumstances, the tractor can still be driven even if there is an electrical fault in the transmission.

NOTE: Under certain circumstances when indicator "N" is illuminated, transmission control is regained by cycling reverser lever to neutral and back into a direction.

A—Information display

B—Transmission information indicator



Transmission information indicator

PowrReverser is a trademark of Deere & Company
PowrReverser Plus is a trademark of Deere & Company

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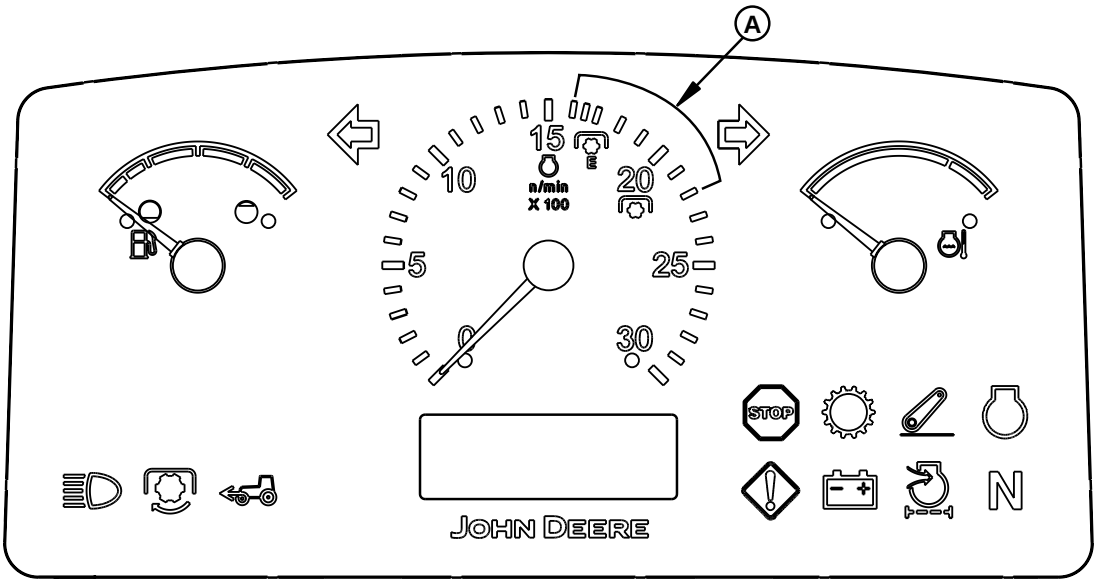
Select a Gear



PULV000580—UN—07MAY08

A—1600—2200 Rated Engine RPM

IMPORTANT: If equipped with ballast, select one gear lower than normal to extend drive train life and avoid excessive soil compaction and rolling resistance.

The tractor may be operated in any gear with engine speeds between 1600—2200 engine rpm (A). Engine can be operated under full load conditions when engine speed is inside range (A). For light load operation, use a higher gear and lower engine speed. This saves fuel and reduces wear.

SH20560,00003F8-19-14JUL08-1/1

Correction Factors for Other Tire Sizes

To calculate ground speeds for tractors equipped with rear tires other than 16.9-30 R1 tires, multiply speeds shown in GROUND SPEED ESTIMATES by the correction factor for the appropriate tire size found in the table.

Be sure to use correct ground speed estimate for your transmission type (SyncShuttle Plus™, SyncReverser™, PowrReverser™ or PowrReverser Plus™ Transmission). Use creeper transmission ground speed estimates, if so equipped.

Example: Forward B-2 (SyncShuttle Plus™ Transmission) at 2200 engine rpm with 16.9-28 R1 tires.

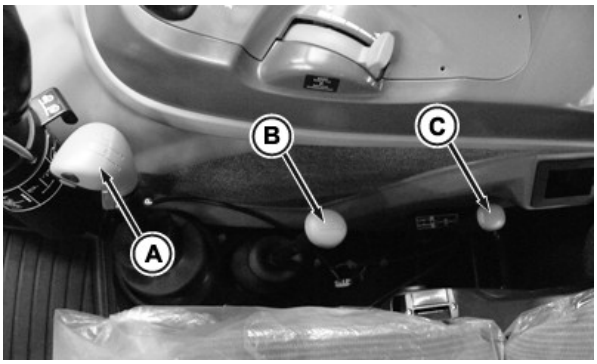
8.51 km/h (5.29 mph) x 0.97 = 8.25 km/h (5.13 mph)

Tire Size	Correction Factor
22.5LL-16.1 6PR R3 (Turf)	0.70
21.5L-16.1 R3	0.77
19.5L-24 10PR R4	0.88
19.5L-24 10PR R4W	0.88
14.9-28 6PR R1	0.92
16.9-28 8PR R4	0.96
16.9-28 6PR R1	0.97
16.9-30 6PR R1	1.00
420/90R30 142A8 R1	1.00
230/95R40 122A8 R1 (Hi-Crop)	1.01
23.1-26 8PR R3	1.04
480/80R30 145A8 R1W	1.04
15.5R38 125A8 R1	1.07
18.4R30 143A8 R1	1.07
16.9R34 R1W	1.09
420/85R34 142A8 R1W	1.09
340/85R38 133A8 R1W	1.09
13.6-38 R2 (Hi-Crop)	1.09
230/95R48 136A8 R1W (Hi-Crop)	1.15

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

SH20560,00000E3-19-29JAN14-1/1

Creeper Gear Operation



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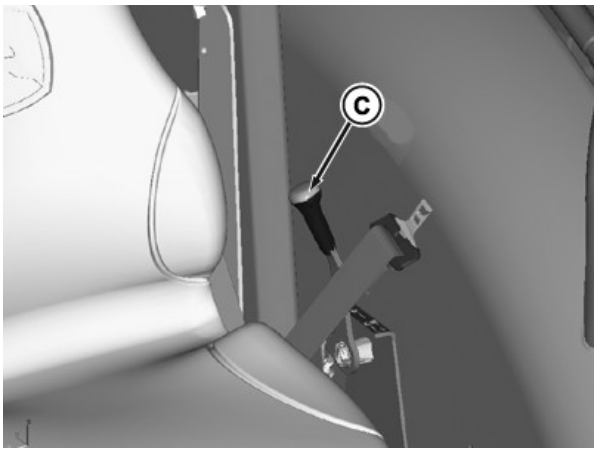
Cab



PULV004930—UN—18JUN09

OOS

IMPORTANT: While applying Creeper, Direction control Lever must be placed in direction (Forward or Reverse) after Creeper Lever and Speed control Lever.

A two-speed creeper gear is available as an option and provides slowest speed range.

Place range shift lever (B) in neutral to operate creeper. Change creeper lever (C) speed selection when at a complete stop.

SyncShuttle Plus™ Transmission: Speed shift lever (A) provides six forward travel speeds and two reverse in the creeper range.

SyncReverser™ and PowrReverser™ Transmission: Speed shift lever (A) provides eight travel speeds in forward and reverse direction in the creeper range.

PowrReverser Plus™ Transmission: Speed shift lever (A) provides 16 forward travel speeds and eight reverse in the creeper range.

PULV000233—UN—06MAR08

Decal, Cab Shown

A—Speed Shift Lever
B—Range Shift Lever
C—Creeper Lever

SH20560,00003FA-19-19JUN09-1/1

Ground Speed Estimates—Transmission with Creeper

Speeds are calculated using 16.9-30 R1 rear tires. To calculate ground speeds for tractors equipped with rear tires other than 16.9-30 R1 tires, see "Correction Factors for Other Tire Sizes" in this section.

SyncShuttle Plus™ Transmission			
Creeper			
FORWARD		REVERSE	
Range-Gear	2200 RPM km/h (mph)	Range-Gear	2200 RPM km/h (mph)
Cr-1	0.414 (0.25)	Cr-R	0.475 (0.29)
Cr-2	0.516 (0.32)		
Cr-3	0.718 (0.44)		
High Speed Creeper			
HiSCr-1	1.033 (0.64)	HiSCr-R	1.185 (0.73)
HiSCr-2	1.286 (0.79)		
HiSCr-3	1.791 (1.11)		

SyncReverser™ Transmission/PowrReverser™ Transmission			
Creeper			
FORWARD		REVERSE	
Range-Gear	2200 RPM km/h (mph)	Range-Gear	2200 RPM km/h (mph)
Cr-1	0.288 (0.17)	Cr-1	0.318 (1.98)
Cr-2	0.368 (0.22)	Cr-2	0.405 (0.25)
Cr-3	0.446 (0.27)	Cr-3	0.491 (0.30)
Cr-4	0.553 (0.34)	Cr-4	0.587 (0.36)
High Speed Creeper			
HiSCr-1	0.719 (0.44)	HiSCr-1	0.792 (0.49)
HiSCr-2	0.918 (0.57)	HiSCr-2	1.011 (0.63)
HiSCr-3	1.112 (0.69)	HiSCr-3	1.225 (0.76)
HiSCr-4	1.329 (0.82)	HiSCr-4	1.465 (0.91)

PowrReverser Plus™ Transmission			
Creeper			
FORWARD		REVERSE	
Range-Gear	2200 RPM km/h (mph)	Range-Gear	2200 RPM km/h (mph)
Cr-1L	0.288 (0.18)	Cr-1	0.318 (1.98)
Cr-1H	0.346 (0.21)	Cr-2	0.405 (0.25)
Cr-2L	0.368 (0.23)	Cr-3	0.491 (0.30)
Cr-2H	0.442 (0.27)	Cr-4	0.587 (0.36)
Cr-3L	0.446 (0.27)		
Cr-3H	0.536 (0.33)		
Cr-4L	0.533 (0.33)		
Cr-4H	0.641 (0.40)		
High Speed Creeper			
HiSCr-1L	0.719 (0.45)	HiSCr-1	0.792 (0.49)
HiSCr-1H	0.863 (0.53)	HiSCr-2	1.011 (0.63)
HiSCr-2L	0.918 (0.57)	HiSCr-3	1.225 (0.76)
HiSCr-2H	1.102 (0.68)	HiSCr-4	1.465 (0.91)
HiSCr-3L	1.112 (0.70)		
HiSCr-3H	1.336 (0.83)		

Continued on next page

PowrReverser Plus™ Transmission			
Creeper			
FORWARD		REVERSE	
Range-Gear	2200 RPM km/h (mph)	Range-Gear	2200 RPM km/h (mph)
HiSCr-4L	1.329 (0.83)		
HiSCr-4H	1.597 (1.00)		

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SH20560,00003FB-19-01JAN09-2/2

Brake Operation

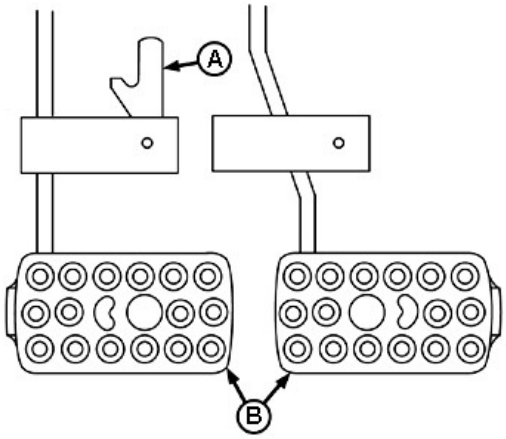
CAUTION: Before operating tractor on a road, lock pedals together with locking bar (A). Use brakes lightly and cautiously at transport speeds.

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.

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.

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



P9598A—UN—12DEC08

A—Brake Pedal Locking Bar **B—Brake Pedals**

SH20560,00003FC-19-12SEP11-1/1

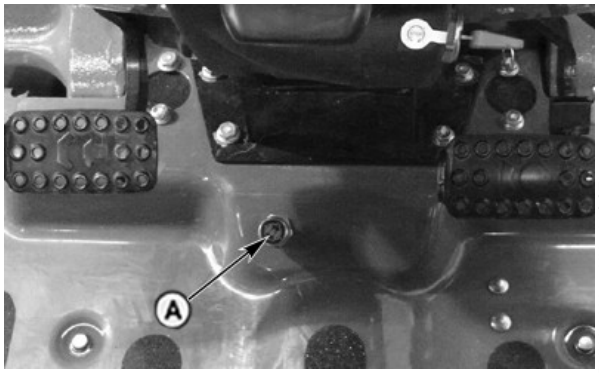
Differential Lock Operation

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

When one wheel starts to lose traction, depress and hold switch (A) to engage 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, then slip again, hold switch down to engage differential lock.



PULV000087—UN—03OCT07

OOS shown, other similar

A—Differential Lock Switch

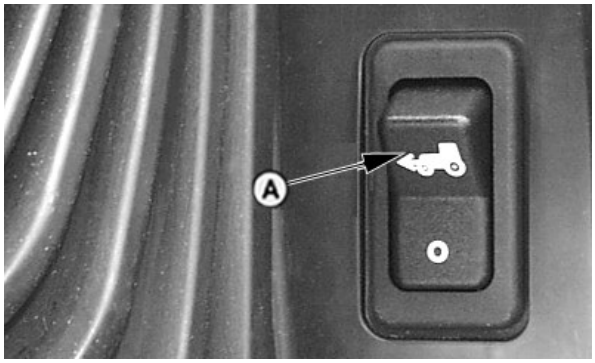
SH20560,00003FD-19-06JAN09-1/1

Mechanical Front-Wheel Drive (MFWD On/Off)

CAUTION: MFWD greatly increases traction, but it does not increase the stability of the machine. Use extra caution on slopes.

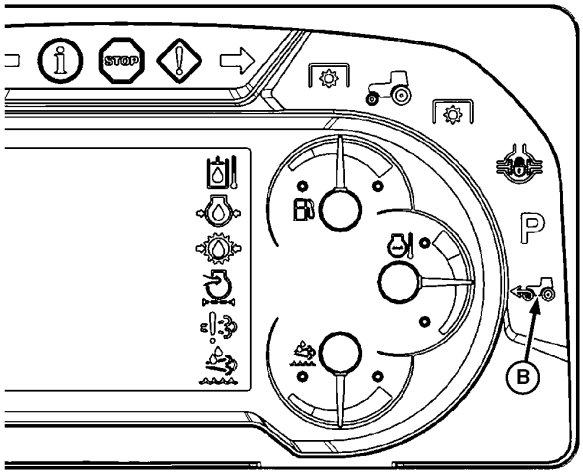
IMPORTANT: If the machine is under full load and mired down, engaging MFWD while tires are spinning has the potential to cause damage. Reducing the load and slowing wheel speed before engaging MFWD is highly recommended.

MFWD can be engaged and disengaged in all gears (forward and reverse) during operation and under full load. MFWD switch (A) has two operating positions:



PULV000574—UN—07MAY08

A—MFWD Switch **B—MFWD Indicator**



LV22015—UN—19AUG14

MFWD Selection	MFWD Switch Position	MFWD On	MFWD Off	MFWD Indicator	Recommended for:
On	Top half of switch pressed down.	Always.	Never.	Always illuminated.	Field uses only at speeds below 23 km/h (14.3 mph).
Off	Bottom half of switch pressed down.	Never.	Always.	Not illuminated.	Normal transport where MFWD is not needed.

DP51502,0000BC2-19-14SEP20-1/1

Mechanical Front-Wheel Drive (MFWD On/ Auto/Brake Assist)

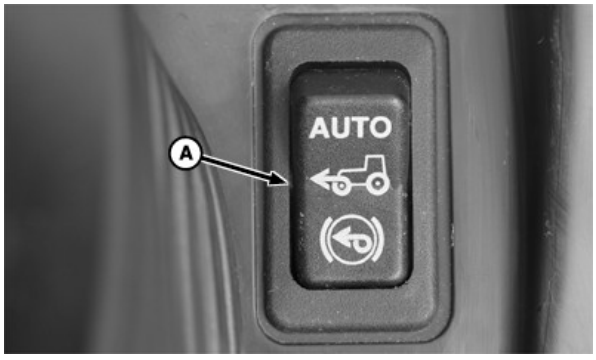
CAUTION: MFWD greatly increases traction, but it does not increase the stability of the machine. Use extra caution on slopes.

IMPORTANT: If the machine is under full load and mired down, engaging MFWD while tires are spinning has the potential to cause damage. Reducing the load and slowing wheel speed before engaging MFWD is highly recommended.

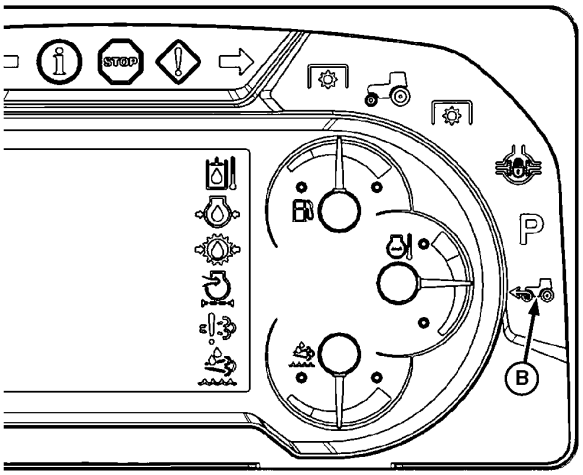
MFWD can be engaged and disengaged in all gears (forward and reverse) during operation and under full load. MFWD switch with auto engage and brake assist (A) has three operating positions.

A—MFWD Switch with Auto Engage and Brake Assist

B—MFWD Indicator



LV9489—UN—13AUG04



LV22015—UN—19AUG14

MFWD Selection	MFWD Switch Position	MFWD On	MFWD Off	MFWD Indicator	Recommended for:
Auto	Top half of switch pressed down.	• Both brake pedals are depressed at any speed. • Speed is below 19 km/h (11.8 mph). • Neither brake pedal is individually depressed.	• Either brake pedal is individually depressed. • Speed is above 23 km/h (14 mph).	Illuminates when engagement conditions are met.	Transport where MFWD is needed.
On	Switch in center position.	Always.	Never.	Always illuminated.	Field uses only at speeds below 23 km/h (14.3 mph).
Brake Assist	Bottom half of switch pressed down.	Speed above 5 km/h (3.1 mph) and both brake pedals are depressed.	Always, unless both brake pedals are depressed above 5 km/h (3.1 mph).	Illuminates when engagement conditions are met.	Normal transport where MFWD is not needed.

DP51502,0000BC3-19-14SEP20-1/1

Stop Tractor

PULV000077—UN—01OCT07

Cab shown

1. Stop tractor travel with brakes.

CAUTION: Leaving transmission in gear with engine off WILL NOT prevent tractor from moving.

IMPORTANT: Stop tractor before moving speed shift lever to PARK. Park lock will not engage and transmission may be damaged if tractor is moving.

2. Depress clutch pedal and place range shift lever to NEUTRAL position. Place speed shift lever to PARK (P).
3. If equipped with reverser, place reverser lever (C) into NEUTRAL.
4. Lower all equipment to the ground.
5. Put all SCV levers in NEUTRAL.
6. Disengage PTO.

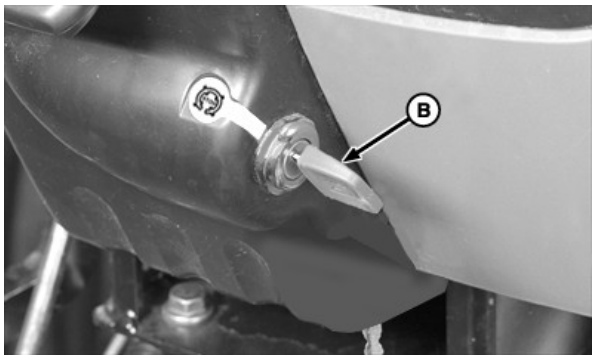
IMPORTANT: Cooling of certain engine parts is provided by engine oil. Stopping a hot engine suddenly could cause damage to these parts by overheating or lack of lubrication.

7. Pull hand throttle (A) back to slow idle position. Allow engine to idle for 2—5 minutes.

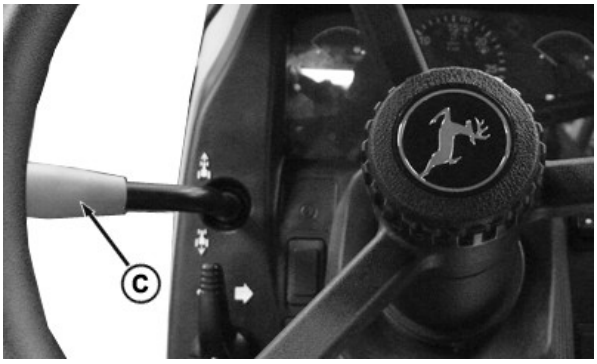
CAUTION: Remove key from ignition switch to prevent operation by untrained personnel.

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

A—Hand Throttle
B—Key Switch
C—Reverser Lever
P—Park Position



LV9552—UN—13AUG04

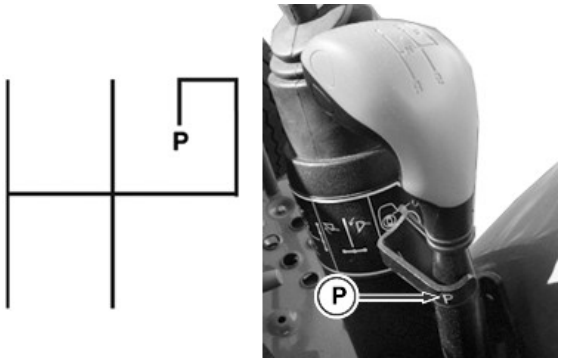


PULV004927—UN—18JUN09

SyncReverser™ Lever

PULV004928—UN—18JUN09

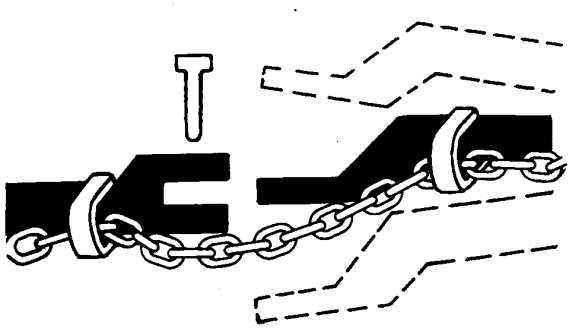
PowrReverser™ Lever

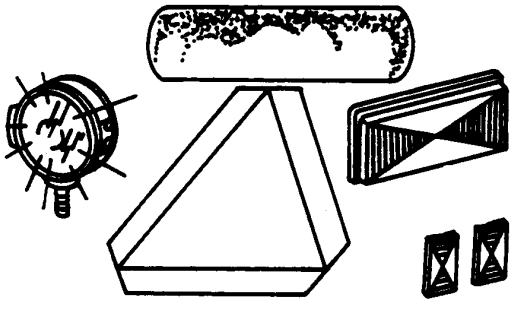


PULV004588—UN—23JUN09

SH20560,00003FF-19-07JUL09-1/1

Deliver Safely


TS217—UN—23AUG88


TS949—UN—22MAR90

The best method for delivering tractors, self-propelled equipment, and most implements or attachments is on a flatbed truck or trailer. Secure loads with tie down chains, straps, and binders.

Be aware of height and width restrictions to avoid collision with overpasses, bridge abutments, or other road users. Check with local authorities regarding oversized load transport restrictions and requirements.

When towing, remember that towed loads can swerve, upset or cause loss of control when towed with an undersized towing unit.

Never tow an implement behind a truck or other motor vehicle. The ability to maintain control and brake the implement and vehicle mass is compromised. The ability to properly attach the implement hitch and safety chain to the motor vehicle may be marginal. With most motor vehicles it is not possible to properly operate the warning, tail and turn signal lights on the implement, and in most cases the implement tires are not rated for highway speeds.

Tow drawn implements only with a properly sized and weighted tractor equipped with a stationary drawbar. (See tractor operator's manual for ballast requirements.)

Integral and semi-integral implements should be attached to a tractor with a three-point hitch as specified in the implement operator's manual. The tractor should have the proper size rear tires and the sway blocks should be in the down position. Do not transport unless the tractor front end is ballasted to the weight levels specified in the tractor operator's manual for the correct implement code.

Before transporting, attach a properly sized safety tow chain between the implement and tractor.

Stopping distance increases with speed and weight of towed loads, and when transporting on slopes. Observe these recommended maximum road speeds, or local speed limits that may be lower:

- If towed equipment does not have brakes, do not transport at speeds above 32 km/h (20 mph) and do not tow loads that weigh more than 1.5 times the weight of the tractor.
- If the towed equipment has brakes, do not transport at speeds above 40 km/h (25 mph) and do not tow loads more than 4.5 times the weight of the tractor.

