2900 (009001 and 009004-), 3300, 3300 GD, 3300 MD (009123-), and 3600 MD (009032-) Sprayers, and MAF 5000 (009011-) Nutrient Applicators

JOHN DEERE

OPERATOR'S MANUAL

2900 (009001 and 009004-), 3300, 3300 GD, 3300 MD (009123-), and 3600 MD (009032-) Sprayers, and MAF 5000 (009011-) Nutrient Applicators

OM46854 ISSUE A5 (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.

PLA Argentina
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

Introduction and Additional Information

PLA BY JOHN DEERE is grateful for the trust placed in our manufactured machines and renew its compromise with improvements at service and safety operation of the machines.

This Operator's Manual contains precise and essential information about the complete machine, accessories, and different configurations. For this purpose, keep in mind that not all components shown here could be available at your machine.

Some images and schematics may show different details then the ones available at your machine. This fact, however, does not affect the correct understanding of the given instructions.

To facilitate your comprehension, some images in this Operator's Manual show the machine without shields or protections. However, never operate the machine without any shield or protection originally installed.

This Operator's Manual is an addition of the explanations given by the dealer during the delivery of the machine. For suggestions or any additional information needed, don't hesitate to contact your PLA BY JOHN DEERE/JOHN DEERE authorized dealer.

Considering the continuous improvement policy our company has, PLA BY JOHN DEERE reserves the right of introducing modifications, without having any obligation about machines previously manufactured. For this reason, the content available in this Manual is valid for the version shown at cover, and may suffer modifications without notice for future versions.

jtlsx7f,1661891054381-19-31OCT22

Convention

What determines the convention on the usage of the expressions "left-hand side" and "right-hand side" in this manual, is the operator's point of view when seated in the operator's seat.

This convention is important in order to correctly understand the instructions and directions given in this Operator's Manual.

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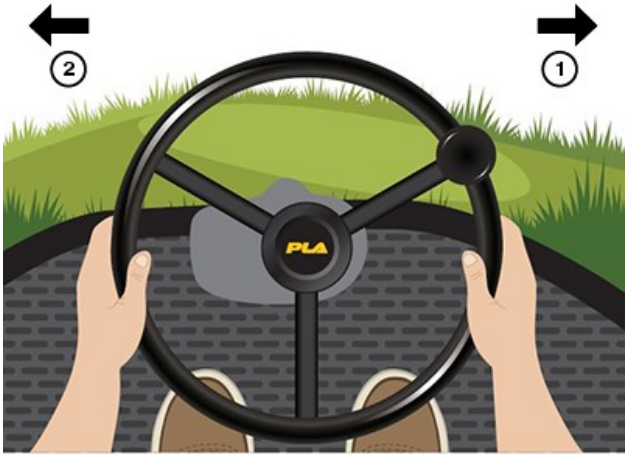

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Convention for Left-Hand Side and Right-Hand Side

1—Right-Hand Side
2—Left-Hand Side

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Emissions Performance and Tampering

Operation and Maintenance

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

Tampering

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

DX,EMISSIONS,PERFORM-19-23DEC21

Company Info

YE1385253—UN—13DEC24

PLA S.A.

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City: Las Rosas - Argentina

Postal Code: S2520CZI

CUIT: 30-68307415-9

jtlsx7f,1661891130147-19-09DEC24

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AutoTrac™	AutoTrac is a trademark of Deere & Company
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Break-In™	Break-In is a trademark of Deere & Company
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COOL-GARD™ II	COOL-GARD is a trademark of Deere & Company
CoolScan™	CoolScan is a trademark of Deere & Company
Grease-Gard™	Grease-Gard is a trademark of Deere & Company
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PowerTech™	PowerTech is a trademark of Deere & Company
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YE,TRADEMARK,MAP3MAF5000-19-10OCT23

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General View

YE1375790—UN—29AUG24

Self-Propelled Sprayers Equipped with Central Engine (2900, 3300, 3300 GD)

YE001001—UN—03JAN24

Self-Propelled Sprayers Equipped with Front Engine (3300 MD and 3600 MD)

YE1375789—UN—29AUG24

Nutrient Applicator (MAF 5000)

jtlsx7f,1733746474705-19-09DEC24

Recognize Safety Information

T81389—UN—28JUN13

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

Follow recommended precautions and safe operating practices.

DX,ALERT-19-03OCT22

Understand Signal Words

TS187—19—30SEP88

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

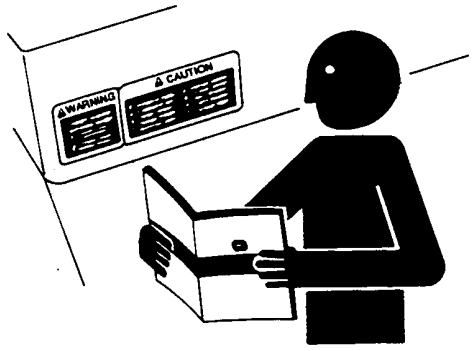
WARNING; The signal word WARNING indicates a hazardous situation which, if not avoided, could result in death or serious injury.

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

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

DX,SIGNAL-19-05OCT16

Follow Safety Instructions



TS201—UN—15APR13

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

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

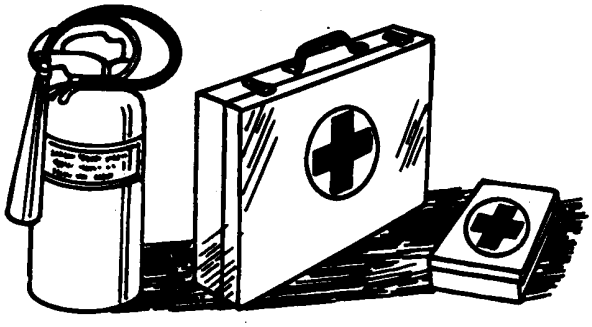
Learn how to operate the machine and how to use controls properly. Do not let anyone operate without instruction.

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

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

DX,READ-19-01AUG22

Prepare for Emergencies



TS291—UN—15APR13

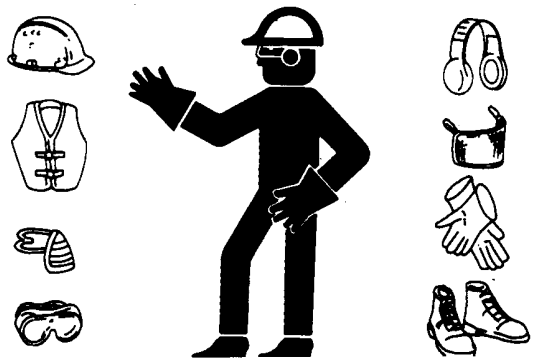
Be prepared if a fire starts.

Keep a first aid kit and fire extinguisher handy.

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

DX,FIRE2-19-03MAR93

Wear Protective Clothing



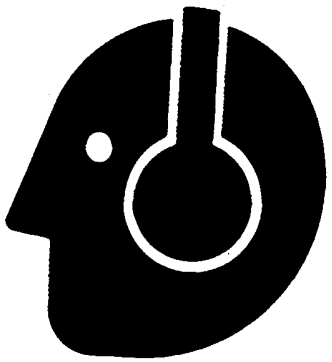
TS206—UN—15APR13

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

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

DX,WEAR2-19-03MAR93

Protect Against Noise



TS207—UN—23AUG88

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

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

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

DX,NOISE-19-03OCT17

Handle Fuel Safely—Avoid Fires

TS202—UN—23AUG88

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

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

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

Use only an approved fuel container for transporting flammable liquids.

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

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

DX,FIRE1-19-12OCT11

Handle Starting Fluid Safely

TS1356—UN—18MAR92

Starting fluid is highly flammable.

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

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

Do not incinerate or puncture a starting fluid container.

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

DX,FIRE3-19-14MAR14

In Case of Fire

TS227—UN—15APR13

CAUTION: Avoid personal injury.

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

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

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

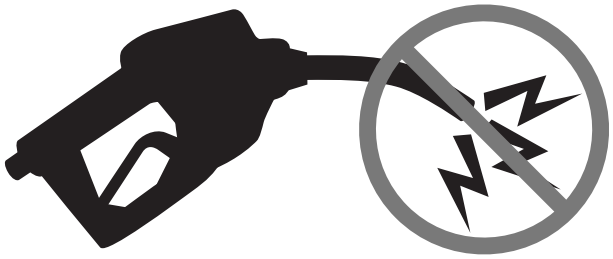
If your extinguisher does not have instructions, follow these general guidelines:

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

DX,FIRE4-19-22AUG13

Avoid Static Electricity Risk When Refueling

RG22142—UN—17MAR14



RG21992—UN—21AUG13

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

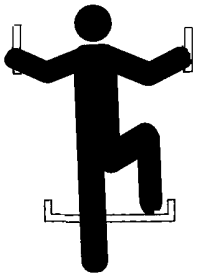
Refineries may have treated the fuel with a static dissipating additive. However, there are many factors that can reduce the effectiveness of the additive over time.

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

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

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

Use Steps and Handholds Correctly



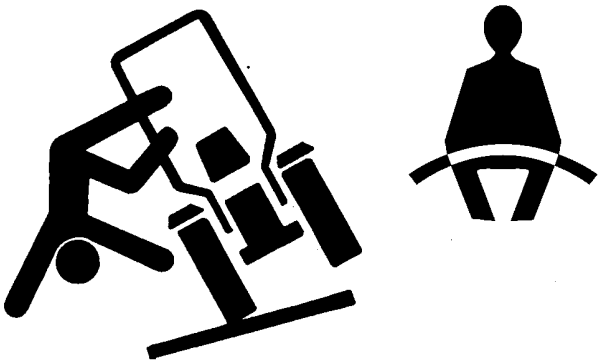
T133468—UN—15APR13

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

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

DX,WW,MOUNT-19-12OCT11

Use Seat Belt Properly



TS1729—UN—24MAY13

Avoid crushing injury or death during rollover.

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

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

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

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

DX,ROPS1-19-22AUG13

Avoid Backover Accidents

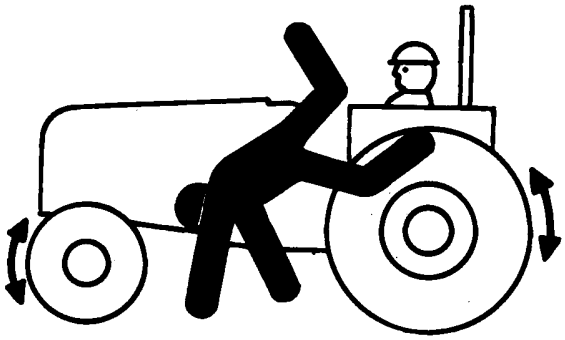
PC10857XW—UN—15APR13

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

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

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

Keep Riders Off Machine



TS290—UN—23AUG88

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

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

DX,RIDER-19-03MAR93

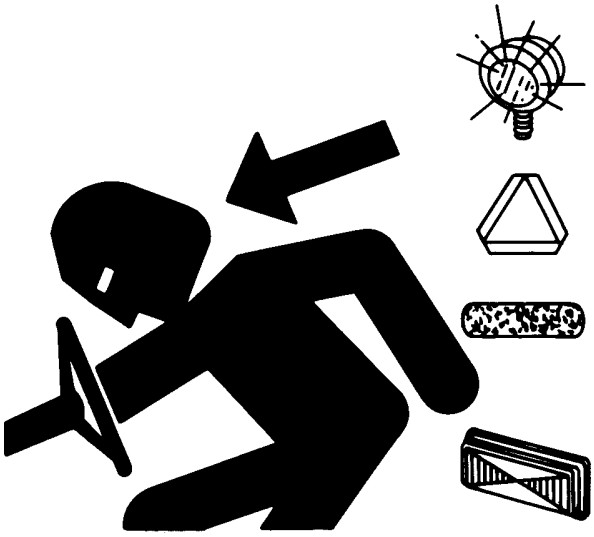
Instructional Seat

TS1730—UN—24MAY13

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

DX,SEAT,NA-19-22AUG13

Use Safety Lights and Devices



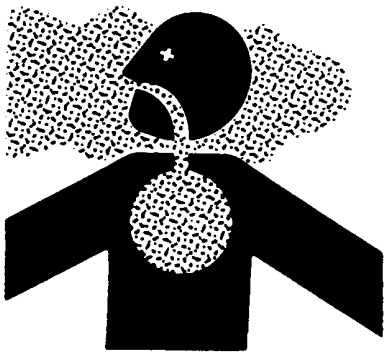
TS951—UN—12APR90

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

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

DX,FLASH-19-07JUL99

Avoid Contact with Agricultural Chemicals



TS220—UN—15APR13

TS272—UN—23AUG88

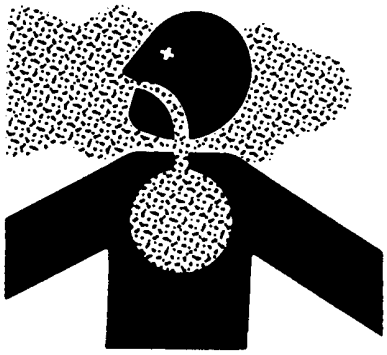
This enclosed cab does not protect against inhaling vapor, aerosol or dust. If pesticide use instructions require respiratory protection, wear an appropriate respirator inside the cab.

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

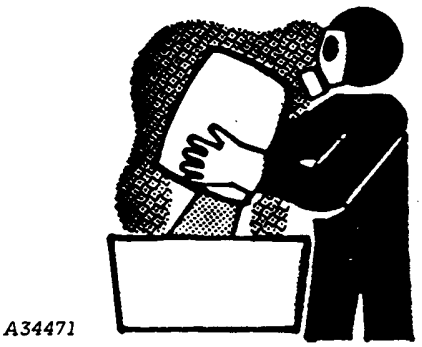
Clean your shoes or boots to remove soil or other contaminated particles prior to entering the cab.

DX,CABS-19-25MAR09

Handle Agricultural Chemicals Safely



TS220—UN—15APR13



A34471—UN—11OCT88

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

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

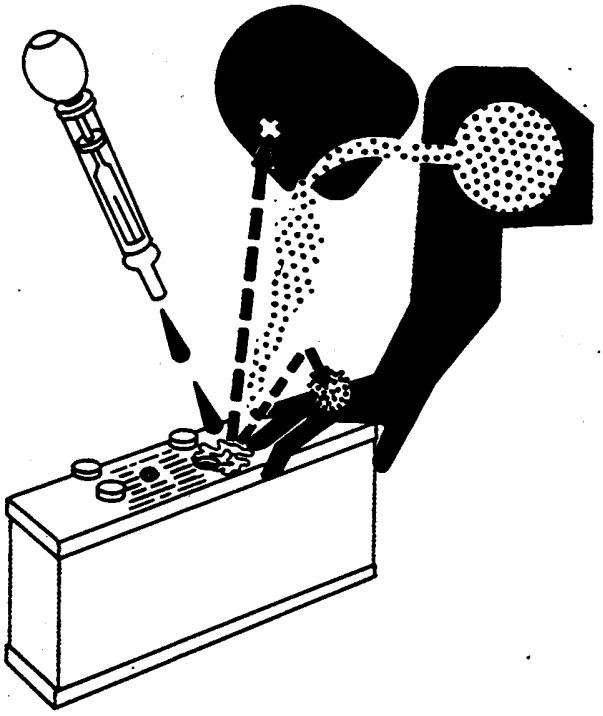
Reduce risk of exposure and injury:

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

DX,WW,CHEM01-19-24AUG10

Handling Batteries Safely

TS204—UN—15APR13



TS203—UN—23AUG88

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

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

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

Sulfuric acid in battery electrolyte is poisonous and

strong enough to burn skin, eat holes in clothing, and cause blindness if splashed into eyes.

Avoid hazards by:

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

If acid is spilled on skin or in eyes:

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

If acid is swallowed:

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

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

DX,WW,BATTERIES-19-02DEC10

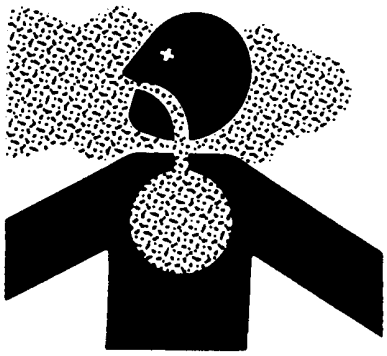
Avoid Heating Near Pressurized Fluid Lines

TS953—UN—15MAY90

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

DX,TORCH-19-10DEC04

Remove Paint Before Welding or Heating



TS220—UN—15APR13

Avoid potentially toxic fumes and dust.

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

Remove paint before heating:

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

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

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

Dispose of paint and solvent properly.

DX,PAINT-19-24JUL02

Handle Electronic Components and Brackets Safely

TS249—UN—23AUG88

Falling while installing or removing electronic

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

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

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

DX,WW,RECEIVER-19-24AUG10

Practice Safe Maintenance

TS218—UN—23AUG88

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

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

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

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

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

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

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

DX,SERV-19-28FEB17

Avoid Hot Exhaust

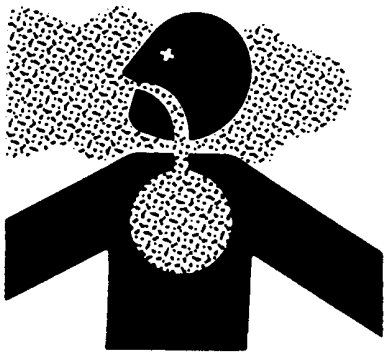
RG17488—UN—21AUG09

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

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

DX,EXHAUST-19-20AUG09

Work In Ventilated Area



TS220—UN—15APR13

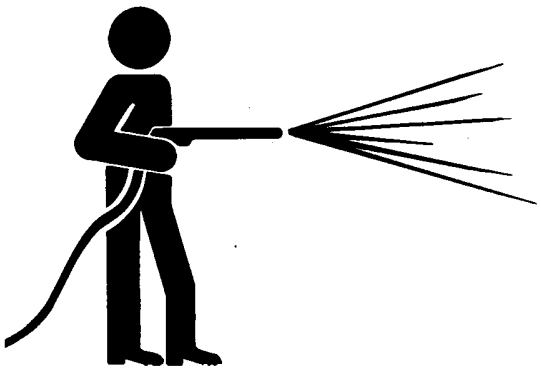
Engine exhaust fumes can cause sickness or death. If it

is necessary to run an engine in an enclosed area, remove the exhaust fumes from the area with an exhaust pipe extension.

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

DX,AIR-19-17FEB99

Work in Clean Area



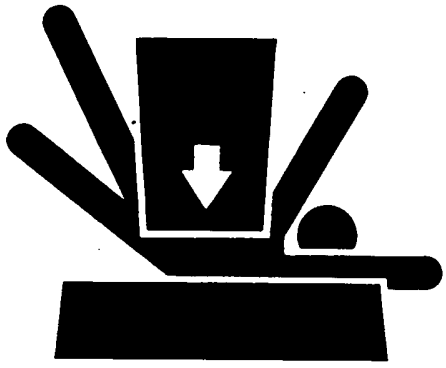
T6642EJ—UN—18OCT88

Before starting a job:

- Clean work area and machine.
- Make sure you have all necessary tools to do your job.
- Have the right parts on hand.
- Read all instructions thoroughly; do not attempt shortcuts.

DX,CLEAN-19-04JUN90

Support Machine Properly



TS229—UN—23AUG88

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

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

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

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

DX,LOWER-19-24FEB00

Prevent Machine Runaway

TS177—UN—11JAN89

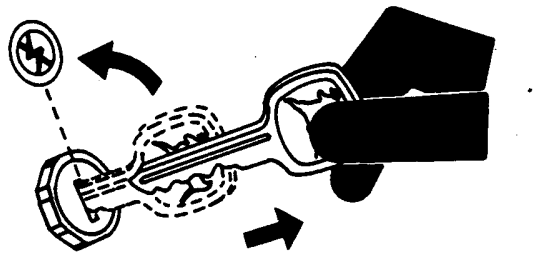
Avoid possible injury or death from machinery runaway.

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

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

DX,BYPAS1-19-29SEP98

Park Machine Safely



TS230—UN—24MAY89

Before working on the machine:

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

DX,PARK-19-04JUN90

Service Cooling System Safely

TS281—UN—15APR13

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

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

DX,WW,COOLING-19-19AUG09

Service Accumulator Systems Safely

TS281—UN—15APR13

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

Relieve pressure from the pressurized system before removing accumulator.

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

Accumulators cannot be repaired.

DX,WW,ACCLA2-19-22AUG03

Service Tires Safely

RXA0103438—UN—11JUN09

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

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

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

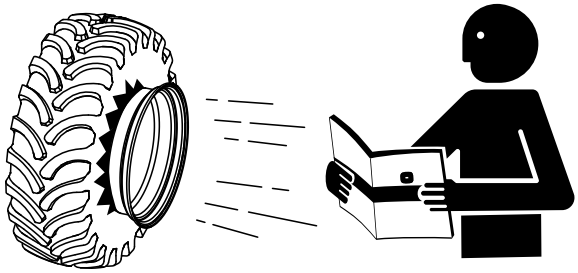
When inflating tires, use a clip-on chuck and extension hose long enough to allow you to stand to one side and NOT in front of or over the tire assembly. Use a safety cage if available.

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

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

DX,WW,RIMS-19-28FEB17

Follow Tire Recommendations



H111235—UN—13MAY14

Keep your machine in proper working order.

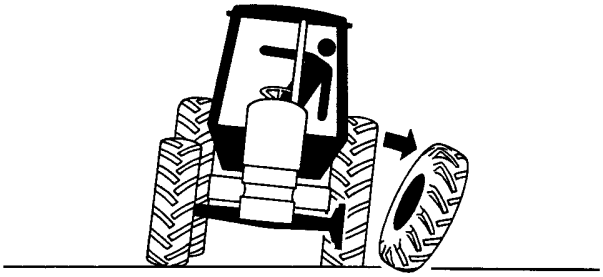
Use only prescribed tire sizes with correct ratings and inflate to the pressure specified in this manual.

Use of other than prescribed tires may decrease

stability, affect steering, result in premature tire failure, or cause other durability or safety issues.

DX,TIRE,INFO-19-19MAY14

Tightening Wheel Retaining Bolts/Nuts

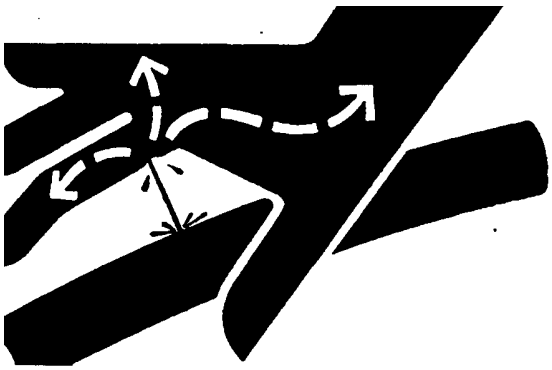


L124516—UN—03JAN95

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

DX,WW,WHEEL-19-12OCT11

Avoid High-Pressure Fluids



X9811—UN—23AUG88

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

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

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

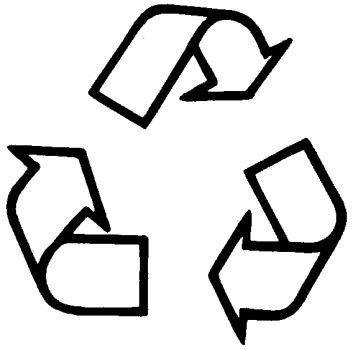
Avoid the hazard by relieving pressure before disconnecting hydraulic or other lines. Tighten all connections before applying pressure.

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

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

DX,FLUID-19-12OCT11

Decommissioning — Proper Recycling and Disposal of Fluids and Components



TS1133—UN—15APR13

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

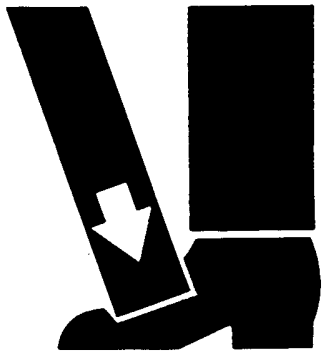
- Use appropriate tools and personal protective equipment such as clothing, gloves, face shields or glasses, during the removal or handling of objects and materials.
- Follow instructions for specialized components.
- Release stored energy by lowering suspended machine elements, relaxing springs, disconnecting the battery or other electrical power, and releasing pressure in hydraulic components, accumulators, and other similar systems.
- Minimize exposure to components which may have residue from agricultural chemicals, such as fertilizers and pesticides. Handle and dispose of these components appropriately.
- Carefully drain engines, fuel tanks, radiators, hydraulic cylinders, reservoirs, and lines before recycling components. Use leak-proof containers when draining fluids. Do not use food or beverage containers.
- Do not pour waste fluids onto the ground, down a drain, or into any water source.
- Observe all national, state, and local laws, regulations, or ordinances governing the handling or disposal of waste fluids (example: oil, fuel, coolant, brake fluid); filters; batteries; and, other substances or parts. Burning of flammable fluids or components in other than specially designed incinerators may be

prohibited by law and could result in exposure to harmful fumes or ashes.

- Service and dispose of air conditioning systems appropriately. Government regulations may require a certified service center to recover and recycle air conditioning refrigerants which could damage the atmosphere if allowed to escape.
- Evaluate recycling options for tires, metal, plastic, glass, rubber, and electronic components which may be recyclable, in part or completely.
- Contact your local environmental or recycling center, or your John Deere dealer for information on the proper way to recycle or dispose of waste.

DX,DRAIN-19-01JUN15

Use Proper Lifting Equipment



TS226—UN—23AUG88

Lifting heavy components incorrectly can cause severe injury or machine damage.

Follow recommended procedure for removal and installation of components in the manual.

DX,LIFT-19-20DEC24

Protect Against High Pressure Spray

TS1343—UN—18MAR92

Spray from high pressure nozzles can penetrate the skin and cause serious injury. Keep spray from contacting hands or body.

If an accident occurs, see a doctor immediately. Any high pressure spray 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.

DX,SPRAY-19-16APR92

Use Proper Tools

TS779—UN—08NOV89

Use tools appropriate to the work. Makeshift tools and procedures can create safety hazards.

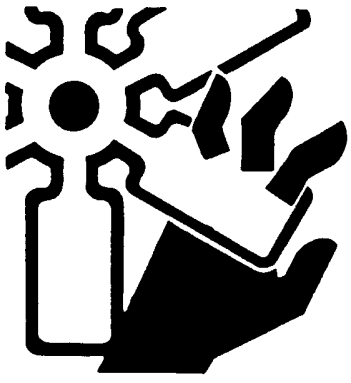
Use power tools only to loosen threaded parts and fasteners.

For loosening and tightening hardware, use the correct size tools. DO NOT use U.S. measurement tools on metric fasteners. Avoid bodily injury caused by slipping wrenches.

Use only service parts meeting John Deere specifications.

DX,REPAIR-19-17FEB99

Install All Guards



TS677—UN—21SEP89

Rotating cooling system fans, belts, pulleys, and drives can cause serious injury.

Keep all guards in place at all times during engine operation.

Wear close-fitting clothes. Stop the engine and be sure fans, belts, pulleys, and drives are stopped before making adjustments, connections, or cleaning near fans and their drive components.

DX,GUARDS-19-18AUG09

Prevent Battery Explosions

TS204—UN—15APR13

Keep sparks, lighted matches, and open flame away from the top of battery. Battery gas can explode.

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

Do not charge a frozen battery; it may explode. Warm battery to 16°C (60°F).

DX,SPARKS-19-03MAR93

Service Spray Equipment Safely

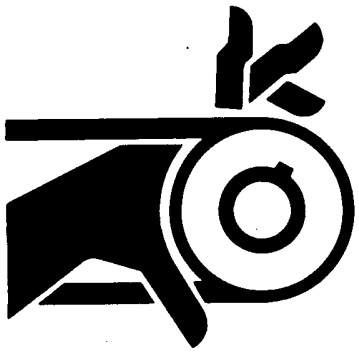
CAUTION: Spray solutions or vapors may be extremely dangerous. Treat all spray chemicals, solutions, or solution residues with great caution. DO NOT take chances. When in doubt, proceed as though contamination is present.

Before performing any service activity:

- Wear appropriate personal protective equipment. (See Handle Agricultural Chemicals Safely in Safety section.)
- Clean vehicle. (See Clean Vehicle of Hazardous Chemicals, Including Pesticides in Machine Storage section.)
- Drain solution tank. (See Solution System section.)
- Rinse solution system. (See Solution System section.)

jtlsx7f,1664193239971-19-26SEP22

Service Drive Belts Safely



TS285—UN—23AUG88

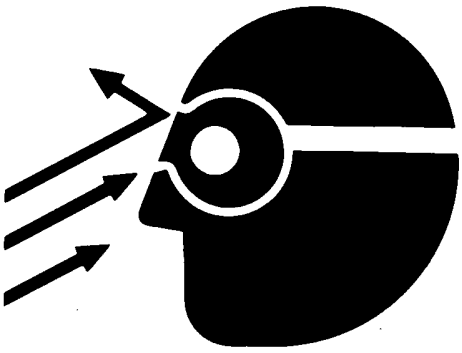
When servicing drive belts always observe these precautions:

- Avoid serious injury from hand or arm entanglement. Never attempt to clean, check or adjust belts while the machine is running. Always shut off the engine, set the parking brake and remove the key.
- Do not attempt to clean belts with flammable cleaning solvents.

OUO6043,00015E3-19-24MAY04

Using Compressed Air For Cleaning

CAUTION: Reduce compressed air to 210 kPa (2 bar) (30 psi) or less when using for cleaning purposes. Clear area of bystanders, guard against flying debris, and wear personnel protective equipment, including eye protection.



TS266—UN—23AUG88
AG,OUO6043,83-19-28JUL99

Operate Safely

Always check general operating safety of the machine before using.

Before operating machine always check immediate vicinity of machine for people and obstructions. Ensure adequate visibility.

Operate vehicle only when all guards are fitted and in their correct position.

DO NOT start engine with multifunction control handle engaged.

DO NOT operate close to a ditch or creek.

DO NOT fold or unfold boom near overhead wires.

Always come to a complete stop before reversing directions.

Drive slowly over rough ground.

Slow down when turning.

Always shut off engine when leaving machine. Remove key when leaving machine unattended. Park brake will engage when engine is turned off regardless of multifunction control handle position.

Keep hands, feet and clothing away from moving parts.

Wear relatively tight and belted clothing to prevent from being caught on some part of the machine.

OUO6092,0000360-19-30APR10

Working Area

The working area is defined and required as follows:

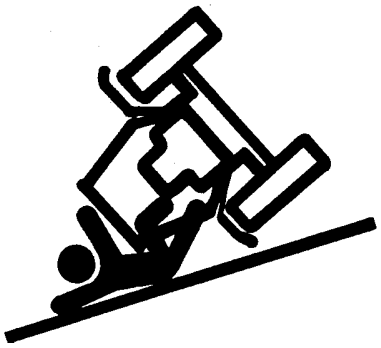
- an area of 1 meter around the machine for preparation of the spraying liquid (filling work) and cleaning of the spraying apparatus
- the seat on the machine from where the crop protection work is carried out

Danger zones are taken to mean:

- the working area of the operator in which preparation of the spraying liquid and cleaning of the sprayer takes place
- the “manoeuvring zone” of the components of the sprayer, and in particular a 1 meter zone around the machine as a whole and the area required to fold out the spray booms

OUO6092,0000362-19-03MAY10

Use Caution On Hillsides



RW13093—UN—07DEC88

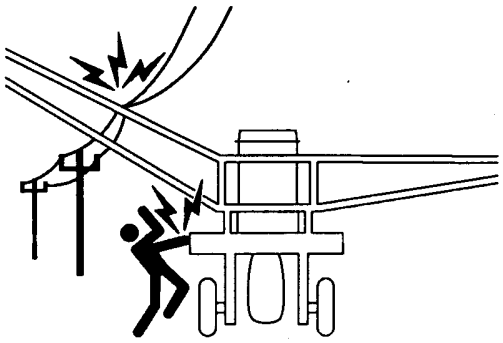
Avoid holes, ditches, and obstructions which may cause sprayer roll-over, especially on hillsides. Avoid sharp turns on hills.

Never drive near the edge of a gully or steep embankment.

Stay off slopes that are too steep for operation.

OUO6092,0000F99-19-28JUN07

Transport and Operate Safely



N44191—UN—27APR92

CAUTION: Keep away from overhead power lines. Serious injury or death to you or others can result if machine contact electrical wires. Know the machine transport height, spray/application boom operating height, and spray/application boom folding height of your machine.

- To decide the best working method and boom folding/unfolding operations, perform a complete assessment of the field before performing any spraying operation.
- Before moving the machine, alert surrounding people and make sure that the ladder is up.
- Stop slowly to avoid “nose diving”.
- Reduce speeds for icy, wet, graveled, or soft roadway surfaces.
- Carefully operate the machine at low speeds on

uneeven terrain. Before going on a steep hill, make sure to select a gear that allows a safe operation.

- Do not operate the machine down a slope with the transmission in neutral.
- Before driving on public roadways, check and follow local regulations for transport speed, equipment size and weight, lighting and marking.
- During the machine transport to the operation local, maintain all the spray systems off.
- Before leaving the machine, always put the transmission in neutral, activate the park brake, turn the ignition key to OFF position, and remove the ignition key.

jtlsx7f,1664193649248-19-05DEC22

Non-Permissible Use

Pay attention to the following applications for which the machine is **NOT SUITABLE** for:

- Spraying or atomization of substances other than crop protection chemicals and/or liquid fertilizers.
- Use of the solution tank for storing substances not intended for crop protection or fertilization purposes.

CAUTION: Working on an uncleaned machine poses unnecessary danger and is therefore forbidden.

jtlsx7f,1664193675688-19-15JUN23

Additional Safety Information

Spray System

- To avoid solution leakage, keep hoses, connections, clamps, and other components in good conditions.
- All nozzles must have antri-drip systems.
- Replace nozzles that vary more than 10% the application flow specified for the nozzle type.

Agricultural Chemicals

- In case of intoxication, call 0800-888-8694 (24 hours service).
- Use protection equipment that meets the IRAM standards for chemical product manipulation.
- Prepare the most exact amount of solution for application, avoiding this way solution leftovers after spraying.
- Do not rely only on the machine cab or filters as a full protection against chemical exposure. If pesticide use instructions require respiratory protection, wear an appropriate respirator inside the cab. (See Safety Equipment in Solution System section.)
- Drain solution in an area where people, animas, vegetation, and water supply cannot be contaminated.
- Chemical containers must not be used for any other purpose.
- Never use containers, funnels, and hoses from other applications to manipulate chemicals, even in small tasks.
- Chemical product leftovers must be kept in the original containers, well closed.
- To drain chemicals, always use suitable containers.
- Chemical containers must be transported to recycling centers. For information on the nearest authorized recycling center, see: www.casafe.org
- Make sure that the non-return valve of the solution system is correctly functioning each time the solution tank is loaded with water from an external source. This valve allows water to flow only in one direction to the solution tank, avoiding this way contaminated liquid return to the external source.

Crop Protection

- Avoid wind drift out of the specified application zone.
- Always select the nozzle type that best fits the particular crop treatment related to the application moment conditions.

Nutrient Application System (If Applicable)

- Before filling the nutrient applicator box, put the handrails in work position.
- To reduce the height of the machine, put the handrails in transport position before transport.
- Safely position all moving and retractable parts of the machine for transport.
- Transporting the machine with loaded reservoirs can cause personal injury or premature failure by wear.
- Avoid serious injury or death by the lost of control or by an accident due to machine overload during transport.
- Maintain hands, feet, head, hair, and clothes away from moving parts. Use tight clothes to avoid them from getting caught in any part of the machine.

jtlsx7f,1664193761229-19-05DEC22

Safety Signs

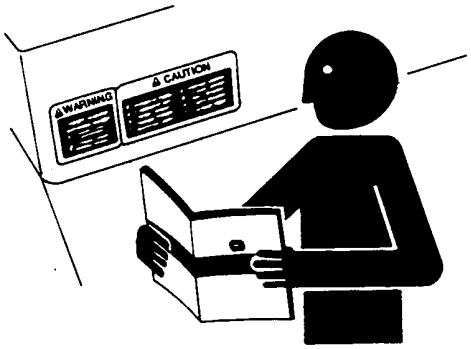
Pictorial Safety Signs

TS231—19—07OCT88

At several important places of this machine safety signs are affixed intended to signify potential danger. The hazard is identified by a pictorial in a warning triangle. An adjacent pictorial provides information how to avoid personal injury. These safety signs, their placement on the machine and a brief explanatory text are shown below.

LX,LABEL 002079-19-02MAY92

Replace Safety Signs



TS201—UN—15APR13

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.

DX,SIGNS-19-18AUG09

Safety Signs Location

The safety signs present on machine and its accessories are strategically positioned, warning about potential risks to the Operator. The risk causes may be due:

Mechanical Action

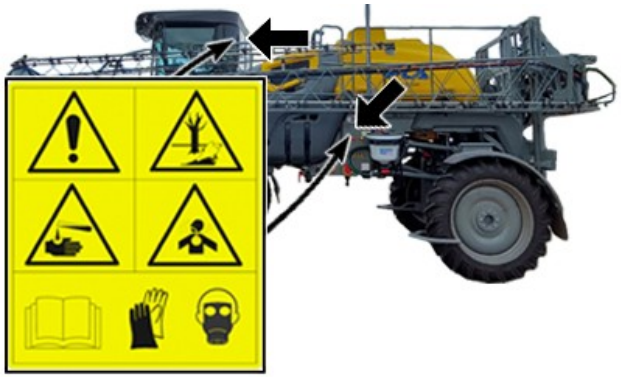
- Machine Movement
- Spray/Application Boom Movement
- Falls
- Slips
- Crashes
- Others

Chemical Action

- Dangerous Contact with Agriculture Chemicals
- Acid Solution Burns
- Pressurized Liquids
- Hot Liquids
- Others

CAUTION: Avoid serious injury or death. Replace the safety signs whenever they are not legible or deteriorated. Every time they are replaced, position them in the same place they were before, cleaning the surface of installation before positioning the new safety signs. Not replacing them correctly may lead to not identifying a risk and expose yourself or others to risks.

Chemical Exposure Decal (Self-Propelled Sprayers Only)



YE1385254—UN—13DEC24

Machines Equipped with Central Engine

YE001258—UN—02JAN24

Machines Equipped with Front Engine

CAUTION: Avoid undue exposure to chemicals, including pesticides. This causes injury or death.

Do not rely only on the sprayer cab, cab pressure indicator (if equipped), or cab air filters as a full protection against chemical exposure.

To reduce the risk of chemical exposure:

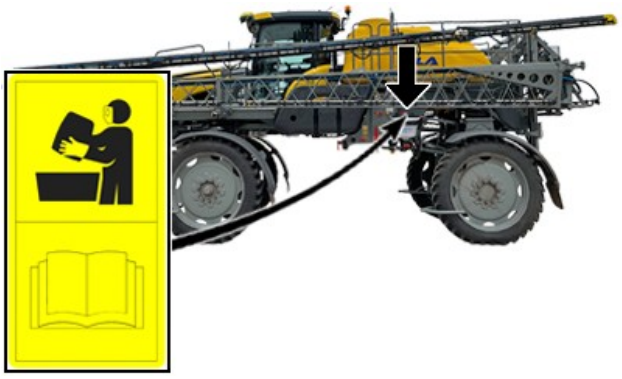
- Always wear personal protective equipment in accordance with chemical manufacturer's label.
- Allow only trained and certified applicators to apply chemicals.
- Keep chemicals and chemical packages, even empty, out of the cab.
- Clean or remove contaminated shoes or clothing before entering the cab.
- Keep cab interior clean.
- Always keep the cab door and windows closed during the sprayer operation.
- Read and follow all instructions in:

  a. Manufacturer label for each chemical applied.
  b. US EPA Worker Protection Standard for Agricultural Pesticides.
  c. State or regional guidelines for worker safety and health.
  d. This Operator's Manual.

Agricultural Chemicals Decal (Self-Propelled Sprayers Only)

YE1385255—UN—13DEC24

Machines Equipped with Central Engine



YE001260—UN—02JAN24

Machines Equipped with Front Engine

CAUTION: Agricultural chemicals can be dangerous. Improper selection or use can injure persons, animals, plants, soils, or other property.

To avoid injury:

- **Select the right chemical for the job.**
- **Handle and apply it with care. Follow instructions issued by the chemical manufacturer.**
- **Wear protective clothing, eyewear, and gloves.**
- **Do not drain chemicals in an area where people, animals, vegetation, and water supply can be contaminated.**

Do Not Ride Decals

YE1385256—UN—13DEC24

Machines Equipped with Central Engine-Hydraulic Ladder

YE1385257—UN—13DEC24

Machines Equipped with Central Engine-Machine Rear

YE001268—UN—02JAN24

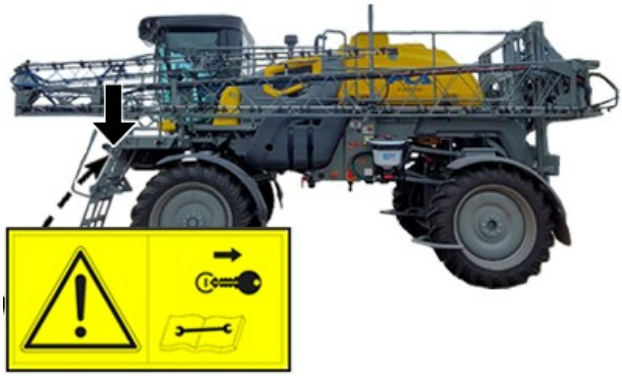
Machines Equipped with Front Engine-Hydraulic Ladder

YE001272—UN—02JAN24

Machines Equipped with Front Engine-Machine Rear

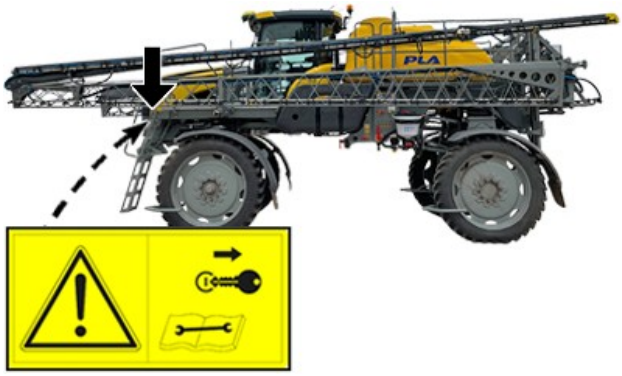
CAUTION: Avoid serious injury from falling. Do not ride on machine.

Shields Decal



YE1385258—UN—13DEC24

Machines Equipped with Central Engine



YE001270—UN—02JAN24

Machines Equipped with Front Engine

CAUTION: Keep all shields in place during normal operations.

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

Disengage power-driven parts and shut off engine before unclogging or servicing machine.

If service procedure requires engine to be running:

- **Only engage power-driven parts required by the service procedure.**
- **Ensure other people are clear of operator's station and machine.**
- **Do not leave a running machine unattended.**

Read the Operator's Manual Decal

YE1385264—UN—13DEC24

Machines Equipped with Central Engine

YE001308—UN—02JAN24

Machines Equipped with Front Engine

This Operator's Manual contains important information necessary for a safe machine operation. Carefully observe all safety rules to avoid accidents.

Repair and Maintenance Decal

YE1385282—UN—13DEC24

Machines Equipped with Central Engine

YE001306—UN—02JAN24

Machines Equipped with Front Engine

Before carrying out repairs and maintenance work, shut off the engine, set the park brake and remove the ignition key. Refer to this Operator's Manual for all the maintenance work.

Hot Surface Decal (Central Engine Machines Only)

YE1385281—UN—13DEC24

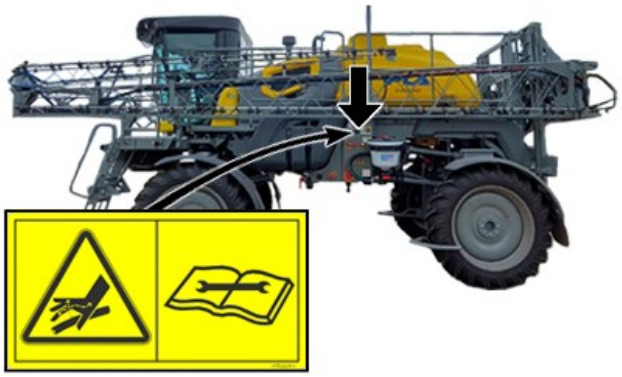
Machines Equipped with Central Engine

CAUTION: Take care with hot surfaces. Contact can cause burns.

Make sure that all components have cooled down before performing any work.

Hydraulic Oil Under Pressure

NOTE: The exact decal position may vary according to machine model.



YE1385283—UN—13DEC24

Machines Equipped with Central Engine

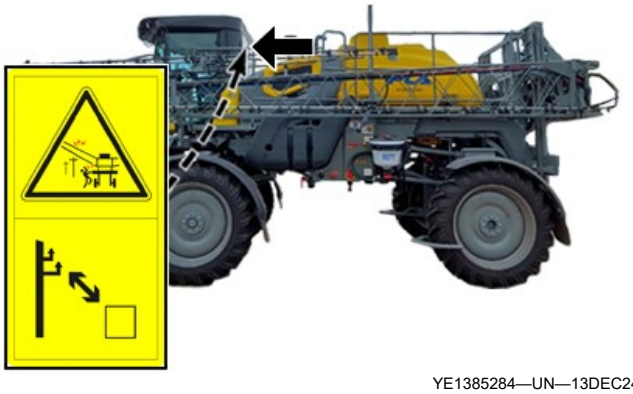
YE001256—UN—02JAN24

Machines Equipped with Front Engine

CAUTION: Possible high-pressure fluid injection into body.

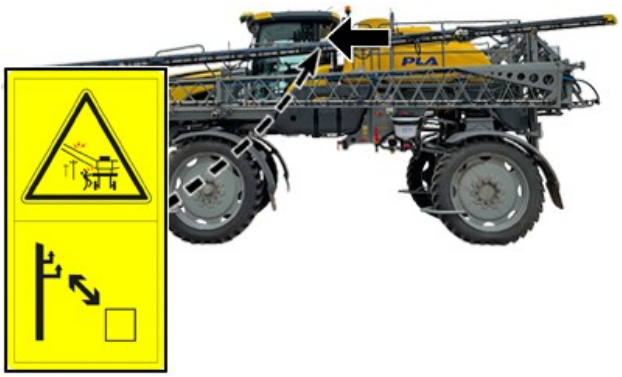
Get immediate medical treatment if fluid injection occurs.

Electrical Line Contact Decal



YE1385284—UN—13DEC24

Machines Equipped with Central Engine



YE001293—UN—02JAN24

Machines Equipped with Front Engine

CAUTION: To avoid injury or death, do not contact electrical lines when moving or operating this machine.

To decide the best working method and boom folding/unfolding operation, perform a complete assessment of the field before performing any spraying/application operation.

Make sure that the spray/application booms can be folded and unfolded without any risk.

Seat Belt Usage Decal

YE1385288—UN—13DEC24

Machines Equipped with Central Engine

YE001291—UN—02JAN24

Machines Equipped with Front Engine

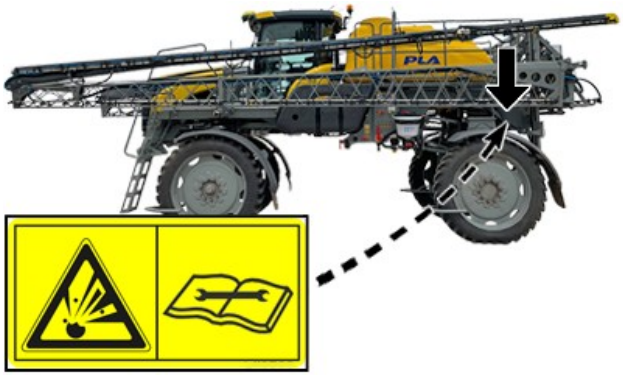
CAUTION: Avoid serious injury or death. To reduce the proability of injury in case of accidents, always use the seat belt:

- **Hold the latch and pull the seat belt over the body.**
- **Insert the latch into the buckle. Listen for a click.**
- **To make sure that the belt is securely fastened, tug on the seat belt latch.**
- **Adjust the seat belt on your hips.**

Air Tank Decal

YE1385290—UN—13DEC24

Machines Equipped with Central Engine

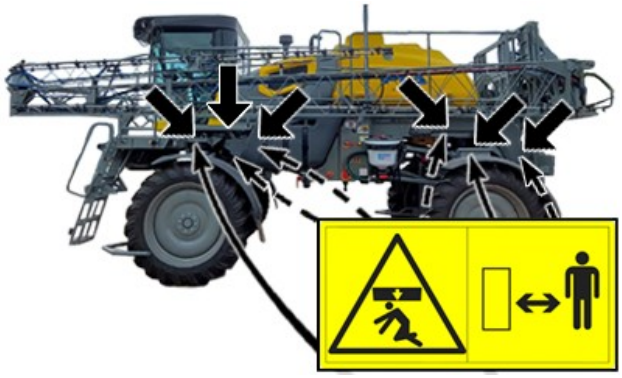


YE001285—UN—02JAN24

Machines Equipped with Front Engine

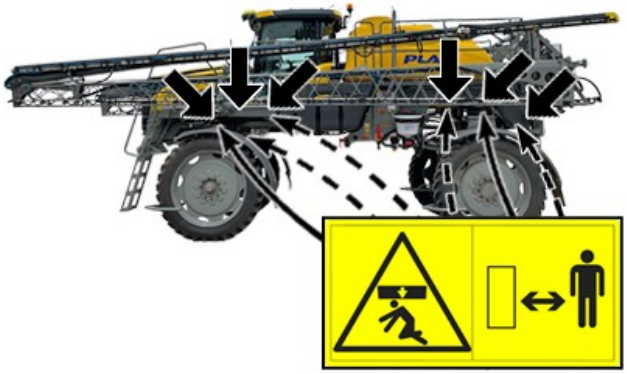
CAUTION: Air system at high pressure can discharge debris or components. Wear protective eyewear and other personal protective equipment when servicing. Before servicing, relieve all system air pressure.

Air Springs Decal



YE1385291—UN—13DEC24

Machines Equipped with Central Engine



YE001279—UN—02JAN24

Machines Equipped with Front Engine

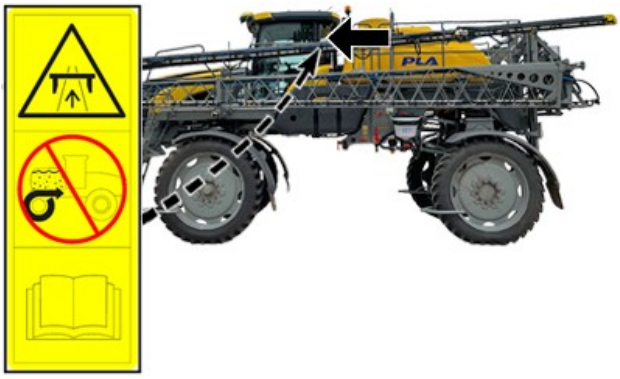
CAUTION: Avoid injury from impact with sprayer frame. Chassis moves during inflation and deflation of air spring suspension system.

Stand clear of machine when operating system.

Road Transport Decal

YE1385295—UN—13DEC24

Machines Equipped with Central Engine



YE001289—UN—02JAN24

Machines Equipped with Front Engine

CAUTION: Avoid serious injury or death resulting from loss of control or collision due to machine overload during transport.

IMPORTANT: Never exceed maximum tire load during road transport. The maximum tire load can vary depending on the supplier of the tires.

For precise information, consult the supplier of the tires.

IMPORTANT: Transport on roadways with liquid in the solution tank MAY BE PROHIBITED. Read all certification documents and comply with the restrictions indicated for your machine.

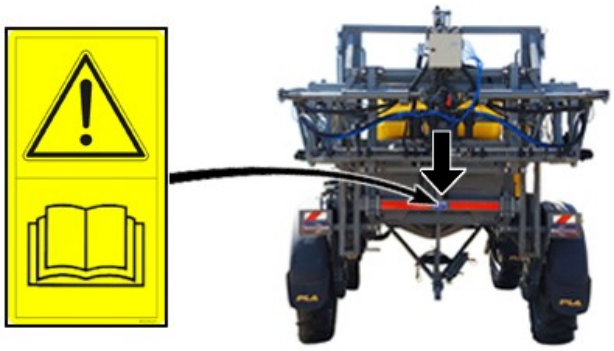
IMPORTANT: Road transport with the solution tank full is not recommended.

Road transport with tank loads above the maximum axle load limitations may result in premature tire wear and failure. Exceeding these limitations may void warranty of manufacturers. Verify machine axle weights before transporting a loaded machine.

Always follow your local and national roadway transport regulations.

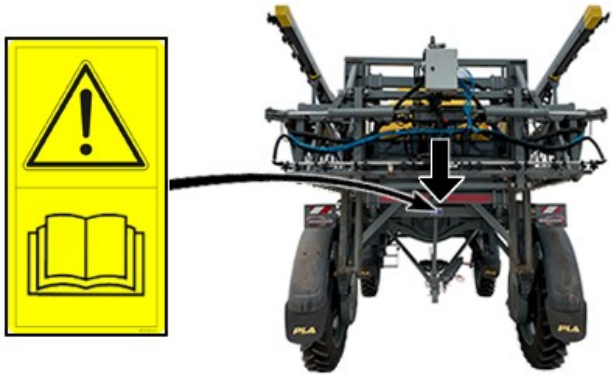
Never exceed your local or national maximum speed limits.

Trailer Hitch Information Decal



YE001288—UN—02JAN24

Machines Equipped with Central Engine

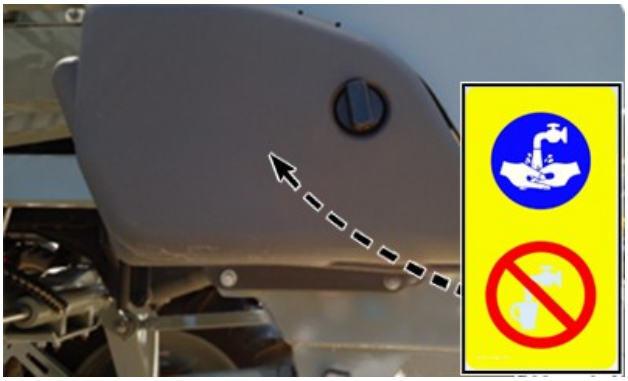


YE001287—UN—02JAN24

Machines Equipped with Front Engine

Read the Operator's Manual for information regarding trailer hitch.

Clean Water Tank Decal



YE001857—UN—14MAY24

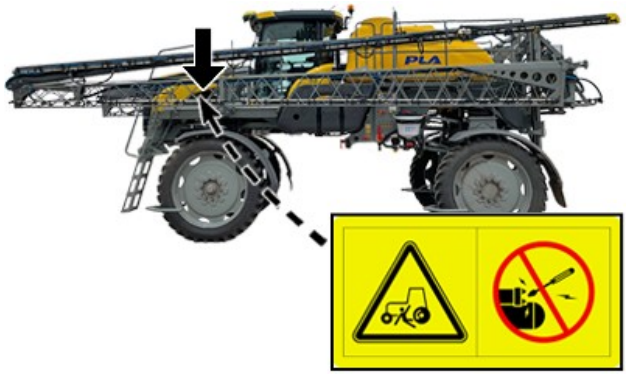
CAUTION: The clean water tank provides clean water only for in-field cleaning and emergency situations when working with chemicals. Never drink water from this container.

This container may become contaminated by chemicals. Fill it with clean rinse water only.

Bypass Start Decal

YE1385297—UN—13DEC24

Machines Equipped with Central Engine



YE001295—UN—02JAN24

Machines Equipped with Front Engine

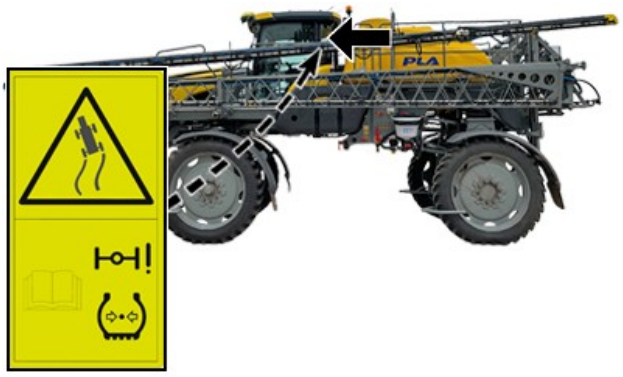
DANGER!: Avoid unexpected machine movement. Start engine only while sitting in operator's seat and with the transmission is in PARK or NEUTRAL. Ensure all controls and working tools are in proper position for a parked machine. Starting in gear can cause serious injury or death.

Never attempt to start engine from the ground. Do not attempt to start engine by shorting across the starter solenoid terminals.

Axle Load Decal

YE1385298—UN—13DEC24

Machines Equipped with Central Engine



YE001299—UN—02JAN24

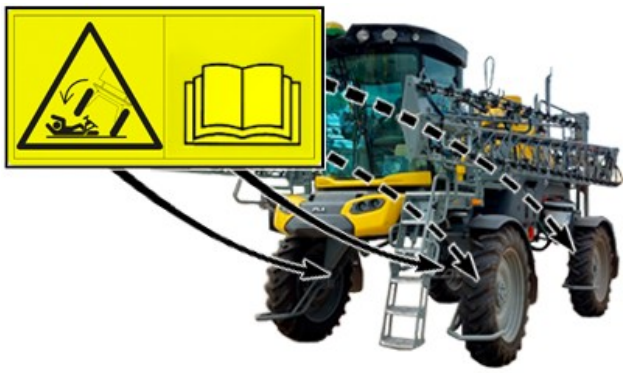
Machines Equipped with Front Engine

CAUTION: *Avoid serious injury or death resulting from loss of control or collision due to machine overload during transport.*

Always follow your local and national roadway transport regulations.

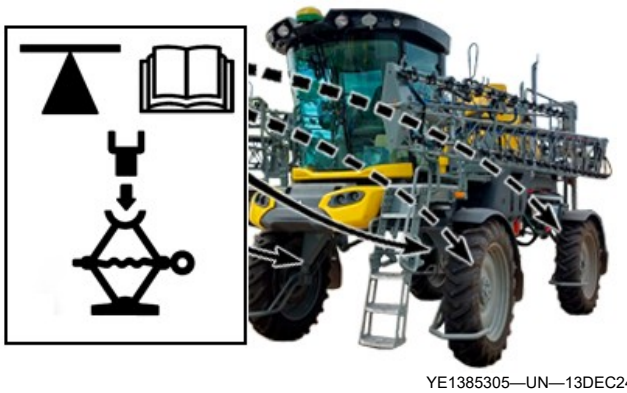
Refer to this manual for proper tire pressure and maximum axle weight. Know your axle limits for transporting product.

Jacking Instruction Decal



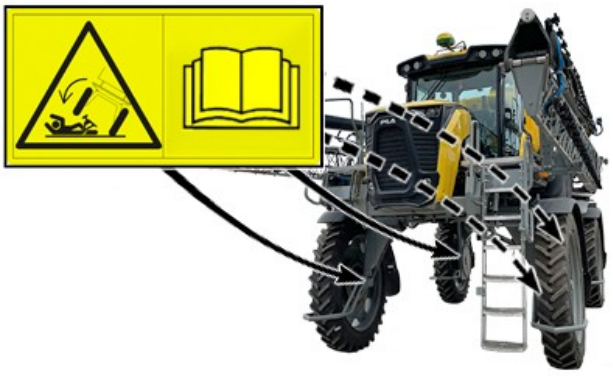
YE1385304—UN—13DEC24

Machines Equipped with Central Engine



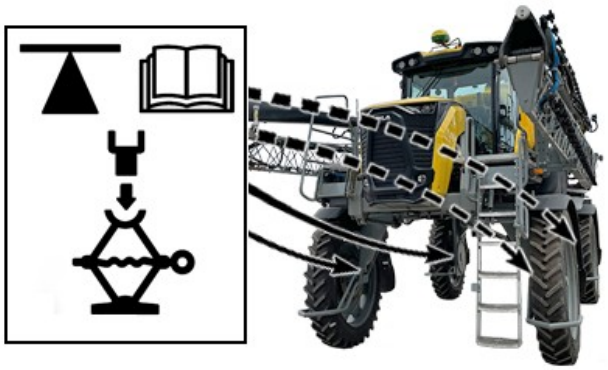
YE1385305—UN—13DEC24

Machines Equipped with Central Engine



YE001274—UN—02JAN24

Machines Equipped with Front Engine



YE001276—UN—02JAN24

Machines Equipped with Front Engine

CAUTION: Machine is heavy and can fall or roll, causing serious injury or death to you or others.

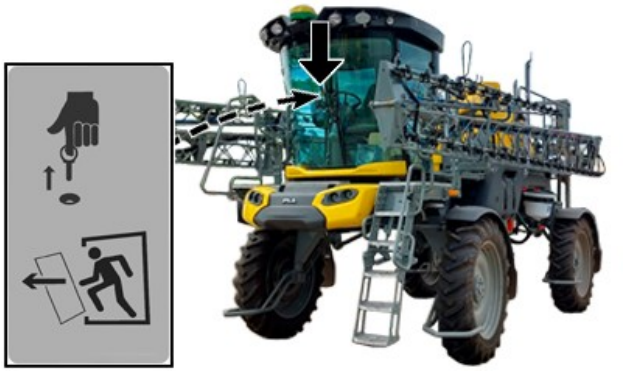
CAUTION: Before jacking up machine, park the machine, put the transmission in NEUTRAL, shut off engine, and remove ignition key, making sure that machine is on a flat and level surface.

CAUTION: Clear all bystanders away from machine before jacking up machine.

IMPORTANT: Machine damage can occur. Jack up machine only at designated jacking locations.

See Hydraulic Jack Usage in Service—Wheels and Hardware section for instructions.

Emergency Exit Decal (Sprayers with Central Engine Only)

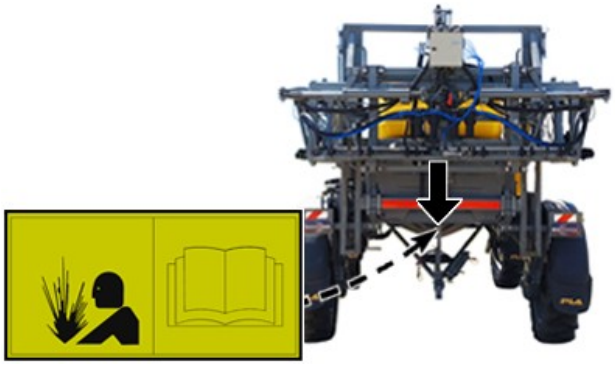


YE1387568—UN—03JAN25

Sprayers with Central Engine

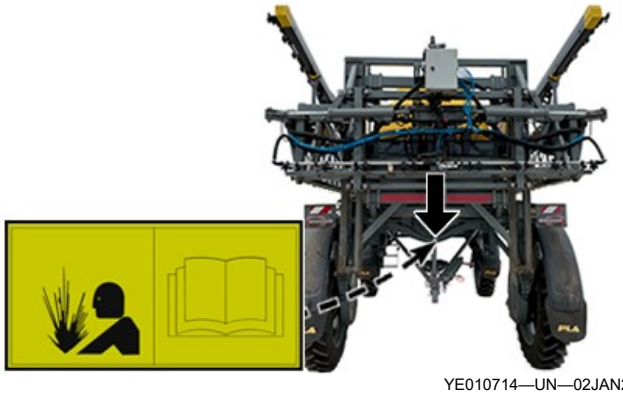
The cab has an emergency exit located on the right-hand side of the cab.

Avoid Accidents with Pressurized Air – Do Not Disengage



YE010713—UN—02JAN24

Machines Equipped with Central Engine



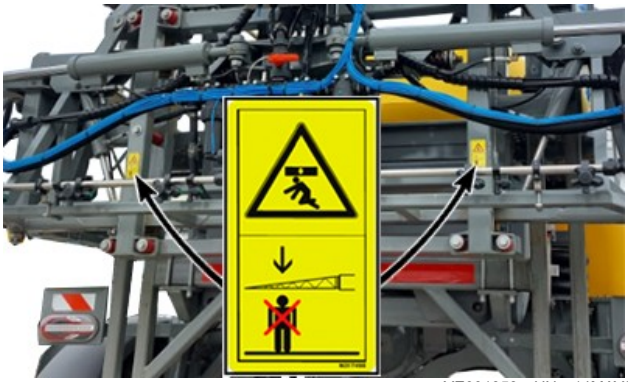
YE010714—UN—02JAN24

Machines Equipped with Front Engine

Do Not Enter in Solution Tank Decal (Self-Propelled Sprayers Only)

YE001856—UN—14MAY24

Avoid Crushing Injury due to Boom Movements Decal



YE001858—UN—14MAY24

Keep away from spray boom when it is being operated.

Read Operator's Manual (Nutrient Applicator Only)

YE1375798—UN—02SEP24

CAUTION: Read the Operator's Manual before operating the machine.

Electrical Risk (Nutrient Applicator Only)

YE1375799—UN—02SEP24

CAUTION: Operate the machine at a safe distance from overhead powerlines.

Open and close the application boom in a safe zone.

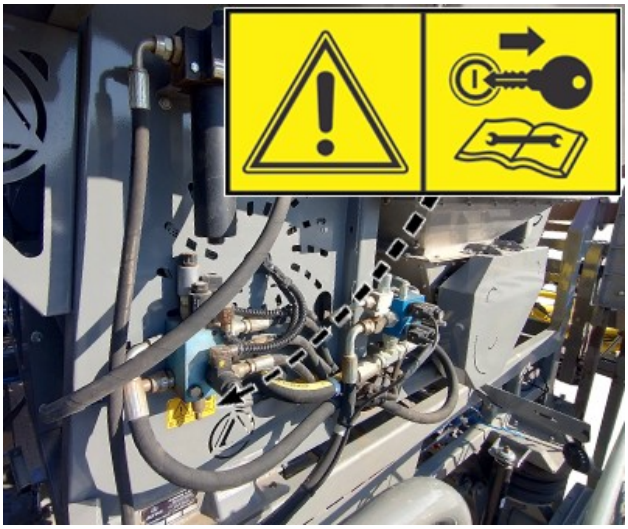
Fall Risks at Platforms, Ladders, and Access Points (Nutrient Applicator Only)

YE1375801—UN—02SEP24

CAUTION: Do not stand on platforms, ladders, nor access points during machine movement.

Do not allow riders over the machine.

Remove the Ignition Key (Nutrient Applicator Only)

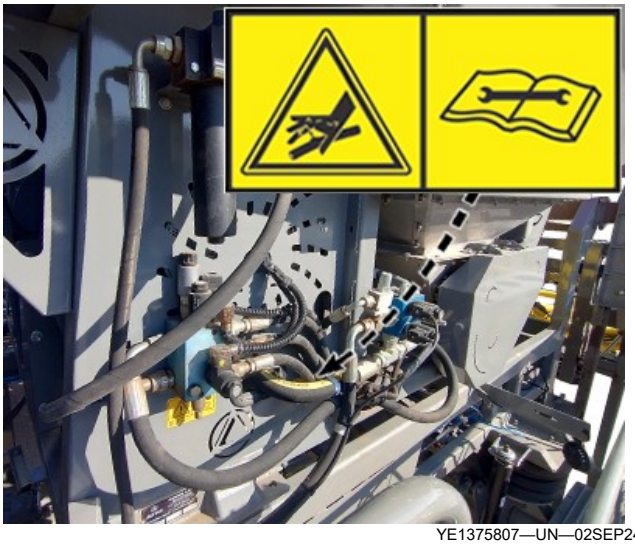


YE1375806—UN—02SEP24

CAUTION: Shut off the engine and remove the ignition key when leaving the machine.

Any adjust, service, or maintenance must be done with the machine stopped.

Risks of High-Pressurized Fluid Injection (Nutrient Applicator Only)

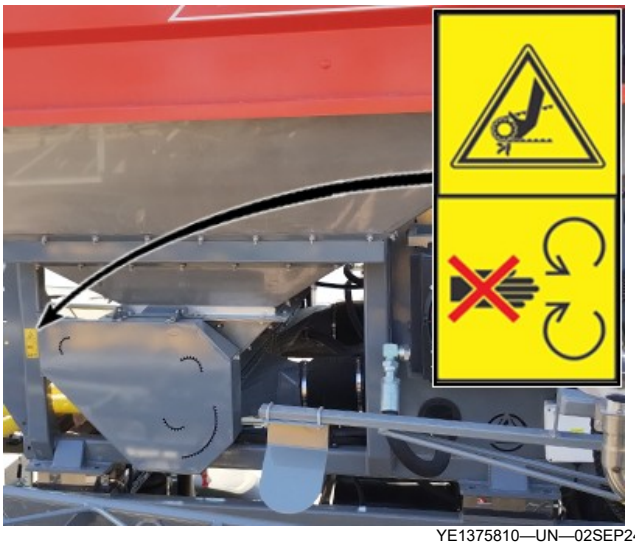


YE1375807—UN—02SEP24

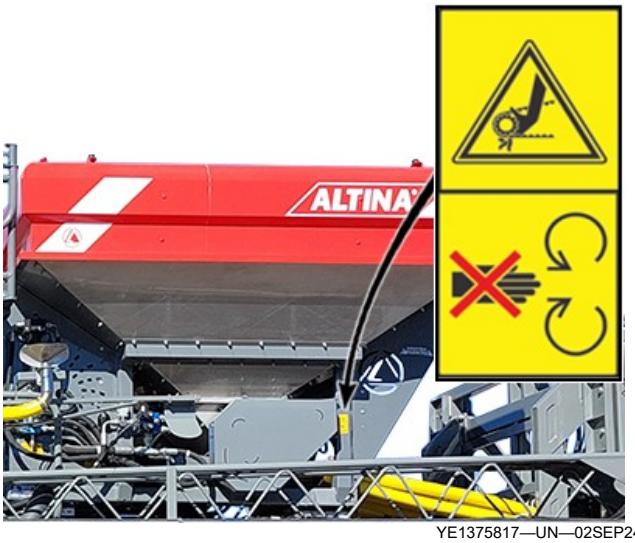
CAUTION: Respect the maintenance procedures.

Release the system pressure before performing any service.

Cutting Risks on Chain Drives (Nutrient Applicator Only)



YE1375810—UN—02SEP24



YE1375817—UN—02SEP24

Do not position the hands close to the chains or gears when they are rotating.

Check the correct installation of all machine side shields of before the operation.

Avoid Risks of Getting Stuck in Rotating Parts (Nutrient Applicator Only)

YE1375818—UN—02SEP24

CAUTION: Do not enter in the nutrient applicator box for any reason with the machine on.

Respect the safety procedures indicated in this manual for adjusts and maintenances.

Nutrient Applicator Box Fall Risks (Nutrient Applicator Only)

YE1375819—UN—02SEP24

CAUTION: Do not step or walk over the nutrient applicator roof, covers, or hand knobs.

A fall from this height may lead to serious injury or death.

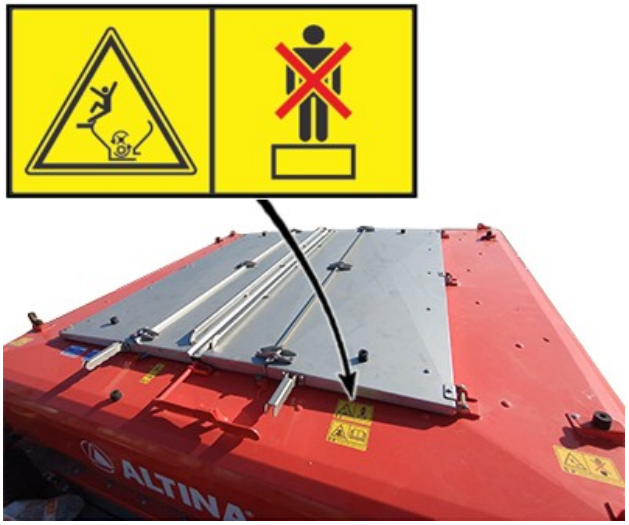
Risks of Intoxication by Toxic Gases (Nutrient Applicator Only)

YE1375821—UN—02SEP24

CAUTION: Use respiratory protection during the product load.

Position the machine against the wind so the toxic gases from the nutrient applicator box will not be directed to people.

Risks of Falling Inside the Nutrient Applicator Box (Nutrient Applicator Only)



YE1375820—UN—02SEP24

CAUTION: Do not stand over the sieves, and anti-clod sieves.

Never load material in the nutrient applicator box without the sieves.

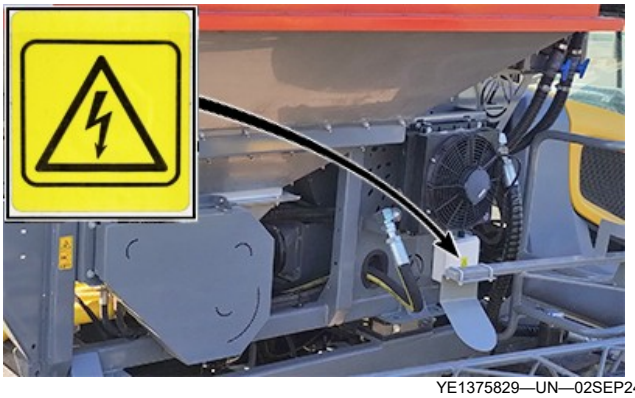
Crushing Risks on Load Covers (Nutrient Applicator Only)

YE1375822—UN—02SEP24

CAUTION: Open and close the load covers through the hand knobs.

Do not keep the hands near the closure/opening points of the load covers.

Electrical Risks (Nutrient Applicator Only)



YE1375829—UN—02SEP24

Personal Protection Equipment (Nutrient Applicator Only)

YE1375831—UN—02SEP24

CAUTION: The use of the indicated personal protective equipment is mandatory.

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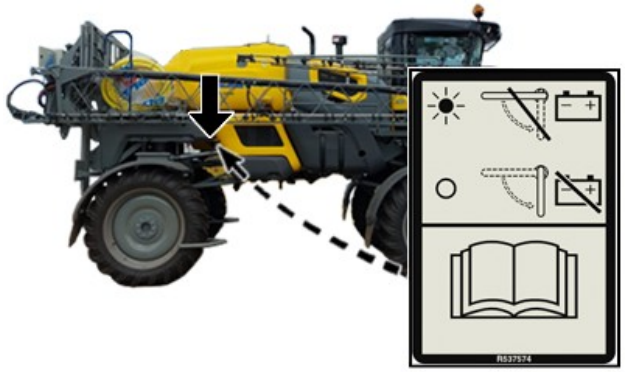
Information Signs

Battery Cut-Off Switch Decals

YE1385324—UN—13DEC24

Machines Equipped with Central Engine

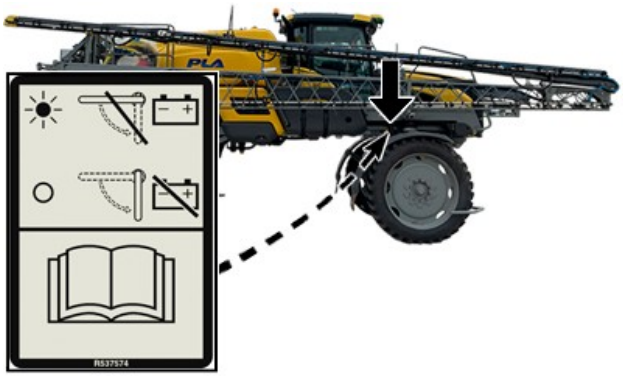


YE1385326—UN—13DEC24

Machines Equipped with Central Engine

YE001281—UN—02JAN24

Machines Equipped with Front Engine



YE001283—UN—02JAN24

Machines Equipped with Front Engine

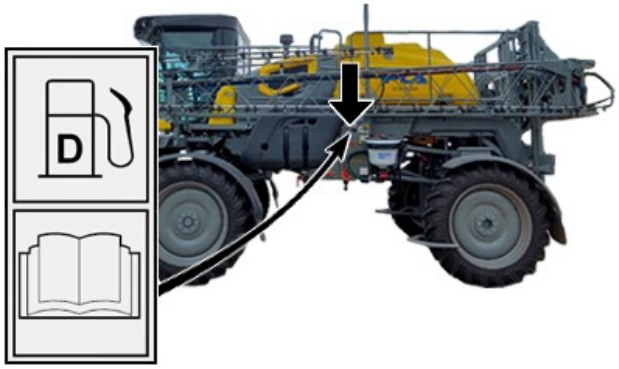
CAUTION: Prevent injury or death. Always turn the battery cut-off switch to OFF position when servicing or repairing the machine.

IMPORTANT: Never turn off the electrical system while the engine is running. This can result in serious damage to machine electrical components.

The decals indicate the ON and OFF positions of the battery cut-off switch:

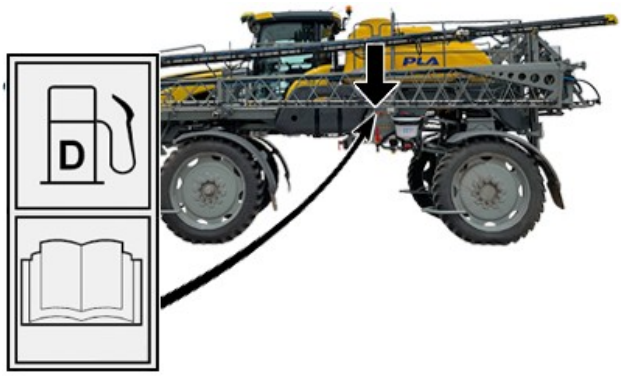
- **OFF Position:** shuts off the electrical current to the batteries, disconnecting them from the electrical system.
- **ON Position:** electrical current is passing through the batteries, connecting them to the electrical system.

Fuel Tank Decal



YE1385329—UN—10JAN25

Machines Equipped with Central Engine



YE1388546—UN—10JAN25

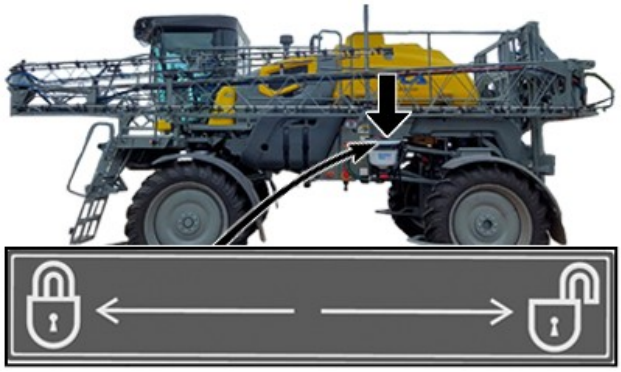
Machines Equipped with Front Engine

YE1385343—UN—03JAN25

Machines Equipped with Central Engine

The fuel tank decal indicates the fuel tank area.

Eductor Lock Decal (Self-Propelled Sprayers Only)

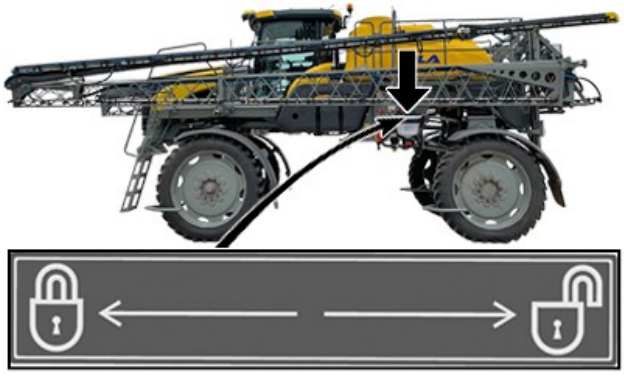


YE1385330—UN—13DEC24

Machines Equipped with Central Engine

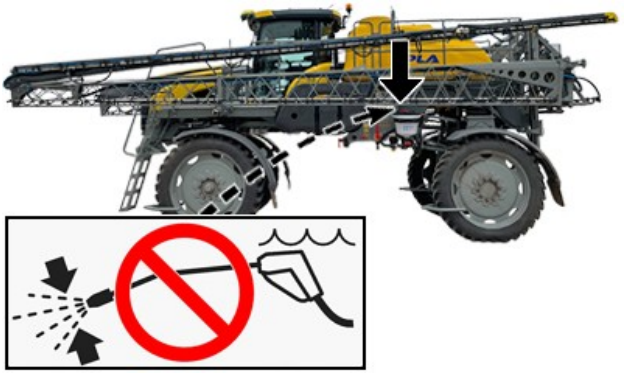
YE1385345—UN—03JAN25

Machines Equipped with Central Engine



YE001264—UN—02JAN24

Machines Equipped with Front Engine



YE1387569—UN—03JAN25

Machines Equipped with Front Engine

Component Wash Decal

NOTE: The exact decal position may vary according to machine model.

YE1387570—UN—03JAN25

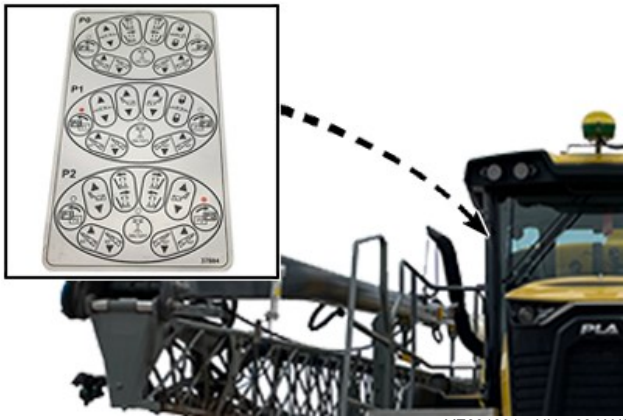
Machines Equipped with Front Engine

IMPORTANT: Do not wash with pressure these components. Use normal water pressure: less than 345 kPa (3.45 bar) (50 psi).

Functions of Multi-Function Lever Buttons

YE1385346—UN—13DEC24

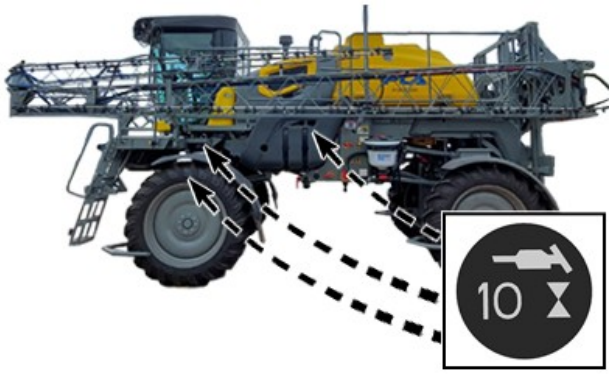
Machines Equipped with Central Engine



YE001031—UN—03JAN24

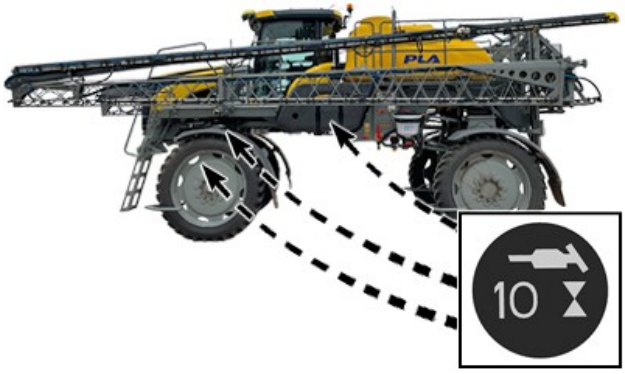
Machines Equipped with Front Engine

Critical Lubrication Points Decals



YE1385347—UN—13DEC24

Machines Equipped with Central Engine



YE001304—UN—02JAN24

Machines Equipped with Front Engine

The critical lubrication points decal indicates the lubrication points of the machine tha must be lubricated daily or every 10 hours.

See Lubricate Machine Critical Points in Service—Chassis and Spray/Application Boom section for details.

Safety and Information Signals Care (Nutrient Applicator Only)

YE1375833—UN—02SEP24

Information Regarding Air Leaks (Nutrient Applicator Only)

YE1375832—UN—02SEP24

Nutrient Applicator Hopper Pressure (Nutrient Applicator Only)

YE1375910—UN—02SEP24

Nutrient Applicator Box Load Capacity (Nutrient Applicator Only)

YE1375870—UN—02SEP24

Greasing Point (Nutrient Applicator Only)

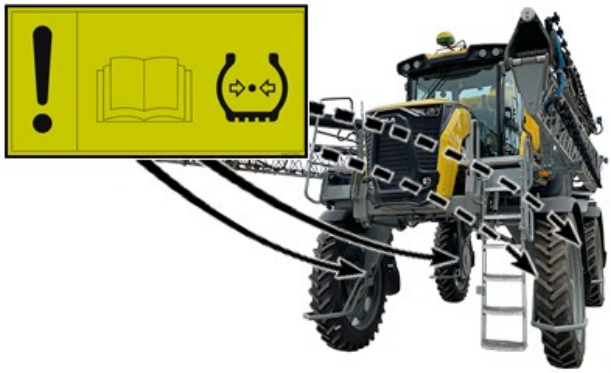
YE001045—UN—03JAN24

Indication of each greasing point of the machine.