Use additional caution and reduce speed when towing under adverse surface conditions, when turning, and when on inclines.

Attach the implement lighting harness to the tractor and make sure that the warning and taillights on both the tractor and implement are on and functioning properly.

Make sure that the SMV and other markings on the implement are clean and visible.

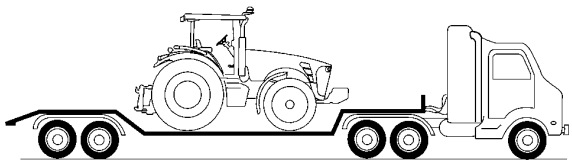
DX,DELIVER-19-26JUL19-1/1

Transport Tractor Safely

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

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

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


RXA0103709—UN—01JUL09

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

Tow Tractor

CAUTION: Remove MFWD drive shaft if towing tractor with front wheels on a carrier. Loss of electrical power or transmission-hydraulic system pressure will engage the MFWD and pull tractor off the carrier, even with switch in the DISENGAGED position.

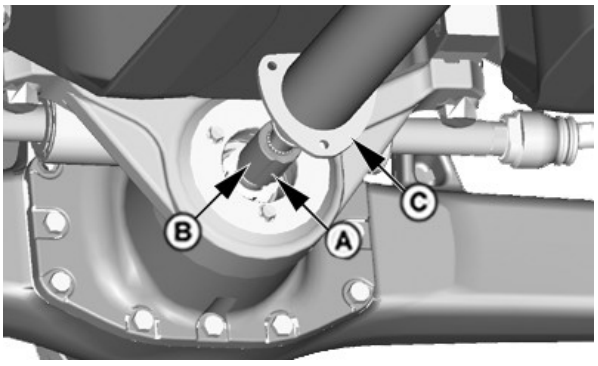
IMPORTANT: To avoid transmission and drive train component damage, NEVER attempt to start tractor by towing; engine will not start.

1. If equipped with MFWD and towing tractor with front wheels on a carrier, remove drive shaft:
   a. Remove three cap screws and slide drive shaft shield (C) away. Repeat on opposite end.
   b. Remove spring pin (A) using a punch and hammer.
   c. Support drive shaft and slide coupler (B) towards shield (C) to disengage.
   d. Remove drive shaft, shields and couplers.
2. If possible, operate engine above 1250 rpm to provide lubrication, power steering, and power brakes. Have an operator steer and brake tractor.
3. If not possible to run engine add 40 L (10 gal.) of transmission-hydraulic oil to transmission. Drain excess oil after transporting.
4. Tap brake pedals to make sure differential lock is not engaged.
5. Disengage PTO and move range and speed shift levers to NEUTRAL.
6. **SyncReverser™ Transmission or PowrReverser™ Transmission:** Move reverser lever to NEUTRAL.
7. Do not tow a tractor faster than 8 km/h (5 mph). Do not exceed 3 km/h (2 mph) for the first 10 minutes at temperatures below freezing point.

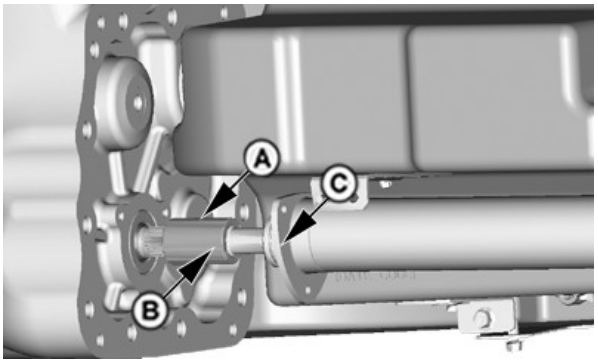
After Towing

If equipped with MFWD, apply multipurpose grease to couplers and shaft splines, and reinstall drive shaft assembly.

Drain excess transmission-hydraulic oil to lower level back to full.



PULV000547—UN—25MAR08



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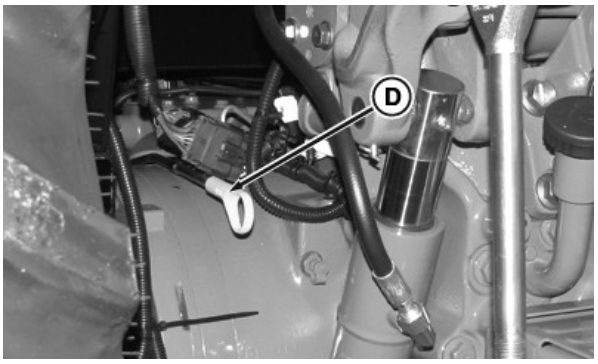


PULV004939—UN—19JUN09

A—Spring Pin
B—Coupler
C—Drive Shaft Shield
D—Dipstick

SH20560,0000401-19-19JUN09-1/1

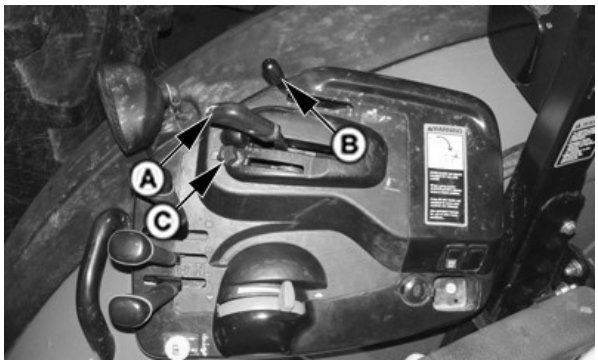
Operate Mechanical Position Control—If Equipped

CAUTION: To prevent unexpected movement, put draft control lever (B) in full forward position before attaching implement.

Rear hitch position lever (A) controls 3-point hitch mounted implement raise or lower movement and ground depth penetration.

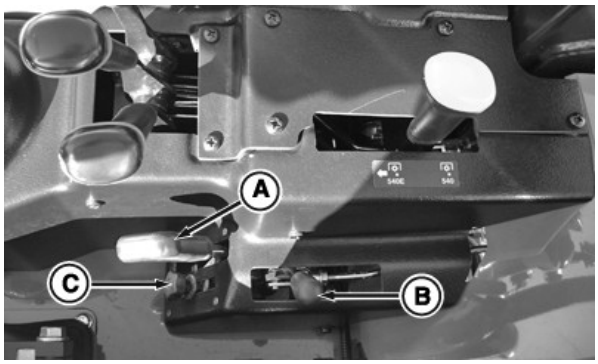
IMPORTANT: Draft control setting automatically influences actual hitch position. For independent position control, move draft lever (B) in fully forward position.

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



PULV000089—UN—06MAR08

OOS Shown, Cab Similar



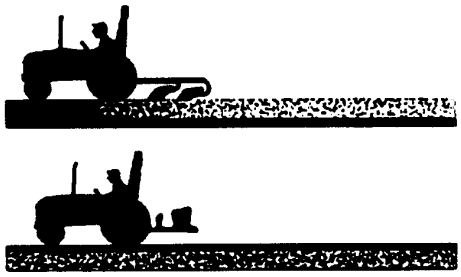
PULV004679—UN—16DEC09

Low Profile

SH20560,00000DD-19-16DEC09-1/3

NOTE: A few minutes of implement operation may be required to determine best depth. Set desired depth with stop (C). Hitch returns implement to previous above or below ground depth.

Depth Control (level, in-ground, on-ground, and non-ground engaged situations): Position lever (A) at desired depth.



LV09233—UN—26JUL04

Depth Control

Continued on next page

SH20560,00000DD-19-16DEC09-2/3

Float Control (uneven, ride on-ground contour situations): Position lever (A) and draft lever (B) fully forward.

NOTE: Ensure implement skids or height gauge wheels are set correctly to carry full implement weight. Ensure hitch draft link arms are adjusted for any required lateral float.

Height at Turn (end of field turn around situations): Position lever (A) rearward until implement is out of ground.

Implement Transport (load and non-load sense usage): Position lever (A) fully rearward.

LV9457—UN—26JUL04

SH20560,00000DD-19-16DEC09-3/3

Operate Mechanical Draft Control—If Equipped

Rear hitch draft lever (B) controls 3-point hitch mounted implement ground penetration response to varying soil conditions.

Mechanical Draft Control:

With lever (B) fully FORWARD = No draft sensing.

With lever (B) fully REARWARD = Reduces the amount of draft load required to override the depth setting (position preset by lever (A)).

Draft Load Sensing Operation:

Place position control lever (A) to fully REARWARD position and the draft control lever (B) in the fully forward (least draft response) position.

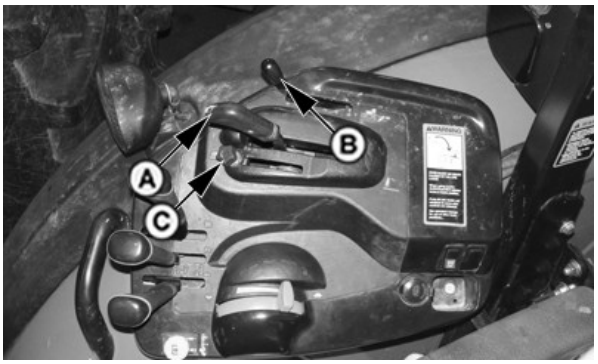
With tractor moving, push position control lever (A) FORWARD to set implement operating depth.

Set position control lever stop (C) so control lever can be brought back to the same position.

NOTE: Operating depth set up will prevent the 3-point hitch from lowering all the way when the tractor begins to slip.

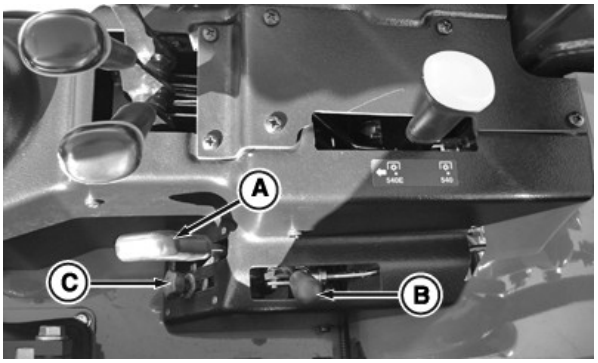
Pull draft sensing lever (B) rearward until desired draft sensing sensitivity is obtained.

NOTE: Position control lever (A) can also be raised slightly to override the draft control setting to help get through slippery spots without getting stuck. Position control lever (A) can be moved fully rearward to raise the hitch at the end of the field.



PULV0000089—UN—06MAR08

OOS Shown



PULV0004679—UN—16DEC09

Low Profile

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

Continued on next page

SH20560,00000DE-19-16DEC09-1/3

Terrain Contour (irregular ground levels) Situations: Implement will rise and lower to follow the ground contours while maintaining a nearly constant depth.

PULV000236—UN—08MAR08

Terrain Contour

SH20560,00000DE-19-16DEC09-2/3

Variable Soil (ground hardness) Situations: Implement raises slightly to get through tough spots and operator does not need to shift to lower gear.

PULV000237—UN—08MAR08

Variable Soil

SH20560,00000DE-19-16DEC09-3/3

Operate Mechanical Rate of Drop Control—If Equipped

CAUTION: To avoid injury from hitch movement, only adjust rate of drop from operator's station.

IMPORTANT: Ideal minimal implement rate of drop from fully raised to fully lowered is 2 seconds. Rate of drop is directly related to implement weight, therefore select a rate slow enough to prevent damage.

Mechanical Hitch Rate of Drop:

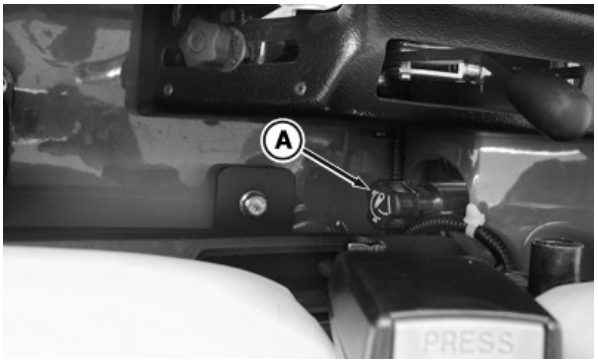
For FASTER rate of drop, rotate knob (A) to left (COUNTERCLOCKWISE).

For SLOWER rate of drop, rotate knob (A) to right (CLOCKWISE).

A—Rate of Drop Control Knob

PULV000239—UN—06MAR08

OOS



PULV004680—UN—16DEC09

Low Profile

PULV004697—UN—28JAN10

Cab

SH20560,00000DF-19-28JAN10-1/1

Operate Electrohydraulic Draft Control—If Equipped

Rear hitch load/depth (draft) knob (A) controls 3-point hitch mounted implement ground penetration response to varying soil conditions.

Turn load/depth knob to one of five draft settings (C), to control depth and load, depending on implement and field or soil conditions:

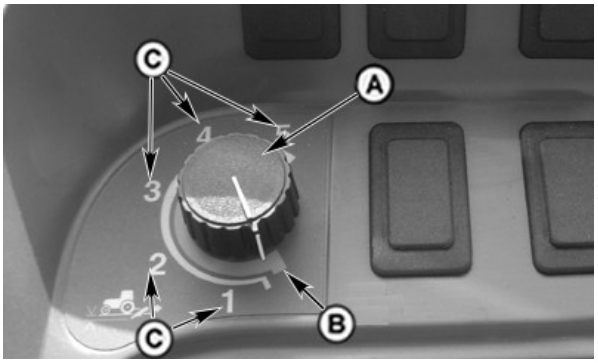
Turn COUNTERCLOCKWISE to reduce draft response.

Turn CLOCKWISE to increase draft response.

With the control turned to a higher number, the implement is raised as resistance (soil density) increases and lowered as resistance decreases; typical settings are:

Implement	Draft Control Setting
Integral Ripper/Subsoiler	1—3
Integral Chisel Plow	2—4
Semi-Integral Moldboard Plow	2—4
Integral Moldboard Plow	3—5
Integral Field Cultivator or Box Blade Scraper	4—5

A—Load/Depth Control
B—Position Control Detent
C—Draft Control Setting



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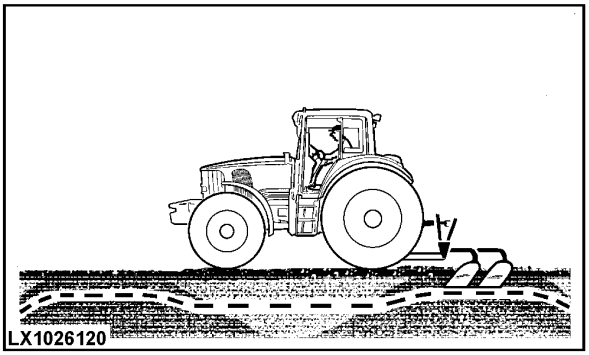

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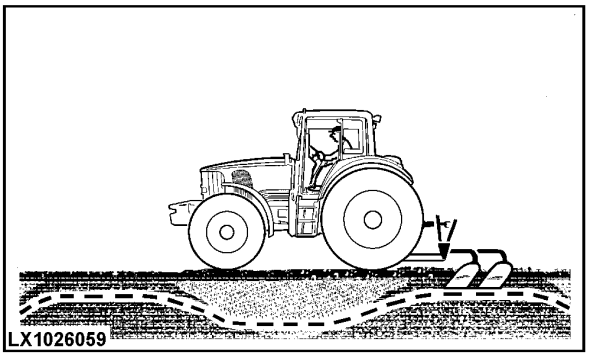

LX1026059—UN—18MAY01

SH20560,0000378-19-14JUL08-1/1

Operate Electrohydraulic Rate of Drop Control —If Equipped

⚠ CAUTION: To avoid injury from hitch movement, only adjust rate of drop from operator's station.

IMPORTANT: Ideal minimal implement rate of drop from fully raised to fully lowered is 2 seconds. Rate of drop is directly related to implement weight, therefore select a rate slow enough to prevent damage.

Electrohydraulic Hitch Rate of Drop Control:

For FASTER rate of drop, rotate knob (A) to right (CLOCKWISE).

For SLOWER rate of drop, rotate knob (A) to left (COUNTERCLOCKWISE).

PULV000240—UN—06MAR08

A—Electrohydraulic Rate of Drop Control

SH20560,0000374-19-07MAY08-1/1

Operate Electrohydraulic Height Limit Control —If Equipped

The height to which an implement is raised can be limited with height limit control (B).

For MINIMUM height, turn (B) fully LEFT (COUNTERCLOCKWISE).

For MAXIMUM height, turn (B) fully RIGHT (CLOCKWISE).

B—Height Limit Knob

PULV000188—UN—12DEC07

Height Limit Knob

SH20560,0000377-19-14APR08-1/1

Operate Electrohydraulic Position Control—If Equipped

CAUTION: To prevent possible injury, use only position control lever (A) when attaching or detaching implements. Do not use quick raise/lower buttons (D).

NOTE: Engine must be running for electrohydraulic hitch controls to work.

SH20560,0000376-19-20JUN09-1/5

Rear hitch position lever (A) controls raise or lower movement of 3-point hitch mounted implement and ground depth penetration. Pull lever rearward to raise; push lever forward to lower.

IMPORTANT: Draft control setting automatically influences actual hitch position. For independent position control, rotate draft knob fully counterclockwise. (Refer to Operate Electrohydraulic Draft Control—If Equipped, in this section.)

Adjust Position Control Depth Stop: Push down and rotate wheel (C) until stop sets to desired working depth. After raising hitch, implement returns to set depth when position control lever (A) is pushed forward (lowered) to contact stop.

NOTE: If necessary to lower hitch below preset depth stop, lift control lever (A) and push forward past stop.

NOTE: A few minutes of implement operation may be required to determine best depth. Set desired depth with stop wheel (C). Hitch returns implement to previous above or below ground depth.

A—Position control lever
B—Limit knob
C—Position control lever stop wheel
D—Quick raise/lower buttons

PULV000094—UN—03OCT07

PULV000188—UN—12DEC07

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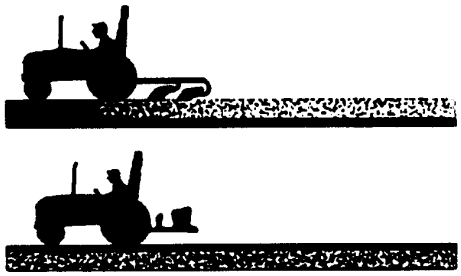
SH20560,0000376-19-20JUN09-2/5

Depth Control (level, in-ground, on-ground, and non-ground engaged situations): Position lever (A) at desired depth.



LV09233—UN—26JUL04

Depth control

SH20560,0000376-19-20JUN09-3/5

Float Control (uneven, ride on-ground contour situations): Position lever (A) fully forward and rotate draft knob fully counterclockwise position.

NOTE: Ensure implement skids or height gauge wheels are set correctly to carry full implement weight. Ensure hitch draft link arms are adjusted for any required lateral float.

Height at Turn (end of field turn around situations): Position lever (A) rearward until implement is out of ground.

NOTE: Set hitch height with limit knob (B). Refer to Operate Electrohydraulic Height Limit Control—If Equipped, in this section.

Quick Raise at Turn (end of field turn around situations): Press and hold raise switch (D-top) until hitch implement NOT engaged in or on ground, but NOT fully raised.

LV9457—UN—26JUL04

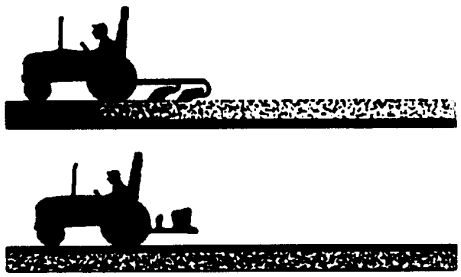
Float Control

NOTE: Set hitch height limit with limit knob (B).

SH20560,0000376-19-20JUN09-4/5

Implement Transport (load and non-load sense usage): Position lever (A) fully rearward. Ensure lever in transport lock position (lever flipped over latch at pad lock symbol).

NOTE: Quick raise/lower buttons (D) are disabled when position control lever (A) is in transport lock position. Hitch raises to transport lock position when tractor is started.



LV09233—UN—26JUL04

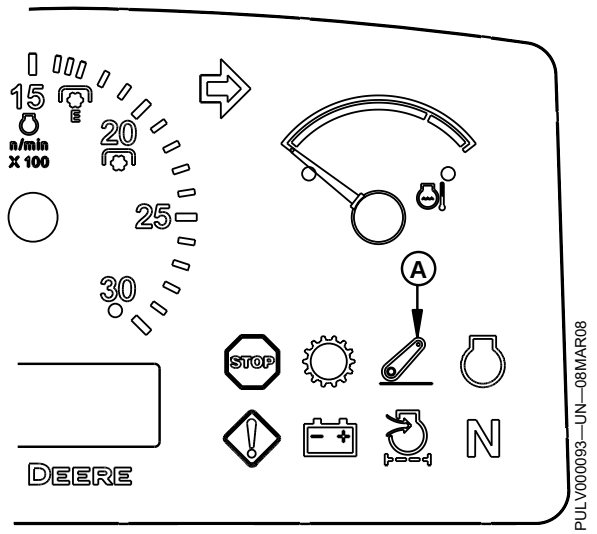
Implement transport

SH20560,0000376-19-20JUN09-5/5

Electrohydraulic Hitch System Indicator—If Equipped

Indicator (A) warns of a malfunction in the electrohydraulic hitch control system. (See your John Deere dealer.)

A—Electrohydraulic Hitch System Indicator



PULV000093—UN—08MAR08

SH20560,0000128-19-18OCT07-1/1

Operate External Position Control—If Equipped

CAUTION: Avoid possible injury or death from tractor movement. Put transmission in PARK before using external raise and lower switches. Stay clear of rotating drive lines and interference points.

Press and hold switch to move rear hitch:

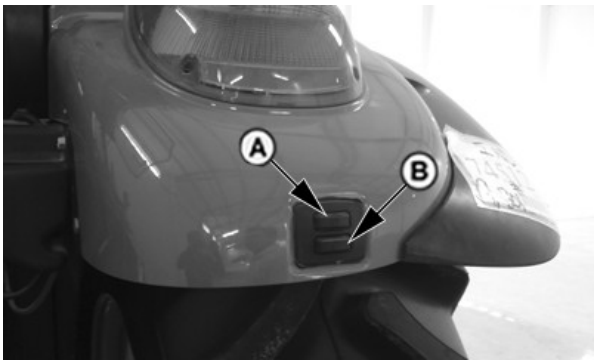
Implement is raised when top switch is held.

Implement is lowered when bottom switch is held.

NOTE: External position control (fender mounted) raises or lowers rear hitch at a slower rate and ignores height/depth settings. External position control is disabled when electrohydraulic hitch control lever (C) is set in transport position.

Once either external position control switch is activated, the hitch is prevented from moving accidentally by the position control lever (C) while operator is standing behind the tractor.

To reactivate the position control at lever (C), return to operator's station and place position control lever (C) at a position that corresponds with hitch position then actuate quick raise/lower buttons (E).



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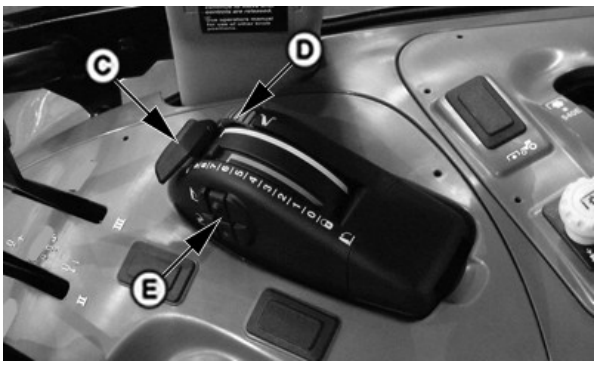


PULV000581—UN—07MAY08

A—External Raise Switch
B—External Lower Switch
C—Position Control Lever
D—Position Control Lever Stop
E—Quick Raise/Lower Buttons

SH20560,0000129-19-20JUN09-1/1

Operate Manual Lower for Electrohydraulic Hitch—If Equipped

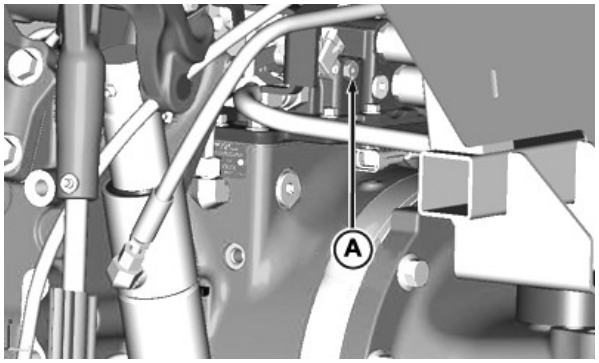
CAUTION: Perform procedure from operator's station to avoid possible injury from rear hitch mounted implements.