Tire Inflation Pressure

YE1385401—UN—13DEC24

Machines Equipped with Central Engine



YE010719—UN—02JAN24

Machines Equipped with Front Engine

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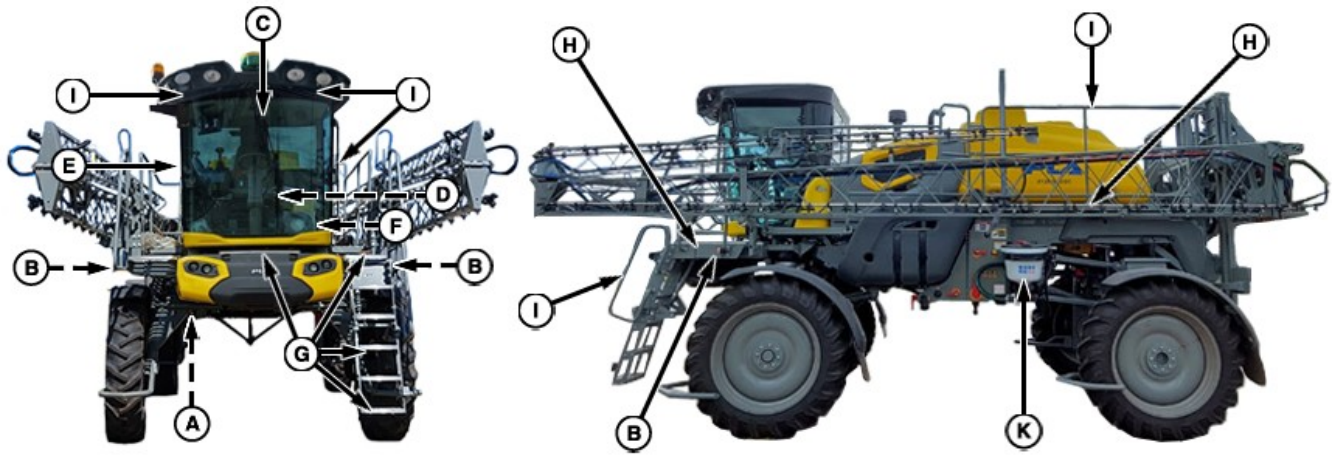
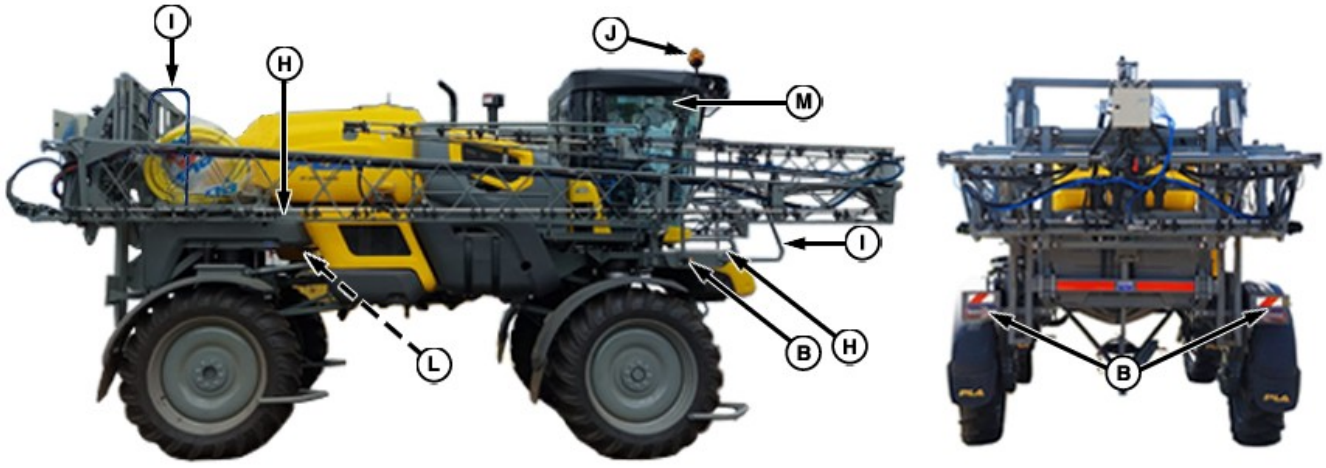
Safety Features—Self-Propelled Sprayers

NOTE: The images are for illustrative purposes only. Design and location of components vary according to machine model.

2900, 3300, and 3300 GD Self-Propelled Sprayers



YE1375928—UN—02SEP24

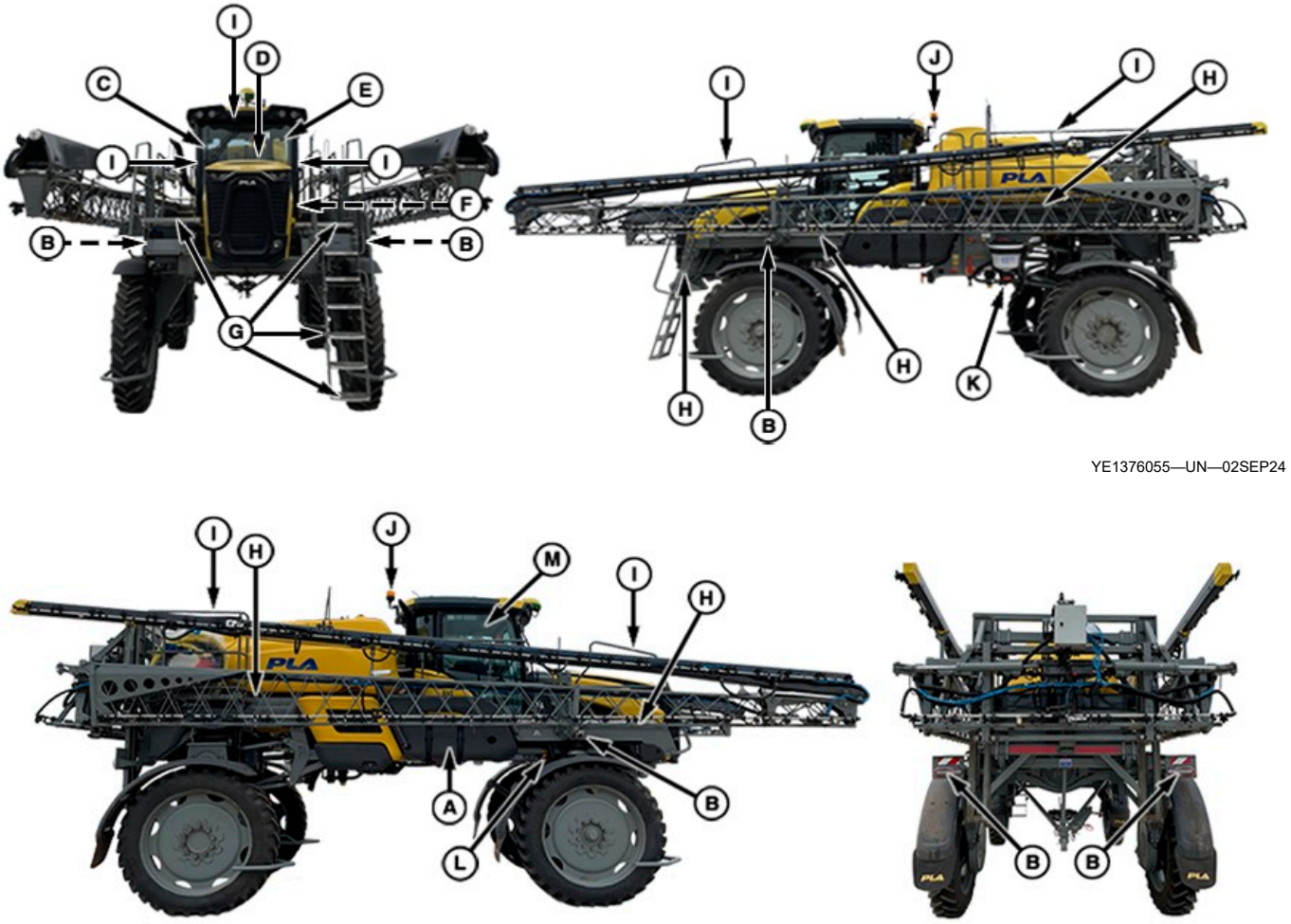


YE1375929—UN—02SEP24

2900, 3300, and 3300 GD Self-Propelled Sprayers

A—Clean Water Tank
B—Front and Rear Hazard Warning Lights and Reflector
C—Windshield Wiper
D—Seat Belt
E—Emergency Exit
F—General-Purpose Fire Extinguisher
G—Access Steps and Platforms
H—Slip Resistant Surfaces
I—Handrails
J—Beacon Light
K—Eductor
L—Battery Cut-Off Switch
M—Operator's Cab

3300 MD and 3600 MD Self-Propelled Sprayers



3300 MD and 3600 MD Self-Propelled Sprayers

A—Clean Water Tank
B—Front and Rear Hazard Warning Lights and Reflector
C—Windshield Wiper
D—Seat Belt
E—Emergency Hammer
F—General-Purpose Fire Extinguisher
G—Access Steps and Platforms
H—Slip Resistant Surfaces
I—Handrails
J—Beacon Light
K—Eductor
L—Battery Cut-Off Switch
M—Operator's Cab

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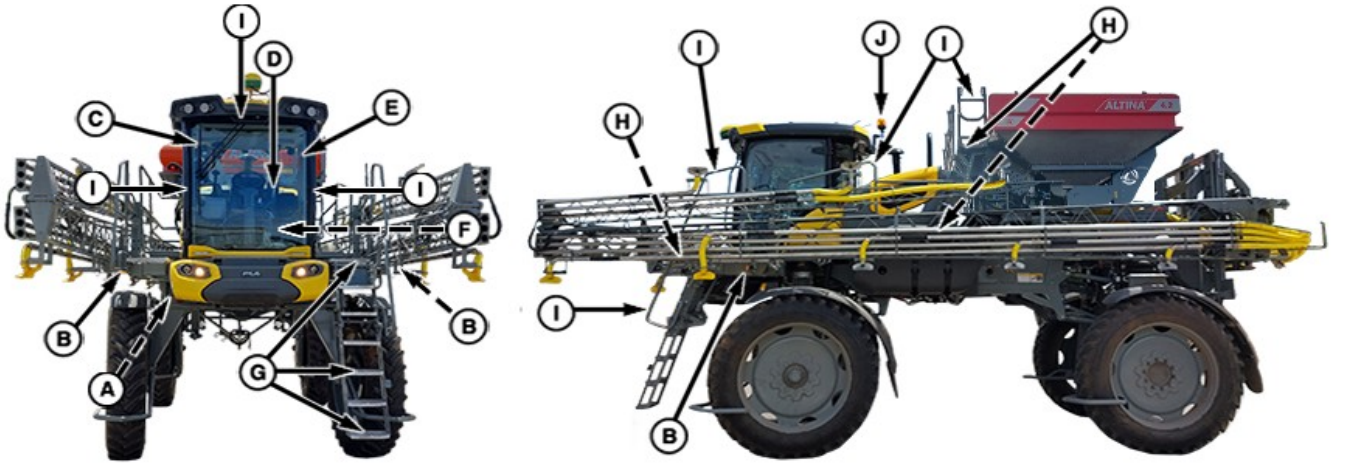
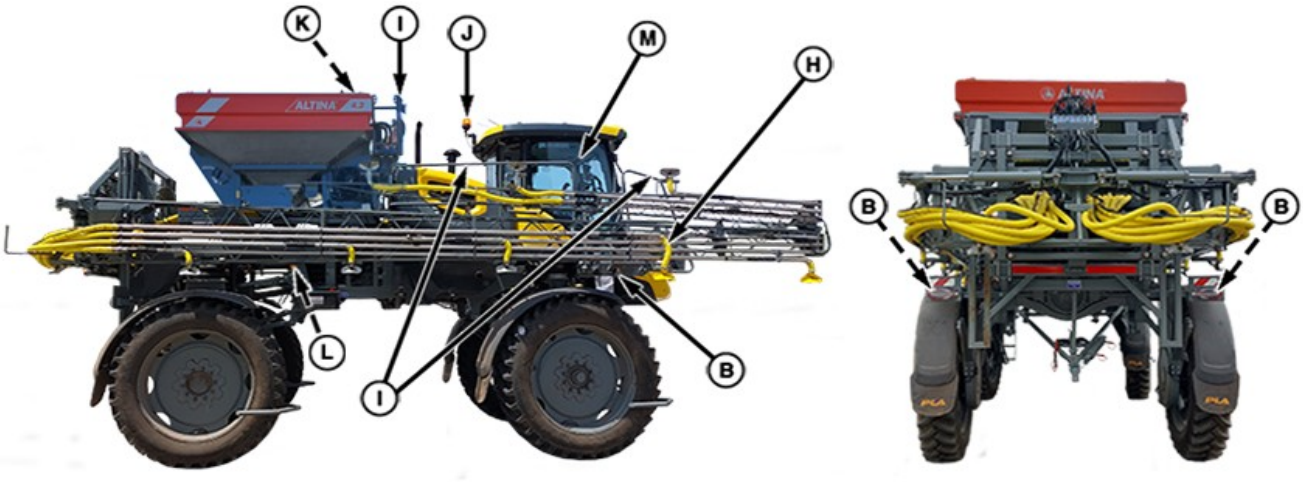
Safety Features—Nutrient Applicator



YE1376056—UN—02SEP24



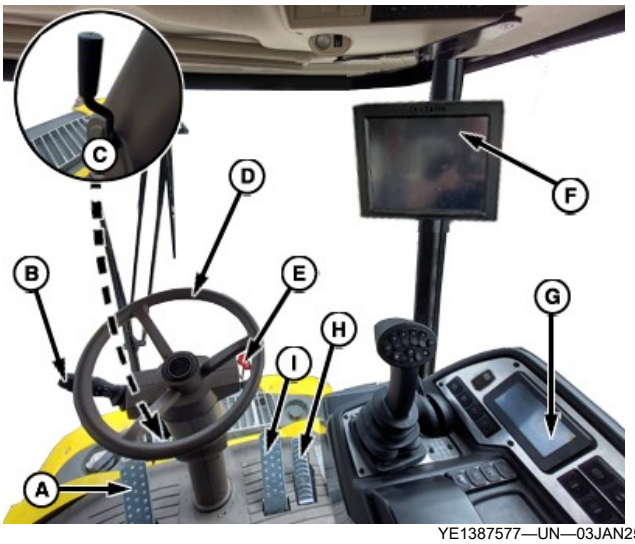
YE1376057—UN—18SEP24

Nutrient Applicator

A—Clean Water Tank
B—Front and Rear Hazard Warning Lights and Reflector
C—Windshield Wiper
D—Seat Belt
E—Emergency Hammer
F—General-Purpose Fire Extinguisher
G—Access Steps and Platforms
H—Slip Resistant Surfaces
I—Handrails
J—Beacon Light
K—Safety Load Cover Opening System
L—Battery Cut-Off Switch
M—Operator's Cab

jtlsx7f,1725288062891-19-02SEP24

Machine Controls

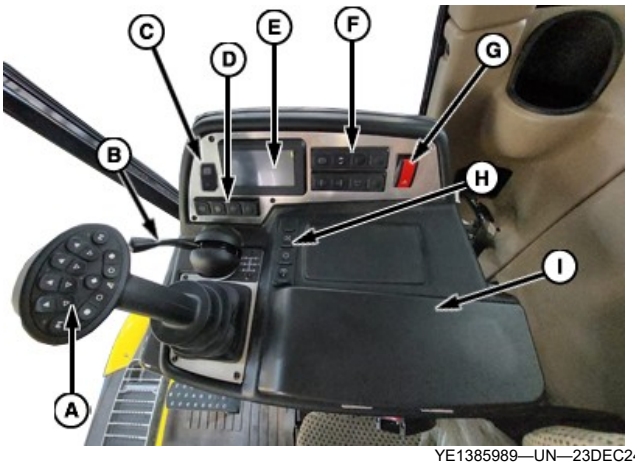


YE1387577—UN—03JAN25

A—Clutch Pedal
B—Lights and Turn-Signal Lever/Windshield Wiper and Washer System/ Horn
C—Steering Column Tilt Lever
D—Steering Wheel
E—Key Switch
F—Generation 4 Universal Display 4640
G—Right-Hand Side Console
H—Speed Control Pedal
I—Service Brake Pedal

edw8krp,1691503100278-19-02JAN25

Right-Hand Side Console—Machines Equipped with Eaton Manual Transmission

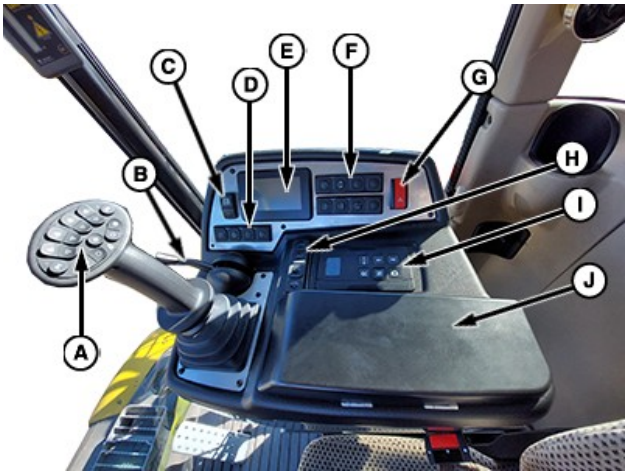


YE1385989—UN—23DEC24

A—Multi-Function Lever/Gearshift Lever
B—Hand Throttle Lever
C—AutoTrac ON/OFF Buttons
D—Set of Buttons 1
E—Display of the Right-Hand Side Console
F—Set of Buttons 2
G—Hazard Warning Light Switch
H—Set of Buttons 3
I—Armrest

jtlsx7f,1734108862611-19-13DEC24

Right-Hand Side Console—Machines Equipped with Allison Automatic Transmission



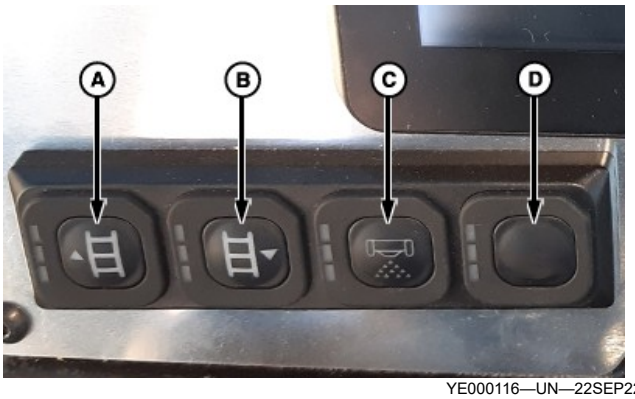
YE1385986—UN—13DEC24

A—Multi-Function Lever
B—Hand Throttle Lever
C—AutoTrac ON/OFF Buttons
D—Set of Buttons 1
E—Display of the Right-Hand Side Console
F—Set of Buttons 2
G—Hazard Warning Light Switch
H—Set of Buttons 3
I—Gearshift Selector
J—Armrest

jtlsx7f,1734108888036-19-13DEC24

Right-Hand Console Buttons

Set of Buttons 1



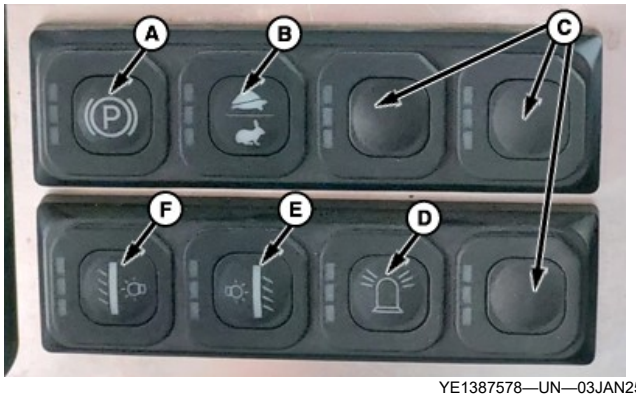
YE000116—UN—22SEP22

A—Ladder Up Button
B—Ladder Down Button
C—Solution Pump Button
D—Not Used

- **Ladder Up Button (A):** to raise the ladder, press and hold button (A) until the ladder fully raises.
- **Ladder Down Button (B):** to lower the ladder, press and hold button (B) until the ladder fully lowers.
- **Solution Pump Button (C):** to operate the solution

pump/turbine, press button (C). To turn it off, press it again.

Set of Buttons 2



YE1387578—UN—03JAN25

A—Park Brake Button
B—Differential High/Low Button
C—Not Used
D—Beacon Light Button
E—Round Worklights Button
F—Front Worklights Button

- **Park Brake Button (A):** hold on button (A) for 1.5 seconds to enable or disable park brake. When parking is enabled, the ladder lowers. When parking is disabled, the ladder raises.
- **Differential High/Low Button (B):** to operate at high idle, press button (B) for 1.5 seconds. To operate at low idle, press it again for the same period of time.

NOTE: For selecting high/low at differential, the machine must be stopped and the transmission must be in neutral.

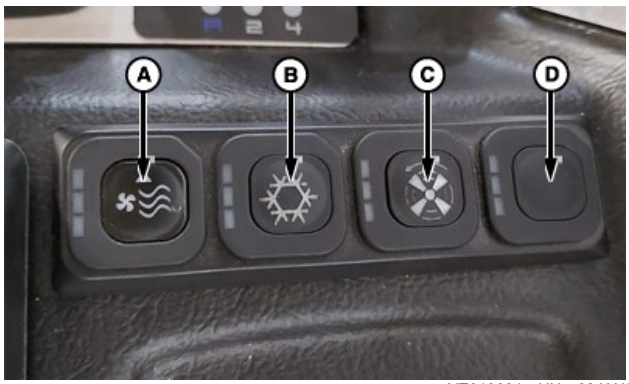
- **Beacon Light Button (D):** press button (D) to enable/disable beacon light.

YE001338—UN—02JAN24

1—Roof Outer Worklights/Roof Middle Worklights
2—Roof Inner Worklights (Low-Beam)
3—Roof Inner Worklights (High-Beam)
4—Rear Worklights

- **Rear Worklights Button (E):** to operate the round worklights at side of the machine that iluminate the spray boom, press button (E).
  a. **Pressing it once:** the two boom worklights are illuminated. A red light symbol (4) is shown on righ-hand side display. The four lights remain on.
  b. **Pressing it a second time:** shuts off all lights.
- **Front Worklights Button (F):** to operate the front worklights, press button (F).
  a. **Pressing it once:** the two roof outer/middle worklights are illuminated. A red light symbol (1) is shown on the right-hand side display.
  b. **Pressing it a second time**: the two roof inner worklights (low-beam mode) are also illuminated. A yellow light symbol (2) is shown on righ-hand side display. The six lights remain on.
  c. **Pressing it a third time:** changes the light intensity of the two roof inner worklights, from low-bean mode to high-beam mode. A yellow light symbol (3) is shown on right-hand side display. The six lights remain on.
  d. **Pressing it a fourth time:** shuts off all lights.

Set of Buttons 3



YE010604—UN—02JAN24

A—Air Heating Button
B—Air Conditioner Button
C—Fan Speed Button
D—Not Used

- **Air Heating Button (A):**
  a. **Pressing it once:** activates the air heating system without an specified temperature.

  NOTE: The fan automatically turns on at minimum speed.

  b. **Pressing it a second time:** turns off the air heating system.

YE010668—UN—02JAN24

E—Plus Button
F—Minus Button

c. **Keeping it pressed for 2 seconds:** activates the automatic mode of the air heating system. The temperature can be adjusted on the right-hand side display. Using the plus button (E) and the minus button (F), the temperature can be increased/decreased as required.

Lights on Left-Hand Side of the Air Heating Button		
Light	**Color**	**Meaning**
Lower Light	Purple	The air heating system is active.
Middle Light	Green	The air heating system is on.
Middle Light	White	The automatic mode of the air heating system is on.

- **Air Conditioner Button (B):**
  a. **Pressing it once:** activates the air conditioning system without an specified temperature.

NOTE: The fan automatically turns on at minimum speed.

b. **Pressing it a second time:** turns off the air conditioning system.
c. **Keeping it pressed for 2 seconds:** activates the automatic mode of the air conditioning system. The temperature can be set on the right-hand side display. Using the plus button (E) and the minus button (F), the temperature can be increased/decreased as required.

Lights on Left-Hand Side of the Air Conditioner Button		
Light	**Color**	**Meaning**
Lower Light	Purple	The air conditioning system is active.
Middle Light	Green	The air conditioning system on.
Middle Light	White	The automatic mode of the air conditioning system is on.
Upper Light	Blue/Purple	A fault was detected in the air conditioning system.[a]

[a] *See your PLA BY JOHN DEERE/JOHN DEERE authorized dealer.*

- **Fan Speed Button (C):**
  a. **Pressing it once:** activates the minimum fan speed.
  b. **Pressing it a second time:** activates the medium fan speed.
  c. **Pressing it a third time:** activates the maximum fan speed.
  d. **Pressing it a fourth time:** turns off the fan.

Lights on Left-Hand Side of the Fan Speed Button		
Light	**Color**	**Meaning**
Lower Light	Green	The fan speed is set to minimum.
Middle Light	Green	The fan speed is set to medium.
Upper Light	Green	The fan speed is set to maximum.

edw8krp,1691503120815-19-02JAN25

Machine Controls

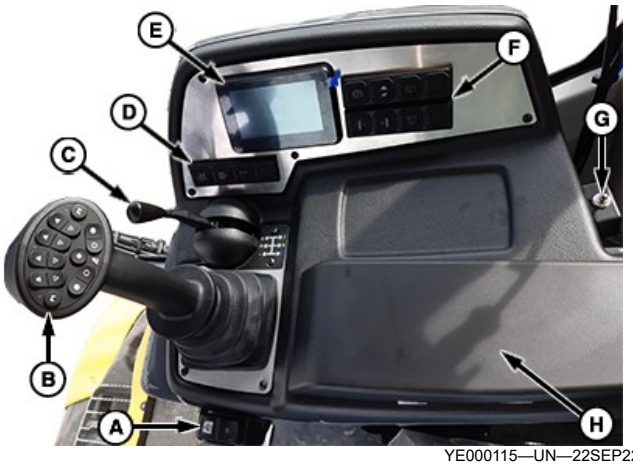
YE1387759—UN—03JAN25

A—Clutch Pedal (manual machines only)
B—Steering Column Adjust Button
C—Hazard Warning Light Button
D—Turn-Signal/High/Low-Beam Lights/Horn Lever
E—Steering Wheel
F—Height Adjustment Knob of Steering Column
G—Ignition Key Switch
H—Agrotax Display (nutrient applicators only)
I—Generation 4 Universal Display 4640
J—Right-Hand Side Console (varies according to machine transmission)
K—Speed Control Pedal
L—Service Brake Pedal
M—Steering Column Adjust Lever

NOTE: The steering wheel (E) has a maneuvering knob that facilitates its turning.

edw8krp,1672146823175-19-03JAN25

Right-Hand Side Console—Machines Equipped with Eaton Manual Transmission

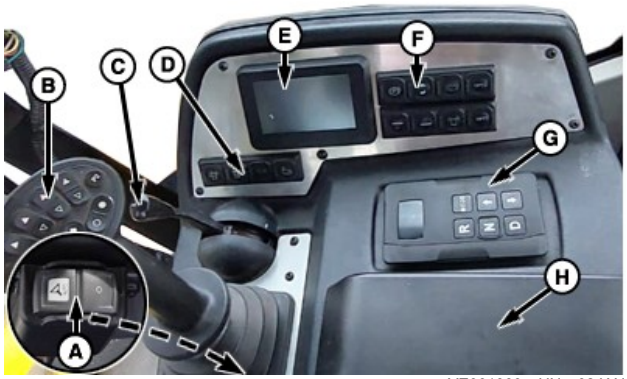


YE000115—UN—22SEP22

A—AutoTrac ON/OFF Buttons
B—Multi-Function Lever/Gearshift Lever
C—Hand Throttle Lever
D—Set of Buttons 1
E—Display of the Right-Hand Side Console
F—Set of Buttons 2
G—Dosifier Switch (nutrient applicators only)
H—Armrest

edw8krp,1672147230607-19-02JAN24

Right-Hand Side Console—Machines Equipped with Allison Automatic Transmission



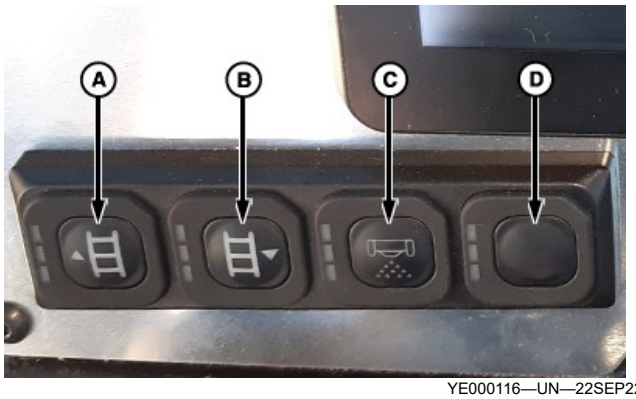
YE001339—UN—02JAN24

A—AutoTrac ON/OFF Buttons
B—Multi-Function Lever
C—Hand Throttle Lever
D—Set of Buttons 1
E—Display of the Right-Hand Side Console
F—Set of Buttons 2
G—Gearshift Selector
H—Armrest

edw8krp,1691503304423-19-02JAN24

Right-Hand Console Buttons

Set of Buttons 1



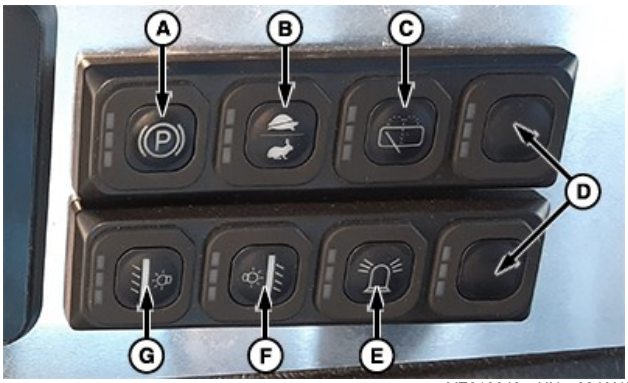
YE000116—UN—22SEP22

A—Ladder Up Button
B—Ladder Down Button
C—Solution Pump Button (self-propelled sprayers only) / Turbine Button (nutrient applicators only)
D—Not Used

- **Ladder Up (A) Button:** to raise the ladder, press and hold button (A) until the ladder fully raises.
- **Ladder Down (B) Button:** to lower the ladder, press and hold button (B) until the ladder fully lowers.

- **Solution Pump Button (self-propelled sprayers only)/Turbine Button (nutrient applicators only) (C):** to operate the solution pump/turbine, press button (C). To turn it off, press it again.

Set of Buttons 2



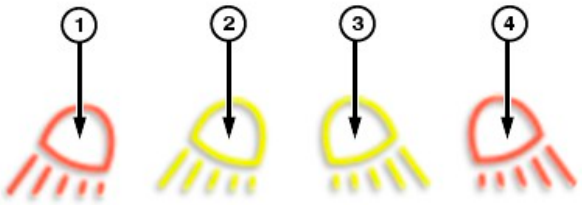
YE010648—UN—02JAN24

A—Park Brake Button
B—Differential High/Low Button
C—Windshield Wiper Button (two speeds)
D—Not Used
E—Beacon Light Button
F—Rear Worklights Button
G—Front Worklights Button

- **Park Brake Button (A):** hold on button (A) for 1.5 seconds to enable or disable park brake. When parking is enabled, the ladder lowers. When parking is disabled, the ladder raises.
- **Differential High/Low Button (B):** to operate at high idle, press button (B) for 1.5 seconds. To operate at low idle, press it again for the same period of time.

NOTE: For selecting high/low at differential, the machine must be stopped and the transmission must be in neutral.

- **Windshield Wiper Button (two speeds) (C):** to operate the windshield wiper, press button (C).
  a. To operate at low speed, press button (C) once.
  b. To operate at maximum speed, press button (C) twice.
  c. To stop it, press button (C) three times.
- **Beacon Light Button (E):** press button (E) to enable/disable beacon light.



YE001052—UN—03JAN24

1—Roof Upper Outer Worklights
2—Roof Upper Inner Worklights
3—Roof Rear Worklights
4—Boom Worklights

- **Rear Worklights Button (F):** to operate the rear worklights, press button (F).
  a. **Pressing it once:** the two lights on the upper rear portion of the roof are illuminated. A yellow light symbol (3) is shown on the right-hand side display.
  b. **Pressing it a second time:** the two boom worklights are illuminated. A red light symbol (4) is shown on righ-hand side display. The four lights remain on.
  c. **Pressing it a third time:** shuts off all lights.
- **Front Worklights Button (G):** to operate the front worklights, press button (G).
  a. **Pressing it once:** the two roof upper outer worklights are illuminated. A red light (1) is shown on the right-hand side display.
  b. **Pressing it a second time**: the two roof upper inner worklights are also illuminated. A yellow light symbol (2) is shown on righ-hand side display. The four lights remain on.
  c. **Pressing it a third time:** shuts off all lights.

edw8krp,1672148065612-19-10OCT23

Hand Throttle Lever

YE000110—UN—22SEP22

IMPORTANT: Avoid machine damage. The hand throttle lever (A) must not be used for machine transport operations.

The hand throttle lever (A) allows to maintain the engine speed constant for operations outside the cab that need an specific engine speed, such as chemical product load.

Moving the hand throttle lever (A) rearward, the engine speed is increased. Moving the lever forward, the engine speed is decreased.

edw8krp,1672148365937-19-02JAN24

Park Brake

YE010606—UN—02JAN24

To activate the park brake, hold on the park brake switch (A) for 1.5 seconds. This switch is located on the the right-hand side console.

When park brake is enabled, the ladder lowers. When park brake is disabled, the ladder raises.

edw8krp,1691503287401-19-29SEP23

Multi-Function Lever

YE000114—UN—22SEP22

There is a multi-function lever (A) on the right-hand side console. By combining the two buttons P1 and P2 of the lever, various functions related to hydraulic and solution systems can be performed.

To see details of the available functions of the multi-function lever (A), see Spray/Application Boom Controls in Spray/Application Boom section of this manual.

Besides the standard features of the multi-function lever (A), additional functions are available according to machine model:

- **Machines Equipped with Eaton Manual Transmission:** used to change gears.

NOTE: See Multi-Function Lever—Machines Equipped with Eaton Manual Transmission in Operator Controls section for details.

- **Machines Equipped with Allison Automatic Transmission:** this lever is fixed, without any additional function.

jtlsx7f,1663079688411-19-27DEC22

Multi-Function Lever—Machines Equipped with Eaton Manual Transmission

YE000123—UN—22SEP22

NOTE: Use the diagram (B) to understand the available gears and their positions.

To select gears, perform the following procedure:

1. Release the park brake.
2. Press the clutch pedal until the end of course and select the desired gear using the multi-function lever (A).
3. Slowly and progressively release the clutch pedal to start moving the machine.

edw8krp,1672148688650-19-27DEC22

Gearshift Selector—Machines Equipped with Allison Automatic Transmission

NOTE: When engine speed is above 1200 rpm, the transmission does not allow the gear shift. An error symbol is shown.

YE1387579—UN—03JAN25

The following buttons are available in the gearshift selector (A):

YE010670—UN—02JAN24

- **Reverse (R):** allows machine rearward movement.
- **Neutral (N):** sets the transmission to neutral.
- **Direct (D):** allows machine forward movement.
- **ECO Mode (B):** shifts between ECO mode and work mode.

*NOTE: When the ECO mode is active, the word "**MODE**" is shown on the gearshift selector display.*

- **Up Arrow (C) and Down Arrow (E):** used to set the number of maximum gears for the machine to operate (1—4). Pressing the up arrow (C) increases the number of gears available for operation and pressing the down arrow (E) decreases this number. The number on the left-hand side of the display (F) is what the operator defines as maximum gear and the number on the right-hand side of the display (G) is the actual gear of the machine.

To use the gearshift selector, perform the following procedure:

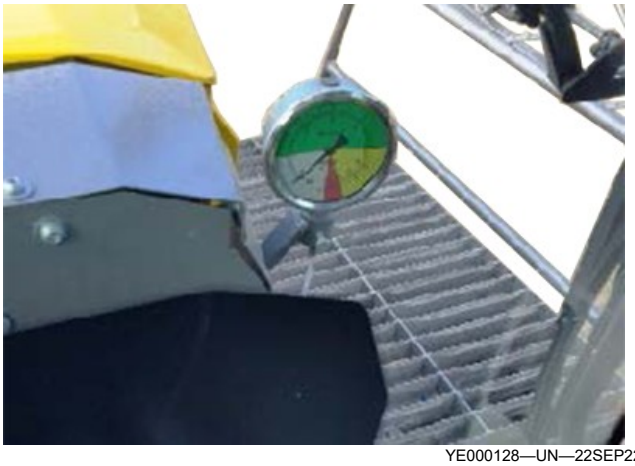
1. With engine running at no more than 1000 rpm, press the brake pedal to allow the transmission gear shift.
2. Put the transmission in neutral with the neutral button (N).
3. To set the number of maximum gears for operation, press the direct button (D) and the arrows (C) and (E) as desired.
4. Release the brake pedal and start moving the machine.
5. If it's neccesary to operate the machine in reverse direction:
   a. Stop the machine.
   b. With engine running at no more than 1000 rpm, press the brake pedal.
   c. Press the neutral button (N).
   d. Press the reverse button (R).
   e. Release the brake pedal and start moving the machine.

edw8krp,1693424175477-19-02JAN25

Pressure Control of the Spray System (Self-Propelled Sprayers Only)

YE000127—UN—22SEP22

Manometer—Machines Equipped with Central Engine



YE000128—UN—22SEP22

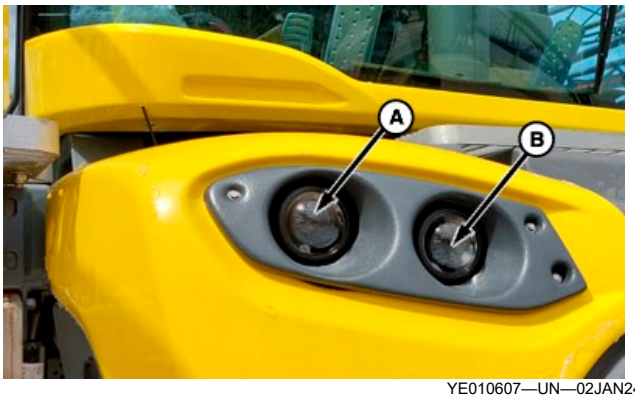
Manometer—Machines Equipped with Front Engine

On the external side of the cab, there is a manometer that informs the spray circuit pressure.

jtlsx7f,1661285425376-19-25NOV22

Lights—Sprayers with Central Engine

Overview



YE010607—UN—02JAN24

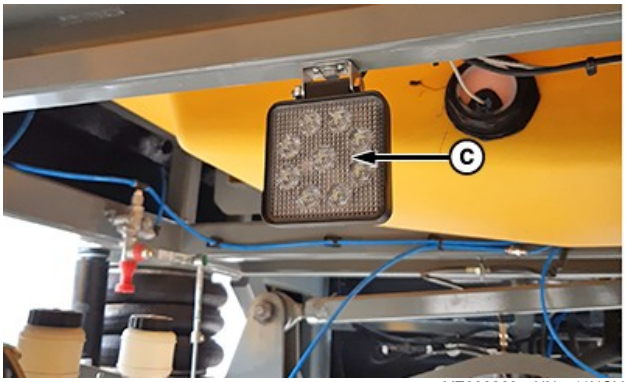
Headlights and Position Lights

The machine main lighting is provided by position lights (A) and (B).

The lights (A) and (B) have their functionalities changed according to the lights lever position.

When the low-beam headlight position is set at the lights lever, the inner lights (B) turn on as low-beam headlights.

When the high-beam headlight position is set at the lights lever, the outer lights (A) turn on as high-beam headlights.



YE000269—UN—11NOV22

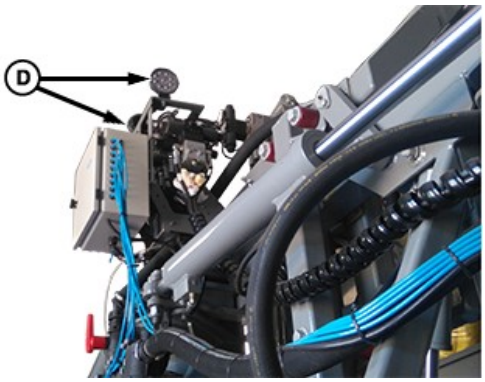
Square Worklights—Under the Machine

YE000405—UN—17NOV22

Square Worklights—Engine (1 at each engine side)

YE1387036—UN—23DEC24

Square Worklights—Spray Panel

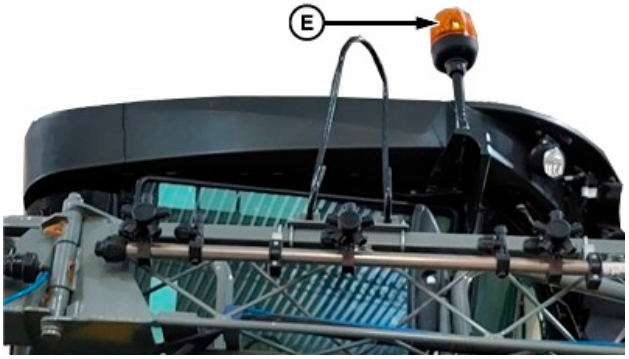


YE1387038—UN—23DEC24

Round Worklights—Spray Boom Center Frame

YE1387580—UN—03JAN25

Front Round Worklights—Cab



YE010609—UN—02JAN24

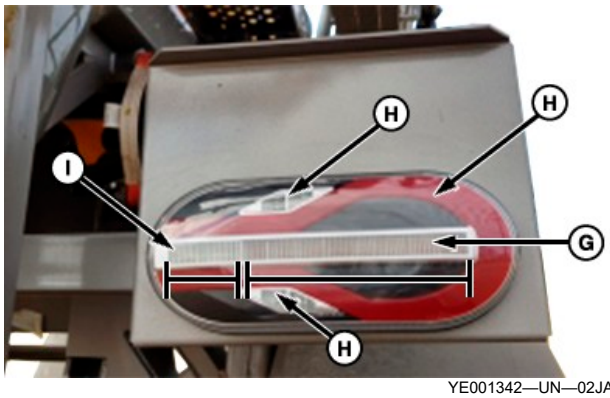
Beacon Light

Lighting for work is provided by square worklights (C) and round worklights (D).

The beacon light (E) alerts people around of the machine presence.

YE1387747—UN—03JAN25

Front Turn-Signal Lights



YE001342—UN—02JAN24

Rear Turn-Signal Lights

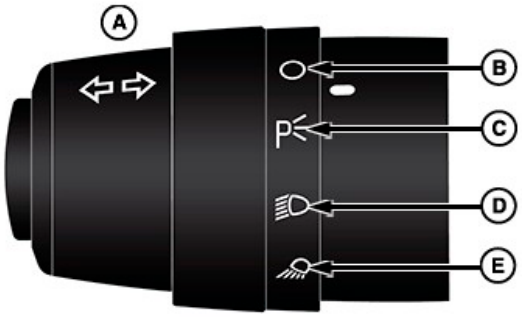
There are front (F) and rear (G) turn-signal lights, used to indicate machine turns.

Brake lights (H) and reverse gear lights (I) are also available.

jtlsx7f,1734982624022-19-03JAN25

Lights and Turn-Signal Lever

The lights and turn-signal lever is located on the steering column left-hand side. To activate the functions available in this lever, the ignition key must be in accessory position.



YE010628—UN—02JAN24

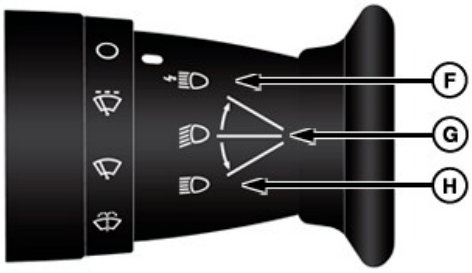
A—Turning Direction
B—OFF
C—Position Lights
D—Low-Beam Headlights
E—Not Used

- **Turn-Signal Lights:** used to indicate the machine turning direction (A). To indicate a turn for the right-hand side, push up the lever. To indicate a turn for the left-hand side, push down the lever.

The selective switch available in the outer end of the turn-signal lever is used for controlling the activation of the machine lights. This selective switch has four positions:

- **OFF (B):** turns off all the machine lights.
- **Position Lights (C):** turns on the position lights.
- **Low-Beam Headlights (D) :** turns on the low-beam headlights.
- **Not Used (E)**

The lever has three positions for selecting the headlights mode:



YF000138—UN—06APR23

F—Momentary High-Beam Headlights
G—Low-Beam Headlights
H—High-Beam Headlights

- **Momentary High-Beam Headlights (F):** flashes the high-beam headlights.
- **Low-Beam Headlights (G):** operates the headlights at low-beam.

CAUTION: Avoid injury or death caused by a collision with another vehicle. Always obey the traffic laws when driving on public roads. Use the headlights on low-beam mode for oncoming vehicles.

- **High-Beam Headlights (H):** operates the headlights at high-beam.

edw8krp,1692816523096-19-11SEP23

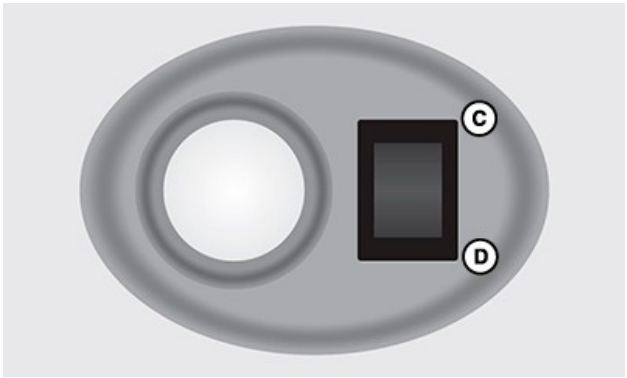
Dome Light and Console Light

There are two lights inside the cab that illuminate the cab during night operations or at low-light conditions.

YE001341—UN—02JAN24

A—Console Light
B—Dome Light

The console light (A) is activated through a 2-position switch with the following functions:

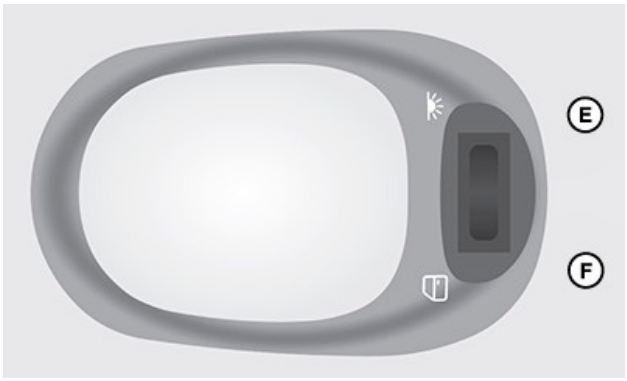


YF000153—UN—06APR23

Console Light

- **ON (C)**
- **OFF (D)**

The dome light (B) is activated through a 2-position switch with the folllowing functions:



YE010620—UN—02JAN24

Dome Light

- **ON Position (E):** the light remains always on.
- **OFF Position (F):** the light remains always off.

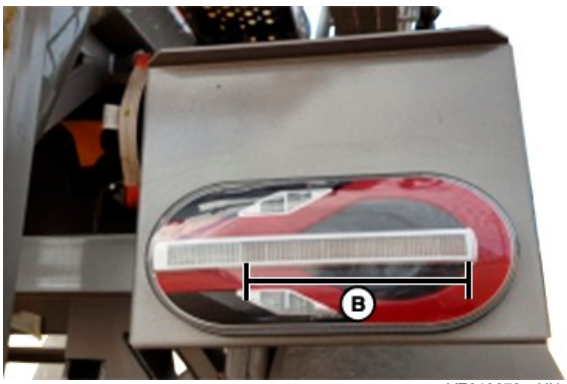
edw8krp,1692817733687-19-06SEP23

Hazard Warning Light Switch

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

YE1387748—UN—03JAN25

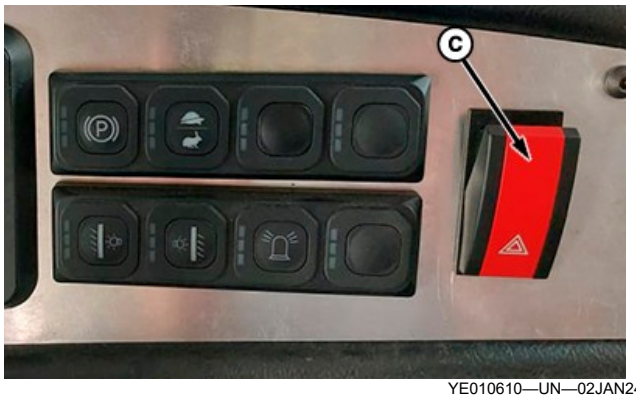
Front Warning Lights



YE010673—UN—02JAN24

Rear Warning Lights

The machine has intermittent front (A) and rear warning lights (B).



YE010610—UN—02JAN24

To activate the hazard warning lights, press the hazard warning light switch (C).

jtlsx7f,1735914803291-19-03JAN25

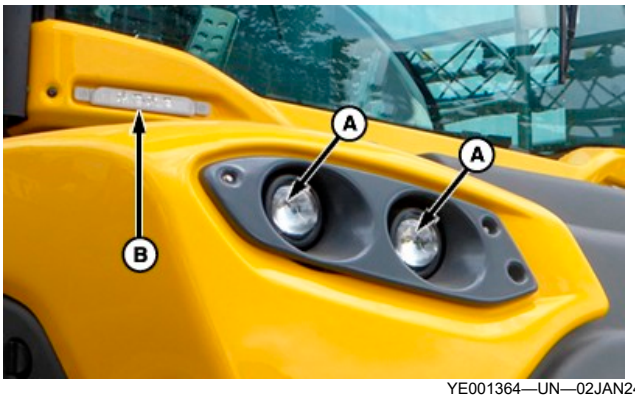
Beacon Light Button

YE010611—UN—02JAN24

Use the beacon light button (A) when driving slowly and when vehicle width is excessive.

edw8krp,1691583564973-19-06SEP23

Overview



YE001364—UN—02JAN24

Headlights and Position Lights—Nutrient Applicators

YE001365—UN—02JAN24

Headlights and Position Lights—Sprayers Equipped with Front Engine

The machine main lighting is provided by position lights (A) and (B).

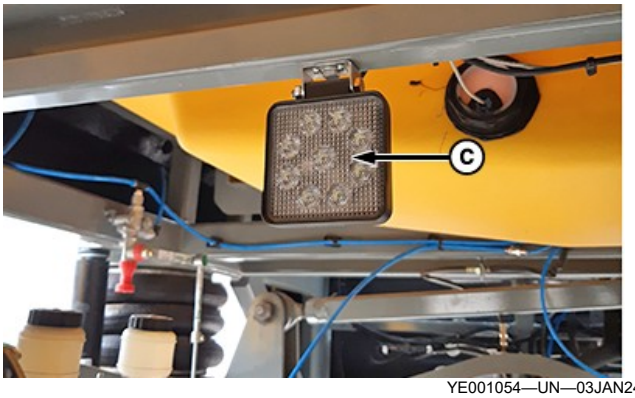
The lights (A) have their functionalities changed according to the lights lever position.

Nutrient Applicators:

- When the low-beam headlight position is set at the lights lever, the inner lights (A) turn on as low-beam headlights.
- When the high-beam headlight position is set at the lights lever, the outer lights (A) turn on as high-beam headlights.

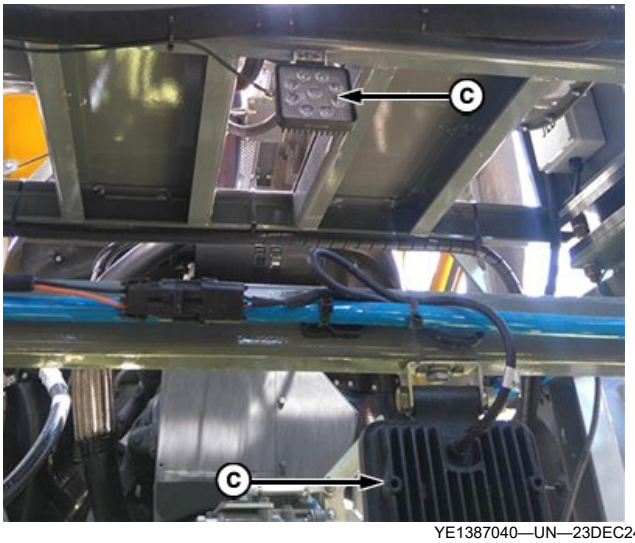
Sprayers Equipped with Front Engine:

- When the low-beam headlight position is set at the lights lever, the four lights (A) turn on as low-beam headlights.
- When the high-beam headlight position is set at the lights lever, the upper lights (A) turn on in a brighter way as high-beam headlights.



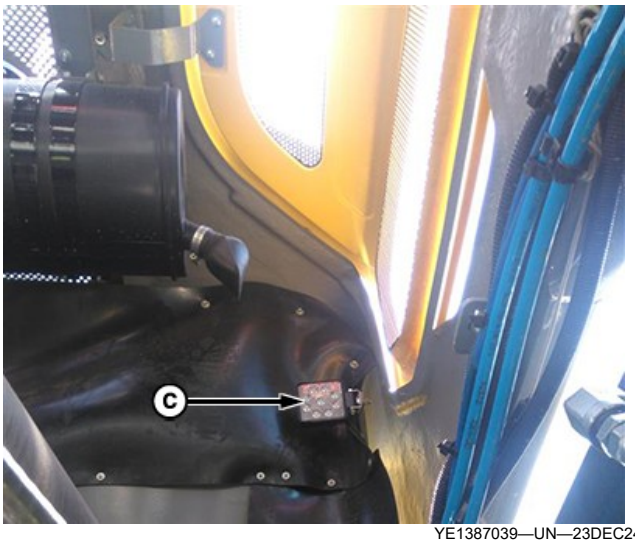
YE001054—UN—03JAN24

Square Worklights—Under the Machine (sprayers equipped with front engine)



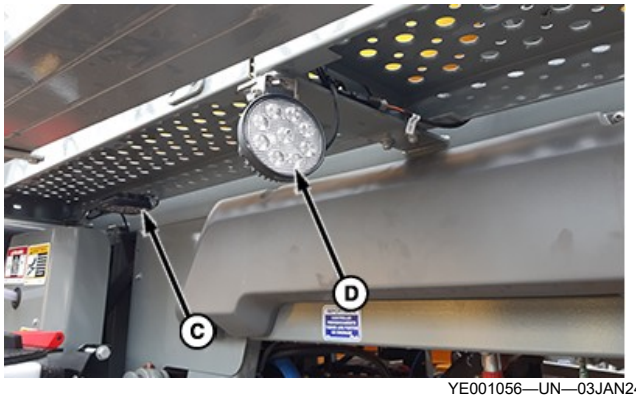
YE1387040—UN—23DEC24

Square Worklights—Under the Machine (nutrient applicators)



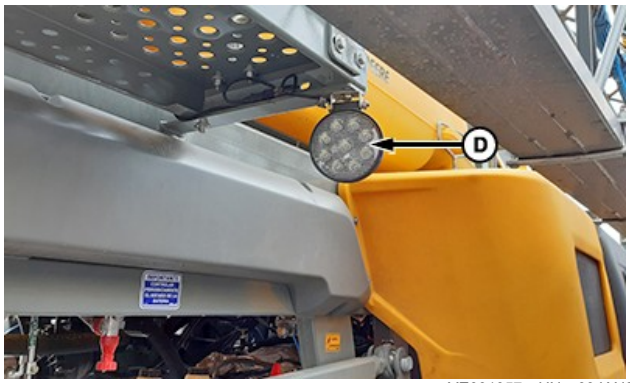
YE1387039—UN—23DEC24

Square Worklights—Engine (nutrient applicators)



YE001056—UN—03JAN24

Square Worklights—Spray Panel/Left Round Worklights—Spray/Application Boom

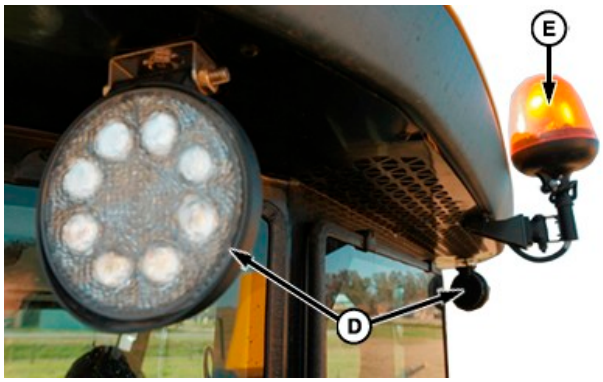


YE001057—UN—03JAN24

Right Round Worklights—Spray/Application Boom

YE001058—UN—03JAN24

Front Round Worklights—Cab



YE001059—UN—03JAN24

Rear Round Worklights—Cab/Beacon Light

Lighting for work is provided by square worklights (C) and round worklights (D).

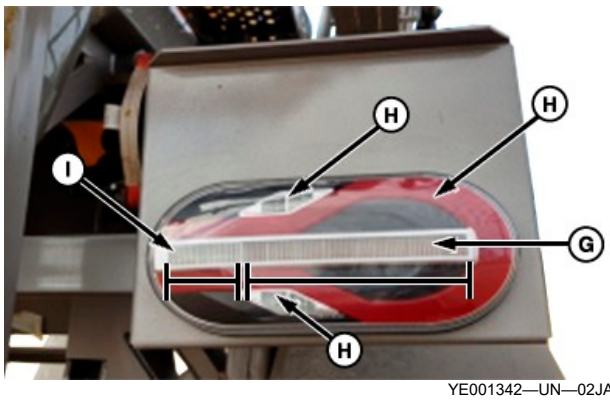
The beacon light (E) alerts people around of the machine presence.

YE1387747—UN—03JAN25

Front Turn-Signal Lights—Nutrient Applicators

YE010683—UN—02JAN24

Front Turn-Signal Lights—Sprayers Equipped with Front Engine



YE001342—UN—02JAN24

Rear Turn-Signal Lights

There are front (F) and rear (G) turn-signal lights, used to indicate machine turns.

Brake lights (H) and reverse gear lights (I) are also available.

jtlsx7f,1734984594148-19-03JAN25

Cab Inside Lights

The controls of the cab inside lights are on the center of the cab roof.

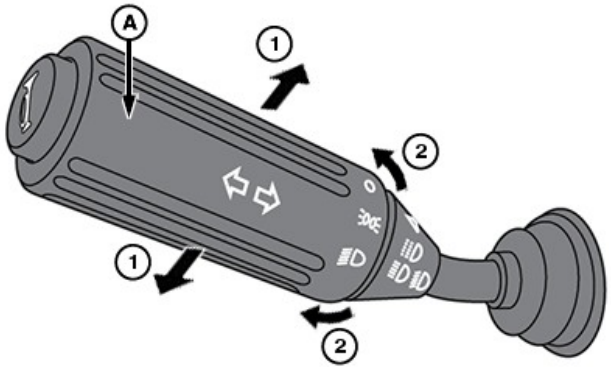
YE000008—UN—22SEP22

Cab Inside Lights

Two independent lights are available. To turn them on, use the light switches (A).

jtlsx7f,1658401507309-19-21JUL22

Turn-Signal and High/Low-Beam Lights Lever



YE000009—UN—22SEP22

Turn-Signal and High/Low-Beam Lights Lever

The lever (A) is on the left-hand side of the steering column.

With this lever, it is possible to control the following lights:

- **Turn-Signal Lights (1):** pull up the lever (A) up for a right turn, or pull down for a left turn. Return the lever to center position after completing turn.

CAUTION: Avoid injury or death caused by a collision with another vehicle. Always obey the traffic laws when driving on public roads. Use the headlights on low-beam mode for oncoming vehicles.

- **High/Low Beam Lights (2):** push the lever (A) to alternate between high and low-beam mode for the headlights.

jtlsx7f,1658401536685-19-12SEP23

Hazard Warning Light Button

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

The warning lights are intermittent and are on the front and rear of the machine.

YE000010—UN—22SEP22

Hazard Warning Light Switch

To activate the warning lights, press the button (A) on the steering column.

jtlsx7f,1658401659981-19-06SEP23

Beacon Light Button

YE001343—UN—02JAN24

Use the beacon light button (A) when driving slowly and when vehicle width is excessive.

jtlsx7f,1694029678471-19-06SEP23

General Information

The cab attends to the essential requirements for working in the field, such as comfort, safety, and simplified operation. Its access is made through the door on the left-hand side of the cab, near the ladder.

NOTE: See Access to the Cab in Access to Service Points section.

For self-propelled sprayers with central engine, the emergency exit is on the right-hand side of the cab.

NOTE: See Emergency Exit (Sprayers with Central Engine) in Operator's Station section.

For self-propelled sprayers with front engine and nutrient applicators with central engine, an emergency hammer is avaliable at left-hand side of cab.

NOTE: See Emergency Exit Hammer (Sprayers with Front Engine and Nutrient Applicators with Central Engine) in Operator's Station section.

The air purifying is made through carbon activated filters.

NOTE: For self-propelled sprayers with central engine, a cab pressure indicador is avaliable for indicating the status os the cab pressurization. (See Cab Pressure Indicator (Sprayers with Central Engine) in Operator's Station section.)

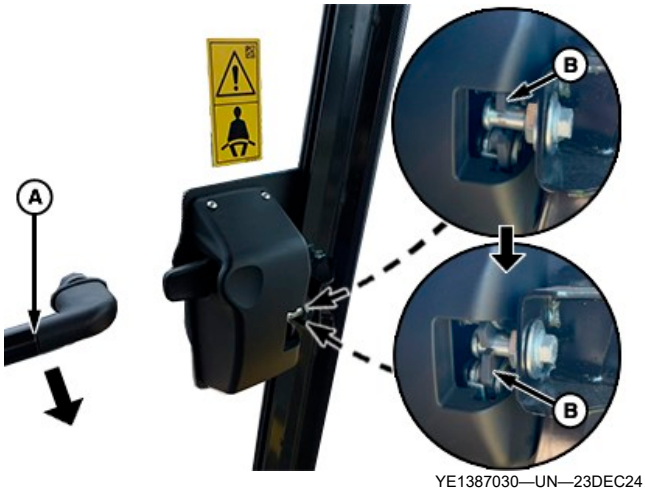
For self-propelled sprayers with central engine, there is a filter on the cab roof, and another one under the operator's seat.

For other machine models, there are two carbon activated filters at the cab roof.

NOTE: See Service—Operator's Station section for details.

CAUTION: Avoid contamination by chemical products. Keep door totally closed during operation and product filling.

Before starting the operation or driving the machine, make sure the door is securely closed. For ensuring the sealing of the cab, the door must be completely closed.



YE1387030—UN—23DEC24

Door 2-Stage Lock—Sprayers with Central Engine Only

CAUTION: For sprayers with central engine, the door is equipped with a 2-stage lock (B). Always make sure the door is fully locked at its second stage.

To make sure the door is locked to its second stage, after the door is closed, pull the door inside handle (A) one more time until a click is listen.

CAUTION: Exposure to chemicals, including pesticides, can cause injury or death.

Wear personal protective equipment in accordance with the chemical manufacturer label. (See Safety Equipment in Solution System section.)

DO NOT rely only on the machine cab, cab pressure indicator (only for sprayers with central engine), or on the cab air filters as a full protection against chemical exposure.

If the door is not fully locked at its second stage, cab is not correctly pressurized.

IMPORTANT: Avoid damage to the cab door. If the door is not correctly locked at its second stage, damage to door may occur due to vibration. To keep the integrity of the door, always keep the dor correctly locked at its second stage. See images for reference.

YE1388612—UN—10JAN25

Door Not Fully Locked (Incorrect)

YE1388613—UN—10JAN25

Door Correctly Locked

The climate control system regulates the cab inside temperature by heating or cooling the air, as well as possibilities the configuration of the air speed. The air louvers on the cab are used for adjusting the air flow.

NOTE: See Heater-Ventilation/Air-Conditioning System (HVAC) Operation in Operator's Station section for details.

The operator's seat is located in the central portion of the cab and can be adjusted in relation to the steering wheel and operation console. The operator's seat suspension is electrically activated and can be regulated according to the operator's weight.

NOTE: See Operator's Seat in Operator's Station section.

The steering column has the main driving functions of the machine and can be adjusted to different positions as desired by the operator.

NOTE: See Steering Column in Operator's Station section.

The operation console is attached to the operator's seat, creating an ergonomic assembly. Trhough this assembly, the operator can operate various machine functions such as transmission controls, hydraulic and electrical features, as well as control the spray/ application.

NOTE: See Right-Hand Side Console in Operator's Station section.

Another features are also available in the cab for controlling machine functions and improve operator comfort. For details, see the all the procedures of this section.

jtlsx7f,1733831567702-19-13JAN25

Cab

YE1387582—UN—03JAN25

Sprayers with Central Engine

YE000169—UN—22SEP22

Sprayers with Front Engine and Nutrient Applicators with Central Engine

The cab of the machine provides wide visibility, the space needed for the operator and an eventual additional person, and all of the controls needed for the correct operation of the machine.

NOTE: The image is for illustration purposes only. Your machine may have little differences.

jtlsx7f,1733833159707-19-02JAN25

Cab Door Damper (Sprayers with Central Engine)

YE1387848—UN—06JAN25

Cab Door Damper Location

YE1387849—UN—06JAN25

Cab Door Damper

For sprayers with central engine, the machine is equipped with a cab door damper (A) fixed on the platform. This cab door damper (A) avoid shocks between the cab door and machine structure when the door is opened.

IMPORTANT: Avoid cab door damage. Cab door damper (A) is extremely important for cab door integrity. Do not remove it from machine.

jtlsx7f,1736161450608-19-06JAN25

Emergency Exit (Sprayers with Central Engine)

CAUTION: Avoid accidents. The cab does not have a ladder on its right-hand side. When using the emergency exit, get off the machine carefully.

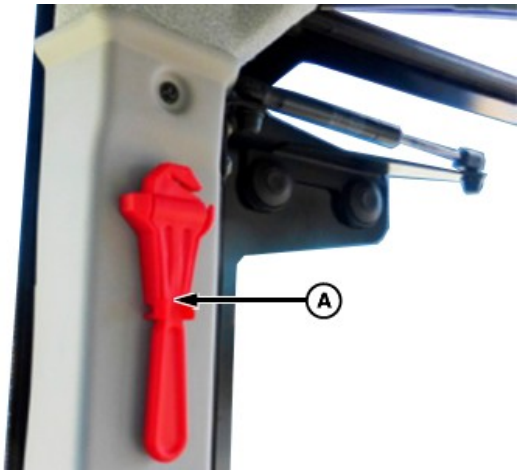
The operator's station has an emergency exit located on the right-hand side of the cab.

YF000147—UN—06APR23

In case of being necessary, remove the lock (A) to release the emergency exit.

jtlsx7f,1733833245294-19-10DEC24

Emergency Exit Hammer (Sprayers with Front Engine and Nutrient Applicators with Central Engine)



YE000011—UN—22SEP22

Safety Hammer

CAUTION: Cover eyes, face, and uncovered skin from jagged or broken glass when using the hammer (A) to break a window.

In case of rollover or any kind of accident impossibiliting the normal machine exit, use the hammer (A) to break a window.

jtlsx7f,1733833310674-19-02JAN25

Operator's Seat

CAUTION: Avoid accidents:

- **Park the machine and shut off the engine before doing any seat adjustment.**
- **Each time a new operator starts to operate the machine, the operator's seat must be adjusted to his specific characteristics.**
- **Do not cover the operator's seat with cloths or covers. This can negatively affect the safety.**
- **Do not position objects near the operator's seat cause they can obstruct seat regulations, interfere in the operation, and lead to serious accidents.**

IMPORTANT: The operator's seat covering was manufactured to resist the normal usage wearing for a long time. However, it is necessary to avoid excessive or prolonged frictions with accessories such as metallic buckles and other similar items or damage to seat covering will occur.

The operator's seat is anatomically projected for offering comfort, safety, and ergonomic adequation to the operator. It is equipped with a safety belt, adjusting system, and pneumatic suspension with electrical activation.

YF000155—UN—06APR23

Operator's Seat—Sprayers with Central Engine

YE001344—UN—02JAN24

Operator's Seat—Sprayers with Central Engine

YE1387583—UN—03JAN25

Operator's Seat—Sprayers with Front Engine and Nutrient Applicators with Central Engine

- **Fore/Aft Adjust**: move the position control lever (A) to the side and slide the operator's seat forward or rearward as desired. Release the position control lever (A) to lock seat in the desired position.
- **Weight/Height Adjust:** turn the ignition key to run position and use the weight/height adjust lever (C) or the weight-height button (G) to perform the adjusts as desired.

NOTE: For self-propelled sprayers equipped with central engine, the adjust must be performed until a green mark is visble at indicator (B).

- **Backrest Adjust:** use the backrest adjust lever (E) to adjust the lumbar support angle. Pull up the lever and push the backrest to increase the tilt angle or release the pressure over the backrest to reduce the tilt angle. Release the backrest adjust lever (E) to lock the desired position.
- **Armrest Adjust:** to regulate the armrest (F) position, rotate the adjustment knob (D).
- **Headrest Height Adjust (H) (Sprayers with Front**

Engine and Nutrient Applicators with Central Engine): pull up/down the headrest as desired.

- **Drawer for Objects (I) (Sprayers with Front Engine and Nutrient Applicators with Central Engine):** pull handle to open drawer and store items in it.
- **Retractable Bottle/Cup Support (J) (Sprayers with Front Engine and Nutrient Applicators with Central Engine):** used to hold bottles or cups.

jtlsx7f,1733833839938-19-02JAN25

Seat Belt

CAUTION: Avoid serious injury or death.

- **Only start the engine when correctly positioned over the operator's seat and wearing the seat belt (A). If the instructional seat is being used as well, the person on the instructional seat must be seated and with the seat belt fastened before starting the machine operation.**
- **To reduce the probability of serious injury in the event of an accident or if the machine rolls over, always use the seat belt (A).**
- **Inspect the seat belt (A) and mounting hardware on your machine at least once a year.**

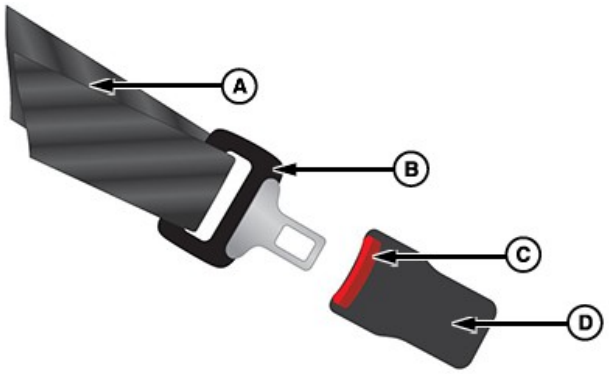
  If the seat belt (A) system, including the mounting hardware, buckle (B), belt, or retractor, shows any sign of damage such as cuts, fraying, extreme or unusual wear, discoloration or abrasion, the entire seat belt system should be replaced immediately. For your safety, replace the belt system only with replacement parts approved for your machine. (See your PLA BY JOHN DEERE/ JOHN DEERE authorized dealer.)

IMPORTANT: Avoid damaging the seat belts. For cleaning purposes, use a soft brush, neutral soap, and ambient temperature water only.

Before using the seat bealts, let them dry first.

The operator's seat and the instructional seat are equipped with safety belts. Equipped with a quick release button and automatic retraction, they must be used whenever the machine is operated.

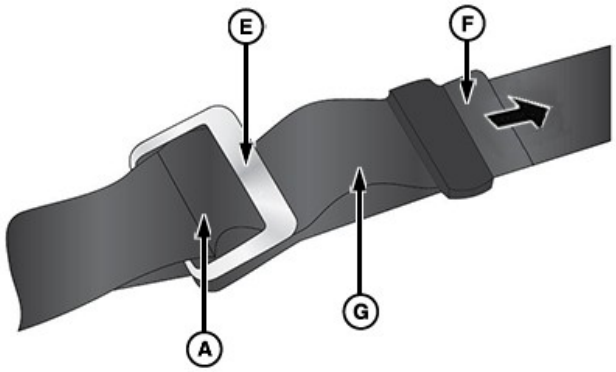
Seat belt (A) usage:



YF000108—UN—14MAR23

- **To fasten:** pull the buckle (B) over the body and insert it in the latch (D) until a click is listen.
- **To release:** press the latch button (C).

Seat belt (A) adjust:



YF000109—UN—14MAR23

- **To tighten:** release the seat belt (A) across the adjust buckle (E) and pull the end (F).
- **To loosen:** press the adjust buckle (E) by pulling the portion (G), keeping the adjust buckle (E) perpendicular to the seat belt (A).

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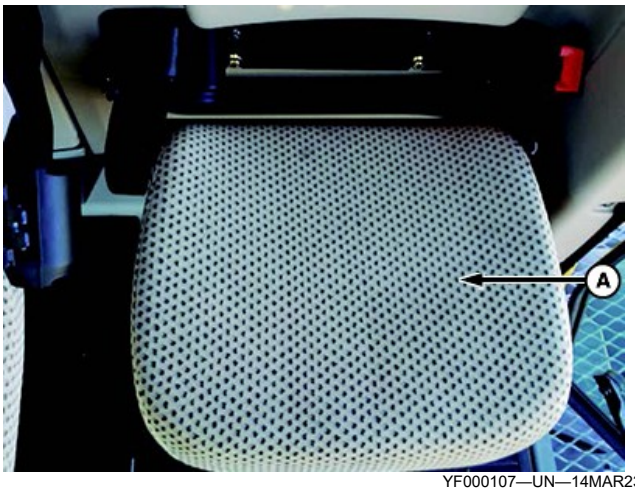
Instructional Seat



YF000107—UN—14MAR23

Sprayers with Central Engine

YE000014—UN—22SEP22

Sprayers with Front Engine and Nutrient Applicators with Central Engine

The machine is equipped with an instructional seat (A) for training operators or diagnosing machine problems.

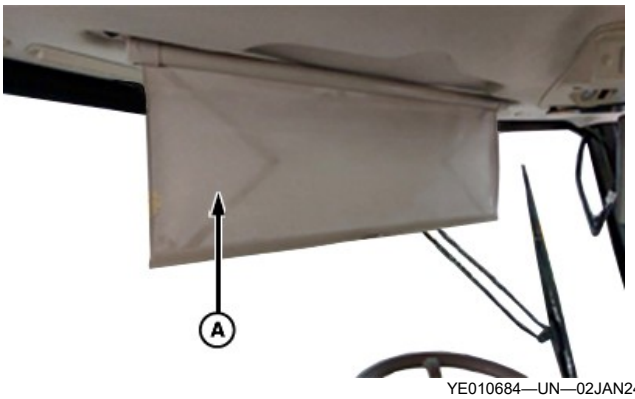
CAUTION: Avoid accidents. The instructional seat (A) is only for training operators or for diagnosing machine problems. Keep off all other riders from the machine during operation. Always wear the seat belt.

The instructional seat (A) is foldable and can be raised to allow more cab internal space.

To raise/lower the instructional seat (A), release the lock (B) (if equipped) and move the instructional seat (A) up/down as desired.

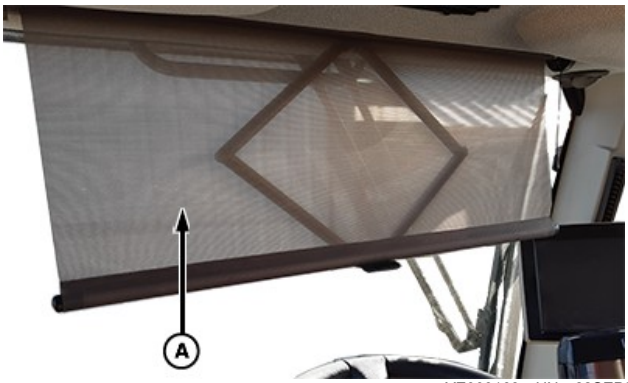
jtlsx7f,1733834321392-19-02JAN25

Pull-Down Sunshade



YE010684—UN—02JAN24

Sprayers with Central Engine



YE000168—UN—22SEP22

Sprayers with Front Engine and Nutrient Applicators with Central Engine

To reduce glare when operating in bright sunlight, the operator can regulate the pull-down sunshade (A) height as needed.

This component allows the operator flexibility in the amount of window coverage.

jtlsx7f,1733836503194-19-02JAN25

Horn

CAUTION: Avoid accidents. To alert people around machine, always sound the horn three times before starting the engine.

YF000139—UN—06APR23

Sprayers with Central Engine

YE001347—UN—02JAN24

Sprayers with Front Engine and Nutrient Applicators with Central Engine

To sound the horn, press the horn button (A).

jtlsx7f,1733838468423-19-02JAN25

Comfort Features (Sprayers with Central Engine)

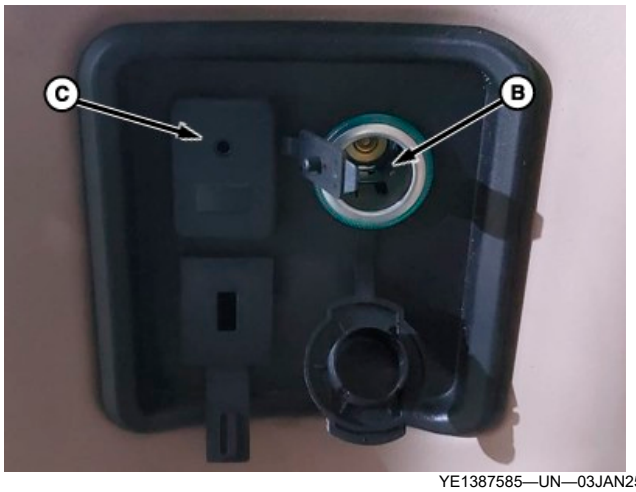
YF000102—UN—06APR23

Operator's Manual Storage

IMPORTANT: Avoid damaging the Operator's Manual storage compartment (A). Do not use this storage compartment to store objects not related to the work routine.

In the rear of the cab inside there is an specific Operator's Manual storage compartment (A).

Keep the Operator's Manual and any additional manual in the machine.



YE1387585—UN—03JAN25

Auxiliary Outlet

IMPORTANT: Always use auxiliary equipment installation instructions or see your PLA BY JOHN DEERE/JOHN DEERE authorized dealer.

The machine is equipped with an auxiliary outlet (B) for connecting accessories.

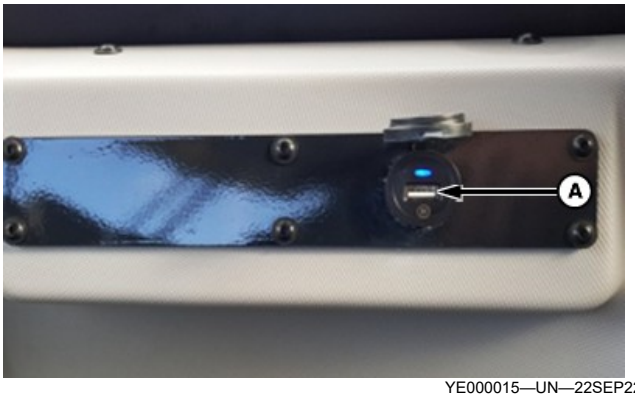
Specification

Auxiliary Oulet—Voltage. . . . . 12 V

An additional P2 port (C) for the audio system is also available.

jtlsx7f,1733838507870-19-02JAN25

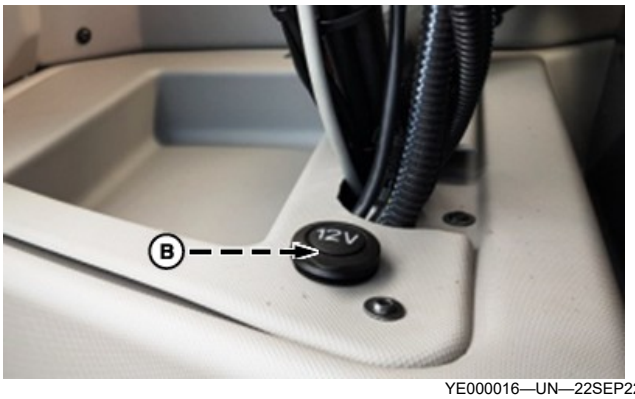
Comfort Features (Sprayers with Front Engine and Nutrient Applicators with Central Engine)



YE000015—UN—22SEP22

USB Port

The machine is equipped with an USB port (A) under the right-hand side window.



YE000016—UN—22SEP22

Auxiliary Outlet

YE010494—UN—03APR23

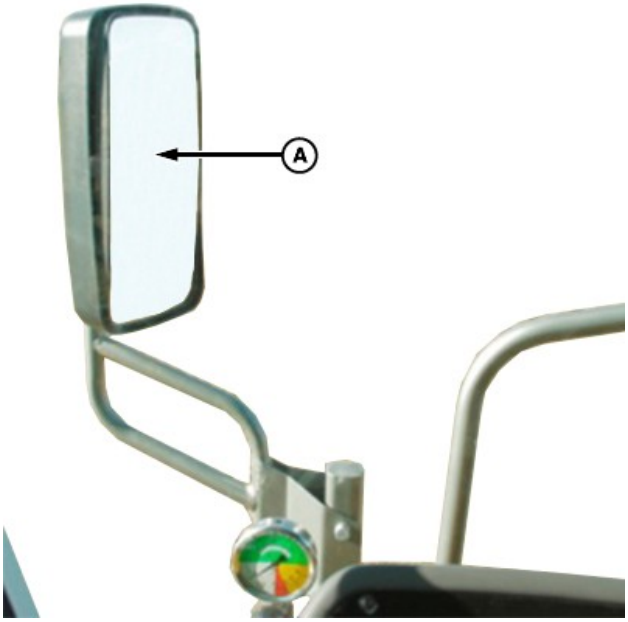
Operator's Manual Storage

There is also an auxiliary outlet (B) close to the object holder and an Operator's Manual storage (C) behind the operator's seat.

Specification	
Auxiliary Oulet—Voltage	12 V

jtlsx7f,1733838554809-19-02JAN25

Mirrors



YE000017—UN—22SEP22

CAUTION: Avoid accidents:

- **The rearview mirrors (A) adjust must be performed with the machine stopped and preferably in a level ground.**
- **Before starting the operation, both rearview mirrors (A) must be adjusted so blind spot effects are reduced.**
- **For providing a clear view of the field and avoiding accidents, keep rearview mirrors (A) clean.**

There are rearview mirrors (A) located on both sides of the operator's station.

For adjusting the mirrors, keep seated on operator's seat and request someone else to move the mirrors until the desired viewing is obtained.

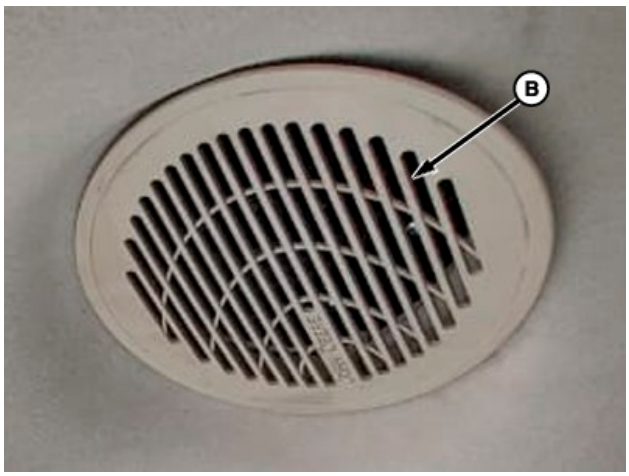
edw8krp,1692876457018-19-24AUG23

Audio System

Sprayers with Central Engine

YE1376060—UN—02SEP24

Radio

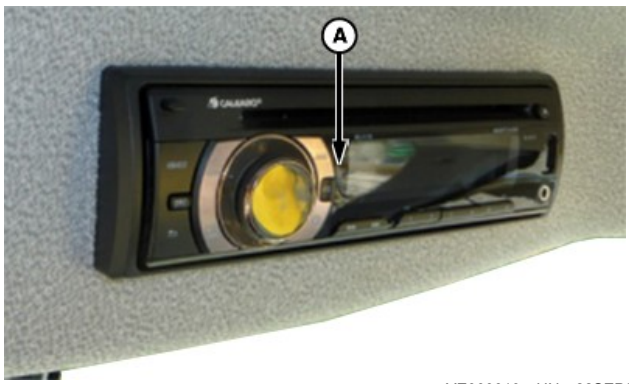


YE010624—UN—02JAN24

Speakers

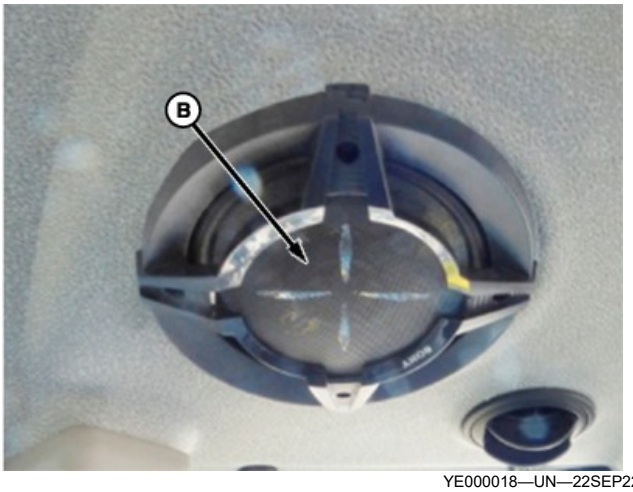
The audio system is a stereo radio AM/FM (A) with digital signal and speakers (B) on both sides of the operator's station.

Sprayers with Front Engine and Nutrient Applicators with Central Engine



YE000019—UN—22SEP22

Radio



YE000018—UN—22SEP22

Speakers

The audio system is a stereo radio AM/FM (A) with digital signal, MP3 reproducer, USB port, and speakers (B) on both sides of the operator's station.

jtlsx7f,1733839015507-19-02JAN25

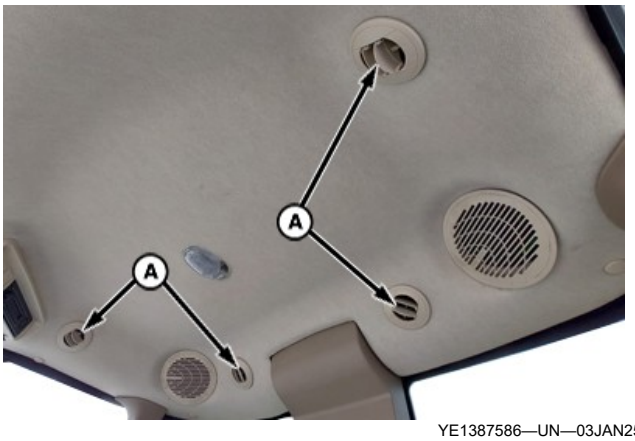
Heater-Ventilation/Air-Conditioning System (HVAC) Operation

CAUTION: Exposure to chemicals, including pesticides, can cause injury or death.

Wear personal protective equipment in accordance with the chemical manufacturer label. (See Safety Equipment in Solution System section.)

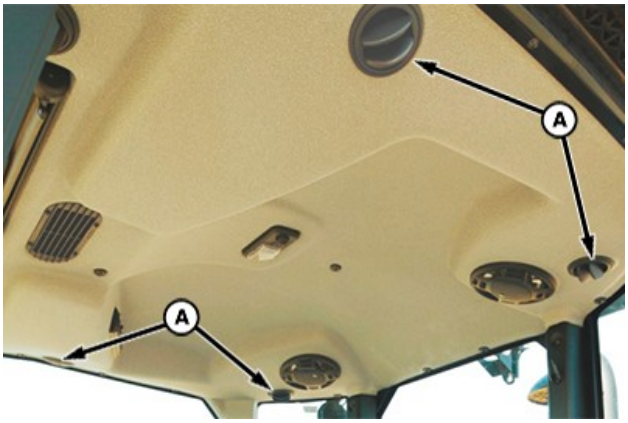
DO NOT rely only on the machine cab, cab pressure indicator (only for sprayers with central engine), or on the cab air filters as a full protection against chemical exposure.

Cab Roof



YE1387586—UN—03JAN25

Cab Roof—Sprayers with Central Engine



YE000020—UN—22SEP22

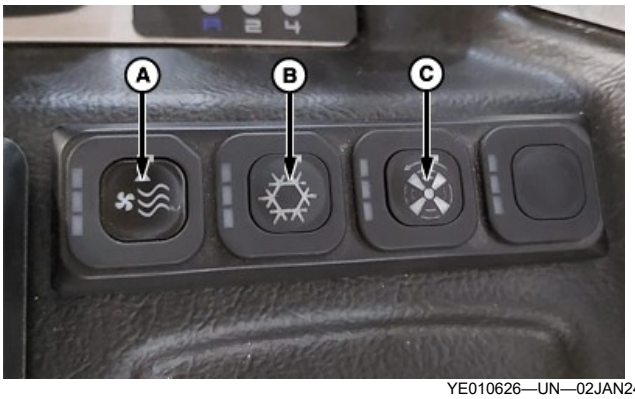
Cab Roof—Sprayers with Front Engine and Nutrient Applicators with Central Engine

The air filtration of the cab air is made by carbon activated air filters.

There are adjustable air louvers (A) on the four corners of cab inside roof. To adjust them, rotate and orientate their openings as desired.

Heater/Ventilation/Air-Conditioning Switch

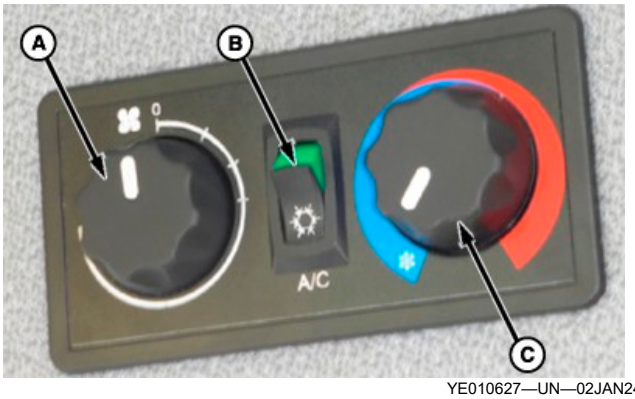
Sprayers with Central Engine



YE010626—UN—02JAN24

- To activate the heating, press the air heating button (A).
- To activate the cooling, press the air conditioner button (B).
- To control the fan speed, press the fan speed button (C).

Sprayers with Front Engine and Nutrient Applicators with Central Engine



YE010627—UN—02JAN24

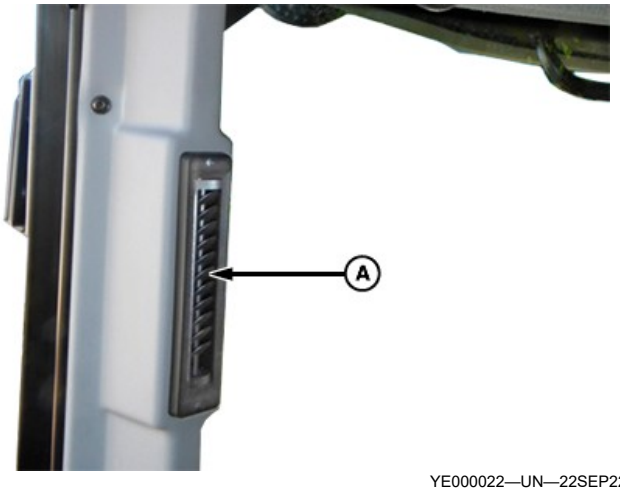
- To activate the cooling, rotate the temperature set point potentiometer (C) to the blue area according to the desired temperature and press the air conditioner switch (B).
- To activate the heating, rotate the temperature set point potentiometer (C) to the red area according to the desired temperature.[1]
- To control the fan speed, rotate the fan speed set point potentiometer (A) to the right-hand side as desired.

Defogging

YE1387588—UN—03JAN25

Defogging Air Louvers—Sprayers with Central Engine

[1] *Only for machines equipped with John Deere engines.*



YE000022—UN—22SEP22

Defogging Air Louver—Sprayers with Front Engine and Nutrient Applicators with Central Engine

The cab defogging is made through the defogging air louvers (A).

The defogging air louvers (A) (only for sprayers with front engine and nutrient applicators with central engine) are adjustable and can be oriented to the viewing areas as desired by the operator.

jtlsx7f,1733839309568-19-02JAN25

Using the Air-Conditioning System

General Information

CAUTION: Avoid thermal shocks. Do not direct the air flow directly over the head.

CAUTION: Avoid accidents. The cab air recirculation filter is carbon activated. Do not use paper filters.

The cab air recirculation filter is not designed to filter out harmful chemicals. Follow the instructions from this manual and the instructions given by the chemical manufacturer when using agricultural chemicals. If respiratory protection is required for the use of pesticides, wear an appropriated mask inside the cab.

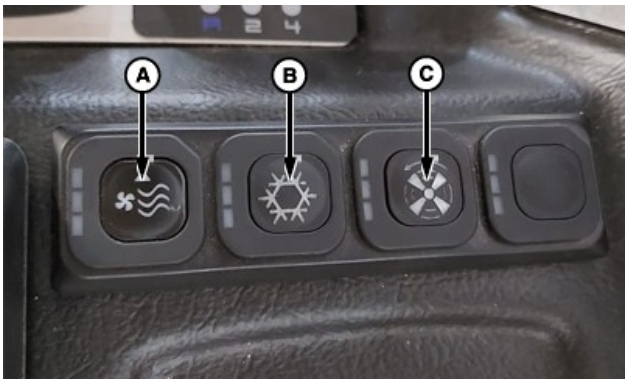
IMPORTANT: Avoid evaporator freezing:

Do not operate with the temperature set at maximum cold. Use this position only at beginning of operation to faster achieve the desired temperature at cab. During this time, in order to not freeze the evaporator, do not let the fan set at minimum speed.

IMPORTANT: Avoid damage to the compressor:

- **Do not let the air conditioner without working for more than one week.**
- **At winter season, turn on the air-conditioning system at least 15 minutes per week. This avoids the drying of the compressor internal retainers and maintains the system lubrication.**

Sprayers with Central Engine



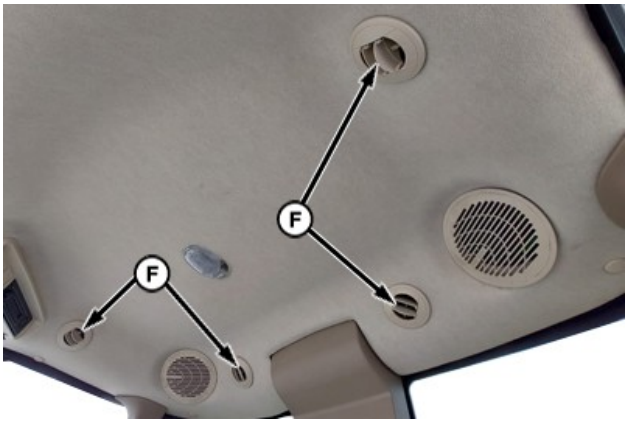
YE010626—UN—02JAN24

Heater/Ventilation/Air-Conditioning Switch

1. To activate the heating, press the air heating button (A) once. To turn it off, press it again.

YE010671—UN—02JAN24

2. To regulate the temperature, press and hold the air heating button (A) until the adjust page appears on the display. Press the plus button (D) and the minus button (E), to increase/decrease the temperature as required.
3. To activate the cooling, press the air conditioner button (B) once. To turn it off, press it again.
4. To regulate the temperature, press and hold the air conditioner button (B) until the adjust page appears on the display. Press the plus button (D) and the minus button (E), to increase/decrease the temperature as required.
5. To control the fan speed, press the fan speed button (C). Press it once to activate minimum fan speed. Press again to activate medium fan speed. Pressing it one more time activates maximun fan speed. Pressing it again will turn off the fan.

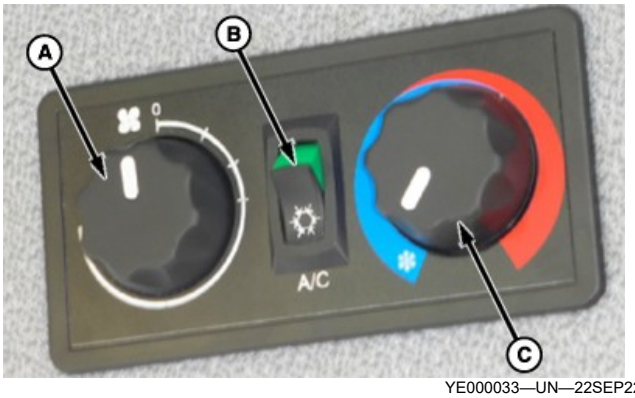


YE1387590—UN—03JAN25

Cab Roof

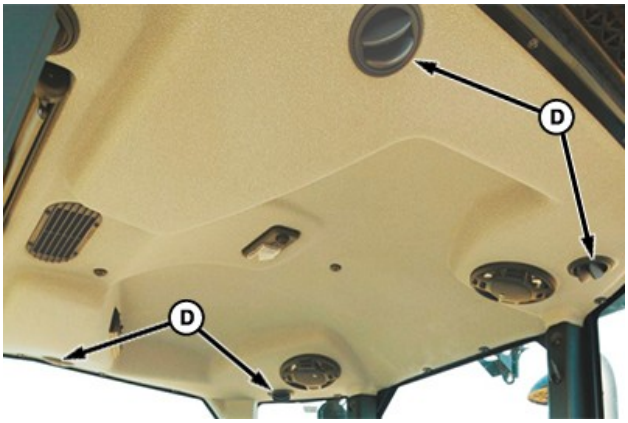
6. Adjust the air flow direction through the air louvers (F).

Sprayers with Front Engine and Nutrient Applicators with Central Engine



YE000033—UN—22SEP22

1. To activate the air conditioning system, first rotate the fan speed set point potentiometer (A) to the desired position.
2. To activate the compressor, press the air conditioner switch (B) and rotate the temperature set point potentiometer (C) counterclockwise to the maximum position in the blue area (end of course).
3. To obtain the desired temperature, return the temperature set point potentiometer (C) to the desired temperature position.
4. Adjust the fan speed through the fan speed set point potentiometer (A) as desired.



YE000034—UN—22SEP22

5. Adjust the air flow direction through the air louvers (D).
6. Before turning off the system, press the air conditioner switch (B) to turn the compressor off and return the fan speed set point potentiometer (A) to the 0 position.

In case of the cab is too hot after the machine is parked during some time under intense sun:

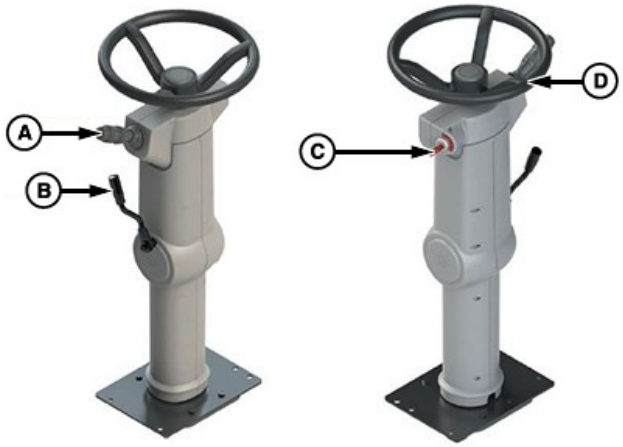
1. Press the air conditioner button (B) or switch (B) to activate the air-conditioning system.
2. Lower the temperature progressively until the desired temperature is reached.
3. Activate the fan:
   - **Sprayers with Central Engine:** activate the fan speed button (C) at maximum speed.
   - **Sprayers with Front Engine and Nutrient Applicators with Central Engine:** position the fan speed set point potentiometer (A) at maximum speed.
4. Open the cab door.
5. Let the system working this way for 3—5 minutes.
6. This process allows the hot air to get out of the cab in a faster way, cooling faster the cab, and minimizing the system effort. Once the excessive heat is eliminated, return the controls to their normal position, as desired.

jtlsx7f,1733841328733-19-03JAN25

Steering Column (Sprayers with Central Engine)

The steering column provides the essential functions for driving the machine, such as hydraulic steering, lights activation, and windshield washer and wiper system.

The steering column has the following items:



YF000123—UN—06APR23

A—Lights and Turn-Signal Lever/Windshield Wiper and Washer System/ Horn
B—Steering Column Tilt Lever
C—Key Switch
D—Steering Wheel

Steering Column Tilt:

CAUTION: Avoid accidents. The steering column adjust must be done with the machine stopped. Make sure that the steering column is locked before starting the operation. The unlocked steering column will negatively affect the driving and may cause accidents.

CAUTION: Avoid accidents. Do not release the steering column using the steering column tilt lever (B) without holding the steering wheel securely first. Releasing the steering column without holding the steering wheel first may cause damage to the operator and/or to the steering column.

NOTE: The ideal is to first adjust the operator's seat, then the seat belt, and at last, the steering column position. These componenst must be adjusted to provide enough and suitable distance between the operator and the steering wheel.

When holding the steering wheel, the distance must allow the arms to be slightly flexed.

- The steering column tilt lever (B) allows the tilt adjust of the steering column, allowing to adjust the distance between the steering column and the operator.
- Pull the steering column tilt lever (B) to release the lock and move the steering column to the desired position. Release the lever to lock the steering column in the desired position.

jtlsx7f,1733849636239-19-10DEC24

Steering Column (Sprayers with Front Engine and Nutrient Applicators with Central Engine)

The steering wheel tilt can be adjusted in two axles:

YE000023—UN—22SEP22

Steering Column

- **First Tilt Adjust (1):** possible in three positions by releasing the tilt adjust pedal (A) in the steering column base.
- **Second Tilt Adjust (2):** fine and gradual adjust by pressing the tilt adjust button (D).

It is also possible to adjust the steering column height. This adjustment is gradual an cab be performed by rotating the height adjustment knob (F) counterclockwise, raising the steering wheel, and positioning it to the desired height. After the steering wheel is adjusted, rotate the height adjustment knob (F) clockwise to lock the position.

The steering knob (E) facilitates the wheel steering movement.

The turn-signal lever (B) is used to indicate turns, control the headlights, and sound the horn.

The key switch (G) is on the right-hand side of the steering column.

NOTE: For information regarding the key switch (G) positions, see Key Switch in Operator's Station section.

The hazard warning light switch (C) is used to alert people from the machine presence.

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

jtlsx7f,1733849836394-19-02JAN25

Key Switch

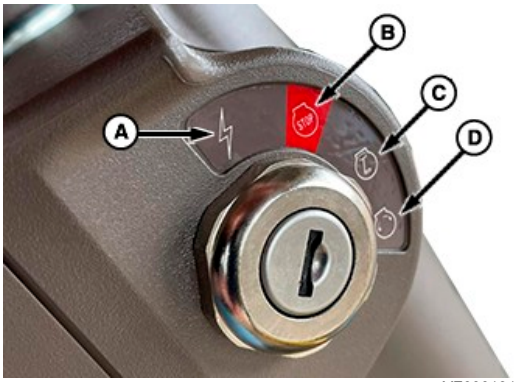
General Information

CAUTION: Avoid accidentes. Sound the horn before starting the engine to clear people away from the machine.

To avoid the possibility of personnel injury or death, start ONLY from the operator's seat. Do not start the engine by shorting across starter terminals. Machine starts in gear if normal circuit is bypassed.

CAUTION: Avoid serious injury or death. Do not let the ignition key in the key switch when leaving the cab for a long time. This is a safety measure to avoid accidents.

Sprayers with Central Engine



YF000131—UN—23MAR23

The key switch has four positions:

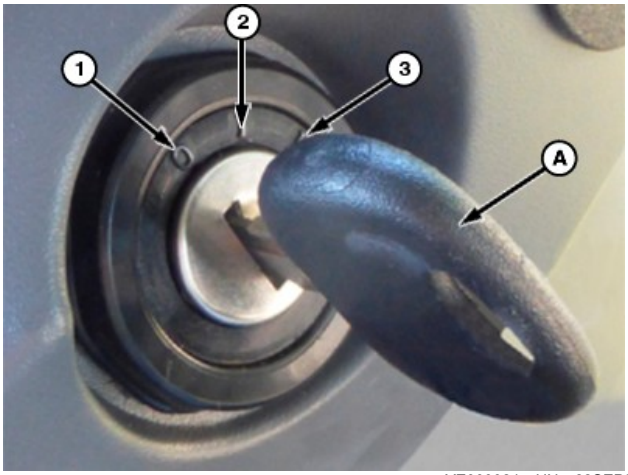
Accessory Position (A): accessories connected to voltage. Allows the functioning of electrical components.

OFF Position (B): shuts off the engine and all accessory functions. No circuit is under current. The key switch can be removed from ignition.

Run Position (C): allows all accessories to operate and engine to run once it has been started.

Start Position (D): it is a momentary switch position that starts the engine. Once the engine starts and the switch is released, ot returns to run position (C).

Sprayers with Front Engine and Nutrient Applicators with Central Engine



YE000024—UN—22SEP22

The key switch (A) on the right-hand side of the steering column and has three positions:

1. OFF
2. Preheating
3. Machine Start

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Right-Hand Side Console

The right-hand side console has all the necessary controls for the operation:

- Hand Throttle Lever
- Multi-Function Lever
- Speed Range (high/low) Selection
- Control Display
- Control Switches and Buttons

NOTE: The available controls and functions vary according to the machine model and configuration.

NOTE: For details regarding the functions available for each console model, see Operator Controls section.

Sprayers with Central Engine—Eaton Manual Transmission

YE1387591—UN—03JAN25

Sprayers with Central Engine—Allison Automatic Transmission

YE1387592—UN—03JAN25

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YE1385990—UN—23DEC24

Sprayers with Front Engine and Nutrient Applicators with Central Engine—Eaton Manual Transmission

YE000025—UN—22SEP22

Sprayers with Front Engine—Allison Automatic Transmission

Windshield Wiper and Washer System (Sprayers with Central Engine)

CAUTION: Avoid accidents. For providing a clear view of the field and avoiding accidents, keep windshield clean.

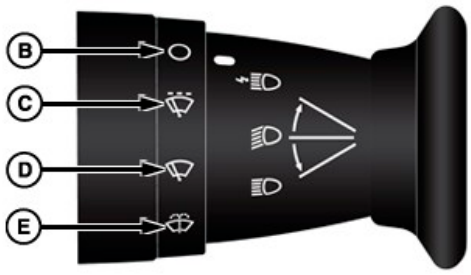
YF000105—UN—06APR23

IMPORTANT: Avoid damaging the windshield wiper (A) and washer system:

- **Do not turn on the windshield wiper (A) system with the wiper (A) blade raised.**
- **Do not manually move the wiper (A) arm.**
- **Do not activate the washer system if there isnt any liquid at the washer reservoir. The washer system will be damaged.**
- **Do not turn on the windshield wiper (A) system with the windshield dry.**

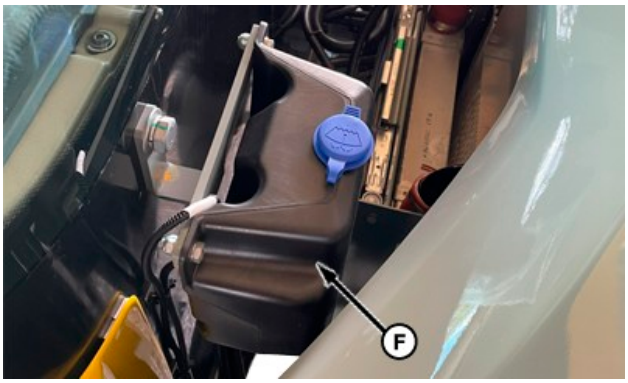
- **Do not use the windshield wiper (A) system without the rubber of the wiper blade installed. This damages the electrical motor of the wiper system, as well as the glass of the windshield.**

The activation of the windshield wiper (A) and washer system is performed through the lights and turn-signal lever, available in the steering column. The lever has a switch with four positions for controlling wiper and washer systems:



YF000145—UN—06APR23

- **OFF Position (B):** turns off all wiper functions.
- **Intermittent Wipe Position (C):** turns on the intermittent functioning of the windshield wiper (A) system.
- **Continuos Wipe Position (D):** turns on the continuous functioning of the windshield wiper (A) system.
- **Washer Position (E):** activates de washer jet of the windshield washer system.



YF000146—UN—31MAY23

The water distribution over the windshield is done through a jet. The water comes from a reservoir (F) and is directed to the windshield through a hose.

The water pump and the reservoir (F) are located on the rear of the cab, near the radiator. They are accessed through the machine main platform.

jtlsx7f,1733850188356-19-10DEC24

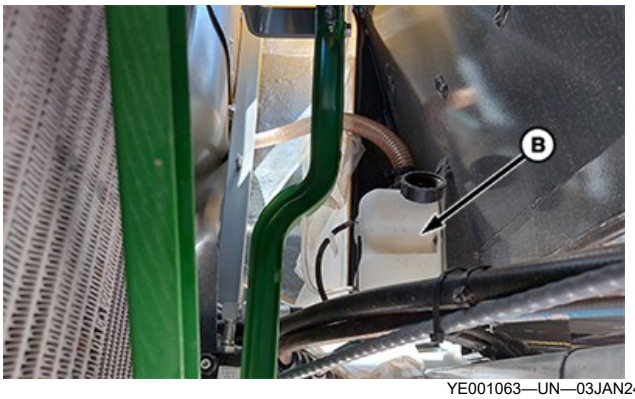
Windshield Wiper and Washer System (Sprayers with Front Engine and Nutrient Applicators with Central Engine)

YE010458—UN—28MAR23

NOTE: The image is for illustrative purposes only. Your machine may have differences.

The windshield wiper and washer switch (A) is on the right-hand side console.

The functioning of the system and of the switch varies according to the machine model and cofiguration.



YE001063—UN—03JAN24

Nutrient Applicators

YE001064—UN—03JAN24

Nutrient Applicators

YE000030—UN—22SEP22

Sprayers Equipped with Front Engine

For machines equipped with central engine, the windshield washer reservoir (B) is behind the cab, under the engine hood.

For machines equipped with front engine, the windshield washer reservoir (B) is behind the cab.

Keep the windshield washer reservoir (B) full of water and some detergent drops. To Fill it, use the the filling cap (C).

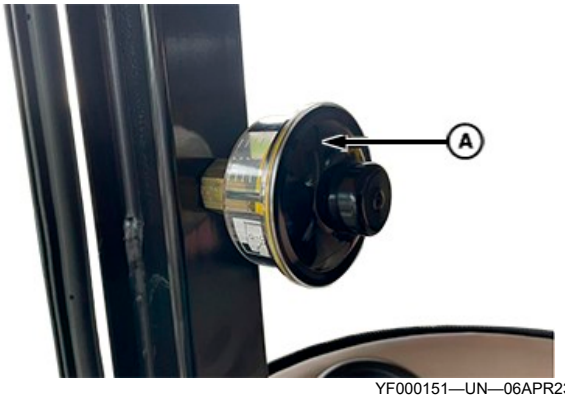
jtlsx7f,1733850227098-19-02JAN25

Cab Pressure Indicator (Sprayers with Central Engine)

CAUTION: Exposure to chemicals, including pesticides, can cause injury or death. Wear personal protective equipment in accordance with the chemical manufacturer label.

DO NOT rely only on the sprayer cab, cab pressure indicator (A), or on the cab air filters as a full protection against chemical exposure.

If the door is not fully locked at its second stage, cab is not correctly pressurized.



YF000151—UN—06APR23

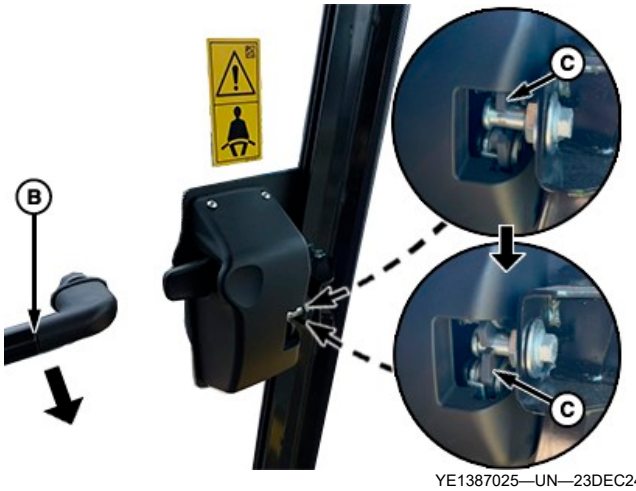
The cab pressure indicator (A) is at the rear corner post of the cab right-hand side.

This indicator helps identifying the air flow through the cab air filter and potential leaks in cab seals.

With the doors and windows closed and the fan on, numbers on indicator provide a relative indication of the internal cab pressure.

Note the initial indicator reading when the cab air filter is new. Indicator reading is normally in numeric middle range and decreases as the filter collects dust and debris.

If indicator reading falls to the scale end with the windows and doors closed, see your PLA BY JOHN DEERE/JOHN DEERE authorized dealer.



YE1387025—UN—23DEC24

Door 2-Stage Lock—Sprayers with Central Engine Only

CAUTION: The door is equipped with a 2-stage lock (C). Always make sure the door is fully locked at its second stage.

To make sure the door is locked to its second stage, after the door is closed, pull the door inside handle (B) one more time until a click is listen.

IMPORTANT: Avoid damage to the cab door. If the door is not correctly locked at its second stage, damage to door may occur due to vibration. To keep the integrity of the door, always keep the dor correctly locked at its second stage. See images for reference.

YE1388612—UN—10JAN25

Door Not Fully Locked (Incorrect)

YE1388613—UN—10JAN25

Door Correctly Locked

jtlsx7f,1733850426159-19-13JAN25

Instruments

NOTE: The images are for illustrative purposes only. Your machine may have little differences according to model and configuration.

YE1377945—UN—26SEP24

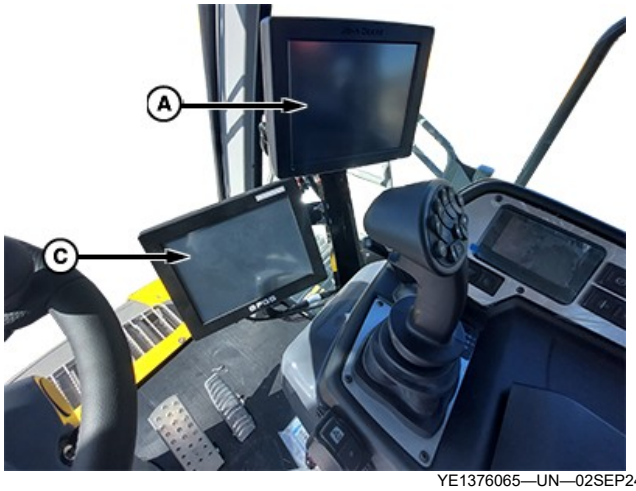
Sprayers with Central Engine

YE1387782—UN—06JAN25

Sprayers with Front Engine

YE1387773—UN—06JAN25

Nutrient Applicators without Section Control



YE1376065—UN—02SEP24

Nutrient Applicators with Section Control

A—Generation 4 Universal Display 4640
B—Agrotax AG Fusion Display (nutrient applicators only, without section control)
C—Agrotax FGS Display (nutrient applicators only, with section control)

The machine is equipped with a Generation 4 Universal Display 4640 (A). This display can be used to view various information, such as:

- Spray Data
- Mapping Data

NOTE: For details, see the Operator's Manual of the Generation 4 Universal Display 4640.

Nutrient applicators are equipped with an Agrotax AG Fusion display (B) or with an Agrotax FGS display (C) that contains information related to the nutrient application system. (See details in Operating the Nutrient Applicator section.)

YE1376066—UN—02SEP24

Another display (D) is available on the right-hand side console. This display (D) allows to navigate between different menus and access additional machine information, such as engine status.

NOTE: To see the available features in the right-hand side console display, see Display of the Right-Hand Side Console in Electronic System section.

YE1376067—UN—02SEP24

Self-propelled sprayers with carbon fiber spray booms are equipped with a Niser display (E) that contains information related to solution tank level.

YE1376068—UN—02SEP24

Nutrient Applicators are also equipped with a Hook display (F) that contains information related to the nutrient applicator box scales. (See details in Nutrient Application System section.)

jtlsx7f,1733860415592-19-03JAN25

Generation 4 and G5 Displays

For additional information on display hardware and software functionality, reference the Display Operator's Manual and the Help Center application on the display. To obtain a copy of the Operator's Manual, contact your dealer, use the Help Center application on the display, or visit techpubs.deere.com.

DX,PC,DISPLAY,REFERENCE-19-23JUN23

Display of the Right-Hand Side Console—Overview

The machine is equipped with a 4-in display that allows to navigate between different menus and access various information, such as fundamental engine variables.

Main Page

YE1388739—UN—13JAN25

Sprayers with Central Engine and Manual Transmission

YE1388740—UN—13JAN25

Sprayers with Front Engine and Nutrient Applicators with Central Engine

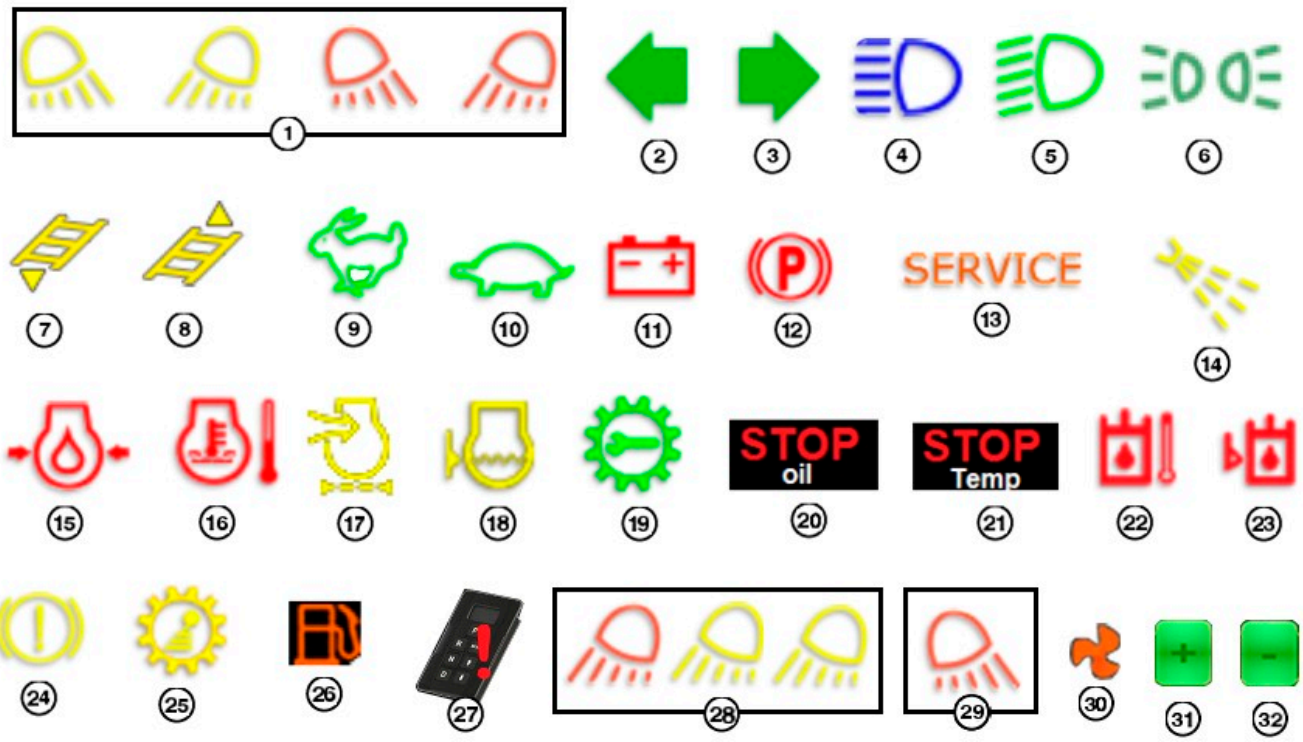
YE1388631—UN—13JAN25

Sprayers with Central Engine and Automatic Transmission

A—Air Pressure Indicator
B—Engine Temperature Indicator
C—Engine Speed Indicator (rpm indicator)
D—Heater/Ventilation/Air-Conditioning Control (only for sprayers with central engine))
E—Exit Softkey
F—Fuel Level Indicator
G—Gear Indicator (only machines equipped with automatic transmission)
H—Engine Oil Pressure (except for sprayers with central engine)

Indicators

The following indicators are available in the display:



YE1388785—UN—13JAN25

1—Front and Rear Roof Worklights (except for central engine sprayers)
2—Left Turn-Sinal Light
3—Right Turn-Signal Light
4—High-Beam Headlight
5—Low-Beam Headlight
6—Position Lights
7—Ladder Down
8—Ladder Up
9—Transmission High
10—Transmission Low
11—Battery Warning Light
12—Park Brake Activated
13—Service Warning Light
14—Spraying
15—Warning Light of the Engine Oil Pressure
16—Engine Temperature Warning Light
17—Air Cleaner
18—Coolant Level
19—Transmission Service
20—Low Oil Pressure Shutdown
21—Engine Temperature Shutdown
22—Hydraulic Oil Temperature
23—Hydraulic Oil Level
24—Low Air Pressure
25—Allison Inhibited Range (only machines equipped with automatic transmission)
26—Fuel Reserve Level
27—Allison not Detected (only machines equipped with automatic transmission)
28—Front Roof Worklights (central engine sprayers only)
29—Boom Round Worklights (central engine sprayers only)
30—Fan Speed (central engine sprayers only)
31—Temperature Increase Button (plus)
32—Temperature Decrease Button (minus)

jtlsx7f,1733860707176-19-13JAN25

Display of the Right-Hand Side Console—Functions

YE010644—UN—02JAN24

Sprayers with Central Engine and Manual Transmission

YE1388741—UN—13JAN25

Sprayers with Central Engine and Automatic Transmission

YE010678—UN—02JAN24

Sprayers with Front Engine and Nutrient Applicators with Central Engine

The functions of the display can be accessed through the PLA button (A).

The following functions are available:

YE000134—UN—22SEP22

- **Hydraulic Movements (B):** see Hydraulic Movements in this procedure for details.
- **Diagnostic Display (C)**: see Diagnostic Display in this procedure for details.
- **Next/Return (D):** proceed to next page or return to previous page (varies according to selected page).
- **Battery Voltage (E):** shows the machine battery voltage.
- **Hours Until Service (F):** timer for performing the next service.
- **Work Hours (G):** counter that shows the machine work time.
- **General Configurations (H):** see General Configurations in this procedure of rdetails.

Hydraulic Movements

YE000135—UN—22SEP22

Shows the movement being performed by the multi-function lever, as well as the engine speed.

YE000136—UN—22SEP22

To return to main page, press the return button (A).

Diagnostic Display

YE010645—UN—02JAN24

Sprayers with Central Engine

YE000138—UN—22SEP22

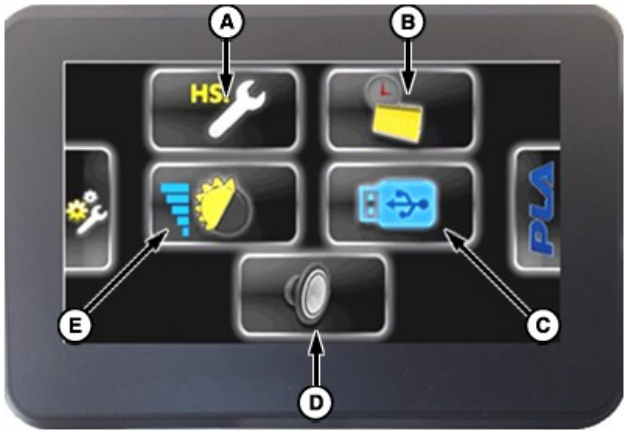
Sprayers with Front Engine and Nutrient Applicators with Central Engine

Shows the status of the CANBUS connections from the following components:

- Multi-Function Lever
- Buttons/Switches
- Display
- Control Units

This information must be controlled by a dealer technician with the proper knowledge about the machine.

General Configurations



YE000137—UN—22SEP22

A—Warning Configuration for the Next Service
B—Date and Hour Configuration
C—USB for the Display Firmware Update (the USB terminal is under the side console)
D—Silencer
E—Brightness Configuration

NOTE: The USB terminal must be used only by a trained technician.

jtlsx7f,1733861723170-19-13JAN25

Start Only From Operator's Seat

T133715—UN—15APR13

Avoid unexpected machine movement. Start engine only while sitting in operator's seat. Ensure all controls and working tools are in proper position for a parked machine.

Never attempt to start engine from the ground. Do not attempt to start engine by shorting across the starter solenoid terminals.

TX03679,0001799-19-01NOV05

Engine Fuel System

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

Do not attempt to service the injection pump or fuel injectors. Special training and special tools are required. See your PLA BY JOHN DEERE/ JOHN DEERE authorized dealer.

jtlsx7f,1661190529646-19-09NOV22

Engines with Turbocharger

Not following the correct procedure when starting and shutting off the engine is the main cause of damage to turbochargers. After starting up the engine and before shutting it off, let the engine running for at least 30 seconds without load.

IMPORTANT: If the engine stalls during operation, restart it IMMEDIATELY. Doing so prevents the turbocharger from overheating.

K2F379Y,0000500-19-13DEC21

General Recommendations

It is important to know the safety rules and to incorporate them as a routine, avoiding risks and eliminating all cause of possible accidents.

Carefully read this manual before operating the machine, understanding its characteristcs and operating limitations. Keep the manual close and consult it whenever in doubt.

Before operating the machine, make sure the equipment is ready to perform the desired task.

jtlsx7f,1661189936424-19-22AUG22

Before Starting Up the Machine

Check the following items before starting the engine:

- Engine oil level.
- Hydraulic system is damaged if spherical valves at the hydraulic reservoir are at closed position when operating the machine.
- Pneumatic system is drained. (See Drain Water from the Pneumatic System in Service—Suspension System section.)
- Headlights, turn-signal lights, and electrical components are operational.
- Mirrors' position (allowing a good visibility on all angles, without blind spots).

CAUTION: Avoid accidents. Do not forget about the adequate relation between safety and comfort on driving the machine.

- Operator's seat and steering column position.
- Ladder position (it must be raised through its elevation system actuated by switch on side console).

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Mechanical Transmission

Eaton FS 4205 Transmission-Manual Machines

YE000104—UN—22SEP22

Eaton FS 4205 Transmission-Manual Mechanical Machines

For manual mechanical machines, the transmission system is composed of an Eaton FS 4205 transmission housing with a cable-actuated gearshift lever, five forward gears plus reverse, and a hydraulic-actuated clutch.

Allison Transmission-Automatic Machines

YE000105—UN—22SEP22

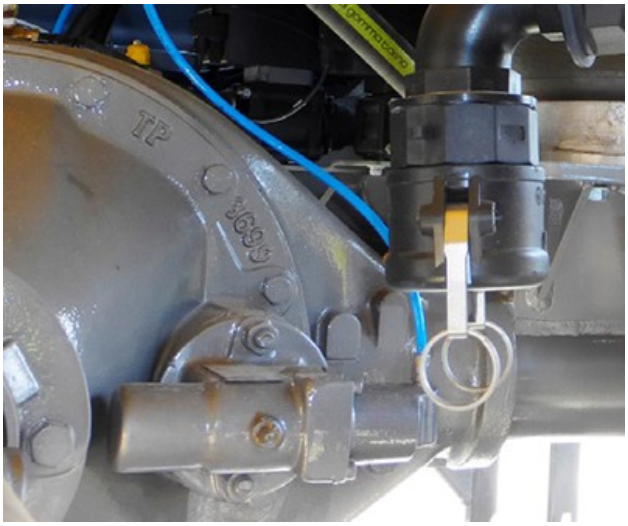
Allison Transmission-Automatic Mechanical Machines

For automatic mechanical machines, the transmission system is composed of an Allison transmission housing of four forward gears plus reverse, as well as an ECO mode for saving fuel.

The Allison transmission is driven by a torque converter.

Electronically controlled, it is an automatic transmission.

Differential



YE000106—UN—22SEP22

Eaton 19050 Differential

The machine is equipped with an Eaton 19050 differential. The high/low change is pneumatically actuated.

jtlsx7f,1693947680412-19-04OCT23

Machine Start-Up

1. Engage the park brake.
2. Put the transmission in neutral.
3. To alert people around machine, sound the horn two or three times.
4. Turn the ignition key to start position, releasing it when the engine is started.
5. After 1—2 minutes at low idle, increase the engine speed to 1300—1500 rpm to reach working temperature.

IMPORTANT: Avoid machine damage to hydraulic system. If the hydraulic fluid is cold, let the engine running at low idle during 5 minutes. Only increase the engine to high idle after this.

jtlsx7f,1661190036845-19-05SEP23

Machine Indicators and Alerts

Alert lights and indicators monitor the functioning of various important machine features and are essential for safety. In case of malfunction, they alert the operator to stop operation at the current conditions, avoiding irreversible damage to machine.

Restriction Indicator of the Engine Air Cleaner

When the alert indicator light turns on during operation, it indicates that the air filter element is restricted.

Fuel Level Indicator

The fuel level indicator varies from empty (below) to full (above).

Avoid fuel from reaching the reserve level (an alert indicator turns on). Also, do not let the machine becoming out of fuel during operation. This will lead to the necessity of removing air from the system.

IMPORTANT: Damage to the injection pump may occur if it works with air.

When fuel level is low, immediately stop operation and fill the fuel tank to avoid becoming out of fuel at any situation.

Low Oil Pressure Shutdown Indicator

When the engine oil pressure reaches a value between 40—75 kPa (0.40—0.75 bar) (5.80—10.88 psi), the engine oil is at low pressure. An alert light turns on indicating that the engine must be stopped and the issue cause eliminated.

Engine Temperature Indicator

During operation, the temperature must be between 60—120°C. In case of overheating, an alert light turns on.

When this occurs, stop the machine and let the machine in low idle for some minutes until the temperature reaches the specified range.

As soon the engine is stopped, eliminate the overheating cause. Turbine issues or obstructions in the system are some of the possible causes.

Charge Voltage Indicator

The charge voltage of the alternator must be between 12—14 V.

In case of charge system failure, an alert light turns on. At this situation, to avoid damage to electrical system and at microprocessors of the spray control, stop the engine and check the issue cause.

edw8krp,1694008047165-19-06SEP23

Movement and Stop of the Machine-If Equipped with Eaton Transmission

To start machine movement, perform the following procedure:

1. Release the park brake (the pneumatic system pressure must be 6 kg/cm²).
2. Press the clutch pedal until end of course and select the desired gear at gearshift lever.
3. Slowly and progressively release the clutch pedal to start moving the machine.
4. To move the machine during transport, use the speed control pedal.
5. Set high/low in differential as necessary.

To stop machine movement, perform the following procedure:

1. Reduce speed and brake the machine.
2. Put the gearshift lever in neutral position and engage park brake.

To stop the engine, perform the following procedure:

IMPORTANT: Avoid damage to the turbocharger (if equipped). Let the engine running at low idle before turning it off.

1. Let the engine running at low idle for at least 1 minute.
2. Turn the ignition key to OFF position and remove it.
3. Disconnect any electrical accessory connected (lights, radio, etc).

jtlsx7f,1661190051386-19-23AUG22

Special Information for the Allison Transmission

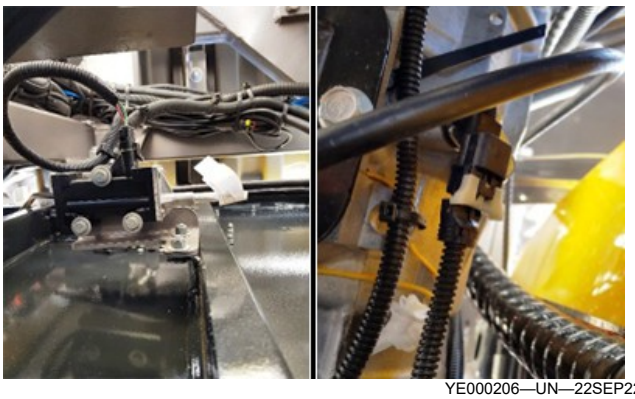
IMPORTANT: Avoid transmission damage by following the special instructions listed here:

- **Before selecting a gear, make sure the engine is running.**
- **Keep the brake pedal pressed each time a forward or rearward gear is selected.**
- **For selecting high/low at differential, the machine must be stopped and the transmission must be in neutral.**
- **To put the transmission in neutral, the machine must be completely stopped.**
- **If it is necessary to weld over the chassis, disconnect the 80-pin transmission connector and turn off the battery cut-off siwtch.**
- **After the machine is stopped and the engine**

turned off, wait for at least 30 seconds before cutting off the power with the battery cut-off switch.

- **The transmission must be in neutral when the park brake is engaged.**

YE000205—UN—22SEP22



YE000206—UN—22SEP22

YE000207—UN—22SEP22

- **When washing the machine, avoid directing pressurized water to transmission system. This may lead to electrical accidents and damage, as well as water entrance in system breathers.**

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Movement and Stop of the Machine-If Equipped with Allison Transmission

IMPORTANT: When turning on the engine, a transmission check light turns on at the instrument panel. This light must turn off at normal situation.

If a trouble code is active, the light remains on and can disable the gear change system. At this situation, check the transmission system.

To start machine movement, perform the following procedure:

1. Release the park brake (the pneumatic system pressure must be 6 kg/cm²).
2. With the transmission in neutral position, keep the service brake pedal pressed and select the desired gear. Slowly release the service brake. The machine starts moving at a low speed.
3. To move the machine during transport, use the speed control pedal.
4. Set high/low in differential as necessary.

In a situation where the machine needs to be parked for less than 5 minutes, perform the following procedure:

1. Only let the service brake engaged.
2. To start moving, slowly release the service brake. The machine starts moving at a low speed.
3. Press the speed control pedal to reach the desired speed.

IMPORTANT: Avoid transmission damage. If the machine is parked for more than 5 minutes, the transmission must be set to neutral.

To stop machine, perform the following procedure:

1. Press the service brake pedal progressively until the machine is stopped (0 km/h [0 mph]).
2. Put the transmission in neutral.
3. Engage the park brake.

To stop the engine, perform the following procedure:

IMPORTANT: Avoid damage to the turbocharger (if equipped). Let the engine running at low idle before turning it off.

1. Let the engine running at low idle for at least 1 minute.
2. Turn the ignition key to OFF position and remove it.
3. Disconnect any electrical accessory connected (lights, radio, etc).

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Operator Controls and Features

Steering

Attention. The hydraulic steering allows the control of the machine when the engine is stopped, but the required strength is greater at this situation. Proceed carefully.

When reaching the end of the course, do not maintain the steering wheel at this position. Return it a little bit to avoid over pressure on the system.

Clutch Pedal (If Equipped)

Do not maintain the foot over the clutch pedal, unless when necessary to change the gear. The use of the clutch pedal as a foot rest leads to premature wear on the clutch assembly.

Park Brake

Whenever leaving the cab with engine running or not, always engage the park brake.

An alert light shows up on instrument panel to indicate that the park brake is engaged, this way avoiding the machine forward movement with the park brake engaged.

Speed Control Pedal

If the speed control pedal is combined with the hand throttle lever adjusted to low idle, the actuation of the speed control pedal starts when it reaches the point the hand throttle lever is set.

Gearshift Lever/Selector and Transmission High/ Low Selection

The manual transmission housing (Eaton) has five forward gears and one reverse.

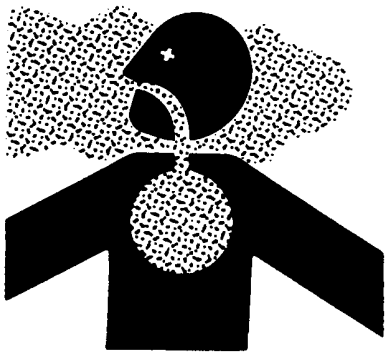
The automatic transmission housing (Allison) has four forward gears and one reverse.

The differential has a high/low mechanism that allows two speed ranges:

- **Low:** used for spray operations.
- **High:** used for machine general movement on field or routes.

jtlsx7f,1663087472145-19-02JAN24

Avoid Contact with Agricultural Chemicals



TS220—UN—15APR13

TS272—UN—23AUG88

⚠ CAUTION: This enclosed cab does not protect against inhaling vapor, aerosol or dust.

1. When operating in an environment where pesticides are present, wear a long-sleeved shirt, long-legged pants, shoes, and socks.
2. If pesticide use instructions require respiratory protection, wear an appropriate respirator inside the cab.
3. Wear personal protective equipment as required by the pesticide use instructions when leaving the enclosed cab:
   - into a treated area
   - to work with contaminated application equipment such as nozzles which must be cleaned, changed or redirected
   - to become involved with mixing and loading activities
4. Before re-entering the cab, remove protective equipment and store either outside the cab in a closed box or some other type of sealable container or inside the cab in a pesticide resistant container, such as a plastic bag.
5. Clean your shoes or boots to remove soil or other contaminated particles prior to entering the cab.

DX,CABS1-19-25MAR09

Service and Operate Chemical Sprayers Safely

TS272—UN—23AUG88

TS220—UN—15APR13

Chemicals used in agricultural sprayers 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. (See ‘Handle agricultural chemicals safely’ found in the Safety Section.)
- Fill, flush, calibrate, and decontaminate sprayer in an area where runoff will not reach ponds, lakes or streams, livestock areas, or gardens, or near other people.
- Keep children away from the chemicals, chemical solutions, and rinsates.
- If spray or chemical concentrate contacts skin, hands, or face, wash immediately with soap and water.

  If spray or chemical concentrate gets into eyes, flush immediately with water.
- If nozzle clogs or system malfunctions, stop engine and relieve spray pressure from system.
- Do not place nozzle tips or other components to the mouth to clear obstructions. Keep spare tips on hand for replacement.
- Minimize risk of spray drift.
  - Use large nozzle tips operated at lower pressures

  - Do not operate solution delivery system at pressures exceeding 345kPa (3.5 bar) (50 psi).
  - Do not spray when winds exceed 16 km/h (10 mph).
  - Do not spray when wind is blowing towards a nearby sensitive crop, garden, or populated area.
- Properly dispose of unused chemicals, flushing solution, and empty chemical containers.
- Decontaminate equipment used in mixing, transferring, and applying chemicals after use.

DX,WW,CHEM02-19-05APR04

General Recommendations

The application of herbicides and phytosanitary products is becoming increasingly common throughout agriculture. On majority of the cases, too much attention is given to the product to be used and too little on the machine that applies the product.

The design of the self-propelled sprayers provides different solutions for a good balance between the area covered, the exact dosage of product applied, uniformity in application over the crop, and maximum work autonomy.

PLA BY JOHN DEERE, with its different machine models and various configurations, provides the suitable tool for every situation.

The machine can be described as having two main systems that completes each other: self-propelling and spraying.

The self-propelling system consists of: engine, transmission, differential, brakes, steering system, and all the auxiliary systems related.

The spraying system consists of: eductor, water loading system, solution tank, solution pump, spray boom, nozzles, solution lines, valves, and regulation features used to achieve the goal of the machine.

Together with the descriptions above, the hydraulic system provides the necessary strength for the spray boom movements and any other feature used for facilitating the operation of the machine.

The automation available on PLA BY JOHN DEERE machines varies according to model and configuration chosen, from basic to more automatized and complete versions.

PLA BY JOHN DEERE uses modern technologies on its manufacturing process and incorporates the most advanced control systems of dosage and spraying on the machines, providing the ideal tool for an excellent result.

In all cases, the achieved results depend on various factors. To understand all the important factors to be considered in the product application, see the remaining procedures available in this section.

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Product Efficiency

Before spraying, make sure to choose the right product. The type and quality must be adequate for the crop care.

jtlsx7f,1658858060307-19-26JUL22

Right Moment for the Application

The right moment for the application varies according to crop and weather conditions, as well as other factors.

Due to the complexity of variables involved in defining the right moment, it is recommended to consult an agronomist.

jtlsx7f,1658858212067-19-26JUL22

Dosage Precision and Uniformity in Application

To achieve precision and uniformity in application, it is essential to have the machine correctly calibrated and the following components in perfect conditions: nozzles, nozzle bodies, pumps, filters, solution lines, regulation systems, and valves.

Nozzles have the function of applying product over the crop and are chosen according to type of application to be performed.

IMPORTANT: Nozzles wear out during usage, affecting the quality of distribution. It is necessary to frequently check their condition to ensure that none of the nozzles varies in more or less than 10% the application average.

The pumps are responsible for transforming the machine mechanical energy in hydraulic energy that transports the solution from the solution tank to the lines, filters, and nozzles, making the solution to come in an adequate pressure to the right application of the product.

jtlsx7f,1658865755386-19-26JUL22

Prepare for Work

The PLA BY JOHN DEERE machines have all the technology needed for an adequate product application, however, in the moment of the operation, the following factors are user responsibility:

1. Make sure that the chosen product is available.

2. Define the field and tracks for application.
3. Analyze the weather conditions.
4. To determine the opportunity of crop care, follow the recommendations of the chemical manufacturer according to crop conditions.
5. Calculate the correct amount of chemical product to be used in order to not remain product in the tank when finalizing the application.

Wind Drift

YE000031—UN—22SEP22

Wind drift refers to every drop that does not reach the target. The reasons may vary: wind, evaporation, rise, or jets.

To minimize the wind drift, pay attention to the following factors:

1. Look for a drop size not excessively big to jet and not excessively little to be carried out by wind, evaporate, or rise.

NOTE: The ideal drop size varies according to weather conditions, crop, and target.

2. Work with the spray boom the lowest as possible without affecting the spray overlap of the nozzles.
3. Use of anti-drifting or wind-assisted nozzles.
4. Avoid working at situations major than 12 km/h (7.46 mph) wind speed, 55% relative humidity, and 36º C temperatures if no technique is used to deal with the adverse conditions.
5. Work with the manufacturer recommended pressures.
6. Use of adjuvants, if necessary.
7. Use of wind tunnel.

Temperature and Humidity Conditions

The success or failure of an application depends mostly of the application weather conditions and the conditions after this process.

It must not rain for at least one hour before or after the application.

Spraying in low relative humidity conditions and in temperatures major than 36º C is not recommended considering that these factors increase the drop evaporation.

Spray Boom Height Regulation

The spray boom height is an essential factor to achieve an homogeneous application and adequate dosage. This height depends on the nozzle type used and crop being treated.

A great overlap is obtained with a greater height, however, the application is more exposed to wind drift.

See the manual of nozzles and determine the height according to the spray angle and to the spacing between nozzles.

Spray Nozzles

YE010427—UN—16MAR23

Simple Nozzle Body

YE010426—UN—16MAR23

5-Position Nozzle Body

The nozzles are basic elements for a correct uniformity in the product distribution.

Today, nozzles from various types are available in the

market: conventional flat fan, anti-drift and extended range with different work angles, double fan, hollow and full cone, mirror and air assisted, etc.

The type and liquid volume sprayed, the drop size, and the distribution over the ground surface, influence the results in the application against pests and weeds, as well as benefits crop nutrition through liquid fertilizers. These are the reasons why the correct choose of the nozzle type is important.

In order to correctly choose the adequate nozzle type, see the available tables provided by the manufacturers.

IMPORTANT: It is recommended to periodically control the condition of nozzles to make sure that they are correctly achieving their characteristics.

Any obstruction in the nozzle changes the expected dosage.

Machine Maintenance and Care

For a better operation and a higher machine durability, follow machine maintenance and care and instructions, periodicities, and the use of the recommended lubricants and greases.

IMPORTANT: Avoid machine damage:

- **Do not operate the machine with inadequate levels of oil, hydraulic fluid, or coolant.**
- **Do not operate the machine with temperature or pressure out of the specified limits.**
- **Dirt is dangerous for the hydraulic systems. Due to this reason, only use containers, cleaning cloths, funnels, and hoses that are clean and free of other fluids.**

After the daily work, clean the machine as recommended.

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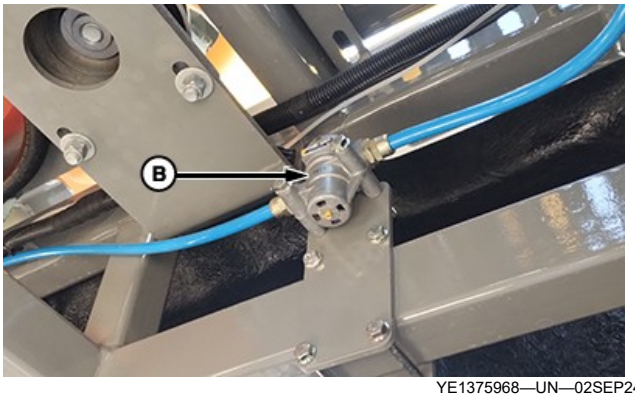
Pneumatic System

YE000039—UN—22SEP22

John Deere Engines

The machine is equipped with a high-yield compressor (A) and a high-capacity air tank on the chassis. This system provides compressed air to the the brakes and to the air suspension system.



YE1375968—UN—02SEP24

The combination of the air bags with a regulation valve (B) provides an efficient and smooth suspension system.

The regulation valve (B) limits the pressure of air provided by the compressor (A).

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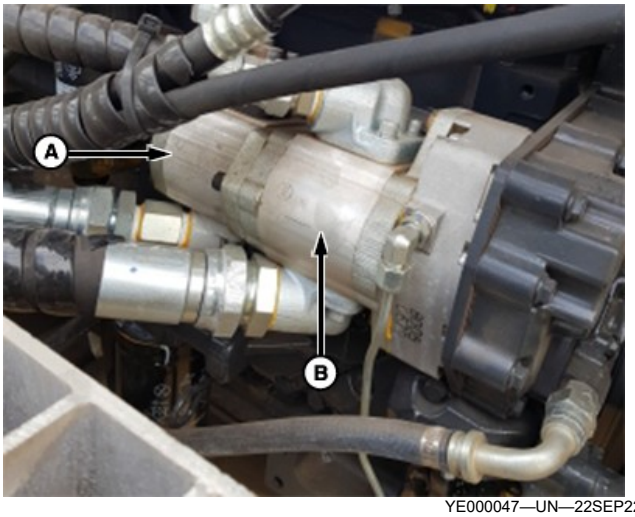
Hydraulic System

The self-propelled sprayers have a hydraulic reservoir equipped with a sight glass, visual temperature indicator, and low fluid level sensor.

NOTE: To check the specifications related to the machine hydraulic system, see the information available in the Specifications sections.

The hydraulic functions of the machine are controlled by electro-hydraulic valves, switches, and buttons on the right-hand console or on the multi-function lever. The hydraulic jack is controlled by a remote control that also actuates an electro-hydraulic valve.

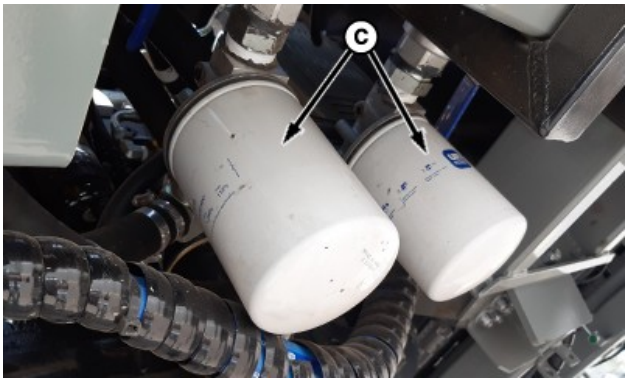
The components of the hydraulic circuit are protected by two relief valves (one for the movement circuit and the other one for the solution pump circuit).



YE000047—UN—22SEP22

The hydraulic requirements for all those movements, as well as the actuation of the charge pump, are provided by a 38 L/min (10 gal/min) pump (A).

The machine is also equipped with another pump of 52 L/min (13.7 gal/min) (B) that provides oil flow to the solution pump hydraulic motor.



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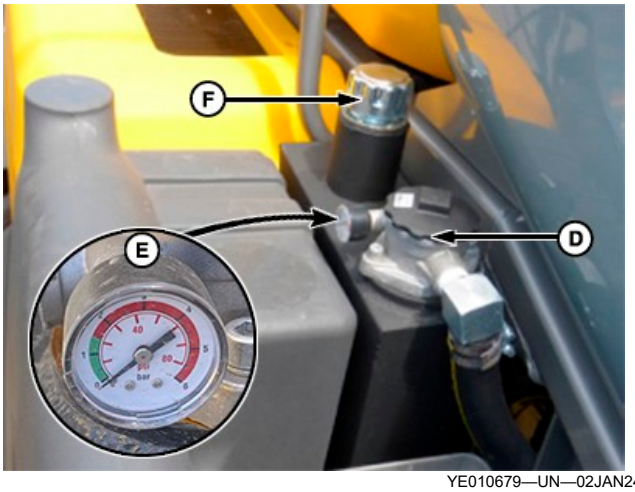

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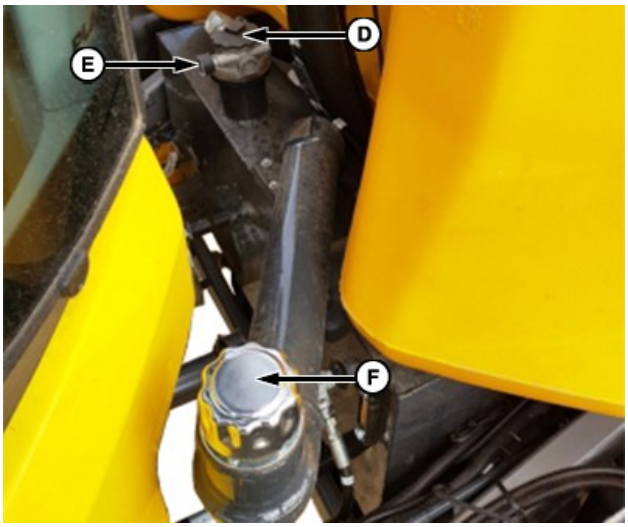
Machines Equipped with Central Engine



YE000042—UN—22SEP22

Machines Equipped with Front Engine

The cleaning of the hydraulic oil is obtained through two suction filters (C) of 125 µm and one return filter (D) of 10 µm with a restriction indicator (E) near to the filling cap (F).

jtlsx7f,1658858697799-19-04OCT23

Product Application

Carefully read the information contained in this section to determine the parameters of application. Also check the information available in the Safety section of this manual to understand the safety instructions regarding the usage of chemical products.

Apply all products in conformity of:

- Chemical Manufacturer Recommendations
- Recommendations of Agronomists
- Current Legislation
- Instructions Available in this Operator's Manual

Consult your agronomist and use only the recommended: product dosage, nozzles, and pressure.

Respect the intervals between applications, as well as the preharvest interval.

jtlsx7f,1658858762224-19-01AUG22

Before Operating in the Field

- Make sure that enough chemical product is available.
- Precisely determine the area where the machine is going to work on.
- **Humidity and Ambient Temperature:** avoid the application in low relative humidity conditions (less than 55%) or in ambient temperatures major than 36º C, considering that these factors increase the drop evaporation.
- **Wind Speed:** see the Wind Drift information in Prepare for Work procedure, at Operating the Sprayer section.

  Weather Conditions: check the weather conditions for the next hours or days. It must not rain for at least one hour before or after the application to not influence the effectiveness of the application.

NOTE: This interval can be greater according to type o chemical product used.

NOTE: The rain before the application is a serious inconvenient considering that soil compaction will be increased due to the high humidity condition.

jtlsx7f,1658858791856-19-22NOV22

Preparing the Equipment

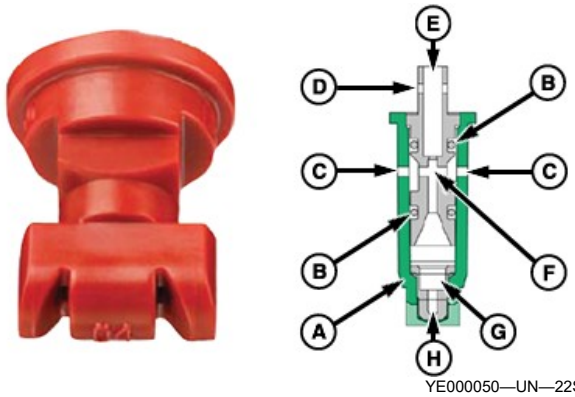
See the chemical product and nozzles manufacturer tables. There are international standards that regulate and catalog the selection criteria.

A wide variety of nozzles are available in the market: flat fan, non-uniform fan, hollow cone, full cone, and other varieties.

jtlsx7f,1658858833378-19-02AUG22

Identifying the Spray Nozzles

Nozzle Parts

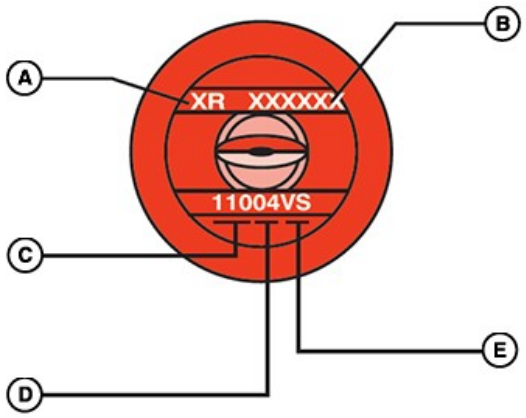


YE000050—UN—22SEP22

A—Nozzle Tip
B—O-Rings
C—Air
D—Pre-Orifice
E—Liquid
F—Injector
G—Mixing Chamber
H—Nozzle

Nozzle Codes and Information

CAUTION: Carefully read the safety information available in Safety section regarding the care when dealing with chemical products.



YE000051—UN—22SEP22

Nozzle Frontal Part

A—Nozzle Type
B—Brand
C—Spray Angle
D—Nominal Nozzle Capacity (0.4 gal/min at 300 kPa [3 bar] [43.5 psi])
E—Material

The nozzle has information codes on its frontal part. These codes identify the nozzle characteristics.

jtlsx7f,1658858846115-19-05OCT23

Selecting Nozzles

The suitable nozzle type for each application depends on crop type and the desired target. This selection is defined by international standards.

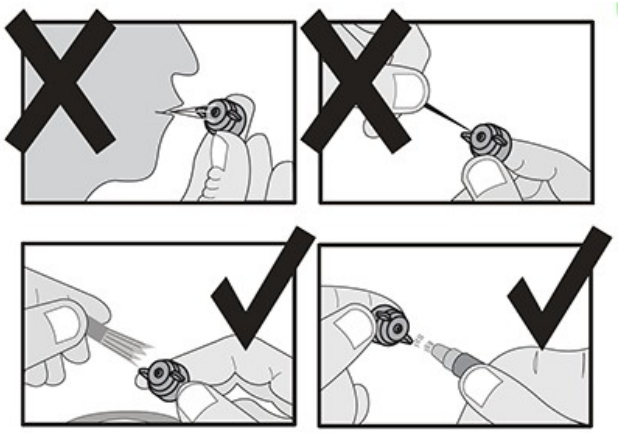
Nozzles have color codes according to flow rate that they achieve. There are nozzles blue, red, green, yellow, and so on.

Other characteristcs related to nozzles are: fan type, fan angle, drop size, and others.

On the selection of the most suitable nozzle for each situation, it is recommended to contact an agronomist or the chemical product manufacturer.

Both Arag and TeeJet provide 5-position nozzle bodies. On this cases, the installation of the nozzles is quick and simple. Once the most suitable group of nozzles is chosen according to work to be done, rotate the assemblies in a way that the selected nozzles are positioned down. This way, the flow in the other four outlets will be locked.

CAUTION: Avoid chemical contamination. Never clean a nozzle without suitable precautions and NEVER by blowing it with your mouth.



YE000053—UN—22SEP22

jtlsx7f,1658858882983-19-02AUG22

Control Nozzle Conditions

The solution flow rate control must be performed at a pressure of 300 kPa (3 bar) (43.5 psi).

CAUTION: Avoid exposure to hazardous materials that can be poisonous, causing injury. Always use water to control the nozzle conditions.

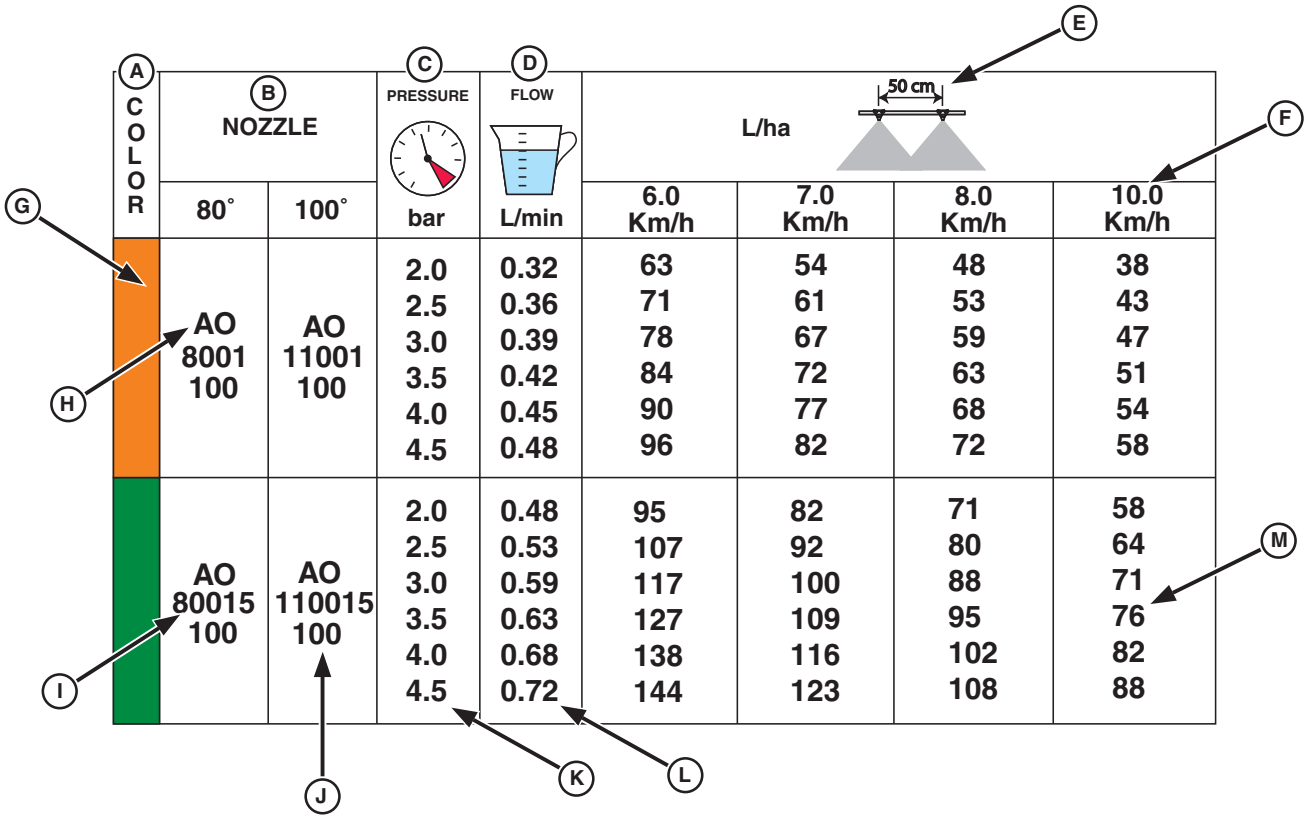
NOTE: The supplied kit of items contains a graduated container that can be used for this procedure purpose.

To control nozzle conditions, perform the procedure Control the Jet of Nozzles available in the Service—Solution System section.

jtlsx7f,1658858920551-19-05OCT23

Table of Nozzle Characteristics

The following table is a guide for choosing the most suitable nozzle.



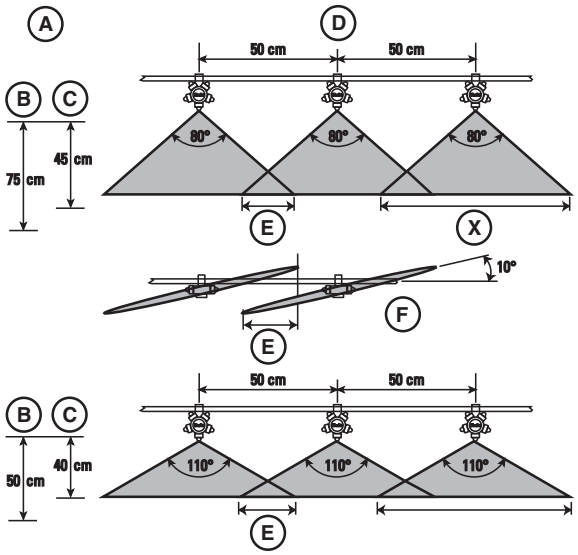
YE000052—UN—22SEP22

A—Color
B—Nozzle
C—Pressure
D—Flow
E—Recommended Nozzle Spacing by Manufacturer
F—Machine Speed
G—ISO Color Code (indicates the flow)
H—Brand or Model (arbitrary)
I—Number Code of Nozzle Characteristics: first two digits (80) represent the fan angle. Last digits (015) represent the flow in gal/min at 300 kPa (3 bar) (43.5 psi) pressure.
J—Nozzle Filter Mesh Size
K—Work Pressure
L—Nozzle Flow According to Work Pressure
M—Applied Product per Hectare (L/ha) According to Speed and Flow

jtlsx7f,1658858861274-19-05OCT23

Spray Boom Height

Before applying product and define the spray boom operating height, make sure to consider the wind drift conditions and the configuration of the spray lines.



YE000238—UN—28SEP22

Spray Boom Operating Height

A—Spray Height
B—Optimized Height
C—Minimum Height
D—Nozzle Distance
E—Recommended Overlap (30% of X)
F—Top View
X—Jet Width

The image shows the recommended height for positioning the spray boom according to the nozzle spray angle and a suitable overlap.

NOTE: The image is a reference only. To obtain detailed information and the most suitable configuration for the machine, see an agronomist.

jtlsx7f,1658858935637-19-28SEP22

Engine Revolution Counter

The proper and constant functioning of the engine is an important factor for maintaining the correct dosage of the product being applied.

YE010649—UN—02JAN24

Sprayers with Central Engine and Manual Transmission

YE1388745—UN—13JAN25

Sprayers with Central Engine and Automatic Transmission

YE001655—UN—02JAN24

Sprayers with Front Engine and Nutrient Applicators with Central Engine

This information can be monitored on the engine revolution counter (A) available in the display of the right-hand side console.

NOTE: For details regarding the display indicators, see the Electronic System section.

jtlsx7f,1733862481822-19-13JAN25

Formulas for Calculating Application

$$\text{Solution Flow (L/ha)} = \frac{600 \times \text{Nozzle Flow (L/ha)}}{\text{Nozzle Distance (m)} \times \text{Forward Speed (km/h)}}$$

$$\text{Nozzle Flow (L/ha)} = \frac{\text{Solution Flow (L/ha)} \times \text{Forward Speed (km/h)} \times \text{Nozzle Distance (m)}}{600}$$

$$\text{Forward Speed (km/h)} = \frac{3.6 \times \text{Distance Traveled (m)}}{\text{Time (s)}}$$

$$\text{Forward Speed (km/h)} = \frac{600 \times \text{Nozzle Flow (L/ha)}}{\text{Nozzle Distance (m)} \times \text{Solution Flow (L/ha)}}$$

$$\text{Work Width (m)} = \text{Nozzle Distance (m)} \times \text{Number of Nozzles}$$

$$\text{Effective Work Capacity (h/ha)} = \text{Work Width (m)} \times \text{Forward Speed (km/h)} \times \text{Coefficient of Effective Time}$$

Coefficient of Effective Time for Self-Propelled Sprayers: 0.50—0.75

Forward Speed for Self-Propelled Sprayers: 5—10 km/h

$$\text{Operating Time (h/ha)} = \frac{10}{\text{Work Width (m)} \times \text{Forward Speed (km/h)} \times \text{Coefficient of Effective Time}}$$

$$\text{Product Quantity (kg/L)} = \frac{\text{Product Dosage (L/ha or kg/ha)} \times \text{Tank Capacity (L)}}{\text{Solution Flow (L/ha)}}$$

$$\text{Machine Autonomy (ha)} = \frac{\text{Tank Capacity (L)}}{\text{Solution Flow (L/ha)}}$$

jtlsx7f,1658858945096-19-07MAR23

Operating the Nutrient Applicator

General Information

This machine is designed for the application of dry solid products (fertilizers or seeds) granulated or powdered. Products with different specific weights and qualities can be used, and at low, medium, or high dosage.

IMPORTANT: Avoid machine damage. The machine MUST NOT be used for:

- **Application of liquid or wet products.**
- **Storage of any kind of product.**
- **Towing other machines or equipment.**
- **Transporting people.**

NOTE: To achieve greater effectiveness, it is recommended to consult an agronomist. This professional can select the type and the quality of the product to be applied, as well as determine the correct dosage and the correct moment for the product application.

jtlsx7f,1667226114806-19-10NOV22

Performance

The machine provides an homogene distribution, regardless the weather conditions at the application moment.

Due to machine height, it is possible to work in advanced stages of crop growth, even on crops with higher heights, such as corn, sunflower, etc, without damaging the crop.

It is possible to perform interseeding or cover seeding before harvesting the last crop, without damaging it.

jtlsx7f,1667226160291-19-10NOV22

Fertilization Functions

- Application of amendments for soil correction.
- Application of powdered fertilizers or full coverage granules:
  a. During the period of soil preparation for the crop.
  b. Crops in advanced stage of growth, without damaging crop.
  c. Splitted over different stages of crop growth, without damaging crop.

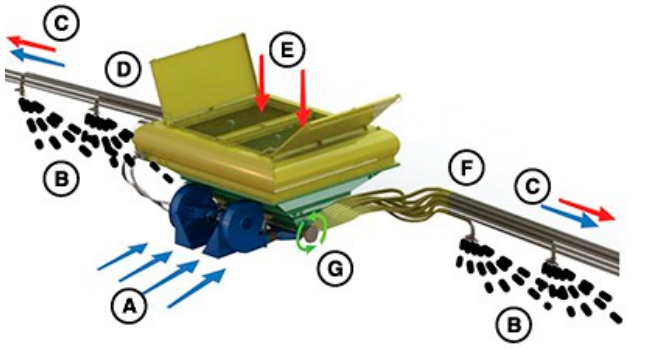
jtlsx7f,1667227482301-19-31OCT22

Seeding Functions

- Pasture seeding, cover seeding on stubble, or seeding on an existing crop before harvesting it.
- Interseeding.
- Pasture renovation.
- Grain cultivation.

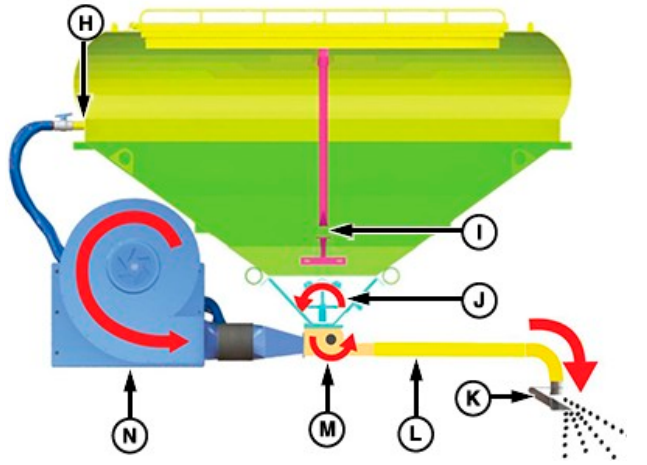
jtlsx7f,1668108924224-19-10NOV22

Pneumatic System of Dosage



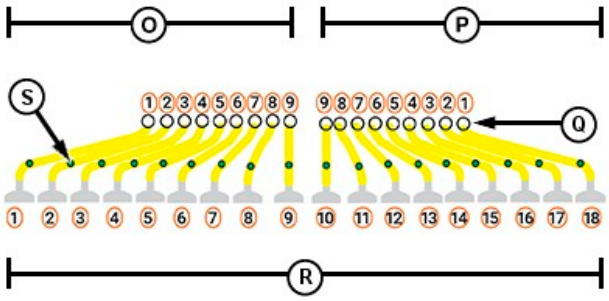
YE001065—UN—03JAN24

A—High-Flow Air
B—Seed or Fertilizer
C—Air and Product Flow
D—Right-Hand Side
E—Product
F—Left-Hand Side
G—Dosifier



YE001066—UN—03JAN24

H—Nutrient Applicator Box Pressurization
I—Cover
J—Remover
K—Nutrient Applicator Nozzle
L—Tube
M—Dosifier
N—Turbine



YE001067—UN—03JAN24

O—Left-Hand Side Dosifier
P—Right-Hand Side Dosifier
Q—Outlet Tubes
R—Nutrient Applicator Nozzles
S—Sensors

The machine is equipped with a high-flow turbine (N) that pressurizes the nutrient applicator box and generates an air current that passes through the dosifier (M). According to the type of wheel equipped and its turning speed, the dosifier (M) delivers a specific dosage at each outlet tube (Q) that is driven by air till the nutrient applicator nozzles (R).

The nutrient applicator nozzles (R) have a specific shape that allows to obtain an uniform distribution through all the work width of the machine.

jtlsx7f,1667227499027-19-11AUG23

Precision Agriculture

This machine allows to work with variable dosage according to the environment.

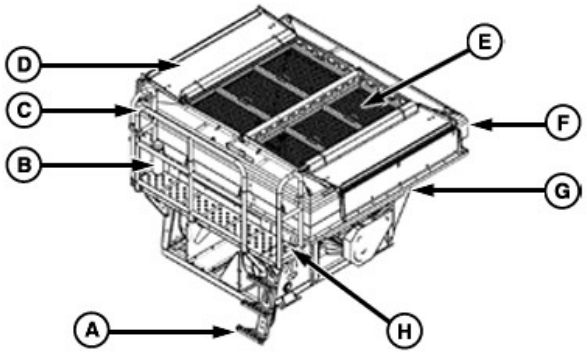
Through the nutrient applicator display (Agrotax AG Fusion or FGS), it is possible to determine the product dosage to be applied in a manual way, or through multivariable georeferenced prescription map. The dosifier is calibrated and then the system adjusts the turning speed of the dosifier according to the dosage to be applied at each environment and according to the machine forward speed.

The nutrient applicator display also generates an application map that can be used for future analysis of information.

jtlsx7f,1725305638367-19-02SEP24

Machine Components

The main nutrient applicator components are shown in the following images:

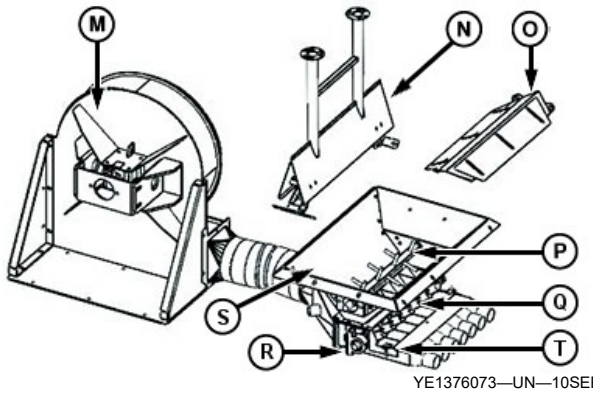


YE1376071—UN—03SEP24

A—Ladder
B—Manual Compartment
C—Folding Handrail
D—Load Cover
E—Anti-Clod Screen
F—Nutrient Applicator Box Cover
G—Nutrient Applicator Box
H—Slip Resistant Platform

YE1376074—UN—03SEP24

I—Hoses
J—Monitoring Sensors
K—Nutrient Applicator Nozzles
L—Tubes



YE1376073—UN—10SEP24

M—Turbine
N—Fixed Cover
O—Adjustable Cover
P—Remover
Q—Package of Wheels
R—Dosifier
S—Nutrient Applicator Box Internal Walls
T—Closing Plate

jtlsx7f,1725362166950-19-10SEP24

Agrotax AG Fusion Display (If Not Equipped with Section Control)

YE1388779—UN—13JAN25

The Agrotax AG Fusion display (A) allows to adjust, control, and register the dosage.

jtlsx7f,1725362875906-19-13JAN25

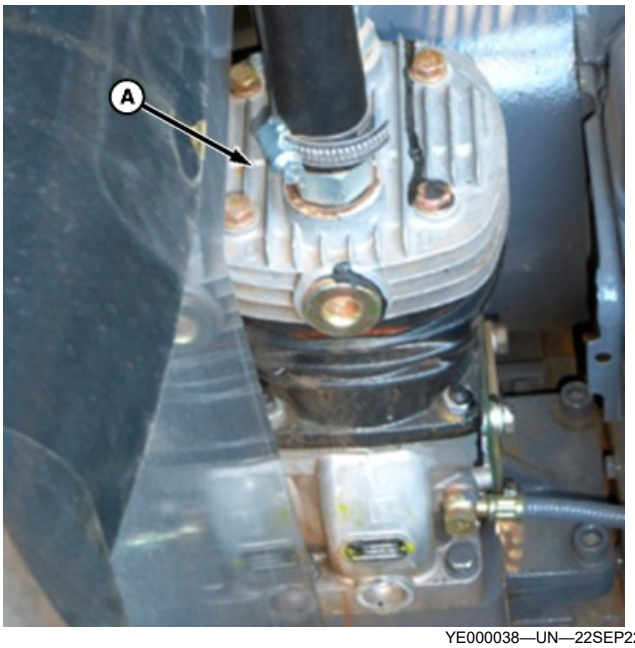
Agrotax FGS Display (If Equipped with Section Control)

YE1376157—UN—03SEP24

The Agrotax FGS display (A) allows to adjust, control, and register the dosage.

jtlsx7f,1725362918448-19-12SEP24

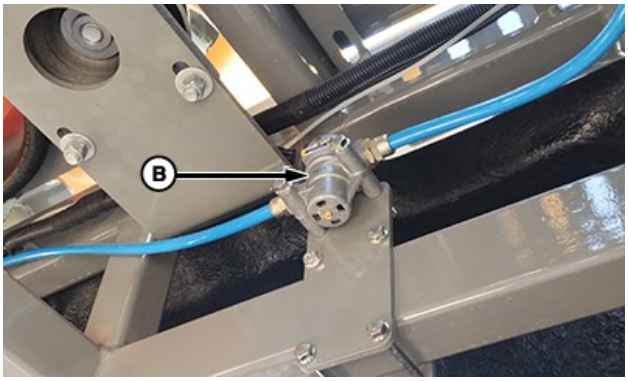
Pneumatic System



YE000038—UN—22SEP22

Deutz Engines

The machine is equipped with a high-yield compressor (A) and a high-capacity air tank on the chassis. This system provides compressed air to the the brakes and to the air suspension system.