If engine or electrical power is not available, hitch can be lowered manually.

Remove protective cap (A) to access set screw.

Turn set screw COUNTERCLOCKWISE to lower hitch.

With hitch lowered, turn set screw CLOCKWISE and install cap.



A—Protective Cap

SH20560,000012C-19-19JUN09-1/1

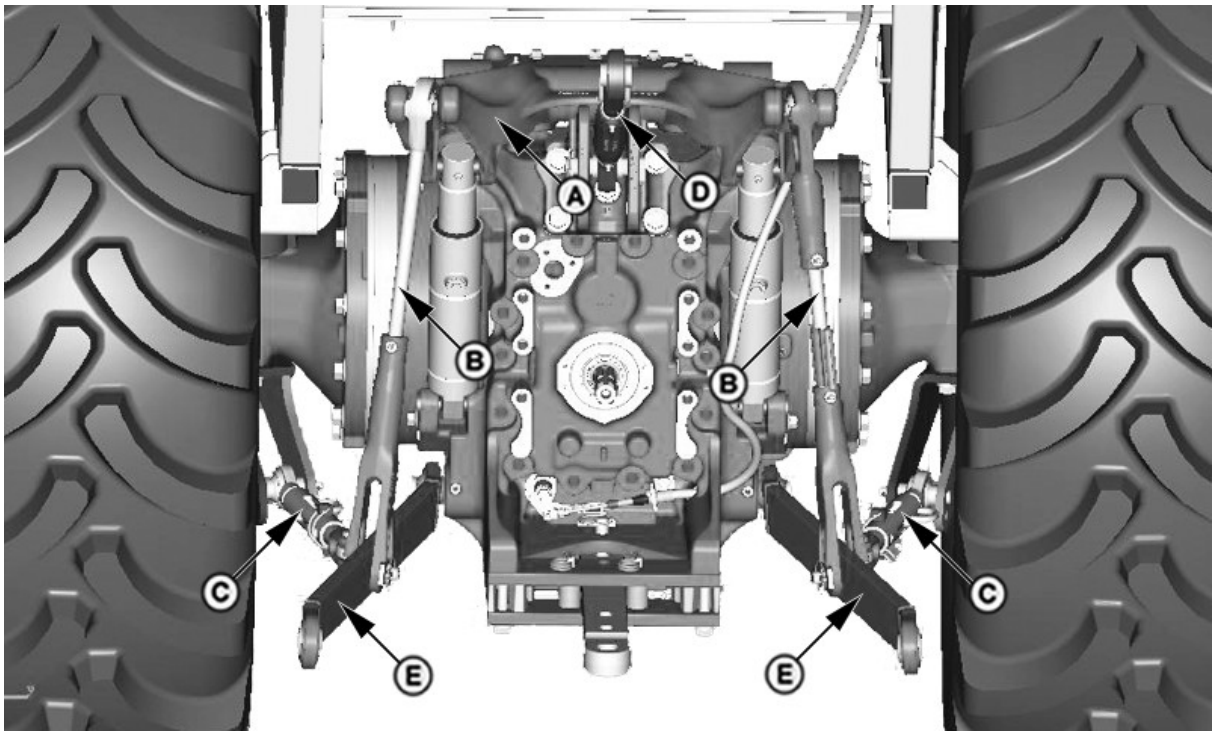
Match Tractor Power to Implement

IMPORTANT: Match tractor power to the size of the implement. Excessive power can damage an implement, and too large of an implement can damage the tractor.

Refer to your implement operator's manual for minimum and maximum power requirements before attaching implement to tractor.

SH20560,000012F-19-14APR08-1/1

3-Point Hitch Components



PULV000565—UN—07MAY08

Standard Draft Link Shown

A—Lift Arm
B—Lift Links
C—Sway Bars/Stabilizer
D—Center Link
E—Draft/Lower Links

SH20560,0000130-19-24APR08-1/1

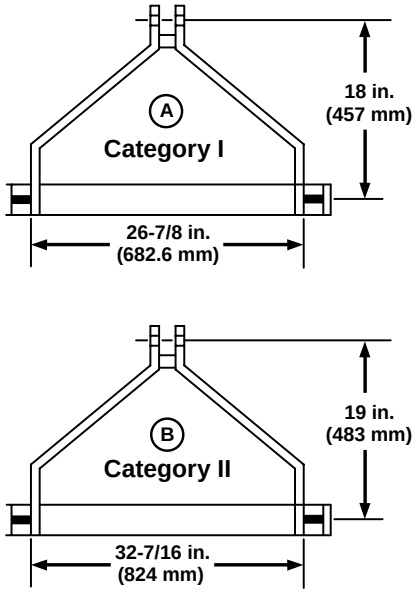
Prepare Implement

When attaching Category I implements to the tractor, sway bars may need adjustment to prevent binding and limiting full raise of the hitch. (See "Adjust Hitch Side Sway" in this section.)

Category I (A), 3-Point Hitch is narrower and is used for smaller implements than Category II (B) implements. (See chart below to identify implement category.)

Category II implements should have the top hole of the implement mast located 483 mm (19 in.) above the lower pins. Drill another hole in top mast or extend top mast if necessary.

Category	Mast Height	Width Between Lower Pins	Pin Size	
			Lower	Upper
I (A)	457 mm (18 in.)	682.6 mm (26-7/8 in.)	22 mm (7/8 in.)	19 mm (3/4 in.)
II (B)	483 mm (19 in.)	824 mm (32-7/16 in.)	28 mm (1-1/8 in.)	25.4 mm (1 in.)



LV9639—UN—11AUG04

A—Category I **B—Category II**

SH20560,0000131-19-14APR08-1/1

Convert Category II Hitch to Category I

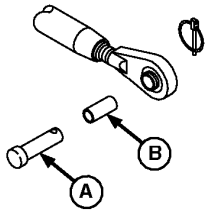
Center link end is sized for Category II implement attaching pin.

If Category I implements are to be used, the Category II hitch can be converted as follows:

1. Insert reducer bushing (B) in center link end. Smaller implement mast pin (A) is also needed when bushing is installed.
2. If equipped with fixed link ends, insert a bushing. If equipped with standard telescopic link ends, insert a bushing. If equipped with Deluxe telescopic link ends, exchange balls.

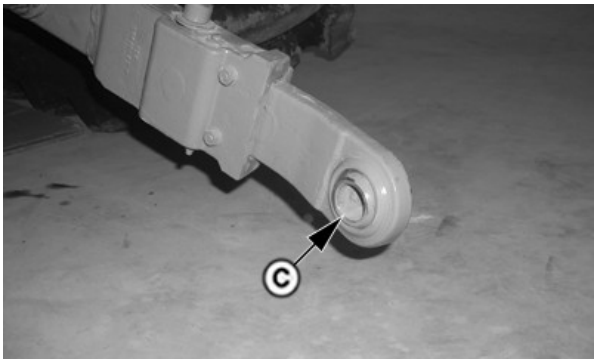
See your John Deere dealer for parts.

NOTE: Category I implements may require center link to be mounted to attaching bracket holes. Refer to "Position Center Link" in this section.



LV9640—UN—11AUG04

Center Link End



PULV000241—UN—06MAR08

Standard Telescopic Draft Link End

A—Mast Pin
B—Center Link Bushing
C—Draft Link Balls

SH20560,0000132-19-18OCT07-1/1

Position Center Link

The center link attaching bracket has holes which allow four different positions for attaching the center link.

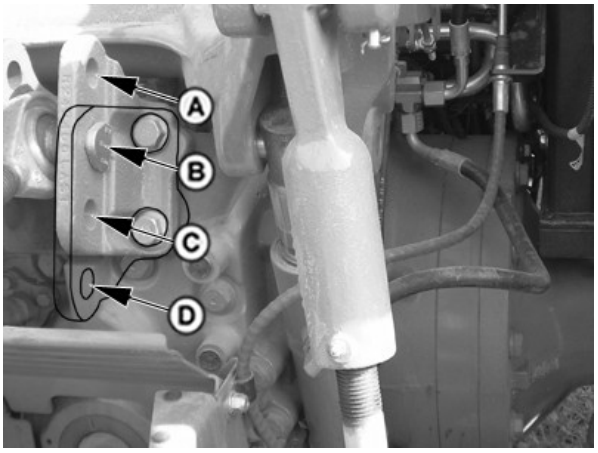
NOTE: Center link attaching bracket can be mounted to provide hole position (D).

If the following conditions occur, move center link to indicated holes to correct.

Condition	Use Holes
Rear of implement rises too much when lifted. [a]	A or B
Rear of implement drags the ground.	B or C

[a] *The implement weight which can be lifted is reduced slightly with center link attachment in lower holes.*

NOTE: Implements with Category I mast height 457 mm (18 in.) will normally use attaching holes (C and D) and implement with Category II mast height 483 mm (19 in.) will use holes (A and B).



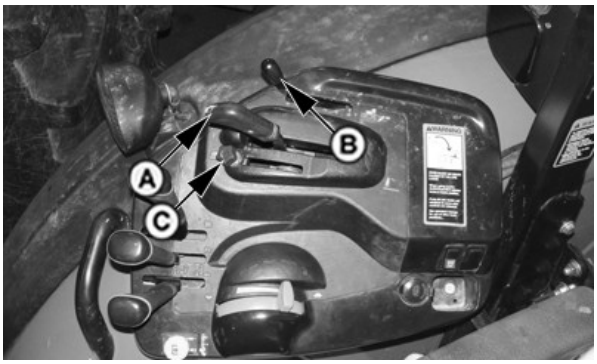
PULV000097—UN—06MAR08

Positioning Center Link

A—Upper Hole
B—Middle Hole
C—Lower Hole
D—Lowest Hole (with center link bracket inverted)

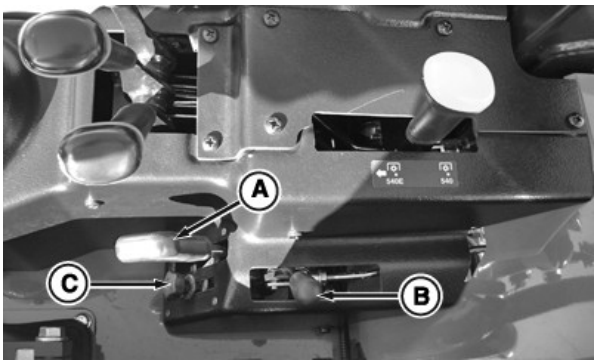
SH20560,000012D-19-20MAR08-1/1

Attach Implements to 3-Point Hitch



PULV000089—UN—06MAR08

Mechanical Hitch (OOS)



PULV004679—UN—16DEC09

Mechanical Hitch (Low Profile)

CAUTION: Hitch movement can cause injury or death.

IMPORTANT: Ensure center link and lift link adjustments DO NOT cause implement contact with fenders.

NOTE: Engine must be running for 3-point hitch control to work.

Before attaching or detaching implement, place load/draft control (B) into lowest setting. (See Adjust Draft Controls in Section 60.)

Use position control lever (A) to raise or lower implement. DO NOT use rear quick raise/lower buttons (D).

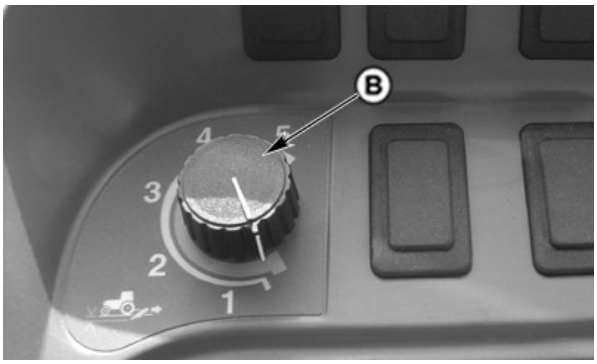
Be sure drawbar will not interfere. If necessary, move drawbar to fully retracted position or remove it. Check for any other potential interference.

CAUTION: To prevent unexpected movement of rear hitch, place draft sensing control in lowest position before attaching implement to hitch.

A—Hitch Control Lever
B—Draft Control Lever/Knob
C—Hitch Control Lever Stop
D—Quick Raise/Lower Buttons

PULV000094—UN—03OCT07

Electrohydraulic Hitch (Cab)



PULV000091—UN—03OCT07

Electrohydraulic Hitch

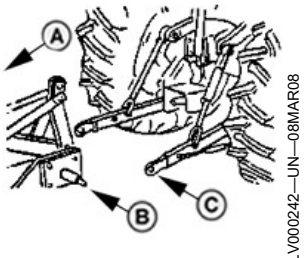
Continued on next page

SH20560,00000E0-19-17DEC09-1/5

Fixed Draft Links

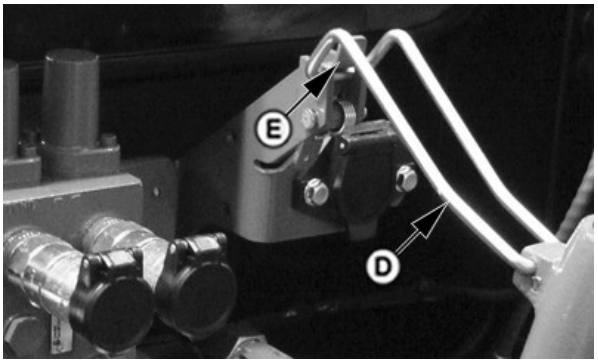
1. Back tractor up to implement (A) so hitch points align. Place transmission in PARK and stop engine.
2. Slip draft links (C) over implement hitch pins (B) and retain with quick-lock pins.
3. Push tab (E) backward and lift locking clip (D) to release center link from transport hook.
4. Attach center link to implement top mast.
5. Adjust center link and lift links as necessary. See ”Level Hitch” in this section.

A—Implement
B—Implement Hitch Pins
C—Draft Link
D—Center Link Locking Clip
E—Tab



PULV000242—UN—08MAR08

Align 3-point



PULV000243—UN—06MAR08

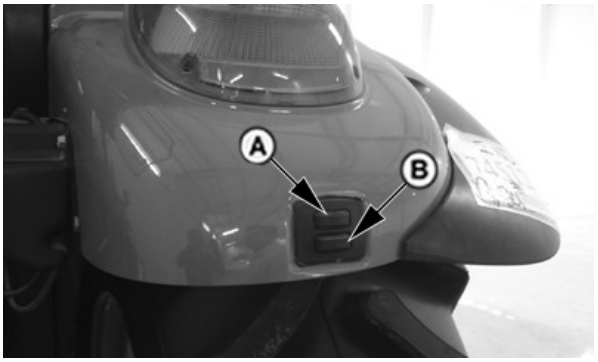
SH20560,00000E0-19-17DEC09-2/5

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

6. Start engine. Using position control lever, slowly raise and lower implement and check for interference.

NOTE: If equipped with electrohydraulic hitch use quick raise/lower buttons or fender-mounted switches (A and B) to raise and lower implement and check for interference.

A—Raise Switch
B—Lower Switch



PULV000217—UN—06MAR08

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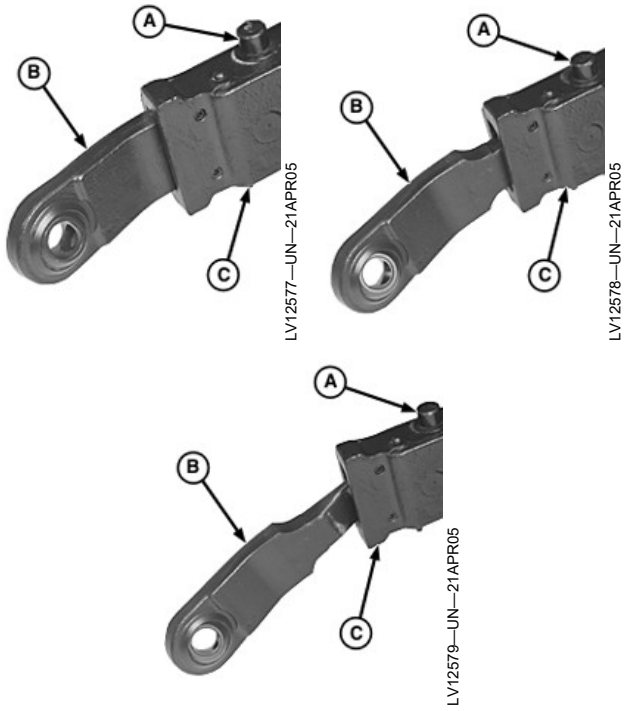
SH20560,00000E0-19-17DEC09-3/5

Standard Telescopic Draft Links

1. Move button (A) toward center of tractor and pull out draft link end (B). Slip draft link end over implement hitch pin. Retain with quick-lock pin. Repeat on other side.
2. Raise or lower draft arms (C) to align ends (B) with arms, then slowly back up tractor to lock ends in place.
3. Perform steps 2—6 from fixed draft links procedure.

A—Button
B—Draft Link End
C—Draft Arm



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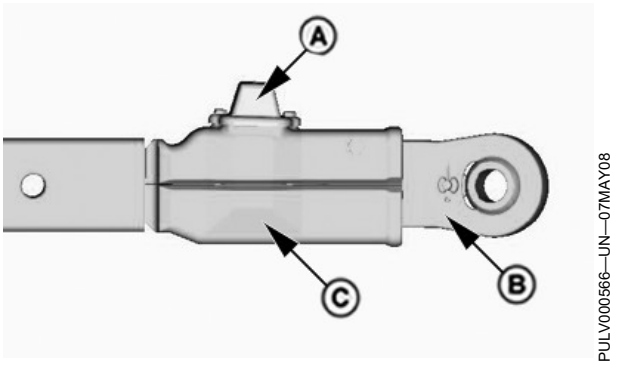
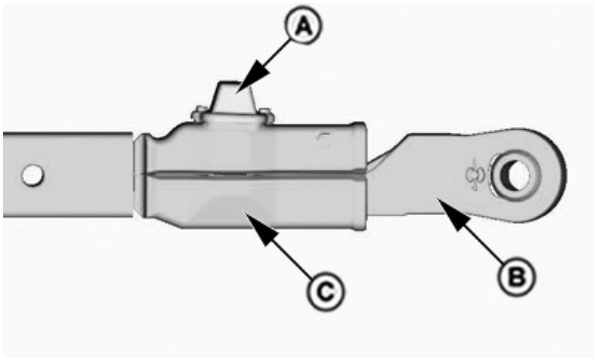
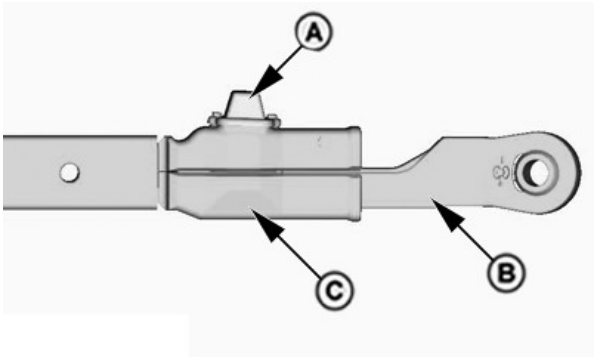
Heavy Duty Telescoping Draft Links







1. Lift lock pin (A) and pull out draft link end (B) to rear. Slip draft link end over implement hitch pin. Retain with quick-lock pin. Repeat on other side.
2. Raise or lower draft arms (C) to align ends (B) with arms, then slowly back up tractor to lock ends in place.
3. Perform steps 2—6 from fixed draft links procedure.

A—Lock Pin
B—Draft Link End
C—Draft Arm

SH20560,00000E0-19-17DEC09-5/5

Adjust Hitch Side Sway

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

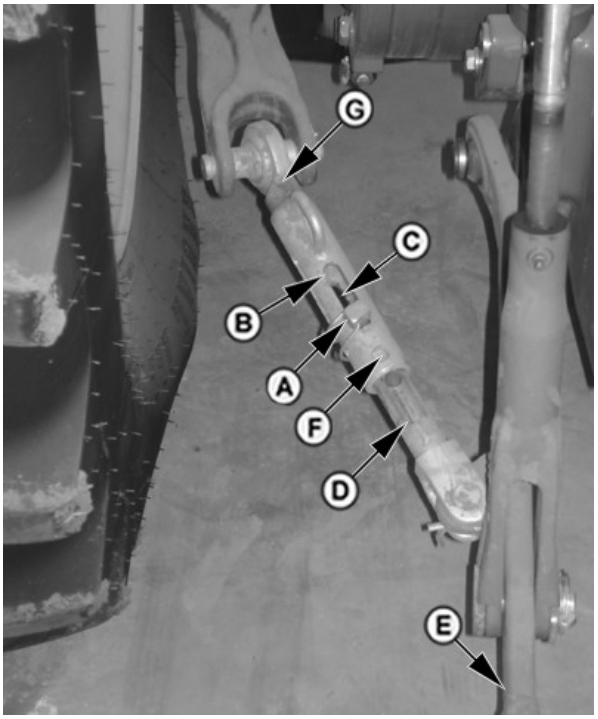
If sway is desired, install pin (A) in sway position outer slot (B), ensuring it goes through sway position inner slot (C).

If sway is not desired, move draft link (E) to desired position. Install pin (A) in fixed position hole (F) that lines up with one of the holes (not slot) of the inner sliding member (D).

Adjust opposite side sway bar to same position.

NOTE: Additional fixed positions can be obtained by adjusting threaded end of stabilizer (G). Disconnect inner sliding member (D) from draft link (E). Rotate stabilizer as necessary. Missing thread on stabilizer also acts as a stop indicator.

A—Pin
B—Sway Position Outer Slot
C—Sway Position Inner Slot
D—Inner Sliding Member
E—Draft Link
F—Fixed Position Holes
G—Stabilizer



PULV000569—UN—07MAY08

Sway Bar Pin in Sway Position

PULV000248—UN—06MAR08

SH20560,0000133-19-14JUL08-1/1

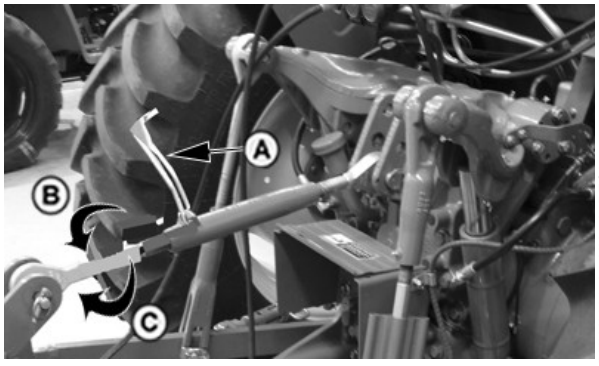
Level Hitch

1. Lower implement to take weight off hitch and adjust center link to level implement front-to-rear.
   a. Rotate center link body with handle (A). DO NOT disconnect center link by rotating body beyond limits. Rotate center link body:
      - CLOCKWISE (C) to lengthen center link.
      - COUNTERCLOCKWISE (B) to shorten center link.
   b. Latch locking clip.

IMPORTANT: DO NOT attempt to overextend center link beyond limits of locking clip or lift links past the stops (missed thread). 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 lift link to level implement side-to-side.
   a. Lift locking handle (D) and rotate 90° to engage slot (E) onto roll pin (G). Turn locking handle (D):
      - CLOCKWISE to raise draft link.
      - COUNTERCLOCKWISE to lower draft link.
   b. Lift handle (D) and rotate 90° to engage slot (E) onto locking tab (F) of lower body to prevent change of adjustment during operation.