YE1375968—UN—02SEP24

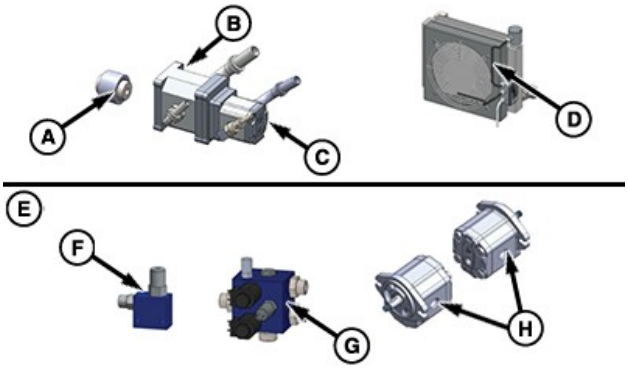
The combination of the air bags with a regulation valve (B) provides an efficient and smooth suspension system.

The regulation valve (B) limits the pressure of air provided by the compressor (A).

jtlsx7f,1669148049121-19-30AUG24

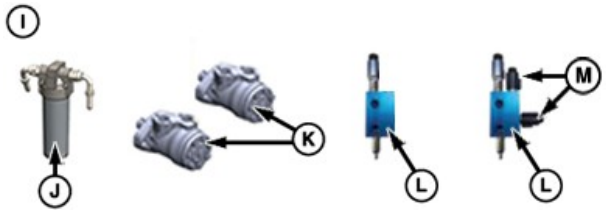
Hydraulic System

The main hydraulic components of the nutrient application system are shown in the following images:



YE1387593—UN—03JAN25

A—Joint
B—Turbine Pump
C—Dosifier Pump
D—Radiator with Thermovalve and Electric Fan
E—Turbines
F—Pressure Limiter
G—Turbine Lock (ON/OFF and rpm adjust)
H—Motors



YE1376161—UN—03SEP24

I—Dosage
J—Pressure Filter
K—Motors
L—PWM Valve
M—Section Control Valves

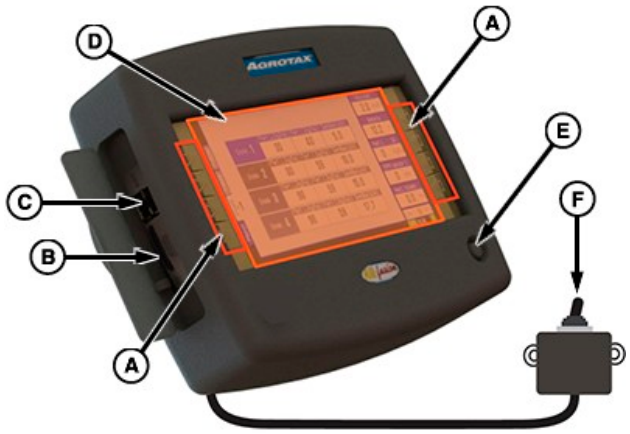
jtlsx7f,1725365687904-19-03JAN25

Turn On and Set the Agrotax AG Fusion Display (If Not Equipped with Section Control)

IMPORTANT: Avoid machine damage. To correctly operate the system, read the Operator's Manual of the Agrotax AG Fusion display.

IMPORTANT: Avoid machine damage. Turn on and off the machine with the display OFF.

IMPORTANT: Avoid electronic system damage. The memory card or the pen drive must have the FAT format and must be inserted before turning on the Agrotax AG Fusion display. Do not remove them with the display ON.



YE001073—UN—03JAN24

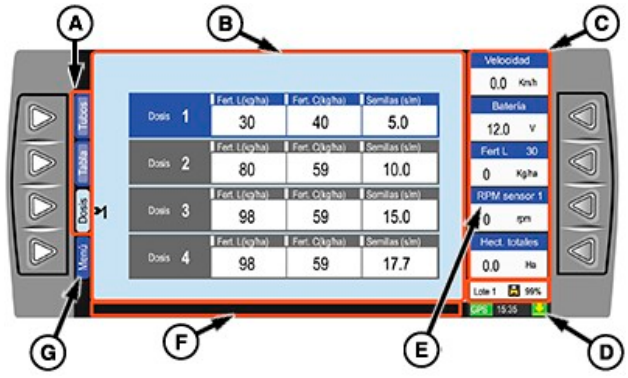
A—Option Selection
B—SD Card
C—USB Port
D—Display
E—Display ON/OFF Button
F—Dosage ON/OFF Button

To turn on the Agrotax AG Fusion display, press the display ON button (E). To turn it off, maintain the same button pressed for some seconds.

jtlsx7f,1725366389240-19-03SEP24

Work Display (If Not Equipped with Section Control)

The following information is available on display:



YE001074—UN—03JAN24

A—Tab Selection
B—Viewing of the Selected Tab
C—Numerical Information
D—Dosifier Status
E—Turbine Speed (rpm)
F—Sensor and Message Information
G—Main Menu

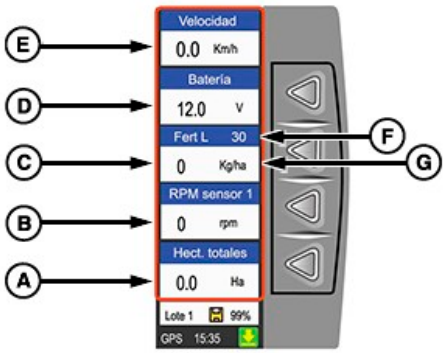
jtlsx7f,1725366442560-19-03SEP24

Numerical Information (If Not Equipped with Section Control)

This part of the display shows real time information. The boxes can be set to show different information by

pressing repeatedly the right-hand side selection buttons related.

It is recommended to set the boxes with the information available in the following image:



YE001075—UN—03JAN24

A—Total Worked Surface
B—Turbine Speed (rpm)
C—Fertilizers/Seeds Dosage
D—Battery Voltage
E—Machine Forward Speed
F—Preset Dosage
G—Real Time Dosage

jtlsx7f,1725366547286-19-03SEP24

Turn On and Set the Agrotax FGS Display (If Equipped with Section Control)

IMPORTANT: Avoid machine damage. To correctly operate the system, read the Operator's Manual of the Agrotax FGS display.

IMPORTANT: Avoid machine damage. Turn on and off the machine with the display OFF.

YE1376196—UN—03SEP24
Agrotax FGS Display

A—Display ON/OFF Button
B—Turbine Speed (rpm)
C—Dosifier ON/OFF Button
D—Dosifier Status

Main Page

YE1376203—UN—03SEP24
Main Page

When turning on the display, the main page is shown. Through this page, it is possible to create a new work or to open works already saved.

NOTE: Before starting a work, it is necessary to have a configuration profile for the tasks that are going to be performed.

Create Profile or Load an Existing Profile

YE1376203—UN—03SEP24

1. To access the configuration profiles, select configurations tab.

YE1376204—UN—03SEP24

2. Once at the configurations tab, select profile management.
3. Create a new profile or select an already existing profile, as desired:
   a. If creating a new profile, select create option.
   b. If using an existing profile, select the desired profile and press the load button.

Create New Work

YE1376205—UN—03SEP24

1. To create a new work, select this option at main page.
2. Name the work to be created.

YE1376206—UN—03SEP24

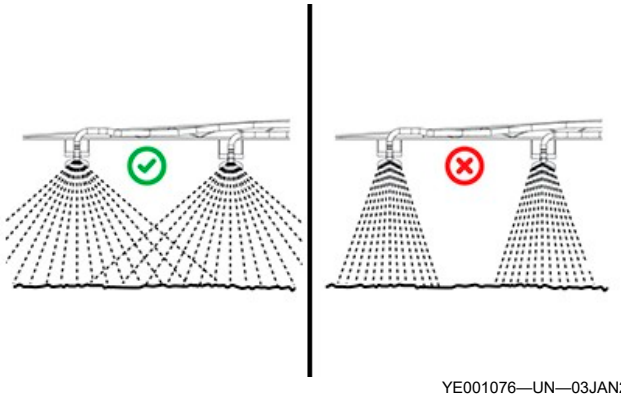
3. Select enter option.

jtlsx7f,1725368393190-19-03SEP24

Adjust the Turbine Speed

The turning speed (rpm) of the turbine determines the air flow that this component will deliver to the dosifier. Higher the rpm, higher the air flow and vice versa.

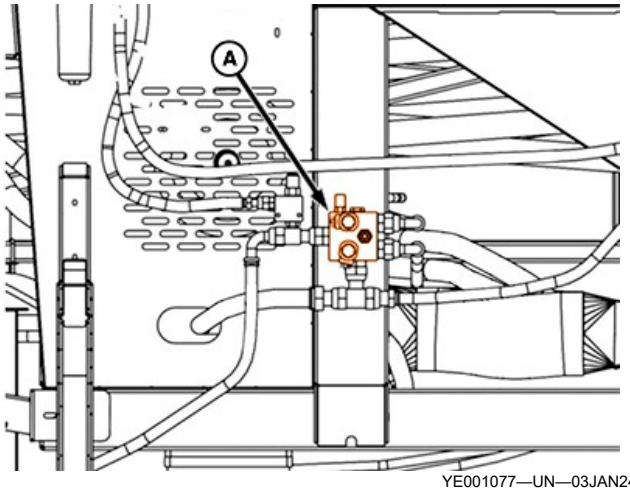
The turbine is factory adjusted at 3200—3300 rpm, which is an adequated turning speed for most of the fertilizers and thick seeds. For thin seeds, it is recommended to lower the turning speed.



YE001076—UN—03JAN24

Correct/Incorrect Superposition

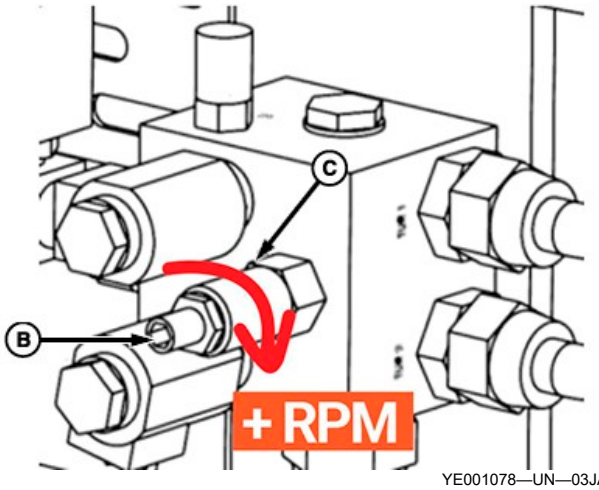
NOTE: If the air flow is too much lowered, some areas may come out of cover. A product superposition must be achieved as the images show.



YE001077—UN—03JAN24

The turning speed of the turbine is adjusted through the hydraulic flow control valve (A).

CAUTION: Avoid serious injury or death. NEVER adjust the turbine speed at more than 3500 rpm. Adjusting the turbine speed for more than 3500 rpm can break the rotor and metallic parts can be thrown at high speeds.



YE001078—UN—03JAN24

The hydraulic flow control valve (A) has a screw (B) to adjust the flow and a nut (C) to lock the screw position once the desired flow is achieved. The turning speed of the turbine is indicated in the nutrient application display.

The following tools are required:

- 19 mm (0.75 in) open-end wrench
- 6 mm (0.24 in) hex socket wrench

To adjust the turbine speed, perform the following procedure:

1. Turn on the machine.
2. Turn on the turbine.
3. Change the machine speed to work speed.
4. Check the turbine speed at the nutrient application display.
5. Release the nut (C) by turning it counterclockwise.
6. Adjust the turbine speed through the screw (B):

   - 1 screw (B) turn is equal to 200 rpm.

   - Rotating the screw (B) counterclockwise increase the turbine speed.

   - Rotating the screw (B) clockwise decrease the turbine speed.
7. Lock the screw (B) position by turning the nut (C) clockwise.
8. Check again the turbine speed at the display. Adjust again, if necessary.

jtlsx7f,1667227602093-19-03SEP24

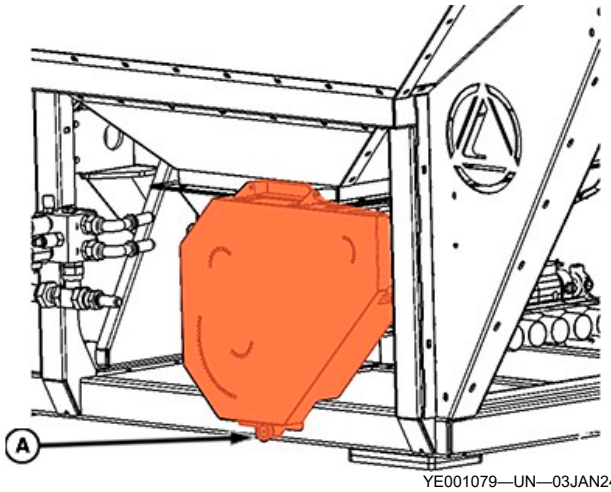
Change the Wheels of the Dosifier

CAUTION: Avoid accidents. Before changing the wheels of the dosifier, stop the machine and remove the ignition key.

There are different types of wheels for the dosifier, suitable for different material types, qualities, and dosage.

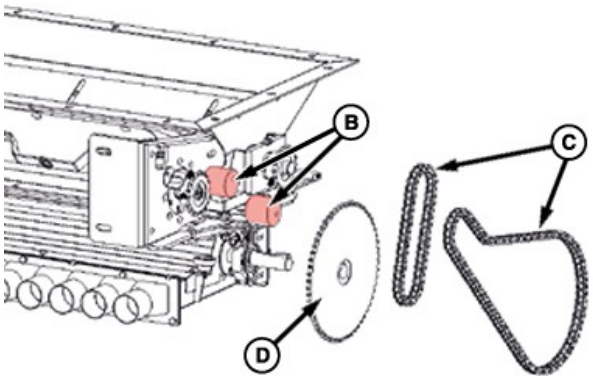
NOTE: The dosifier is standard delivered with a package of helicoidal wheels, another package of 4-blade wheels and a package of thin seed wheels.

To change the wheels of the dosifier, perform the following procedure:



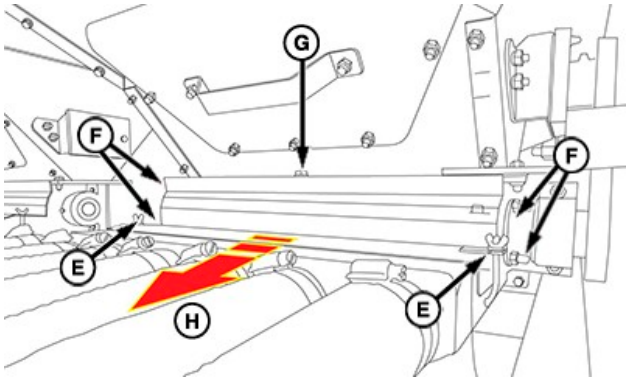
YE001079—UN—03JAN24

1. Open the side shield by removing the knob (A) that fix the shield on the machine.



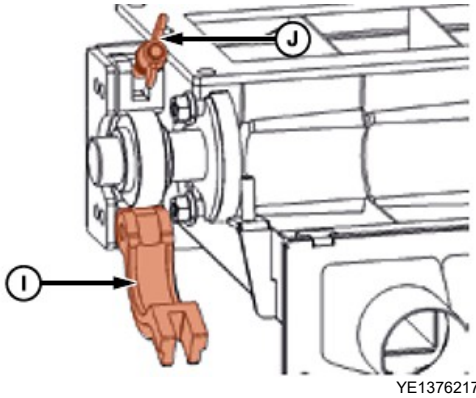
YE1376215—UN—03SEP24

2. Loosen the chain tensioners (B).
3. Remove the chains (C).
4. Remove the sprocket (D) from the dosifier shaft.



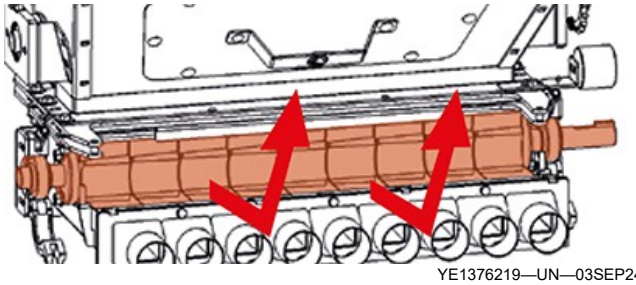
YE001081—UN—03JAN24

5. Loosen the nuts from the dosifier side covers (F).
6. Remove the wing nuts (E) from the frontal cover.
7. Remove the central nut (G).
8. Remove the frontal cover of the dosifier (H).



YE1376217—UN—03SEP24

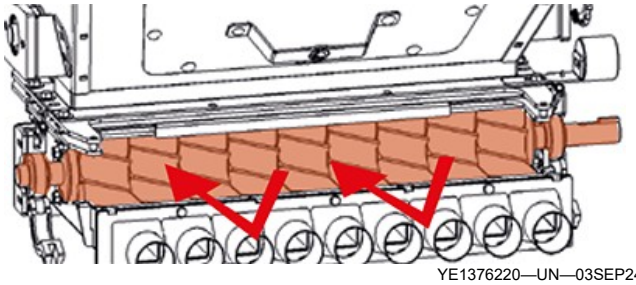
9. Remove the wing nuts (J) and the open quills (I).



YE1376219—UN—03SEP24

Current Package of Wheels

10. Remove the current package of wheels.



YE1376220—UN—03SEP24

New Package of Wheels

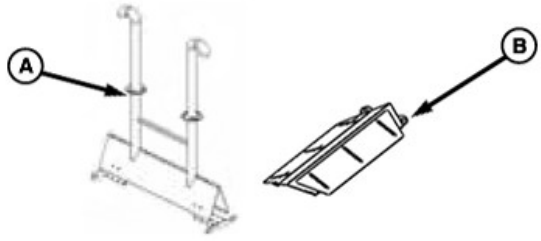
11. Install the new package of wheels.
12. Close the quills (I) and tighten the wing nuts (J).
13. Install and adjust the frontal cover (H), as well as the dosifier side covers (F).
14. Install the sprocket (D) of the dosifier shaft.
15. Install the chains (C) and adjust the tensioners (B).
16. Close and adjust the side shield of the transmission with the knob (A).

jtlsx7f,1725385139064-19-23SEP24

Change the Remover Deflector

CAUTION: Avoid accidents. Before changing the remover deflector, stop the machine and remove the ignition key.

The remover and its deflector have the function of avoiding product compaction at the dosifier inlet, generating a smooth, gradual, and uniform entry of material at each one of the wheels.



YE1376274—UN—18SEP24

A—Fixed Deflector

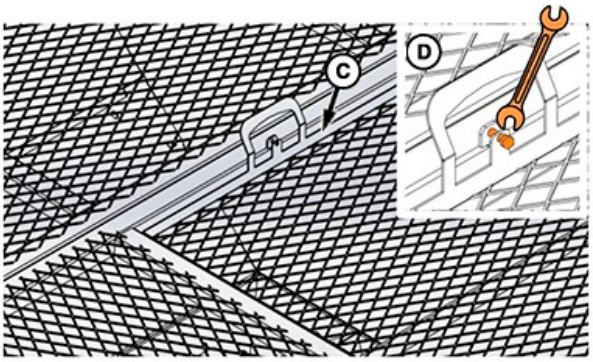
B—Adjustable Deflector

It is possible to choose between two types of deflectors (A—B) according to the material to be applied.

The adjustable deflector (B) is used for the application of powder product.

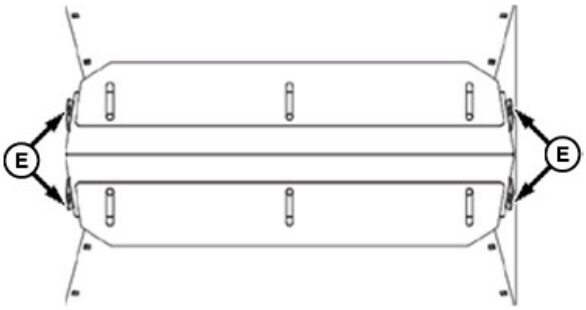
The fixed deflector (A) with conditioner is used for the application of granulated, phosphorous, or physical mixtures of specific weight equal to or greater than 1 kg/L.

To change the remover deflector, perform the following procedure:



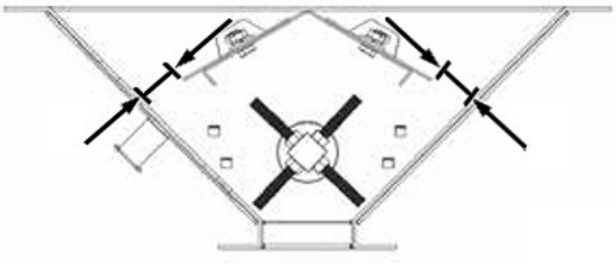
YE001086—UN—03JAN24

1. Using a wrench (D), unlock and remove the screen (C).



YE1377409—UN—19SEP24

2. Remove the nuts (E) that hold the deflector fixed on the nutrient applicator box.
3. Change the deflector.
4. Reinstall and adjust the nuts (E).



YE1376275—UN—09SEP24

NOTE: When using the adjustable deflector (B), its guillotines must be adjusted, providing an opening according to the information available in Machine Adjusts According to Product and Dosage to be Applied in Nutrient Application System section.

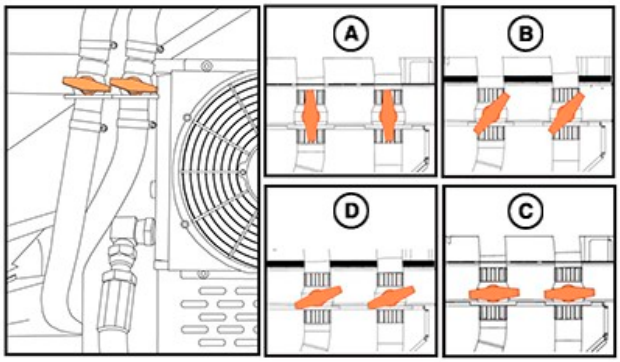
5. Reinstall the screen (C) and lock it using a wrench (D).

jtlsx7f,1725385180480-19-19SEP24

Adjust the Nutrient Applicator Box Pressure

Adjust the valves of the pressure hoses according to the indications available in Machine Adjusts According to Product and Dosage to be Applied in Nutrient Application System section.

YE1376282—UN—09SEP24



YE001088—UN—03JAN24

A—Fully Opened
B—3/4 Opened
C—Fully Closed
D—3/4 Closed

Use the image to undestand the opening levels (A—D) of the valves according to their positions.

jtlsx7f,1725385253278-19-04SEP24

Machine Start-Up and Operation

CAUTION: Avoid accidents. Before starting the machine, make sure that all shields are correctly installed and that no person is near the machine or in the work field.

1. Start the machine engine.
2. Turn on the nutrient application display. See the following procedures of the Operating the Nutrient Applicator section, according to your machine model:
   a. Turn On and Set the Agrotax AG Fusion Display (If Not Equipped with Section Control)
   b. Turn On and Set the Agrotax FGS Display (If Equipped with Section Control)
3. Open the application boom. (See instructions in Spray/Application Boom section.)

IMPORTANT: Avoid nutrient application system damage. The turbine must be ALWAYS the first component to be turned on and the last one to be turned off.

YE010483—UN—02APR23

4. Turn on the turbine using the control switch (A) available in the side console.

CAUTION: Avoid serious injury or death. NEVER adjust the turbine speed at more than 3500 rpm. Adjusting the turbine speed for more than 3500 rpm can break the rotor and metallic parts can be thrown at high speeds.

6. Increase the engine speed until achieve the work speed and check the turbine speed in the display. The turbine speed must be suitable for the product and dosage to be distributed. (See Adjust the Turbine Speed in Operating the Nutrient Applicator section, if needed.)
7. Dry moisture from nutrient applicator box and pipes: let the turbines working for 10 min so the pressurized air will dry the moisture from the nutrient applicator box, dosifier, and conduction pipes.

NOTE: The moisture is common in metal components due to ambient temperature change overnight.

8. Check the dosage system.

CAUTION: Avoid serious injury or death. Danger of particle projections. Make sure that no person is near the rear of the machine.

IMPORTANT: Always check the dosage system before loading the nutrient applicator box. This way, in case of system blockage or malfunction, it will not be needed to manually empty the nutrient applicator box.

9. For machines equipped with Agrotax AG Fusion display, perform the following procedure on display:
   a. Go to the main menu.
   b. Select dosifier.
   c. Select dosage calibration.
   d. Select fertilizer calibration in line.

YE001089—UN—03JAN24

e. Automatically the dosifier will be turned on and perform 10 turns. If no error message is shown at the display, press the Accept button.

10. For machines equipped with Agrotax FGS display, perform the following procedure on display:

    a. Go to the main page.

    b. Select configuration.

    c. Select dosifier.

    d. Select dosage calibration.

YE1376287—UN—09SEP24

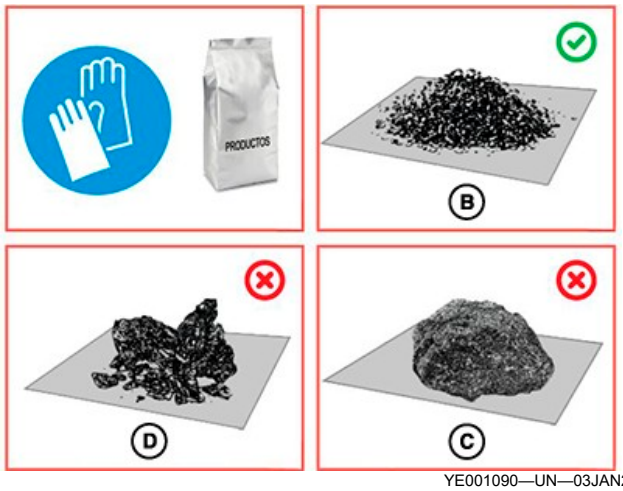
e. Automatically the dosifier will be turned on and perform 10 turns. If no error message is shown at the display, press the Return button.

NOTE: In case of faults being shown, see Nutrient Application System Troubleshooting in Nutrient Application System section.

11. Stop the machine and the turbine.

CAUTION: Avoid accidents. Always turn off the turbine before loading the nutrient applicator box.

IMPORTANT: Avoid machine damage. The nutrient applicator box must only be loaded in the working field, in the place where the product will be applied. When the machine is not dosifying, it must not be driven from one place to another with the nutrient applicator box loaded due to product compactation that may occur inside the dosifier and generate malfunction when when restarting the operation.



YE001090—UN—03JAN24

B—Dry
C—Hardened
D—Damp

NOTE: To check the product conditions, take a handful of product, tighten it firmly with the hand and then release it. If the product flows freely, it means that it is dry and ready for use. If the product clusters, it means that it is damp and unusable.

12. Check the product conditions: the product must be dry, without moisture, nor hardened. The product must also be free of impurities.

CAUTION: Avoid serious injury or death. Slippage and falling out danger at height. Always keep a 3-point contact when accessing the load zone of the nutrient applicator box. DO NOT stand over the screens, nutrient applicator box roof or accessing covers. Always stand over the loading platforms only.

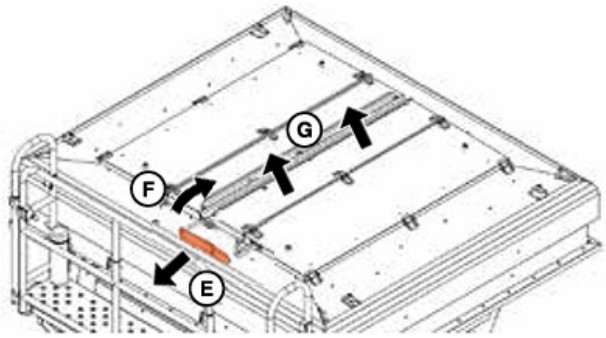
CAUTION: Avoid serious injury or death. Do not climb the machine platforms carrying the product load with you. The machine is designed to be loaded using suitable equipment (bag winch, without strap or lifting belt).

CAUTION: There are fertilizer products, like urea, that in a damp state may become sticky and increase the slippage danger. Always keep the machine in perfect cleanliness conditions, specially the nutrient applicator box loading zone, as well as the accessing ways like platforms and handrails.

CAUTION: The application products may contain chemical substances that are health harmful. Always use protection gloves and personal equipment suitable for chemical products contact. Protective goggles and respiratory protection must also be used.

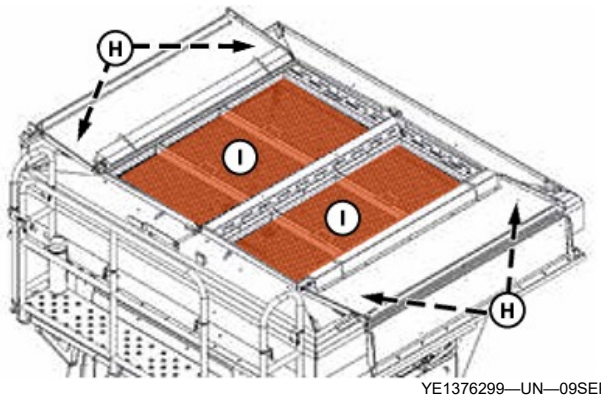
During the product load, toxic gases and vapors may be released from the loading material. These particles are health harmful. Make sure to position the machine against the wind direction so the working people around the machine will not be exposed to contaminants.

13. Load the nutrient applicator box.
14. Open the cover of the nutrient applicator box:



YE1376294—UN—09SEP24

a. Unlock the lever by moving it outward (E) the nutrient applicator box and rotating it clockwise (F).



YE1376299—UN—09SEP24

b. Hold the cover knob and open the cover to outside the nutrient applicator box (G) until the cover rests over the rubber supports (H).

IMPORTANT: Avoid nutrient application system damage. The product must pass through the anti-clod screen (I) before entering in the nutrient applicator box. Check that all screens (I) are correctly positioned before starting the load.

IMPORTANT: Avoid nutrient application system damage. Do not exceed the maximum load capacity of the machine. (See Fertilization System in Specifications-MAF 5000 Nutrient Applicator section.)

15. Load the nutrient applicator box with the product to be applied.
16. Once the loading is ended, clean the cover seals, close, and lock the covers properly so air leaks will not occur.
17. Calibrate the dosifier. (See Dosifier Calibration in Operating the Nutrient Applicator section.)
18. Set the dosage to be applied. (See Set the Dosage to be Applied in Operating the Nutrient Applicator section.)
19. Activate the dosifier. (See Activate the Dosifier in Operating the Nutrient Applicator section.)
20. Start moving the machine.

CAUTION: Avoid serious injury or death. Machine rollover risks. Reduce the speed when turning the machine. Pay special attention on uneven or sloping terrain.

CAUTION: Avoid serious injury or death. Before start moving the machine, check that no person is over the machine, near the machine, or on the working field.

NOTE: The working speed may vary from 4—20 km/h (2.5—12.4 mph) according to the product to be applied and the desired dosage.

NOTE: See Operate Correctly at Headlands in Operating the Nutrient Applicator section for instructions at this kind of operation.

21. Check the status of the flow sensors. (See Check the Status of the Flow Sensors in Operating the Nutrient Applicator section.)
22. Control the dosage during operation. (See Control the Dosage During Operation in Operating the Nutrient Applicator section.)
23. Once the application of the product is ended, perform the following procedure:

CAUTION: Avoid serious injury or death. Risks of crash and crush. Make sure that no person is near the machine.

a. Turn off the dosifier.

b. Stop the machine and keep the engine running.

c. Turn off the turbine.

d. Turn off the nutrient application display.

e. Close the application boom.

f. Turn off the machine.

24. Pay attention to the special care instructions at the end of the daily work. (See Special Care at the End of the Daily Work in Operating the Nutrient Applicator section.)

jtlsx7f,1725385409818-19-23SEP24

Dosifier Calibration

The dosage to be applied (kg/ha) is controlled through the nutrient application display. This control unit is responsible for adjusting the turning speed of the dosifier.

The calibration of the dosifier consists on indicating in the display the specific weight of product that a nutrient applicator nozzle delivers at a certain quantity of dosifier turns.

NOTE: The dosifier delivers a determined volume per turn and the machine is calibrated with the weight of this product. The relation weight/volume is the specific weight of the product. It is very important to calibrate the machine each time the specific weight is changed, like when the product batch is changed or when the ambient humidity varies.

To calibrate the dosifier, the following is required:

- Precision Scale (max 3 kg/d = 1g)
- Empty Bags (seed bags, for instance)
- Suitable Container for Measuring the Product Weight

To calibrate the dosifier, perform the following procedure:

1. Turn on the turbines and let the machine engine running at working speed.
2. Check the turbine speed in the display. (See Machine Adjusts According to Product and Dosage in Nutrient Application System section for turbine speed information.)
3. For machines equipped with Agrotax AG Fusion display, perform the following procedure on display:
   a. Go to the main menu.
   b. Select dosifier.
   c. Select dosage calibration.
   d. Select fertilizer calibration in line.
   e. The dosifier is activated and performs 10 turns distributing the product through the nutrient applicator nozzles.

YE1376351—UN—09SEP24

   f. Press the accept button (A).

NOTE: This first delivery of products from the dosifier is not collected for weighing, considering that the first load may not be completely uniform and may generate a calibration inaccurate.

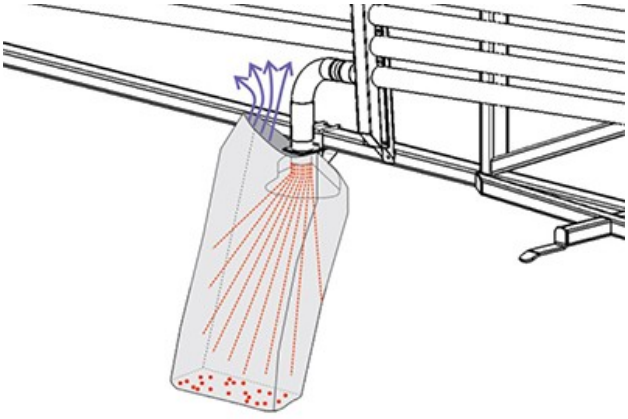
4. For machines equipped with Agrotax FGS display, perform the following procedure on display:
   a. Go to the main page.
   b. Select the configuration menu.
   c. Select dosifier.
   d. Select in line fertilization.
   e. Select dosage calibration.

NOTE: When this calibration is done, dosifier is activated and performs 10 turns distributing the product through the nutrient applicator nozzles.

YE1376367—UN—09SEP24

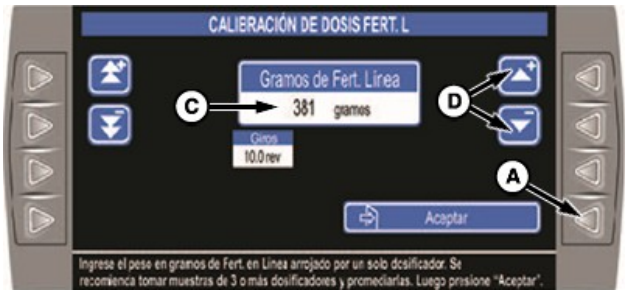
   f. Press the recalibrate button (B).

NOTE: This first delivery of products from the dosifier is not collected for weighing, considering that the first load may not be completely uniform and may generate a calibration inaccurate.



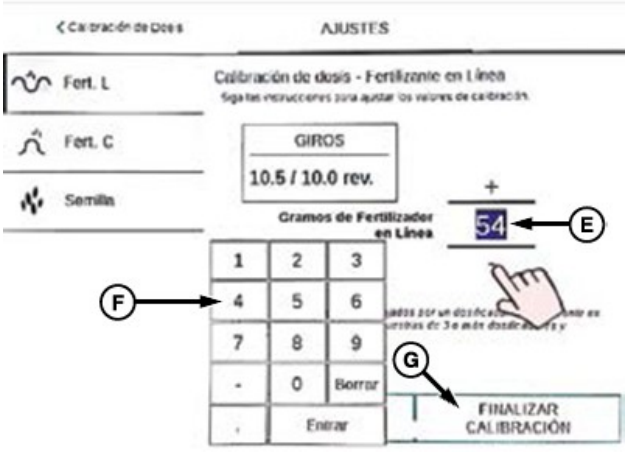
YE001093—UN—03JAN24

5. Position the empty bags distributed on the nutrient applicator nozzles, leaving a space for air leaks as indicated in the image.
6. For machines equipped with Agrotax AG Fusion display, perform to the dosage calibration again.
7. For machines equipped with Agrotax FGS display, press recalibrate (B) to activate the dosifier again and perform 10 more turns, delivering product.
8. Remove the bags from the nutrient applicator nozzles.
9. Tare the empty container.
10. Insert the colected product from each bag inside the container.
11. Measure the weight of the container with the product.
12. Divide the weight per the quantity of bags used.



YE1376371—UN—09SEP24

13. For machines equipped with Agrotax AG Fusion display, perform the following procedure on display:
    a. Insert the weight (in grams) in the box (C) by using the buttons (D) to insert the desired value.
    b. Press the accept button (A).



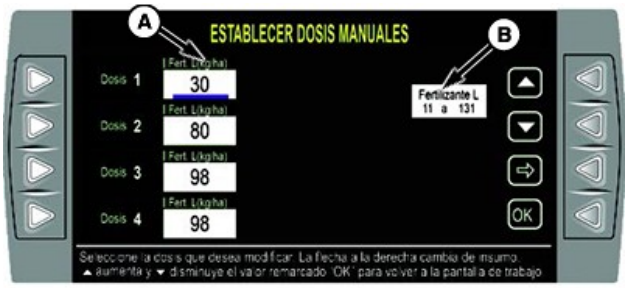
YE1376376—UN—09SEP24

14. For machines equipped with Agrotax FGS display, perform the following procedure on display:
    a. Insert the weight (in grams) in the box (E) by using the keypad (F) to insert the desired value.
    b. Press finalize calibration button (G).

jtlsx7f,1725385452829-19-23SEP24

Set the Dosage to be Applied (Manual Way) —Agrotax AG Fusion Display

1. On display, go to the main menu.
2. Select dosifier.



YE001095—UN—03JAN24

Manual Dosage Page

3. Select manual dosage.
4. Insert the values for the dosis to be applied in kg/ha in the boxes (A).

NOTE: Up to four different dosage values can be set.

5. Make sure to consider the minimum and the maximum values to be applied in the box (B). This value is automatically shown according to the calibration of the dosifier.

YE001096—UN—03JAN24

6. In the dosis page it is possible to select one of the dosages to be applied by pressing the button (C) repeatedly.

jtlsx7f,1725385562500-19-03SEP24

Set the Dosage to be Applied (Automatic Way)—Agrotax AG Fusion Display

1. On display, go to the main menu.
2. Select dosifier.

YE000355—UN—04NOV22

3. Select automatic dosage. A list of all existing valid prescriptions in the SD memory is shown.

YE001097—UN—03JAN24

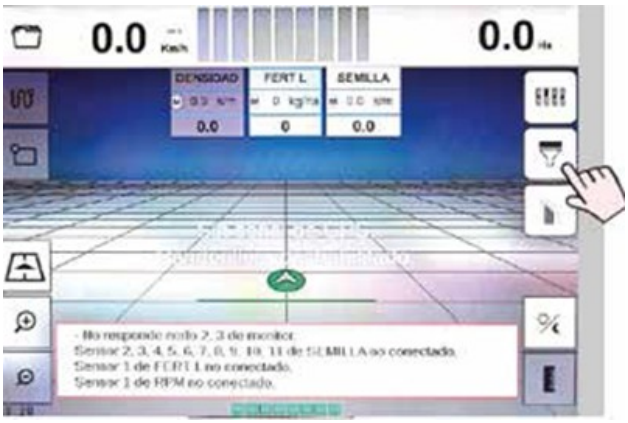
Dosage Map

4. Select a prescription and then the dosis tab will shown the zone that belongs to each batch section and the dosis that must be applied to each one of them.

NOTE: To correctly set and operate the system, read the Operator's Manual of the Agrotax AG Fusion display.

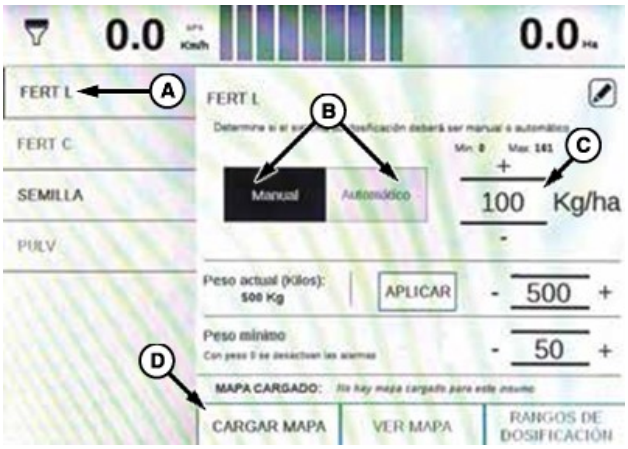
jtlsx7f,1725385678916-19-03SEP24

Set the Dosage to be Applied—Agrotax FGS Display



YE1376404—UN—09SEP24

1. When already inside a work, to show the hidden menu, touch in any portion of the display.
2. To load dosage, select the dosifier button.



YE1376405—UN—09SEP24

3. Inside the dosifier page, select **FERT L** option (A).
4. Select the dosage mode (B):
   a. If using the manual mode, set the dosage to be applied (C).
   b. If using the automatic mode, select load map (D).

NOTE: To correctly set and operate the system, read the Operator's Manual of the Agrotax FGS display

jtlsx7f,1725385768660-19-05SEP24

Activate the Dosifier

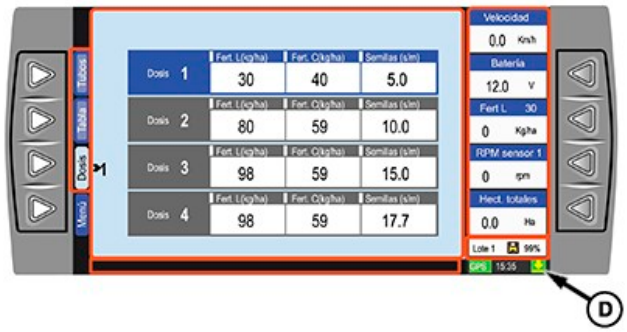
YE010409—UN—10MAR23

YE001098—UN—03JAN24

Agrotax AG Fusion Display

YE1376414—UN—09SEP24

Agrotax FGS Display



YE001099—UN—03JAN24

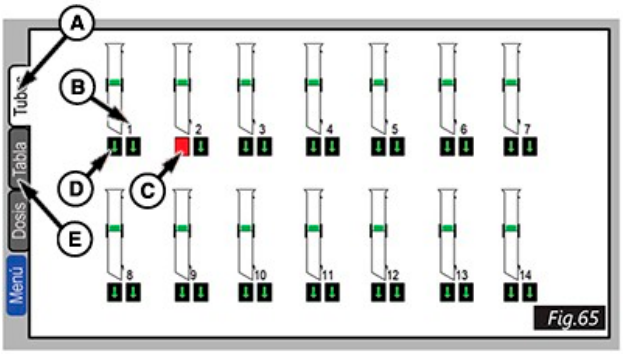
A—Control Button
B—ON
C—OFF
D—Dosifier Working
E—Dosifier Stopped

1. Turn on the dosifier using the control switch (A).
2. On display, check for the dosifier working (D) symbol.

jtlsx7f,1725385826757-19-19SEP24

Check the Status of the Flow Sensors

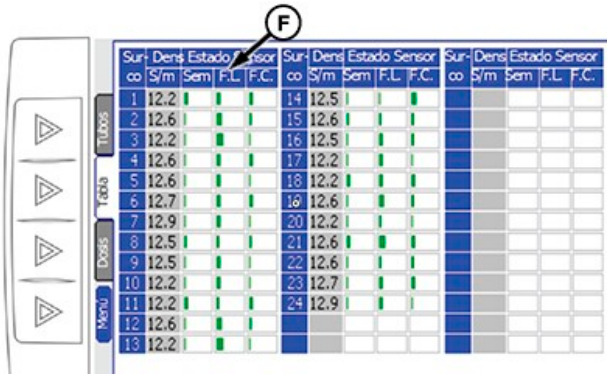
If Equipped with Agrotax AG Fusion Display



YE001100—UN—03JAN24

Tubes Tab

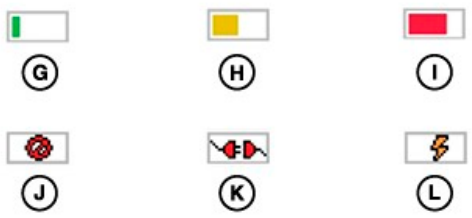
At the tubes tab (A), the satus of each one of the sensors is shown. The number of the nutrient applicator nozzle (B) is indicated, as well as the flow sensor status. If the symbol (D) is shown, there is fertilizer flow. If the symbol (C) is shown, an error is occurring.



YE001101—UN—03JAN24

Table Tab

At the table tab (E), more details of the sensors are shown at the F.L. column (F).



YE001102—UN—03JAN24

G—Sensor OK with Low Level of Dust
H—Sensor OK with Medium Level of Dust
I—Sensor OK with High Level of Dust
J—Sensor Disabled
K—Sensor Disconnected

L—Sensor with Cable Shorted

If Equipped with Agrotax FGS Display

To check the status of the flow sensors at Agrotax FGS display, it is necessary to access the configuration menu. In the situation any fault is noticed at a sensor, a message will be shown on display. (For details, see the Operator's Manual of the Agrotax FGS display.)

jtlsx7f,1725386030045-19-06SEP24

Operate Correctly at Headlands

IMPORTANT: Avoid nutrient Application System damage. Do not turn off the turbine at headlands. This may lead to damage in the system due to pressure peaks.

To avoid overapplication, turn off the dosifier when reaching a headland. When leaving the headland, turn on the dosifier again.

jtlsx7f,1668884033106-19-05DEC22

Control the Dosage During Operation

1. Perform the dosifier calibration each time the product to be applied is changed, the product batch is changed, or when the ambient temperature has a large variation. (See Dosifier Calibration in Operating the Nutrient Applicator section.)
2. If none of the situations above occur, perform the dosifier calibration at least twice a day.

jtlsx7f,1668884035327-19-05DEC22

Moving the Machine to Another Field

CAUTION: Avoid serious injury or death. Travelling with the nutrient applicator box loaded besides demaging the system, increases rollover risks due to the change on the machine gravity center.

IMPORTANT: Avoid nutrient application systemdamage. The machine must not be driven from a field to another with the nutrient applicator box loaded due to product compactation that may occur inside the dosifier and generate malfunction when restarting operation.

jtlsx7f,1668884900096-19-05DEC22

Special Care at the End of the Daily Work

CAUTION: Avoid health injury or death. Besides causing machine damage, leftovers in dosage system may generate health harmful vapors.

IMPORTANT: Avoid machine damage. At the end of the daily work, leftovers must not remain in the dosage system. The products used in the system absorve moisture, group, and compact, generating system malfunction or components breakage when the machine returns to operate.

If leftovers remain in the nutrient applicator box at the end of the daily work, the dosifiers must be turned on with the machine stopped so the bottom of the nutrient applicator box is cleaned according to the following procedure:

1. Turn on the turbine and let it running in the work speed.
2. Turn on the dosifier.
3. For machines equipped with Agrotax AG Fusion display, perform the following procedure:
   a. Select main menu.
   b. Select installation options.

YE001103—UN—03JAN24

Speed Configuration Page

   c. Select speed configuration (A).
   d. Select speed selection (B).

YE001104—UN—03JAN24

   e. Set the manual speed box using the buttons (D).
   f. Select manual speed insert (C).

YE001105—UN—03JAN24

g. Set the speed box to 10 km/h (6.2 mph) using the buttons (E). Let the system working for some minutes until the nutrient applicator box and the dosifier system are empty. After this, return to 0 km/h (0 mph) and press the return button.

h. Select speed selection (B) again.

YE001106—UN—03JAN24

i. Using the buttons (F), set the box to GPS option.

j. Press the return button.

4. Turn off the dosifier.
5. Turn off the nutrient application display.
6. Turn off the turbine.

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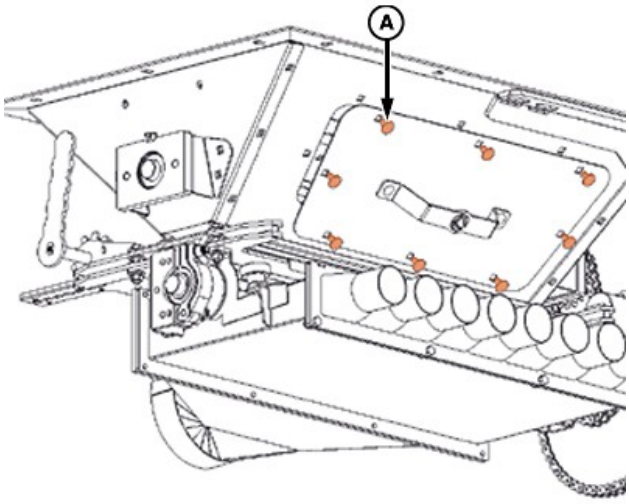
Empty the Application Box Manually



YE1376484—UN—09SEP24

In the situation that is needed to empty the application box manually, open the inspection cover by removing the screws (A).

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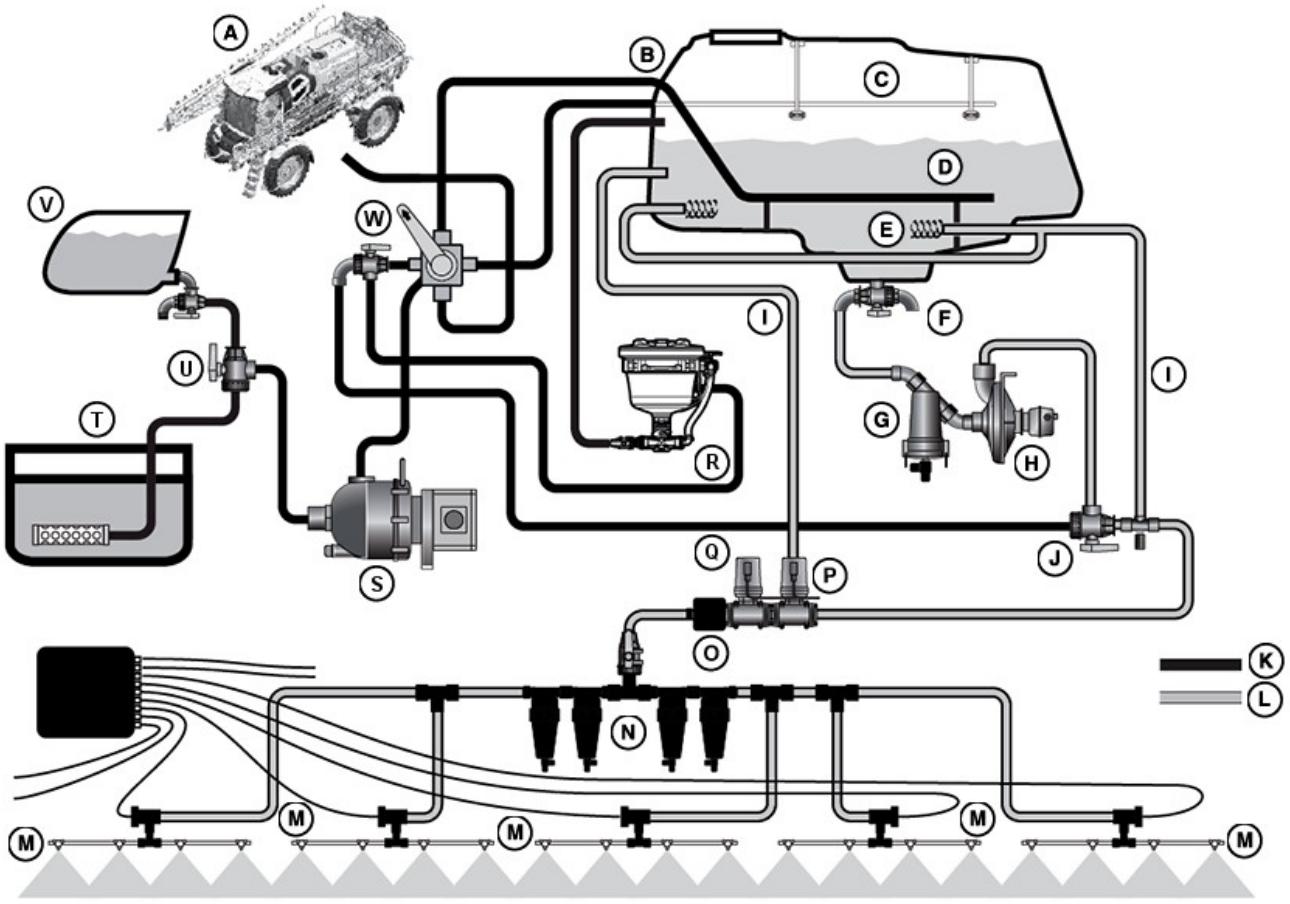
Solution System

Overview



YE000061—UN—22SEP22

Solution System

A—Machine Wash
B—Water Load of Solution Tank
C—Tank Rinse Nozzles
D—Solution Deposit
E—Solution Agitation
F—Solution Tank Drain
G—Primary Filter
H—Solution Pump
I—Return
J—3-Way Valve
K—Load System
L—Spray System
M—Section Shutoff Valves
N—Solution Line Filters
O—Flowmeter
P—Shutoff Valve
Q—Regulation Valve
R—Eductor
S—Load Pump
T—Water Inlet with Lower Filter
U—3-Way Valve
V—Rinse Tank
W—5-Way Valve

The schematic represents the solution system of the self-propelled sprayers.

The load pump (S) and the solution pump (H) are actuated by hydraulic motors.

There are spray section control valves of five, nine, or 13 sections. The mixed spray lines (for all models) that allow to work at 35 cm (13.78 in), 52.5 cm (20.67 in), and 70 cm (27.56 in) nozzle spacing, are made of stainless steel pipes of 19.05 mm (0.75 in).

The machine is equipped with 5-position or simple nozzle bodies.

jtlsx7f,1660306700400-19-05OCT22

Safety Equipment

CAUTION: Exposure to chemicals, including pesticides, can cause injury or death.

The 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.

Use protective equipment in accordance to the instructions given by chemical's manufacturer and follow the Safety recommendations available in the Safety section of this manual.

YE000063—UN—22SEP22

The safety and hygiene kit contain all the necessary equipment to perform any task that involves contact with chemical products for agriculture, providing safety and protection to the operator's health.

This equipment must be used to avoid exposure to chemical products.

Carefully wash any exposed part of your body after work, specially before eating, drinking, smoke, and using the bathroom.

For additional information on the handling and use of pesticides, see www.casafe.org.

The safety and hygiene kit contains:

- Mask with activated carbon filter for organic vapors.
- Waterproof fabric equipment with visual protection.
- Nitrile gloves.

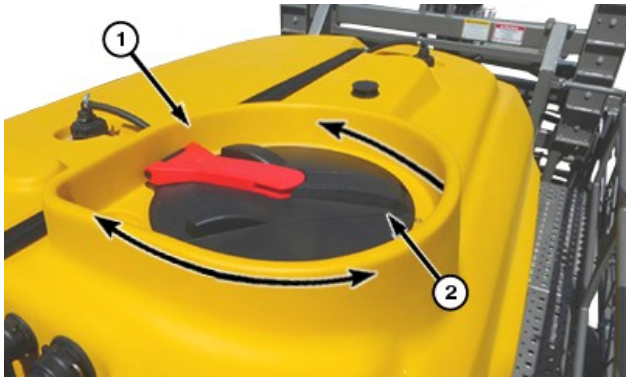
jtlsx7f,1660306721779-19-06SEP22

Solution Tank

The solution tank is made of rotational molded polyethylene. Its inner surfaces allows a correct wash, avoiding this way incrustations of chemical product leftover. An external connection for washing completes an efficient rinse.

The solution tank is equipped with a level indicator and high- and low-level sensors that avoid solution pump to run dry and to be damaged.

The tank is fixed to the machine structure in three points and isolated from the chassis torsion movements with rubber.



YE000062—UN—22SEP22

It is equipped with quick opening lid (2) with airtight closure and an anti-spill protection edge (1) with return drain. To open the lid (2), rotate it.

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Solution Tank Level Control

Once the quantity of solution to be load is set on the machine display, the measurement and shutoff of the load is carried out by an electronic device (if equipped) over the spray panel.

YE000064—UN—22SEP22

The tank level is controlled through software or through a level indicator ruler on the left-hand side of the machine. The ruler contains a safety zone marked for foaming during product filling.

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Rinse Tank

YE1385818—UN—13DEC24

Rinse Tank - Sprayers with Central Engine

YE000068—UN—22SEP22

Rinse Tank - Sprayers with Front Engine

The rinse tank is made of rotational molded polyethylene and has the capacity of 250 L (66.04 gal) for the machines equipped with central engine, and 400 L (105.67 gal) for the machines equipped with front engine.

This tank is used for external and internal washing of the machine, as well as for the triple washing of chemical product containers.

There is a visual indicator to control the quantity of water available in the tank.

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Clean Water Tank

YE000065—UN—22SEP22

Clean Water Tank - Machines with Central Engine

YE000067—UN—22SEP22

Clean Water Tank - Machines with Front Engine

The machine contains an independent 15 L (3.96 gal) clean water tank with register, as well as a compartment that allows to carry soap and a towel.

The clean water tank is on the right-hand side of the machine.

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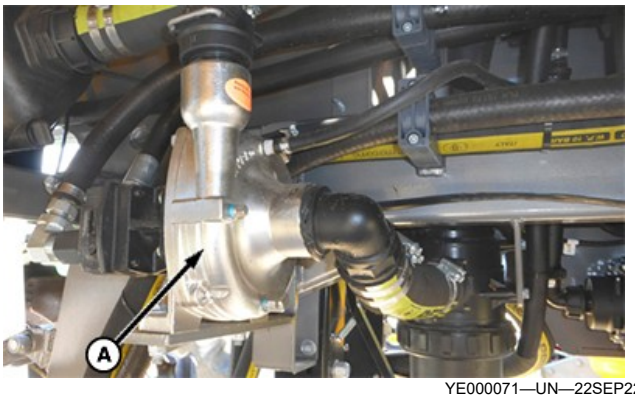
Solution Pump



YE000071—UN—22SEP22

The solution pump (A) is centrifugal and made of stainless steel.

The solution pump flow capacity for the 2900 Sprayer is 390 L/min (103.03 gal/min). For other sprayer models, the solution pump flow capacity is 540 or 810 L/min (142.65 or 213.98 gal/min).

IMPORTANT: For details, see Solution System in Specifications section according to the sprayer model.

All solution pump (A) models are hydraulic controlled.

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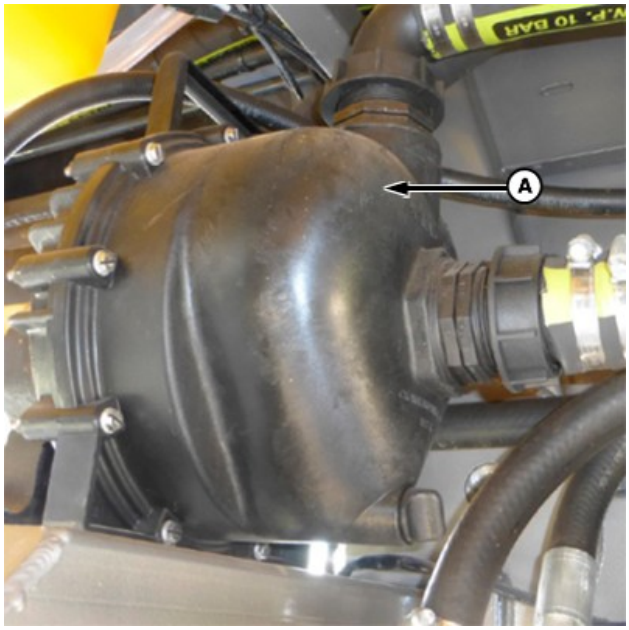
Load Pump



YE000070—UN—22SEP22

All sprayer models are equipped with a centrifugal pump (A) for water load and washing the machine.

IMPORTANT: Avoid damage to the solution system. Before loading water to the solution tank, the load pump must be purged. (See Purge the Load Pump in Service—Solution System section.)

IMPORTANT: Avoid accidents and unexpected damage to machine components. If using the load pump for cleaning purposes, the engine must be running at low idle (850—900 rpm).

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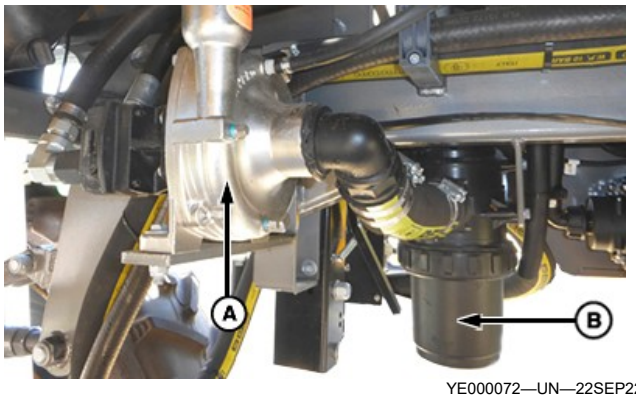
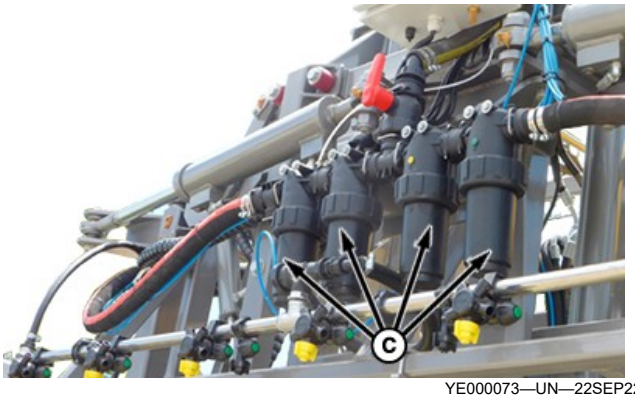
Solution Filters



YE000072—UN—22SEP22

Primary Filter

All sprayer models have a primary filter (B) before the solution pump (A).



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Line Filters

The machine also has line filters (C) on the spray boom, after the solution pump (A).

All filters have valves that interrupt the water flow, making possible to disassemble and clean the components.

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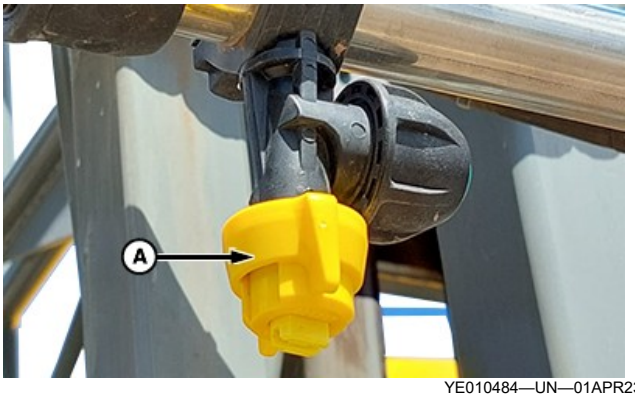
Spray Lines and Nozzle Bodies

All sprayer models have a mixed spray line that allows to work at 35 cm (13.78 in), 52.5 cm (20.67 in), or 70 cm (27.56 in) nozzle spacing. The spray line is made of 19.05 mm (0.75 in) stainless steel pipes.

The nozzle bodies are simple or 5-position and have manual opening/closure. As standard, the nozzle bodies are equipped with the following nozzles:

- Hollow Cone: Yellow HCX12.
- Flat Fan: Yellow 11002 and Green 110015.



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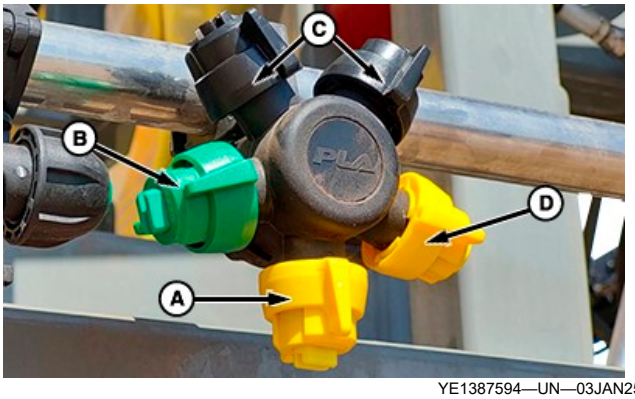
Simple Nozzle Body



YE1387594—UN—03JAN25

5-Position Nozzle Body

A—Yellow 11002
B—Green 110015
C—Not Used
D—Yellow HCX12

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Spraying Panel and Valves

Spray Controls

YE000075—UN—22SEP22

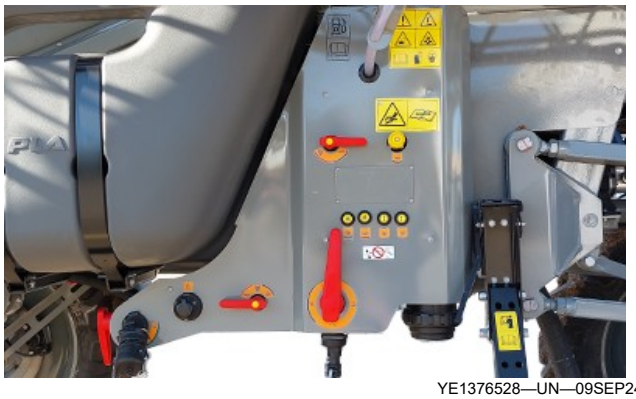
Spray Lines

All sprayer models have shutoff and regulation controls performed by spherical valves of electrical opening/closure. They can be controlled in a manual mode or in an automatic way by the control unit.

The machine is equipped with a turbine flowmeter of 10—100 L/min (2.64—26.42 gal/min). Electrical or pneumatic (according to machine model) section shutoff valves are also available, one per each nozzle section.

The machine spray section numbers can be of nine or 13 according to machine model.

Manual Solution Controls

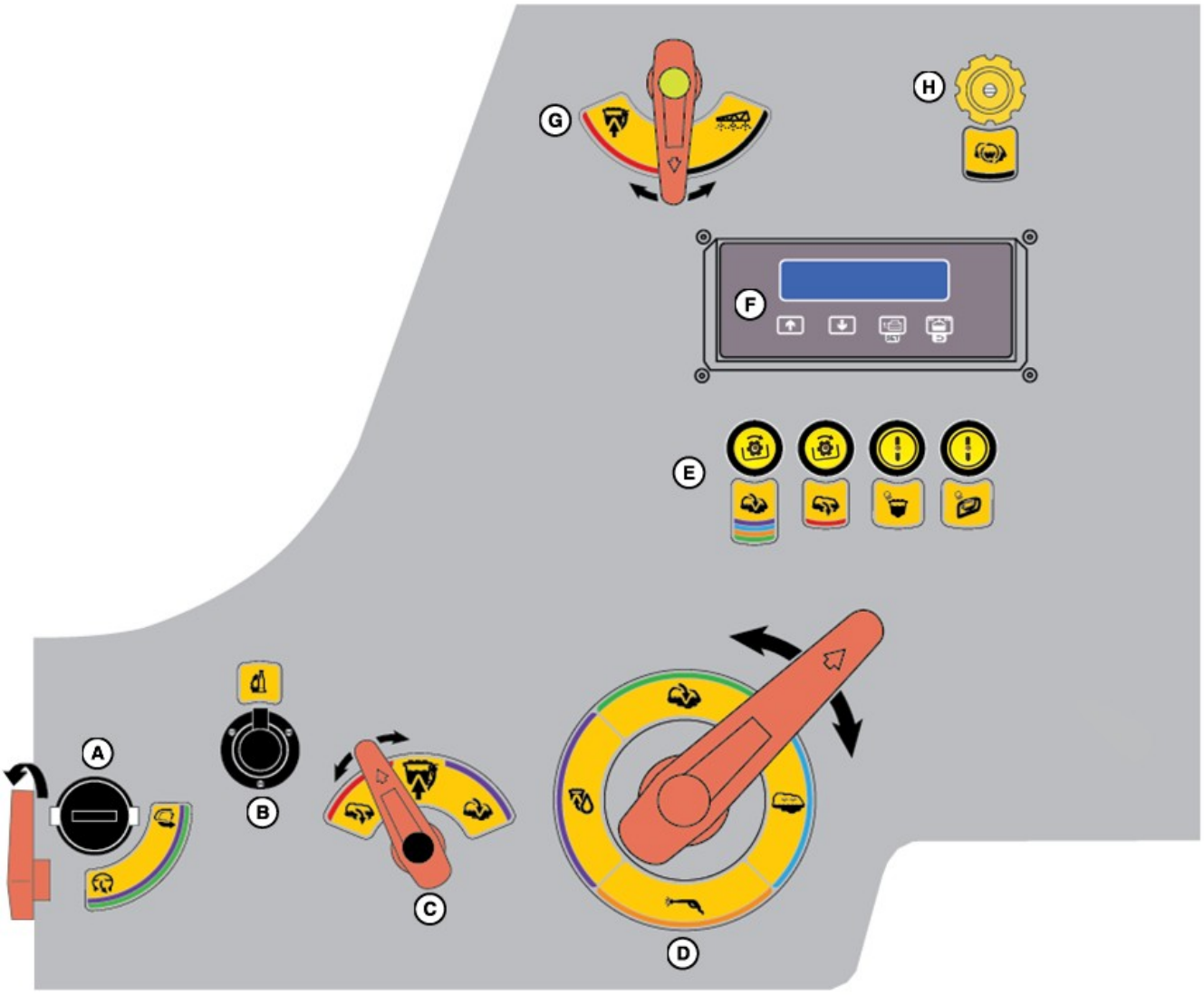


YE1376528—UN—09SEP24

Spray Panel

The sprayers have a side panel on machine left-hand side that provides all the manual controls for the tasks that need to be done with the machine parked (load and unload, washing, chemical product incorporation, agitation control, and others).

Manual Solution Controls - Functions



YE1376525—UN—09SEP24

Manual Solution Control Valves

- **(A):** Load pump suction from rinse tank or from a water reservoir.
- **(B):** Connection for the hydraulic jack remote control.
- **(C):** Suction to eductor from load pump or from spray pump.
- **(D):** Flow distribution from load pump.
- **(E):** Activation of pumps and lights of eductor and engine.
- **(F):** Solution tank load control.
- **(G):** Flow distribution to eductor or to spray boom.
- **(H):** Agitation control of the solution inside the solution tank.

Function Color Guide

The decals next to valves of the spray panels contain colors to identify valve functions. Use the following guide to understand them:

- **Purple**: eductor functions with load pump.
- **Red**: eductor functions with solution pump.
- **Green**: solution tank load (rinse tank or exterior)
- **Orange**: external washing of machine.
- **Blue**: cleaning of solution tank inside.
- **Black**: spray and solution agitation.

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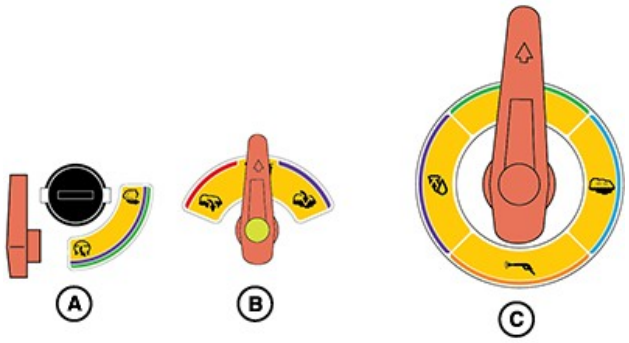
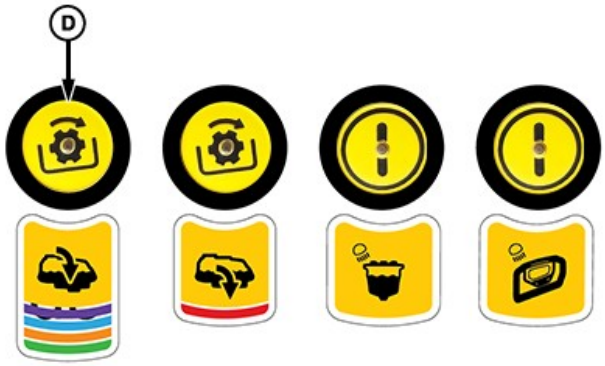
Valve Positions for Different Operations in Solution System

The following images describe the position of the valves to perform different tasks.

Solution Tank Load with Water from a Reservoir or Rinse Tank Using the Load Pump



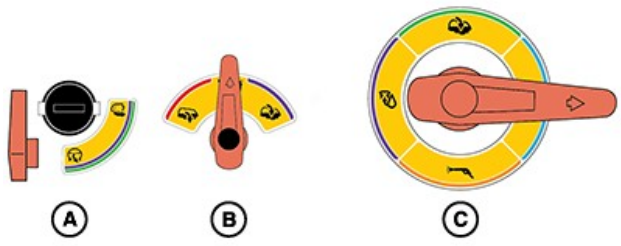
YE000078—UN—22SEP22



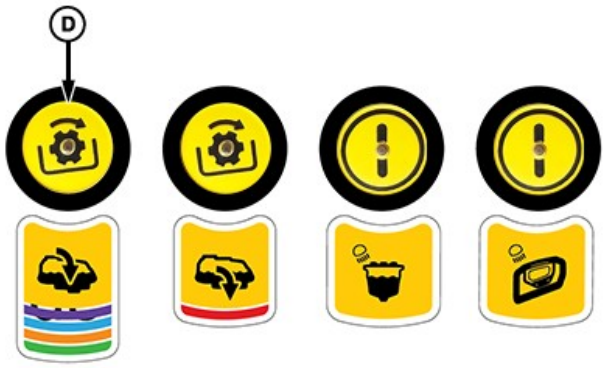
YE1376538—UN—09SEP24

A—Suction Valve: positioned according to chosen suction source.
B—Eductor Suction Valve: positioned straight up (closed).
C—Pressure Valve: positioned straight up (solution tank).
D—Load Pump Switch (activated).

Solution Tank Internal Washing with Water from a Reservoir or Rinse Tank Using the Load Pump



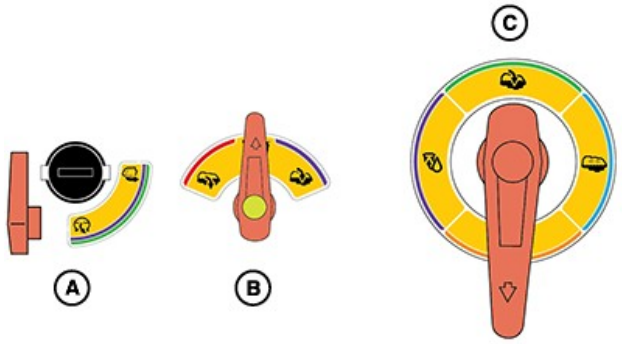
YE000079—UN—22SEP22



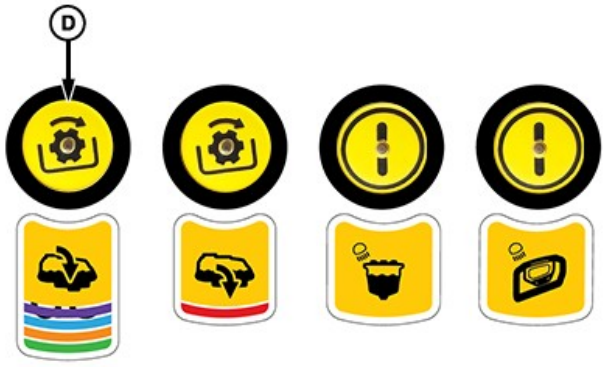
YE1376538—UN—09SEP24

A—Suction Valve: positioned according to chosen suction source.
B—Eductor Suction Valve: positioned straight up (closed).
C—Pressure Valve: positioned to right-hand side (solution tank rinse nozzles).
D—Load Pump Switch: activated.

Machine External Washing with Water from a Reservoir or Rinse Tank Using the Load Pump



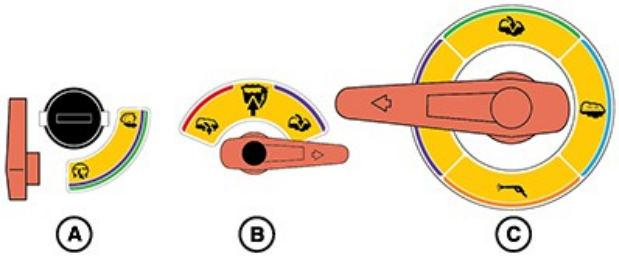
YE000080—UN—22SEP22



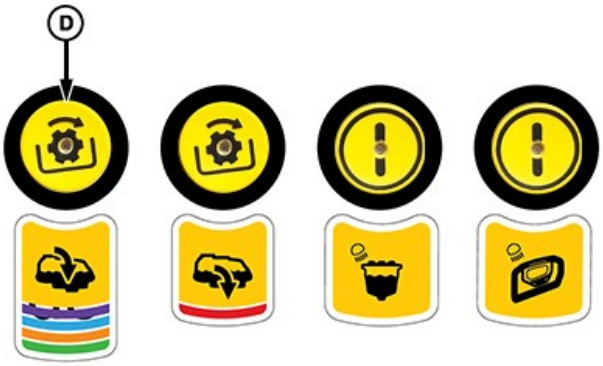
YE1376538—UN—09SEP24

A—Suction Valve: positioned according to chosen suction source.
B—Eductor Suction Valve: positioned straight up (closed).
C—Pressure Valve: positioned straight down (external washing).
D—Load Pump Switch: activated.

Eductor Usage with Water from a Reservoir or Rinse Tank (Load, Triple Wash, Product Load, and/or Eductor Washing) Using the Load Pump



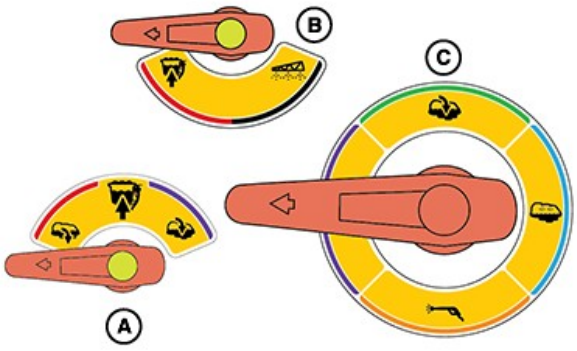
YE000081—UN—22SEP22



YE1376538—UN—09SEP24

A—Suction Valve: positioned according to chosen suction source.
B—Eductor Suction Valve: positioned to right-hand side (load pump).
C—Pressure Valve: positioned to left-hand side (eductor).
D—Load Pump Switch: activated.

Eductor Usage with Water from Solution Tank (Product Load Only) Using the Solution Pump



YE000082—UN—22SEP22

YE1376537—UN—09SEP24

A—Eductor Suction Valve: positioned to left-hand side (solution pump).
B—Flow Direction Valve: positioned to left-hand side (eductor).
C—Pressure Valve: positioned to left-hand side (eductor).
D—Solution Pump Switch: activated.

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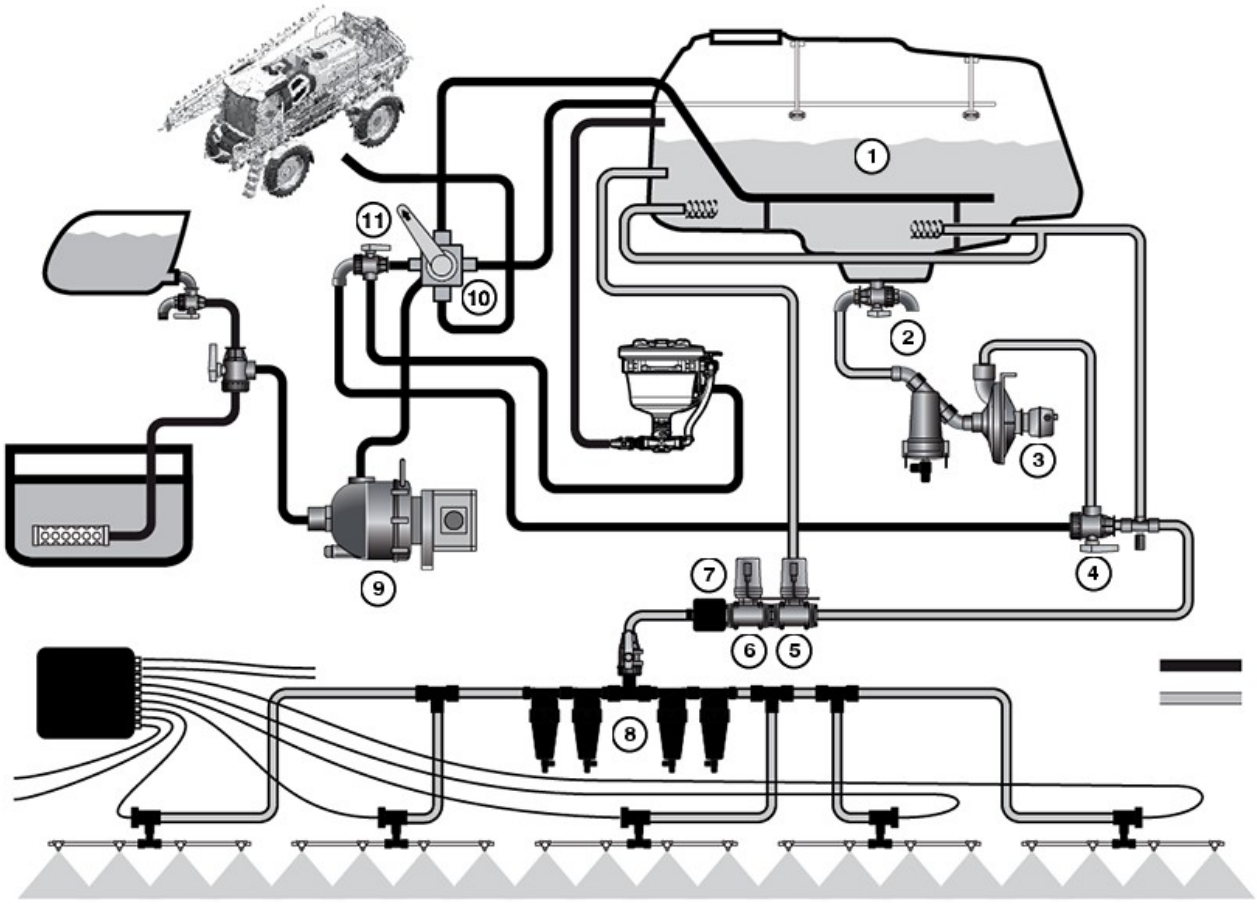
Rinse the Solution System Completely Using Water from a Reservoir or from the Rinse Tank

CAUTION: Carefully read and follow the safety recommendations for working with chemical products.



YE000089—UN—22SEP22

1. Fill the solution tank (1) with clean water.
2. Rotate the 3-way valve (4), directing the solution pump pressure to the spray system.
3. Activate the solution pump (3) and start to spray. Perform the rinse operation through the filters (8) and the spray commands (5—7).
4. Stop the solution pump (3).
5. Load the solution tank (1) with the load pump (9) using the 5-way valve (10). Use an external water source or water from the rinse tank. During this process, to ensure the rinsing of the internal walls of the solution tank (1), rotate the 5-way valve (10) to the internal tank washing system.
6. Stop the load pump (9).
7. To eliminate chemical product leftovers, perform the following procedure:
   a. Rotate the 3-way valve (4), directing the solution pump pressure to the spray system.
   b. Activate the solution pump (3) and start to spray. Perform the rinse operation through the filters (8) and the spray commands (5—7).
   c. After the rinsing is done, stop the solution pump (3) and close the lever (11).
8. It is recommended to totally drain the solution tank (1) rotating the lever (2) to the drain port.

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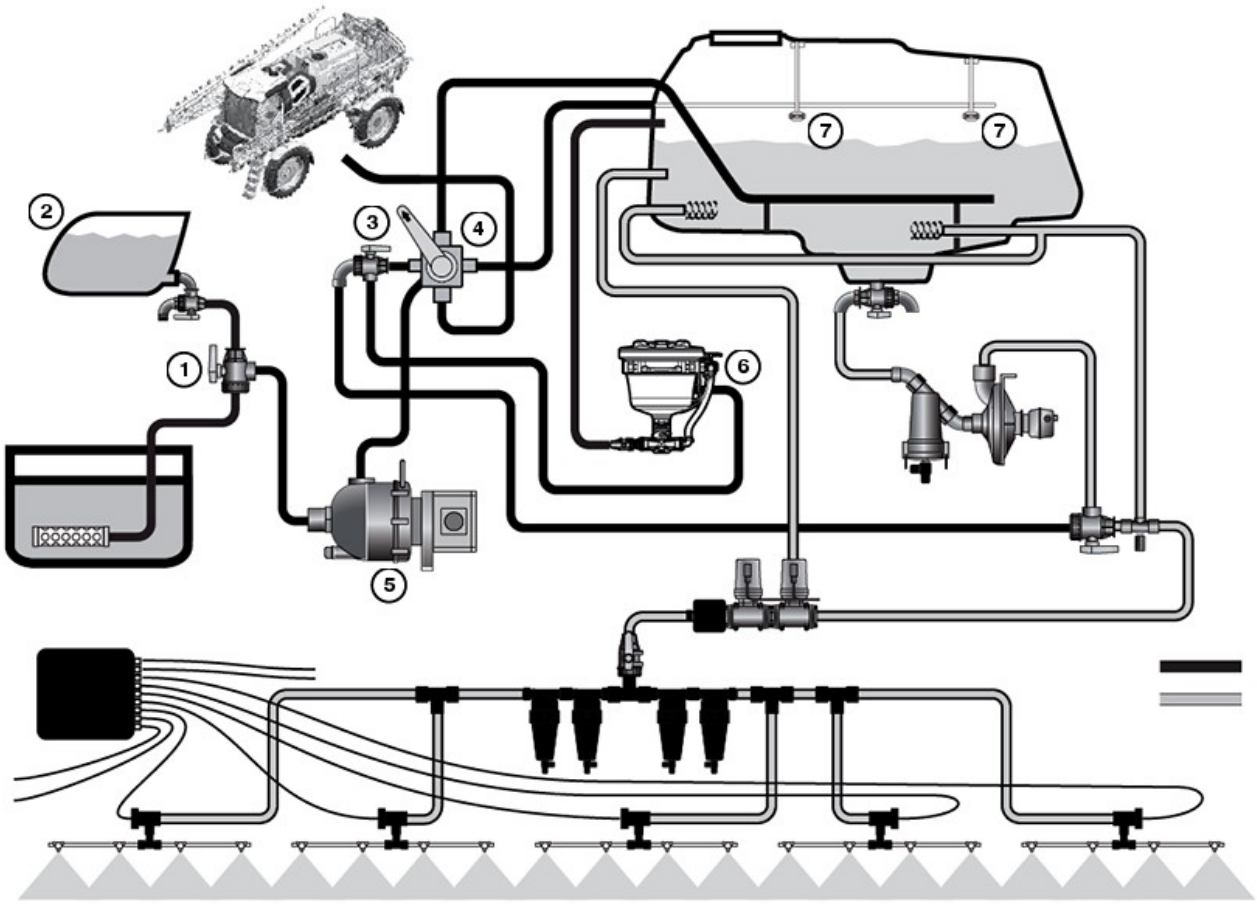
Transfer Water from the Rinse Tank to the Solution Tank Using the Eductor



YE000090—UN—22SEP22

1. Rotate the 3-way valve (1) straight up to the rinse tank (2).
2. Rotate the 3-way valve (3) to the 5-way valve (4) (eductor control).
3. Rotate the 5-way valve (4) to the 3-way valve (3), opening the spherical valve in direction to the 3-way valve (3).
4. Activate the load pump (5).
5. Position the 3-way valve (3) for the product load with the eductor (6). As an alternative way, the 3-way valve (3) can be closed and the 5-way valve (4) can be directed in a position that allows the water to be transferred through the rinse nozzles (7) inside the solution tank.
6. After the transfer is finished, close valves and stop the load pump (5).

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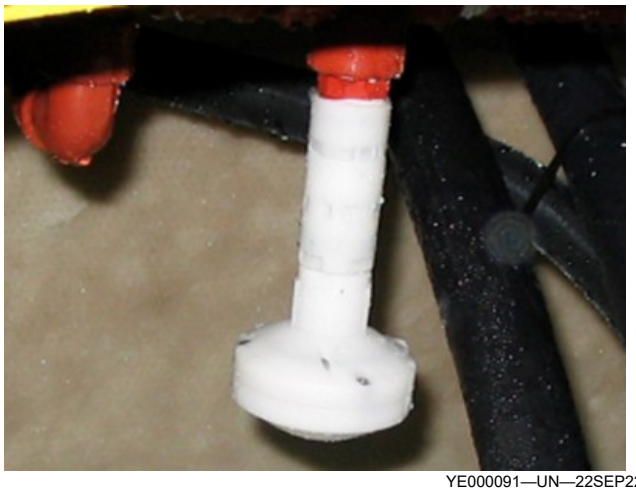
Wash the Solution Tank

Besides the chemical container rinsing, the rinse water circuit is also used to wash the solution tank inside.

This procedure is important for:

- Conservation of the spray system components.
- Elimination of toxic fluid odor.
- Prevention of chemicals from drying out in the solution tank, causing clogs.

In case of changing the chemical product to be applied, it is important to completely eliminate the previous chemical product to avoid mixtures that can negatively affect the desired application goal.



YE000091—UN—22SEP22

Rinse Nozzle

The internal washing of the solution tank is performed by rinse nozzles that provide 360º high-pressure jets.

jtlsx7f,1660657238232-19-17AUG22

Wash the Chemical Containers

There are two ways to wash the chemical containers after the chemical products are used.

CAUTION: Always read and follow the safety recommendations during the machine operation.

CAUTION: Avoid contamination. After usage and cleaning, regardless the cleaning process, the chemical container must be made unusable by puncturing its bottom.

Do not damage the container label as it contains necessary information for its subsequent recycling.

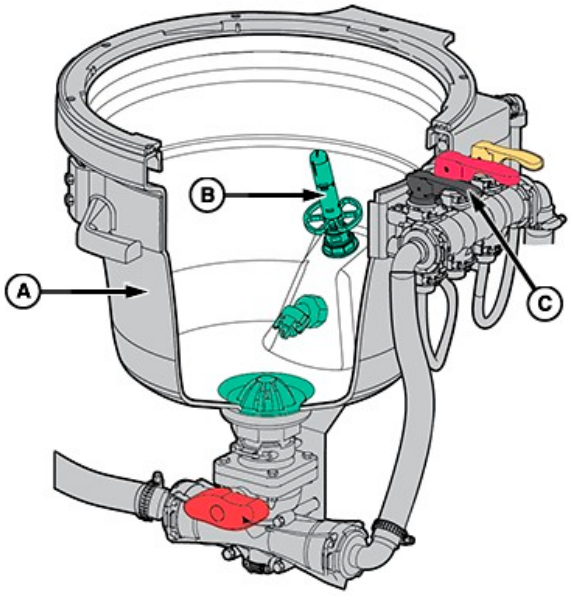
CAUTION: Avoid contamination. It is important to prepare the most exact amount of solution for application, avoiding this way solution leftovers after spraying.

Triple Wash

CAUTION: Avoid contamination. Always use tap water for the triple wash. Never immerse the containers in ditches, water courses, or ponds. This action will contaminate the water source.

1. Completely drain the empty containers. Let it draining for at least 30 seconds.
2. Fill 1/4 of the empty container with clean water.
3. Close the container with its cap and agitate it several times.
4. Pour the water from this cleaning inside the sprayer solution tank.
5. Repeat this process for at least two more times.

Manual Washing of Containers



YE001108—UN—03JAN24

There is a rinse nozzle (B) inside the eductor (A) for cleaning chemical containers.

To clean the container, position it over the rinse nozzle (B) (the nozzle must be positioned inside the container) and use the black lever (C) for 10 seconds. A high-pressure jet cleans the container inside.

A quick and effective cleaning is obtained. The results are similar to the triple washing process.

The water from the container is recirculated automatically to the sprayer solution tank.

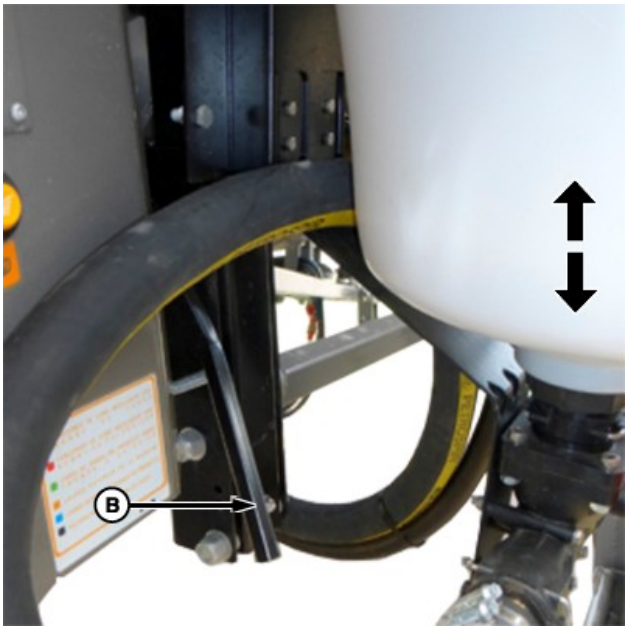
NOTE: This washing can be done with water from the rinse tank or from an external source of clean water.

jtlsx7f,1660657314674-19-11AUG23

Eductor

YE000085—UN—22SEP22

All models are equipped with an eductor (A) of 35 L (9.25 gal) for the incorporation of agriculture chemicals to the solution tank.

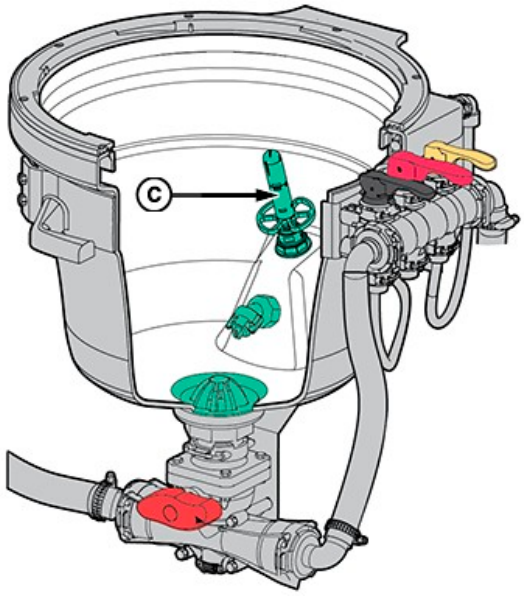


YE000087—UN—22SEP22

To use the eductor (A) for incorporating agriculture chemicals, stop the machine and lower the eductor (A) to ground level using the lever (B).

When the machine is in operation, the eductor must be raised and locked using its elevation mechanism.

To use the elevation mechanism, use the lever (B).



YE001109—UN—03JAN24

YE000088—UN—22SEP22

There is a rinse nozzle (C) inside the eductor (A) for cleaning chemical containers. To clean the container, position it over the rinse nozzle (C) (the nozzle must be positioned inside the container) and use the black lever (D). A high-pressure jet cleans the container inside.

NOTE: This procedure is an alternative for the triple wash system.

By using the red lever (E), the internal part of the eductor (A) is washed.

NOTE: These washings can be done with water from the rinse tank or from an external source of clean water.

By using the yellow lever (F), the flow is directed for the dissolution of solid chemical products.

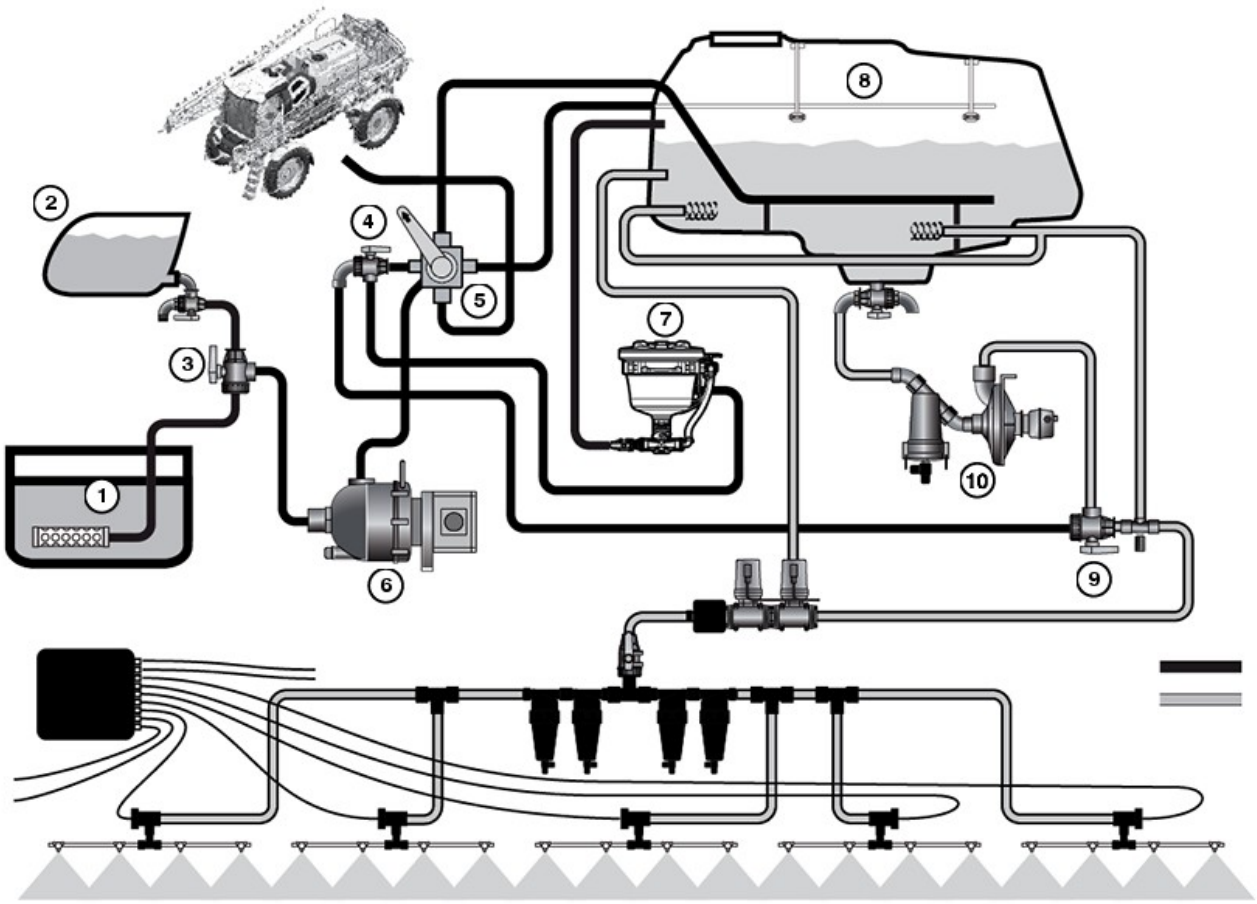
jtlsx7f,1660594470751-19-11AUG23

Using the Eductor with Water from Solution Tank or from the Rinse Tank

CAUTION: Avoid contamination.

Each time water is loaded from an external source, always ensure that the draining hose has a non-return valve and that the registers are closed before removing the hose.

After usage, immediately remove the hose to avoid possible returns and contamination to the water source due to any kind of fail from the non-return system.



YE000095—UN—22SEP22

Using the Load Pump

1. Select if the suction will be done from the rinse tank (2) or from an external water source (1) using the 3-way valve (3).
2. Rotate the 3-way valve (4) to the 5-way valve (5).
3. Rotate the 5-way valve (5) to the 3-way valve (4).
4. Activate the load pump (6) and insert the chemical product inside the eductor (7) so the product is going to be directed to the solution tank (8).
5. After the chemical product load is finished, stop the load pump (6).
6. To finish the solution tank load with the water, if necessary, rotate the 5-way valve (5) to solution tank position (straight up).

Using the Solution Pump

1. After making sure that the solution tank is at least 1/4 full of water, rotate the 3-way valve (9) towards the eductor (7).
2. Rotate the 3-way valve (4) in opposite direction of the 5-way valve (5).
3. Activate the solution pump (10) and insert the chemical product inside the eductor (7) so the product is going to be directed to the solution tank (8). At this situation, the chemical product will be directed to the solution tank (8) using water from the solution tank itself, ensuring re-circulation and a better mixture during the load.
4. After the chemical product load is finished, stop the solution pump (10).

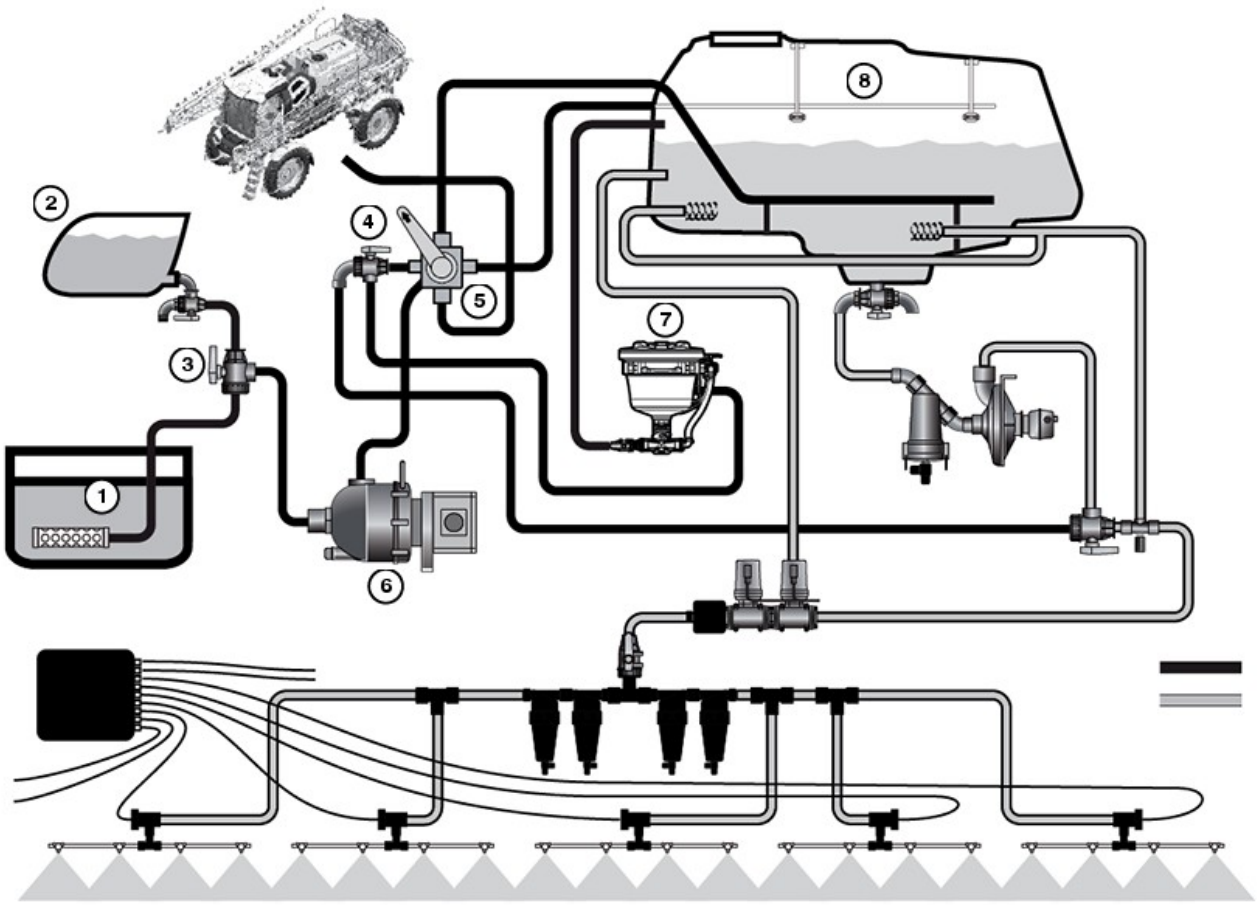
5. To let the system ready for spraying operation, rotate the 3-way valve (9) towards the spray system.
6. To finish the solution tank load with the water, if necessary, rotate the 5-way valve (5) to solution tank position (straight up).
7. Rotate the 3-way valve (3) to rinse tank (2) or to an external source of water (1), as desired.
8. Activate the load pump (6) to fill the solution tank (8).
9. Deactivate the load pump (6) when finished.

jtlsx7f,1660657062168-19-17AUG22

Rinse Chemical Containers Using Water from the Rinse Tank or from an External Water Source

Using the Load Pump

This procedure is recommend after the chemical product load to ensure that all the content from the container is completely used.



YE000096—UN—22SEP22

1. Select if the suction will be done from the rinse tank (2) or from an external water source (1) using the 3-way valve (3).
2. Rotate the 3-way valve (4) to the 5-way valve (5).
3. Rotate the 5-way valve (5) to the 3-way valve (4).
4. Activate the load pump (6) and insert the chemical container over the eductor (7) rinse nozzle.
5. After the chemical container cleaning is finished, stop the load pump (6).
6. Use the black lever at eductor (7) and rinse the container from 5—10 seconds to ensure that all leftovers are drained to the solution tank (8).

Using the Solution Pump

This operation is not recommended because the water from the solution tank is not clean (contains chemical product residues from the re-circulation of the container washing system).

jtlsx7f,1660657083127-19-10NOV22

Water Load

CAUTION: Avoid contamination.

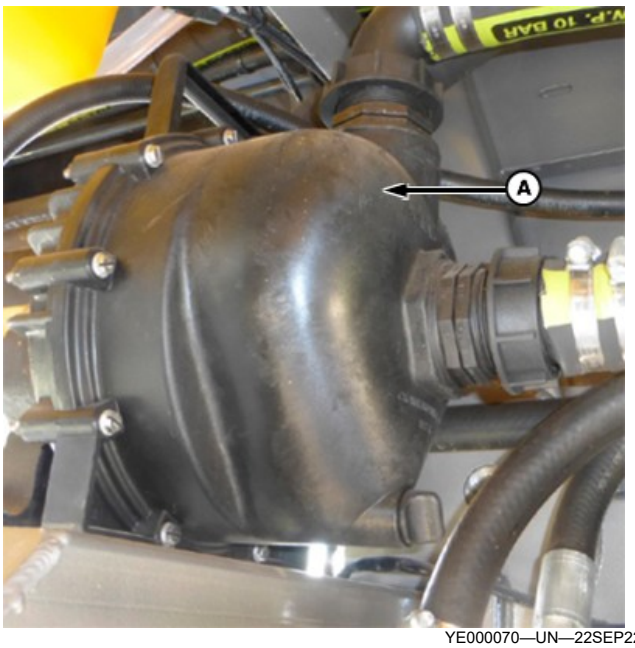
Each time water is loaded from an external source, always ensure that the draining hose has a non-return valve and that the registers are closed before removing the hose.

After usage, immediately remove the hose to avoid possible returns and contamination to the water source due to any kind of fail from the non-return system.

IMPORTANT: Avoid transmission system damage:

- **Before using centrifugal pump (A) to load water in the solution tank, the transmission must be in NEUTRAL and the park brake engaged.**
- **NEVER engage the park brake when machine is in gear. Doing so leads to serious damage on the transmission system.**

IMPORTANT: Avoid damage to the water load system. ALWAYS purge the load pump (A) before loading water into the solution tank.

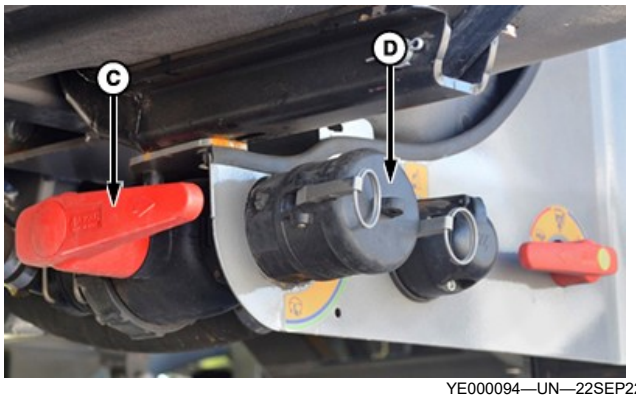


YE000070—UN—22SEP22

The self-propelled sprayer is equipped with a high-flow centrifugal pump (A) with hydraulic command.

YE1377972—UN—26SEP24

The water is pumped from an external water reservoir through a hose (B) that has a filter with a non-return valve.



YE000094—UN—22SEP22

Using the pump (A) and the hose (B) installed on the connection (D), the system suctions water from an external water reservoir.

To obtain water from an external reservoir, the valve (C) must be pointed to the connection (D). Rotating the valve (C) to opposite direction, water from the rinse tank is provided.

After the operation is complete, close the 5-way valve to avoid liquid return.

jtlsx7f,1660657182273-19-26SEP24

Electronic Control of the Solution Tank Level

IMPORTANT: Avoid load pump damage. Make sure that the valves are correctly positioned for filling the solution tank and that the supply hose is full of liquid to avoid load pump running dry.

YE1376547—UN—10SEP24

John Deere NISER Control

A—Up Arrow
B—Down Arrow
C—SET Button
D—ON and OFF Button/Return Button

User Mode

Modification of the shutoff levels.

To modify the shutoff levels (shutoff 1 and shutoff 2), perform the following procedure:

1. With the display ON, press the SET button (C) and maintain it pressed during some seconds until a line of dots is shown and the message of shutoff liters modification for the load appears. Release the SET button (C) when this occurs.
2. Modify the values using the arrows (A) and (B).
3. Confirm using the SET button (C).

NOTE: First, modify the shutoff 1 and 2 for the tank A, then proceed for modifying the shutoff 1 and 2 for the tank B.

Hydraulic Load Pump or Motor Pump Control

NOTE: For this selection, see Relay Programming Mode in this procedure.

It is possible to turn on and off the load pump using the ON or OFF button (D) at any time, always when the load liters are below the shutoff level 2. When this level is reached, the pump cannot be turned on to avoid overflow.

When reaching the shutoff level 1, the load pump is stopped. To continue the filling process and reach the shutoff level 2, it is necessary to activate the load pump manually.

When the hydraulic pump is turned on, the display is illuminated, indicating a black square. This square disappears when the pump is stopped.

Sensor Check Mode

With the display OFF, while the down arrow (B) is pressed, turn on the display and maintain this button pressed for some seconds. A dashed line is shown, as well as a message indicating the voltage levels of the sensor channels. Release the button when this info appears.

The value of each channel is modified as the sensor float is moved. This screen is used for verifying if the sensor if working well.

NOTE: It is necessary to slowly move the sensor float to view the value changes in 10 mm (0.40 in) steps for each channel. This means that for each 10 mm (0.40 in), a change is produced at each channel value.

To get out of sensor check mode and access the user mode, press the return button (D).

Relay Programming Mode

With the display OFF, while the button (D) is pressed, turn on the display and maintain this button pressed for some seconds. A line of asterisks is shown, as well as the following message: choose the way to activate the relay. After some seconds, it'll be asked to use the arrows (A) and (B) to select the desired option.

If the up arrow (A) is pressed, the hydraulic pump is selected.

If the down arrow (B) is pressed, the motor pump is selected.

After this action, the display will return automatically to user mode.

Sensor Calibration Mode

With the display OFF, while the SET button (C) is pressed, turn on the display and maintain this button pressed for some seconds. A dashed line is shown, as well as a the following message: sensor calibration. Release the button when this info appears.

Select the desired tank to be configured, A or B.

For programming another tank, it is necessary to get out of the current programming and repeat the process from the beginning.

Once the desired tank is selected, perform the following procedure:

1. Fill the tank (3000 L [792.52 gal], for instance).
2. Enter in the sensor calibration mode.
3. At reference 1, with the arrows (A) and (B), select the reference number that initiates at value 1 as standard.
4. Confirm with the SET button (C) to pass to the second line and modify the liters in the tank.
5. At liters, with the arrows (A) and (B), indicate the liquid volume in the tank (3000 L [792.52 gal], for instance).

6. Confirm with the SET button (C). The control will save this value in memory.
7. At display, the sensor float height will be shown in mm, so the value can be noted.
8. To get out of this screen, return to the previous page, and continue the calibration process, press the SET button (C).
9. Now the screen indicates reference 1 again. If it is necessary to redo it, press the SET button (C) again and perform the same steps previously explained. If no change is necessary, proceed to the next step.
10. With the arrows (A) and (B), select the reference 2 and press the SET button (C).
11. Unload a liquid quantity (200 L (52.83 gal), for instance).
12. Insert the quantity of liters in the tank (2800 L [739.68 gal], for instance) with the arrows (A) and (B).
13. Confirm by pressing the SET button (C).
14. Perform successive unloads, indicate the liters, and confirm with SET button (C).

NOTE: The maximum quantity of references is 28. It is not necessary to use all. Use the quantity of references as necessary, according to the tank geometry.

15. Once the last step is calibrated (0 L [0 gal]), press the return button (D) to enter in the user mode. The tank is now calibrated.

jtlsx7f,1725898896572-19-09SEP24

Control of the Solution Tank Level

IMPORTANT: Avoid load pump damage. Make sure that the valves are correctly positioned for filling the solution tank and that the supply hose is full of liquid to avoid load pump running dry.

YE1376550—UN—10SEP24

Spray Panel

1. At the spray panel, press the load pump button (A). The loading process is started.

YE000064—UN—22SEP22

Solution Tank Level Indicator

2. To stop at the desired tank level, press the load pump button (A) again. The loading process is stopped.

jtlsx7f,1725898899251-19-09SEP24

Machine Adjusts According to Product and Dosage

Product		Dosis	Maximum Speed	Turbine Speed	Dosifier Wheels	Remover Cover	Nutrient Applicator Box Pressurization
		kg/ha	km/h (mph)	rpm			
Fertilization	**Granulated Urea**	20	20 (12.4)	3300	Helicoidal	Fixed	3/4 Opened
	720—820 (g/L)	300	15 (9.3)				
	Potassium Chloride	20	20 (12.4)	3300	Helicoidal	Adjustable, 4 cm (1.6 in) Opening	3/4 Opened
	1070—1200 (g/L)	300	10 (6.2)				
	Triple Superphosphate	100	20 (12.4)	3300	4-Blade	Adjustable, 4 cm (1.6 in) Opening	3/4 Opened
	950—1200 (g/L)	400	10 (6.2)				
	Simple Superphosphate	50	20 (12.4)	3300	Helicoidal	Adjustable, 4 cm (1.6 in) Opening	3/4 Opened
	870—1100 (g/L)	300	10 (6.2)				
	Gypsum Powder	150	20 (12.4)	3300	4-Blade	Adjustable, 4 cm (1.6 in) Opening	3/4 Opened
	1200—1600 (g/L)	500	8 (5)				
Seeding	**Oats, Rye, Wheat, Vetch**	15	20 (12.4)	2800	Helicoidal	Fixed	3/4 Closed
	500—700 (g/L)	150	20 (12.4)	3000			
	Alfafa, Clover, Canola	5	20 (12.4)	2500	Thin Seed	Adjustable, 2 cm (0.8 in) Opening	3/4 Closed
	(Pe) According to Product	15	20 (12.4)	2800			

NOTE: This table must be used only as a reference according to theoretical specific weight of each product. For a better adjust of the machine, the real specific weight for each product batch must be measured and the dosifier calibrated considering this information. The specific weight of each product batch may vary according to humidity and other factors.

jtlsx7f,1658344910439-19-05DEC22

How to Obtain the Specific Weight

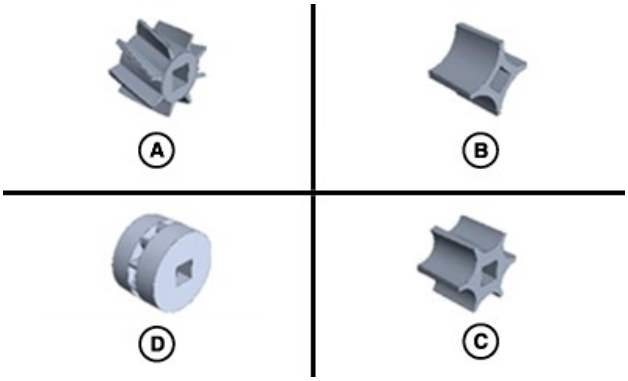
To obtain the specific weight of a product, the following items are necessary:

- Precision Scale (max 3 kg/d = 1g)
- Jug or a 1 L Container

1. Tare the empty container.
2. Fill the container with product until the 1 L mark.
3. Measure the weight of the filled container. The weight indicated in the scale is the specific weight of the product (Pe), expressed in g/L.

jtlsx7f,1667936187632-19-08NOV22

Types of Dosifier Wheels



YE001110—UN—03JAN24

Helicoidal (A)

- **Fertilization**: urea, phosphorus.
- **Seeding**: wheat, oats, rye, ryegrass, etc.

4-Blade (B)

- **Fertilization**: powder.
- **Seeding**: seeds with low specific weight.
- Materials with low quality or with impurities.

6-Blade (optional) (C)

- Same products recommended for the 4-blade wheels, for lower dosage ranges (80—150 kg/ha).

Thin Seed (D)

- **Seeding**: thin seeds or low dosage (grasses such as alfalfa, red clover, canola, etc.).

jtlsx7f,1667936240319-19-11AUG23

Apparent Density of Some Fertilizers (Not Compacted)

Fertilizers	Pe (g/L)
Ammonium Nitrate (pearly, high-density)	850—975
Sodium Nitrate (pearly solid saltpeter)	1220
Potassium Sodium Nitrate (pearly potassium saltpeter)	1290
Granular Potassium Nitrate	1300
Granular Urea	720—820
Triple Superphosphate (granular)	950—1200
Mono-ammonium Phosphate (granular)	900—1100
Diammonium Phosphate (granular)	875—1100
Phosphoric Rock (powder)	1200—1600
Potassium Chloride (crystallized)	1075—1200
Ammonium Sulfate (granular)	785—1040
Ammonium Sulfate (crystallized)	1000—1100
Potassium Sulfate (granular)	1150—1360
Potassium and Magnesium Sulfate (sulpomag)	1520—1570
Phosphorite (natural calcium phosphate)	1700

jtlsx7f,1668016977949-19-09NOV22

Nutrient Application System Troubleshooting

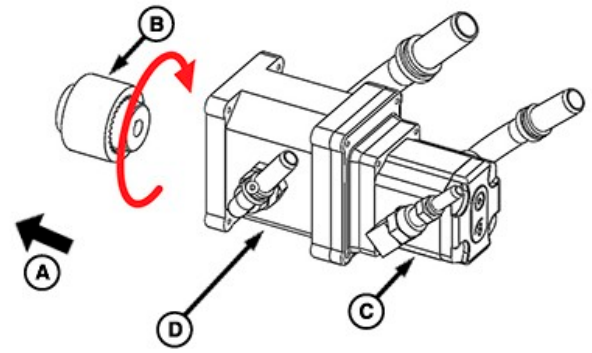
CAUTION: Avoid serious injury or death. Stop the machine and remove the ignition key before trying to solve any problem.

Problem	Possible Cause	Possible Solution
Deficient Product Coverage	Turbine with Low rpm	Adjust the turbine speed.
	Inadequate Wheels	Change the package of wheels.
	Broken or Worn Wheels	Replace the worn or broken wheels.
	Position and Condition of Nozzles	Check that all nutrient applicator nozzles are correctly aligned and in good conditions.
	Work Height	Check that the height of all nutrient applicator nozzles is at least 1.4 m (4.6 ft).
Nutrient Application System Lockups	Excessive Forward Speed	Respect the maximum speeds according to product and dosage to be applied. (See Machine Adjusts According to Product and Dosage in Nutrient Application System section.)
	Impurities Entering the Dosifier	Empty the nutrient applicator box and clean the dosifier. Load the nutrient applicator box using the anti-clod screens.
	Compacted Product Before Entering the Dosifier	Empty machine before transport. Check if remover is working. Use the correct remover cover. (See Machine Adjusts According to Product and Dosage in Nutrient Application System section.)
	Inadequate Wheels	Change the package of wheels.
Turbine Not Working	Electrical Circuit Faults	Check fuse. Completely check the turbine electrical installation.
	Cut Hydraulic Pump Shaft	Repair or replace the hydraulic pump.
	Damaged Driven Joints	Replace the joints (three parts).
	Broken or Locked Electrovalves	Clean, repair, or replace the electrovalves.
Turbine rpm Not Being Shown on Display	Turbine rpm Sensor Not Working	Check that the sensor light is turning on and marking the rpms on display when passing a saw blade on sensor lens. If it is not working, replace the sensor. Check for a gap of 1 mm (0.04 in) (thickness of a saw blade) between the sensor lens and the joint screw.
Dosifier Turns Not Being Shown on Calibration Page at Display	Dosifier Sensor of Turns Not Working	Check that the sensor light is turning on and marking turns on dosage calibration page when passing a saw blade on sensor lens. If it is not working, replace the sensor. Check for a gap of 1 mm (0.04 in) (thickness of a saw blade) between the sensor lens and the gear.
	Dosifier Locked	Dry the dosifier chain and manually turn the gear to the correct direction of movement (same as the machine wheels). If the gear is not turning, check the dosifier inside for obstructions.
	Dosifier Motor Not Working	See your PLA BY JOHN DEERE/JOHN DEERE authorized dealer.
Nutrient Applicator Nozzle Alarm on Display	Worn Monitoring Sensor	Replace the monitoring sensor.
Cable Shorted (n) Message	Shorted Cable on Monitoring Sensor (n)	Disconnect the sensor and replace it.
Dosage Not Reached Message	Dirt PWM Valve	Remove the PWM valve and clean it with diesel.
	Stuck Material on Dosifier Wheels	Remove the dosifier cover and check that the wheels are completely clean and turning smooth. If stuck material is found, clean each one of the dosifier wheels.
Weight Differences in Scale	Scale Out of Calibration	See your PLA BY JOHN DEERE/JOHN DEERE authorized dealer.

jtlsx7f,1667943173963-19-02JAN25

Transmission Schematics

Hydraulic Pump Connection

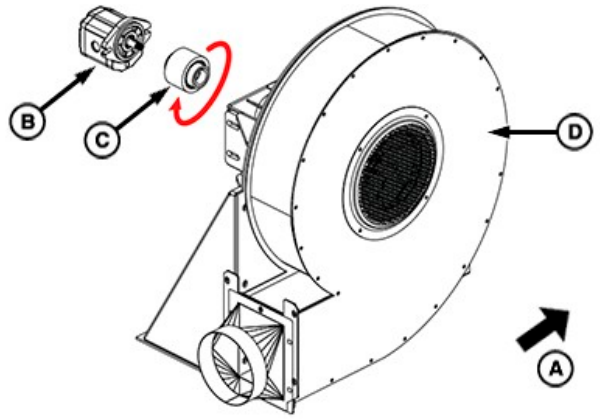


YE001111—UN—03JAN24

A—Direction of Forward Movement
B—Joint
C—Dosifier Pump
D—Turbine Pump

Turbines

NOTE: Only the right-hand side turbine is shown in the image.

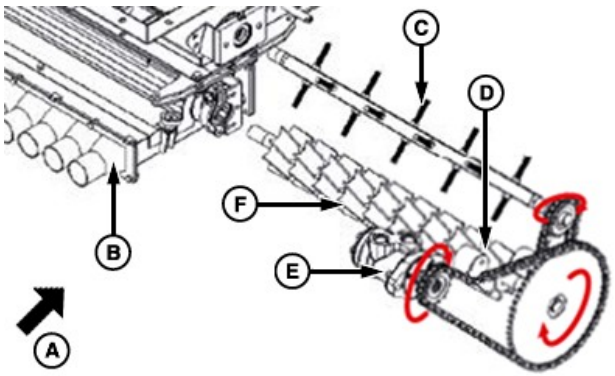


YE001112—UN—03JAN24

A—Direction of Forward Movement
B—Hydraulic Motor
C—Joint
D—Right-Hand Side Turbine

Dosifiers

NOTE: Only the right-hand side dosifier is shown in the image.



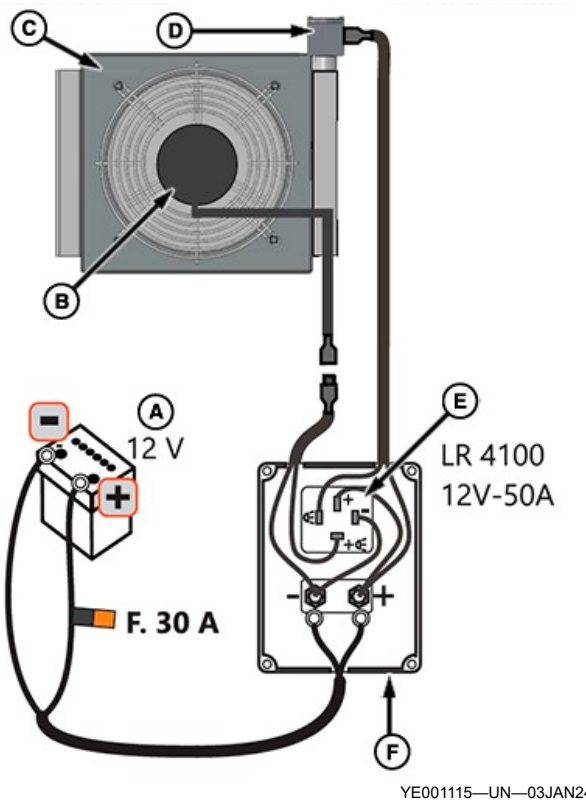
YE1376556—UN—10SEP24

A—Direction of Forward Movement
B—Right-Hand Side Dosifier
C—Remover
D—Chain Tensioner
E—Hydraulic Motor
F—Package of Wheels

jtlsx7f,1725903695652-19-09SEP24

Electrical Connections Diagram

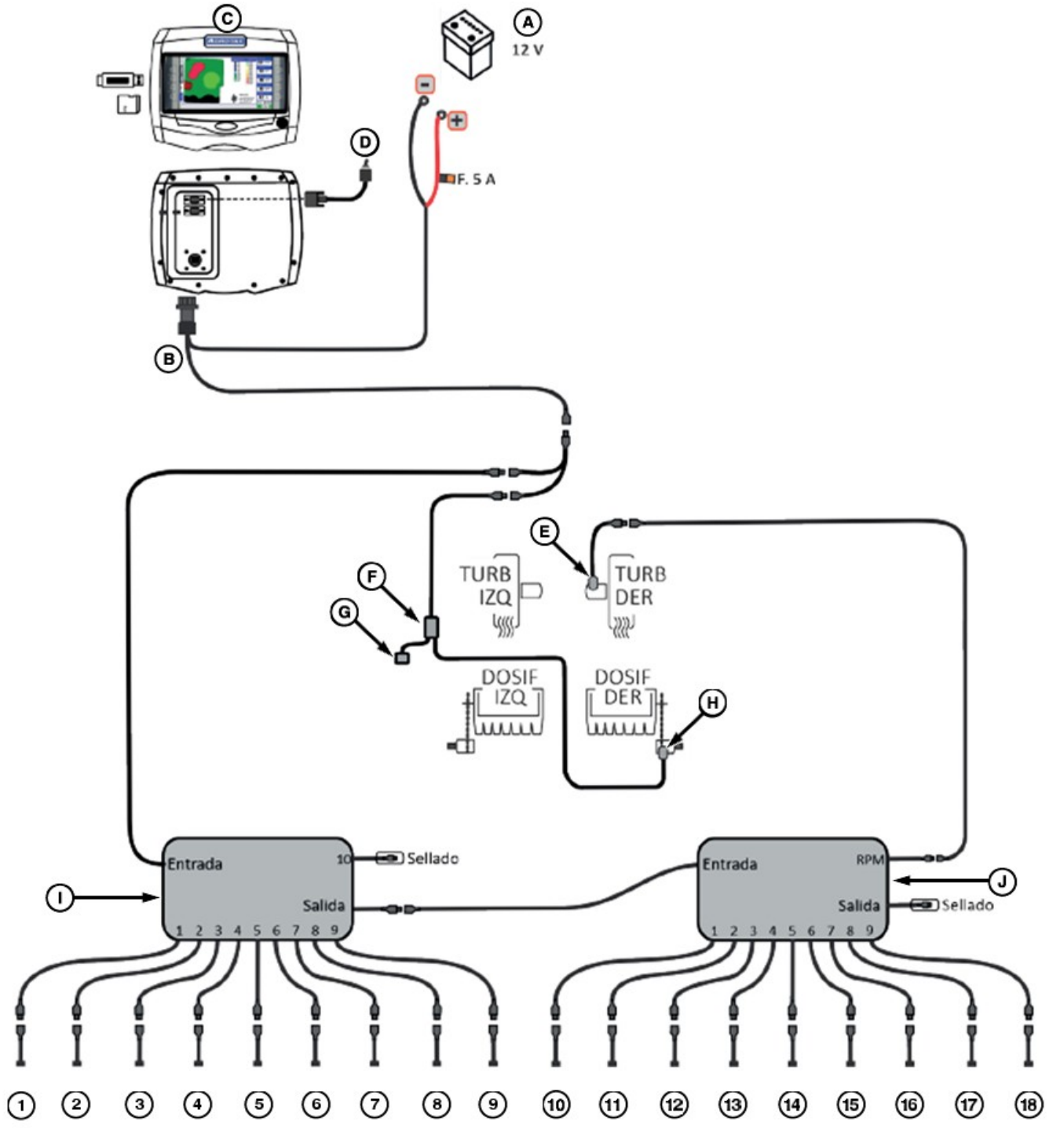
Electric Fan



YE001115—UN—03JAN24

A—Battery
B—Electric Fan
C—Radiator
D—Thermostat
E—Relay
F—Terminal

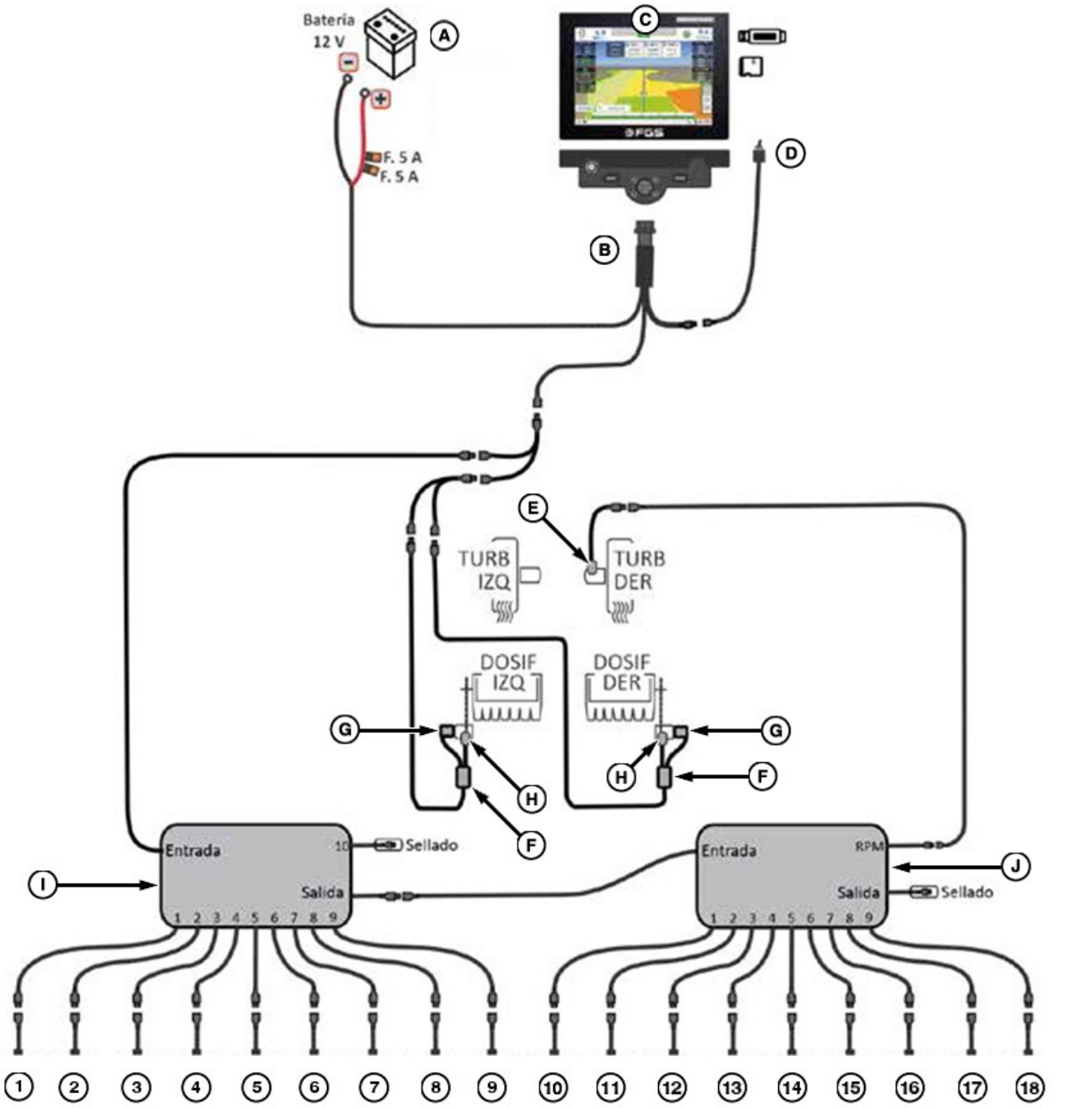
Agrotax AG Fusion (If Equipped)—Control and Monitoring Connections



YE1376925—UN—18SEP24

A—Battery
B—Power Cable and CAN Network
C—AG Fusion Display
D—Dosifier Switch
E—Turbine Speed Sensor
F—Dosifier Node
G—PWM Valve
H—Sensor of Turns from the Dosifier
I—Monitoring Node 1
J—Monitoring Node 2
1—18—Sensors of Nutrient Applicator Nozzles 1—18

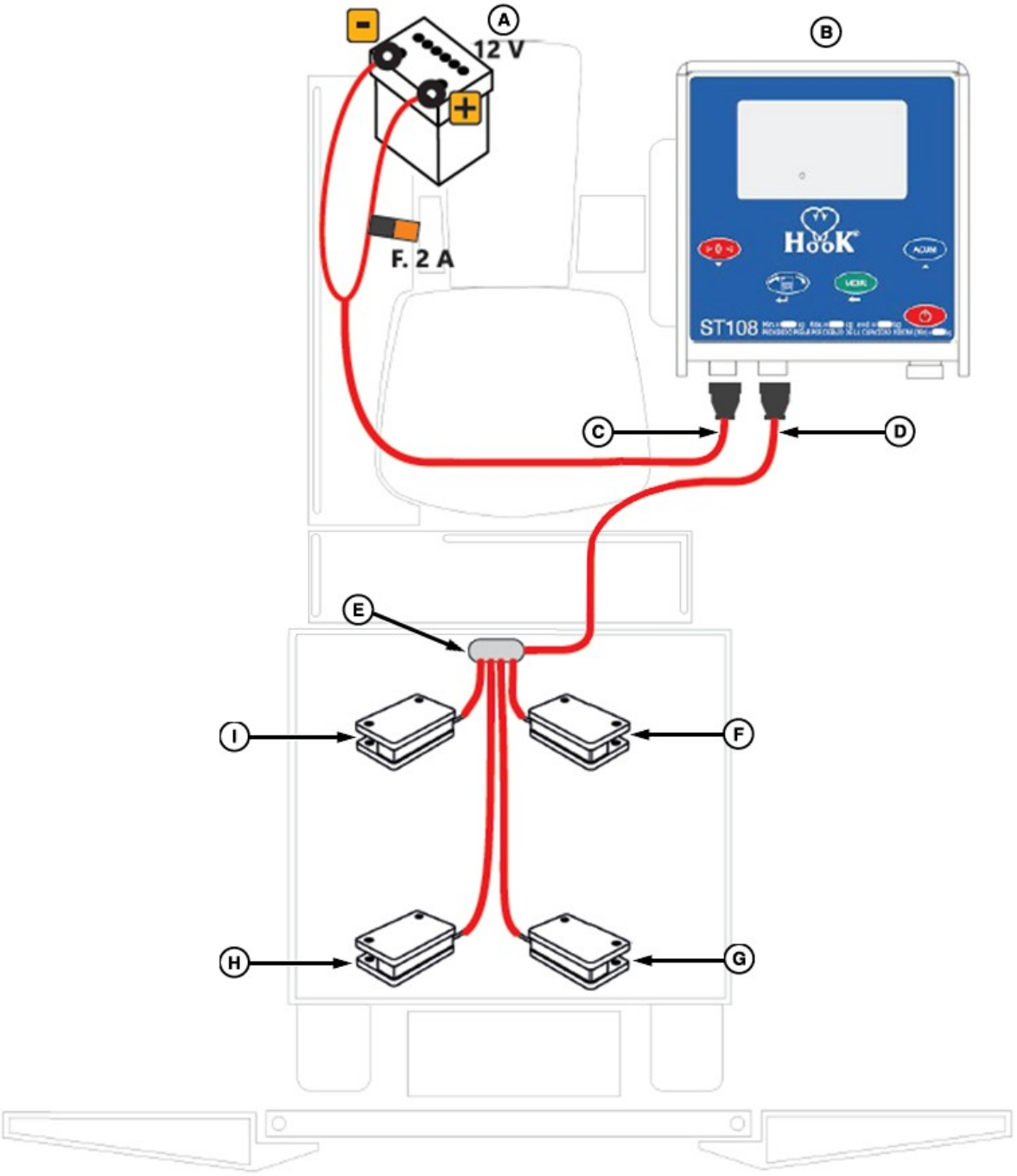
Agrotax FGS (If Equipped)—Control and Monitoring Connections



YE1376576—UN—19SEP24

A—Battery
B—Power Cable and CAN Network
C—FGS Display
D—Dosifier Switch
E—Turbine Speed Sensor
F—Dosifier Node
G—PWM Valve
H—Sensor of Turns from the Dosifier
I—Monitoring Node 1
J—Monitoring Node 2
1—18—Sensors of Nutrient Applicator Nozzles 1—18

Scale Connections



YE000395—UN—09NOV22

A—Battery
B—Hook Display
C—12 V
D—Data
E—Central Scale
F—Short Cable Load Cell from the Right-Hand Side
G—Long Cable Load Cell from the Right-Hand Side
H—Long Cable Load Cell from the Left-Hand Side
I—Short Cable Load Cell from the Left-Hand Side

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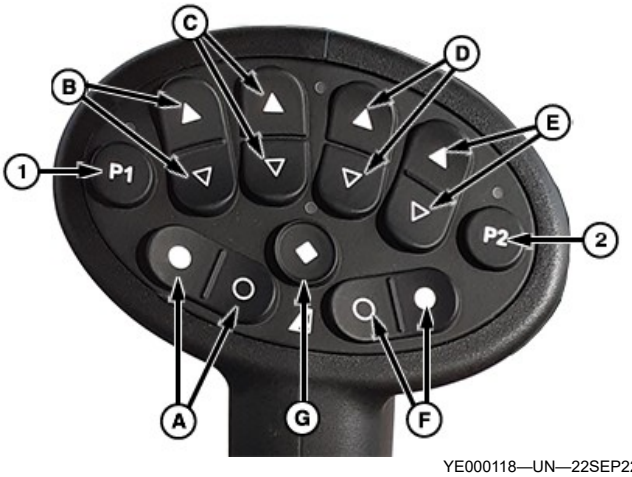
Spray/Application Boom Controls



YE000118—UN—22SEP22

Multi-Function Lever

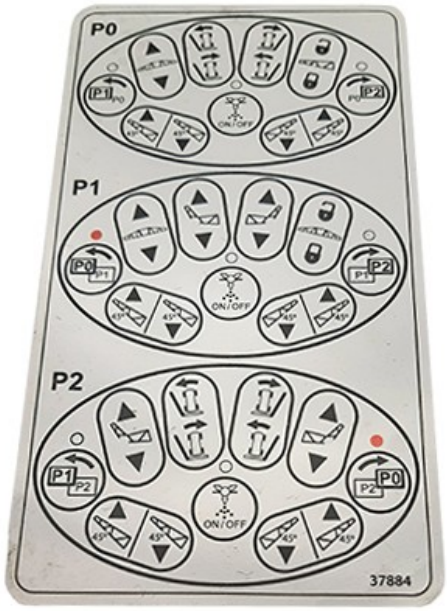
1—Shift Button (situation P0 and situation P1)
2—Shift Button (situation P0 and situation P2)
A—Tilt Movement (left side)
B (situation P0 and P1)—Raise and Lower the Spray/Application Boom
B (situation P2)—Open and Close the Left Outer Spray/Application Boom
C (situation P0 and P2)—Open and Close the Left Inner Spray/Application Boom
C (situation P1)—Open and Close the Left Outer Spray/Application Boom
D (situation P0 and P2)—Open and Close the Right Inner Spray/Application Boom
D (situation P1)—Open and Close the Right Outer Spray/Application Boom
E (situation P0)—Unlock the Side Spray/Application Boom
E (situation P1)—Unlock the Center Frame
E (situation P2)—Open and Close the Right Outer Spray/Application Boom
F—Tilt Movement (right side)
G—System Master Button

The multi-function lever has six double-action buttons (A—F) and two side buttons (1) and (2) that change the functions of the four upper double-action buttons (B—E).

Another central button (G) is also available. This button is used to turn on and off the application system.

Button Functions

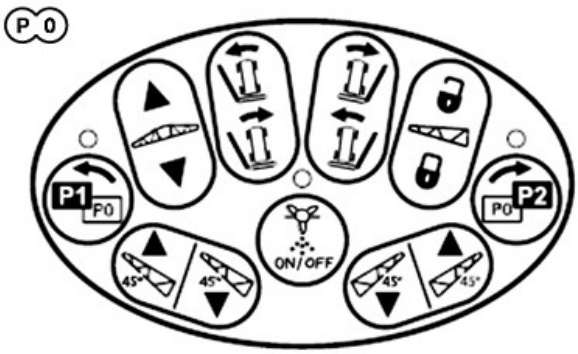
NOTE: Use the images to identify the functions performed by the buttons according to each situation (P0—P2).



YE001116—UN—03JAN24

The information decal available in the cab window identifies the situations P0—P2, as well as the functions of the buttons according to each one of these situations.

The functions of the four upper double-action buttons change as the side buttons (P1) or (P2) are activated.



YE000146—UN—10OCT22

Situation P0

Situation P0: When the LED lights over the side buttons (P1) or (P2) are OFF, it means that the four upper double-action buttons have their primary functions active.

YE000147—UN—10OCT22

Situation P1

Situation P1: When the LED light over the left-hand side button (P1) is ON, it is set as P0. The right-hand side button remains as P2.
The four upper double-action buttons have their functions changed.

YE000148—UN—10OCT22

Situation P2

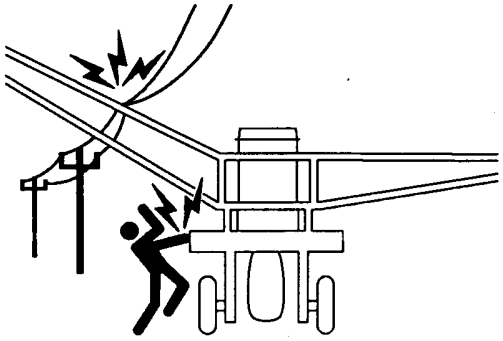
Situation P2: When the LED light over the right-hand side button is ON, it is set as P0. The left-hand side button remains as P1.
The four upper double-action buttons have their functions changed.

For instance, at a situation P1, the two upper central buttons unfold and fold the outer spray/application booms (according to selected button).

At all situations (P0—P2), the two lower double-action buttons correspond to the 45º tilting movement of the spray/application booms.

jtlsx7f,1661799383149-19-11AUG23

Unfold the Spray/Application Boom (for Application)



N44191—UN—27APR92

CAUTION: Keep away from overhead power lines. Serious injury or death to you or others can result due machine contact with electrical wires. Know the operating height and unfolding height of your machine.

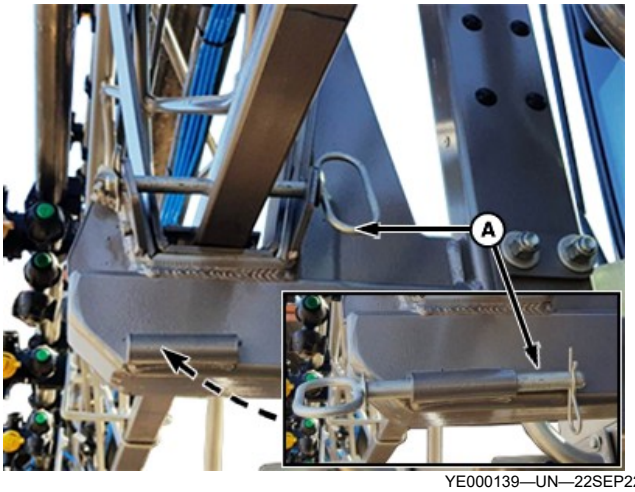
CAUTION: Avoid injury or death to others. Make sure no one is close to the spray/application boom when unfolding it.

IMPORTANT: Avoid spray/application boom system damage. Before opening the spray/application boom, make sure that the oscillation movement of the spray/application boom is locked.

IMPORTANT: Avoid damage to the lift system of the spray/application boom. Do not drive the machine with the spray/application boom fully lifted.

IMPORTANT: Avoid damage to the machine structure. Perform this procedure with the engine running at medium speed (1700—1800 rpm). This way, the spray/application boom movements will be smooth and progressive, without sudden movements that can damage the machine structure.

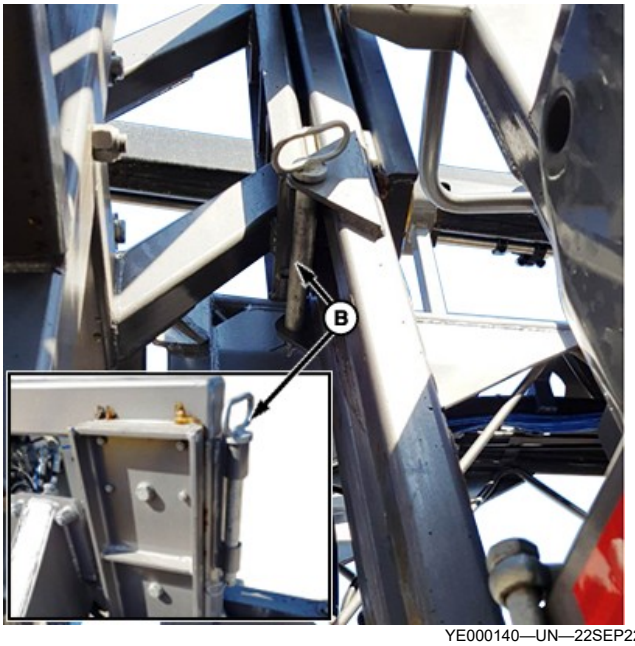
1. With the machine stopped, set the engine to 1700—1800 rpm.



YE000139—UN—22SEP22

Transport Lock—Machine Side

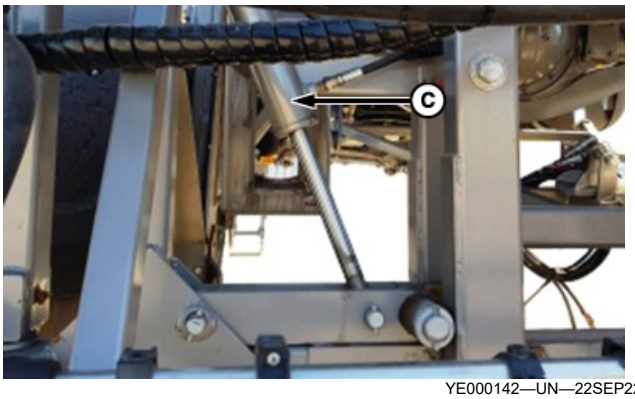
2. Remove the transport locks (A) (if equipped) from machine side and store them in their supports. For machines equipped with carbon fiber spray booms, these locks are hydraulic-actuaded, so they need to be unlocked through the corresponding buttons on the right-hand side console.
3. Release the spray/application booms from their supports, raising them.
4. Completely unfold the left- and right-hand side inner spray/application booms using the corresponding commands.



YE000140—UN—22SEP22

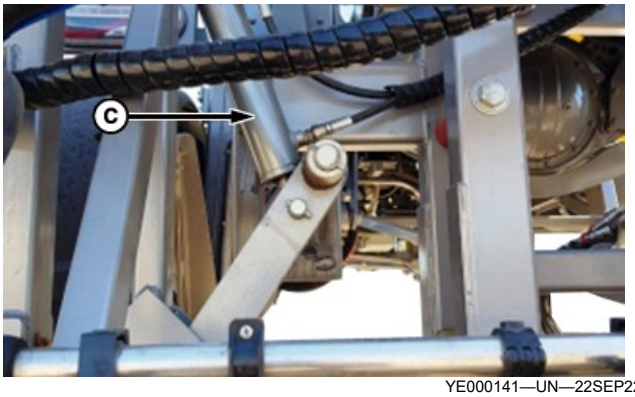
Transport Lock—Center Frame

5. Remove the transport lock (B) from center frame and store it in its support.
6. Lower the spray/application boom to the lowest height.
7. Completely unfold the left- and right-hand side outer spray/application booms simultaneously.



YE000142—UN—22SEP22

Locking Cylinder—Extended (locked position)



YE000141—UN—22SEP22

Locking Cylinder—Retracted (unlocked position)

8. Unlock the oscillation movement of the spray/application boom by retracting the locking cylinder (C).
9. Adjust the height of the spray/application boom with the tilt movement.

With the spray/application boom released and completely unfolded, the equipment is ready to start application.

IMPORTANT: Avoid machine damage. To drive machine to the working location, it is recommended to maintain the spray/application booms in transport position. See Fold the Spray/Application Boom (for Transport) in Spray/Application Boom section.

jtlsx7f,1661799305859-19-10SEP24

Tilt Movement

The spray/application booms have a 45º tilting movement that allows to dodge obstacles.

jtlsx7f,1661799340385-19-05DEC22

Fold the Spray/Application Boom (for Transport)

CAUTION: Keep away from overhead power lines. Serious injury or death to you or others can result due machine contact with electrical wires. Know the transport height and folding height of your machine.

CAUTION: Avoid injury or death to others. Make sure no one is close to the spray/application boom when folding it.

IMPORTANT: Avoid spray/application boom system damage:

- **Before closing the spray/application boom, make sure that the oscillation movement of the spray/application boom is locked.**
- **Before closing the spray/application boom, make sure the spray/application boom is leveled to ground.**

IMPORTANT: Avoid damage to the machine structure. Perform this procedure with the engine running at medium speed (1700—1800 rpm). This way, the spray/application boom movements will be smooth and progressive, without sudden movements that can damage the machine structure.

NOTE: This procedure may vary according to machine model or configuration.

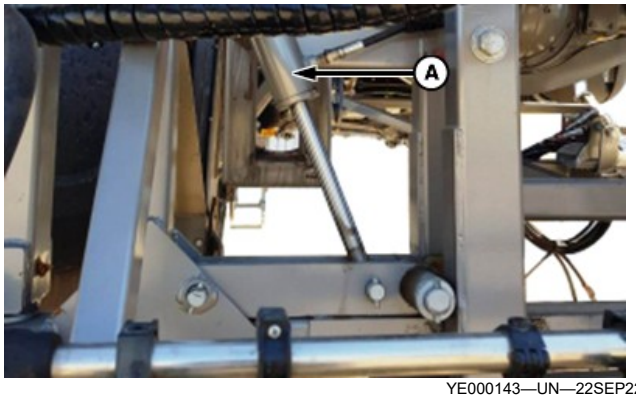
For transport or driving the machine, the spray/application boom must be folded in machine supports. After folding, all existing locks must be installed.

For folding the spray/application boom, perform the following procedure:

1. With the machine stopped, set the engine to 1700—1800 rpm.
2. Level the spray/application boom to the ground.

YE000144—UN—22SEP22

Locking Cylinder—Retracted (unlocked position)



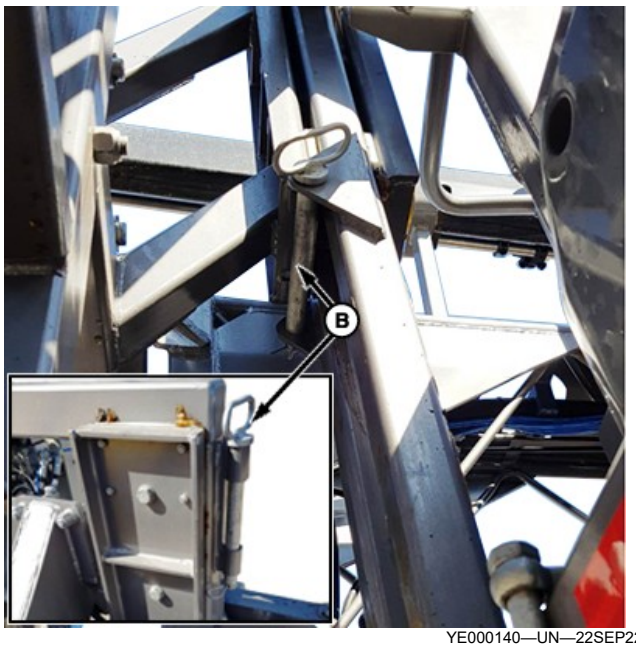
YE000143—UN—22SEP22

Locking Cylinder—Extended (locked position)

3. Lock the oscillation movement of the spray/application boom by extending the locking cylinder (A).

IMPORTANT: Avoid damage to the spray/aaplication boom. The spray/application boom must not be folded with the outer boom sections opened.

4. Completely fold the left- and right-hand side outer spray/application booms simultaneously, using the corresponding commands.



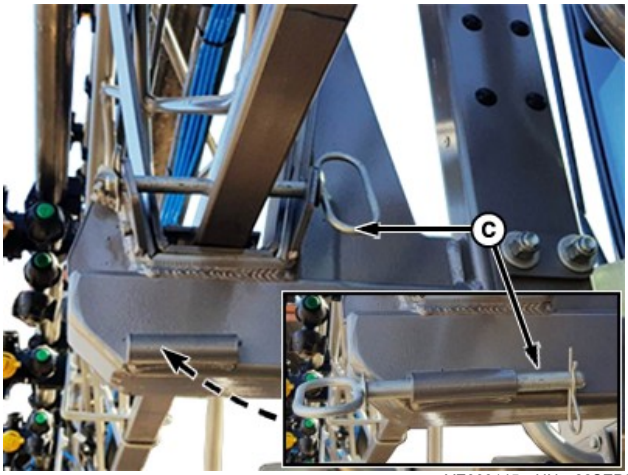
YE000140—UN—22SEP22

Transport Lock—Center Frame

5. Raise the spray/application boom until upper position and lock its vertical movement with the transport lock (B) from center frame.
6. Raise the spray/application booms using the 45º tilting movement to allow them to fit the supports.
7. Carefully fold the left- and right-hand side inner spray/application booms using the corresponding

commands until the spray/application booms are close to their machine side supports.

8. Complete the folding process of the left- and right-hand side inner spray/application booms.
9. Lower the spray/application booms over the supports until they are well fit. To unload the nitrogen accumulator, keep the button pressed for 5 seconds.



YE000145—UN—22SEP22

Transport Lock—Machine Side

10. Install the transport locks (C) (if equipped). For machines equipped with carbon fiber spray booms, these locks are hydraulic-actuaded, so they need to be locked through the corresponding buttons on the right-hand side console.

jtlsx7f,1661799347458-19-10SEP24

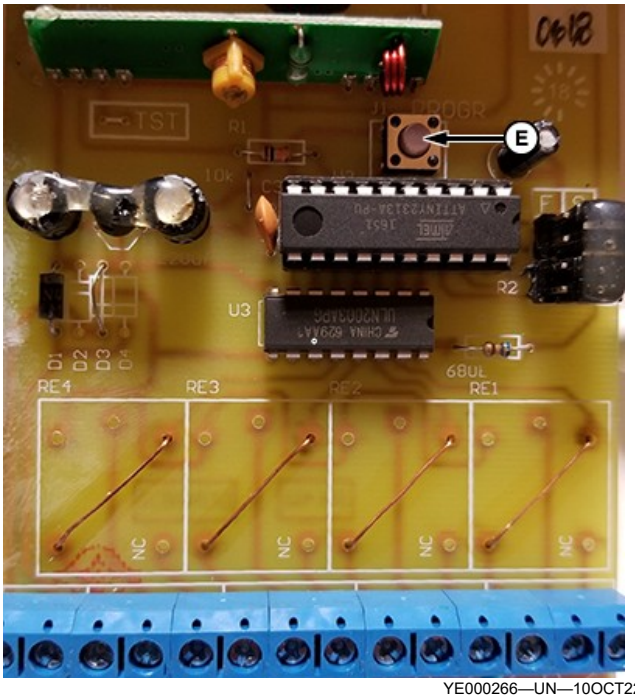
Section Control Instruction

YE000267—UN—10OCT22

Wireless Module (outside)

YE000268—UN—10OCT22

Remote Control



YE000266—UN—10OCT22

Wireless Module (inside)

Code Insertion

To insert a new remote control to the system, perform the following procedure:

1. Remove the wireless module cover.
2. Press the **PROGR** button (E) in the lower board. The LED indicator starts flashing to indicate that the programming mode is active. It will remain this way for 10 seconds.
3. Activate the remote control by pressing the button (A). The LED indicator turns off during some time when the code is accepted and flashes two times, going out of the programming mode.
4. Repeat the previous steps as many remaining remote controls are necessary to include.

Code Clearing

To clear the codes already inserted, perform the following procedure:

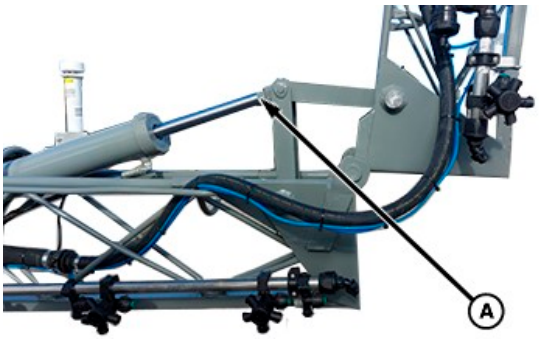
1. Press the **PROGR** button (E) and maintain it pressed for 10 seconds. All programmed codes will be cleared. The LED light remaining on evidences this situation (receiver without codes).

NOTE: Each remote control has four buttons (A—D). The upper (A and B) use one code, and the lower (C and D) use another one. This way, two codes must be programmed per remote control.

2. Proceed to the code isertion and press the button (A). Repeat the code insertion and press the button (C). This way, all four buttons (A—D) are programmed.

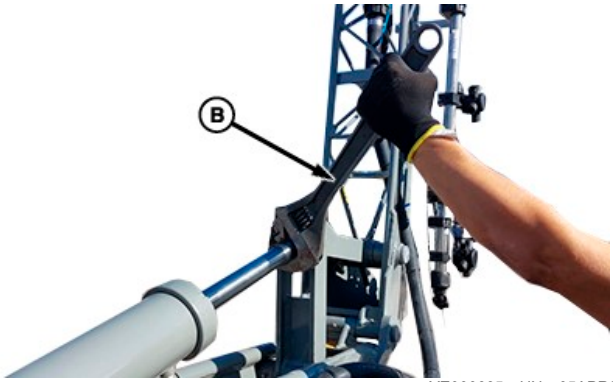
jtlsx7f,1665412977386-19-17NOV22

Adjust the Outer Spray Boom Section Position



YE000684—UN—05APR23

1. Fold the outer spray boom section in a 90° angle in relation to the inner spray boom section as the image shows.

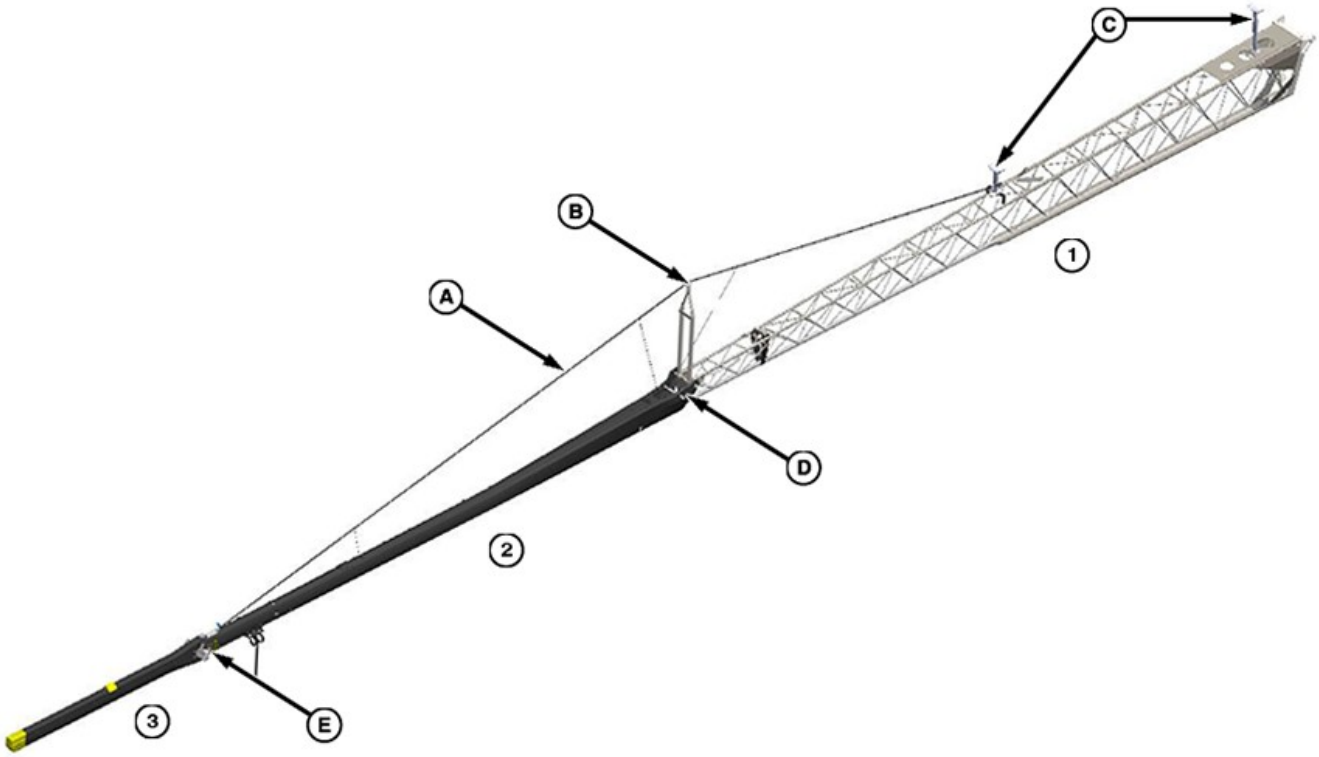


YE000685—UN—05APR23

2. Loosen locknut (A) on rod with a wrench (B).
3. Unscrew the rod one turn.
4. Tighten locknut (A).
5. Check again for the presence of a gap between inner spray boom section and outer spray boom section.
6. Repeat the adjust as many times as necessary to remove the gap.

edw8krp,1680035315364-19-06APR23

Main Components of the Hybrid Spray Boom



YE1387595—UN—03JAN25

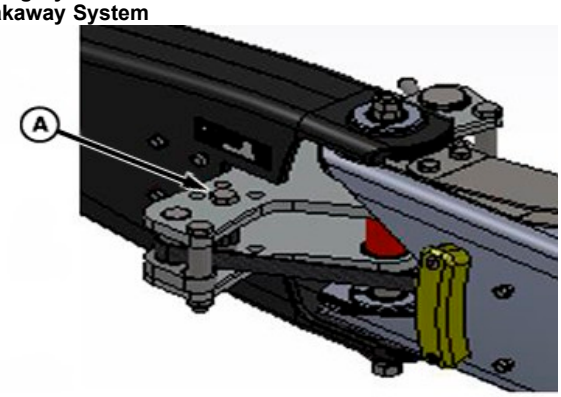
1—Inner Spray Boom Section
2—Outer Spray Boom Section
3—Breakaway Section
A—Tensioner 6 and 7 (T6/7)
B—Support
C—Transport Supports
D—Folding System
E—Breakaway System

jtlsx7f,1668800875777-19-03JAN25

Adjust the Breakaway System

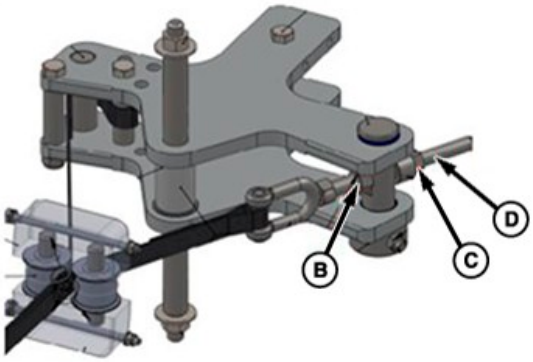
1. Park the machine on level ground.
2. Unfold the spray boom completely.

YE001118—UN—03JAN24



YE001119—UN—03JAN24

3. Push the end of the breakaway to the side of the adjusting screw (A) until the strap of the breakaway system is without tension.
4. Keeping the strap without tension, replace the adjusting screw (A) to the desired position according to the result to be achieved. To increase the tension, install the adjusting screw (A) in a position closer to the spray boom. To decrease the tension, install the the adjusting screw (A) in a position farther the spray boom.



YE001120—UN—03JAN24

IMPORTANT: Adjust the tensioner (D) lock nut (B) and nut (C) making sure that the shackle remains in vertical position.

5. Once the adjusting screw (A) point is set, push the breakaway to the opposite side, up to its natural position.

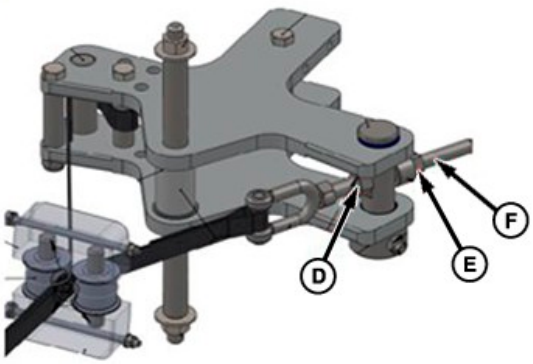
jtlsx7f,1668800475478-19-11AUG23

Adjust the Alignment of the Breakaway Section

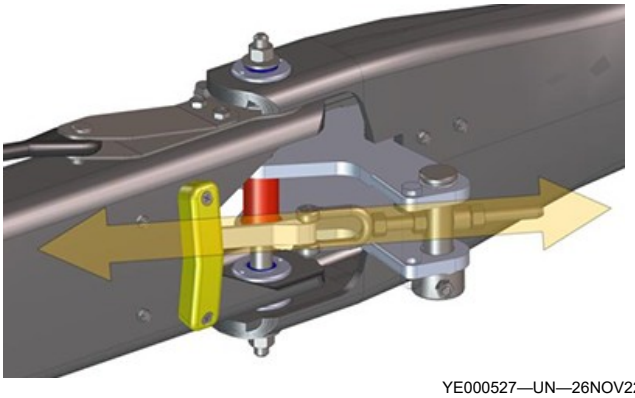
YE001121—UN—03JAN24

The breakaway section (B) must be aligned with the outer spray boom section (A).

1. Park the machine on level ground.
2. Unfold completely the spray boom.
3. Push the end of the breakaway section (B).
4. Push the end of the breakaway section (B) to the side of the adjusting screw (C) until the strap of the breakaway system is without tension.



YE001122—UN—03JAN24



YE000527—UN—26NOV22

Tensioner

IMPORTANT: Adjust the tensioner (F) lock nut (D) and nut (E) making sure that the shackle remains in vertical position.

Keeping the strap without tension, loosen the nut (E) and the lock nut (D) of the tensioner (F). Move the tensioner and tighten the nuts.

6. Activate the breakaway system from one end to the other one for three or four times.
7. Once the alignment between the breakaway section (B) and the outer spray boom section (A) is reached, tighten the nut (E) and the lock nut (D).

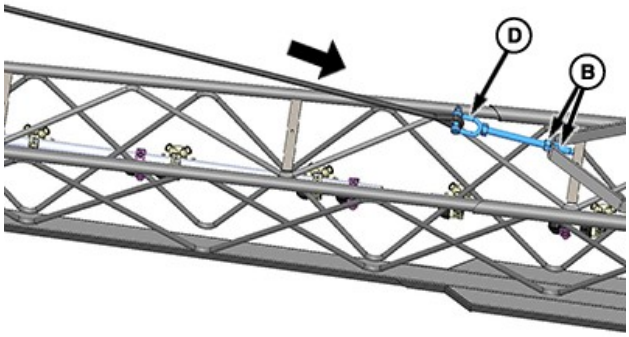
jtlsx7f,1668800485360-19-18SEP24

Adjust the T6/T7 Tensioner (Hybrid Spray Booms Only)

1. Park the machine on level ground.
2. Unfold the spray boom completely.

YE001123—UN—03JAN24

3. Slightly raise the spray boom to release the tension at the rope.

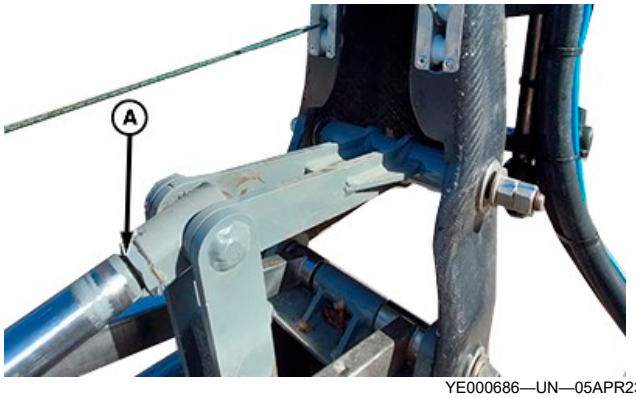


YE001124—UN—03JAN24

4. Loosen the nuts (B).
5. To increase the tension on the rope, move the fork (D) in the direction indicated by the arrow. To decrease tension, move the fork (D) to the opposite side.
6. Tighten the nuts (B).
7. Check the tension of the T6/T7 tensioner. (See Check the T6/T7 Tensioner in Service-Chassis and Spray/Application Boom section.)