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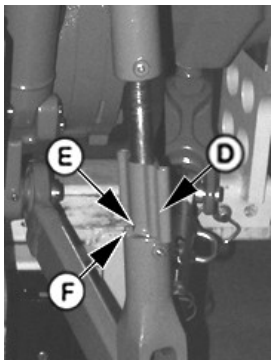
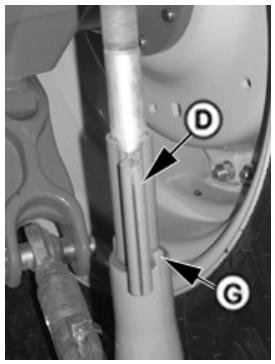


PULV000556—UN—21APR08



PULV000557—UN—21APR08

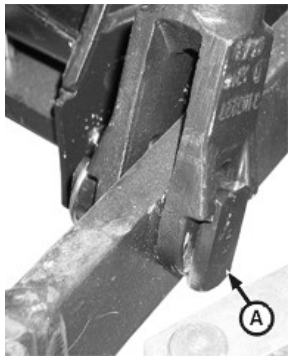
A—Locking Handle
B—Center Link Counterclockwise Rotation
C—Center Link Clockwise Rotation
D—Locking Handle
E—Slot
F—Locking Tab
G—Roll Pin

SH20560,0000134-19-14JUL08-1/1

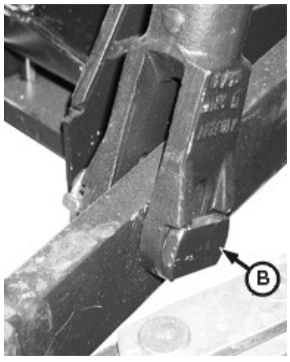
Adjust Lateral Float

- **Float Position (A):** Ground following implements (cultivator or mower), use ground gauging skids or wheels to rise/lower slightly or twist as implement follows ground contour.
- **Rigid Position (B):** Ground engaging implements (plows, rippers, disc) require fixed ground depth and alignment with tractor, no relative twisting.

A—Pin in Float Position (Vertical)
B—Pin in Fixed Position (Horizontal)



LV6103—UN—07FEB01



LV6102—UN—07FEB01

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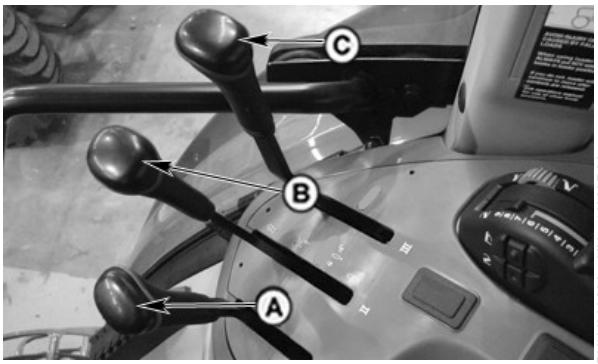
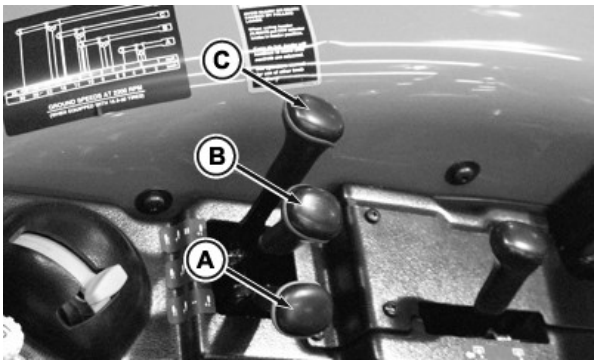
Rear SCV Control Lever and Coupler Identification



PULV000099—UN—10MAR08

Cab Shown, OOS Similar

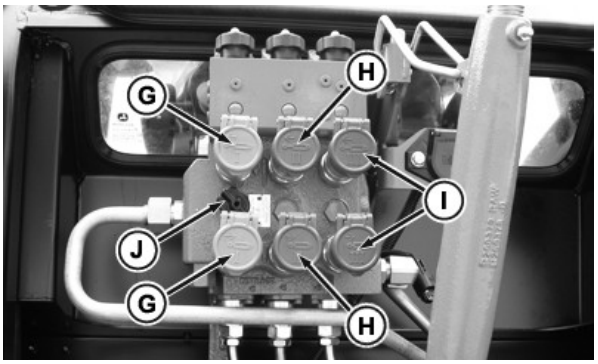


PULV004931—UN—19JUN09

Low Profile

Levers (A—C) control oil flow to corresponding Selective Control Valve (SCV) couplers, located at the rear of tractor. Top couplers are for extension; bottom couplers are for retraction.

A—SCV I Control Lever (Green)
B—SCV II Control Lever (Blue)
C—SCV III Control Lever (Brown)
G—SCV I Couplers (Green)
H—SCV II Couplers (Blue)
I—SCV III Couplers (Brown)
J—Adjustable Flow Control



PULV004932—UN—19JUN09

Deluxe Triple SCV

SH20560,00000E1-19-22JUN09-1/1

Mid-Mount SCV Control Lever and Coupler Identification—If Equipped

Lever (A) controls oil flow to corresponding Selective Control Valve (SCV) couplers, located at the right side of tractor. Right-hand side couplers are for extension; left-hand side couplers are for retraction.

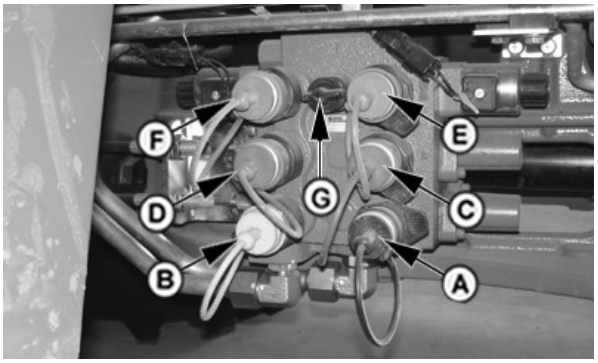
A—Multifunction Control Lever

PULV000106—UN—06MAR08

Continued on next page

SH20560,000034F-19-14JUL08-1/2

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



PULV000570—UN—07MAY08

SH20560,000034F-19-14JUL08-2/2

Use Correct Hose Tips

Selective control valve (SCV) couplers accept a standard hose tip as recommended by ISO[1], and SAE[2]. Adapters are available to update older hose tips to the ISO couplers on this tractor.

[1] *International Standards Organization (ISO) 7241-1*
[2] *Society of Automotive Engineers*

SH20560,000040A-19-24APR08-1/1

Connect or Disconnect 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., by calling 1-800-822-8262 or +1 309-748-5636.

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

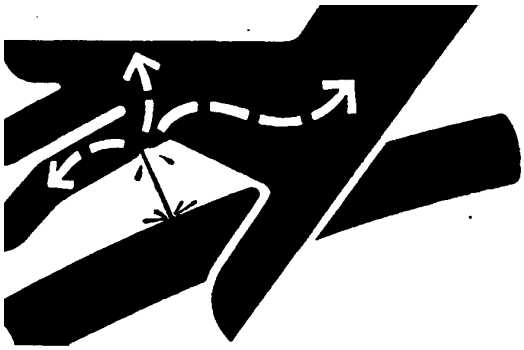
   IMPORTANT: Implement must be raised slightly, by pulling back on lever to reset coupler check valves, before it can be lowered.

   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.

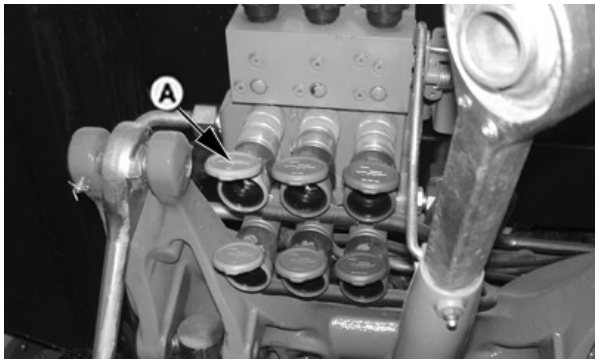
   b. After reinstalling hose, extend and retract cylinder to properly seat connector and reset check valve.

2. With as much hydraulic pressure relieved as possible from hoses, pull hoses from selective control valve (SCV) couplers.

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



X9811—UN—23AUG88



PULV000503—UN—11MAR08

Triple Rear SCV Shown

A—Coupler Cover

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

SA61034,0000143-19-11AUG09-1/1

Connect Cylinder Hoses to Rear SCV

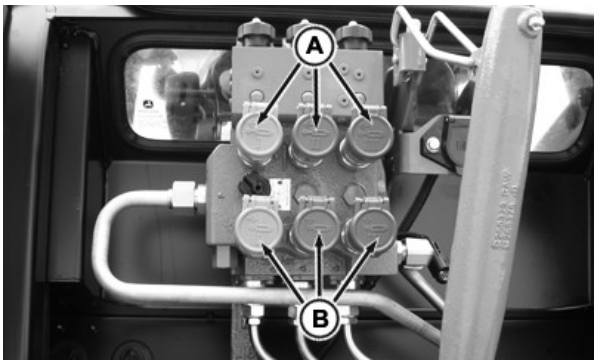
1. Identify extend and retract hoses.
2. Remove dust caps (if equipped) from hose end.
3. Open coupler covers.

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 coupler are clean, push hose tip firmly into selective control valve (SCV) coupler. Pull on hose to make sure positive connection was made.

   Connect extend hoses to top couplers (A) and retract hoses to bottom couplers (B).

A—Top (extend) couplers **B—Bottom (retract) couplers**



PULV004933—UN—19JUN09

Triple rear SCV shown

SH20560,0000137-19-19JUN09-1/1

Connect Cylinder Hoses to Mid SCV—If Equipped

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

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

Tie Band/Plug/Cap Color	Hydraulic Function
Black	Bucket Cylinder—Rod End
Yellow	Bucket Cylinder—Head End
Blue	Boom Cylinder—Head End
Red	Boom Cylinder—Rod End
Orange	Attachment Cylinder—Head End
Green	Attachment Cylinder—Rod End

2. Remove dust caps from hose ends.
3. Pull dust plugs from selective control valve (SCV) 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, slide sleeve then push hose tip firmly into coupler and release sleeve. Pull on hose to make sure positive connection was made.
5. Connect mating (color-coded) plugs and caps together.

SH20560,0000138-19-24APR08-1/1

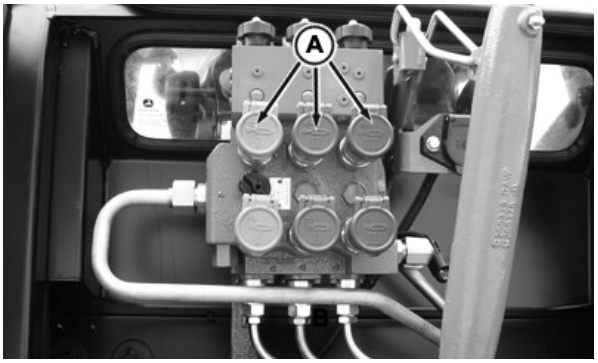
Connect and Operate Single-Acting Cylinder

Single-acting cylinder should only be connected to selective control valve (SCV) extend coupler (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 Check Transmission-Hydraulic Oil Level, in Maintenance Guide.)

Pull Selective Control Valve (SCV) control lever back to pressurize and extend single-acting cylinder.

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



PULV004934—UN—19JUN09

Triple rear SCV

A—Extend couplers

SH20560,0000139-19-19JUN09-1/1

Operate Rear SCV Control Levers

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

SH20560,00000E2-19-19JUN09-1/2

Rear selective control valve (SCV) control levers have four positions:

- Extend
- Retract
- Neutral
- Float

Float is the only position with mechanical detent. Extend and retract automatically spring back to neutral when lever is released. Float has to be manually returned to neutral.

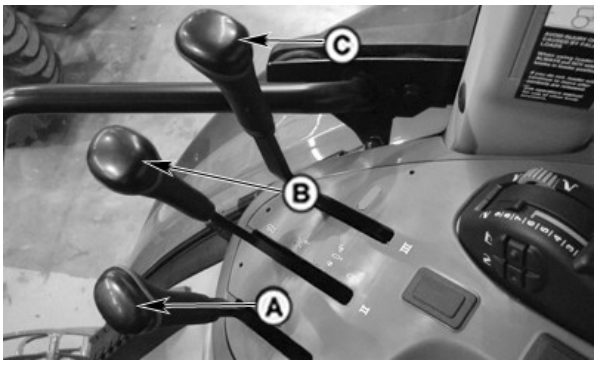
To EXTEND cylinder, pull lever REARWARD.

To RETRACT cylinder, push lever FORWARD.

To bring cylinder in NEUTRAL position, release lever to CENTER position.

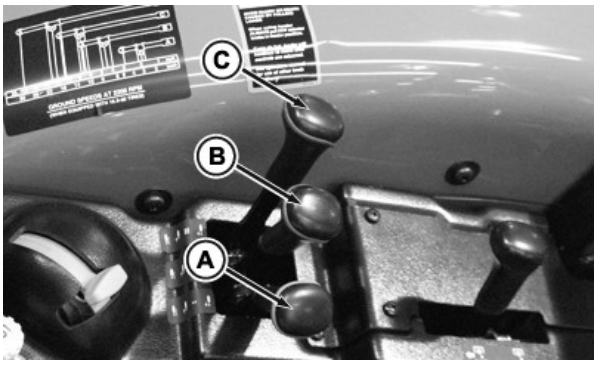
To bring cylinder in FLOAT position, push lever further FORWARD past retract.

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



PULV000099—UN—10MAR08

Cab Shown



PULV004931—UN—19JUN09

Low Profile

SH20560,00000E2-19-19JUN09-2/2

Operate Rear SCV Control Levers and Set Detents—Deluxe Valves

Each section of the Deluxe selective control valve (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”.

Continued on next page

SH20560,000013B-19-29DEC08-1/2

Set Control Lever Detents

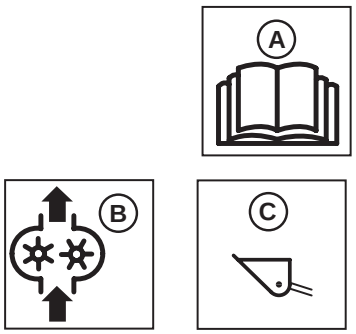
NOTE: Read operators manual symbol (A) is for reference only and is not a selectable setting.

SCV Section/Knob Position/ Operation	Control Lever Detent
SCV III—Centered (C) for loader operation	(C)—No Detent—Lever returns to neutral when released
SCV II—Turned counterclockwise (B) for motor operation	(B)—Continuous Detent—Holds lever in operating position until manually returned to neutral
SCV I—Turned clockwise (D) for cylinder operation	(D)—Automatic Detent—Lever automatically returns to neutral when cylinder reaches end of stroke

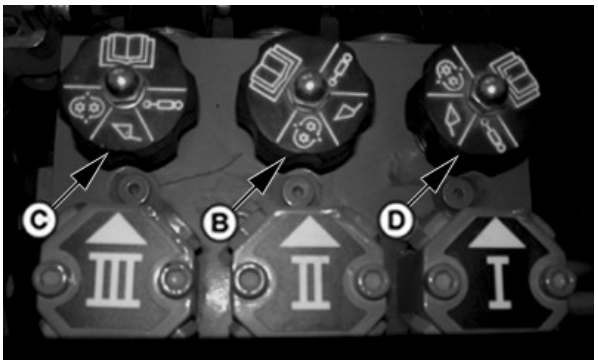
With lever in neutral, remote cylinder is hydraulically locked in position.

IMPORTANT: To avoid overheating hydraulic oil and damage to tractor, use SCV I when long duration "continuous" (motor) operation is required. Valve I of the Deluxe SCV has a flow control valve which, when properly adjusted, provides flow to operate an implement at required speed while maintaining oil temperature within normal operating range.

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



LV9660—UN—19AUG04



PULV000505—UN—11MAR08

Viewed From Operator's Station

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

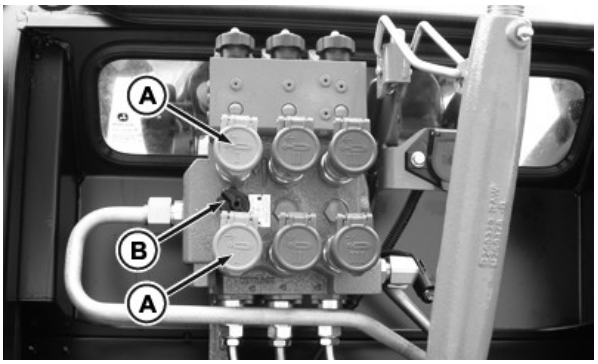
SH20560,000013B-19-29DEC08-2/2

Use Deluxe Rear SCV to Operate Hydraulic Motor

IMPORTANT: If equipped with Deluxe rear selective control valve (SCV), use SCV I (A), with adjustable (internal) flow control valve (B) for hydraulic motor operations. 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.

DO NOT use Deluxe rear SCV for any low flow, high pressure applications such as planter motor, active down-force circuits. PTO driven hydraulic motor is recommended for low flow, high pressure applications.

NOTE: Use external flow control valve to regulate oil flow when operating a hydraulic motor with any standard valve or Deluxe valve sections II or III, without internal flow control.



PULV004936—UN—19JUN09

A—SCV I **B—Adjustable Flow Control Valve**

Recommendations to Avoid Hydraulic Motor Damage

NOTE: Refer to operator's manual of implement to understand motor features.

IMPORTANT: If implement motor is not equipped with return coupler, 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.

- Use hydraulic motor case drain connection (if equipped) for implements having motor with case drain line. Refer to ”Use Hydraulic Motor Case Drain Connection—If Equipped” in this section.
- Use hydraulic motor return coupler (if equipped) for implements having single directional hydraulic motor.
- Use hydraulic motor return coupler (if equipped) for implements having hydraulic motor with low pressure shaft seal.
- Use hydraulic motor return coupler (if equipped) for implements having hydraulic motor with internal case drain.

SH20560,000013C-19-19JUN09-1/2

Hydraulic Motor Hose Connections and Control Lever Operations

IMPORTANT: Use only SCV I of rear SCV for ”continuous” (motor) applications. SCV I of rear SCV is for high flow and lower pressure application (motor).

DO NOT return hydraulic motor directly to sump via fast return-to-sump connection, except intermittent high pressure applications, such as post pounder.

1. Shut off engine.
2. Move SCV control lever full forward, into ”float” detent.
3. Connect hydraulic motor hoses to SCV I couplers that correspond to selected control lever.
4. **Deluxe Valve:** Set control lever detent for continuous ”motor” operation. (See ”Operate Rear SCV Control Levers and Set Detents—Deluxe Valves” in this section.)
5. Start engine.
6. To activate hydraulic motor, move control lever forward to ”retract” position.

PULV000105—UN—10MAR08

Cab Shown, other similar

A—SCV I Control Lever

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.

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

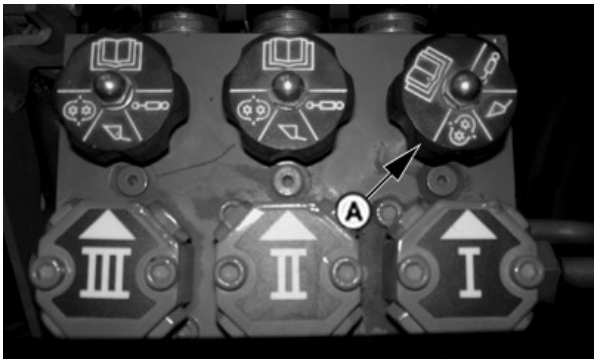
SH20560,000013C-19-19JUN09-2/2

Use Rear SCV to Provide Power Beyond Oil

IMPORTANT: For continuous oil supply, set rear SCV valve I, II or III to ”continuous” detent.

NOTE: If equipped with Deluxe rear selective control valve (SCV), oil can be supplied to power beyond equipment.

1. SHUT OFF engine.
2. Connect power beyond hose to SCV I couplers.
3. Set Deluxe rear SCV I detent to "continuous".
4. START engine.
5. Move SCV control lever I into extend or retract.
6. Oil is now supplied to power beyond device.
7. To stop, de-activate power beyond device then place SCV control lever I into neutral.



PULV000506—UN—11MAR08

A—SCV I into Continuous Position

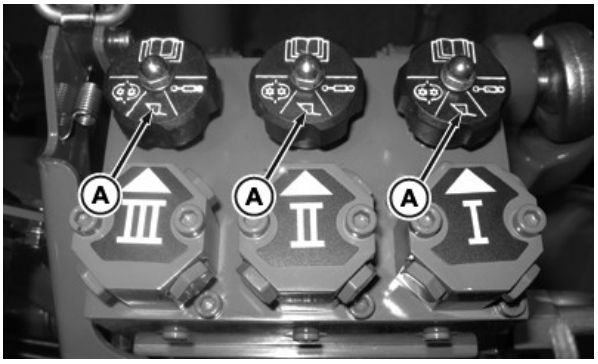
8. SHUT OFF engine and disconnect hoses.

SH20560,00003E4-19-14JUL08-1/1

Use Rear SCV to Operate Loader

CAUTION: Avoid injury or death caused by falling loads. When using Deluxe selective control valves (SCV) to operate loader, detents must be set in No Detent (Loader) position (A), 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.

When using loader, always put SCV detent selector knobs in loader position to prevent unexpected machine movement.



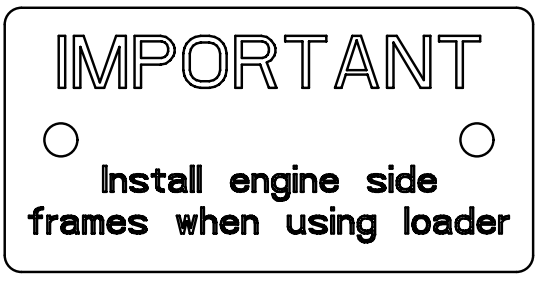
PULV004935—UN—19JUN09

A—No detent (loader) position

SH20560,000013D-19-19JUN09-1/1

Operate Mid SCV Multi-Function Control Lever—If Equipped

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



PULV004691—UN—11JAN10

Low Profile Tractor

Continued on next page

SH20560,000013E-19-02MAR10-1/5

Multi-function lever controls any hydraulically driven device connected to mid selective control valve (SCV), most commonly a loader.

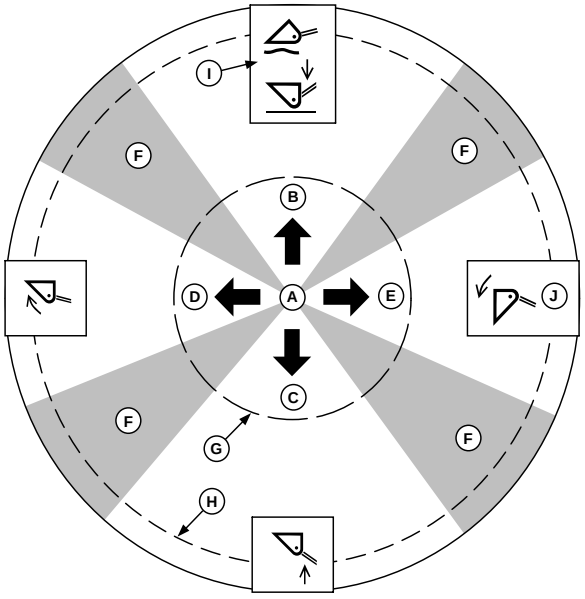
NOTE: Multi-functions lever and loader operation depend on hose to coupler connection, see "Connect Cylinder Hoses to Mid SCV—If Equipped" in this section.

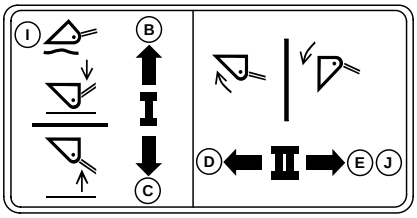
1. A single function operates when control lever (A) is moved straight away from center, in one-of-four primary directions (front, back, left or right).
   - Front—Boom Lower (B)
     - Full-front (I) is a detented position used for "float" operations.
   - Back—Boom Raise (C)
   - Left—Bucket Rollback (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).
5. Third functions controlled by switch (K) can be operated simultaneously with any single and two function operations.

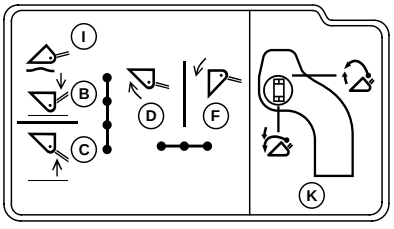
"Float": Push lever full forward into detent when "float" is desired. "Float" position (I) allows loader boom to move up and down freely while traveling over rough ground. Manually return lever to neutral when "float" is no longer needed.

A—Multi-Function Control Lever
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

PULV000106—UN—06MAR08







LV12593—UN—22SEP06

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SH20560,000013E-19-02MAR10-2/5

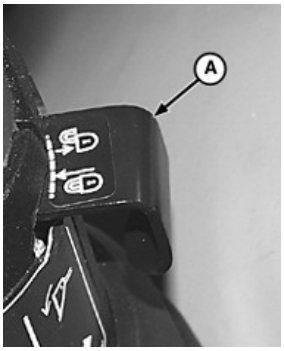
Transport Lock

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 to lock.
- Pull OUT to unlock.

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



LV12594—UN—21APR05

Locked

LV12595—UN—21APR05

Unlocked

A—Transport Lock

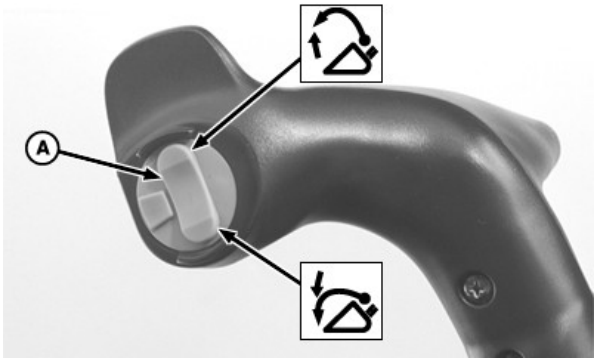
SH20560,000013E-19-02MAR10-3/5

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.



LV9662—UN—20AUG04

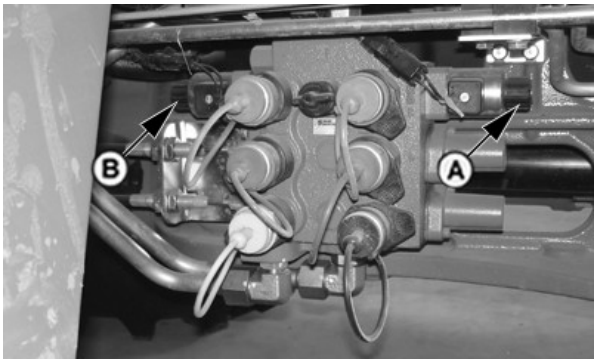
A—Mid SCV Third Function Switch

SH20560,000013E-19-02MAR10-4/5

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.



PULV000508—UN—11MAR08

A—Access Hole (Extend) **B—Access Hole (Retract)**

SH20560,000013E-19-02MAR10-5/5

Adjust Flow Control—Rear SCV and Mid SCV —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.

Continued on next page

SH20560,000013F-19-08MAY08-1/2

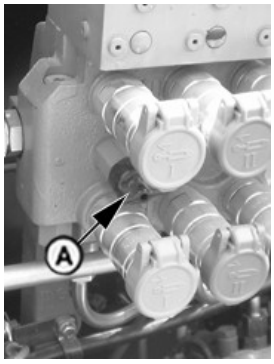
Flow control adjustment only affects the number I section of Deluxe rear selective control valve (SCV) and the electrohydraulic (grapple) section of the three-function mid SCV. Other valve sections are not affected by this adjustment.

NOTE: Maximum flow possible on electrohydraulic section of three-function mid SCV is 45 L/min (11.9 gal/min).

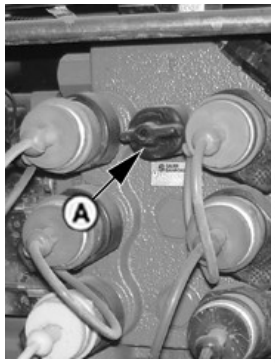
To INCREASE flow, rotate LEFT (COUNTERCLOCKWISE).

To DECREASE flow, rotate RIGHT (CLOCKWISE).

NOTE: Rear SCV: If detent kicks out before end of cycle, use SCV I and adjust flow control.



Rear SCV



Mid SCV

A—Flow Control Knob

SH20560,000013F-19-08MAY08-2/2

Correct Reversed Cylinder Response

CAUTION: If cylinder response is opposite of control lever, extending when it should retract, reverse hose connections at couplers.

SH20560,0000140-19-11MAR08-1/1

Warm Transmission-Hydraulic System Oil

NOTE: Operation can be done at Rear SCV or at Mid SCV.

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

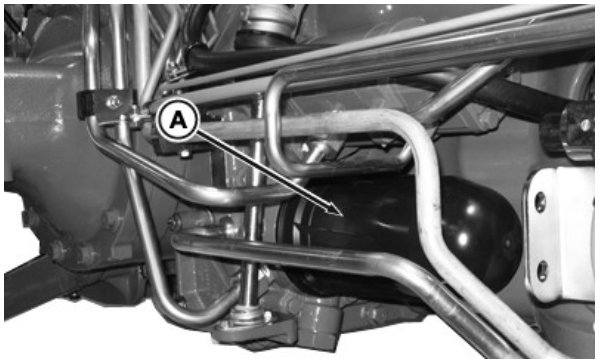
SH20560,0000141-19-19JUN09-1/5

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 will be slow until system warms up.

Hydraulic system will function normally when oil warms up.

A—Hydraulic Oil Filter



Hydraulic Oil Filter

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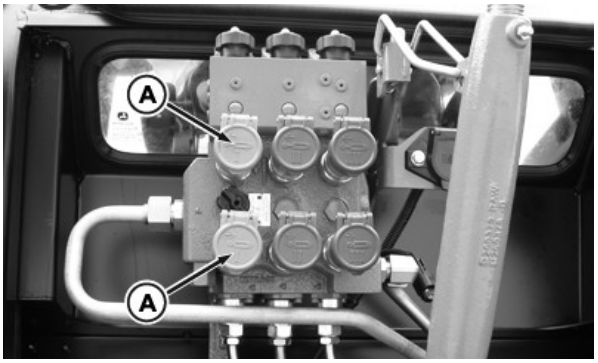
SH20560,0000141-19-19JUN09-2/5

1. Connect jumper hose to SCV I couplers (A).

A—SCV I Couplers



PULV004938—UN—19JUN09

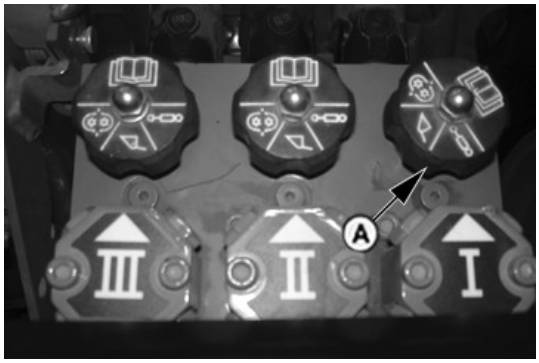
Triple Deluxe Rear SCV

SH20560,0000141-19-19JUN09-3/5

NOTE: Knob setting stop is in the front, center position (bold arrow).

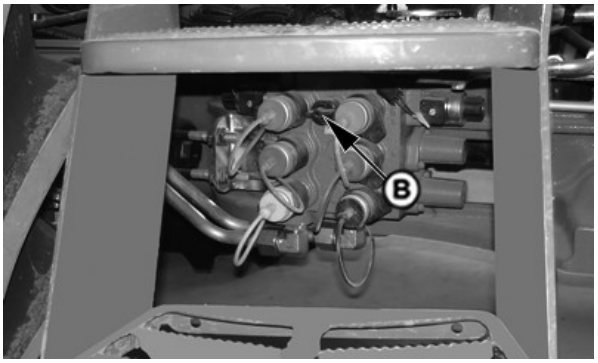
2. **Rear SCV (If Equipped):** Turn SCV I selector knob to cylinder (automatic) detent position (A).
3. Turn flow control knob (B) fully counterclockwise (open).

A—Automatic Detent Position B—Flow Control Knob



PULV000511—UN—11MAR08

Viewed from Operator's Station



PULV000586—UN—07MAY08

Mid SCV-Flow Control Valve

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SH20560,0000141-19-19JUN09-4/5

4. Depress clutch pedal, start engine and idle at 1200 rpm.
5. Move SCV I control lever (A) forward or rearward until hydraulic oil warms to operating temperature.

NOTE: If equipped with dual rear SCV and for any mid SCV, control lever must be held into extend or retract.

6. Turn steering wheel side-to-side to check warm-up progress. When wheel turns smoothly without hesitation, oil has warmed to operating temperature. After transmission-hydraulic oil has warmed to operating temperature:
7. Return SCV lever to neutral.
8. **Rear SCV (If Equipped):** Return detent selector and flow control knobs to original positions and setting.
9. Remove jumper hose.

PULV000105—UN—10MAR08

Cab shown, other similar

A—SCV I Control Lever

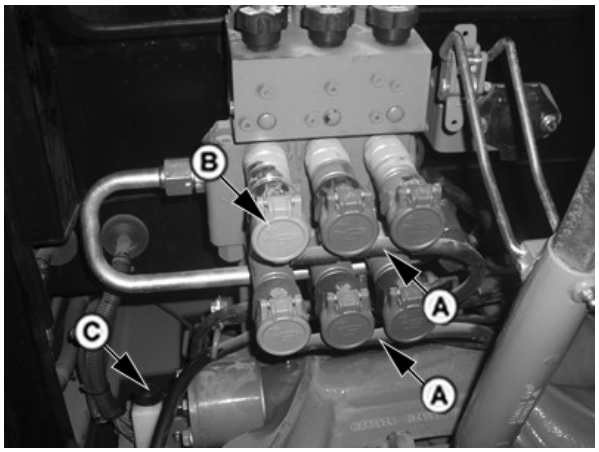
SH20560,0000141-19-19JUN09-5/5

Use Rear SCV Oil Collection Tank—If Equipped

Oil might leak during hose uncoupling with rear selective control valve (SCV). Collars installed onto couplers (B) capture oil and hoses (A) transfer oil to a removable collection tank (C).

Parts for this attachment are available from your John Deere dealer.

A—Hose
B—SCV Coupler
C—Oil Collection Tank



PULV000504—UN—11MAR08

SH20560,00003E3-19-14JUL08-1/1

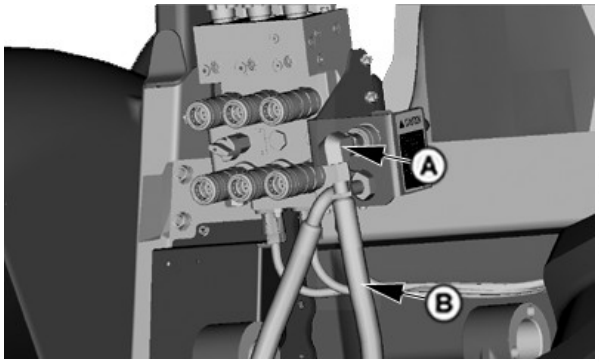
Use Hydraulic Power Beyond Coupler—If Equipped

Power beyond is designed for applications where continuous high volume hydraulic oil flow is needed.

To use power beyond feature, remove hose (B) from coupler (A) and attach to implement's "return" port. To complete the hydraulic circuit, attach implement's "pressure" hose to open coupler (A).

When not in use, plug hose end into coupler for storage (as shown).

Parts for this attachment are available from your John Deere dealer.



PULV000182—UN—06MAR08

A—Hose Coupler
B—Power Beyond Hose

SH20560,0000379-19-14JUL08-1/1

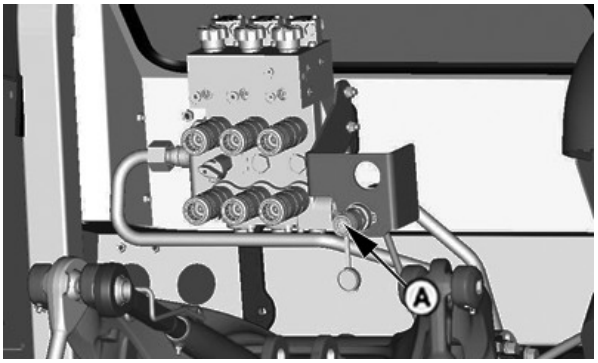
Use Hydraulic Motor Case Drain Connection—If Equipped

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



PULV000571—UN—07MAY08

SH20560,0000143-19-14APR08-1/1

Use Fast Return-to-Sump Connection

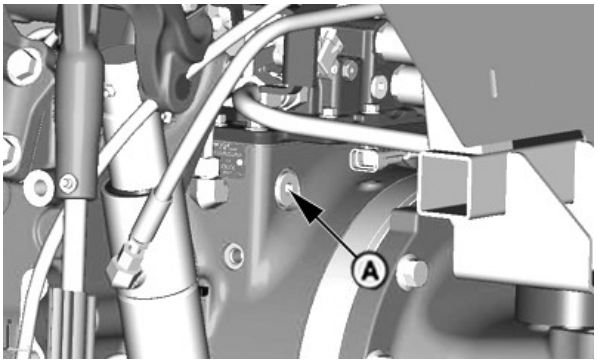
IMPORTANT: Use fast return-to-sump connection only for intermittent high flow applications, DO NOT use otherwise.

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 plug (A) from transmission housing and install connector.

NOTE: Connector is available from your John Deere dealer.

A—Plug



PULV000572—UN—07MAY08

SH20560,0000144-19-16APR08-1/1

Match Tractor Power to Implement

IMPORTANT: Tractor power should be matched to the size of the implement. 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 implement to tractor.

SH20560,0000402-19-10MAR08-1/1

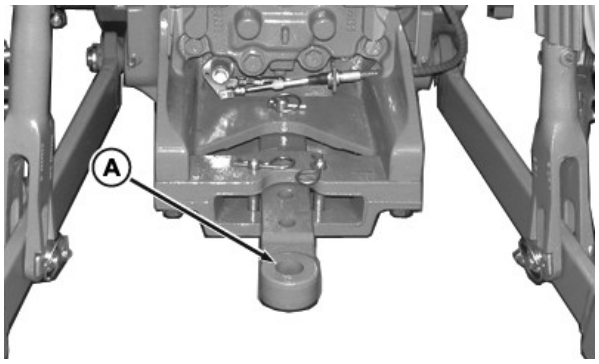
Observe Drawbar Load Limitations

IMPORTANT: Some heavy implements, such as a loaded single-axle trailer, can put excessive strain on drawbar. Strain is greatly increased by speed and rough terrain. Do not exceed maximum static vertical load on drawbar.

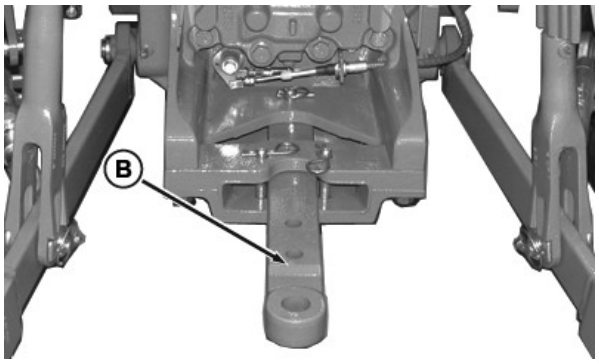
Drive slowly with heavy loads.

Static Drawbar Vertical Load (kg (lb))		
Position	**Retracted**	**PTO 540/1000 rpm**
Standard	1250 (2756)	1000 (2205)
Heavy Duty	1450 (3197)	1200 (2646)

A—Drawbar—Fully Retracted **B—Drawbar—Fully Extended**



Fully Retracted



Fully Extended

SH20560,0000403-19-19JUN09-1/1

Select Drawbar Position

CAUTION: Avoid injury from unexpected equipment movement. A safety chain will help control drawn equipment in case it accidentally separate from the drawbar.

Using the appropriate adapter parts, attach the chain to the tractor drawbar support. 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.

For maximum traction and efficiency, drawbar (A) should be positioned in the center, fully retracted position. (See implement operator's manual for more information.)

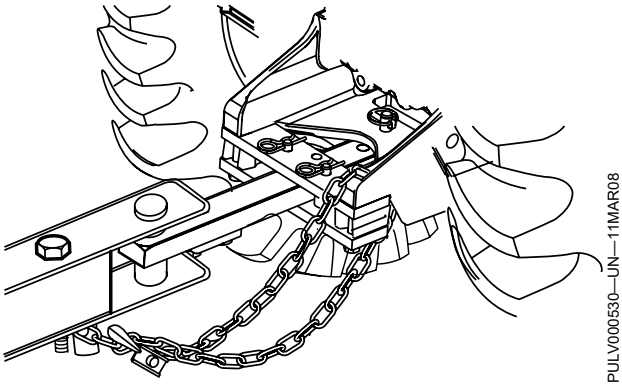
If needed, drawbar can be offset from center using slots provided in the drawbar support.

IMPORTANT: For drawn PTO-driven implements, drawbar must be extended to proper position.

Drawbar Positions	
PTO Shaft	**PTO Shaft End-to-Hitch Pin Hole (B)**
540 rpm (6 spline)	350 mm or 400 mm (13.78 in. or 15.75 in.)
1000 rpm (21 spline)	400 mm (15.74 in.)

NOTE: Do not use safety chain for towing.

A—Drawbar **B—Measure From/To**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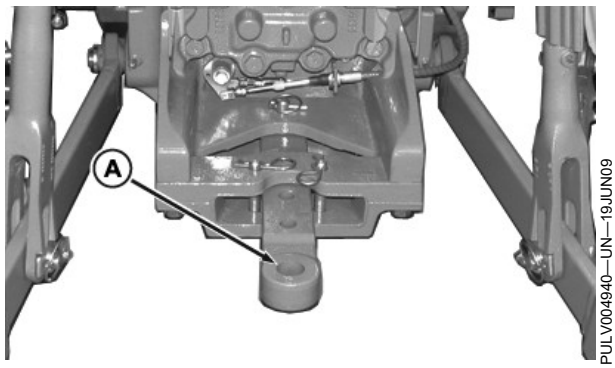

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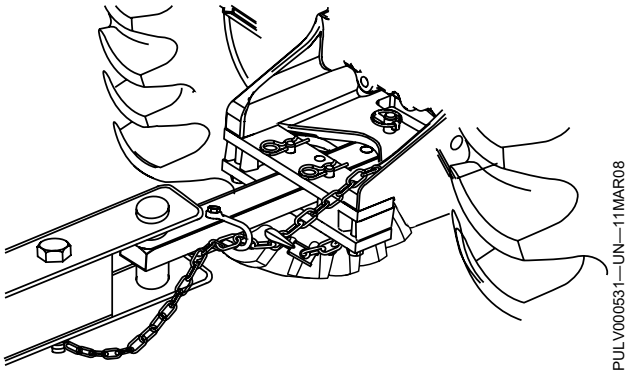
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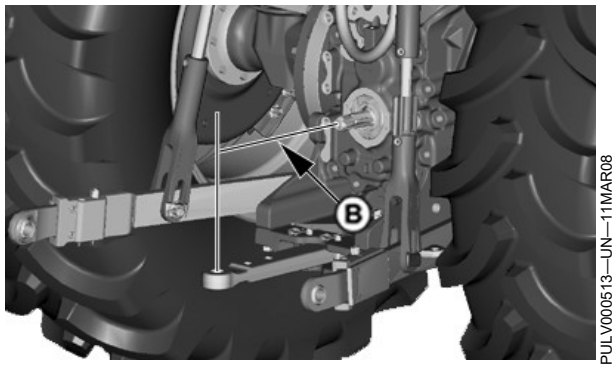


PULV000513—UN—11MAR08

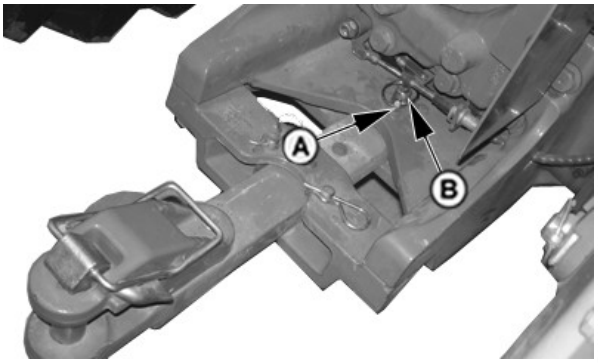
SH20560,0000404-19-19JUN09-1/1

Adjust Drawbar Length and Offset

Adjust Drawbar Length

1. Remove retaining pin (A).
2. Remove drawbar pin (B).
3. Slide drawbar to desired position.
4. Install drawbar pin (B) and insert retaining pin (A) to retain in place.

A—Retaining Pin **B—Drawbar Pin**



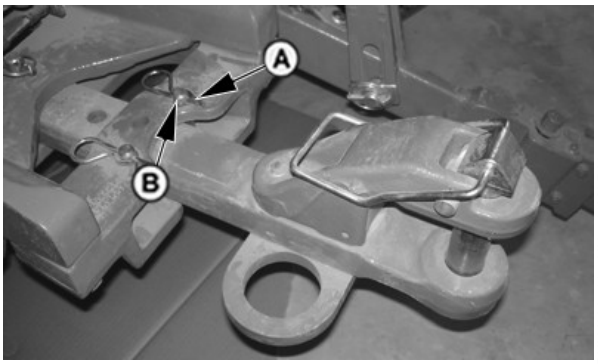
PULV000148—UN—06MAR08

SH20560,0000405-19-07JUL09-1/2

Adjust Drawbar Offset

1. Remove retaining pin (A).
2. Remove pin (B).
3. Offset drawbar towards left or right.
4. Install pin (B) and insert retaining pin (A) to retain in place.

A—Retaining Pin **B—Drawbar Pin**



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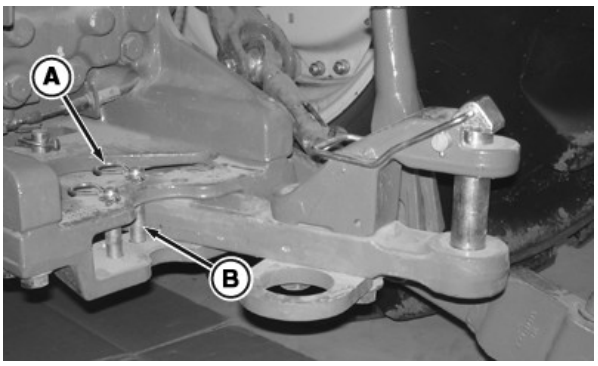


PULV004604—UN—07JUL09

SH20560,0000405-19-07JUL09-2/2

Attach PTO-Driven Implement

CAUTION: Entanglement in rotating driveline can cause serious injury or death.

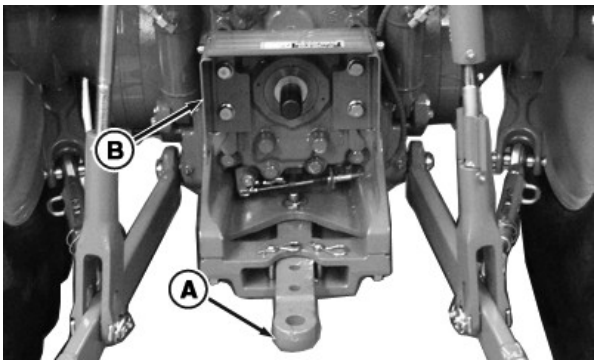
Keep tractor PTO shield and driveline shields in place at all times. Make sure rotating shields turn freely.

Before making adjustments, connections or cleaning PTO driven equipment, STOP the engine and wait for PTO drivelines to stop.

1. Turn key to STOP position to shut off engine.
2. Put drawbar (A) in extended position. If implement will be connected to 3-point hitch, be sure drawbar will not interfere. Fully retract drawbar or remove it if necessary. (See "Select Drawbar Position" in this section.)
3. Install drawbar lock pin.
4. Attach implement to tractor (drawbar or 3-point hitch) before connecting PTO driveline. Raise hitch to full-up (transport) position if it is not to be used.
5. Flip PTO shield (B) up for clearance. With engine off, turn PTO shaft by hand to line up splines. Connect driveline to PTO shaft. Pull driveline to be sure it is locked to PTO shaft. Return PTO shield to down position.
6. Check that all shields are in place and in good condition. WITH ENGINE STOPPED, check driveline shields on driveline by making sure they rotate freely on shaft. Lubricate or repair as necessary.

CAUTION: Never operate PTO unless master shield is properly installed.

TS1644—UN—22AUG95



PULV004605—UN—07JUL09

A—Drawbar **B—PTO Shield**

7. Check for interference.

SH20560,0000406-19-07JUL09-1/1

Select Correct PTO Speeds—If Equipped

IMPORTANT: Disengage PTO with switch (B) before changing PTO speed with lever (A). NEVER use shiftable PTO lever (A) to engage or disengage PTO.

NOTE: Lift black collar to move PTO shift lever, for cab tractors only.

Standard 540 Operation

No PTO speed selection required. Engage standard 540 PTO with switch (B).

NOTE: Standard 540 rpm power take-off speed is reached at 2100 rpm engine speed.

540/540E Operation

For standard 540 PTO operation (load requiring full engine power), move lever (A) rearward into standard 540 speed position.

For economy 540 PTO operation (lighter load), move lever (A) forward into economy 540 speed position. In economic mode, engine operates at lower rpm to conserve fuel and reduce overall operating noise while still turning PTO shaft at 540 rpm.