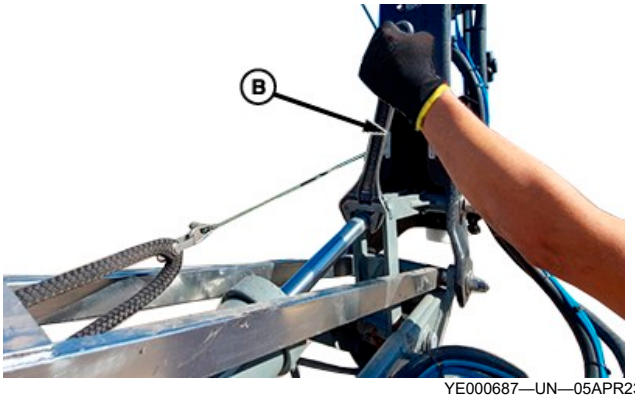
jtlsx7f,1668800412864-19-11AUG23

Adjust the Outer Spray Boom Section Position



YE000686—UN—05APR23

1. Fold the outer spray boom section in a 90° angle in relation to the inner spray boom section as the image shows.



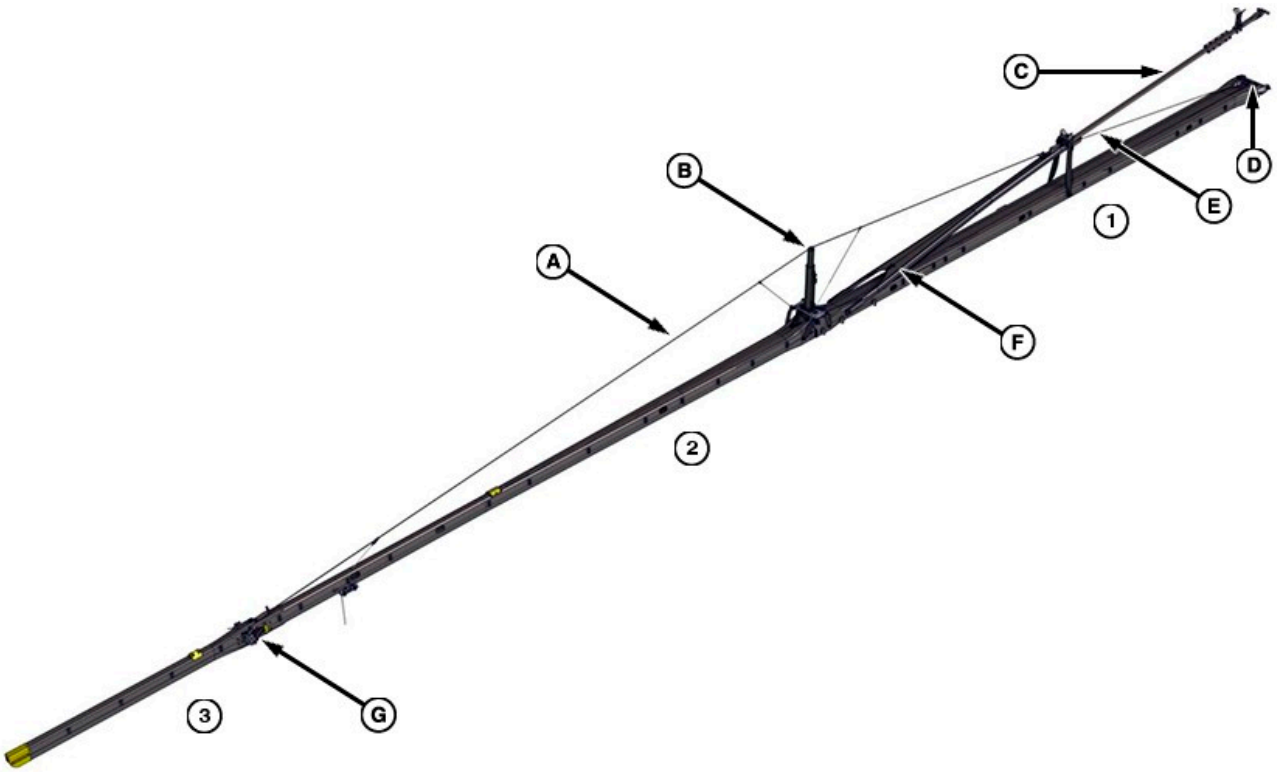
YE000687—UN—05APR23

2. Loosen locknut (A) on rod with a wrench (B).
3. Unscrew the rod one turn.
4. Tighten locknut (A).
5. Check again for the presence of a gap between inner spray boom section and outer spray boom section.
6. Repeat the adjust as many times as necessary to remove the gap.

edw8krp,1680620308563-19-06APR23

Carbon Fiber Spray Boom

Main Components of the Carbon Fiber Spray Boom



YE001125—UN—03JAN24

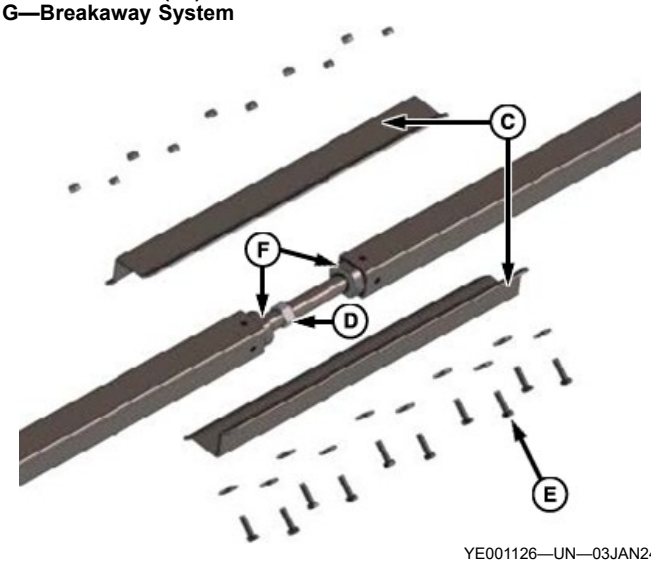
1—Inner Spray Boom Section
2—Outer Spray Boom Section
3—Breakaway Section
A—Tensioner 3 (T3)
B—Folding System
C—Tensioner 1 (T1)
D—Fuse Box
E—Tensioner 3 (T3)
F—Tensioner 2 (T2)
G—Breakaway System

jtlsx7f,1669484614126-19-11AUG23

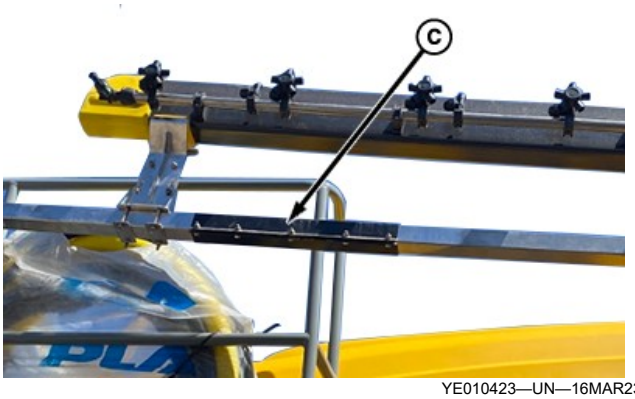
Adjust the Inner Spray Boom Section (Carbon Fiber Spray Booms Only)

Machines Equipped with 36 m (118 ft) Carbon Fiber Spray Booms—Model A

1. Park the machine on level ground.
2. Unfold the spray boom.



YE001126—UN—03JAN24



YE010423—UN—16MAR23

3. Grease and remove the screws (E) and the plates (C) to allow reaching the adjusting screw (D).
4. Raise the center frame.
5. Actuate the tilt cylinder down to the mechanical stop.
6. Loosen the nuts (F) of the adjusting screw (D).
7. Rotate the adjusting screw (D) to reach the specified angle.

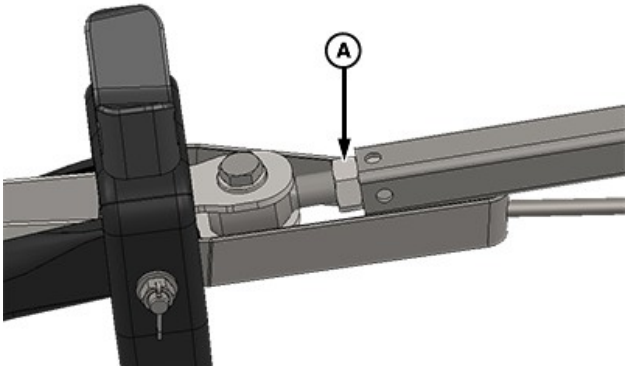
Specification

Inner Spray Boom
Section—Angle. . . . . Between -4° and -5°

8. Once the correct angle of the inner spray boom section is reached, tighten the nuts (F).
9. Reinstall the plates (C) and the corresponding screws (E).

Machines Equipped with 40 m (131 ft) Carbon Fiber Spray Booms or 36 m (118 ft) Carbon Fiber Spray Booms—Model B

1. Park the machine on level ground.
2. Unfold the spray boom.
3. Raise the center frame.
4. Actuate the tilt cylinder down to the mechanical stop.



YE1377252—UN—18SEP24

5. Loosen the nut (A) of the adjusting screw.
6. Rotate the adjusting screw to reach the specified angle.

Specification

Inner Spray Boom
Section—Angle. . . . . Between -4° and -5°

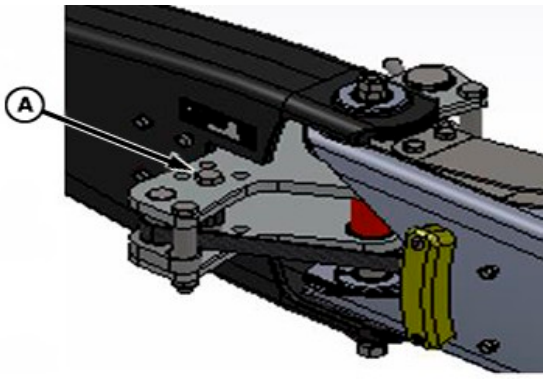
7. Once the correct angle of the inner spray boom section is reached, tighten the nut (A).

jtlsx7f,1726663003306-19-18SEP24

Adjust the Breakaway System

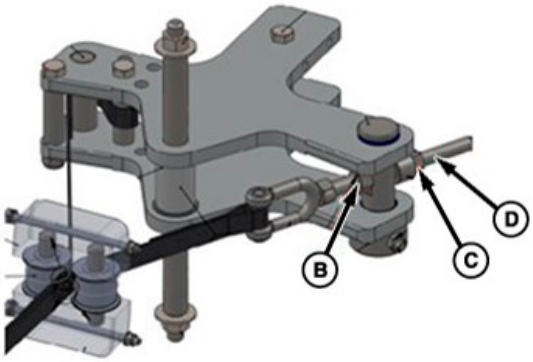
1. Park the machine on level ground.
2. Unfold the spray boom completely.

YE001118—UN—03JAN24



YE001119—UN—03JAN24

3. Push the end of the breakaway to the side of the adjusting screw (A) until the strap of the breakaway system is without tension.
4. Keeping the strap without tension, replace the adjusting screw (A) to the desired position according to the result to be achieved. To increase the tension, install the adjusting screw (A) in a position closer to the spray boom. To decrease the tension, install the the adjusting screw (A) in a position farther the spray boom.



YE001120—UN—03JAN24

IMPORTANT: Adjust the tensioner (D) lock nut (B) and nut (C) making sure that the shackle remains in vertical position.

5. Once the adjusting screw (A) point is set, push the breakaway to the opposite side, up to its natural position.

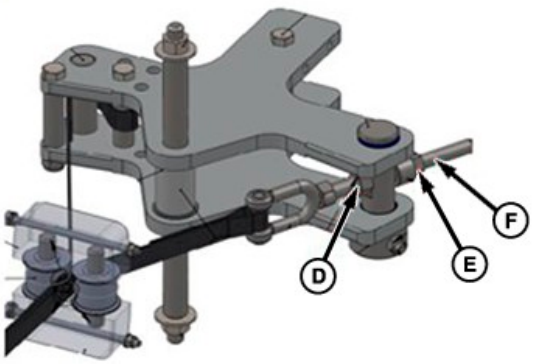
jtlsx7f,1668800475478-19-11AUG23

Adjust the Alignment of the Breakaway Section

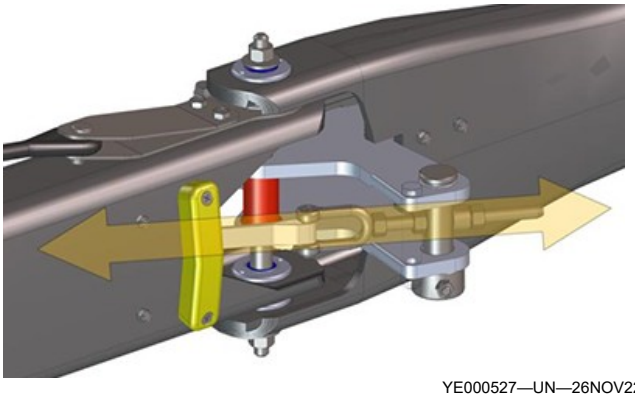
YE001121—UN—03JAN24

The breakaway section (B) must be aligned with the outer spray boom section (A).

1. Park the machine on level ground.
2. Unfold completely the spray boom.
3. Push the end of the breakaway section (B).
4. Push the end of the breakaway section (B) to the side of the adjusting screw (C) until the strap of the breakaway system is without tension.



YE001122—UN—03JAN24



YE000527—UN—26NOV22

Tensioner

IMPORTANT: Adjust the tensioner (F) lock nut (D) and nut (E) making sure that the shackle remains in vertical position.

Keeping the strap without tension, loosen the nut (E) and the lock nut (D) of the tensioner (F). Move the tensioner and tighten the nuts.

6. Activate the breakaway system from one end to the other one for three or four times.
7. Once the alignment between the breakaway section (B) and the outer spray boom section (A) is reached, tighten the nut (E) and the lock nut (D).

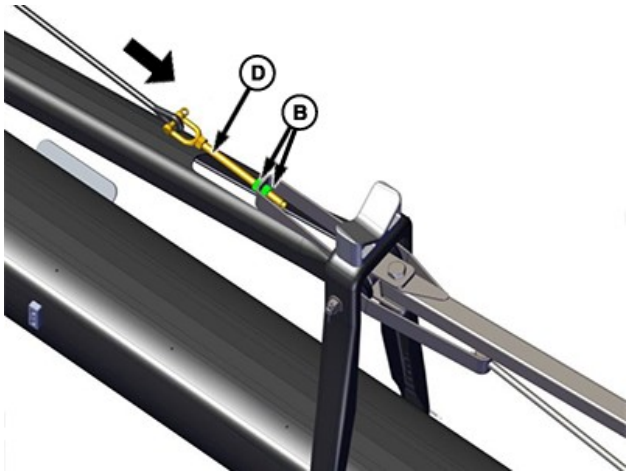
jtlsx7f,1668800485360-19-18SEP24

Adjust the T6/T7 Tensioner (Carbon Fiber Spray Booms Only)

1. Park the machine on level ground.
2. Unfold the spray boom completely.

YE001127—UN—03JAN24

3. Slightly raise the spray boom to release the tension at the rope.



YE001128—UN—03JAN24

4. Loosen the nuts (B).
5. To increase the tension on the rope, move the fork (D) in the direction indicated by the arrow. To decrease tension, move the fork (D) to the opposite side.
6. Tighten the nuts (B).
7. Check the tension of the T6/T7 tensioner. (See Check the T6/T7 Tensioner in Service-Chassis and Spray/Application Boom section.)

jtlsx7f,1668801016810-19-11AUG23

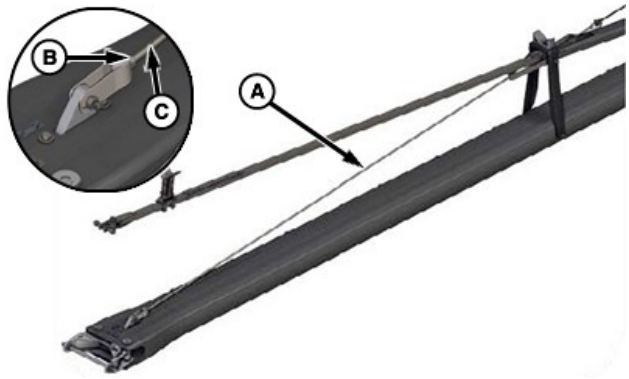
Adjust the T3 Tensioner (Carbon Fiber Spray Booms Only)

Perform this service every season.

IMPORTANT: Do not use the spray boom with the tensioner T3 (A) out of specificated tightening. If the tension of the tensioner T3 (A) is not correct, the risk os breaks is increased.

In case of being necessary to increase of increase or decrease the T3 rope tension, perform the following procedure:

1. Park the machine on level ground.
2. Unfold the spray boom and make sure it is leveled.



YE001129—UN—03JAN24

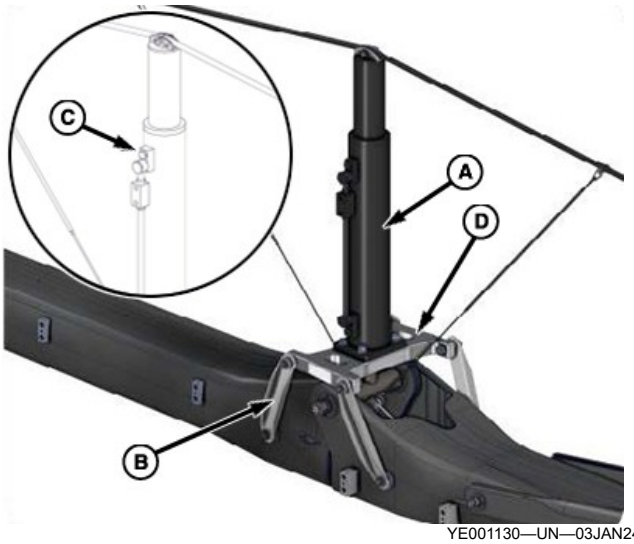
3. Loosen the lock nut (B).
4. Adjust the bar (C) using a torchimeter to reach the tension specification. (See Check the T3 Tensioner (Carbon Fiber Spray Booms Only) in Service-Chassis and Spray/Application Boom section.)
5. Tighten the lock nut (B) to specification:

Specification	
Tensioner T3 Lock Nut—Torque	78.5 N·m (57.9 lb·ft)

jtlsx7f,1668801010662-19-11AUG23

Adjust the Outer Fold Cylinder (Carbon Fiber Spray Booms Only)

Overview



YE001130—UN—03JAN24

The outer fold cylinder (A) is composed of a hydraulic cylinder that actuates a mechanism of four rods (B) connected to a base (D). The hydraulic actuation moves the assembly to perform the folding and unfolding of the spray boom.

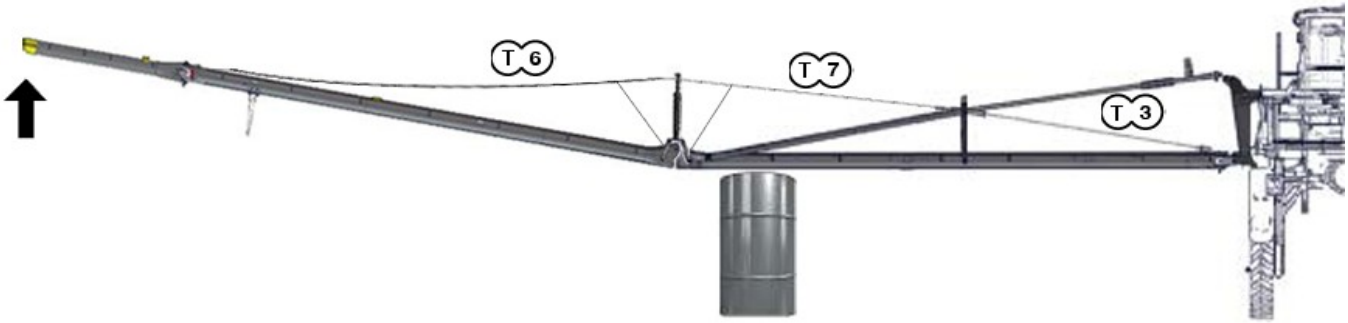
The outer fold cylinder (A) has two chambers at its extremities. These chambers, through the calibrated stop (C), act like a brake at the cylinder ends of course.

Before adjusting the cylinder due to any malfunction in system that is noticed, make sure that the calibrated stop (C) is not obstructed by any dirt at the hydraulic oil.

If the malfunction persists, perform the adjust of the outer fold cylinder (A).

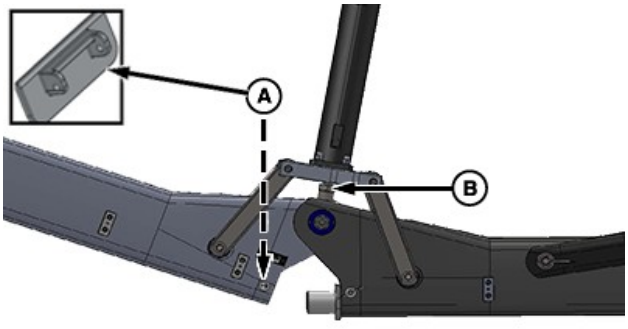
Adjust the Outer Fold Cylinder (Carbon Fiber Spray Booms Only)

1. Park the machine on level ground.
2. Unfold the spray boom completely.



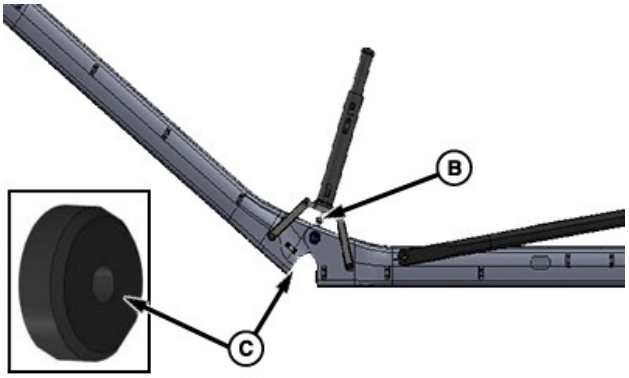
YE1387596—UN—03JAN25

3. Position a support as shown in the image.
4. Carefully lower the spray boom with the tilt cylinder until it is supported.
5. To release tension at the T6/T7 rope, slightly fold the outer spray boom.



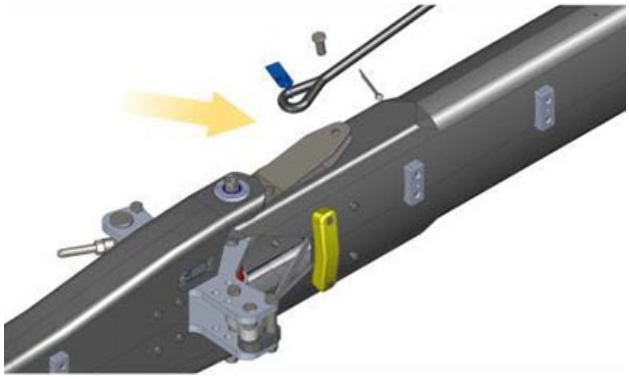
YE001132—UN—03JAN24

6. **For machines equipped with 36 m (118.11 ft) spray booms:** remove the cradle plate (A) of the outer spray boom section and loosen the lock nut (B) of the outer fold cylinder .



YE001133—UN—03JAN24

7. **For machines equipped with 40 m (131.23 ft) spray booms:** remove the two stops (C) of the outer spray boom section and loosen the lock nut (B) of the outer fold cylinder .



YE000532—UN—28NOV22

Tensioner T6

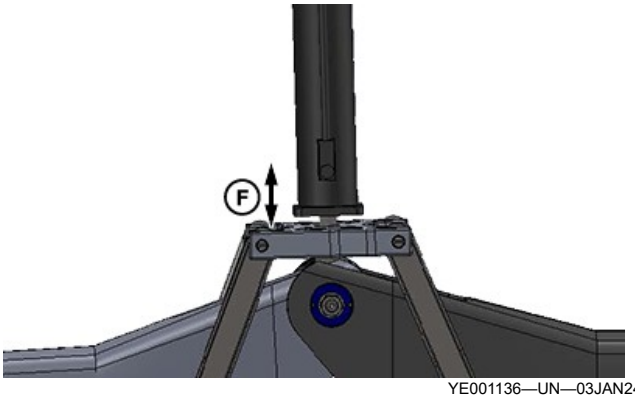
8. Disconnect the tensioner T6 as show in the image.

YE001134—UN—03JAN24

9. Position other support as shown in the image.
10. Unfold the spray boom until it is in horizontal position, supporting the outer spray boom to release efforts at the cylinder.
11. Disconnect the terminals of the hydraulic hoses.
12. Remove the screws (1) that fix the flange (2).

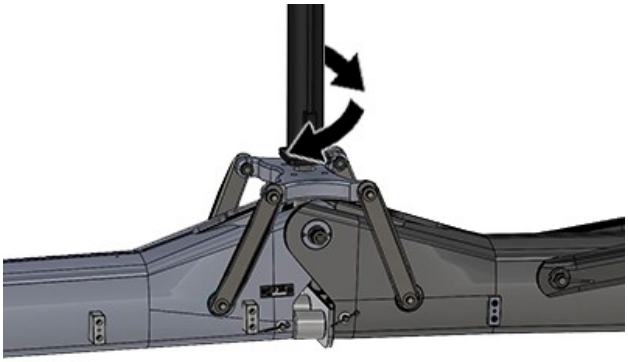
YE1387597—UN—03JAN25

13. Manually unfold the outer spray boom section, removing the support previously used, until reaching the mechanical stop (E) with the inner spray boom section. Take a negative angle of approximately -5° (D) in relation to its original position.



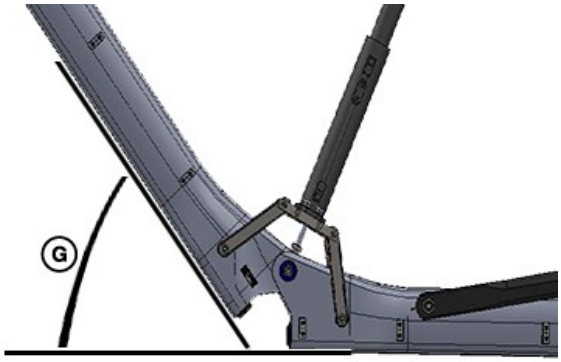
YE001136—UN—03JAN24

14. When the angle informed after is reached, the outer fold cylinder is going to move away from its base approximately 25 mm (1 in) (F).



YE001137—UN—03JAN24

15. Rotate clockwise the cylinder until its flange is near to the cylinder base, making the bores on flange to match the bores on base so it will be possible to fix the assembly using the screws previously removed. This adjust will make possible the cylinder to have its course corrected.
16. Reinstall the four removed screws, applying thread lock.
17. Reconnect the hydraulic hoses.

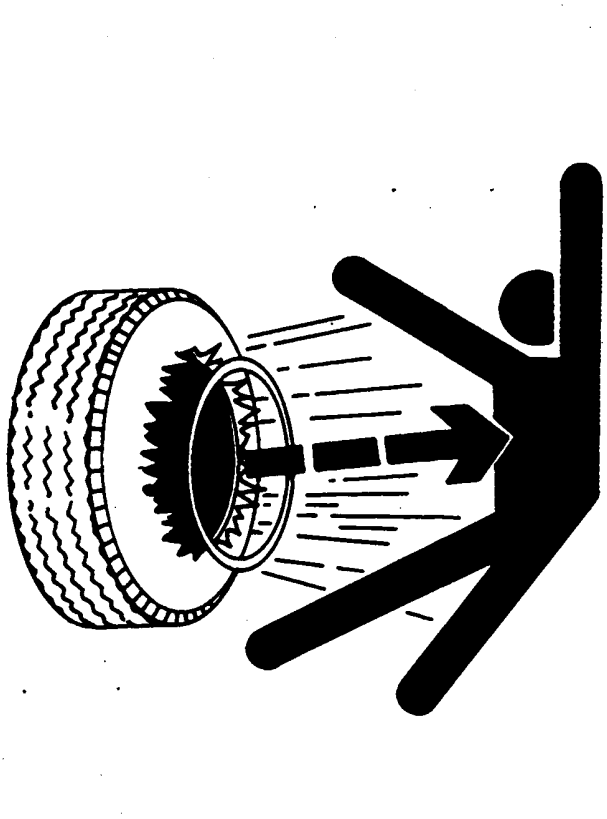


YE001138—UN—03JAN24

18. Raise the spray boom enough (do not overcome an 80° angle (G)) to be able to reinstall the folding stops (C) or the cradle plate (A) previously removed. Reinstall them.
19. Resintall the T6/T7 tensioner and adjust the lock nut (B).
20. Before completely folding the outer spray boom, perform at least two fold movements of approximately 80° angle (G).
21. Check the tension of the tensioner T6/T7. (See Check the T6/T7 Tensioner in Service-Chassis and Spray/Application Boom section.)
22. If necessary, adjust the tension of the tensioner T6/T7. (See Adjust the T6/T7 Tensioner (Carbon Fiber Spray Booms Only) in Carbon Fiber Spray Boom section.)

jtlsx7f,1668801437039-19-03JAN25

Service Tires Safely



TS211—UN—15APR13

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

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

Always maintain the correct tire pressure. Do not inflate the tires above the recommended pressure.

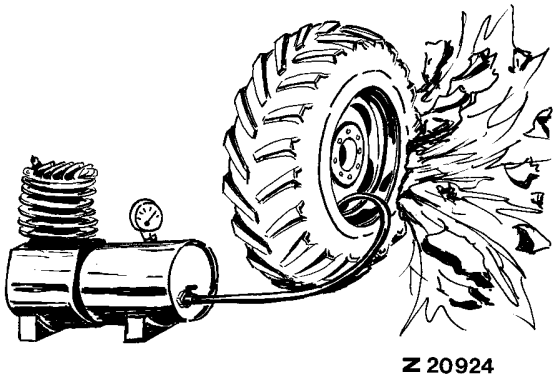
Never weld or heat a wheel and tire assembly. The heat can cause an increase in air pressure resulting in a tire explosion. Welding can structurally weaken or deform the wheel.

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

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

DX,RIM1-19-27OCT08

Safely Mounting Tires



Z20924—UN—15AUG94

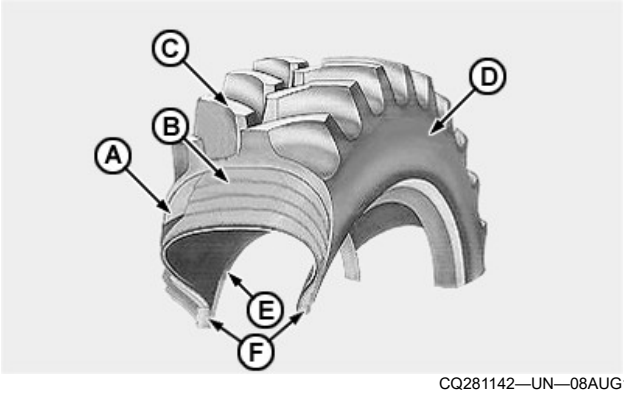
Failure to follow appropriate procedure when mounting a tire on a wheel or rim can cause an explosion, which may result in serious injury or death. DO NOT attempt to mount a tire unless you possess the equipment and experience to safely carry out the task. It is safer to leave this task to your John Deere dealer or a professional tire shop.

When mounting the bead of the tire in the rim never exceed the maximum adjustment pressure as specified by the tire manufacturer. Inflating a tire to a pressure above the maximum level may cause the bead to tear or even the rim, with dangerous explosive force. If, at the recommended pressure, there is leakage of air from the bead of the tire set on the rim deflate tire, lubricate the bead and reinflate it.

Detailed agricultural tire mounting instructions, including necessary safety precautions, are available from the local office of your tire manufacturer. This information is also available in the manuals of tire manufacturers.

LX,OSPU 000242-19-06APR05

Tire Parts



CQ281142—UN—08AUG12

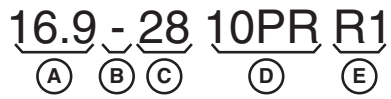
A—Carcass
B—Plies
C—Tread
D—Sidewall
E—Liner
F—Steel bead

NOTE: For more detailed information, see tire manufacturer's manual or contact your dealership.

OU90500,0000131-19-30AUG12

Tire Denomination

Diagonal tire

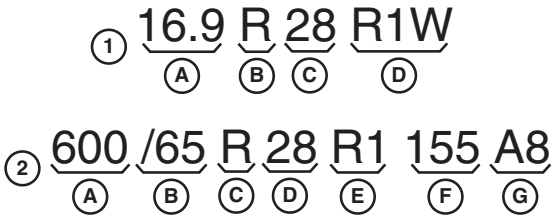


CQ294129—UN—30AUG12

The diagonal tire is identified by conventional nomenclature.

A—Width of the tread of the tire in inches.
B—Indicates the tire is diagonal.
C—Indicates the size of the rim in inches.
D—Ply Rating, indicates the strength of the carcass and not the number of plies.
E—Type and size of lug tire.

Radial tire



CQ294130—UN—30AUG12

The radial tire can be identified by conventional nomenclature or international system.

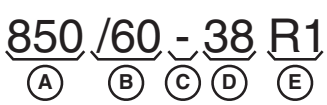
1 - Conventional nomenclature

A—Width of the tread of the tire in inches.
B—Indicates the tire is radial.
C—Indicates the size of the rim in inches.
D—Type and size of lug tire.

2 - International system

A—Indicates the width of the tire in millimeters.
B—Indicates the height of the tire (side) as a percentage of the width.
C—Indicates the tire is radial.
D—Indicates the size of the rim in inches.
E—Type and size of lug tire.
F—Indicates the index of the tire load capacity.
G—Indicates the maximum speed that the tire is indicated.

High flotation tire



CQ294131—UN—30AUG12

The high flotation tires are identified by a mixed nomenclature.

A—Indicates the width of the tire in millimeters.
B—Indicates the height of the tire (side) as a percentage of the width.
C—Indicates the tire is diagonal.
D—Indicates the size of the rim in inches.
E—Type and size of lug tire.

OU90500,0000132-19-30AUG12

Tire Tread Types

CQ294132—UN—30AUG12

There are five types of tread and these are the most used on agricultural application.

A—R1 tire. Are most common in agricultural application and suitable for most soil conditions.
B—R1W tire. The lugs are 20% higher than the R1 tire, providing greater durability when used to run on roads.

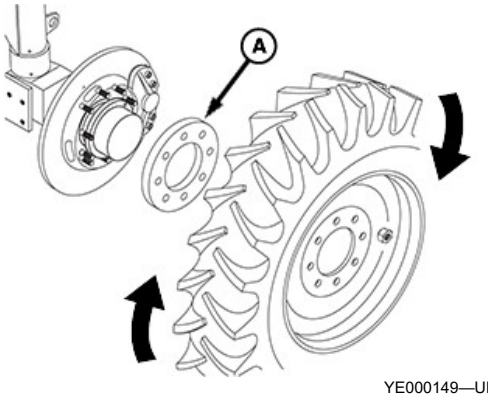
C—R2 tire. Used in land with muddy, wet and with little support. For example, in irrigated rice field.

D—R3 tire. Has small lugs and is recommended for use on surfaces that require minimal movement. For example, in golf field, airports, etc.

E—R4 tire. Tyre for industrial application and lightweight constructions.

OU90500,0000133-19-30AUG12

Tread Adjust (If Equipped with Reversible Wheels)



YE000149—UN—22SEP22

To be adapted for for different crops, the machine can have its tread set to 2.62 m (8.60 ft) or to 2.80 m (9.19 ft) according to orientation of the wheel and the addition of the spacer (A).

To adjust the tread, perform the following procedure:

1. Park the machine on a firm, dry, and level ground.
2. Install wheel chocks.
3. Install the hydraulic jack on the machine and raise one wheel. (See Hydraulic Jack in Wheels, Tires, and Tread section.)
4. Remove the wheel and reverse it, so the internal side of the wheel is positioned outward (as indicated in the image). The spacer (A) must be installed between the wheel and the hub.
5. Repeat the process on the remaining wheels.

jtlsx7f,1661886738540-19-22NOV22

Discarded Tires

It is illegal to burn discarded tires. Tires cannot be used to start piles of trees and buildings on fire. Tires can not be used to fill ravines, washes, streams, etc.

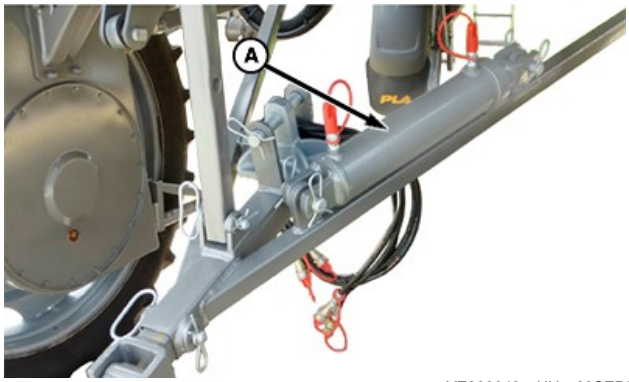
Discarded tires can be disposed of in a permitted landfill. These tires must first be processed (shredded or quartered) before being taken to a landfill. Call your landfill for requirements.

Discarded tires also may be recycled if a recycling plant is nearby.

Tires may be used for stream bank stabilization. Contact the DNR for guidance.

AG,OUO1011,911-19-01MAR06

Hydraulic Jack



YE000049—UN—22SEP22

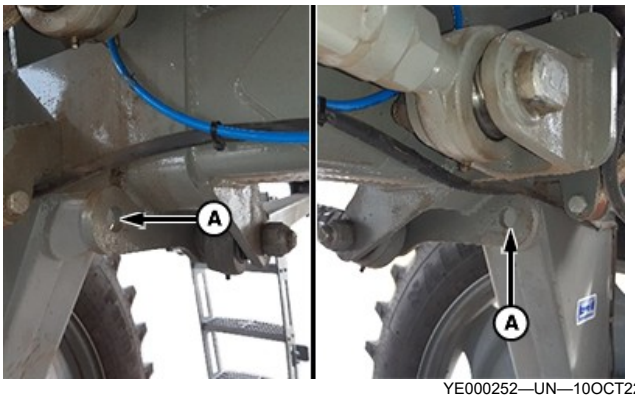
The machines are equipped with a hydraulic jack (A) and a support that allows the elevation of the machine when needed.

The storage position of the hydraulic jack (A) is over the tow bar.

Once the hydraulic jack (A) is on the position to be used, it is connected to the machine hydraulic system and actuated using the hydraulic system commands.

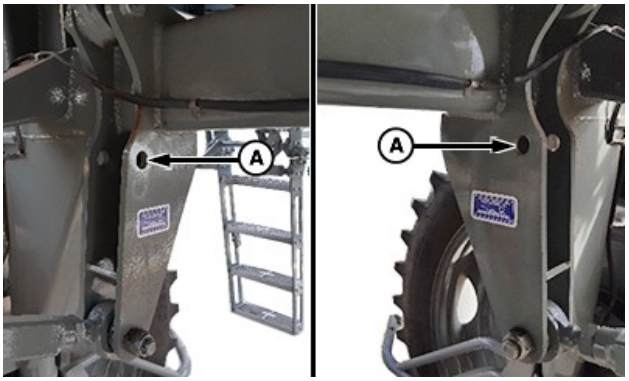
jtlsx7f,1669148546486-19-23NOV22

Towing the Machine



YE000252—UN—10OCT22

Front Engine Machines



YE000253—UN—10OCT22

Central Engine Machines

The machine has two tie-points (A) near the tensioners, one at each machine side as the images show. These tie-points (A) must be used for tying tow straps and tow the machine.

General Procedure

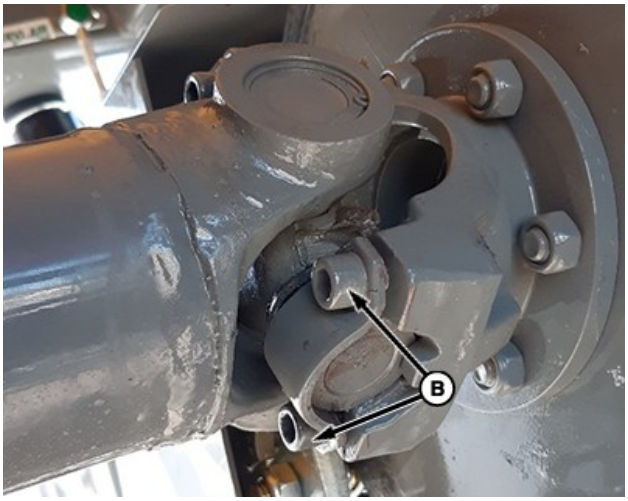
For machines equipped with an Eaton manual transmission:

1. Install tow straps on the indicated tie-points (A).
2. Put the transmission in neutral position.
3. Release the park brake. (If the engine does not start, see the instructions at the end of this procedure.)
4. Tow the machine.

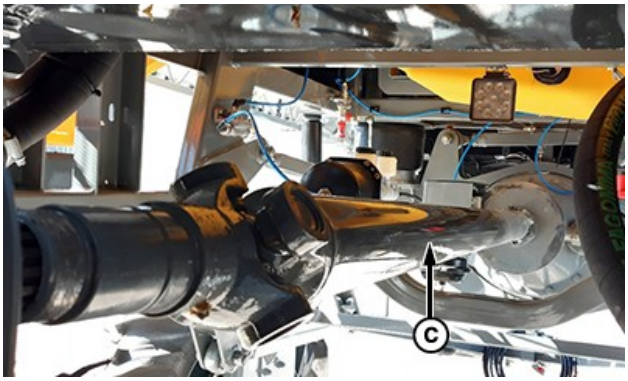
For machines equipped with an Allison automatic transmission:

IMPORTANT: Take care when removing the driveshaft. It is recommended to fix the universal joint in order to not loose the bearings of the assembly.

NOTE: To perform the towing procedure on automatic transmission machines, it is necessary to remove the driveshaft using a wrench.

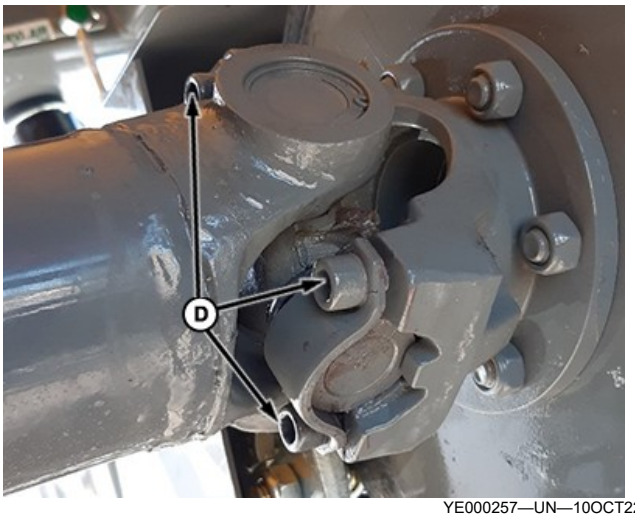


YE000255—UN—10OCT22

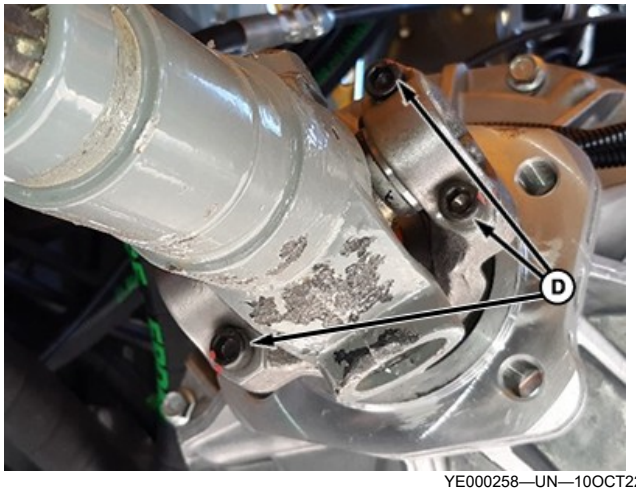


YE000254—UN—10OCT22

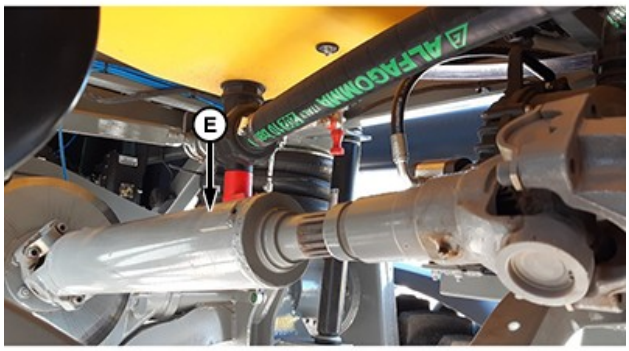
1. If the machine has a front engine, remove the four screws (B) from the differential side of the driveshaft and remove the second section of the driveshaft (C).



YE000257—UN—10OCT22



YE000258—UN—10OCT22



YE000256—UN—10OCT22

2. If the machine has a central engine, remove the eight screws (D) from both sides of the driveshaft (E).
3. Start the engine, let the pneumatic circuit to load air, and release the park brake. (If the engine does not start, see the instructions at the end of this procedure.)
4. Install tow straps on the indicated tie-points (A).
5. Tow the machine.
6. After the towing procedure is done, reinstall and tighten the previously removed screws to specification:

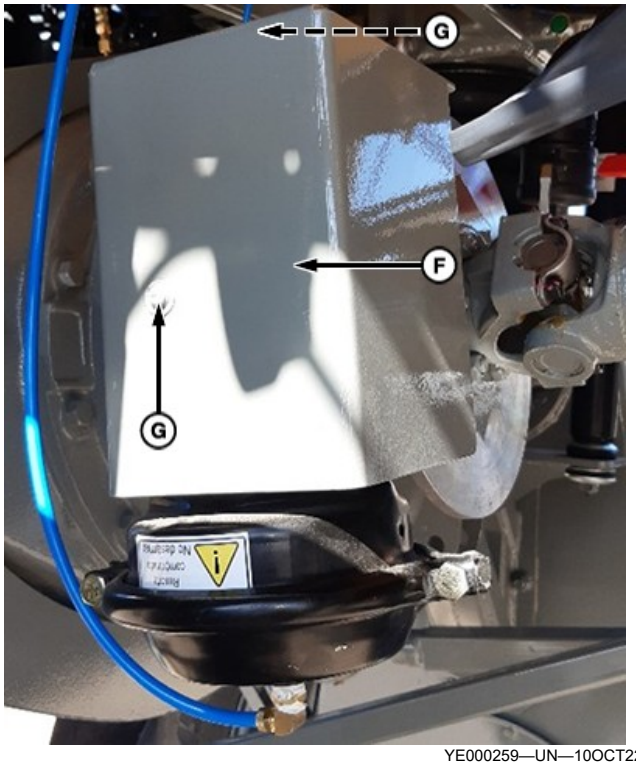
Specification

Driveshaft Screws—Torque. . . . . 35 N·m (25.82 lb·ft)

If the Engine Does Not Start

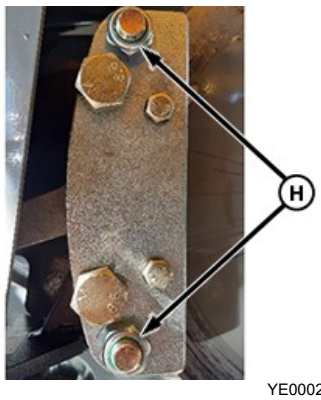
If a portable compressor is available, use it to charge the pneumatic system and release the park brake.

If a portable compressor is not available:



YE000259—UN—10OCT22

1. Remove the two screws (G) and remove shield park brake assemby (F) that is located at the right-hand side of the differential.



YE000260—UN—10OCT22

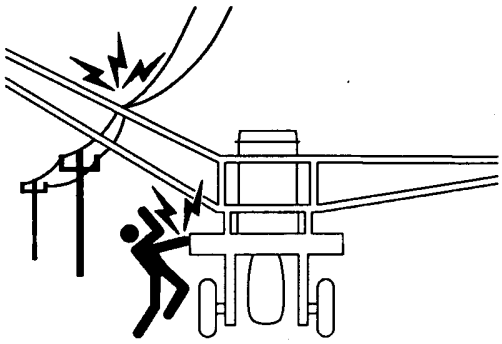
2. Release the brake pad registers from the disc brake using a hex socket wrench M22 on the nuts (H).
3. Install tow straps on the indicated tie-points (A).
4. Tow the machine.

jtlsx7f,1664458951522-19-12DEC24

Transport Procedure

Check and follow local regulations for equipment size, lighting, and marking before driving on public roadways.

Check the maximum transport height for the road the machine is going to pass. Make sure to consider the machine height plus the truck height.



N44191—UN—27APR92

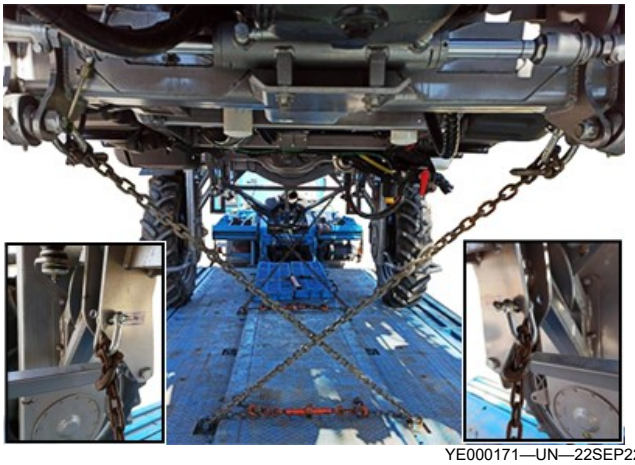
CAUTION: Keep away from overhead power lines. Serious injury or death to you or others can result due to machine contact with electrical wires. Know the transport height of the machine.

Only allow companies specialized in this type of transport to perform this operation.

CAUTION: Avoid accidents and serious injury or death:

- **Do not transport the machine with people over it.**
- **Make sure to reduce speed and take extra caution during turns or braking operation.**

Only use trucks with compatible dimensions to the machine size. Observe the maximum height and width allowed.



YE000171—UN—22SEP22

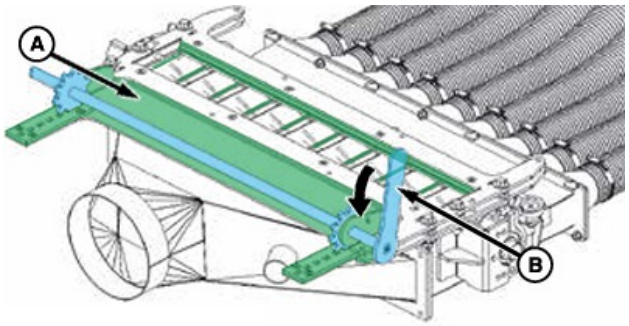
Machine Transport

- The machine must be positioned and fixed in a safely manner on the truck.
- The solution tank/nutrient applicator box must be empty for transport.
- The spray/application booms must be completely folded and the transport locks must be installed. (See Fold the Spray/Application Boom (for Transport) in Spray/Application Boom section.)
- To avoid an accidentally engine or machine systems activation, the battery cut-off switch must be turned to OFF position.
- The tires must be in good conditions and calibrated according their correct pressure. (See Tire Inflation Pressures in Specifications—General Information section.)
- The machine air springs must be deflated.

jtlsx7f,1662379353162-19-06SEP23

Special Transporting Instructions for Nutrient Applicators

- To reduce the height of the machine, remove the upper handrails.
- Safely position all moving and retractable parts of the machine for transport.



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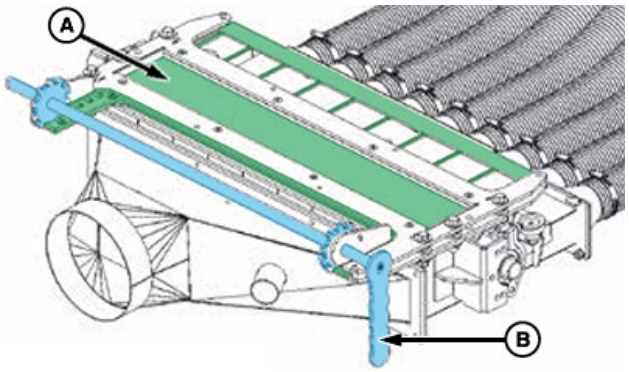
Closing Plate—Opened



YE1376647—UN—10SEP24

Closing Plate-Closed

- Before transporting the machine, close the closing plate (A) using the lever (B) as shown in the image.

CAUTION: Avoid serious injury or death by the lost of control or by an accident due to machine overload during transport. Transporting the machine with loaded reservoirs can cause personal injury or premature failure by wear.

- Only transport the machine with the nutrient applicator box empty.

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Driving the Machine on Public Roads

Driving the machine on public roads, besides a dangerous practice, it is not recommended under certain conditions and locals.

IMPORTANT: Comply with all local governmental regulations before driving the machine on a public road.

The regulation of the country/region is primarily what determines the possibility of driving on roads.

Even when permitted, pay attention to the follow instructions:

- The driver must be aware of all law driving requirements and follow all applicable regulations.
- All required reflectors must be in proper conditions and mandatory circulation lights must be ON.
- The spray/application booms must be completely folded, positioned over the supports, and the locks installed.
- Brakes and lights must be revised and working well.
- Reflectors and signs must be in good conditions.
- Always drive the machine in an appropriate speed range that allows safe control to be maintained. Do not exceed 35 km/h (22 mph) or follow local regulation for driving speed, if more restricted.
- When driving at night, pay even more attention to this kind of operation.
- Let the lights ON even during a day drive, including the beacon light.
- Always use low-beam headlights when passing through another vehicle.
- Always use the turn-signal lever whenever turning left or right. Do not forget to return the turn-signal lever to center position after completing the turn.

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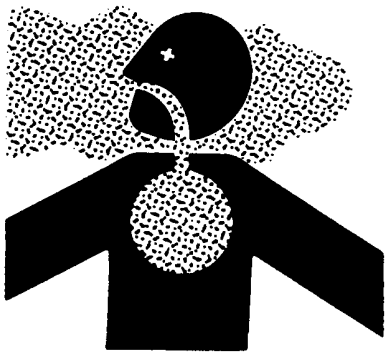
Avoid Exposure to Chemicals



TS220—UN—15APR13

TS272—UN—23AUG88

CAUTION: Exposure to chemicals, including pesticides, can cause injury or death.

DO NOT RELY ONLY ON THIS CAB , CAB PRESSURE INDICATOR, OR CAB AIR FILTERS TO PROTECT AGAINST CHEMICAL EXPOSURE.

To reduce risk of chemical exposure:

- Wear PERSONAL PROTECTIVE EQUIPMENT in accordance with chemical manufacturer's label.
- Allow only trained, certified applicators to apply chemicals.
- Always close the windows and doors during spraying.
- Verify that John Deere activated carbon filters, or appropriate substitutes, are installed at all times.
- Keep chemicals out of the cab.
- Clean or remove contaminated shoes or clothing before entering the cab.
- Keep cab interior clean.
- Read and follow all instructions in:
  - Manufacturer's label for each chemical applied.
  - U.S. Environmental Protection Agency (EPA) Worker Protection Standard for Agricultural Pesticides.
  - State or regional guidelines for worker safety and health.
  - Operator's Manual for this machine.
- Numerous requirements must be met, including but not limited to EPA regulations.
- Even while inside cab, always wear long sleeves, long pants, shoes, and socks when applying chemicals, including pesticides.
- If necessary to leave cab when chemicals, including pesticides, are present, always use personal protective equipment recommended by chemical manufacturer.
- Before reentering cab, remove personal protective equipment used to handle chemicals, including pesticides, and store equipment in accordance with EPA guidelines to prevent contaminating cab.

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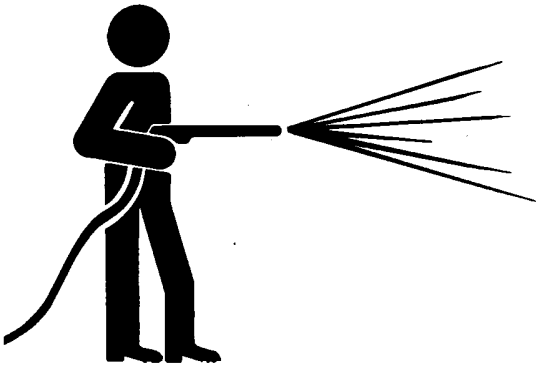
Clean Vehicle of Hazardous Chemicals, Including Pesticides



T6642EJ—UN—18OCT88

CAUTION: During application of hazardous chemicals, including pesticides, residue can build up on the inside or outside of the vehicle. Clean vehicle according to use instructions of hazardous chemical.

When exposed to hazardous chemicals, clean exterior and interior of vehicle daily to keep free of the accumulation of visible dirt and contamination.

1. Sweep or vacuum the floor of cab.
2. Clean headliners and inside cowlings of cab.

IMPORTANT: Directing pressurized water at electronic/electrical components or connectors, bearings and hydraulic seals, fuel injection pumps or other sensitive parts and components may cause product malfunctions. Reduce pressure, and spray at a 45 to 90 degree angle.

3. Wash entire exterior of vehicle.
4. Dispose of any wash water with hazardous

concentrations of active or non-active ingredients according to published regulations or directives.

OUO6092,000081B-19-18JAN21

Recommended Cleaners and Coatings

IMPORTANT: As with any chemical product, always read and follow the corresponding instructions.

Use John Deere SprayMaster™ cleaning agents, equipment coating, and winterizer fluid. Use equivalent products, if necessary. Check the availability and product specifications at your John Deere dealer.

- Spray Tank Cleaner
- Winterizer Fluid
- Equipment Coating

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Clean the Sprayer

YE010427—UN—16MAR23

Simple Nozzle Body

YE010426—UN—16MAR23

5-Position Nozzle Body

The cleaning of machines that work with chemicals must be performed at the end of each work or at each recharge of a new chemical.

This practice, besides preserving the environment, prolongs the equipment life and avoid application issues in the future, like obstructions at nozzles, filters, or flowmeter.

For cleaning the machine, observe the following instructions:

1. Wear the recommended safety equipment. (See Safety Equipment in Solution System section.)
2. Daily, after the work:
   a. Refill the rinse tank.
   b. Refill the clean water tank.
   c. Remove the nozzles.

   CAUTION: Spray system contain hazardous material that can cause serious injury or death to you or others. Drain solution in an area where people, animals, vegetation, and water supply cannot be contaminated.

   d. Drain all remaining solution in the system on an appropriated area.
3. Check that the solution tank and system are completely empty.
4. Position the machine over biobeds.
5. Wash all filters, nozzles, tanks, and covers with suitable sponges and brushes.

IMPORTANT: Directing pressurized water at electronic/electrical components or connectors, bearings and hydraulic seals, fuel injection pumps or other sensitive parts and components may cause machine malfunction. Reduce pressure, and spray at a 45 to 90 degree angles.

6. Wash the external surfaces of the machine using suitable cleaning products, such as detergent.
7. Repeat the washing processes at least two times.
8. Check that pumps, hoses, connections, registers, and nozzles were cleaned.
9. Regulate the work pressure as desired using water to do so.
10. At preparation of solution, use only clean water without any other material, especially sand.

NOTE: The minimum engine speed for pumping applications is 1600 rpm.

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Clean the Nutrient Applicator

CAUTION: Avoid serious injury or death. Perform the cleaning with the machine stopped.

SprayMaster is a trademark of Deere & Company

IMPORTANT: Avoid machine damage. The cleaning of the nutrient applicator must be performed daily or every 10 hours with pressurized air only.

The cleaning with water must be performed only every 3 days. DO NOT clean the nutrient applicator with water daily.

IMPORTANT: Avoid damaging machine components. When washing the machine, do not use high-pressure jets. Prefer to perform the washing with water at low pressure. Be careful, specially with bearings and seals in order to not damage them and create air leaks.

IMPORTANT: Directing pressurized water at electronic/electrical components or connectors, bearings and hydraulic seals, fuel injection pumps or other sensitive parts and components may cause machine malfunction. Reduce pressure, and spray at 45 to 90 degree angles.

1. Wear the recommended safety equipment. (See Safety section for details.)
2. Position the machine over biobeds.
3. Daily perform the cleaning of the machine with pressurized air.
4. At every 3 days, perform the following procedure:
   a. Carefully clean all the machine from product leftovers that may remain over machine components.

   IMPORTANT: If the machine was used with urea or other products that may become sticky (like super triple phosphate), it is recommended to use great quantities of water in order to correctly clean components, avoiding this way the blocking of movements on mechanical transmissions.

   If the machine was used with limestones or seeds, it is recommended to sweep and apply pressurized air.

   b. Wash the external surfaces of the machine using suitable cleaning products, such as detergent.
   c. Repeat the washing processes at least two times.
   d. Check that pumps, hoses, connections, registers, and nozzles were cleaned.

Dry the Machine

After the machine is cleaned, make the turbines to work for 5 minutes in order to dry the machine inside and the tubes. (See Special Care at the End of the Daily Work in Operating the Nutrient Applicator section for details.)

IMPORTANT: Avoid machine damage. When the system is not being used and it is dirty, wear on components may occur, damaging machine systems.

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Prepare Machine for Storage

IMPORTANT: Avoid machine damage. Take care when storing the machine outdoor. It must be clean, without product leftovers. Letting product leftovers over the machine may generate corrosive compounds that will damage the machine.

The exposition to sun generates premature aging on components, especially hoses, tires, belts, and plastic components.

At the end of each season, the machine must be stored in a level, firm, dry, clean, and covered place, if possible.

Before storing the machine, perform the following procedure:

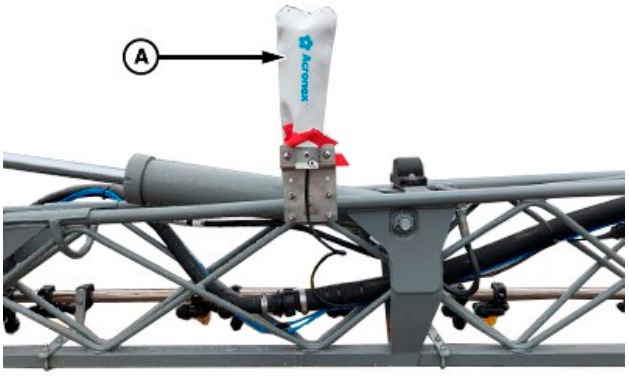
1. For self-propelled sprayers, rinse the solution system (See Rinse the Solution System Completely Using Water from a Reservoir or from the Rinse Tank in Service—Solution System section.)
2. For nutrient applicators only:
   a. Completely empty the application box and clean the machine. (See Special Care at the End of the Daily Work in Operating the Nutrient Applicator section.)
   b. Spray a mixture of diesel and vegetable oil over the dosage wheels, nutrient application system chains, dosifier gears, and removers.
3. Clean machine thoroughly, inside and out. (See Clean the Sprayer or Clean the Nutrient Applicator in Machine Storage section.)
4. Check for worn or broken parts that may need to be replaced.
5. Check for damaged safety signs. Replace them, if needed.
6. Lubricate all grease fittings.
7. To prevent rust, paint the parts where the original painting is worn. Take special care to not paint over the signs of the machine.
8. To prevent corrosion and rust, treat exposed surfaces with recommended coating. (See your PLA BY JOHN DEERE/JOHN DEERE authorized dealer.)

9. Remove, clean, and reinstall the primary air cleaner of the engine. (See Clean Primary Engine Air Cleaner in Service—Fuel, Air Intake, Exhaust, and Cooling section.)
10. If necessary, fill cooling system with antifreeze. (See Fuels, Lubricants, and Coolant section in this Operator's Manual.)
11. Operate engine at the low idle for a few minutes to circulate coolant.
12. Check the tire inflation pressures. (See Tire Inflation Pressures in Specifications—General Information section.)
13. Remove machine display and the StarFire receiver (if equipped). Store them in a warm and dry place.
14. Charge batteries completely.
    - Up to 90 days of storage: turn the battery cut-off switch to OFF position.
    - More than 90 days of storage: remove and clean batteries. Store them in a cool, dry place and keep them fully charged.
15. To prevent condensation, fill the fuel tank.

IMPORTANT: When fuel is stored in the fuel tank or in a farm storage tank for extended periods, or if there is a slow turn over of fuel, add fuel conditioner to stabilize the fuel and prevent water condensation. See your PLA BY JOHN DEERE/JOHN DEERE authorized dealer for recommendations.

For prolonged machine storage, the best practice is to drain biodiesel (if used) and fill with regular petroleum diesel fuel. Otherwise use biodiesel stabilizer (anti-oxidant) additives or fully formulated biodiesel conditioners. Contact your PLA BY JOHN DEERE/JOHN DEERE authorized dealer for recommendations.

16. Seal the following openings with tape and/or plastic bags.
    - Exhaust pipe.
    - Air cleaner intake.
    - Engine oil filling tube.
    - Crankcase vent tube tube.



YE001314—UN—02JAN24

17. For machines equipped with SIA sustainability optional, protect the Acronex metereologic stations with covers (A).
18. Every 30 days start engine and turn on the air conditioning to prevent machine components damage. (See Turn On the Machine for Some Minutes in Service—Operator's Station section.)
19. Leave a note in the cab detailing what was done for storage. So, the next person to use the machine will know what kind of preparation is needed for field operation.

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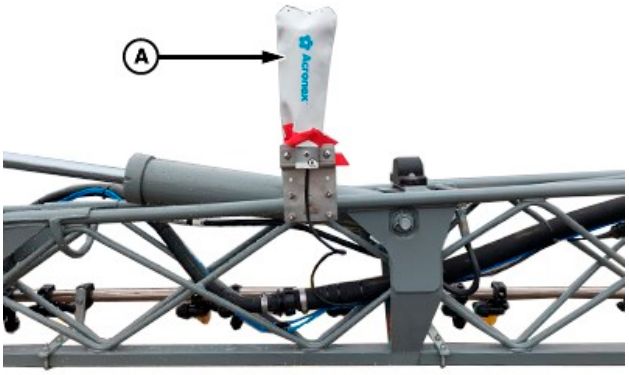
Remove Machine from Storage

Perform the following procedure:

1. Check the tire inflation pressures. (See Tire Inflation Pressures in Specifications—General Information section.)
2. Remove sealing tape and/or plastic bags from the following openings, as indicated on Prepare Machine for Storage, in Machine Storage section:
    - Exhaust pipe.
    - Air cleaner intake.
    - Engine oil filling tube.
    - Crankcase vent tube tube.



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3. For machines equipped with SIA sustainability

optional, remove the covers (A) of the Acronex metereologic stations.

4. Make sure that all shields for the moving components are in good conditions and correctly installed, specially the driveshaft.
5. Check conditions of hydraulic hoses.
6. Check the engine oil level. (See Check Engine Oil Level in Service—Engine section.)
7. Check the coolant level at the coolant reservoir. (See Check Coolant Level in Service—Fuel, Air Intake, Exhaust, and Cooling section.)
8. Clean negative (—) battery terminals and cables and reconnect them, if necessary. (See Service—Electrical section.)
9. Turn the battery cut-off switch to ON position.
10. Drain the fuel filters. (See Drain Water from the Fuel Filters in Service—Fuel, Air Intake, Exhaust, and Cooling section.)
11. Fill fuel tank with proper grade diesel fuel. (See Fuels, Lubricants, and Coolant section.)
12. Clean engine compartment and machine thoroughly, inside and out.

IMPORTANT: Avoid hydraulic system damage. For extended storage periods (2 years or more), change the oil of the hydraulic oil reservoir. (See Change Hydraulic Oil in Service—Hydraulics section.)

13. Check oil level of the following systems:
    a. Hydraulic oil reservoir. (See Check Hydraulic Oil Level and Temperature (Self-Propelled Sprayers Only) and Check Hydraulic Oil Level (Nutrient Applicators Only) in Service—Hydraulics section.)
    b. Rear axle knees. (See Check the Oil Level of the Rear Axle Knees in Service—Wheels and Hardware section.)
    c. Transmission. (See Check the Oil Level in Service—Drivetrain section.)
    d. Differential. (See Check Differential Oil Level in Service—Drivetrain section.)
    e. Clutch Fluid (if equipped). (See Check Level of the Fluid of Clutch (Manual Machines Only) in Service—Drivetrain section.)
    f. Fluid of Brakes. (See Check Level of the Fluid of Brakes in Service—Steering and Brakes section.)
14. Lubricate all grease fittings.
15. Reinstall machine display and the StarFire receiver.

IMPORTANT: Avoid engine damage. When first starting machine after removing it from storage, run machine at no more than low idle for 10 minutes. Turn on the air conditioning system during this time using the special instrucion shown in the procedure Turn On the Machine for Some Minutes in Service—Operator's Station section to prevent compressor seal failure.

16. Start engine and warm it to operating temperature. Check for leaks. (See Operating the Engine and the Transmission section.)
17. Check for leaks on hydraulic system. Also check if the hydraulic system is correctly working.
18. Make sure that all hardware is tight.
19. For self-propelled sprayers only:
    a. Fill in the clean water tank. (See Clean Water Tank in Solution System section.)
    b. Fill the rinse tank. (See Rinse Tank in Solution System section.)
    c. To check for leaks before installing nozzle tips and screens, operate the system.
    d. To make sure that they are all the same size, inspect the nozzle tips. Install the tips and screens.
    e. Operate the spraying system and observe spray patterns. Adjust or replace tips as necessary.
20. For nutrient applicators only:
    a. Check if the turbines and the dosifiers are correctly working.
    b. Set all the configuration of the nutrient application system. (See Nutrient Application System section information.)
    c. Check for the correct functioning of the driveshaft and application boom.
21. Review this Operator's Manual for operating adjustments, servicing, and safety information.
22. Calibrate the machine as necessary.
23. Check the refrigerant charge of the air conditioner. Have system charged if necessary. (See your PLA BY JOHN DEERE/JOHN DEERE authorized dealer.)

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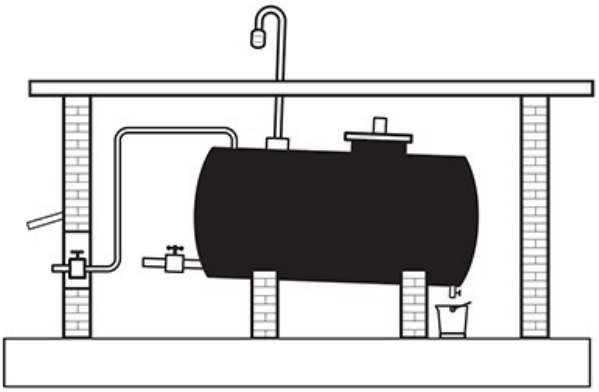
Fuel Storage

CAUTION: Avoid accidents and serious injury or death.

- **Do not smoke nor install any electrical component that could produce sparks near the fuel tanks.**
- **Never let the engine running during the fuel filling.**

The purity and cleanliness of the fuel are fundamentals for the proper work of the engine and of the injection system.

To obtain the correct functioning of the system:

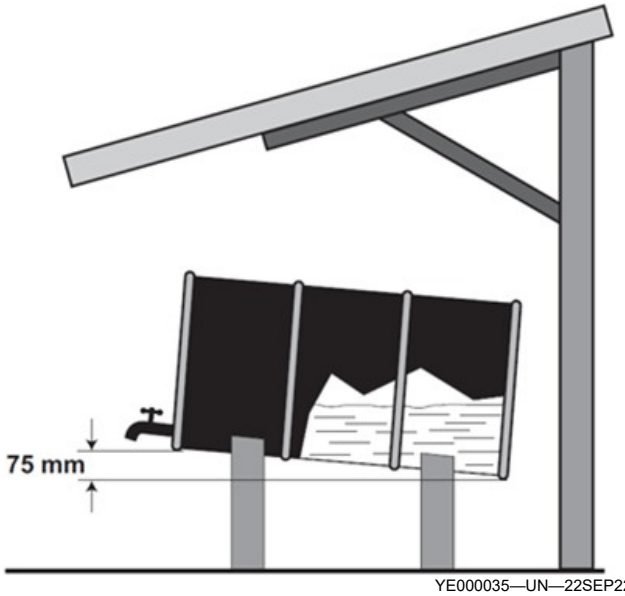


YE000037—UN—22SEP22

- Use storage tanks equipped with two registers, one at each end.

IMPORTANT: Avoid zinc tanks as they contaminate the fuel.

- Prefer plastic tanks. In case of metallic tanks, use the ones of inoxidable steel or with suitable internal covering.



YE000035—UN—22SEP22

- The storage tanks must be protected from sun, rain, or dust, and must be positioned in horizontal position, over supports, with an angulation that provides the out side to be 7.5 cm (3 in) higher than the opposite side of the tank. This way, water and impurities are going to be deposited in the bottom of the tank on the other side and can be easily eliminated using the drain register.
- The tanks must have ventilation at highest end. The ventilation must be waterproof.
- Before refilling the thank, drain the remaining fuel together with water and impurities.

NOTE: This remaining fuel can be used for other purposes such as washing parts and tools.

- Always use funnels, containers, and pumps completely clean for the filling. If possible, use fine mesh filters to clean the fuel.

IMPORTANT: Avoid fuel system contamination. Never use cloths and cotton waste.

- It is recommended to build an exclusive place for the fuel tanks in a location away from sheds, houses, or stables.
- Maintain a clean swath of ground around, in a way that in case of fire, there is no flammable material that could increase the fire.

YE000036—UN—22SEP22

Safety Sign

- Put visible safety signs near the fuel tanks with the indicated legends.

IMPORTANT: Avoid serious damage to the injection system. Always fill the fuel tank after work to avoid the production of water condensation inside the empty fuel tank. Not doing this can lead water from condensation to contaminate the fuel.

- Fill the machine fuel tank after work.

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Ladders

NOTE: The machine ladders meet the IRAM 8076/6 standard.

YE000172—UN—22SEP22

Nutrient Applicators

YE1385834—UN—13DEC24

Sprayers Equipped with Central Engine

YE000173—UN—22SEP22

Sprayers Equipped with Front Engine

The cab access ladder (A) is located on the left-hand side of the machine front and has steps with slip resistant surfaces. This ladder is hydraulic controlled through a switch in the cab.

For machines equipped with front engine, a platform ladder (B) is also is available on the right-hand side of the machine.

To use the platform ladder (B), pull it out from its storage position. When not used, let it on its storage position.

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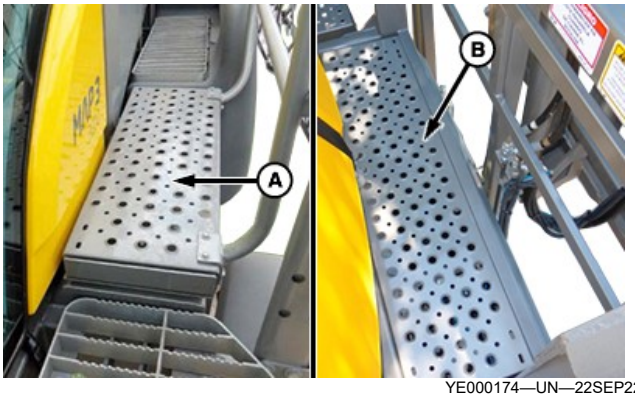
Platforms



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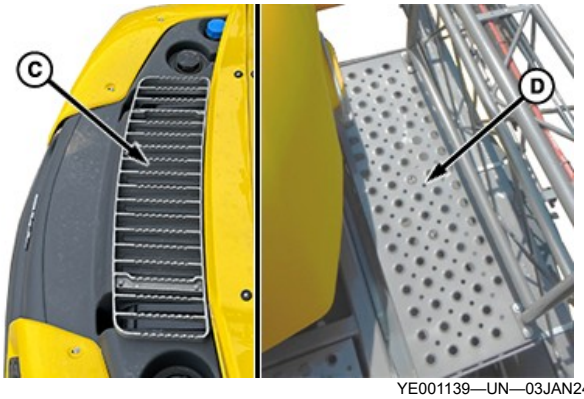

YE001139—UN—03JAN24

The machine is equipped with a main platform (A) along the left-hand side of the machine. This main platform (A) provides access to the platform on the rear of the machine (B), as well as to the platform on the rear right-hand side of the machine (D).

For machines with central engine, it is possible to access the frontal right-hand side platform using the access over the rinse tank (C).

YE000176—UN—22SEP22

For machines equipped with front engine, the platform ladder (E) is used to access the frontal right-hand side platform.

The platforms have slip resistant surfaces and handrails, meeting the IRAM 8076-6 standard.

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Access to the Cab

CAUTION: Avoid contamination by chemical products. Keep door totally closed during operation and product filling.

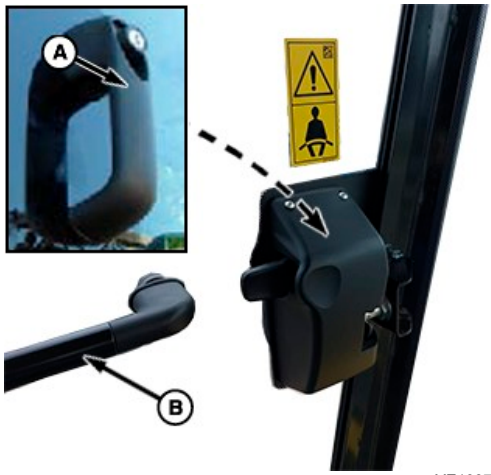
Before starting the operation or driving the machine, make sure the door is securely closed. For ensuring the sealing of the cab, the door must be completely closed.

CAUTION: Exposure to chemicals, including pesticides, can cause injury or death. Wear personal protective equipment in accordance with the chemical manufacturer label. (See Safety Equipment in Solution System section.)

DO NOT rely only on the machine cab, cab pressure indicator (only sprayers equipped with central engine), or on the cab air filters as a full protection against chemical exposure.

If the door is not fully locked at its second stage, cab is not correctly pressurized.

To access the cab, use the left-hand side ladder and the main platform. (See Ladder and Platforms in Access to Service Points section.)



YE1387026—UN—23DEC24

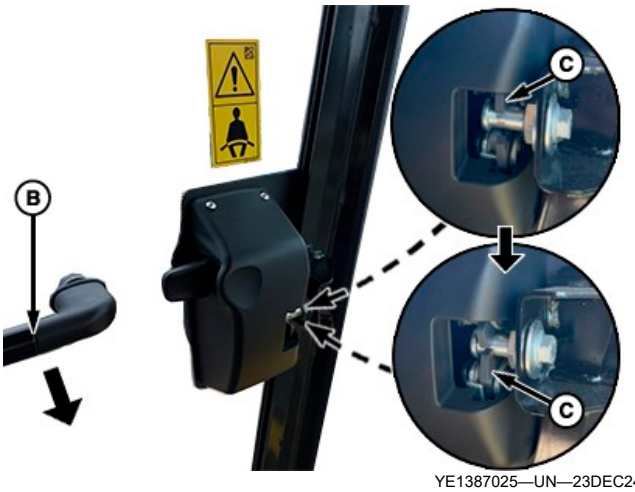
Cab Access—Sprayers with Central Engine

YE1387028—UN—23DEC24

Cab Access—Sprayers with Front Engine and Nutrient Applicators with Central Engine

The cab has a door outside handle (A) with key lock. To enter in the cab, unlock the door using the key and press the button on the door outside handle (A).

To lock the door, close the cab using the door inside handle (B).



YE1387025—UN—23DEC24

Door 2-Stage Lock—Sprayers with Central Engine Only

For sprayers with central engine, the door is equipped with a 2-stage lock (C). Always make sure the door is fully locked at its second stage.

To lock the door to its second stage, after the door is closed, pull the door inside handle (B) one more time until a click is listen.

IMPORTANT: Avoid damage to the cab door. If the door is not correctly locked at its second stage, damage to door may occur due to vibration. To keep the integrity of the door, always keep the dor correctly locked at its second stage. See images for reference.

YE1388612—UN—10JAN25

Door Not Fully Locked (Incorrect)

YE1388613—UN—10JAN25

Door Correctly Locked

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Storing Fuel

If there is a very slow turnover of fuel in the fuel tank or supply tank, it may be necessary to add a fuel conditioner to prevent water condensation. Contact your John Deere dealer for proper service or maintenance recommendations.

DX,FUEL-19-03MAR93

Diesel Fuel

Consult your local fuel distributor for properties of the diesel fuel available in your area.

In general, diesel fuels are blended to satisfy the low temperature requirements of the geographical area in which they are marketed.

Diesel fuels specified to EN 590 or ASTM D975 are recommended. Renewable diesel fuel produced by hydrotreating animal fats and vegetable oils is basically identical to petroleum diesel fuel. Renewable diesel that meets EN 590, ASTM D975, or EN 15940 is acceptable for use at all percentage mixture levels.

Required Fuel Properties

In all cases, the fuel shall meet the following properties:

Cetane number of 40 minimum. Cetane number greater than 47 is preferred, especially for temperatures below –20 °C (–4 °F) or elevations above 1675 m (5500 ft.).

Cloud Point should be below the expected lowest ambient temperature or **Cold Filter Plugging Point** (CFPP) should be a maximum 10°C (18°F) below the fuel cloud point.

Fuel lubricity should pass a maximum scar diameter of 0.52 mm as measured by ASTM D6079 or ISO 12156-1. A maximum scar diameter of 0.45 mm is preferred.

Diesel fuel quality and sulfur content must comply with all existing emissions regulations for the area in which the engine operates. DO NOT use diesel fuel with sulfur content greater than 10 000 mg/kg (10 000 ppm).

Materials such as copper, lead, zinc, tin, brass and bronze should be avoided in fuel handling, distribution and storage equipment as these metals can catalyze fuel oxidation reactions which can lead to fuel system deposits and plugged fuel filters.

E-Diesel fuel

DO NOT use E-Diesel (Diesel fuel and ethanol blend). Use of E-Diesel fuel in any John Deere machine may void the machine warranty.

CAUTION: Avoid severe injury or death due to the fire and explosion risk from using E-Diesel fuel.

Sulfur Content for Interim Tier 4, Final Tier 4, Stage III B, Stage IV, and Stage V Engines Above 560 kW

- Use ONLY diesel fuel with a maximum of 500 mg/kg (500 ppm) sulfur content.

Sulfur Content for Interim Tier 4, Final Tier 4, Stage III B, Stage IV Engines, and Stage V Engines

- Use ONLY ultra low sulfur diesel (ULSD) fuel with a maximum of 15 mg/kg (15 ppm) sulfur content.

Sulfur Content for Tier 3 and Stage III A Engines

- Use of diesel fuel with sulfur content less than 1000 mg/kg (1000 ppm) is RECOMMENDED.
- Use of diesel fuel with sulfur content 1000—2000 mg/kg (1000—2000 ppm) REDUCES the oil and filter change interval.
- BEFORE using diesel fuel with sulfur content greater than 2000 mg/kg (2000 ppm), contact your John Deere dealer.

Sulfur Content for Tier 2 and Stage II Engines

- Use of diesel fuel with sulfur content less than 2000 mg/kg (2000 ppm) is RECOMMENDED.
- Use of diesel fuel with sulfur content 2000—5000 mg/kg (2000—5000 ppm) REDUCES the oil and filter change interval.[1]
- BEFORE using diesel fuel with sulfur content greater than 5000 mg/kg (5000 ppm), contact your John Deere dealer.

Sulfur Content for Other Engines

- Use of diesel fuel with sulfur content less than 5000 mg/kg (5000 ppm) is RECOMMENDED.
- Use of diesel fuel with sulfur content greater than 5000 mg/kg (5000 ppm) REDUCES the oil and filter change interval.

IMPORTANT: Do not mix used diesel engine oil or any other type of lubricating oil with diesel fuel.

Improper fuel additive usage may cause damage on fuel injection equipment of diesel engines.

DX,FUEL1-19-01NOV22

Lubricity of Diesel Fuel

Most diesel fuels manufactured in the United States, Canada, and the European Union have adequate lubricity to ensure proper operation and durability of fuel injection system components. However, diesel fuels manufactured in some areas of the world may lack the necessary lubricity.

[1] *See DX,ENOIL12,OEM, DX,ENOIL12,T2,STD, or DX,ENOIL12,T2, EXT for more information on Engine Oil and Filter Service Intervals.*

IMPORTANT: Make sure the diesel fuel used in your machine demonstrates good lubricity characteristics.

Fuel lubricity should pass a maximum scar diameter of 0.52 mm as measured by ASTM D6079 or ISO 12156-1. A maximum scar diameter of 0.45 mm is preferred.

If fuel of low or unknown lubricity is used, add John Deere Fuel-Protect Diesel Fuel Conditioner (or equivalent) at the specified concentration.

Lubricity of BioDiesel Fuel

Fuel lubricity can improve significantly with BioDiesel blends up to B20 (20% BioDiesel). Further increase in lubricity is limited for BioDiesel blends greater than B20.

DX,FUEL5-19-07FEB14

Handling and Storing Diesel Fuel

CAUTION: Reduce the risk of fire. Handle fuel carefully. DO NOT fill the fuel tank when engine is running. DO NOT smoke while you fill the fuel tank or service the fuel system.

Fill the fuel tank at the end of each day's operation to prevent water condensation and freezing during cold weather.

Keep all storage tanks as full as practical to minimize condensation.

Ensure that all fuel tank caps and covers are installed properly to prevent moisture from entering. Monitor water content of the fuel regularly.

When using biodiesel fuel, the fuel filter may require more frequent replacement due to premature plugging.

Check engine oil level daily prior to starting engine. A rising oil level may indicate fuel dilution of the engine oil.

IMPORTANT: The fuel tank is vented through the filler cap. If a new filler cap is required, always replace it with an original vented cap.

When fuel is stored for an extended period or if there is a slow turnover of fuel, add a fuel conditioner to stabilize the fuel. Keeping the free water drained and treating the bulk fuel storage tank quarterly with a maintenance dose of a biocide will prevent microbial growth. Contact your fuel supplier or John Deere dealer for recommendations.

DX,FUEL4-19-13JAN18

Supplemental Diesel Fuel Additives

Diesel fuel can be the source of performance or other operational problems for many reasons. Some causes include poor lubricity, contaminants, low cetane number, and a variety of properties that cause fuel system deposits. These and others are referenced in other sections of this Operator's Manual.

To optimize engine performance and reliability, closely follow recommendations on fuel quality, storage, and handling, which are found elsewhere in this Operator's Manual.

To further aid in maintaining performance and reliability of the engine's fuel system, John Deere has developed a family of fuel additive products for most global markets. The primary products include Fuel-Protect Diesel Fuel Conditioner (full feature conditioner in winter and summer formulas) and Fuel-Protect Keep Clean (fuel injector deposit removal and prevention). Availability of these and other products varies by market. See your local John Deere dealer for availability and additional information about fuel additives that might be right for your needs.

DX,FUEL13-19-07FEB14

Testing Diesel Fuel

A fuel analysis program can help to monitor the quality of diesel fuel. The fuel analysis can provide critical data such as calculated cetane index, fuel type, sulfur content, water content, appearance, suitability for cold weather operations, bacteria, cloud point, acid number, particulate contamination, and whether the fuel meets ASTM D975 or equivalent specification.

Contact your John Deere dealer for more information on diesel fuel analysis.

DX,FUEL6-19-13JAN18

Complete Up Fuel Tank

TS202—UN—23AUG88

CAUTION: Handle fuel with caution due to its flammability. DO NOT FILL UP machine's tank near any flame, people smoking or at any location where there are sparks, cinders etc. Always stop engine before refueling machine. Refuel outdoors whenever possible. Prevent fires by keeping machine clean of accumulated debris. Always clean up fuel spilled over machine.

Fill the fuel tank at the end of each day's operation to prevent condensation of water in the tank.

Fuel tank:

See fuel tank capacity in the Specifications section.

IMPORTANT: Fuel tank has a sealed cover. If a new cap is necessary, always replace it with a sealed cap. Use Genuine John Deere Parts.

LR35023,000012E-19-10DEC18

Fuel Filters

The importance of fuel filtration cannot be overemphasized with modern fuel systems. The combination of increasingly restrictive emission regulations and more efficient engines requires fuel system to operate at much higher pressures. Higher pressures can only be achieved using fuel injection components with very close tolerances. These close manufacturing tolerances have significantly reduced capacities for debris and water.

John Deere brand fuel filters have been designed and produced specifically for John Deere engines.

To protect the engine from debris and water, always change engine fuel filters as specified in this manual.

DX,FILT2-19-14APR11

Mixing of Lubricants

In general, avoid mixing different brands or types of oil. Oil manufacturers blend additives in their oils to meet certain specifications and performance requirements.

Mixing different oils can interfere with the proper functioning of these additives and degrade lubricant performance.

Consult your John Deere dealer to obtain specific information and recommendations.

DX,LUBMIX-19-18MAR96

Oil Filters

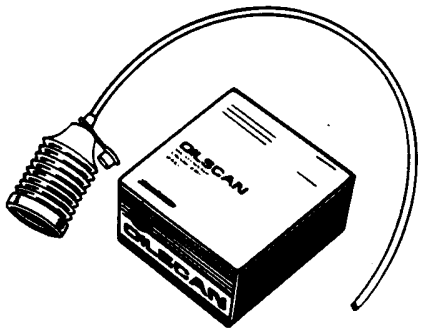
Filtration of oils is critically important for proper operation and lubrication. John Deere brand oil filters have been designed and produced specifically for John Deere applications.

John Deere filters adhere to engineering specifications for quality of the filter media, filter efficiency rating, strength of the bond between the filter media and the element end cap, fatigue life of the canister (if applicable), and pressure capability of the filter seal. Non-John Deere branded oil filters might not meet these key John Deere specifications.

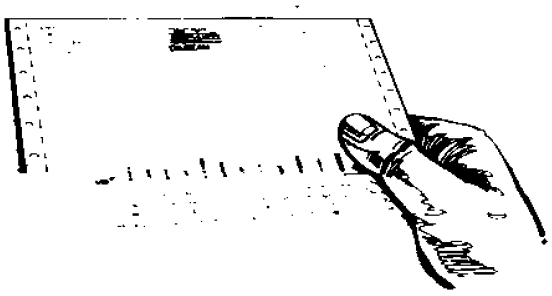
Always change oil filters regularly as specified in this manual.

DX,FILT1-19-11APR11

Oilscan and CoolScan



T6828AB—UN—15JUN89



T6829AB—UN—26AUG11

Oilscan and CoolScan are John Deere sampling programs to help you monitor machine performance and identify potential problems before they cause serious damage.

Oil and coolant samples should be taken from each system before its recommended change interval.

Check with your John Deere dealer for the availability of Oilscan and CoolScan kits.

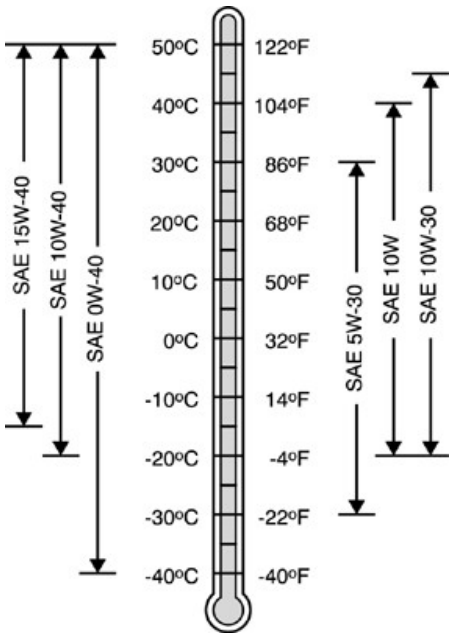
DX,OILSCAN(T)-19-06APR22

Transmission Oil (Manual Machines)

IMPORTANT: Before filling, make sure of fluid specification present in the system to not to mix different fluids.

NOTE: Use an oil viscosity based on the expected air temperature range during the period between oil changed.

Eaton Transmission Housing



TS1679—UN—31OCT03

Use an oil viscosity based on the expected air temperature range during the period between oil changes.

The following oils are preferred:

- John Deere Plus-50 II
- John Deere Plus-50

The following oil is also recommended:

- John Deere Torq-Gard

Other oils may be used if they meet the following:

- API Service Category CK-4
- API Service Category CJ-4
- API Service Category CI-4 PLUS
- API Service Category CI-4
- API Service Category CH-4
- API Service Category CG-4
- ACEA Oil Sequence E9
- ACEA Oil Sequence E7
- ACEA Oil Sequence E6
- ACEA Oil Sequence E5
- ACEA Oil Sequence E4

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Transmission Oil (Automatic Machines)

IMPORTANT: Before filling, make sure of fluid specification present in the system to not to mix different fluids.

NOTE: Use an oil viscosity based on the expected air temperature range during the period between oil changed.

Allison Transmission Housing

Recomended Oils for Allison Transmission		
Application	Type	Recommended
Alisson Transmission Housing	Synthetic (TES295 or TES668 Standard)	Spirax S6 ATF A295 Spirax S6 ATF A668 (preferred)

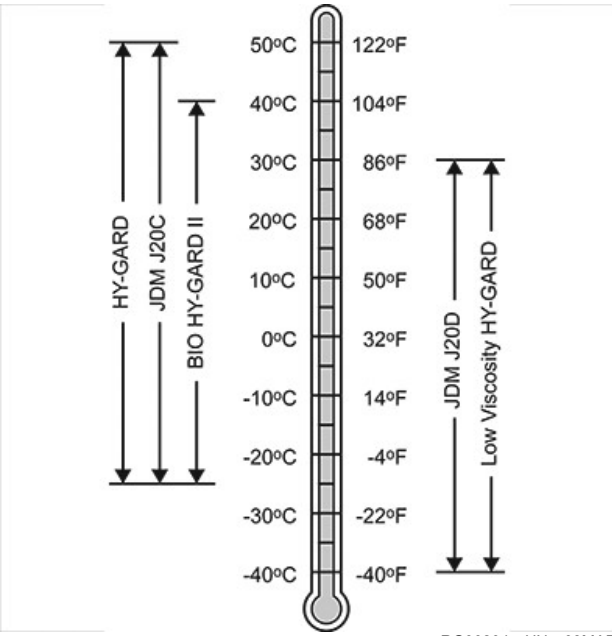
NOTE: The usage of oils matching the TES668 standard is preferred.

jtlsx7f,1668089985960-19-28MAR23

Hydraulic System Oil

IMPORTANT: Before filling, make sure of fluid specification present in the system to not to mix different fluids.

NOTE: Use an oil viscosity based on the expected air temperature range during the period between oil changed.



RG30204—UN—08MAR18

Oils for Air Temperature Ranges

Use an oil viscosity based on the expected air temperature range during the period between oil changes.

The following oils are preferred:

- John Deere Hy-Gard
- John Deere Low Viscosity Hy-Gard

Other oils may be used if they meet one of the following:

- John Deere Standard JDM J20C
- John Deere Standard JDM J20D

Use John Deere Bio Hy-Gard II oil when a biodegradable fluid is required.[2]

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Rear Axle Knee Oil

IMPORTANT: Before filling, make sure of fluid specification present in the system to not to mix different fluids.

NOTE: Use an oil viscosity based on the expected air temperature range during the period between oil changed.

Recomended Oils for the Rear Axle Knees		
Application	Type	Recommended
Rear Axle Knees	SAE 250	SAE 250

jtlsx7f,1661170626055-19-25NOV22

Differential Oil

IMPORTANT: Before filling, make sure of fluid specification present in the system to not to mix different fluids.

NOTE: Use an oil viscosity based on the expected air temperature range during the period between oil changed.

Recomended Oils for the Differental		
Application	Type	Recommended
Differential Housing	SAE 90	Spirax S1 G 90

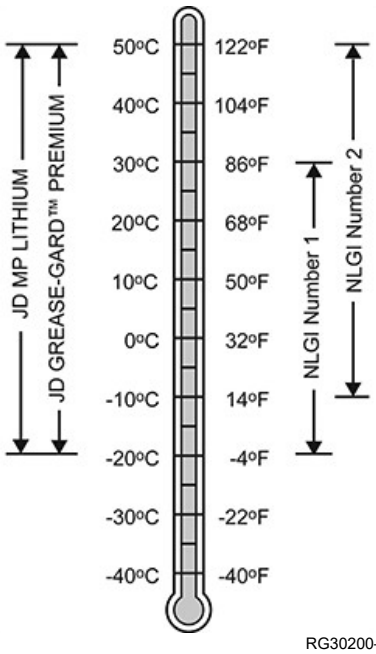
jtlsx7f,1661170674806-19-25NOV22

Lubricants Only for Nutrient Applicator

Recomended Lubricants for the Nutrient Applicator	
Application	Type
Grease for Nutrient Applicator Box Shafts	62 EP Grease
Lubrication of Chains	Hydraulic Oil Diluted in Diesel

jtlsx7f,1668096433446-19-05DEC22

Multipurpose Grease



RG30200—UN—08MAR18

Greases for Air Temperature Ranges

[2] *Bio Hy-Gard II meets or exceeds the minimum biodegradability of 80% within 21 days according to CEC L-33-T-82 test method. Bio Hy-Gard II should not be mixed with mineral oils because it reduces the biodegradability and makes proper oil recycling impossible.*

IMPORTANT: For automated lubrication systems, different ambient air temperatures must be considered.

Use grease based on NLGI consistency numbers and the expected air temperature range during the service interval.

The following greases are preferred:

- **John Deere MP Lithium Grease**
- **John Deere Grease-Gard Premium**

The following greases are also recommended:

- John Deere HD Lithium Complex Grease
- John Deere Grease-Gard Premium Plus
- John Deere SD Polyurea Grease

Other greases may be used if they meet the following:

- NLGI Performance Classification GC-LB
- ISO-L-X-BCEB 2 or DIN K 2 K-10 Lithium, Non-Synthetic Base Oil (100 to 220 mm²/s @ 40°C)

IMPORTANT: Some types of thickeners, base oils, and additives used in greases are not compatible with others. Mixing greases should be avoided. Consult your grease supplier before mixing different types of grease.

DX,GREA5(T)-19-18APR22

Alternative and Synthetic Lubricants

Conditions in certain geographical areas may require lubricant recommendations different from those printed in this manual.

Some John Deere brand coolants and lubricants may not be available in your location.

Consult your John Deere dealer to obtain information and recommendations.

Synthetic lubricants may be used if they meet the performance requirements as shown in this manual.

The temperature limits and service intervals shown in this manual apply to John Deere branded fluids or fluids that have been tested and/or approved for use in John Deere equipment.

Re-refined base stock products may be used if the finished lubricant meets the performance requirements.

DX,ALTER-19-13JAN18

Lubricant Storage

Your equipment can operate at top efficiency only when clean lubricants are used.

Use clean containers to handle all lubricants.

Store lubricants and containers in an area protected from dust, moisture, and other contamination. Store containers on their side to avoid water and dirt accumulation.

Make certain that all containers are properly marked to identify their contents.

Properly dispose of all old containers and any residual lubricant they may contain.

DX,LUBST-19-11APR11

Water Quality for Mixing with Coolant Concentrate

Engine coolants are a combination of three chemical components: ethylene glycol (EG) or propylene glycol (PG) antifreeze, inhibiting coolant additives, and quality water.

Water quality is important to the performance of the cooling system. Deionized or demineralized water is recommended for mixing with ethylene glycol and propylene glycol base engine coolant concentrate.

All water used in the cooling system should meet the following minimum specifications for quality:

Chlorides	<40 mg/L
Sulfates	<100 mg/L
Total solids	<340 mg/L
Total dissolved I hardness	<170 mg/L
pH	5.5—9.0

IMPORTANT: Do not use bottled drinking water because it often contains higher concentrations of total dissolved solids.

Freeze Protection

The relative concentrations of glycol and water in the engine coolant determine its freeze protection limit.

Ethylene Glycol	Freeze Protection Limit
40%	-24°C (-12°F)
50%	-37°C (-34°F)
60%	-52°C (-62°F)
Propylene Glycol	**Freeze Protection Limit**
40%	-21°C (-6°F)
50%	-33°C (-27°F)
60%	-49°C (-56°F)

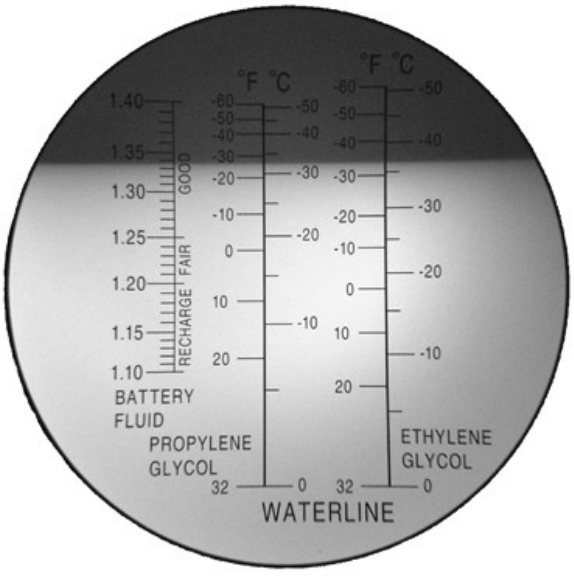
DO NOT use a coolant-water mixture greater than 60% ethylene glycol or 60% propylene glycol.

DX,COOL19-19-13JAN18

Testing Coolant Freeze Point

TS1732—UN—04SEP13

SERVICEGARD Part Number 75240



TS1733—UN—04SEP13

Image with a Drop of 50/50 Coolant Placed on the Refractometer Window

The use of a handheld coolant refractometer is the quickest, easiest, and most accurate method to determine the coolant freeze point. This method is more accurate than a test strip or a float-type hydrometer, which can produce poor results.

A coolant refractometer is available through your John Deere dealer under the SERVICEGARD tool program. Part number 75240 provides an economical solution for accurate freeze point determination in the field.

To use this tool:

1. Allow cooling system to cool to ambient temperatures.
2. Open radiator cap to expose coolant.
3. With the included dropper, collect a small coolant sample.
4. Open the lid of the refractometer, place one drop of coolant on the window, and close the lid.
5. Look through the eyepiece and focus as necessary.
6. Record the listed freeze point for the type of coolant (ethylene glycol coolant or propylene glycol) being tested.

DX,COOL,TEST(T)-19-04APR22

Biodiesel Fuel

Biodiesel fuel is comprised of monoalkyl esters of long chain fatty acids derived from vegetable oils or animal fats. Biodiesel blends are biodiesel mixed with petroleum diesel fuel on a volume basis.

Before using fuel containing biodiesel, review the Biodiesel Use Requirements and Recommendations in this Operator's Manual.

Environmental laws and regulations can encourage or prohibit the use of biofuels. Operators should consult with appropriate governmental authorities prior to using biofuels.

John Deere Stage V Engines Operating in the European Union

Where the engine is to be operated within the Union on diesel or non-road gas-oil, a fuel with a FAME content not greater than 8% volume/volume (B8) shall be used.

John Deere Engines with Exhaust Filter Except Stage V Engines Operating in the European Union

Biodiesel blends up to B20 can be used ONLY if the biodiesel (100% biodiesel or B100) meets ASTM D6751, EN 14214, or equivalent specification. Expect a 2% reduction in power and a 3% reduction in fuel economy when using B20.

Biodiesel concentrations above B20 can harm the engine's emission control systems and should not be used. Risks include, but are not limited to, more frequent stationary regeneration, soot accumulation, and increased intervals for ash removal.

John Deere Fuel conditioners or equivalent, which contain detergent and dispersant additives, are required when using biodiesel blends from B10 to B20, and are recommended when using lower biodiesel blends.

John Deere Engines Without Exhaust Filter

Biodiesel blends up to B20 can be used ONLY if the biodiesel (100% biodiesel or B100) meets ASTM D6751, EN 14214, or equivalent specification. Expect a 2% reduction in power and a 3% reduction in fuel economy when using B20.

These John Deere engines can operate on biodiesel blends above B20 (up to 100% biodiesel). Operate at levels above B20 ONLY if the biodiesel is permitted by law and meets the EN 14214 specification (primarily available in Europe). Engines operating on biodiesel blends above B20 might not fully comply with or be permitted by all applicable emissions regulations. Expect up to a 12% reduction in power and an 18% reduction in fuel economy when using 100% biodiesel.

John Deere fuel conditioners or equivalent, which contain detergent and dispersant additives, are required when using biodiesel blends from B10 to B100, and are recommended when using lower biodiesel blends.

Biodiesel Use Requirements and Recommendations

The petroleum diesel portion of all biodiesel blends must meet the requirements of ASTM D975 (US) or EN 590 (EU) commercial standard.

Biodiesel users in the U.S. are strongly encouraged to purchase biodiesel blends from a BQ-9000 Certified Marketer and sourced from a BQ-9000 Accredited Producer (as certified by the National biodiesel Board). Certified Marketers and Accredited Producers can be found at the following website: http://www.bq9000.org.

Biodiesel contains residual ash. Ash levels exceeding the maximums allowed in either ASTM D6751 or EN14214 can result in more rapid ash loading and require more frequent cleaning of the Exhaust Filter (if present).

The fuel filter can require more frequent replacement when using biodiesel fuel, particularly if switching from diesel. Check engine oil level daily prior to starting engine. A rising oil level can indicate fuel dilution of the engine oil. Biodiesel blends up to B20 must be used within 90 days of the date of biodiesel manufacture. Biodiesel blends above B20 must be used within 45 days from the date of biodiesel manufacture.

When using biodiesel blends up to B20, the following must be considered:

- Cold-weather flow degradation
- Stability and storage issues (moisture absorption, microbial growth)
- Possible filter restriction and plugging (usually a problem when first switching to biodiesel on used engines)
- Possible fuel leakage through seals and hoses (primarily an issue with older engines)
- Possible reduction of service life of engine components

Request a certificate of analysis from your fuel distributor to ensure that the fuel is compliant with the specifications provided in this Operator's Manual.

Consult your John Deere dealer for John Deere fuel products to improve storage and performance with biodiesel fuels.

The following must also be considered if using biodiesel blends above B20:

- Possible coking or blocked injector nozzles, resulting in power loss and engine misfire if John Deere fuel additives and conditioners or equivalent containing detergent/dispersants are not used
- Possible crankcase oil dilution (requiring more frequent oil changes)
- Possible lacquering or seizure of internal components
- Possible formation of sludge and sediments

- Possible thermal oxidation of fuel at elevated temperatures
- Possible compatibility issues with other materials (including copper, lead, zinc, tin, brass, and bronze) used in fuel handling, distribution, and storage equipment
- Possible reduction in water separator efficiency
- Possible damage to paint if exposed to biodiesel
- Possible corrosion of fuel injection equipment
- Possible elastomeric seal and gasket material degradation (primarily an issue with older engines)
- Possible high acid levels within fuel system
- Because biodiesel blends above B20 contain more ash, using blends above B20 can result in more rapid ash loading and require more frequent cleaning of the Exhaust Filter (if present)

IMPORTANT: Raw pressed vegetable oils are NOT acceptable for use as fuel in any concentration in John Deere engines. Their use could cause engine failure.

DX,FUEL7-19-13JAN18

Minimizing the Effect of Cold Weather on Diesel Engines

John Deere diesel engines are designed to operate effectively in cold weather.

However, for effective starting and cold-weather operation, a little extra care is necessary. The following information outlines steps that can minimize the effect that cold weather may have on starting and operation of your engine. See your John Deere dealer for additional information and local availability of cold-weather aids.

Use Winter Grade Fuel

When temperatures fall below 0°C (32°F), winter grade fuel (No. 1-D in North America) is best suited for cold-weather operation. Winter grade fuel has a lower cloud point and a lower pour point.

Cloud point is the temperature at which wax begins to form in the fuel. This wax causes fuel filters to plug. **Pour point** is the lowest temperature at which movement of the fuel is observed.

NOTE: On average, winter grade diesel fuel has a lower Btu (heat content) rating. Using winter grade fuel may reduce power and fuel efficiency, but should not cause any other engine performance effects. Check the grade of fuel being used before troubleshooting for low-power complaints in cold-weather operation.

Air Intake Heater

An air intake heater is an available option for some engines to aid cold weather starting.

Ether

An ether port on the intake is available to aid cold weather starting.

CAUTION: Ether is highly flammable. Do not use ether when starting an engine equipped with glow plugs or an air intake heater.

Coolant Heater

An engine block heater (coolant heater) is an available option to aid cold weather starting.

Seasonal Viscosity Oil and Proper Coolant Concentration

Use seasonal grade viscosity engine oil based on the expected air temperature range between oil changes and a proper concentration of low silicate antifreeze as recommended. (See DIESEL ENGINE OIL and ENGINE COOLANT requirements in this section.)

Diesel Fuel Cold Flow Additive

Use John Deere Fuel-Protect Diesel Fuel Conditioner (winter formula), which contains anti-gel chemistry, or equivalent fuel conditioner to treat non-winter grade fuel (No. 2-D in North America) during the cold-weather season. This generally extends operability to about 10° C (18°F) below the fuel cloud point. For operability at even lower temperatures, use winter grade fuel.

IMPORTANT: Treat fuel when outside temperature drops below 0°C (32°F). For best results, use with untreated fuel. Follow all recommended instructions on label.

Biodiesel

When operating with biodiesel blends, wax formation can occur at warmer temperatures. Begin using John Deere Fuel-Protect Diesel Fuel Conditioner (winter formula) or equivalent at 5°C (41°F) to treat biodiesel fuels during the cold-weather season. Use B5 or lower blends at temperatures below 0°C (32°F). Use only winter grade petroleum diesel fuel at temperatures below -10°C (14°F).

Winterfronts

Use of fabric, cardboard, or solid winterfronts is not recommended with any John Deere engine. Their use can result in excessive engine coolant, oil, and charge air temperatures. This can lead to reduced engine life, loss of power and poor fuel economy. Winterfronts may also put abnormal stress on fan and fan drive components potentially causing premature failures.

If winterfronts are used, they should never totally close off the grill frontal area. Approximately 25% area in the

center of the grill should remain open at all times. At no time should the air blockage device be applied directly to the radiator core.

Radiator Shutters

If equipped with a thermostatically controlled radiator shutter system, this system should be regulated in such a way that the shutters are completely open by the time the coolant reaches 93°C (200°F) to prevent excessive intake manifold temperatures. Manually controlled systems are not recommended.

If air-to-air aftercooling is used, the shutters must be completely open by the time the intake manifold air temperature reaches the maximum allowable temperature out of the charge air cooler.

For more information, see your John Deere dealer.

DX,FUEL10-19-13JAN18

Diesel Engine Break-In Oil — Non-Emissions Certified and Certified Tier 1, Tier 2, Tier 3, Stage I, Stage II, and Stage III

New engines are filled at the factory with either John Deere Break-In or John Deere Break-In Plus Engine Oil. During the break-in period, add John Deere Break-In or Break-In Plus Engine Oil, respectively, as needed to maintain the specified oil level.

Operate the engine under various conditions, particularly heavy loads with minimal idling, to help seat engine components properly.

If John Deere Break-In Engine Oil is used during the initial operation of a new or rebuilt engine, change the oil and filter at a maximum of 100 hours.

If John Deere Break-In Plus Engine Oil is used, change the oil and filter at a minimum of 100 hours and a maximum equal to the interval specified for John Deere Plus-50 II or Plus-50 oil.

After an engine overhaul, fill the engine with either John Deere Break-In or Break-In Plus Engine Oil.

If John Deere Break-In or Break-In Plus Engine Oil is not available, use an SAE 10W-30 viscosity grade diesel engine oil meeting one of the following and change the oil and filter at a maximum of 100 hours of operation:

- API Service Classification CE
- API Service Classification CD
- API Service Classification CC
- ACEA Oil Sequence E2
- ACEA Oil Sequence E1

IMPORTANT: Do not use Plus-50 II, Plus-50, or engine oils meeting any of the following for the initial break-in of a new or rebuilt engine:

API CK-4	**ACEA E9**
API CJ-4	**ACEA E7**
API CI-4 PLUS	**ACEA E6**
API CI-4	**ACEA E5**
API CH-4	**ACEA E4**
API CG-4	**ACEA E3**
API CF-4	
API CF-2	
API CF	

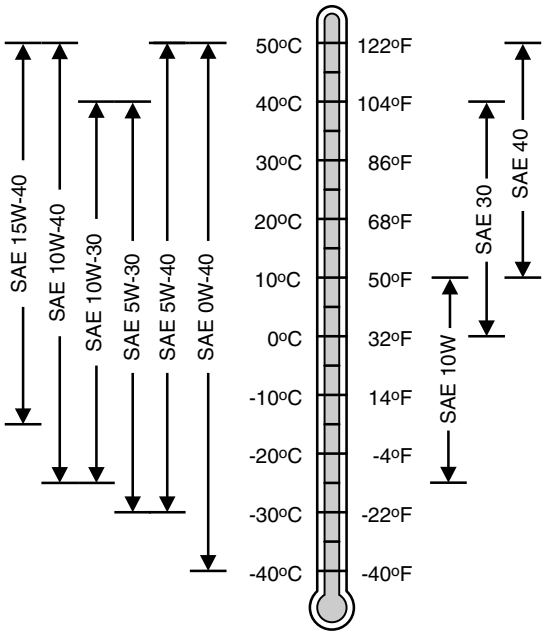
These oils do not allow the engine to break in properly.

John Deere Break-In Plus Engine Oil can be used for all John Deere diesel engines at all emission certification levels.

After the break-in period, use John Deere Plus-50 II, John Deere Plus-50, or other diesel engine oil as recommended in this manual.

DX,ENOIL4(T)-19-04APR22

Diesel Engine Oil — Non-Emissions Certified and Certified Tier 1 and Stage I



TS1743—UN—25APR19

Oil Viscosities for Air Temperature Ranges

Failure to follow applicable oil standards and drain intervals can result in severe engine damage that might not be covered under warranty. Warranties, including the emissions warranty, are not conditioned on the use of John Deere oils, parts, or service.

Use an oil viscosity based on the expected air temperature range during the period between oil changes.

John Deere Plus-50 II oil is preferred.

John Deere Plus-50 is also recommended.

John Deere Torq-Gard is also allowed.

Other oils may be used if they meet one or more of the following standards:

- API Service Category CK-4
- API Service Category CJ-4
- API Service Category CI-4 PLUS
- API Service Category CI-4
- API Service Category CH-4
- API Service Category CG-4
- API Service Category CF-4
- ACEA Oil Sequence E9
- ACEA Oil Sequence E7
- ACEA Oil Sequence E6
- ACEA Oil Sequence E5
- ACEA Oil Sequence E4
- ACEA Oil Sequence E3
- ACEA Oil Sequence E2

If oils meeting API CG-4, API CF-4, or ACEA E2 are used, reduce the service interval by 50%.

Multi-viscosity diesel engine oils are preferred.

Diesel fuel quality and fuel sulfur content must comply with all existing emissions regulations for the area in which the engine operates.

If diesel fuel with sulfur content greater than 5000 mg/kg (5000 ppm) is used, reduce the service interval by 50%.

IMPORTANT: DO NOT use diesel fuel with sulfur content greater than 10 000 mg/kg (10 000 ppm).

DX,ENOIL(T)-19-04APR22

Extended Diesel Engine Oil Service Intervals — Non-Emissions Certified and Certified Tier 1 and Stage I

When John Deere Plus-50 II or John Deere Plus-50 is used with the specified John Deere filter, the service interval for engine oil and filter changes may be increased by 50% but not to exceed a maximum of 500 hours.

Use oil analysis to evaluate the condition of the oil and to aid in the selection of the proper oil and filter service interval. Contact your John Deere dealer or other qualified service provider for more information on an engine oil analysis.

Change the oil and oil filter at least once every 12 months even if the hours of operation are fewer than the otherwise recommended service interval.

When ACEA E9, ACEA E7, ACEA E6, ACEA E5, or ACEA E4 oils are used with a specified John Deere filter, use engine oil analysis to determine if the service interval for engine oil and filter changes may be increased by a maximum of 50%, but not to exceed 500 hours. Oil analysis means taking a series of oil samples at 50 hour increments beyond the normal service interval until either the data indicates the end of useful oil life or the maximum service interval is reached.

If John Deere Plus-50 II or John Deere Plus-50, ACEA E9, ACEA E7, ACEA E6, ACEA E5, or ACEA E4 oils are used with other than the specified John Deere filter, change the engine oil and filter at the normal service interval.

If John Deere Torq-Gard, API CK-4, API CJ-4, API CI-4 PLUS, API CI-4, API CH-4, or ACEA E3 oils are used, change the engine oil and filter at the normal service interval.

If API CG-4, API CF-4, or ACEA E2 oils are used, change the engine oil and filter at 50% of the normal service interval.

IMPORTANT: To avoid engine damage:

- **Reduce oil and filter service intervals by 50% when using biodiesel blends greater than B20**
- **Oil analysis may allow longer service intervals**
- **Use only approved oil types**

DX,ENOIL6(T)-19-04APR22

Diesel Engine Coolant (Engine with Wet Sleeve Cylinder Liners)

Failure to follow applicable coolant standards and drain intervals can result in severe engine damage that may not be covered under warranty. Warranties, including the emissions warranty, are not conditioned on the use of John Deere coolants, parts, or service.

Preferred Coolants

The following pre-mix engine coolants are preferred:

- **John Deere Cool-Gard II**
- **John Deere Cool-Gard II PG**

Cool-Gard II pre-mix coolant is available in several concentrations with different freeze protection limits as shown in the following table.

Cool-Gard II Pre-Mix	Freeze Protection Limit
Cool-Gard II 20/80	-9°C (16°F)
Cool-Gard II 30/70	-16°C (3°F)
Cool-Gard II 50/50	-37°C (-34°F)
Cool-Gard II 55/45	-45°C (-49°F)

Cool-Gard II Pre-Mix	Freeze Protection Limit
Cool-Gard II PG 60/40	-49°C (-56°F)
Cool-Gard II 60/40	-52°C (-62°F)

Not all Cool-Gard II pre-mix products are available in all countries.

Use Cool-Gard II PG when a non-toxic coolant formulation is required.

Additional Recommended Coolants

The following engine coolant is also recommended:

- John Deere Cool-Gard II Concentrate in a 40—60% mixture of concentrate with quality water

IMPORTANT: When mixing coolant concentrate with water, do not use less than 40% or greater than 60% concentration of coolant. Less than 40% gives inadequate additives for corrosion protection. Greater than 60% can result in coolant gelation and cooling system problems.

Other Coolants

Other ethylene glycol or propylene glycol base coolants may be used if they meet the following specification:

- Pre-mix coolant meeting ASTM D6210 requirements
- Is formulated with a 2-ethylhexanoic acid (2-EHA) free additive package
- Coolant concentrate meeting ASTM D6210 requirements in a 40—60% mixture of concentrate with quality water

If coolant meeting one of these specifications is unavailable, use coolant concentrate or pre-mix coolant that has a minimum of the following chemical and physical properties:

- Provides cylinder liner cavitation protection according to either the John Deere Cavitation Test Method or a fleet study run at or above 60% load capacity
- Is formulated with a nitrite-free additive package
- Is formulated with a 2-ethylhexanoic acid (2-EHA) free additive package
- Protects the cooling system metals (cast iron, aluminum alloys, and copper alloys such as brass) from corrosion

Water Quality

Water quality is important to the performance of the cooling system. Deionized or demineralized water is recommended for mixing with ethylene glycol and propylene glycol base engine coolant concentrate.

Coolant Drain Intervals

Drain and flush the cooling system and refill with fresh coolant at the indicated interval, which varies with the coolant used.

When Cool-Gard II or Cool-Gard II PG is used, the drain interval is 6 years or 6000 hours of operation.

If a coolant other than Cool-Gard II or Cool-Gard II PG is used, reduce the drain interval to 2 years or 2000 hours of operation.[1]

IMPORTANT: Do not use cooling system sealing additives or antifreeze that contains sealing additives.

Do not mix ethylene glycol and propylene glycol base coolants.

Do not use coolants that contain nitrites.

DX,COOL3(T)-19-04APR22

Operating in Warm Temperature Climates

John Deere engines are designed to operate using recommended engine coolants.

Always use a recommended engine coolant, even when operating in geographical areas where freeze protection is not required.

IMPORTANT: Water may be used as coolant *in emergency situations only.*

Foaming, hot surface aluminum and iron corrosion, scaling, and cavitation occur when water is used as the coolant, even when coolant conditioners are added.

Drain cooling system and refill with recommended engine coolant as soon as possible.

DX,COOL6-19-17FEB20

[1] *Coolant analysis may extend the service interval of other "Coolants" to a maximum not to exceed the interval of Cool-Gard II coolants. Coolant analysis means taking a series of coolant samples at 1000 hour increments beyond the normal service interval until either the data indicate the end of useful coolant life or the maximum service interval of Cool-Gard II is reached.*

Other Brand Engine Information

For machines equipped with Deutz engines, during the warranty period, use oils as indicated in the Deutz engine manual.

Out of the warranty period, the oil can be used as specified in the following table:

Recomended Engine Oils for Deutz Engines		
Application	Type	Recommended
Deutz Engine	15W40 Extra Turbo	Torq-Gard/Plus-50 II

Services and special information related to Deutz engines should be consulted in Deutz engine manual.

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Maintenance and Service Intervals

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

Clean Vehicle of Hazardous Pesticides

CAUTION: During application of hazardous pesticides, pesticide residue can build up on the inside or outside of the vehicle. Clean vehicle according to use instructions of hazardous pesticides.

When exposed to hazardous pesticides, clean exterior and interior of vehicle daily to keep free of the accumulation of visible dirt and contamination.

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

DX,CABS2-19-24JUL01

Prevent Hydraulic System Contamination

IMPORTANT: Cleanliness is very important when working on the hydraulic system. Prevent contamination by assembling the cylinders, hoses, couplers, and valves in a clean area of the shop.

When charging the system, use a source that contains clean oil, free of abrasive materials. Abrasive particles, like sand or metal fragments, can damage seals, barrels and pistons, causing internal leakage.

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Important Considerations

The specified service intervals in this manual considered the use of the machine in normal operation.

When operating in severe or adverse conditions, such as those mentioned, perform the services in the reduced intervals, or more often.

Examples of operation under severe or adverse conditions:

- Work in wet or muddy conditions require most frequent lubrication at the grease fittings.
- High concentration of dust: Engine air cleaner obstructs with more frequency, as well as dry matter accumulates in different parts of the machine.

TS95756,000034C-19-02SEP16

Welding Near Electronic Control Units

TS953—UN—15MAY90

IMPORTANT: Do not jump-start engines with arc welding equipment. Currents and voltages are too high and may cause permanent damage.

1. Disconnect the negative (-) battery cable(s).
2. Disconnect the positive (+) battery cable(s).
3. Connect the positive and negative cables together. Do not attach to vehicle frame.
4. Clear or move any wiring harness sections away from welding area.
5. Connect welder ground close to welding point and away from control units.
6. After welding, reverse Steps 1—5.

DX,WW,ECU02-19-14AUG09

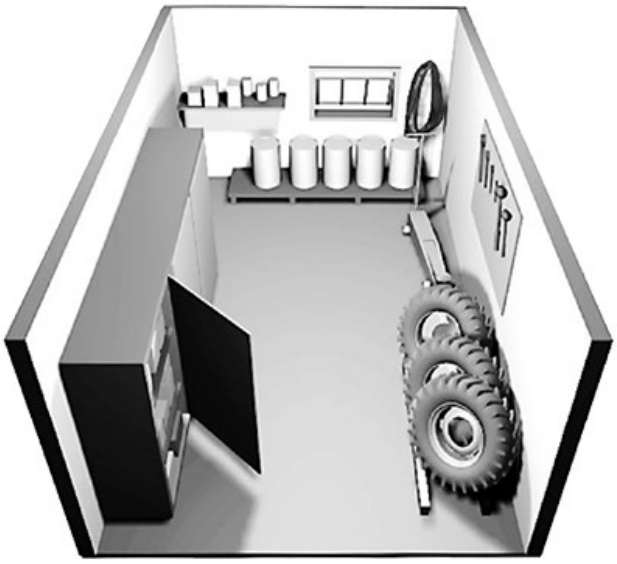
Keep Electronic Control Unit Connectors Clean

IMPORTANT: Do not open control unit and do not clean with a high-pressure spray. Moisture, dirt, and other contaminants may cause permanent damage.

1. Keep terminals clean and free of foreign debris. Moisture, dirt, and other contaminants may cause the terminals to erode over time and not make a good electrical connection.
2. If a connector is not in use, put on the proper dust cap or an appropriate seal to protect it from foreign debris and moisture.
3. Control units are not repairable.
4. Since control units are the components LEAST likely to fail, isolate failure before replacing by completing a diagnostic procedure. (See your John Deere dealer.)
5. The wiring harness terminals and connectors for electronic control units are repairable.

DX,WW,ECU04-19-11JUN09

Storage Parts and Lubricants



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Always keep a stock of spare parts such as filters, belts, fuses, diodes, relays, lights, screws, and lubricants. This practice avoids wasting time and allows preventive maintenances according to the correct periodicity.

The products must be stored in places without dust, ventilated, clean, and away from acid and corrosive products stored.

Make sure the storage place is insect free. The inside of the filters is a favorable environment for some kind of insects, so they can penetrate in the filters and destroy parts.

All products must be kept in their original packages until usage.

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Tool Box

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There is a tool box on the right-hand side of the machine. Use this box to store tools and other elements needed.

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Service Intervals Chart

Service	System	Periodicity										
		Start of Season	First 50 Hours	First 100 Hours	First 250 Hours	First 500 Hours	Daily or Every 10 Hours	Every 50 Hours or Weekly	Every Month	Every 125 Hours	Every 250 Hours	Every 400 Hours
Check and tighten nutrient application system screws (nutrient applicators).	Nutrient Application System	X										
Check the T3 tensioner (carbon fiber spray booms only).	Chassis and Spray/ Application Boom	X						X				
Change hydraulic oil return filter (nutrient applicators).	Hydraulics		X									
Change hydraulic oil pressure filter (nutrient applicators).			X									
Change the oil of the Eaton transmission housing.	Drivetrain		X									
Change differential oil.			X									
Adjust the axle ends.	Steering and Brakes			X								
Adjust the chain tension and upper and lower shafts.	Wheels and Hardware				X							
Change engine oil (if Break-In Plus Engine Oil is used).	Engine					X						
Replace engine oil filter (if Break-In Plus Engine Oil is used).						X						
Adjust the chain tension and upper and lower shafts	Wheels and Hardware					X						
Check engine oil level.	Engine						X					
Check coolant level.	Fuel, Air Intake, Exhaust, and Cooling						X					
Drain water from the fuel filters.							X					
Check level of the fluid of brakes.	Steering and Brakes						X					
Drain water from the pneumatic system.	Suspension System						X					
Clean the machine.	Solution System or Nutrient Application System						X					
Clean the solution system filters (self-propelled sprayers).	Solution System						X					
Lubricate the chains (nutrient applicators).	Nutrient Application System						X					
Lubricate machine critical points.	Chassis and Spray/						X					

Service	System	Periodicity										
		Start of Season	First 50 Hours	First 100 Hours	First 250 Hours	First 500 Hours	Daily or Every 10 Hours	Every 50 Hours or Weekly	Every Month	Every 125 Hours	Every 250 Hours	Every 400 Hours
	Application Boom											
Control the general functioning of the service brake system.	Steering and Brakes							X				
Check hydraulic oil level and temperature (self-propelled sprayers only).	Hydraulics							X				
Check tire inflation pressures.	Wheels and Hardware							X				
General greasing of the machine.	Chassis and Spray/ Application Boom							X				
Check the fuse box (carbon fiber spray booms only).								X				
Check the T6/T7 tensioner (carbon fiber or hybrid spray booms only).								X				
Tighten wheel nuts.	Wheels and Hardware							X				
Lubricate the shafts (nutrient applicators).	Nutrient Application System							X				
Check the condition of the dosifier wheels (nutrient applicators).								X				
Check the breakaway system (carbon fiber or hybrid spray booms only).	Chassis and Spray/ Application Boom								X			
Check the bushings (carbon fiber or hybrid spray booms only).									X			
Change engine oil.[ab]	Engine									X		
Replace engine oil filter.[ab]										X		
Change engine oil.[cd]	Engine										X	
Replace engine oil filter.[cd]											X	
Check engine mounts.											X	
Check the oil level of the Eaton transmission housing.	Drivetrain										X	
Check differential oil level.											X	
Check the driveshaft.											X	
Check the oil level of the Allison transmission housing.											X	

Service	System	Periodicity										
		Start of Season	First 50 Hours	First 100 Hours	First 250 Hours	First 500 Hours	Daily or Every 10 Hours	Every 50 Hours or Weekly	Every Month	Every 125 Hours	Every 250 Hours	Every 400 Hours
Check level of the fluid of clutch (manual machines only).											X	
Check the steering ends, ball joints, and bushings.	Steering and Brakes										X	
Check condition of the brake assemblies.											X	
Check and adjust park brake.											X	
Check the oil level of the rear axle knees.	Wheels and Hardware										X	
Check pneumatic lines.	Suspension System										X	
Check tightening of the solution tank fixing structures.	Solution System										X	
Check the oscillation structure of the spray/application boom.	Chassis and Spray/ Application Boom										X	
Check alignment of front and rear axles.											X	
Replace the activated carbon filters (sprayers with front engine and nutrient applicators with central engine).	Operator's Station										X	
Change hydraulic oil return filter (nutrient applicators).	Hydraulics											X
Change hydraulic oil pressure filter (nutrient applicators).												X

[a] If using other oils than Plus-50 II.
[b] If using fuel with 5000-10 000 mg/kg (5000-10 000 ppm) sulfur.
[c] If using other oils than Plus-50 II and fuel with less than 5000 mg/kg (5000 ppm) sulfur.
[d] If using Plus 50-II oil and fuel with 5000-10 000 mg/kg (5000-10 000 ppm) sulfur.

Service	System	Periodicity							
		Every 500 Hours or Every Year	Every 1000 Hours	Every 1500 Hours or 2 Years	Every 2000 Hours or 2 Years	Every 3000 Hours or 4 Years	Every 4500 Hours or 5 Years	Every 6000 Hours or 6 Years	As Required
Check engine speeds.	Engine	X							
Clean engine vent tube.		X							
Change engine oil.[ab]		X							
Replace engine oil filter.[ab]		X							
Test coolant.	Fuel, Air Intake, Exhaust, and Cooling	X							
Check cooling system.		X							
Pressure testing cooling system.		X							
Replace fuel filters.		X							
Check air intake system.		X							

Service	System	Periodicity							
		Every 500 Hours or Every Year	Every 1000 Hours	Every 1500 Hours or 2 Years	Every 2000 Hours or 2 Years	Every 3000 Hours or 4 Years	Every 4500 Hours or 5 Years	Every 6000 Hours or 6 Years	As Required
Check torque of brake caliper components.	Steering and Brakes	X							
Change hydraulic oil suction filters.	Hydraulics	X							
Change hydraulic oil return filter (self-propelled sprayers).		X							
Lubricate axle end hub.	Wheels and Hardware	X							
Check the position of the inner spray boom section (carbon fiber spray booms only).	Chassis and Spray/ Application Boom	X							
Check the position of the breakaway section support (carbon fiber or hybrid spray booms only).		X							
Check the folding system (carbon fiber spray booms only).		X							
Check engine electrical ground connections.	Electrical	X							
Check and tighten turbine screws (nutrient applicators).	Nutrient Application System	X							
Replace the machine bearings (nutrient applicators).		X							
Check the joints of the turbine drives (nutrient applicators).		X							
Replace the fresh air filter (sprayers with central engine).	Operator's Station	X							
Replace the air recirculation filter (sprayers with central engine).		X							
Change the oil of the Eaton transmission housing.	Drivetrain		X						
Change differential oil.			X						
Adjust the axle ends.	Steering and Brakes		X						
Change the hydraulic oil.	Hydraulics		X						
Check the hydraulic system pressure.			X						
Change the oil of the rear axle knees.	Wheels and Hardware		X						
Adjust the chain tension and upper and lower shafts.			X						
Rotate the tires.			X						
Check and adjust the suspension assemblies.	Suspension System		X						
Replace engine air cleaners (machines equipped with front engine).	Fuel, Air Intake, Exhaust, and Cooling			X					
Replace the oil filter of the Allison transmission housing.	Drivetrain			X					

Service	System	Periodicity							
		Every 500 Hours or Every Year	Every 1000 Hours	Every 1500 Hours or 2 Years	Every 2000 Hours or 2 Years	Every 3000 Hours or 4 Years	Every 4500 Hours or 5 Years	Every 6000 Hours or 6 Years	As Required
Adjust the engine valve clearance.	Engine				X				
Check thermovalve opening temperature.					X				
Replace the engine thermovalves (if Cool-Gard II or Cool-Gard II PG is not used).					X				
Check engine torsion damper (6-cylinder engines only).					X				
Change the engine coolant (if Cool-Gard II or Cool-Gard II PG is not used).	Fuel, Air Intake, Exhaust, and Cooling				X				
Change the oil of the Allison transmission housing.	Drivetrain					X			
Replace engine torsion damper (6-cylinder engines only).	Engine						X		
Replace the engine thermovalves (if Cool-Gard II or Cool-Gard II PG is used).	Engine							X	
Change the engine coolant (if Cool-Gard II or Cool-Gard II PG is used).	Fuel, Air Intake, Exhaust, and Cooling							X	
Check air compressor.	Engine								X
Replace the engine belt.									X
Replace engine air cleaners.	Fuel, Air Intake, Exhaust, and Cooling								X
Clean primary engine air cleaner.									X
Bleed fuel system.									X
Replace the fuses.	Electrical								X
Replace the lights.									X
Adjust front axle toe-in.	Steering and Brakes								X
Replace the hydraulic suction filters.	Hydraulics								X
Replace hydraulic oil return filter (self-propelled sprayers).									X
Lubricate axle end hub.	Wheels and Hardware								X
Hydraulic jack usage.									X
Replace tires.									X
Clean the solution system filters (self-propelled sprayers).	Solution System								X
Clean the flowmeter (self-propelled sprayers).									X
Control the jet of nozzles (self-propelled sprayers).									X
Purge the load pump.									X
Check the outer spray boom section position (steel or hybrid spray booms only).	Chassis and Spray/ Application Boom								X

Service	System	Periodicity							
		Every 500 Hours or Every Year	Every 1000 Hours	Every 1500 Hours or 2 Years	Every 2000 Hours or 2 Years	Every 3000 Hours or 4 Years	Every 4500 Hours or 5 Years	Every 6000 Hours or 6 Years	As Required
Check the fuse box (carbon fiber spray booms only).									X
Check the position of the inner spray boom section (carbon fiber spray booms only).									X
Check the position of the breakaway section support (carbon fiber or hybrid spray booms only).									X
Check the folding system (carbon fiber spray booms only).									X
Replace the fresh air filter (sprayers with central engine).	Operator"s Station								X
Replace the air recirculation filter (sprayers with central engine).									X
Replace the activated carbon filters (sprayers with front engine and nutrient applicators with central engine).									X
Turn on the machine for some minutes.[c]									X
Replace the windshield wiper blade.									X
Check the level of the windshield washer reservoir.									X

[a] *If using Plus-50 II Engine Oil.*
[b] *If using fuel with less than 5000 mg/kg (5000 ppm) sulfur.*
[c] *When the machine was not used for more than 30 days.*

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Fluid Specifications by System

The information regarding fluid specifications by system is available at Fuels, Lubricants, and Coolant sections. To understand all the systems available in the machine, as well as each specific procedure that contains the fluid information for the desired system, check the following table:

System	Where to Find the Specification of the Fluid
Transmission	See **Transmission Oil (Manual Machines)** or **Transmission Oil (Automatic Machines)** in Fuels, Lubricants, and Coolant—General Information section.
Hydraulic System	See **Hydraulic System Oil** in Fuels, Lubricants, and Coolant—General Information section.
Rear Axle Knees	See **Rear Axle Knee Oil** in Fuels, Lubricants, and Coolant—General Information section.
Differential	See **Differential Oil** in Fuels, Lubricants, and Coolant—General Information section.
Chain Lubrication and Nutrient Applicator Box Shaft Grease (Nutrient Applicators Only)	See **Lubricants Only for Nutrient Applicators** in Fuels, Lubricants, and Coolant—General Information section.
General Greasing of the Machine	See **Multipurpose Grease** in Fuels, Lubricants, and Coolant—General Information section.
John Deere Engine Crankcase	See **Diesel Engine Oil — Non-Emissions Certified and Certified Tier**

System	Where to Find the Specification of the Fluid
	1 and Stage I in Fuels, Lubricants, and Coolant—John Deere Engines Only section.
John Deere Engine Cooling System	See **Diesel Engine Coolant (Engine with Wet Sleeve Cylinder Liners)** in Fuels, Lubricants, and Coolant—John Deere Engines Only section.
Fluid of Brakes	See **Brakes** in Specifications—General Information section.
Fluid of Clutch	See **Transmission System** in the Specifications section of your machine model.
Deutz Engine Crankcase	See **Other Brand Engine Information** in Fuels, Lubricants, and Coolant—Deutz Engines Only section.

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Break-in Period

Perform Break-In Checks

IMPORTANT: The initial service interval to change the oil and filter of the engine can vary according to the type of break-in oil being used (John Deere Break-In or Break-In Plus). Identify the break-in oil type being used and then see Diesel Engine Break-In Oil — Non-Emissions Certified and Certified Tier 1, Tier 2, Tier 3, Stage I, Stage II, and Stage III in Fuels, Lubricants, and Coolant—John Deere Engines Only section and check the corresponding service interval.

IMPORTANT: Initial break-in service interval must last at least 100 hours and applies to all new or reconditioned engines. If John Deere Break-In Plus Engine Oil is used, change the oil and filter at a minimum of 100 hours and a maximum equal to the interval specified for John Deere Plus-50 II or Plus-50 oil.

The Initial break-in service interval for engines with Break-In Plus oil is 500 hours to guarantee coupling between the ring surfaces and engine liners.

IMPORTANT: Besides the indicated services to be performed during the break-in interval, make sure to perform all the other services from the standard service intervals, according to the working hours reached by the machine. See the Service Intervals Chart in Maintenance and Service Intervals section.

When reaching the first 10 hours, perform the following services:

First 10 Hours	
Procedure	**Operator's Manual Section**
Check the engine oil level.	Service—Engine
Check the coolant level at the coolant reservoir.	Service—Fuel, Air Intake, Exhaust, and Cooling
Drain water from the fuel filters.	Service—Fuel, Air Intake, Exhaust, and Cooling
Check the hydraulic oil level.	Service—Hydraulics
Check condition of tires.	Service—Wheels and Hardware
Check and adjust suspension assemblies.	Service—Suspension System

When reaching the first 500 hours, perform the following services:

First 500 Hours	
Procedure	**Operator's Manual Section**
Change the engine oil.[a]	Service—Engine
Replace the engine oil filter.[a]	Service—Engine

[a] *If John Deere Break-In Plus oil is used.*

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Engine Service Information

For machines equipped with John Deere engines, follow the engine services available in this Operator's Manual.

For machines equipped with Deutz engines, follow the engine services available in Deutz engine manual.

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Check Engine Oil Level

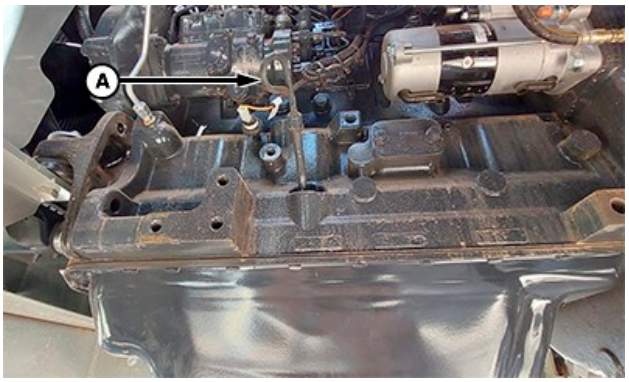
Perform this service daily or every 10 hours.

IMPORTANT: Never operate the engine if the oil level is above the maximum mark (C) or below the minimum ADD mark (B) on the oil dipstick (A).

NOTE: Check oil level with the engine cold, preferably in the morning before starting the engine.

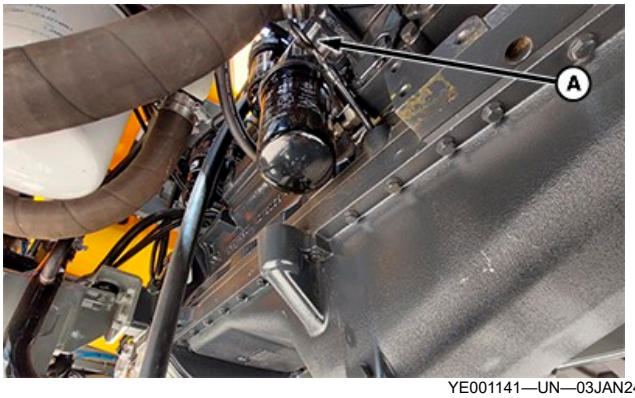
NOTE: See Fuels, Lubricants, and Coolant—John Deere Engines Only section

1. Park the machine on level ground.
2. Shut off the engine.
3. Wait 45 minutes.



YE001140—UN—03JAN24

Machines Equipped with 4-Cylinder Engines



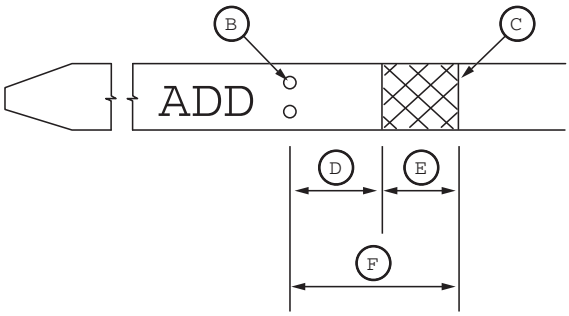
YE001141—UN—03JAN24

Machines Equipped with 6-Cylinder Engines

4. Remove oil dipstick (A).
5. Clean the oil dipstick (A) with a clean cloth.
6. Insert the oil dipstick (A) into the engine and remove it again.

NOTE: Make sure to insert the oil dipstick (A) all the way in.

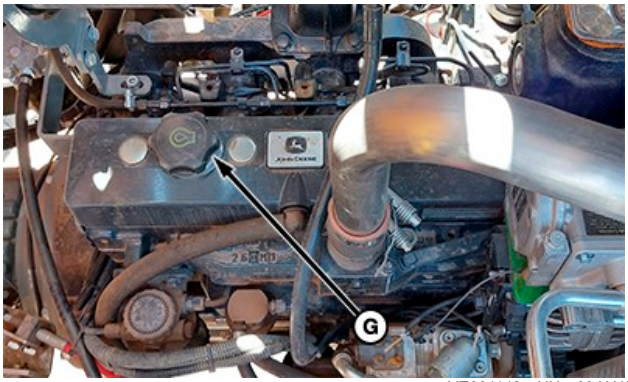
7. Hold the oil dipstick (A) horizontally.



YE000437—UN—18NOV22

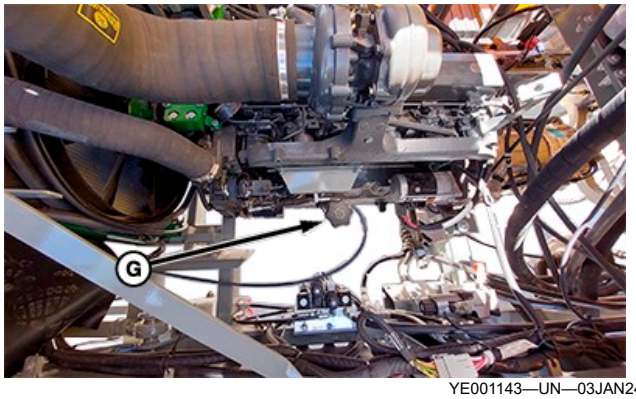
Oil Dipstick

8. Check the oil level according to the following:
   - The oil level should be in range (F), between the minimum ADD mark (B) and the maximum mark (C).
   - The oil level should be preferably in range (D).
   - If the oil level is on the crosshatch area (E), it indicates that the engine crankcase is full.



YE001142—UN—03JAN24

Machines Equipped with 4-Cylinder Engines



YE001143—UN—03JAN24

Machines Equipped with 6-Cylinder Engines

- If the oil level is below the minimum ADD mark (B), add the specified engine oil via filler neck (G).

edw8krp,1667908291704-19-11AUG23

Change Engine Oil

During the break-in interval, perform this service after first 500 hours when John Deere Break-In Plus Engine Oil was used.

IMPORTANT: The initial service interval to change the oil and filter of the engine can vary according to the type of break-in oil being used (John Deere Break-In or Break-In Plus). Identify the break-in oil type being used and then see Diesel Engine Break-In Oil — Non-Emissions Certified and Certified Tier 1, Tier 2, Tier 3, Stage I, Stage II, and Stage III in Fuels, Lubricants, and Coolant—John Deere Engines Only section and check the corresponding service interval.

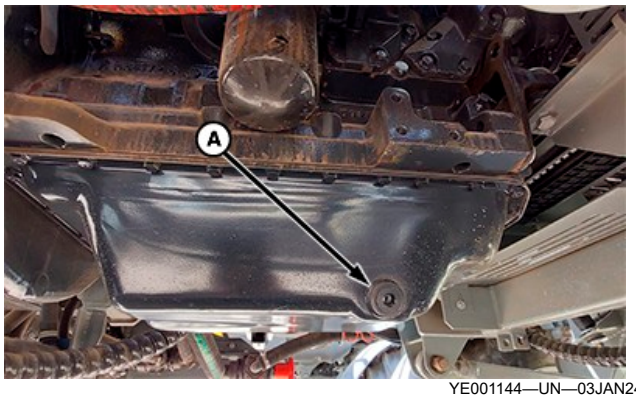
For the standard engine oil and filter service intervals, consult the chart in this procedure. The periodicity varies according to the engine oil and to the sulfur content of the fuel used. For additional details, see Fuels, Lubricants, and Coolant—John Deere Engines Only section.

Besides the service intervals shown at the chart below, also perform this maintenance at every year if the recommended service interval is not reached.

Engine Oil and Filter Service Intervals for Machines with Non-Emissions Certified Engines	
Fuel Sulfur	Less than 5000 mg/kg (5000 ppm)
If using Plus-50 II Oil	500 hours
If using other oils	250 hours
Fuel Sulfur	5000—10 000 mg/kg (5000—10 000 ppm)
If using Plus-50 II Oil	250 hours
If using other oils	125 hours

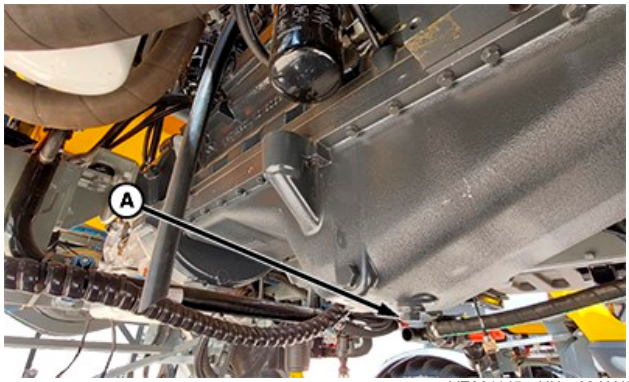
NOTE: A better draining of oil and debris is obtained when the oil is warm.

1. Start the engine and let it running for 5 minutes.
2. Shut off the engine.
3. Park the machine on level ground.



YE001144—UN—03JAN24

Machines Equipped with 4-Cylinder Engines



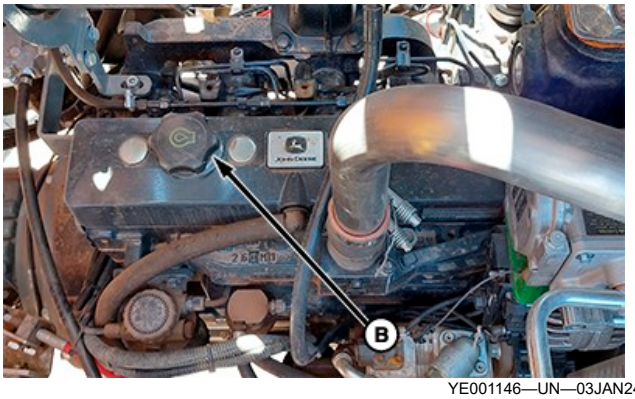
YE001145—UN—03JAN24

Machines Equipped with 6-Cylinder Engines

4. Remove any protections under the crankcase drain plug (A), if equipped.
5. Place a suitable container under the crankcase drain plug (A).
6. Remove the crankcase drain plug (A).
7. Drain the engine oil.
8. Reinstall the crankcase drain plug (A).
9. Open and raise the hood.
10. Replace the engine oil filter. (See Replace Engine Oil Filter in Service—Engine section.)

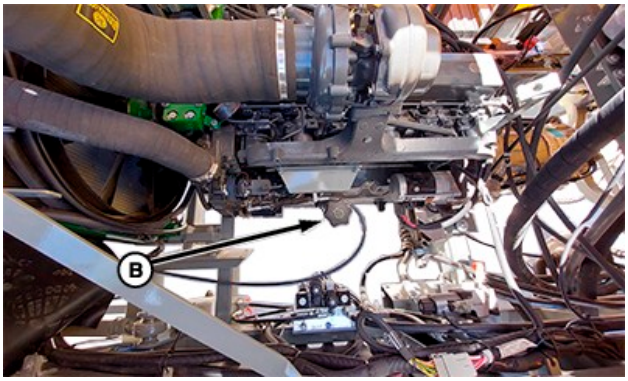
NOTE:

- *Check the engine oil capacity in Specifications section.*
- *Use John Deere oil as specified in Fuels, Lubricants, and Coolant—John Deere Engines Only section.*



YE001146—UN—03JAN24

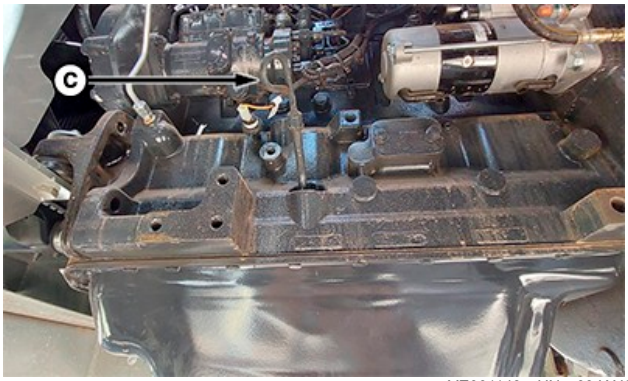
Machines Equipped with 4-Cylinder Engines



YE001147—UN—03JAN24

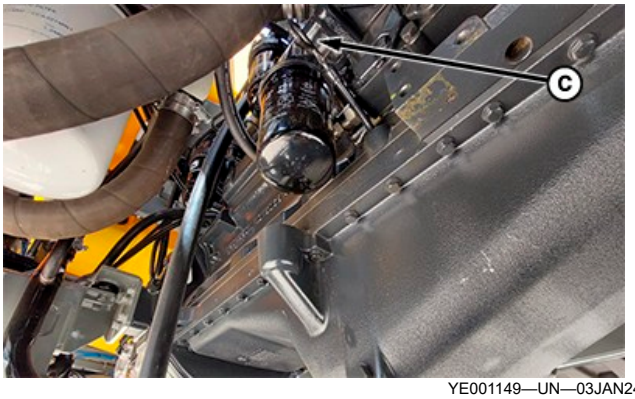
Machines Equipped with 6-Cylinder Engines

11. Add the specified oil via filler neck (B).
12. Start the engine and check the machine for oil leaks.
13. Shut off the engine.



YE001148—UN—03JAN24

Machines Equipped with 4-Cylinder Engines



YE001149—UN—03JAN24

Machines Equipped with 6-Cylinder Engines

14. Wait 5 minutes and check the engine oil level with the oil dipstick (C). Add oil, if necessary.
15. Reinstall any previously removed protections.

edw8krp,1667827964704-19-11AUG23

Replace Engine Oil Filter

During the break-in interval, perform this service after first 500 hours when John Deere Break-In Plus Engine Oil was used.

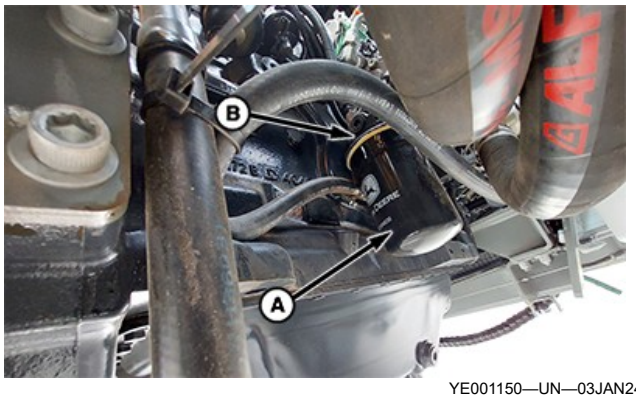
IMPORTANT: The initial service interval to change the oil and filter of the engine can vary according to the type of break-in oil being used (John Deere Break-In or Break-In Plus). Identify the break-in oil type being used and then see Diesel Engine Break-In Oil — Non-Emissions Certified and Certified Tier 1, Tier 2, Tier 3, Stage I, Stage II, and Stage III in Fuels, Lubricants, and Coolant—John Deere Engines Only section and check the corresponding service interval.

For the standard engine oil and filter service intervals, consult the chart in this procedure. The periodicity varies according to the engine oil and to the sulfur content of the fuel used. For additional details, see Fuels, Lubricants, and Coolant—John Deere Engines Only section.

Besides the service intervals shown at the chart below, also perform this maintenance at every year if the recommended service interval is not reached.

Engine Oil and Filter Service Intervals for Machines with Non-Emissions Certified Engines	
Fuel Sulfur	Less than 5000 mg/kg (5000 ppm)
If using Plus-50 II Oil	500 hours
If using other oils	250 hours
Fuel Sulfur	5000—10 000 mg/kg (5000—10 000 ppm)
If using Plus-50 II Oil	250 hours
If using other oils	125 hours

1. Open and raise the hood.



YE001150—UN—03JAN24

Machines Equipped with 4-Cylinder

YE001151—UN—03JAN24

Machines Equipped with 6-Cylinder

2. Remove the engine oil filter (A).

YE1387598—UN—03JAN25

3. Coat the sealing rings (C) of the new engine oil filter (A) with clean engine oil.

IMPORTANT: Do not overtighten the engine oil filter (A). Doing so damages the sealing rings (C).

4. Tighten the engine oil filter (A) by hand until the sealing rings (C) touch the housing surface. Tighten 1/2 turn more by hand.

5. Clean the engine oil filter (A) and the filter housing (B).

edw8krp,1667848237453-19-03JAN25

Check Engine Mounts

Perform this service every 250 hours.

1. Check the engine mounting bracket, vibration isolators, and mounting screws on support frame and engine block for tightness. Tighten as necessary.
2. Inspect overall condition of vibration isolators. Replace isolators if rubber has deteriorated or mounts have collapsed, as necessary. (See your PLA BY JOHN DEERE/JOHN DEERE authorized dealer.)

edw8krp,1666982591209-19-02JAN25

Check Engine Speeds

Perform this service every 500 hours or every year.

Check the engine speeds at the armrest display while running the engine.

The engine speeds must be as specified in Engine at the Specifications section.

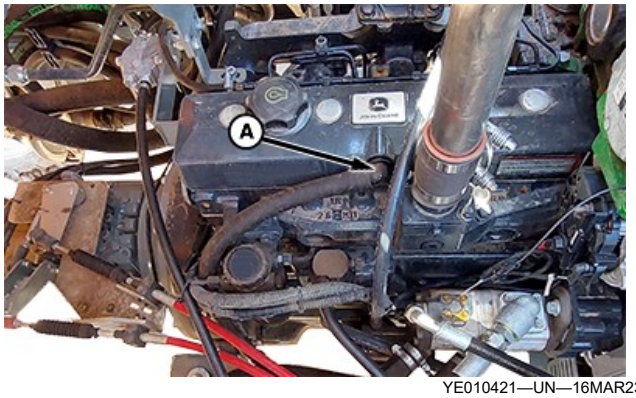
If engine speeds need adjustment, see your PLA BY JOHN DEERE/JOHN DEERE authorized dealer.

edw8krp,1666883301781-19-25MAR23

Clean Engine Vent Tube

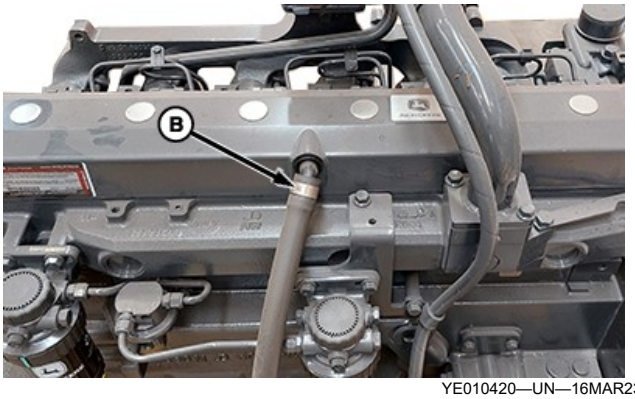
Perform this service every 500 hours or every year.

IMPORTANT: Avoid machine damage. If the engine is operated in dusty conditions, clean the vent tube at shorter intervals.



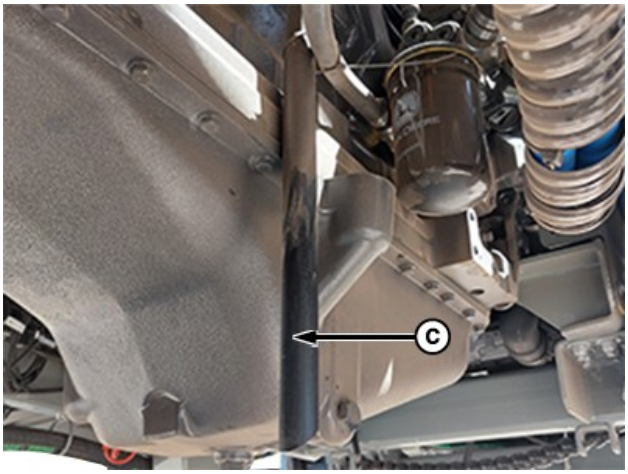
YE010421—UN—16MAR23

Machines Equipped with 4-Cylinder Engines



YE010420—UN—16MAR23

Machines Equipped with 6-Cylinder Engines



YE010422—UN—16MAR23

Crankcase Vent Tube

1. For machines equipped with 4-Cylinder engine, press and pull tube end (A). For machines equipped with 6 cylinders engine, loosen the hose clamp (B).
2. Remove the crankcase vent tube (C).
3. Clean dirt and trash from the crankcase vent tube (C).
4. Reinstall the crankcase vent tube (C). Make sure the O-ring fits correctly.
5. Tighten the crankcase vent tube (C) clamp.

edw8krp,1666887063333-19-22MAR23

Adjust the Engine Valve Clearance

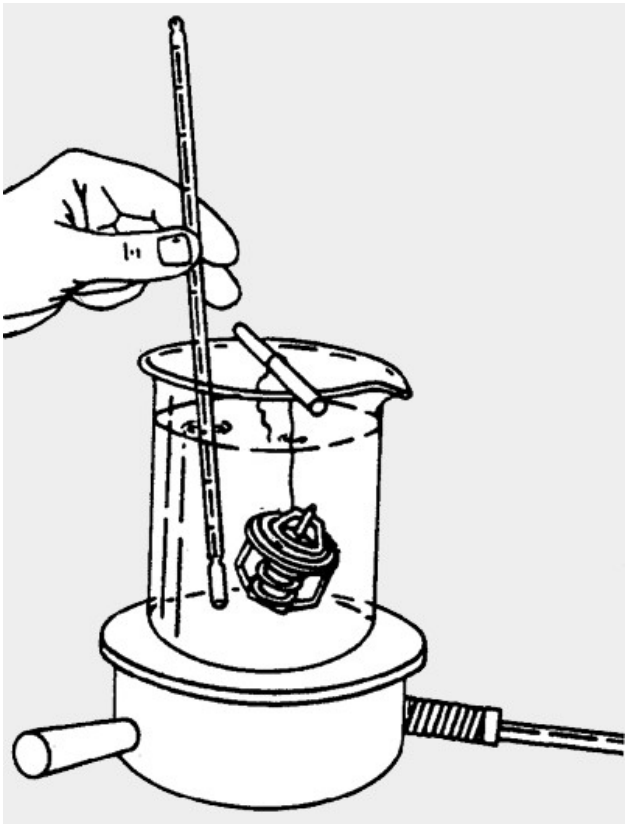
Perform this service every 2000 hours or 2 years.

To adjust the engine valve clearance, see your PLA BY JOHN DEERE/JOHN DEERE authorized dealer.

edw8krp,1666889085739-19-01DEC22

Check Thermovalve Opening Temperature

Perform this service every 2000 hours or 2 years.



CQ294097—UN—06AUG12

1. Remove the engine thermovalves. (See Replace the Engine Thermovalves in Service—Engine section.)
2. Visually inspect the thermovalves for corrosion or damage.

CAUTION: Avoid accidents. DO NOT allow thermovalves or thermometer to rest against the side or bottom of the container when heating water. They may rupture if overheated.

3. Suspend the thermovalve and a thermometer in a container of water.
4. Stir the water as it heats. Observe the opening action of the thermovalve and compare the temperatures with the specification given in chart below.

NOTE: Due to varying tolerances of different suppliers, initial opening and fully open temperatures may vary slightly from the specified temperatures.

Rating	Initial Opening (Range)	Full Open (Nominal)
°C (°F)	°C (°F)	°C (°F)
71 (160)	69—72 (156—162)	84 (182)
77 (170)	74—78 (166—172)	89 (192)
82 (180)	80—84 (175—182)	94 (202)
89 (192)	86—90 (187—194)	101 (214)
90 (195)	89—93 (192—199)	103 (218)

92 (197)	89—93 (193—200)	105 (221)
96 (205)	94—97 (201—207)	100 (213)
99 (210)	96—100 (205—212)	111 (232)

5. Remove thermovalve from container and observe its closing action as the thermovalve cools.

   Thermovalve should close completely in ambient air. Closing action should be smooth and slow.
6. Replace the thermovalve if defective.
7. Install the thermovalves. (See the procedure in Replace the Engine Thermovalves at Service—Engine section.)

edw8krp,1667224337064-19-01DEC22

Replace the Engine Thermovalves

Perform this service every 2000 hours or 2 years if Cool-Gard II or Cool-Gard II PG is not used. Perform this service every 6000 hours or 6 years if Cool-Gard II or Cool-Gard II PG is used.

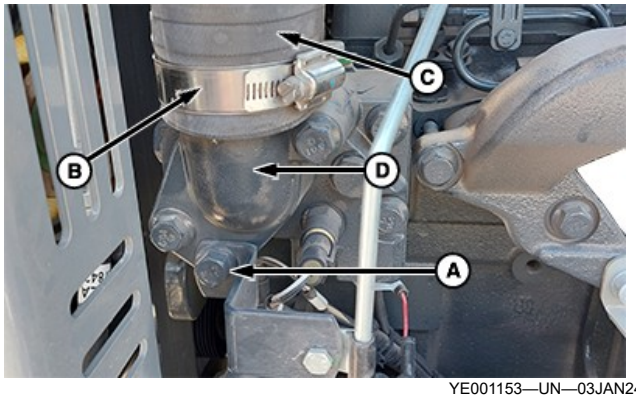
T6642EK—UN—01NOV88

CAUTION: Avoid injury. Shut off the engine and only remove the coolant reservoir cap when cool enough to touch it with bare hands. To relieve the pressure, slowly loosen the coolant reservoir cap to the first stop before removing it completely.

IMPORTANT: Replace the thermovalves and the coolant reservoir cap whenever the coolant is changed.

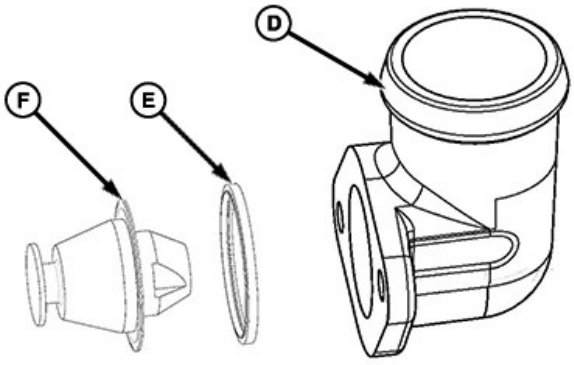
NOTE: The images shown in this procedure are for illustrative purposes only. The engine thermovalve components may vary according to machine and engine models.

1. Open and raise the hood.
2. Replace the coolant reservoir cap.



YE001153—UN—03JAN24

3. Loosen the hose clamp (B).
4. Pull the hose (C) off the thermovalve cover (D).
5. Remove the screws (A) and the thermovalve cover (D).



BM011233—UN—24NOV16

Thermovalve Assembly

6. Remove the thermovalve (F) and the seal (E).
7. Clean the contact surfaces.
8. Apply silicone sealant on the new gasket.
9. Install a new thermovalve (F) and seal (E).
10. Reinstall the thermovalve cover (D) and screws (A).
11. Tighten the screws (A) to specification:

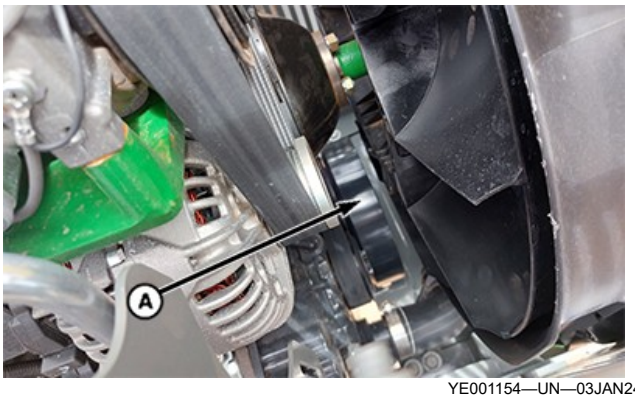
Specification	
Thermovalve Cover Screws—Torque	70 N·m (52 lb·ft)

12. Connect the hose (C) with the hose clamp (B) on the thermovalve cover (D).
13. Tighten the hose clamp (B).

edw8krp,1667244569777-19-11AUG23

Check Engine Torsion Damper (6-Cylinder Engines Only)

Perform this service every 2000 hours or 2 years.



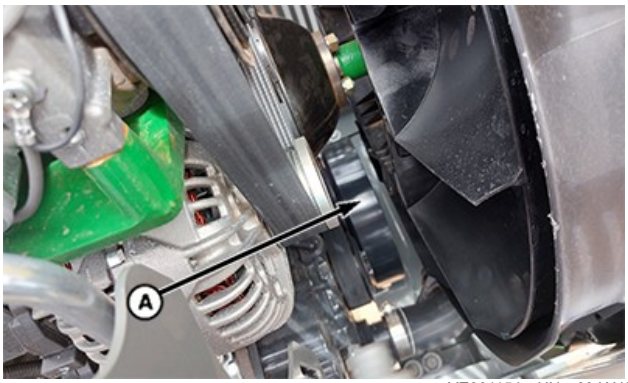
YE001154—UN—03JAN24

To check the engine torsion damper (A) conditions, see your PLA BY JOHN DEERE/JOHN DEERE authorized dealer.

edw8krp,1667934117294-19-02JAN25

Replace Engine Torsion Damper (6-Cylinder Engines Only)

Perform this service every 4500 hours or 5 years.



YE001154—UN—03JAN24

To replace the engine torsion damper (A), see your PLA BY JOHN DEERE/JOHN DEERE authorized dealer.

edw8krp,1667935691419-19-02JAN25

Check Air Compressor

Perform this service as required.

YE000039—UN—22SEP22

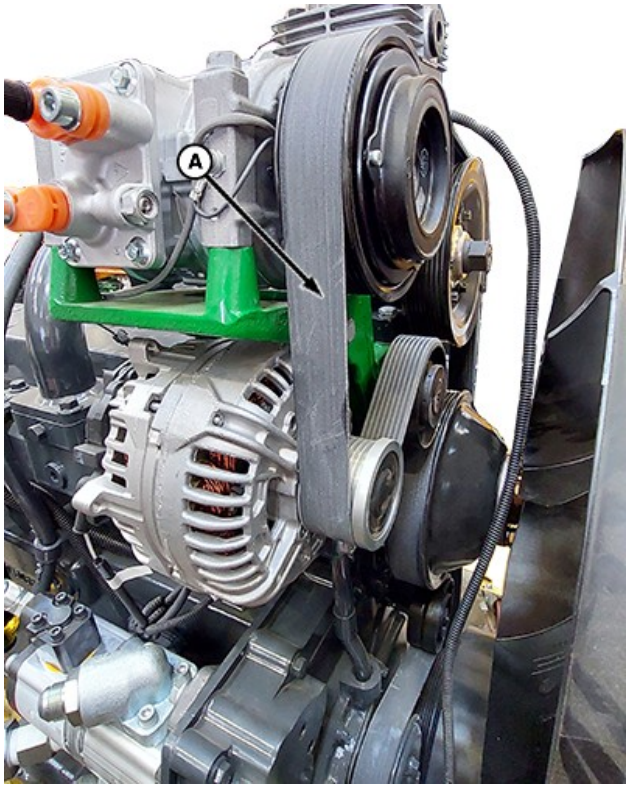
NOTE: The image is for illustrative purposes only. The compressor (A) surrounding components may vary according to machine and engine models.

In case of issues being noticed at compressor (A), see your PLA BY JOHN DEERE/JOHN DEERE authorized dealer for diagnostic and troubleshooting.

edw8krp,1667232363072-19-02JAN25

Replace the Engine Belt

Perform this service as required.



YE001155—UN—03JAN24

To replace the engine belt (A), see your PLA BY JOHN DEERE/JOHN DEERE authorized dealer.

edw8krp,1667301159240-19-02JAN25

Check Coolant Level

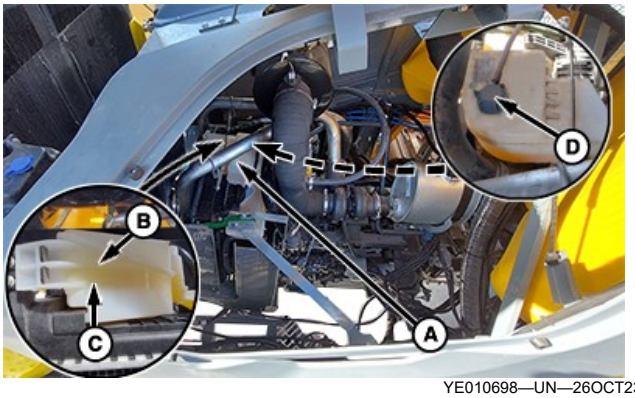
Perform this service daily or every 10 hours.

TS281—UN—15APR13

High-Pressure Fluids

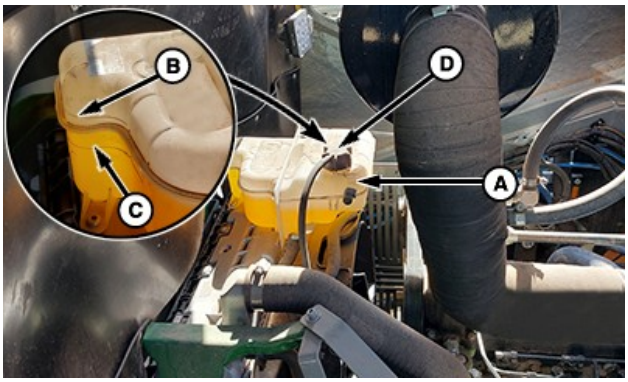
CAUTION: Explosive release of fluids from pressurized cooling system can cause serious burns.

Shut off engine. Only remove the coolant reservoir (A) cap when cool enough to touch with bare hands. Slowly loosen cap to first stop to relieve pressure before removing it completely.