NOTE: Economy 540 rpm power take-off speed is reached at 1645 rpm engine speed and limited to maximum engine speed of 1815 rpm.

NOTE: PTO conversion kits are available for most tractors. See your John Deere dealer for details and kit applications.

540/540E/1000 Operation—If Equipped

IMPORTANT: PTO shaft must be reversed from 540 to 1000 rpm position before moving shift lever (A). (See "Reverse 540/1000 rpm PTO Shaft-If Equipped" in this section.)

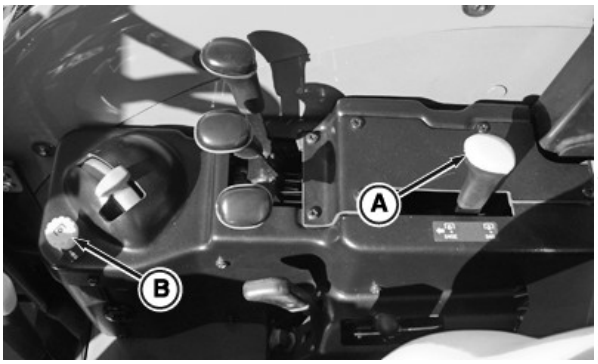
540/540E select remains the same.

For 1000 rpm PTO operation, after PTO shaft positioned correctly, move lever (A) rearward into standard 540 speed position.

NOTE: 1000 rpm power take-off speed is reached at 2100 rpm engine speed.

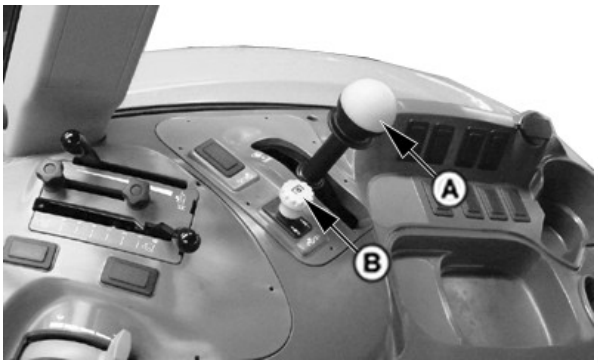
PULV000146—UN—06MAR08

OOS



PULV004676—UN—16DEC09

Low Profile



PULV000074—UN—10MAR08

Cab

A—PTO Shift Lever **B—PTO Switch**

SH20560,00000E4-19-06JAN10-1/1

Reverse 540/1000 RPM PTO 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. Before making adjustments, connections or cleaning PTO driven equipment, STOP the engine and wait for PTO drivelines to stop.

Allow PTO shaft to cool before changing, it may be hot due to operation. To avoid injury, wear gloves.

Continued on next page

SH20560,0000408-19-06JAN09-1/2

PTO stub shaft has six splines for operating 540 rpm implements and 21 splines for 1000 rpm implements.

NOTE: A flattened area on the stub shaft facilitates snap ring removal and installation.

1. Align snap ring ends with access flat. Remove snap ring (A) and pull out PTO shaft (B).
2. Clean PTO shaft thoroughly and coat with grease. Be sure end bore (C) is clean when installing shaft for 1000-rpm operation.
3. Turn PTO shaft end-for-end and insert in PTO housing until snap ring groove is visible.

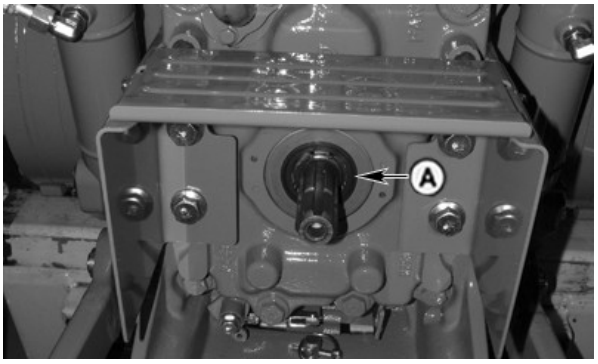
NOTE: PTO stub shaft may need to rotate slightly during installation until the splines align.

4. Install snap ring.
5. Move shift lever to agree with PTO shaft position. See "Select Correct PTO Speeds—If Equipped" in this section.

A—Snap Ring
B—PTO Shaft
C—Bore

TS1644—UN—22AUG95

Rotating Drivelines



PULV000110—UN—08OCT07

Snap Ring

LV12604—UN—26APR05

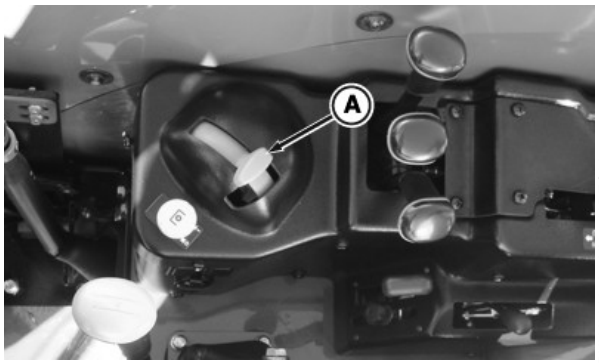
Stub Shaft

SH20560,0000408-19-06JAN09-2/2

Operate PTO

PULV000077—UN—01OCT07

Cab Shown, OOS Similar



PULV004678—UN—16DEC09

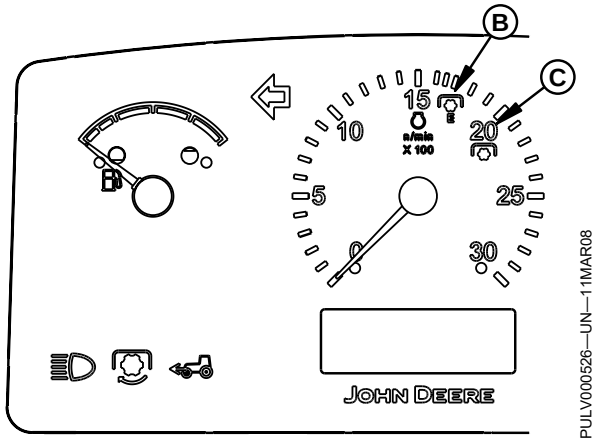
Low Profile

NOTE: Engine will start with PTO switch up (engaged), but PTO shaft will not rotate until switch is reset.

1. Depress clutch pedal, start engine and push hand throttle lever (A) forward until tachometer indicates PTO rated speed:

PTO Rated Speed	
PTO	**Engine rpm Speed**
540	2100
540E	1645
1000	2100

NOTE: When in 540E position, engine speed is limited to a maximum of 1815 rpm. 540E operation will not engage if engine speed is above 1815 rpm.



PULV000526—UN—11MAR08

A—Hand Throttle
B—540E Operation Speed
C—540 Operation Speed

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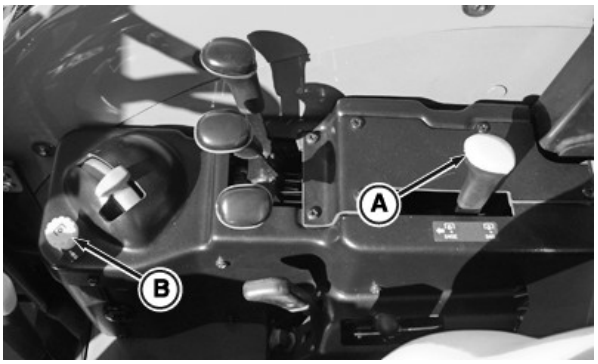
SH20560,00000E5-19-17DEC09-1/3

PULV000146—UN—06MAR08

OOS



PULV004676—UN—16DEC09

Low Profile

NOTE: PTO is engaged or disengaged without depressing clutch pedal.

2. **Engage PTO:**

   Lift switch (B) up to engage PTO.

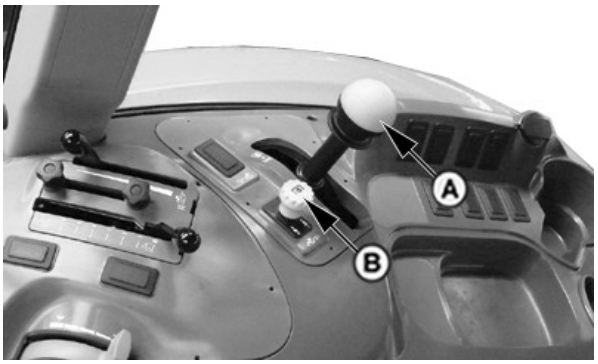
   PTO indicator (C) will light when PTO is engaged.

IMPORTANT: A warning alarm will sound if operator leaves seat with PTO engaged.

NOTE: If engine is stopped while PTO is engaged, restart engine, depress and lift switch knob (B) to reset and engage PTO.

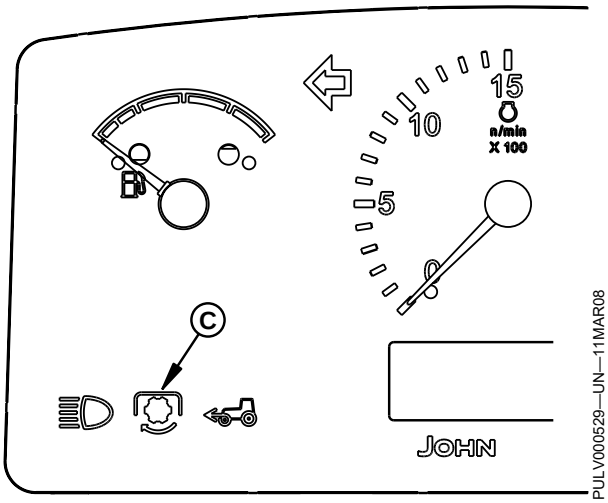
IMPORTANT: Do not use PTO speed shift lever to engage or disengage PTO.

A—540/540E PTO Speed Shift Lever
B—PTO Engagement Switch
C—PTO Indicator



PULV000074—UN—10MAR08

Cab



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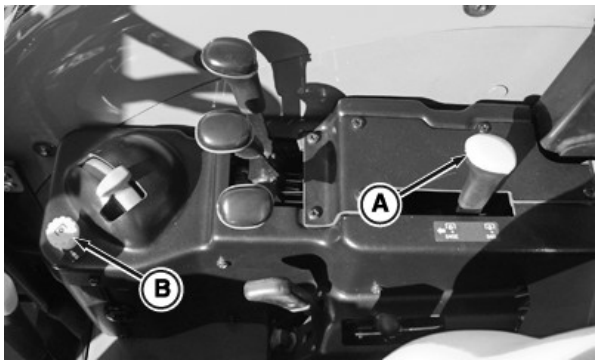
PULV000146—UN—06MAR08

OOS



PULV004676—UN—16DEC09

Low Profile

3. **Disengage PTO:**

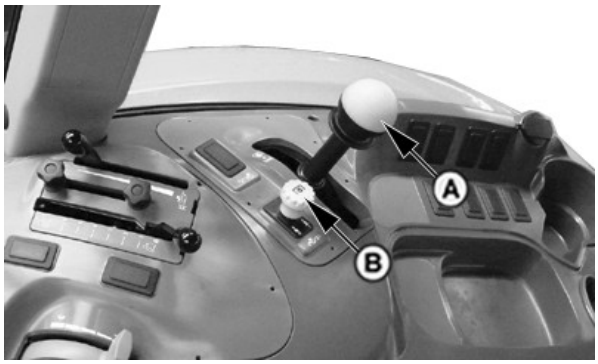
   Push switch knob (B) down to disengage PTO.

   PTO brake automatically engages when PTO is disengaged.

   PTO indicator (C) is off when PTO is disengaged.

IMPORTANT: Do not use PTO speed shift lever to engage or disengage PTO.

A—540/540E PTO Speed Shift Lever
B—PTO Engagement Switch
C—PTO Indicator



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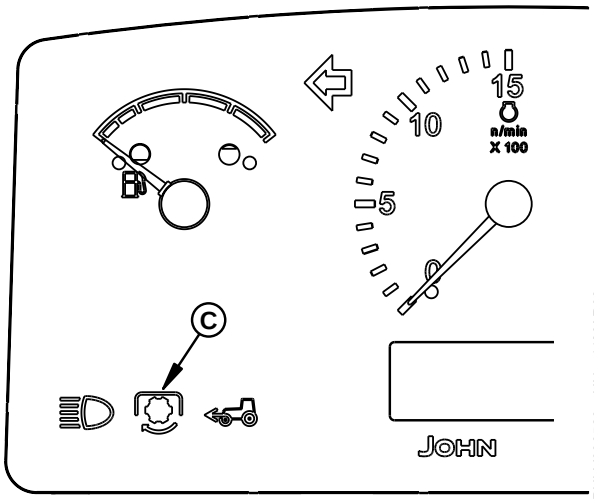

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SH20560,00000E5-19-17DEC09-3/3

PTO Alarms

Loss of PTO Speed Sensor Signal - Interrupted PTO Output:

PTO shaft output speed is monitored by the CCU. If the PTO is fully engaged and the output speed is less than 100 rpm for at least 5 seconds, but no greater than 20 seconds, then the PTO turns off and an alarm sounds. The length of time before the PTO turns off depends on hydraulic oil temperature. The colder the hydraulic oil, the longer it takes before the PTO is turned off. The PTO remains disengaged until CCU detects that the PTO switch has been cycled from the Off position and back to the On position.

PTO Switch ON when Engine Started - No PTO Output:

If the tractor is started with the PTO switch engaged, the CCU disables PTO operation until the PTO switch is cycled to Off and then back to On.

Operator Out of Seat - No Interruption of PTO Output:

An audible alarm sounds five short beeps if the operator leaves the seat. The alarm resets when the PTO switch is disengaged or the operator returns to the seat.

Seat Switch Circuit Issue - No Interruption of PTO Output:

An audible alarm sounds five short beeps if there is no seat switch signal. The alarm resets when the PTO switch is disengaged or the seat switch circuit is repaired.

DP51502,0000BA5-19-03AUG20-1/1

Performance Ballast

Plan 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 these other manuals:

- "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.

SH20560,00000E4-19-14APR08-1/1

Select 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
- Type of front axle—2WD or MFWD

Ballasting Two-Wheel Drive

Add weight to front end if needed for stability. Heavy pulling and heavy rear-mounted implements tend to lift front wheels. Add enough ballast to maintain steering control and prevent tip-over. The ideal weight split is 30% front, 70% rear, of total tractor weight.

Refer to the implement operator's manual, along with "Use Implement Codes" in this section, to determine the minimum number of front weights that are required for your tractor model.

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 "Use 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

IMPORTANT: Either liquid ballast or water ballast can be added to front and rear tires.

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.

	Max Ballast kg (lb)
2WD Front Ballast	1470 (3240)
MFWD Front Ballast	1980 (4365)
Rear Ballast	3960 (8730)

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%.

Add more weight to drive wheels if slip is excessive. If there is less than 10% slip, weight should be removed.

SH20560,00000E5-19-16FEB12-1/1

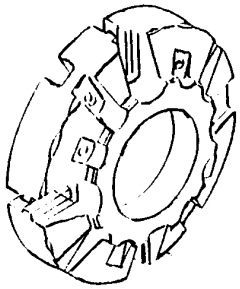
Use Cast Iron Weights

Cast iron weights are available in a 43 kg (95 lb) size. Weights can be installed on the inside or outside of wheel.

Rear wheel weights can be installed for improved traction and/or ballast. See Sales Manual for corresponding bundle numbers.

IMPORTANT: Maximum of two weights can be added per side.

See your John Deere dealer for more information and recommendations on weight use and placement.



M47215—UN—29JAN92

SH20560,00000E6-19-11MAR08-1/1

Install Rear Cast Iron Weights—If Equipped

CAUTION: Optional cast iron weight weighs 43 kg (93 lb) each. Handle with care! Use appropriate equipment or have the job done by your John Deere dealer.

NOTE: DO NOT install rear wheel weights on a Hi-Crop tractor.

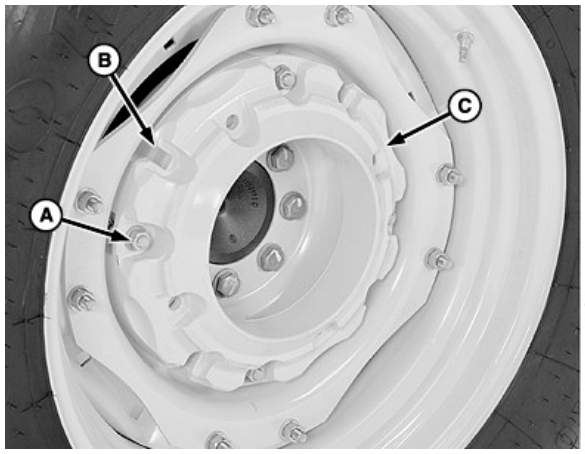
1. Remove wheel.
2. Attach weight (C) to wheel disks using four special round head bolts, washers and nuts (A). Tighten nuts to specifications.

Specification	
Wheel Weight-to-Disk Nuts—Torque	215 N·m (159 lb-ft)

3. Install additional weights:
   a. Insert four round head bolts (D) through slots (B) of first weight. Install bolts with square neck in slot (as shown).
   b. Align mounting holes of second weight with round head bolts and install weight. Fasten with washers and nuts. Tighten nuts to specifications.

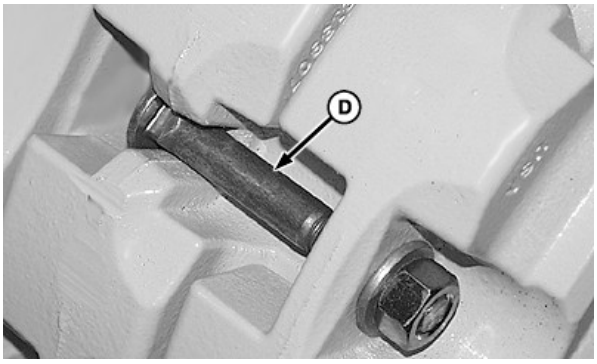
Specification	
Wheel Weight-to-Weight Nuts—Torque	215 N·m (159 lb-ft)

4. Install wheel and tighten mounting hardware. (See "Tighten Bolts—Rear Axle" in "Wheels, Tires and Treads" section.)
5. Tighten wheel weights and mounting hardware again after a few hours service. Check regularly.



LV9684—UN—17AUG04

Single Wheel Weight Shown



LV9692—UN—19AUG04

Install Bolt in Slot (Additional Weight)

A—Nut, 5/8-11 (4 used)
B—Slot (4 locations)
C—Wheel Weight
D—Round Head Bolt (4 used)

SH20560,00000E7-19-24APR08-1/1

Use Implement Codes

CAUTION: DO NOT attempt to transport an implement without adequate front ballast. Lack of steering control may result.

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 chart to determine how many QUIK-TATCH™ front weights are required on your tractor model.

   To use chart, find the implement code range in the left column into which your implement code fits. Then move to the right until you are beneath the column which identifies your tractor configuration. The number you find at this point in the chart is the number of QUIK-TATCH™ weights needed.

   Example: An implement with a code 100 to be used on an MFWD tractor with a quick-coupler, but without liquid in the front tires, requires 4 front weights.

   With maximum front ballast, do not attempt to transport an implement whose code exceeds:

   - 115 for 2-WD Tractor
   - 137 for MFWD Tractor

QUIK-TATCH is a trademark of Deere & Company.

NUMBER OF QUIK-TATCH™ WEIGHTS NEEDED		
2-WD		
Implement Code	**Without Liquid in Front Tires**	**With Liquid in Front Tires**
0—65	0	—
66—75	2	0
76—85	4	2
86—95	6	4
96—105	8	6
106—115	—	8
MFWD		
Implement Code	**Without Liquid in Front Tires**	**With Liquid in Front Tires**
0—87	0	—
88—97	2	0
98—107	4	2
108—117	6	4
118—127	8	6
128—137	—	8

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SH20560,00000E8-19-17OCT07-1/1

Tractor Storage

Perform the following steps to place tractor into storage:

IMPORTANT: Any time tractor will not be used for several months, use this procedure to minimize corrosion and deterioration. Use an AR41785 Engine Storage Kit and an extra 0.95 L (1 pt) of AR41870 Corrosion Inhibitor.

NOTE: Whenever possible store tractor in a building or under a roof to avoid damage resulting from prolonged exposure to the elements.

1. Service air cleaner. (See "Service Air Cleaner Elements"—5085M, 5095M, 5095MH, 5105M and 5105ML" in section 50 and/or "Replace Air Cleaner Elements"—5065M and 5075M" in section 45 of Maintenance Guide.)
2. Change engine oil and filter. (See "Change Engine Oil and Filter" in section 40 of Maintenance Guide.)
3. If coolant has been in tractor for two years, flush cooling system. (See your John Deere dealer.) Add 50 percent antifreeze water mixture. Test coolant for adequate cold weather protection.
4. Add 0.5 L (16 oz) inhibitor to engine crankcase at filler.
5. Add 0.25 L (9 oz) of corrosion inhibitor to transmission-hydraulic system fill port.
6. Drain fuel and add back 4 L (1 gal) of fuel. Then add 0.4 L (12 oz) of corrosion inhibitor.
7. Add 0.5 L (16 oz) more inhibitor to fuel tank at filler/cap.
8. Depress clutch and start engine. Run engine until it reaches operating temperature. Also raise and lower 3-point hitch several times. Shut off engine.
9. 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.
10. **For 5085M, 5095M and 5095MH Tractors:** Disconnect fuel shut-off solenoid wiring lead/connector. (This will prevent engine from starting while cranking.)
11. Release tension on auxiliary drive belts. Remove belt from air conditioner pulley and fan pulley.
12. Remove and clean battery. Store in a cool, dry place. Keep battery charged.[1]
13. Coat exposed metal surfaces, such as adjustable front axles, if extended, with grease or a corrosion inhibitor.
14. Seal air inlets, exhaust, crankcase fill cap, fuel tank cap, radiator overflow hose, and transmission and hydraulic system fill cap using plastic bags and tape.
15. Protect tires from heat and sunlight:
    - Raise tires off the ground (move tractor once a month if tires are not raised off the ground).
    - Cover wheels with water-proof tarpaulin.
    - Avoid storing at temperatures greater than 29° C (85° F).
    - Avoid direct sunlight.
16. Thoroughly clean tractor. Touch up any painted surfaces that are scratched or chipped.
17. Wax entire tractor.
18. If tractor is stored outside, follow additional precaution: Cover instrument panel, control levers, and seat with sheets of material or cardboard or cover entire tractor with waterproof material to protect against the sun's rays.
19. **Cab:** Rotate A/C compressor pulley several turns once a month to prevent seizure of compressor.

[1] *Disconnect battery ground cable for short-term storage periods (30 to 90 days).*

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Remove Tractor from Storage

Perform the following steps to remove tractor from storage:

1. Remove covering placed in or on tractor while storing it.
2. Inspect tires and check tire inflation pressure. (See Section ”Wheels, Tires and Threads” in Maintenance Guide.)
3. Unseal all opening sealed prior to storage.
4. Install battery and install cables.
5. Install auxiliary belt drive on air compressor pulley and fan pulley.
6. **Cab**: Check that A/C compressor pulley moves freely and is not seized.

IMPORTANT: Cab tractors: If air conditioning compressor is seized, engine operation with compressor clutch engaged will damage belt or compressor.

7. Check levels of engine oil, transmission-hydraulic oil, and engine coolant. Add if necessary.
8. Drain a small amount of fuel from fuel tank to purge any moisture condensation that has collected.
9. Fill fuel tank.
10. Perform all appropriate 10-hour, weekly or 50-hour, 100-hour, 300-hour, 500-hour, and 600-hour services as instructed in Maintenance and Service Intervals of Maintenance Guide.
11. Check all instruments and indicators by turning ignition switch to ON position.
12. **For 5085M, 5095M and 5095MH Tractors:** Connect fuel shut-off solenoid wiring lead/connector.
13. Crank engine for a few revolution.

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.

14. Start the engine.
15. Operate engine at low idle for some time.

IMPORTANT: If air conditioning compressor is locked up, engine operation with compressor clutch engaged will damage belt or compressor.

16. Check air conditioning system.
17. Check all other system functions.

SH20560,0000059-19-22SEP08-1/1

Engine

Symptom	Problem	Solution
Engine crank but will not start	Incorrect starting procedure.	Review starting procedure.
	No fuel.	Check fuel tank.
	Exhaust restricted.	Check and correct exhaust restriction.
	Fuel filter plugged or full of water.	Replace fuel filter or drain water from filter.
	Injection pump not getting fuel or air in fuel system.	Check fuel flow at supply pump or bleed fuel system.
	Faulty injection pump or nozzles.	Consult authorized diesel repair station for repair or replacement.
Engine hard to start or will not start	Air in fuel tank.	Bleed fuel tank.
	Cold weather.	Use cold weather starting procedure.
	Slow starter speed.	See ”Starter Cranks Slowly” in Electrical System Troubleshooting.
	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 filter.	Replace filter element.
	Dirty or faulty injectors.	Have John Deere dealer check injectors.
	Injection pump shutoff not reset.	Turn ignition switch to STOP, then to ON.
Engine knocks	Low engine oil level.	Add oil to engine crankcase.
	Injection pump out of time.	See your John Deere dealer.
	Low coolant temperature.	See your John Deere dealer.
Engine runs irregularly or stalls frequently	Low coolant temperature.	See your John Deere dealer.
	Clogged fuel filter.	Replace fuel filter element.
	Water, dirt, or air in fuel system.	Drain, flush, fill, and bleed system.
	Dirty or faulty injectors.	Have John Deere dealer check injectors.
Below normal engine temperature	Defective thermostat.	Remove and check thermostat.
	Defective temperature gauge or sender.	Check gauge, sender, and conditions.

Continued on next page

Symptom	Problem	Solution
Lack of power	Engine overloaded.	Reduce load.
	Low fast idle speed.	See your John Deere dealer.
	Intake air restriction.	Service air cleaner.
	Clogged fuel filter.	Replace filter element.
	Improper type of fuel.	Use proper fuel.
	Overheated engine.	Check coolant level, fan belt and debris in radiator fins.
	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.
	Injection pump out of time.	See your John Deere dealer.
	Turbocharger not functioning.	See your John Deere dealer.
	Leaking exhaust manifold gasket.	See your John Deere dealer.
	Implement improperly adjusted.	See implement operator's manual.
	Restricted fuel line.	See your John Deere dealer.
	Restricted return line.	See your John Deere dealer.
	Improper ballast.	Adjust ballast to load.
	Poor fuel performance.	See your John Deere dealer.
	Poor bio-fuel performance.	See your John Deere dealer.
Low oil pressure	Low oil level.	Add oil.
	Improper type of oil.	Drain; fill crankcase with oil of proper viscosity and quality.
	Bad pump.	See your John Deere dealer.
	Bad sender.	See your John Deere dealer.
	Sender disconnected.	Connect sender.
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.
	Defective turbocharger.	See your John Deere dealer.

Continued on next page

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Symptom	Problem	Solution
Engine emits white smoke	Improper type fuel.	Use proper fuel.
	Low engine temperature.	Warm up engine to normal operating temperature.
	Defective injection nozzles.	See your John Deere dealer.
	Engine out of time.	See your John Deere dealer.
	Cold start advance or light load advance not functioning.	See your John Deere dealer.
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 lower gear.
	Injection nozzles dirty.	See your John Deere dealer.
	Engine out of time.	See your John Deere dealer.
	Turbocharger not functioning.	See your John Deere dealer.
Engine overheats	Engine overloaded.	Reduce load.
	Dirty radiator core or grille screen.	Remove all trash.
	Low coolant level.	Fill radiator to proper level. Check radiator, coolant recovery tank, and hoses for loose connection or leaks.
	Stretched poly-vee belt or defective belt tensioner.	Check automatic belt tensioner and check belts for stretching. Replace as required.
	Faulty radiator cap.	Replace cap.
	Low engine oil level.	Check oil level. Add oil as required.
	Cooling system needs flushing.	See your John Deere dealer.
	Defective thermostat.	See your John Deere dealer.
	Defective temperature gauge or sender.	See your John Deere dealer.
	Incorrect grade of fuel.	Use proper fuel.
	Viscous fan drive not engaged-If Equipped.	See your John Deere dealer.
	Dirty charge air cooler.	Clean charge air cooler fins.
High fuel consumption	Improper type of fuel.	Use proper fuel.
	Clogged or dirty air cleaner.	Service air cleaner.

Continued on next page

Symptom	Problem	Solution
	Engine overloaded.	Reduce load or shift to a lower gear.
	Fuel leakage.	Check fuel supply and return line for leaks. Check fuel tank for leaks and tighten clamps.
	Improper valve clearance.	See your John Deere dealer.
	Injection nozzles dirty.	See your John Deere dealer.
	Engine out of time.	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.
	Defective turbocharger.	See your John Deere dealer.
	Restricted air intake system.	Check system.
	Plugged crankcase vent tube.	Clean vent tube.
	Transmission oil over filled.	Drain excess oil.
Undercharged electrical system	Excessive electrical load from added accessories.	Remove accessories or install higher output alternator.
	Excessive engine idling.	Increase engine rpm when heavy electrical load is used.
	Poor electrical connections on battery, ground strap, starter, or alternator.	Inspect and clean as necessary.
	Defective battery.	Test battery.
	Defective alternator.	Test charging system.
Battery uses too much water	Cracked battery case.	Check for moisture and replace as necessary.
	Defective battery.	Test battery.
	Battery charging rate too high.	Test charging system.
Batteries will not charge	Loose or corroded connections.	Clean and tighten connections.
	Sulfated or worn-out batteries.	See your John Deere dealer or engine distributor.
	Stretched poly-vee belt or defective belt tensioner.	Adjust belt tension or replace belts.
Starter will not crank	Engine driveline engaged.	Disengage engine driveline.
	Loose or corroded connections.	Clean and tighten loose connections.

Continued on next page

SH20560,0000112-19-07MAR08-4/5

Symptom	Problem	Solution
	Low battery output voltage.	See your John Deere dealer or engine distributor.
	Faulty start circuit relay.	See your John Deere dealer or engine distributor.
Starter cranks slowly	Low battery output.	See your John Deere dealer or engine distributor.
	Crankcase oil too heavy.	Use proper viscosity oil.
	Loose or corroded connections.	Clean and tighten loose connections.
Starter and hour meter functions; rest of electrical system does not function	Blown fuse on magnetic switch.	Replace fuse.
Entire electrical system does not function	Faulty battery connection.	Clean and tighten connections.
	Sulfated or worn-out batteries.	See your John Deere dealer or engine distributor.

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Transmission

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.
	Hitch feedback linkage improperly adjusted.	Reset linkage. See your John Deere dealer.
	Implement mounted hydraulic motor not plumbed correctly or matched to circuit.	See your John Deere dealer.
	SCV lever held in extend or retract position.	Return SCV lever to neutral position.
	Transmission oil over full.	Drain to full mark.
	Oil cooler dirty-If Equipped.	Clean oil cooler.
	Viscous fan drive not engaged.	See your John Deere dealer.
Low transmission pressure	Low oil supply.	Fill system with correct oil.
	Clogged transmission-hydraulic oil filter.	Replace filter.

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Hydraulic System

Symptom	Problem	Solution
Entire hydraulic system fails to function	Low oil supply.	Fill system with correct oil.
	Clogged transmission-hydraulic oil 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.
	Implement mounted hydraulic motor not plumbed correctly or matched to circuit.	See your John Deere dealer.
	Standard Valve: SCV lever held in extend or retract position.	Return SCV lever to neutral position.
	Deluxe Valve: Flow control or detent setting incorrect.	Adjust flow control and/or detent setting.

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Brakes

Symptom	Problem	Solution
No solid pedal feel	Air in system.	See your John Deere dealer.
Pedal settles	Rear brake piston seal leaking.	See your John Deere dealer.
Excessive pedal travel	Air in system.	See your John Deere dealer.
Brakes drag during transport	Brakes out of adjustment.	See your John Deere dealer.

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3-Point Hitch

Symptom	Problem	Solution
Insufficient transport clearance	Center link too short.	Adjust center link.
	Lift links too short.	Adjust lift links.
	Implement not level.	Level implement.
	Hitch feedback linkage not properly adjusted.	See your John Deere dealer.
	Implement not properly adjusted.	See implement operator's manual.
	Front of center link in upper holes.	Move center link to lower holes.
	Sway bars too short.	Adjust sway bars.
	Electro-hydraulic controls: Raise height limit not correctly set.	Adjust raise height limit.
Electro-hydraulic controls: hitch fails to follow lever	Malfunction in lever position sensor circuit or hitch position sensor.	See your John Deere dealer.
Electro-hydraulic controls: poor position control	Load/depth mix control in wrong position.	Turn load/depth mix control to ”position” control detent.
	System is reset (fender switches override operator control).	Enable system with operator control.
	Malfunction in lever position sensor circuit or hitch position sensor.	See your John Deere dealer.
Hitch drops slowly	3-point hitch rate of drop control not properly set.	Adjust rate-of-drop.
Hitch fails to lift or lifts slowly	Excessive load on hitch.	Reduce load.
	Center link in wrong position.	Adjust center link.
	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.
	Electro-hydraulic controls: draft sensor failed.	See your John Deere dealer.
	Improper setting of hitch control stop.	Readjust position.

Continued on next page

Symptom	Problem	Solution
	Improper setting of draft (mechanical) or load/depth (electro-hydraulic) control.	(See section 60: Rear Hitch Controls.)
Insufficient or no hitch response to draft load	Mechanical controls: draft control lever in OFF (forward) position.	Move lever to desired position.
	Electro-hydraulic controls: load/depth control in position 1.	Turn load/depth mix control to higher setting.
	Need to adjust draft feedback cable.	See your John Deere dealer.
	Lift links too short.	Adjust lift links.
	Lack of penetration.	See implement operator's manual.
	Electro-hydraulic controls: system is reset.	Enable system.
	Rate-of-drop too slow.	Adjust rate-of-drop.
Hitch too responsive	Mechanical controls: improper draft control setting.	Adjust.
	Electro-hydraulic controls: load/depth mix control not correctly set.	Turn load/depth mix control to lower setting.
Hitch drops too fast	Rate-of-drop set too fast.	Adjust rate-of-drop.
Mechanical controls: Position and draft levers ”drift”, levers too loose.	Friction disks are loose at mechanical hitch control box.	See your John Deere dealer.
Hitch settles too fast after tractor is parked and engine shut off	Internal system leakage.	See your John Deere dealer.
Electro-hydraulic controls: hitch will not move (controls not working, including external raise/lower switch)	Fuse(s) blown.	Replace fuses.
Electro-hydraulic controls: external raise/lower switch will not move hitch	Failure of raise/lower switch, connector or wiring harness.	See your John Deere dealer.
Electro-hydraulic controls: hitch indicator lights	One or more hitch component failures.	See your John Deere dealer.

SH20560,0000116-19-26AUG09-2/2

Selective Control Valves (SCV)

Symptom	Problem	Solution
Flow control knob or detent will not turn	Dirt build-up.	Clean dirt from flow control knob shaft.
Remote cylinder rate-of-travel too fast or too slow	Incorrect flow control adjustment.	Adjust flow control.
Detent does not hold SCV lever (Deluxe Rear SCV)	Detent selector in wrong position.	Turn selector to correct position.
	Mid SCV activated.	Avoid use of mid SCV.
	3-Point Hitch activated.	Avoid use of 3-point hitch.
	Low Engine rpm.	Increase engine rpm.
	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.
SVC lever released too soon (Deluxe Rear SCV)	Detent selector in wrong position.	Turn selector to correct position.
	Implement is not connected to SCV I.	Connect implement to SCV I.
SCV lever does not release	Detent selector not in automatic detent position (Deluxe Rear SCV).	Turn selector to correct position.
		See your John Deere Dealer.
	Built-in pressure leakage with some implements.	Increase oil flow by changing flow control setting.
	Incorrect flow control (Deluxe rear SCV).	Adjust flow control.
Rear SCV fails to function	Rear SCV does not generate pressure.	Check O-ring/back-up ring on power beyond fitting in mid SCV.

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Remote Hydraulic Cylinder

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.

SH20560,0000118-19-11MAR08-1/1

Electrical System

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 fan belt.	Check belt tension. Replace belt if necessary.
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 fan belt.	Check belt tension. Replace belt if necessary.
Starter inoperative	Gear shift lever not in PARK.	Move lever to PARK.
	PowrReverser™ Transmission: EH directional reverser lever in forward or reverse.	Move lever to NEUTRAL.
	Mechanical PTO lever engaged.	Disengage PTO.
	Low battery output.	See your John Deere dealer.
	Blown fuse.	Replace fuse.
	Bypass starter circuit.	See your John Deere dealer.
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 loose connections.
Light system does not function; rest of electrical system functions	Blown fuse.	Replace fuse.
Entire electrical system does not function	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	Diode to protect circuit from arcing has failed.	See your John Deere dealer.

SH20560,0000119-19-06JUL09-1/1

Heater and A/C System (Cab)

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. (See your John Deere dealer.)
		Replace heater core or hoses. (See your John Deere dealer.)
Air conditioning does not work	Fan belt loose or slipping.	Check belt tension. 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.
	Condenser dirty.	Clean condenser.
	Heater valve leaking.	See your John Deere dealer.
	No Freon charge.	See your John Deere dealer.
Drafts	Poor air distribution.	Adjust directional air louvers.
		Set blower switch to medium or low position.
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.

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Symptom	Problem	Solution
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.
	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	Fan belt slipping.	Check belt tension. Replace belt if necessary.
	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.	Clean front grille.
	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 fan belt.	Check belt tension. Replace belt if necessary.
	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.

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SH20560,000011A-19-06JUL09-2/3

Symptom	Problem	Solution
	Condenser is overheating.	Clean condenser screens, cores and fins of condenser and radiator.
	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.
	Fan viscous drive not engaged.	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. See your John Deere dealer.

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Wipers, Work Lights, Dome Light and Radio (Cab)

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.
Work lights do not work	Blown fuse.	Replace fuse.
	Defective bulb or switch.	Replace bulb or 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.

SH20560,000011B-19-11MAR08-1/1

Machine Specifications

	5065M	5075M	5085M	5095M and 5095MH	5105M and 5105ML
POWER					
Engine Horsepower at 2200 rpm (Factory observed per 97/68/EC ISO industry standard) (± 3 %)	47.5 kW (63.8 hp)	55 kW (73.8 hp)	63.5 kW (85.2 hp)	71.5 kW (96 hp)	74 kW (99.3 hp)
PTO Horsepower at 2100 rpm (Factory observed per SAE industry standard) (± 5%)	37.3 kW (50 hp)	44.7 kW (60 hp)	52.2 kW (70 hp)	59.6 kW (80 hp)	67.1 kW (90 hp)
ENGINE					
Type	Diesel	Diesel	Diesel	Diesel	Diesel
Aspiration	Turbocharged / Air-to-Air Aftercooled	Turbocharged / Air-to-Air Aftercooled	Turbocharged / Air-to-Air Aftercooled	Turbocharged / Air-to-Air Aftercooled	Turbocharged / Air-to-Air Aftercooled
Cylinders	In-line, 5	In-line, 5	In-line, 4	In-line, 4	In-line, 4
Displacement	3.0 L (186 cu. in.)	3.0 L (186 cu. in.)	4.5 L (276 cu. in.)	4.5 L (276 cu. in.)	4.5 L (276 cu. in.)
Low Idle Speed	900 ±25 rpm	900 ±25 rpm	850 ±50 rpm	850 ±50 rpm	900 ±25 rpm
High Idle Speed	2300 ±25 rpm	2300 ±25 rpm	2375 ±25 rpm	2375 ±25 rpm	2300 ±25 rpm
Fuel Injection	Electronic	Electronic	Mechanical	Mechanical	Electronic
ELECTRICAL SYSTEM					
Battery Voltage	12 V				
Battery Cold Cranking Amps	925				
Reserve Capacity (minutes)	180				
Battery BCI Group Size	31				
Alternator Capacity	Open Operator's Station: 70 amp Cab: 90 amp Optional: 120 amp				
POWER TAKE-OFF (PTO)					
PTO Speed Options	**Engine Speed**				
• 540 rpm	2100 rpm				
• 540E rpm	1645 rpm				
• 1000 rpm	2100 rpm				
HYDRAULIC SYSTEM					
Pump Type	Gear	Gear	Gear	Gear	Gear
Pump Displacement-Steering	9.50 cm^3 0.58 cu. in.	9.50 cm^3 0.58 cu. in.	9.50 cm^3 0.58 cu. in.	9.50 cm^3 0.58 cu. in.	9.50 cm^3 0.58 cu. in.
Pump Displacement-Implement	20 cm^3 1.22 cu. in.	20 cm^3 1.22 cu. in.	28 cm^3 1.71 cu. in.	28 cm^3 1.71 cu. in.	28 cm^3 1.71 cu. in.
Steering Flow Rate (Flow rate at 90% pump efficiency and engine at rated speed)	23.6 L/min 6.2 gpm	23.6 L/min 6.2 gpm	23.6 L/min 6.2 gpm	23.6 L/min 6.2 gpm	23.6 L/min 6.2 gpm
Implement Flow Rate (Flow rate at 90% pump efficiency and engine at rated speed)	55.2 L/min 14.6 gpm	55.2 L/min 14.6 gpm	69.6 L/min 18.4 gpm	69.6 L/min 18.4 gpm	69.6 L/min 18.4 gpm
Maximum Pressure-Steering	13000-13500 kPa 130-135 bar 1885-1958 psi				
Maximum Pressure-Implement	19000-20000 kPa 190-200 bar 2755-2900 psi				

SH20560,00004A6-19-29JAN14-1/1

Drain and Refill Capacities

FUEL TANK		
5065M and 5075M Tractors	Open Operator Station	84 L (22.3 gal)
5065M and 5075M Tractors	Cab	117 L (31.0 gal)
5085M, 5095M, 5095MH, 5105M and 5105ML Tractors	Open Operator Station	115 L (30.3 gal)
5085M, 5095M, 5095MH and 5105M Tractors	Cab	154 L (40.7 gal)
COOLING SYSTEM		
5065M and 5075M Tractors	13 L (3.4 gal) with Cab add 2 L	
5085M, 5095M, 5095MH, 5105M and 5105ML Tractors	13.5 L (3.6 gal) with Cab add 2 L	
CRANKCASE WITH FILTER		
5065M and 5075M Tractors	10 L (2.6 gal)	
5085M, 5095M, 5095MH, 5105M and 5105ML Tractors	13 L (3.4 gal)	
TRANSMISSION-HYDRAULIC SYSTEM		
SyncShuttle Plus™ transmission	53 L (14 gal)	
PowrReverser™ or SyncReverser™ Transmission	53 L (14 gal)	
PowrReverser Plus™ Transmission	53 L (14 gal)	
MECHANICAL FRONT-WHEEL DRIVE (MFWD) AXLE		
Differential Housing	5 L (1.32 gal)	
Wheel Hub (Each)	0.8 L (0.2112 gal)	

AJ20558,00002CA-19-04SEP09-1/1

Machine Weights—Open Operator's Station (OOS), Deluxe Open Operator's Station, Cab

Tractor—OOS, Deluxe OOS and Cab														
	5065M		**5075M**		**5085M**		**5095M**		**5095MH**		**5105M**		**5105ML**	
	2WD	**MFWD**	**2WD**	**MFWD**	**2WD**	**MFWD**	**2WD**	**MFWD**	**2WD**	**MFWD**	**2WD**	**MFWD**	**2WD**	**MFWD**
OOS Tractor	2730 kg (6017 lb)	2904 kg (6400 lb)	2730 kg (6017 lb)	2904 kg (6400 lb)	2901 kg (6393 lb)	3085 kg (6800 lb)	2990 kg (6591 lb)	3176 kg (7000 lb)	NA	3403 kg (7500 lb)	3131 kg (6900 lb)	3312 kg (7300 lb)	3131 kg (6900 lb)	3312 kg (7300 lb)
Deluxe OOS Tractor	2858 kg (6300 lb)	3040 kg (6700 lb)	2858 kg (6300 lb)	3040 kg (6700 lb)	3108 kg (6850 lb)	3289 kg (7250 lb)	3176 kg (7000 lb)	3358 kg (7400 lb)	NA	NA	3312 kg (7300 lb)	3494 kg (7700 lb)	NA	NA
Cab Tractor	3358 kg (7400 lb)	3539 kg (7800 lb)	3358 kg (7400 lb)	3539 kg (7800 lb)	3448 kg (7600 lb)	3630 kg (8000 lb)	3516 kg (7750 lb)	3658 kg (8150 lb)	NA	3902 kg (8600 lb)	3630 kg (8000 lb)	3811 kg (8400 lb)	NA	NA

2WD = 2-Wheel Drive

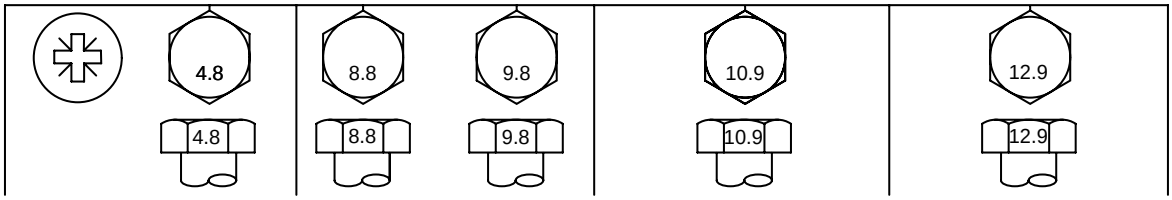
MFWD = Mechanical Front-Wheel Drive

NOTE: Machine weight is measured with more than 18.9 l (5 gal) of fuel and all other fluids at full capacity.

Machine weight is approximately shipping weight.

AJ20558,00002CB-19-23JUN09-1/1

Metric Bolt and Screw Torque Values



TS1742—UN—31MAY18

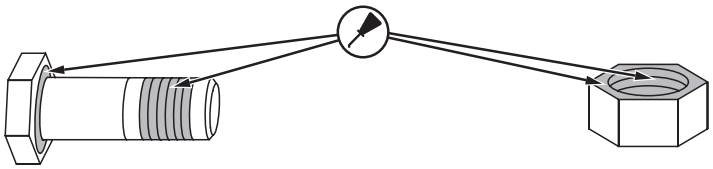
Bolt or Screw Size	Class 4.8				Class 8.8 or 9.8				Class 10.9				Class 12.9			
	Hex Head[a]		Flange Head[b]		Hex Head[a]		Flange Head[b]		Hex Head[a]		Flange Head[b]		Hex Head[a]		Flange Head[b]	
	N·m	lb·in	N·m	lb·in	N·m	lb·in	N·m	lb·in	N·m	lb·in	N·m	lb·in	N·m	lb·in	N·m	lb·in
M6	3.6	31.9	3.9	34.5	6.7	59.3	7.3	64.6	9.8	86.7	10.8	95.6	11.5	102	12.6	112
									N·m	lb·ft	N·m	lb·ft	N·m	lb·ft	N·m	lb·ft
M8	8.6	76.1	9.4	83.2	16.2	143	17.6	156	23.8	17.6	25.9	19.1	27.8	20.5	30.3	22.3
			N·m	lb·ft	N·m	lb·ft	N·m	lb·ft								
M10	16.9	150	18.4	13.6	31.9	23.5	34.7	25.6	46.8	34.5	51	37.6	55	40.6	60	44.3
	N·m	lb·ft														
M12	—	—	—	—	55	40.6	61	45	81	59.7	89	65.6	95	70.1	105	77.4
M14	—	—	—	—	87	64.2	96	70.8	128	94.4	141	104	150	111	165	122
M16	—	—	—	—	135	99.6	149	110	198	146	219	162	232	171	257	190
M18	—	—	—	—	193	142	214	158	275	203	304	224	322	245	356	263
M20	—	—	—	—	272	201	301	222	387	285	428	316	453	334	501	370
M22	—	—	—	—	365	263	405	299	520	384	576	425	608	448	674	497
M24	—	—	—	—	468	345	518	382	666	491	738	544	780	575	864	637
M27	—	—	—	—	683	504	758	559	973	718	1080	797	1139	840	1263	932
M30	—	—	—	—	932	687	1029	759	1327	979	1466	1081	1553	1145	1715	1265
M33	—	—	—	—	1258	928	1398	1031	1788	1319	1986	1465	2092	1543	2324	1714
M36	—	—	—	—	1617	1193	1789	1319	2303	1699	2548	1879	2695	1988	2982	2199

The nominal torque values listed are for general use only with the assumed wrenching accuracy of 20%, such as a manual torque wrench.
DO NOT use these values if a different torque value or tightening procedure is given for a specific application.
For lock nuts, for stainless steel fasteners, or for nuts on U-bolts, see the tightening instructions for the specific application.

Replace fasteners with the same or higher property class. If higher property class fasteners are used, tighten these to the strength of the original.

- Make sure that fastener threads are clean.
- Apply a thin coat of Hy-Gard™ or equivalent oil under the head and on the threads of the fastener, as shown in the following image.
- Be conservative with the amount of oil to reduce the potential for hydraulic lockup in blind holes due to excessive oil.
- Properly start thread engagement.

TS1741—UN—22MAY18

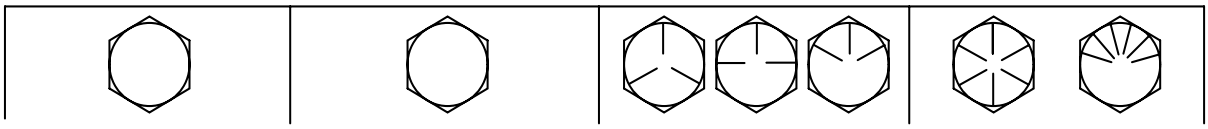


[a] Hex head column values are valid for ISO 4014 and ISO 4017 hex head, ISO 4162 hex socket head, and ISO 4032 hex nuts.
[b] Hex flange column values are valid for ASME B18.2.3.9M, ISO 4161, or EN 1665 hex flange products.

DX,TORQ2-19-09MAY22-1/1

Unified Inch Bolt and Screw Torque Values

TS1671—UN—01MAY03



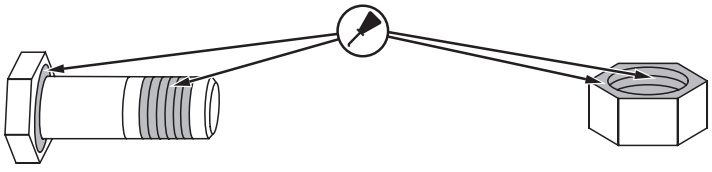
Bolt or Screw Size	SAE Grade 1[a]				SAE Grade 2[b]				SAE Grade 5, 5.1 or 5.2				SAE Grade 8 or 8.2			
	Hex Head[c]		Flange Head[d]		Hex Head[c]		Flange Head[d]		Hex Head[c]		Flange Head[d]		Hex Head[c]		Flange Head[d]	
	N·m	lb·in	N·m	lb·in	N·m	lb·in	N·m	lb·in	N·m	lb·in	N·m	lb·in	N·m	lb·in	N·m	lb·in
1/4	3.1	27.3	3.2	28.4	5.1	45.5	5.3	47.3	7.9	70.2	8.3	73.1	11.2	99.2	11.6	103
													N·m	lb·ft	N·m	lb·ft
5/16	6.1	54.1	6.5	57.7	10.2	90.2	10.9	96.2	15.7	139	16.8	149	22.2	16.4	23.7	17.5
									N·m	lb·ft	N·m	lb·ft				
3/8	10.5	93.6	11.5	102	17.6	156	19.2	170	27.3	20.1	29.7	21.9	38.5	28.4	41.9	30.9
					N·m	lb·ft	N·m	lb·ft								
7/16	16.7	148	18.4	163	27.8	20.5	30.6	22.6	43	31.7	47.3	34.9	60.6	44.7	66.8	49.3
	N·m	lb·ft	N·m	lb·ft												
1/2	25.9	19.1	28.2	20.8	43.1	31.8	47	34.7	66.6	49.1	72.8	53.7	94	69.3	103	75.8
9/16	36.7	27.1	40.5	29.9	61.1	45.1	67.5	49.8	94.6	69.8	104	77	134	98.5	148	109
5/8	51	37.6	55.9	41.2	85	62.7	93.1	68.7	131	96.9	144	106	186	137	203	150
3/4	89.5	66	98	72.3	149	110	164	121	230	170	252	186	325	240	357	263
7/8	144	106	157	116	144	106	157	116	370	273	405	299	522	385	572	422
1	216	159	236	174	216	159	236	174	556	410	609	449	785	579	860	634
1-1/8	305	225	335	247	305	225	335	247	685	505	751	554	1110	819	1218	898
1-1/4	427	315	469	346	427	315	469	346	957	706	1051	775	1552	1145	1703	1256
1-3/8	564	416	618	456	564	416	618	456	1264	932	1386	1022	2050	1512	2248	1658
1-1/2	743	548	815	601	743	548	815	601	1665	1228	1826	1347	2699	1991	2962	2185

The nominal torque values listed are for general use only with the assumed wrenching accuracy of 20%, such as a manual torque wrench.
DO NOT use these values if a different torque value or tightening procedure is given for a specific application.
For lock nuts, for stainless steel fasteners, or for nuts on U-bolts, see the tightening instructions for the specific application.

Replace fasteners with the same or higher property class. If higher property class fasteners are used, tighten these to the strength of the original.

- Make sure that fastener threads are clean.
- Apply a thin coat of Hy-Gard™ or equivalent oil under the head and on the threads of the fastener, as shown in the following image.
- Be conservative with the amount of oil to reduce the potential for hydraulic lockup in blind holes due to excessive oil.
- Properly start thread engagement.

TS1741—UN—22MAY18



[a] Grade 1 applies for hex cap screws over 6 in (152 mm) long, and for all other types of bolts and screws of any length.
[b] Grade 2 applies for hex cap screws (not hex bolts) up to 6 in (152 mm) long.
[c] Hex head column values are valid for ISO 4014 and ISO 4017 hex head, ISO 4162 hex socket head, and ISO 4032 hex nuts.
[d] Hex flange column values are valid for ASME B18.2.3.9M, ISO 4161, or EN 1665 hex flange products.

DX,TORQ1-19-09MAY22-1/1

Limited Battery Warranty

NOTE: Applicable in North America only. For complete machine warranty, reference a copy of the John Deere warranty statement. Contact your John Deere dealer to obtain a copy.

To Secure Warranty Service

The purchaser must request warranty service from a John Deere dealer authorized to sell John Deere batteries, and present the battery to the dealer with the top cover plate codes intact.

Replacement

Any new battery which becomes unserviceable (not merely discharged) due to defects in material or workmanship will be eligible for warranty consideration.

This Warranty Does Not Cover

Breakage of the container, cover, or terminals.

Depreciation or damage caused by lack of reasonable and necessary maintenance or by improper maintenance.

Transportation, mailing, or service call charges for warranty service.

Limitation of Implied Warranties and Purchaser's Remedies

To the extent permitted by law, neither John Deere nor any company affiliated with it makes any warranties, representations or promises as to the quality, performance or freedom from defect of the products covered by this warranty. IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, TO THE EXTENT APPLICABLE, SHALL BE LIMITED IN DURATION TO THE APPLICABLE ADJUSTMENT PERIOD SET FORTH HERE. THE PURCHASER'S ONLY REMEDIES IN CONNECTION WITH THE BREACH OR PERFORMANCE OF ANY WARRANTY ON JOHN DEERE BATTERIES ARE THOSE SET FORTH HERE. IN NO EVENT WILL THE DEALER, JOHN DEERE OR ANY COMPANY AFFILIATED WITH JOHN DEERE BE LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES. (Note: Some states do not allow limitations on how long an implied warranty lasts or the exclusion or limitation of incidental or consequential damages. So these limitations and exclusions may not apply to you.) This warranty gives you specific legal rights, and you may also have some rights which vary from state to state.

No Dealer Warranty

The selling dealer makes no warranty of it's own and the dealer has no authority to make any representation or promise on behalf of John Deere, or to modify the terms or limitations of this warranty in any way.

DX,BATWAR,NA-19-06AUG21-1/1

Identification Numbers

Each tractor has the identification plates and/or PIN stamped markings shown in the following information. The letters and numbers stamped on the plates identify a component or assembly. ALL these characters are needed when ordering parts or identifying a tractor or component for any John Deere product support program.

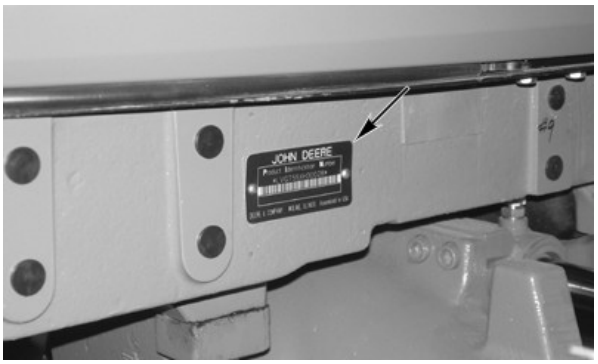
Also, they are needed for law enforcement to trace your tractor if it is ever stolen. ACCURATELY record these characters in the spaces provided in each of the following photographs.

SH20560,0000450-19-16APR08-1/1

Record Product Identification Number

Identification number plate is located on left front support member of the tractor.

Product Identification Number_____



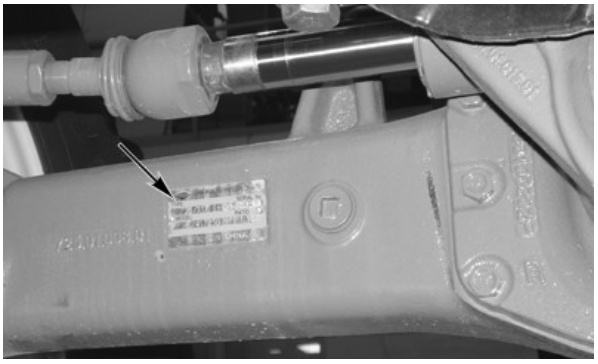
PULV000136—UN—22OCT07

SH20560,0000158-19-08JUL09-1/1

Record Front Axle Serial Number

Serial number plate is located on rear side of left axle housing.

Front Axle Serial Number _____



PULV000131—UN—22OCT07

MFWD Axle Shown

SH20560,0000151-19-14APR08-1/1

Record Engine Serial Number

For 5065M and 5075M Tractors: Serial number plate is located on left side of engine block near starter solenoid.

For 5085M, 5095M, 5095MH, 5105M and 5105ML Tractors: Serial number plate is located on right side of engine block behind fuel filters.

Engine Serial Number _____

PULV000132—UN—22OCT07

5065M and 5075M Tractors

PULV000133—UN—22OCT07

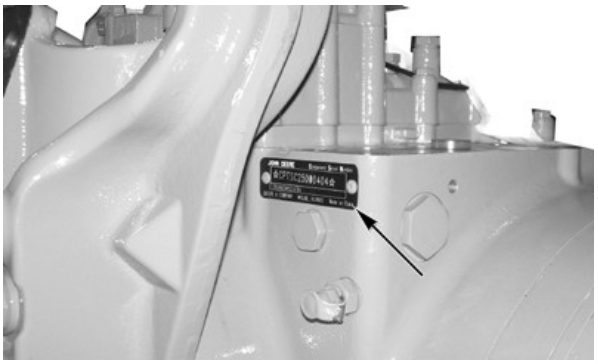
5085M, 5095M, 5095MH, 5105M and 5105ML Tractors

AJ20558,00002CC-19-20JUN09-1/1

Record Transmission Serial Number

Serial number plate is stamped behind right 3-point hitch lift arm.

Transmission Serial Number _____



PULV000135—UN—22OCT07

SH20560,0000159-19-14APR08-1/1

Record Cab Serial Number

Serial number label is located on inside of rear left post.

Cab Serial Number _____

PULV000137—UN—22OCT07

SH20560,000015A-19-30DEC08-1/1

ROPS Certificate

PULV004943—UN—22JUN09

Right-Hnad ROPS

ROLL-OVER
PROTECTIVE
STRUCTURE

SJ296697 Roll-Gard ®

Performance certified at
date of manufacture to:

SAE: J2194
Canadian CSA: B352.1 (1999)

JOHN DEERE TRACTOR
MODELS:
5065M, 5075M, 5085M, 5095M
5105M

DEERE AND COMPANY
Moline, Illinois

PULV004942—19—22JUN09

ROPS Certificate

ROPS certificate is located on right-hand crossbar.

SH20560,00000EA-19-22JUN09-1/1

ROPS Certificate—Low Profile

PULV004904—UN—17JUN09

Front Left-Hand ROPS

ROLL-OVER
PROTECTIVE
STRUCTURE

SJ10466 Roll-Gard ®

Performance certified at
date of manufacture to:

SAE: J21.4
Canadian CSA: B352.1 (1999)

JOHN DEERE TRACTOR
MODEL:
5105ML

DEERE AND COMPANY
Moline, Illinois

PULV004903—19—16JUN09

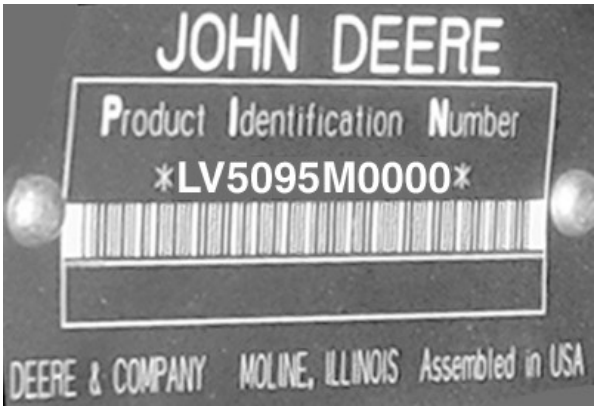
ROPS Certificate

ROPS certificate is located on front left-hand crossbar bracket.

SH20560,00000DA-19-22JUN09-1/1

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

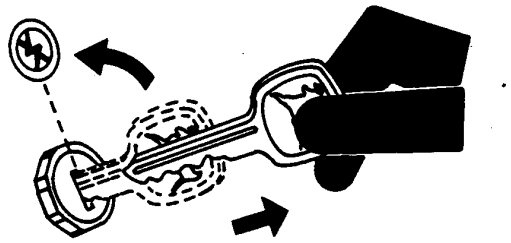


PULV000584—UN—07MAY08

SH20560,000015C-19-14JUL08-1/1

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

Service Interval Chart

Item	Daily or 10 Hours	Weekly or 50 Hours	First 100 Hours	First 300 Hours	Every 300 Hours	Every 500 Hours
Check Engine Oil Level	•					
Drain Water and Sediment from Fuel Filter [a]	•					
Check Coolant Level		•				
Check Transmission-Hydraulic System Oil Level		•				
Look for Oil Leak at MFWD		•				
Inspect Tires and Check Inflation Pressure		•				
Lubricate MFWD Front/Rear Axle Trunnion[b]		•				
Lubricate Adjustable Front (2WD) Axle Steering Spindles and Cylinder Ends[b]		•				
Lubricate Front Axle Pivot Point[b]		•				
Lubricate Hitch Linkage and 3-Point Hitch Bushing[c]		•				
Inspect Tractor for Loose Hardware		•	•			
5085M, 5095M, 5095MH, 5105M and 5105ML INITIAL Change Engine Oil and Filter (Change Break-In Oil to John Deere Plus-50™)			•			
Tighten Air Intake System and Coolant System Hose Clamps			•			
5065M and 5075M INITIAL Engine Oil and Filter Change (When USING or NOT USING John Deere Plus-50™)				•		
5065M, 5075M, 5085M, 5095M, 5095MH, 5105M and 5105ML SCHEDULED Engine Oil and Filter Change (When NOT using John Deere Plus-50™ oil and filter)[d]					•	
Check MFWD Axle Housing and Wheel Hub Oil Level					•	
Lubricate Draft Sensing Shaft Seal					•	
Drain and Flush Fuel Tank					•	
Check Battery Electrolyte					•	
5065M, 5075M, 5085M, 5095M, 5095MH, 5105M and 5105ML Change Engine Oil and Filter SCHEDULED Engine Oil and Filter Change (When USING John Deere Plus-50™ oil and filter)						•
Replace Fuel Filter[e]						•

Service Chart — Daily (10 Hours) to 500 Hours

[a] If water is found, run engine for 20 seconds; if more water is collected, drain fuel tank. The fuel filter must be drained when the sediment bowl contains water or sediments.
[b] Daily service if operating in extremely wet and muddy conditions.
[c] Service more often if operated in extremely dusty conditions.
[d] SCHEDULED engine oil and filter change interval (300 hours) can be extended to 500 hours if John Deere Plus-50™ oil and John Deere filter are used.
[e] If diesel fuel has a high sulfur content, ask John Deere dealer for proper service interval.

Plus-50 is a trademark of Deere & Company

*NOTE: For maintenance procedure, refer **Maintenance Guide.***

AJ20558,00002CE-19-29JAN14-1/1

Service Interval Chart

Item	Every 600 Hours	Every 1200 Hours	Annually	Every 2000 Hours	Every 3000 Hours/Three Years[a,b]	Every 4500 Hours/Five Years[a,b]
Clean Cab Air Filters [c]	•					
Check Neutral Start System	•					
5065M and 5075M Service Air Cleaner Elements	•					
Change MFWD Hub and Axle Housing Oil	•					
Clean Engine Crankcase Vent Tube	•					
Repack Adjustable Front (2WD) Axle Wheel Bearings	•					
Lubricate Rear Axle Bearings	•					
Check Front Axle Pivot Pin End Play [d]	•					
Tighten Air Intake System and Coolant System Hose Clamps	•					
Change Transmission-Hydraulic Oil and Filter	•					
5095MH Change Hi-Crop Rear Axle Oil[e]		•				
Check Belt Tensioner[e]		•				
5085M, 5095M, 5095MH, 5105M and 5105ML Service Air Cleaner Elements		•				
Clean Cab Air Filters [c]			•			
Lubricate PTO Stub Shaft—1000 rpm			•			
Check Coolant Properties[d]			•			
Inspect Seat Belt			•			
5085M, 5095M, 5095MH, 5105M and 5105ML Adjust Engine Valve Clearance[d]				•		
5085M, 5095M and 5095MH Test Injection Nozzles				•		
Drain, Flush and Refill Engine Cooling System [d] when coolant is NOT checked annually or NOT serviced with the pre-diluted John Deere COOL-GARD II™[f]					•	
Test or Replace Thermostat[d]					•	
5085M, 5095M, 5095MH, 5105M and 5105ML Replace Transmission Damper						•
Drain, Flush and Refill Engine Cooling System [d] when coolant is checked annually and serviced with the pre-diluted John Deere COOL-GARD II™						•

Service Chart — 600 Hours to 4500 Hours

[a] *If COOL-GARD II is not used, service interval is 2000 hours/two years.*
[b] *For COOL-GARD II ™ used outside North America, please consult the dealer for proper interval, service and testing requirements.*
[c] *Service more often if operated in extremely dusty conditions.*
[d] *See your John Deere dealer for service.*
[e] *Can be delayed up to 1500 hours.*
[f] *Service interval can be extended to five years and 4500 hours thereafter if tractor coolant has been checked annually and serviced with pre-diluted John Deere COOL-GARD II ™.*

COOL-GARD II is a trademark of Deere & Company

NOTE: For maintenance procedure, refer ***Maintenance Guide.***

AJ20558,00002CF-19-08JUL10-1/1

Service—As Required

- Service Engine Air Cleaner—Service after Air Restriction Indicator is ON[1, 2]
- Adjust PTO Speed Shift Lever—Open Operator's Station[3]
- Lubricate Axle Pivot Point—2WD[4]
- Lubricate Steering Spindles and Steering Cylinder Ends —Adjustable Front Axle[4]
- Lubricate Rear Axle Bearings[4]
- Lubricate Draft Sensing Shaft Seal[4]
- Adjust PTO Speed Shift Lever—Cab[3]
- Adjust Hand Throttle Friction Linkage—5085M, 5095M and 5095MH[3]
- Adjust Hand and Foot Throttle Cable—5085M, 5095M and 5095MH[3]
- Adjust Clutch Pedal Cable—If Equipped with SyncShuttle Plus™ Transmission[3]
- Adjust Park Position Bracket[3]
- Adjust Rear Fender—Open Operator's Station and Low Profile
- Clean Cab Air Filters—If Equipped[2]
- Service Air Conditioner—If Equipped[3]
- Test Injection Nozzles—5085M, 5095M and 5095MH[3]
- Drain and Flush Fuel Tank[3]
- Clean and Check Battery Condition
- Clean Grille Screens, Radiator, Oil Cooler, Radiator Screen (If Equipped) and A/C Condenser (Cab)
- Keep ROPS Installed Properly—Open Operator's Station
- Keep ROPS Installed Properly—Low Profile
- Keep Cab Protection System Installed Properly
- Bleed Fuel System—5065M and 5075M
- Bleed Fuel System—5085M, 5095M, 5095MH, 5105M and 5105ML
- Replace Battery
- Locate Fusible Links
- Locate Fuses—Open Operator's Station
- Locate Fuses—Low Profile
- Locate Fuses—Cab
- Fuse and Relay Size and Function
- Replace Headlight Bulb
- Replace Warning Light Bulb—Cab
- Replace Turn/Warning Light Bulb—Low Profile
- Replace Tail Light Bulb—Cab, Deluxe OOS and Low Profile
- Replace Tail Light and/or Warning Light Bulb—Open Operator's Station
- Replace Work Light Bulb—Open Operator's Station and Low Profile
- Replace Work Light Bulb—Cab
- Replace Fender Light Bulb—Open Operator's Station
- Replace Loader Light Bulb—If Equipped
- Replace Dome Light Bulb—Cab
- Replace Controls Illumination Light Bulb—Cab
- Replace Rotary Beacon Light Bulb—If Equipped

NOTE: For maintenance procedure, refer ***Maintenance Guide.***

SyncShuttle Plus is a trademark of Deere & Company

[1] The primary element can be cleaned up to five times. Thereafter or at the latest after one year of operation, it must be replaced.
[2] Service more often if operated in extremely dusty conditions.
[3] See your John Deere dealer for service.
[4] Daily service if operating in extremely wet and muddy conditions.

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Technical Information

Technical information can be purchased from John Deere. Publications are available in print or CD-ROM format.

Orders can be made using one of the following:

- John Deere Technical Information Store: **www.JohnDeere.com/TechInfoStore**
- Call 1-800-522-7448
- Contact your John Deere dealer

Available information includes:

DX,SERVLIT-19-07DEC16-1/5

PARTS CATALOGS list service parts available for your machine with exploded view illustrations to help you identify the correct parts. It is also useful in assembling and disassembling.

TS189—UN—17JAN89

DX,SERVLIT-19-07DEC16-2/5

OPERATOR'S MANUALS providing safety, operating, maintenance, and service information.

TS191—UN—02DEC88

DX,SERVLIT-19-07DEC16-3/5

TECHNICAL MANUALS outlining service information for your machine. Included are specifications, illustrated assembly and disassembly procedures, hydraulic oil flow diagrams, and wiring diagrams. Some products have separate manuals for repair and diagnostic information. Some components, such as engines, are available in a separate component technical manual.

TS224—UN—17JAN89

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EDUCATIONAL CURRICULUM including five comprehensive series of books detailing basic information regardless of manufacturer:

- Agricultural Primer series covers technology in farming and ranching.
- Farm Business Management series examines “real-world” problems and offers practical solutions in the areas of marketing, financing, equipment selection, and compliance.
- Fundamentals of Services manuals show you how to repair and maintain off-road equipment.
- Fundamentals of Machine Operation manuals explain machine capacities and adjustments, how to improve machine performance, and how to eliminate unnecessary field operations.
- Fundamentals of Compact Equipment manuals provide instruction in servicing and maintaining equipment up to 40 PTO horsepower.

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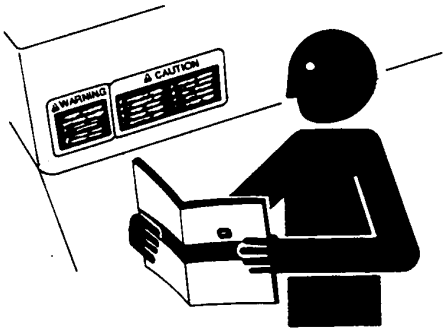
John Deere Is At Your Service

CUSTOMER SATISFACTION is important to John Deere.

Our dealers strive to provide you with prompt, efficient parts and service:

–Maintenance and service parts to support your equipment.

–Trained service technicians and the necessary diagnostic and repair tools to service your equipment.



TS201—UN—15APR13

CUSTOMER SATISFACTION PROBLEM RESOLUTION PROCESS

Your John Deere dealer is dedicated to supporting your equipment and resolving any problem you may experience.

1. When contacting your dealer, be prepared with the following information:

–Machine model and product identification number

–Date of purchase

–Nature of problem

2. Discuss problem with dealer service manager.

3. If unable to resolve, explain problem to dealership manager and request assistance.

4. If you have a persistent problem your dealership is unable to resolve, ask your dealer to contact John Deere for assistance. Or contact the Ag Customer Assistance Center at 1-866-99DEERE (866-993-3373) or e-mail us at www.deere.com/en_US/ag/contactus/.

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