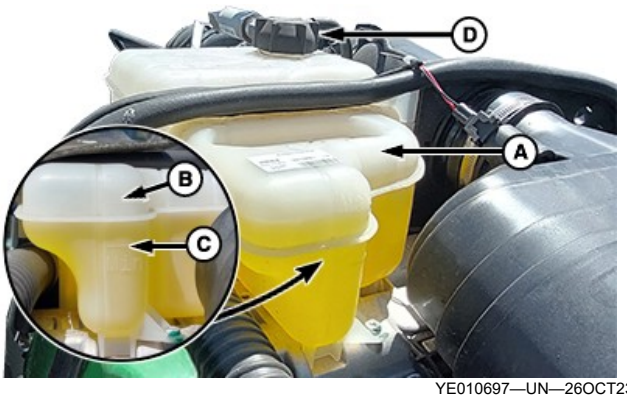
YE010698—UN—26OCT23

2900 Sprayers and 3300 Sprayers with Manual Transmission



YE010699—UN—26OCT23

3300 Sprayers with Automatic Transmission and 3300 GD Sprayers



YE010697—UN—26OCT23

3300 MD Sprayers and 3600 MD Sprayers

A—Coolant Reservoir
B—Maximum Mark
C—Minimum Mark
D—Reservoir Cap

1. Park the machine on level ground.
2. Check the coolant level at coolant reservoir (A). Coolant level should be above the minimum mark (C) when the engine is cold.

IMPORTANT: Avoid machine damage. Always keep the coolant level between the minimum (C) and maximum (B) marks.

NOTE: For 2900 and 3300 Self-Propelled Sprayers equipped with central engine: to be able to see the coolant level, you must access and stretch to the left side of the machine.

3. If coolant level is low:
   a. For machines equipped with central engine, open the cover. For machines equipped with frontal engine, open and raise the hood
   b. Check for any signs of leakage.

   NOTE: If coolant level is low but there is no external signs of leakage, see your PLA BY JOHN DEERE/JOHN DEERE authorized dealer.

   c. Wait until the engine cools down.

   CAUTION: Only remove the coolant reservoir cap (D) when cool enough to touch with bare hands. To relive pressure, slowly loosen the coolant reservoir cap (D) before removing it completely.

   d. Remove the coolant reservoir cap (D).
   e. Add coolant until it reaches a level above the minimum mark (C).

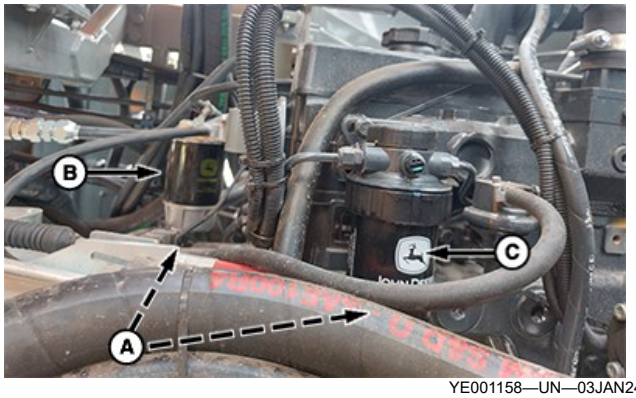
   NOTE: See the correct coolant in Fuels, Lubricants, and Coolant section.

f. Install the coolant reservoir cap (D).

jtlsx7f,1734025653604-19-13JAN25

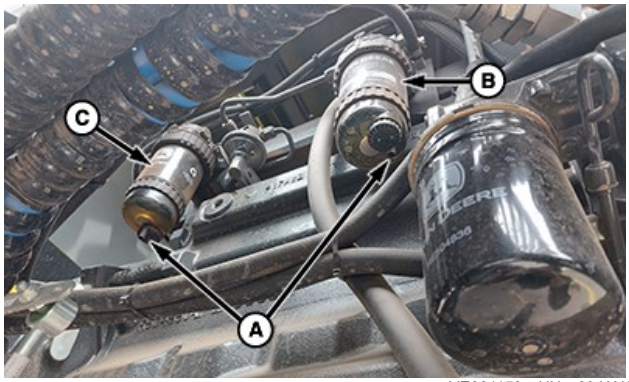
Drain Water from the Fuel Filters

Perform this service daily or every 10 hours.



YE001158—UN—03JAN24

Machines Equipped with 4-Cylinder Engines



YE001159—UN—03JAN24

Machines Equipped with 6-Cylinder Engines

1. Loosen drain plugs (A) of the primary (B) and secondary (C) fuel filters. Retighten when clean fuel starts to come out.
2. Bleed the fuel system. (See Bleed Fuel System in the Service—Fuel, Air Intake, Exhaust, and Cooling section.)

edw8krp,1667914638159-19-11AUG23

Test Coolant

Perform this service every 500 hours or every year, whichever occurs first.

To test coolant, see your PLA BY JOHN DEERE/JOHN DEERE authorized dealer.

edw8krp,1666878190182-19-02JAN25

Check Cooling System

Perform this service every 500 hours or every year, whichever occurs first.

TS281—UN—15APR13

High-Pressure Fluids

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

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

1. Visually check entire cooling system for leaks. Tighten all clamps securely.
2. Thoroughly inspect all cooling system hoses for hard, flimsy, or cracked condition. Replace hoses if any of the above conditions is found.

edw8krp,1667227371801-19-26MAY23

Pressure Test Cooling System

Perform this service every 500 hours or every year, whichever occurs first.

To test pressure on cooling system, see your PLA BY JOHN DEERE/JOHN DEERE authorized dealer.

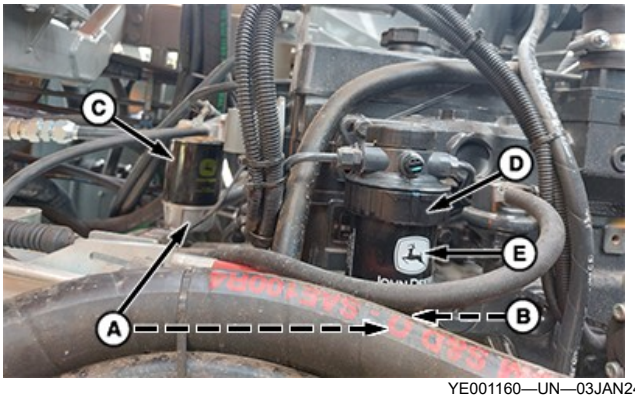
edw8krp,1667412514992-19-02JAN25

Replace Fuel Filters

Perform this service every 500 hours or every year.

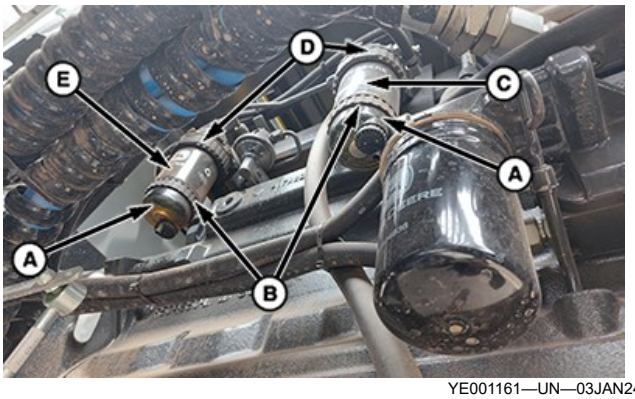
CAUTION: Always shut off the engine and remove the ignition key from key switch before servicing the fuel filters.

1. Open and raise hood.



YE001160—UN—03JAN24

Machines Equipped with 4-Cylinder Engines



YE001161—UN—03JAN24

Machines Equipped with 6-Cylinder Engines

2. Clean the primary fuel filter (C) and secondary fuel filter (E).
3. Drain fuel filters. (See Drain Water from the Fuel Filters in Service—Fuel, Air Intake, Exhaust, and Cooling section.)
4. Loosen retaining ring (B), if equipped.

IMPORTANT: Always replace both fuel filters at the same time.

5. Remove the water separator bowls (A).
6. Loosen the retaining rings (D) of each fuel filter, if equipped
7. Remove the primary fuel filter (C) and the secondary fuel filter (E).
8. Install the water separator bowl (A), if applicable, on the new fuel filters.
9. Tighten retaining rings (B), if equipped.
10. Coat the sealing rings of the fuel filters with clean engine oil.
11. Install the new fuel filters. Align the marks on the filters with the marks on the housing.
12. Tighten retaining rings (D), if equipped.
13. Bleed fuel system. (See Bleed Fuel System in Service—Fuel, Air Intake, Exhaust, and Cooling section.)

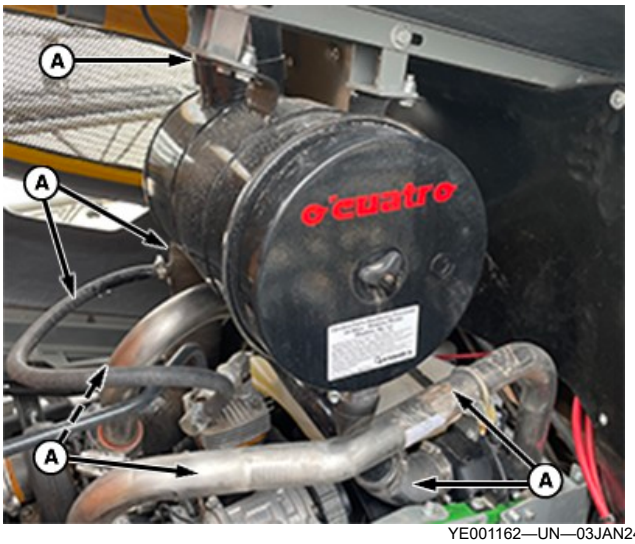
edw8krp,1667915277206-19-11AUG23

Check Air Intake System

Perform this service every 500 hours or every year.

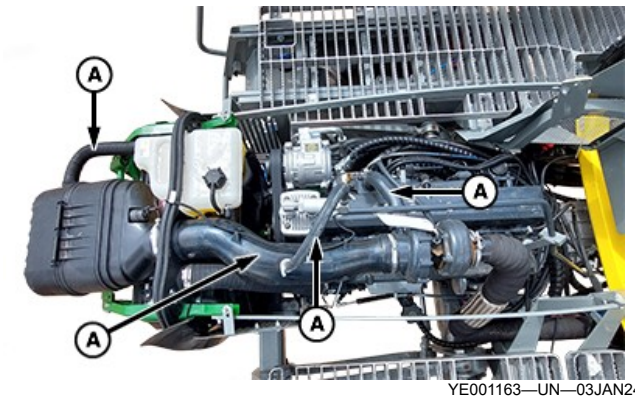
IMPORTANT: The air intake system must not leak. Any leak, no matter how small, may result in internal engine damage due to abrasive dirt and dust entering the intake system.

1. Open and raise hood.



YE001162—UN—03JAN24

Machines Equipped with Central Engine



YE001163—UN—03JAN24

Machines Equipped with Front Engine

2. Check all air intake system hoses and pipes (A) for cracks or any signs of damage. Replace them as necessary.
3. Check for loosing clamps or connections on the air system hoses and pipes (A). Tighten clamps as necessary.

4. Close the hood.

edw8krp,1667916244826-19-11AUG23

Replace Engine Air Cleaners

For machines equipped with central engine:

- **Perform this service as required after cleaning the engine primary air cleaner 2 times. Replace both primary and secondary air cleaners at the same time.**

For machines equipped with front engine:

- **Perform this service every 1500 hours or 2 years, or as required.**
- **Perform this service also on the primary engine air cleaner after cleaning it 5 times.**
- **Perform this service also on the secondary engine air cleaner at every fifth change of the primary engine air cleaner.**

IMPORTANT: NEVER run the engine without the primary and secondary engine air cleaner correctly installed.

Primary Engine Air Cleaner

IMPORTANT: Replace the primary engine air cleaner after cleaning it five times or after 2 years of operation, whichever occurs first.

IMPORTANT: If the primary air cleaner is being replaced due to damage, replace the secondary air cleaner at the same occasion regardless of its condition.

1. Park the machine and stop the engine.

YE001164—UN—03JAN24

Machines Equipped with Central Engine

YE001165—UN—03JAN24

Machines Equipped with Front Engine

2. Open and raise the hood (A).

YE001166—UN—03JAN24

Machines Equipped with Central Engine

YE001167—UN—03JAN24

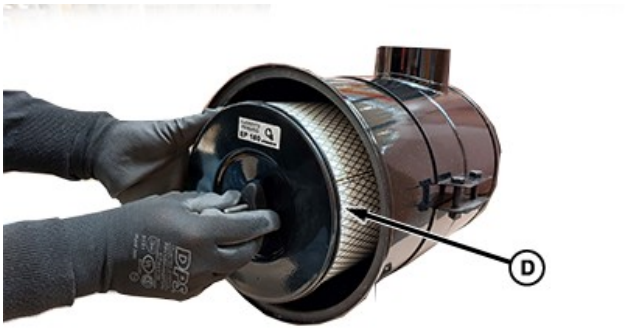
Machines Equipped with Front Engine

3. Release the lock (B).

YE001168—UN—03JAN24
Machines Equipped with Central Engine

YE001169—UN—03JAN24
Machines Equipped with Front Engine

4. Remove the cover (C).



YE001170—UN—03JAN24
Machines Equipped with Central Engine

YE001171—UN—03JAN24
Machines Equipped with Front Engine

5. Carefully pull out the primary engine air cleaner (D) from the engine air cleaner housing.
6. Clean out all the dirt and debris from inside the engine air cleaner housing.
7. Install a new primary engine air cleaner (D) into the housing.

YE001172—UN—03JAN24
Machines Equipped with Front Engine

NOTE: For machines equipped with front engine, insert the primary engine air cleaner (D) with the arrows on the decal (E) pointing to the housing.

8. Install cover (C) and secure it in place with lock (B).

Secondary Engine Air Cleaner

YE001173—UN—03JAN24
Machines Equipped with Central Engine

YE001174—UN—03JAN24

Machines Equipped with Front Engine

IMPORTANT:

- **Do not attempt to clean the secondary engine air cleaner (A).**
- **To avoid contamination of the air intake system, install a new secondary engine air cleaner (A) immediately after removing the old filter.**

To access the secondary engine air cleaner (A), remove the primary engine air cleaner first according to the procedure shown here.

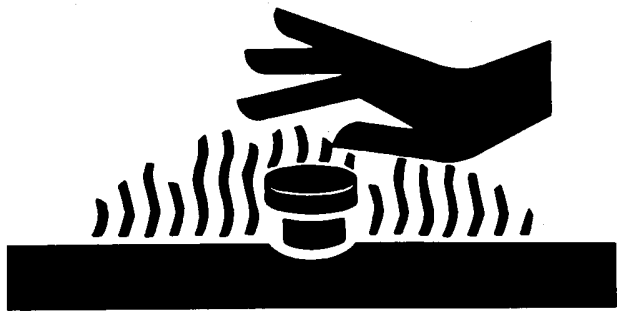
edw8krp,1667242072304-19-11AUG23

Change the Engine Coolant

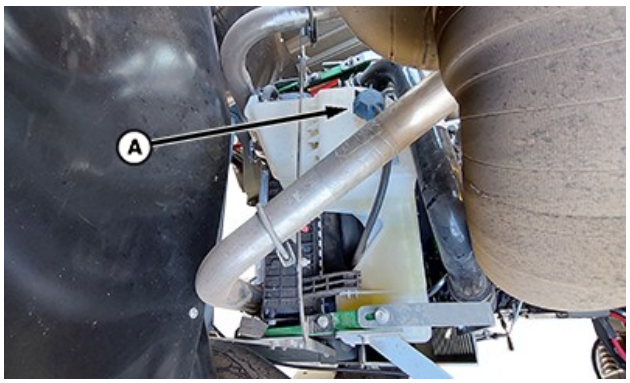
Perform this service every 2000 hours or 2 years if Cool-Gard II or Cool-Gard II PG is not used.

Perform this service every 6000 hours or 6 years if Cool-Gard II or Cool-Gard II PG is used.

TS281—UN—15APR13

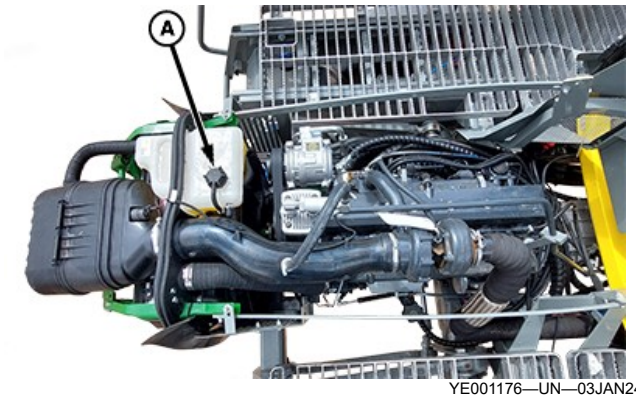


T6642EK—UN—01NOV88



YE001175—UN—03JAN24

Machines Equipped with Central Engine



YE001176—UN—03JAN24

Machines Equipped with Front Engine

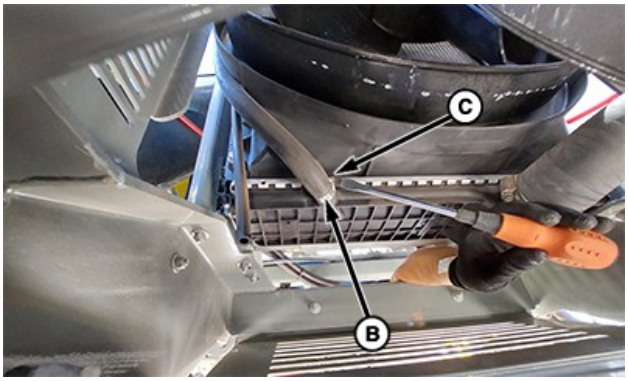
1. Carefully loosen the coolant reservoir cap (A) and remove it.

CAUTION: Avoid injury. Shut off the engine and only remove the coolant reservoir cap when cool enough to touch with bare hands. To relieve the pressure, slowly loosen the coolant reservoir cap (A) to the first stop before removing it completely.

IMPORTANT: Follow specifications and coolant change interval according to instructions in Diesel Engine Coolant (engine with wet sleeve cylinder liners). Refer to Fuels, Lubricants, and Coolant section in this manual.

IMPORTANT: Replace the thermovalves and the coolant reservoir cap (A) whenever the coolant is changed.

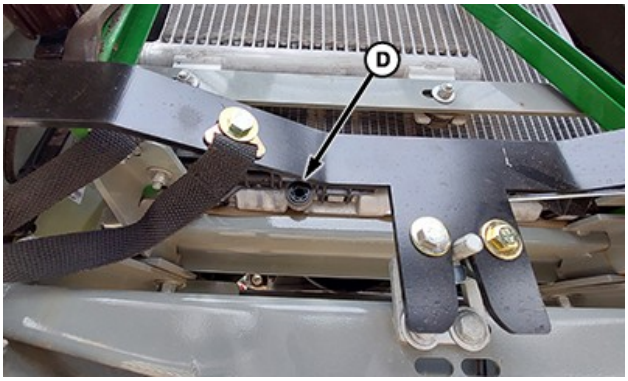
2. For machines equipped with 4-cylinder engines:



YE001177—UN—03JAN24

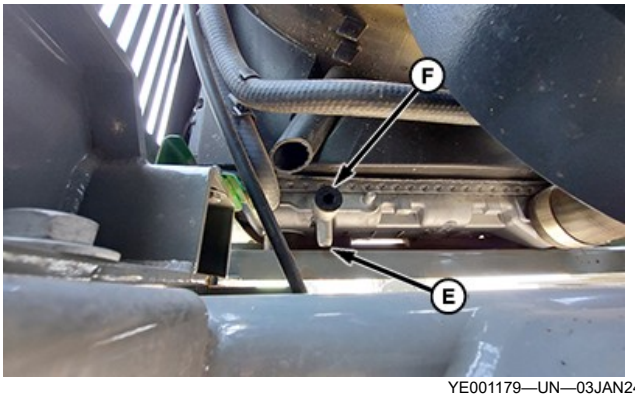
   a. Place a suitable container under drain line.
   b. Loosen the screw (C).
   c. Untighten clamp (B).
   d. Drain all coolant.
   e. Tighten clamp (B).
   f. Tighten the screw (C).

3. For machines equipped with 6-cylinder engines:



YE001178—UN—03JAN24

   a. Turn the connect/disconnect control (D) counterclockwise as far as it goes.



YE001179—UN—03JAN24

   b. Place a suitable container under drain line (E).
   c. Open drain valve (F).
   d. Drain all coolant.
   e. Close drain valve (F).

4. Replace the engine thermovalves. (See Replace the Engine Thermovalves in Service—Engine section.)
5. To flush the cooling system, observe the following instructions:
   a. Remove the coolant reservoir cap (A).
   b. Fill the cooling system with clean water through the coolant reservoir.

   IMPORTANT: Never fill the system when the engine is hot. Wait until engine cools down.

   c. Install the coolant reservoir cap (A).

YE010413—UN—10MAR23

   d. Start the engine and press the low idle button (G).
   e. Drain all coolant.
   f. Turn off the engine.

6. To fill the cooling system, observe the following instructions:
   a. Remove the coolant reservoir cap (A).
   b. Fill the cooling system with the specified coolant through the coolant reservoir.Add coolant up to the maximum level mark.

   NOTE: Check the specified coolant in Fuel, Lubricants, and Coolant section.

   c. Install the coolant reservoir cap (A).
   d. Start the engine and press the low idle button (G).

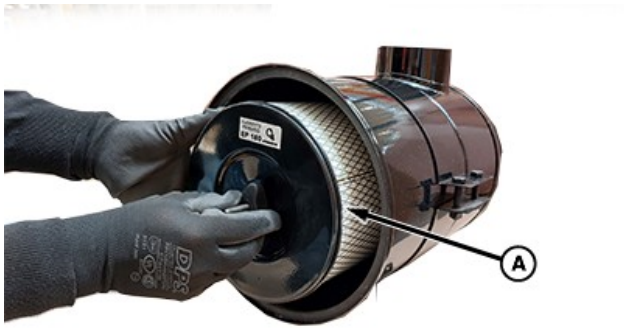
edw8krp,1678473000769-19-11AUG23

Clean Primary Engine Air Cleaner

Perform this service as required when the air cleaner restriction indicator turns on at the steering column display.

Machines with front engine can have its primary engine air cleaner cleaned for a maximum of 5 times.

Machines with central engine can have its primary engine air cleaner cleaned for a maximum of 2 times.



YE001180—UN—03JAN24

Primary Engine Air Cleaner—Machines Equipped with Central Engine

YE001181—UN—03JAN24

Primary Engine Air Cleaner—Machines Equipped with Front Engine

When the primary engine air cleaner (A) must keep working in the field, tap it on the palm of your hand as a temporary way to clean it.

IMPORTANT: The guide ring, if equipped, must not be damaged or deformed.

IMPORTANT: Avoid engine primary air cleaner damage. Do not blow pressurized air if the air cleaner is wet.

If tapping the primary engine air cleaner (A) does not remove dust, blow out dust with compressed air by inserting nozzle inside the element and blowing from the inside of the filter to the outside, not exceeding:

- 600 kPa (6.00 bar) (90.00 psi) for machines equipped with front engine.
- 392 kPa (3.92 bar) (56.85 psi) for machines equipped with central engine.

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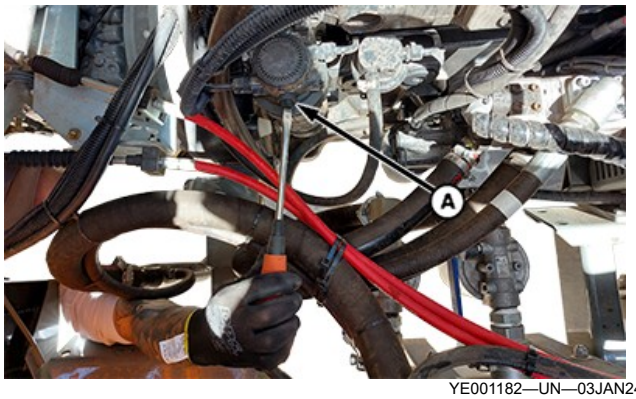
Bleed Fuel System

Perform this service as required.

1. Open and raise hood.



YE001182—UN—03JAN24

Machines Equipped with 4-Cylinder Engines

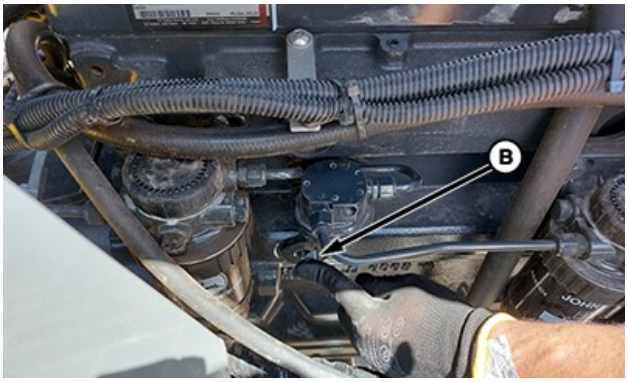
YE001183—UN—03JAN24

Machines Equipped with 6-Cylinder Engines

2. Open bleed screw (A)

YE001184—UN—03JAN24

Machines Equipped with 4-Cylinder Engines



YE001185—UN—03JAN24

Machines Equipped with 6-Cylinder Engines

3. Pump fuel using the lever on the mechanical fuel transfer pump (B) until resistance is felt.
4. Close bleed screw (A).
5. Start the engine and let it run for a few minutes.

edw8krp,1669652006552-19-11AUG23

Safety in Electrical System Services

CAUTION:

- **Avoid possible injury or death due to machine movement. Never attempt to start engine by shorting across the starter solenoid terminals.**
- **Disconnect the battery terminals before repairing or servicing any electrical component.**
- **Do not use the electrical compartment to store anything. This can generate shorts and cause explosions.**
- **Lead acid batteries generate flammable and explosive gas. Keep weld, sparks, and flames away from the battery.**
- **Always use battery chargers with adjustable voltage. High voltage may damage the battery and cause explosions.**

jtlsx7f,1662468450258-19-16SEP22

Electrical System Problems

In the event of power cut-off, always check the electrical system fuses first.

jtlsx7f,1662468475522-19-16SEP22

Battery Recommendations

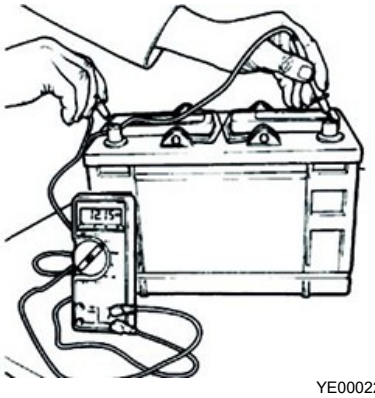
IMPORTANT:

- **The machine is equipped with service-free units.**
- **Check if terminals are clean and adjusted. To avoid sulfation, cover them with grease.**
- **Never invert the battery cables or irreversible damage of alternator diodes and electronic control components occurs.**
- **Never check the battery causing a short circuit.**
- **Before welding the machine, stop the engine, remove the ignition key, and turn off the battery cut-off switch located next to the battery. Also, identify and disconnect the alternator harnesses.**
- **At long periods of inactivity, also disconnect the battery cut-off switch.**
- **Remove the sulfate from battery and cables with a solution of baking soda.**
- **Maintain the cleanliness and the correct adjust of the connections.**

jtlsx7f,1662468492490-19-16SEP22

Battery Charge

The battery charge is controlled by measuring the voltage between its terminals using a multimeter:



YE000225—UN—22SEP22

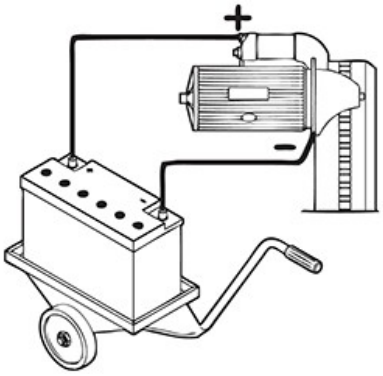
- 12.7 V at 100% charge.
- 12.4 V at 50% charged.
- 12.0 V or less, discharged.

jtlsx7f,1662468502103-19-16SEP22

Auxiliary Battery

CAUTION: Do not use auxiliary batteries of 24 V.

In case of auxiliary battery usage, do not connect its cables on the terminals of the old battery. This may cause an explosion at the old battery due to excessive current flow.

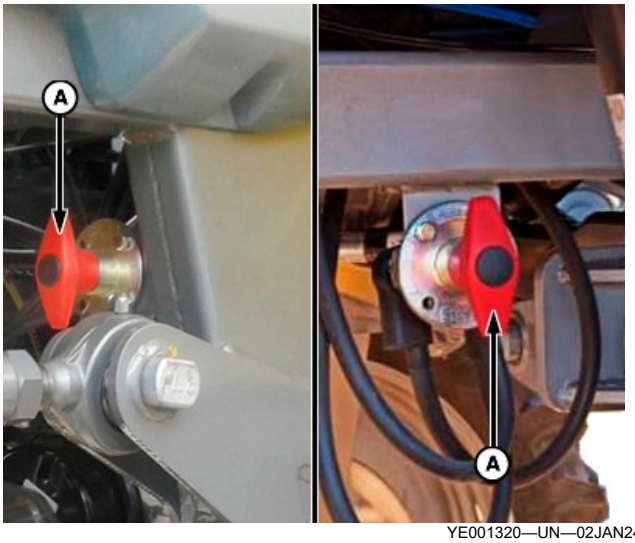


YE000226—UN—22SEP22

Connect the positive cable (+) directly on the positive terminal (+) of the starter motor, and the negative cable (-) on the motor housing.

jtlsx7f,1662468510464-19-16SEP22

Battery Cut-Off Switch



YE001320—UN—02JAN24

Machines with Central Engine / Machines with Front Engine

CAUTION: Prevent injury or death. Always turn the battery cut-off switch (A) to OFF position when servicing or repairing the machine.

IMPORTANT: Never turn off the electrical system while the engine is running. This can result in serious damage to machine electrical components.

The battery cut-off switch (A) is used to electrically disconnect batteries from the machine electrical and eletronic systems.

- **OFF Position:** shuts off the electrical current to the batteries, disconnecting them from the electrical system.
- **ON Position:** electrical current is passing through the batteries, connecting them to the electrical system.

jtlsx7f,1693834344746-19-04SEP23

Check Engine Electrical Ground Connections

Perform this service every 500 hours or every year, whichever occurs first.

To check the conditions of the electrical ground connections, see your PLA BY JOHN DEERE/JOHN DEERE authorized dealer.

jtlsx7f,1668799874376-19-02JAN25

Replace the Fuses (Sprayers with Central Engine)

Perform this service as required.

The fuses and relays are located inside the cab, at the right-hand side of the operator's seat.

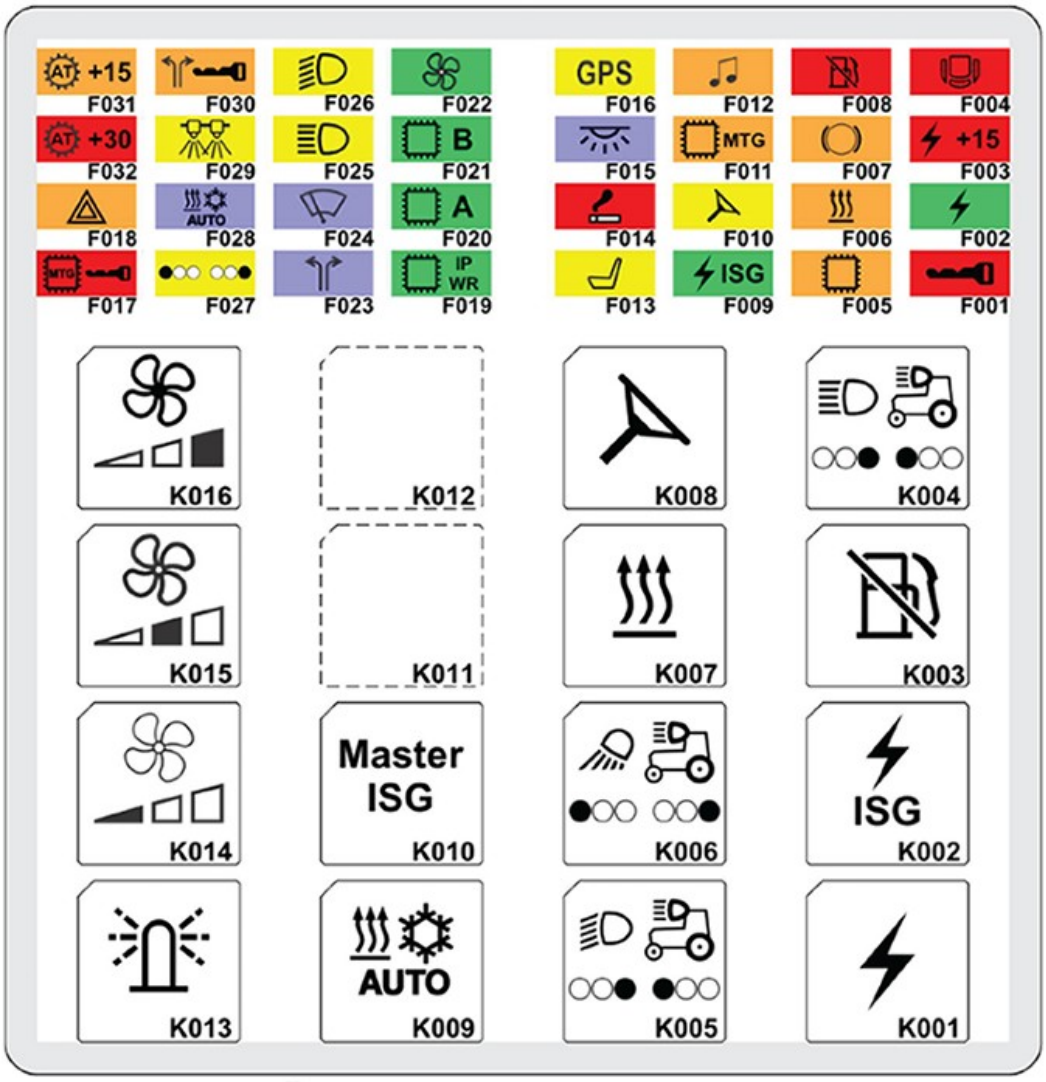
YE001316—UN—02JAN24

YE1387646—UN—03JAN25

1—F001 - Key Switch Fuse (10 A)

2—F002 - Switched Power Fuse (30 A)

3—F003 - Switched Power Chassis Fuse (10 A)
4—F004 - Armrest Power Fuse (7.5 A)
5—F005 - Switched Power RCU Fuse (5 A)
6—F006 - Heater Valve Fuse (5 A)
7—F007 - SW Stop Reverse Fuse (5 A)
8—F008 - Fuel Solenoid Fuse (10 A)
9—F009 - ISG Switched Power Fuse (30 A)
10—F010 - Switched Power ISG Fuse (20 A)
11—F011 - Switched Power MTG Fuse (5 A)
12—F012 - Radio Power Fuse (5 A)
13—F013 - Seat Power Fuse (20 A)
14—F014 - Power Outler Fuse (10 A)
15—F015 - Dome/Map Lights Fuse (15 A)
16—F016 - GPS Display Power Fuse (20 A)
17—F017 - Power MTG Fuse (10 A)
18—F018 - Power Hazard Lights Fuse (5 A)
19—F019 - Power IPWR Fuse (30 A)
20—F020 - Power LE70A Fuse (30 A)
21—F021 - Power LE70B Fuse (30 A)
22—F022 - Blower Fuse (30 A)
23—F023 - SCL Power Fuse (15 A)
24—F024 - Wiper Power Fuse (15 A)
25—F025 - High-Beam Worklight Fuse (20 A)
26—F026 - Low-Beam Worklight Fuse (20 A)
27—F027 - Outer Roof Worklights Fuse (20 A)
28—F028 - HVAC Compressor Fuse (15 A)
29—F029 - Switched Power GRC Fuse (20 A)
30—F030 - Steering Column Switched Power Fuse (5 A)
31—F031 - Automatic Transmission +15 Fuse (5 A)
32—F032 - Automatic Transmission +30 Fuse (10 A)
33—K001 - Switched Power Relay
34—K002 - Switched Power ISG Relay
35—K003 - Fuel Solenoid Shutoff Relay
36—K004 - High-Beam Worklight Relay
37—K005 - Low-Beam Worklight Relay
38—K006 - Outer Roof Worklights Relay
39—K007 - Heater Valve Relay
40—K008 - ATC Valve Auxiliary Relay
41—K009- HVAC Compressor Relay
42—K010 - Master ISG Relay
43—K013 - Flasher
44—K014 - Blower Low Relay
45—K015 - Blower Medium Relay
46—K016 - Blower High Relay



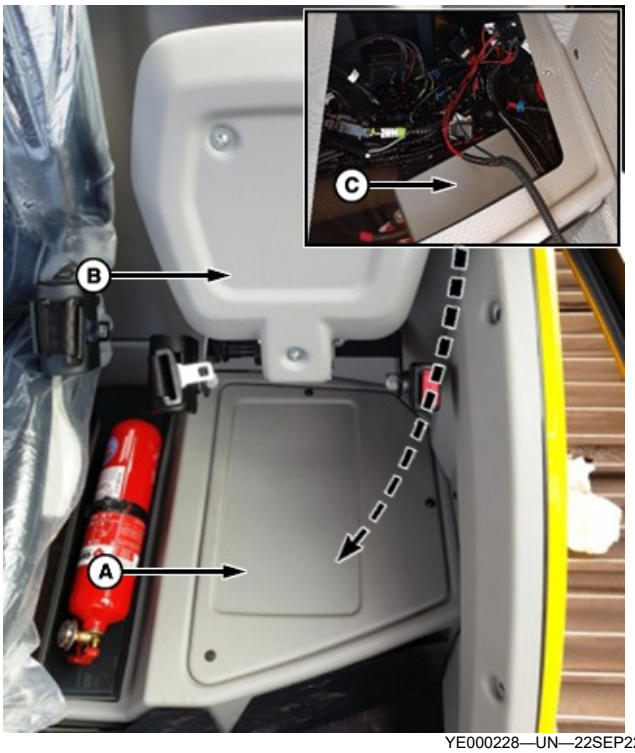
YE1388630—UN—13JAN25

Fuses and Relay Box Decal

jtlsx7f,1735910492896-19-10JAN25

Replace the Fuses (Sprayers with Front Engine and Nutrient Applicators with Central Engine)

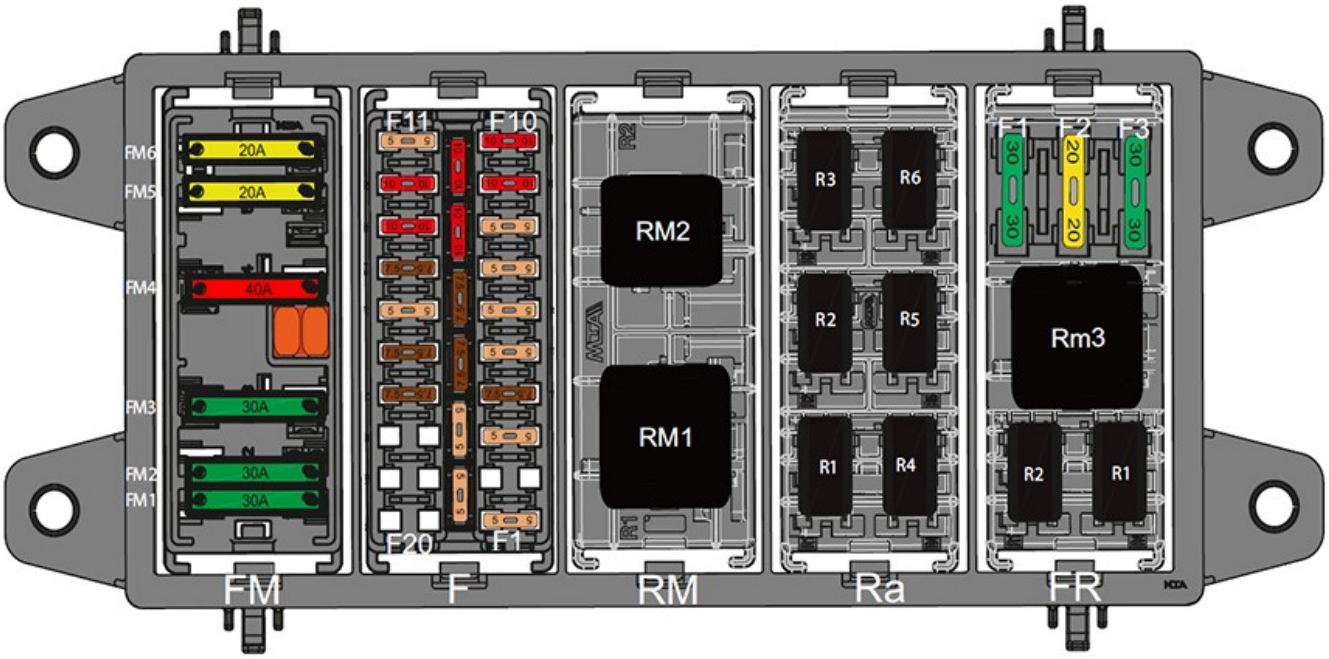
Perform this service as required.



YE000228—UN—22SEP22

The component protection fuses and activation relays are located inside the cab, under the instructional seat (B).

To access the fuses and relays box (C), remove the three hex-socket screws and the cover (A).



YE010418—UN—16MAR23

Decal—Location of Fuses and Relays

FM
Fusibles Maxival

Fusibles			Valor/Color
FM 1	F051	+30 RCU IPWR 17	30 A
FM 2	F052	+30 RCU LE70 A	30 A
FM 3	F053	+30 RCU LE70 B	30 A
FM 4	F054	+30 Reles (30)	40 A
FM 5	F055	Rele de contacto	20 A
FM 6	F056	Rele ISG	20 A

F
Fusibles Minival

Fusibles			Valor/Color
F 1	F 001	+ 15 Estereo; panel A/C; Relé ventilacion	5 A
F 2			
F 3	F 003	+15 Gato; nivel LO/HI; teclas; sw temp/nivel. aceite hidro; camara	5 A
F 4	F 004	+15 Codera	7.5 A
F 5	F 005	+15 RCU LE70A; RCU LE70B; RCU IPWR	5 A
F 6	F 006	+15 Allison	5 A
F 7	F 007	+15 Sw retroceso; sw nivel hidro; sw filtro aire; sw filtro aceite hidro; stop	5 A
F 8	F 008	+15 Guiñes	5 A
F 9	F 009	+15 Tanque control, Altina	10 A
F 10	F 010	Retención	10 A
F 11	F 011	+30 Stereo; plafon	5 A
F 12	F 012	+30 Allison	10 A
F 13	F 013	+30 Toma 12V; USB	10 A
F 14	F 014	+30 Butaca	7.5 A
F 15	F 015	+30 Devio; baliza	5 A
F 16	F 016	+30 Key	7.5 A
F 17	F 017	+30 Rele Altina	7.5 A
F 18		Sin uso	
F 19		Sin uso	
F 20		Sin uso	

RM
Reles Maxi

Relé		Función
RM 1	K051	Contacto (F1 al F10)
RM 2	K052	Destellador

Ra
Reles Micro

Relé		Función
R 1	K001	Modo transporte
R 2	K002	Altina
R 3	K003	Retencion
R 4	K004	Auxiliar Joystick
R 5	K005	Compresor
R 6	K006	Allison (101)

FR
Reles Micro maxi Fusibles M8compac

Fusibles			
F 1	F031	Alim R Ventolas	30 A
F 2	F032	Alim R Compresor	20 A
F 3	F033	Alim R Forzador AC	30 A

Relé		Función
R 1	K021	Ventola 1
R 2	K022	Ventola 2
Rm 3	K023	Forzador A/C

Fusibles repuesto Minival

F	-	5 A
F	-	5 A
F	-	7.5 A
F	-	7.5 A
F	-	10 A
F	-	10 A

YE010419—UN—16MAR23

Decal—Function of Fuses and Relays

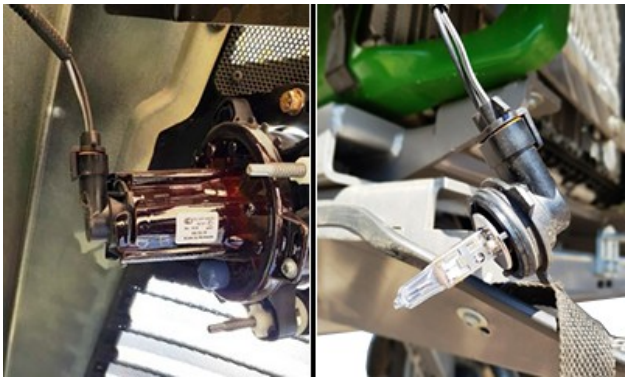
There are information decals on the internal side of the

cover (A). These decals contains the location and the function of each fuse and relay.

jtlsx7f,1734030685353-19-02JAN25

Replace the Lights

Perform this service as required.



YE000233—UN—22SEP22

Check that the lights are working well. Keep the connections tight and clean.

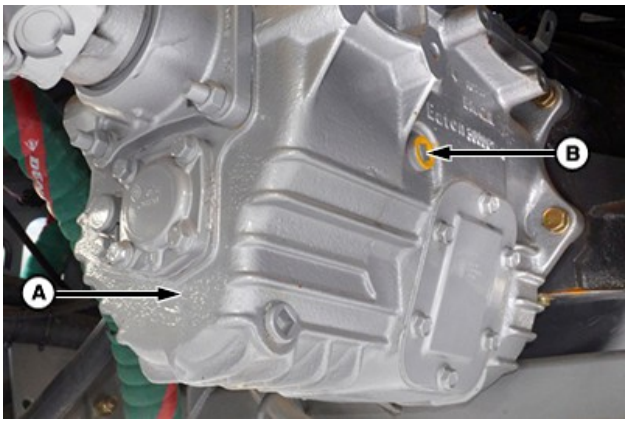
IMPORTANT: When replacing a halogen light, do not touch the bulb with your fingers. The greasiness of fingers reduces the life of halogen lights.

IMPORTANT: Avoid electrical system overcharge. Do not change the illumination system. Always use lights with electrical consumption equal or less than the original ones.

jtlsx7f,1662470575860-19-21SEP22

Check the Oil Level—Eaton Transmission Housing

Perform this service every 250 hours.



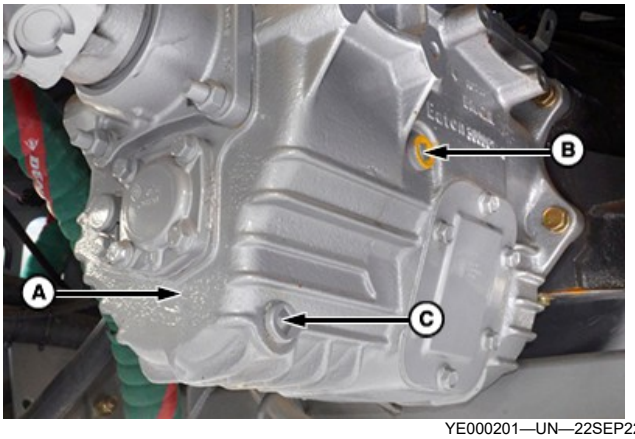
YE000200—UN—22SEP22

Remove the oil level plug (B) and check the oil level of the transmission housing (A). The oil level must be at the orifice level.

jtlsx7f,1662470750273-19-30NOV22

Change the Oil—Eaton Transmission Housing

Perform this service at first 50 hours, and then, every 1000 hours.



YE000201—UN—22SEP22

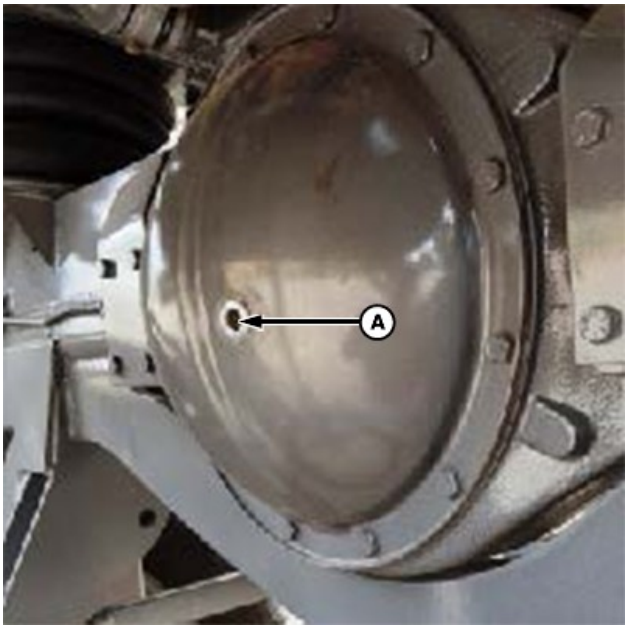
To change the transmission housing (A) oil, perform the following procedure.

1. Park the machine on a firm, dry, and level ground.
2. Remove the oil level plug (B).
3. Position a suitable container under the drain plug (C).
4. Remove the drain plug (C) and completely drain the transmission housing (A) oil.
5. Before filling with new oil, clean the transmission housing (A) and reinstall the drain plug (C).
6. Fill the transmission housing (A) through the orifice of the oil level plug (B). The oil level must be at the orifice level. (See Fluid Specification by System in Maintenance and Service Intervals section.)
7. After the correct oil level is reached, reinstall the oil level plug (B).

jtlsx7f,1662470780067-19-06DEC22

Check Differential Oil Level

Perform this service every 250 hours.



YE000212—UN—22SEP22

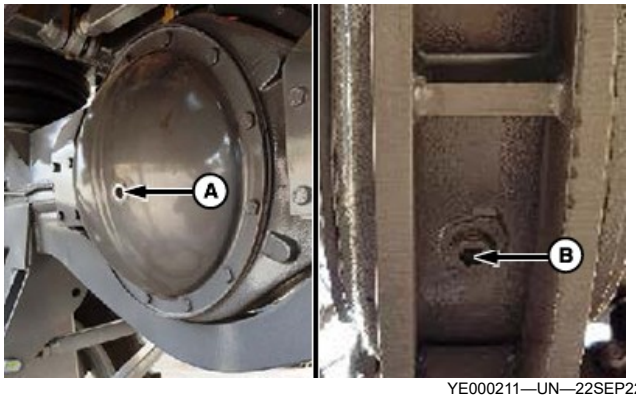
Remove the oil level plug (A) and check the level. The oil must be at orifice level.

jtlsx7f,1662471034650-19-30NOV22

Change Differential Oil

Perform this service at first 50 hours, and then, every 1000 hours.

With the differential oil at working temperature to allow a complete oil drainage, perform the following procedure:



YE000211—UN—22SEP22

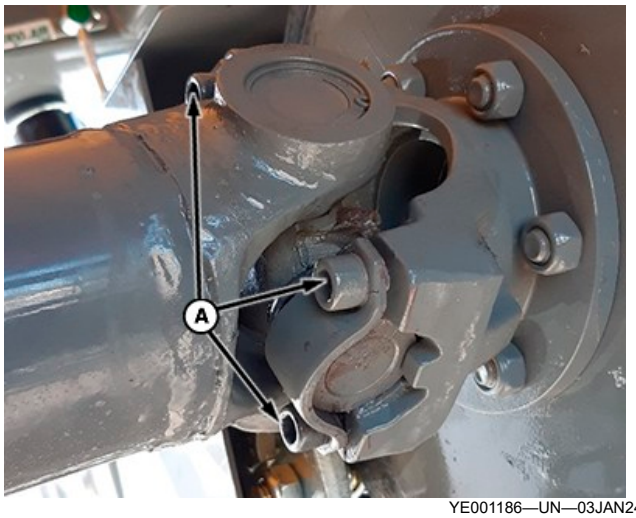
1. Position a suitable container under the drain plug (B).
2. Remove the oil level plug (A) and the drain plug (B).
3. Carefully clean the drain plug (B). It contains a magnetic part that attracts metallic particles provided by the standard wear of the system.
4. Reinstall the drain plug (B).
5. Fill the differential oil with the recommended oil. (See Fluid Specification by System in Maintenance and Service Intervals section.)
6. Reinstall the oil level plug (A).

jtlsx7f,1662471054714-19-06DEC22

Check the Driveshaft

Perform this service every 250 hours.

1. Park the machine on a firm, dry, and level terrain.
2. Turn off the machine and remove the ignition key.
3. Go under the machine.

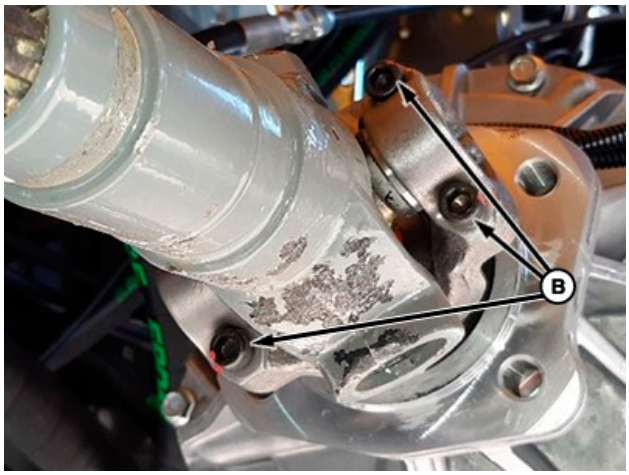


YE001186—UN—03JAN24

4. Check that the tightening of the four driveshaft screws (A) in the joint with the differential is at specification.

Specification

Driveshaft Screws (Differential End)—Torque. . . . . 35 N·m (25.82 lb·ft)



YE001187—UN—03JAN24

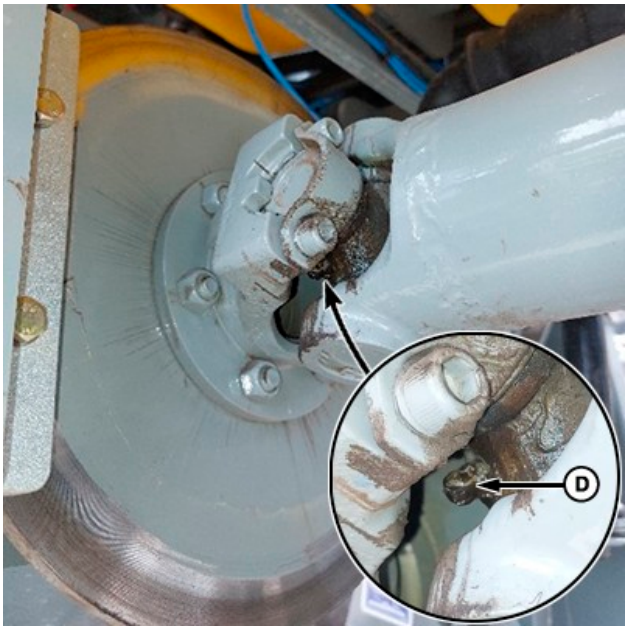
5. Check that the tightening of the four driveshaft screws (B) in the joint with transmission housing is at specification.

Specification

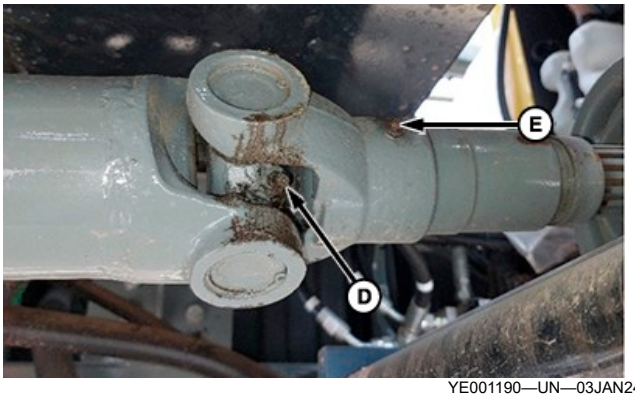
Driveshaft Screws (Transmission Housing End)—Torque. . . . . 35 N·m (25.82 lb·ft)

YE001188—UN—03JAN24

6. If the machine is equipped with front engine, visually check that the union joint between the two sections of the driveshaft has no play (C), as well as the cross coupler.



YE001189—UN—03JAN24



YE001190—UN—03JAN24

7. Grease the two grease fittings (D) of the cross coupler (if equipped with central engine), or the three grease fittings of the cross couper (if equipped with front engine). Also perform the grease of the splined shaft joint grease fitting (E).

jtlsx7f,1668799085265-19-11AUG23

Check the Oil Level—Allison Transmission Housing

Perform this service every 250 hours.

Perform this procedure with the engine cold, at the first start of the machine, according to the following instructions:

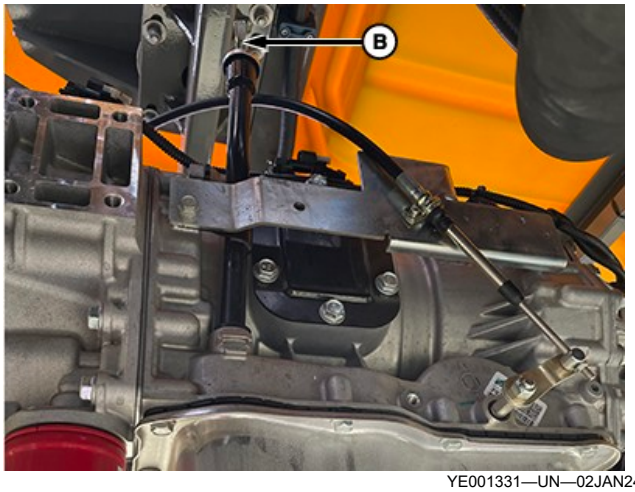
YE001327—UN—02JAN24

1. With the machine on a firm, dry, and level ground, select the run position of the key switch and select the neutral button (N) on the gearshift selector.

IMPORTANT: Avoid accidents. The key switch must be in run position before selecting the neutral button on the gearshift selector.

NOTE: For information regarding the key switch positions, see Key Switch in Operator's Station.

2. With the service brake pedal pressed, start the engine.
3. Let the engine running at 1000—1500 rpm for 1 minute.
4. Decrease engine speed to low idle.
5. Engage the park brake and, using the gearshift selector, press the drive button (**D**) for 5 seconds and set the quantity of gears to 4 using the arrow buttons (A). After that, select the neutral button (**N**), then the reverse button (**R**) for 5 seconds, and finally, select neutral button (**N**) again.



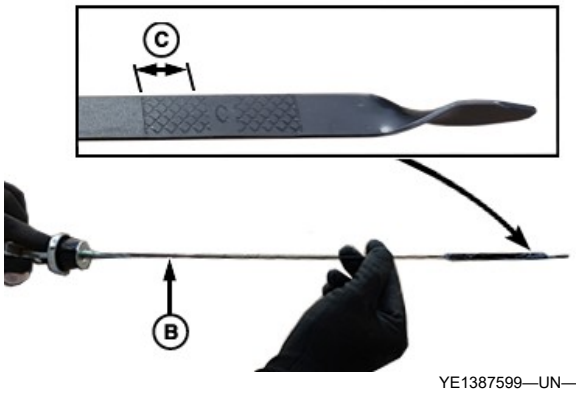
YE001331—UN—02JAN24

Machines Equipped with Central Engine

YE001191—UN—03JAN24

Machines Equipped with Front Engine

6. Unthread and remove the oil dipstick (B).
7. Clean the oil dipstick (B) with a clean cloth.
8. Insert the oil dipstick (B) into the transmission housing, all the way in.



YE1387599—UN—03JAN25

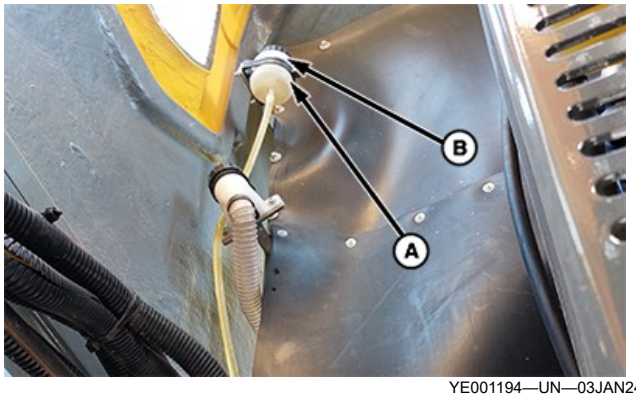
Oil Dipstick

9. Remove the oil dipstick (B) again and check the oil level shown. Oil level must be at the range (C) indicated in the image.
10. Repeat the cleaning process of the oil dipstick (B) and check oil level once again.
11. If the oil level is out of the speficied range, fill or drain oil as necessary. (See Fluid Specification by System in Maintenance and Service Intervals section.)
12. After the procedure is done, reinstall the oil dipstick (B) and make sure it is well threaded.

jtlsx7f,1693915562209-19-03JAN25

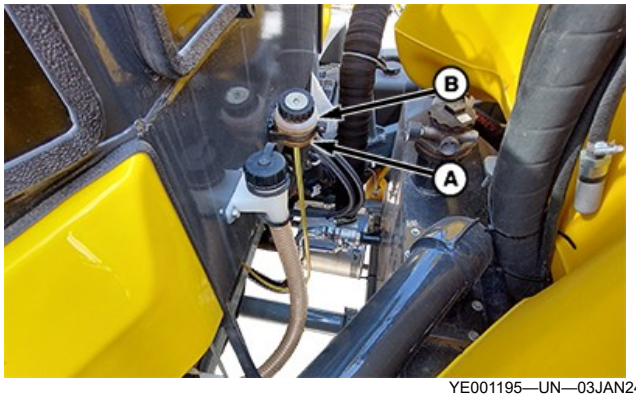
Check Level of the Fluid of Clutch (Manual Machines Only)

Perform this service every 250 hours.



YE001194—UN—03JAN24

Machines Equipped with Central Engine



YE001195—UN—03JAN24

Machines Equipped with Front Engine

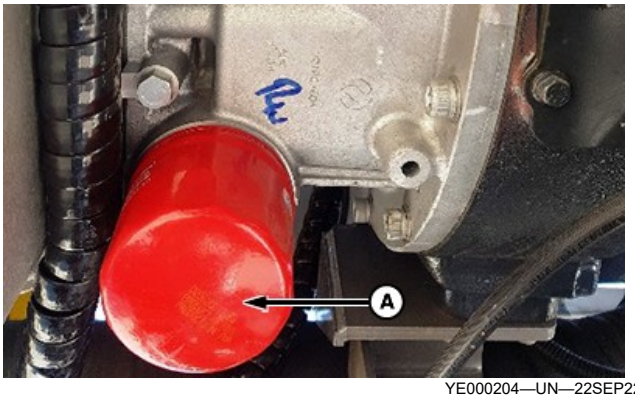
Regularly check level of the fluid of clutch.

The level must be between the minimum (A) and maximum (B) reference marks.

edw8krp,1669388440225-19-11AUG23

Replace the Oil Filter—Allison Transmission Housing

Perform this service every 1500 hours or 2 years.



YE000204—UN—22SEP22

Replace the oil filter (A) regularly according to the indicated service interval.

When removing the element used, the magnet must also be removed, cleaned, and installed together with the new filter. The magnet must be reused.

jtlsx7f,1662987545533-19-03JAN24

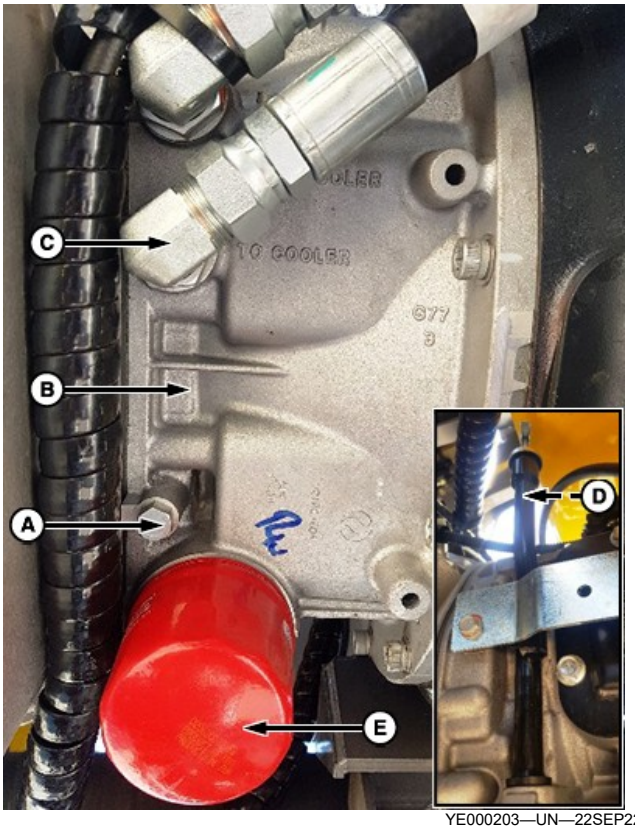
Change the Oil—Allison Transmission Housing

Perform this service every 3000 hours or 4 years.

IMPORTANT: Avoid machine damage. Use only oils as recommended at Fluid Specification by System in Maintenance and Service Intervals section.

For the oil change, perform the following procedure:

1. Park the machine on a firm, dry, and level surface.



YE000203—UN—22SEP22

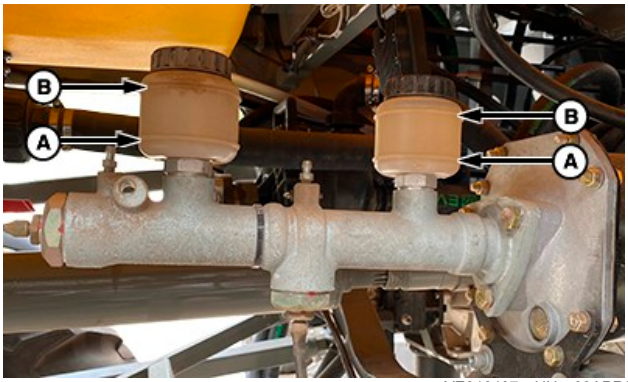
2. Position a suitable container under the drain plug (A).
3. Remove the drain plug (A) and completely drain the transmission housing (B) oil.
4. Disconnect the hose (C) attached to transmission at port "**TO COOLER**" (see image for reference).
5. To let air entering in the system and complete the drainage, remove the oil dipstick (D). The transmission housing (B) and the oil cooler must be drained.
6. If the filter (E) is being replaced at the time the oil is being changed, see special instructions at Replace the Oil Filter—Allison Transmission Housing in Service—Drivetrain section.
7. Reinstall the drain plug (A).
8. Reconnect the hose (C).
9. Fill the transmission housing (B) with the suitable oil. (See the oil capacity at Capacties in the Specifications section related to the machine model.)
10. Let the engine running at 1500 rpm for 1 minute.
11. Check the transmission oil level and complete, if necessary. (See Check the Oil Level—Allison Transmission Housing in Service—Drivetrain section.)
12. Let the engine running for 1 minute with the brakes active and the gearshift lever in position **OD**.
13. Once again, check the transmission oil level and complete, if necessary. (See Check the Oil Level—

Allison Transmission Housing in Service—Drivetrain section.)

jtlsx7f,1662470873336-19-13MAR23

Check Level of the Fluid of Brakes

Perform this service daily or every 10 hours.



YE010497—UN—03APR23

Regularly check the level of the brake fluid reservoirs. The level must be between the minimum (A) and maximum (B) reference marks.

jtlsx7f,1662471158354-19-17AUG23

Control the General Functioning of the Service Brake System

Perform this service every 50 hours or weekly.

Regularly check the general functioning of the service brake system and its efficiency.

jtlsx7f,1662471226319-19-30MAR23

Check Condition of the Brake Assemblies

Perform this service every 250 hours.

Check the brake pads for wear and the brake disks for cracks. Replace them, if needed.

jtlsx7f,1662471177397-19-12DEC22

Check and Adjust Park Brake

Perform this service every 250 hours.

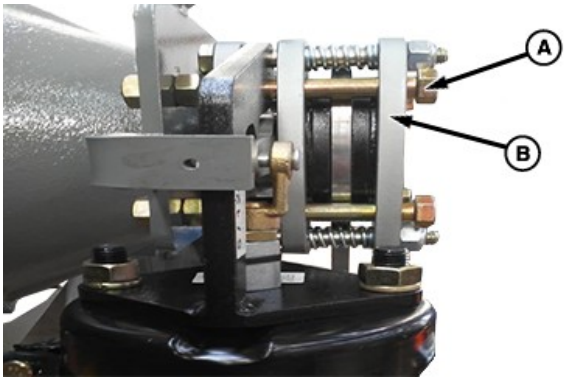
Check Park Brake Operation

1. Turn on the machine.

YE000112—UN—22SEP22

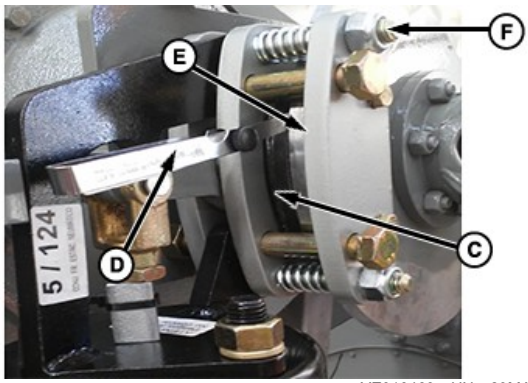
2. Engage park brake switch (A).
3. Set the transmission to first gear.
4. Start moving forward the machine. If it moves easily, it is necessary to regulate the park brake.
5. If park brake needs adjustment, see Adjust Park Brake in this procedure.

Adjust Park Brake



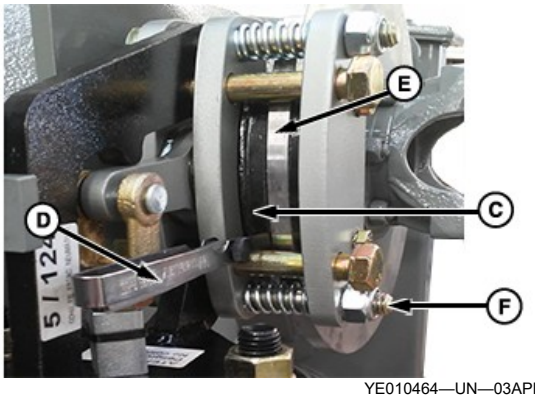
YE010465—UN—03APR23

1. Check that the head of the pins (A) are approximately 5.0 mm (0.200 in) ± 1.0 mm (0.039 in) away from the pivoting plate (B).



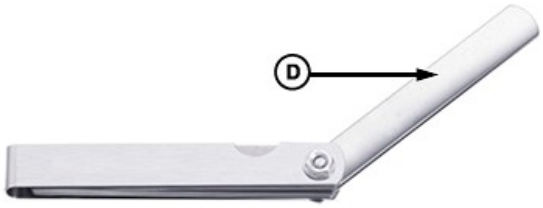
YE010463—UN—29MAR23

Park Brake Assembly—Top View



YE010464—UN—03APR23

Park Brake Assembly—Bottom View



YE010466—UN—30MAR23

Feeler Gauge

2. Position a feeler gauge tool (D) with 0.3 mm (0.012 in) thickness at top of the park brake assembly, between the brake pad (C) and the brake disk (E). Use the image as a reference.
3. Tighten the adjusting nuts (F) until friction is felt when removing the feeler gauge tool (D).
4. Repeat the operation at the bottom of the assembly.
5. If the adjust cannot be made due to not having the feeler gauge tool (D), see your PLA BY JOHN DEERE/JOHN DEERE authorized dealer.

edw8krp,1679777728721-19-02JAN25

Check the Steering Ends, Ball Joints, and Bushings

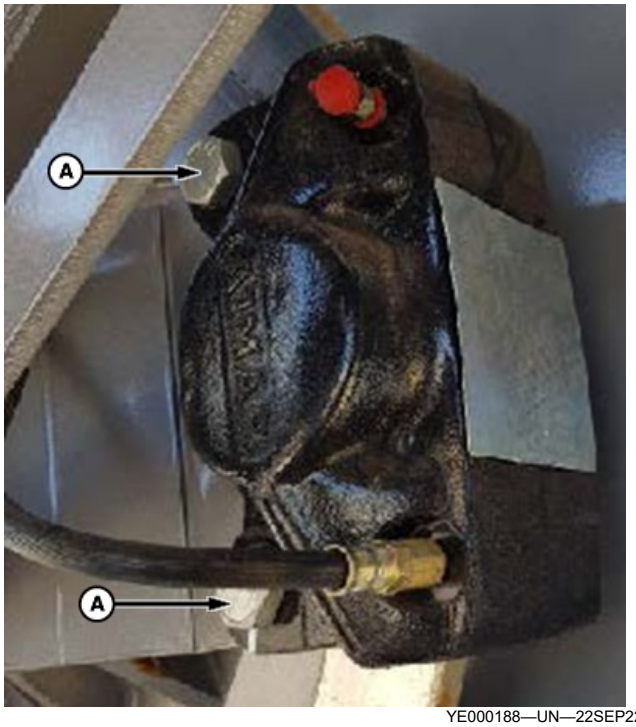
Perform this service every 250 hours.

Adjust these components as necessary and replace them in case of excessive wear.

jtlsx7f,1662471374182-19-30NOV22

Check Torque of Brake Caliper Components

Perform this service every 500 hours or every year.



YE000188—UN—22SEP22

For the correct functioning of the brake system, the brake calipers must be correctly adjusted. Tighten the plugs (A) according to specification:

Specification	
Brake Caliper Plugs—Torque	200 N·m (148 lb·ft)

jtlsx7f,1662471195420-19-05DEC22

Adjust the Axle Ends

Perform this service at first 100 hours, and then, every 1000 hours.

Check the clearance of the axle ends:

1. Park the machine on a firm, dry, and level ground.
2. Raise the machine front wheel using the hydraulic jack. (See Hydraulic Jack Usage in Service—Wheels and Hardware section.)
3. With the front wheel off the ground, move the wheel and observe its movement.
4. If clearance is noticed, perform the following procedure:

CAUTION: Avoid serious injury or death.

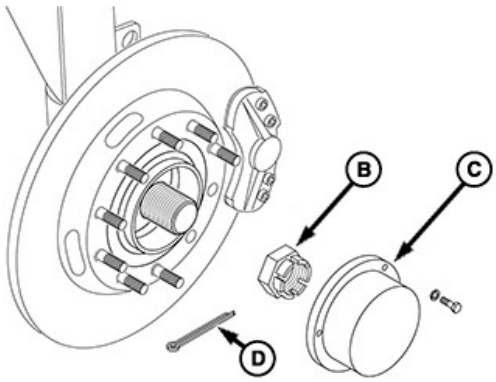
If necessary to remove the wheel, position a suitable support under the wheel before removing it.

YE001353—UN—02JAN24

a. For machines with R36 and R38 wheels only, remove the wheel nuts (A) and set the wheel aside.

YE1387600—UN—03JAN25

NOTE: For machines equipped with R46 wheels, it is not necessary to remove the wheel for performing this adjust.



YE001352—UN—02JAN24

b. Remove the cover (C) and the cotter pin (D).

c. Adjust the castle nut (B) to the maximum, and then return one notch.

d. Apply grease on the cover (C) and reinstall the removed components.

e. For machines with R36 and R38 wheels, tighten the wheel nuts (A) to specification. (See Tighten Wheel Nuts in Service—Wheels and Hardware section.)

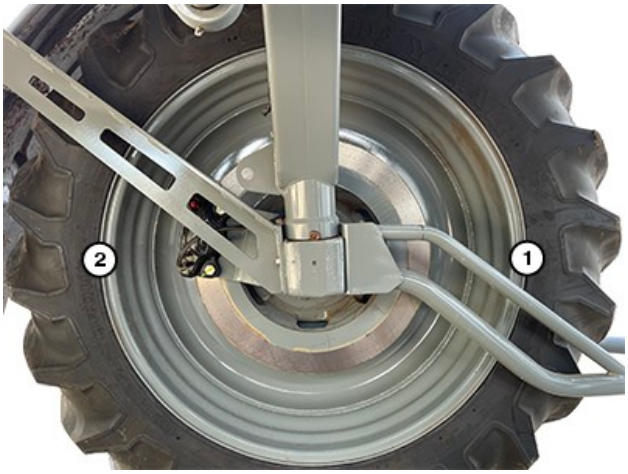
jtlsx7f,1662472210002-19-03JAN25

Adjust Front Axle Toe-In

General Information

To perform this check, machine must be parked on a firm, dry, and level ground.

NOTE: The toe-in distance must be measured with the steering wheel at central position.



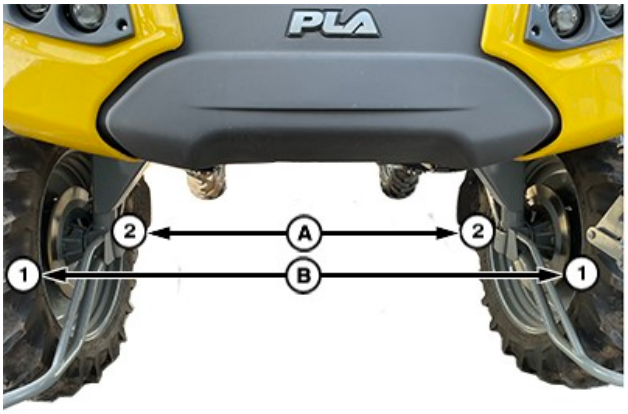
YE010703—UN—02JAN24

Left-Hand Side Front Wheel

YE010704—UN—02JAN24

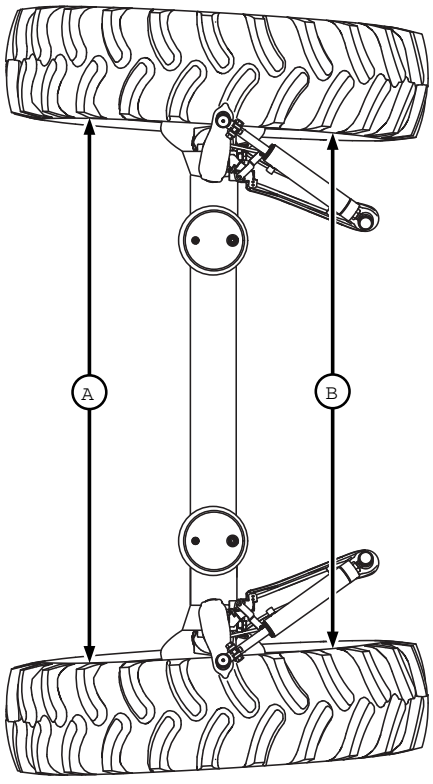
Right-Hand Side Front Wheel

1. Taking as a reference the center of the front wheels, mark the point (1) at front and the point (2) at rear of front wheels. Make marks on the both left- and right-hand side front wheels.



YE001198—UN—03JAN24

2. Measure the distance (A) between the rear points (2) of the front wheels.
3. Measure the distance (B) between the front points (1) of the front wheels.



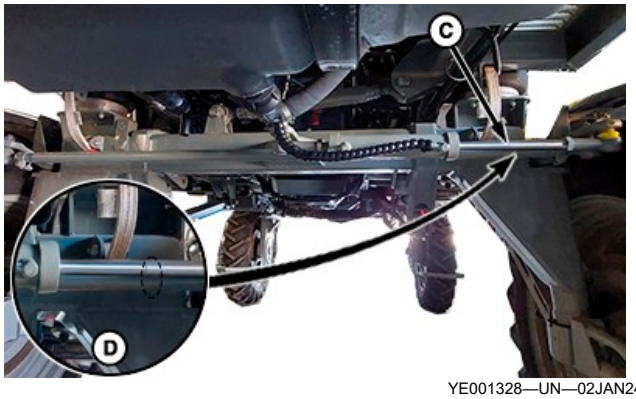
YE000190—UN—22SEP22

4. The distance (B) between the front points (1) must be 10 mm (3/8 in) less than the distance (A) between the rear points (2).

Specification

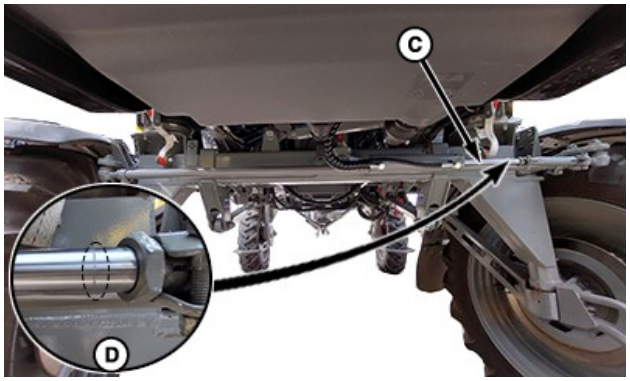
Wheels—Toe-In.	10 mm (3/8 in)

5. If the toe-in is out of the specification, adjust the left and right-hand side tires position evenly to reach the correct toe-in:
   a. Turn on the engine.



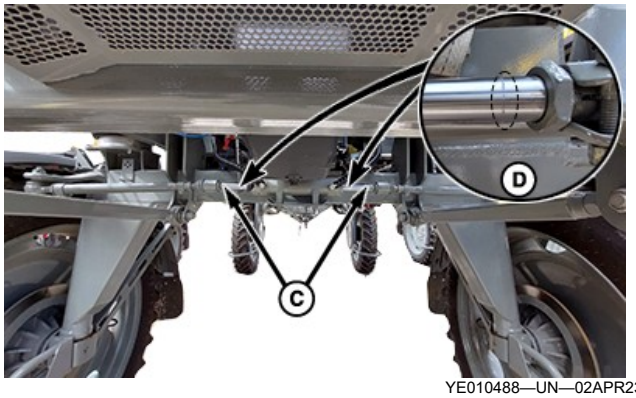
YE001328—UN—02JAN24

2900 Self-Propelled Sprayers (2100 tread)



YE010487—UN—02APR23

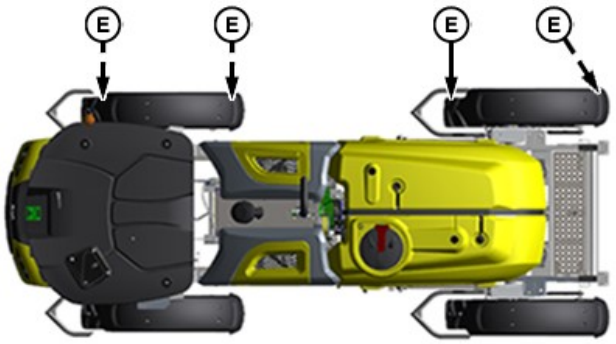
3300 and 2900 Self-Propelled Sprayers (2625 tread)



YE010488—UN—02APR23

Other Machine Models

   b. Turn the steering wheel to the left- and to the right-hand side, to load the steering cylinder (C). Locate the mark (D) created when loading the steering cylinder.
   c. Turn off the engine.
   d. Centralize the front wheels.

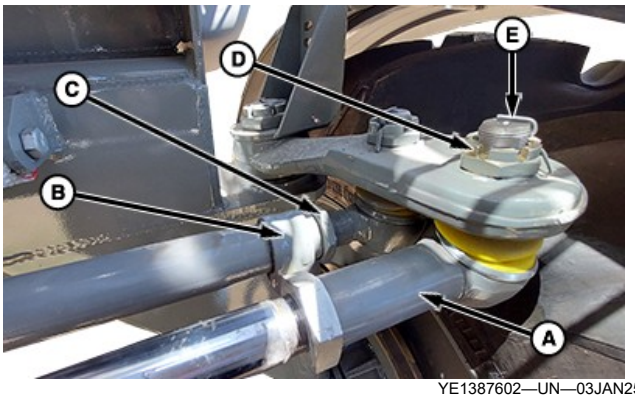


YE1387601—UN—03JAN25

e. Check front and rear wheel alignment. Define two fixed points and tie an elastic between them. The elastic must touch the four points (E) of the wheels. If they touch, the procedure is ready. If no, regulate with the steering wheel.

NOTE: The image is for illustrative purposes only. Your machine may have differences.

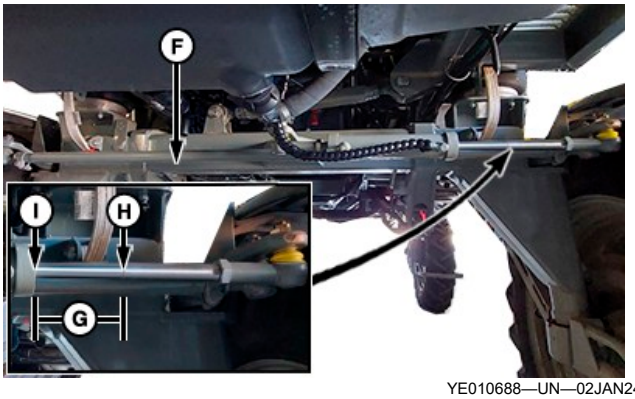
Machines with 1-Rod Steering Cylinder



YE1387602—UN—03JAN25

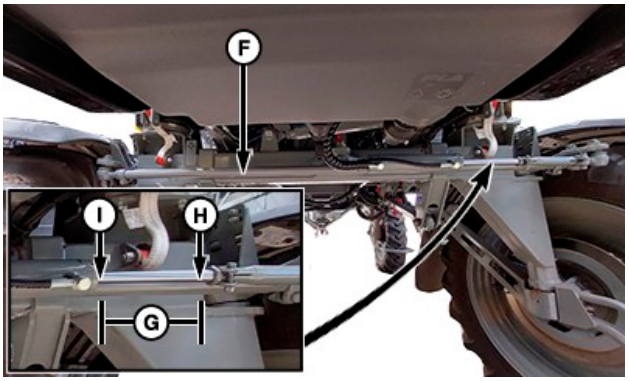
A—Steering Cylinder End
B—Clamps
C—Tie Rod Lock Nut
D—Castle Nut
E—Cotter Pin

1. Remove the cotter pin (E).
2. Unscrew the castle nut (D).
3. Unhook the steering cylinder end (A).
4. Loosen the tie rod lock nut (C), in both sides of the machine.
5. Loosen clamps (B), in both sides of the machine.



YE010688—UN—02JAN24

2900 Self-Propelled Sprayers (2100 tread)



YE010689—UN—02JAN24

3300 and 2900 Self-Propelled Sprayers (2625 tread)

F—Tie Rod
G—Distance
H—Mark
I—Visible Steering Cylinder End

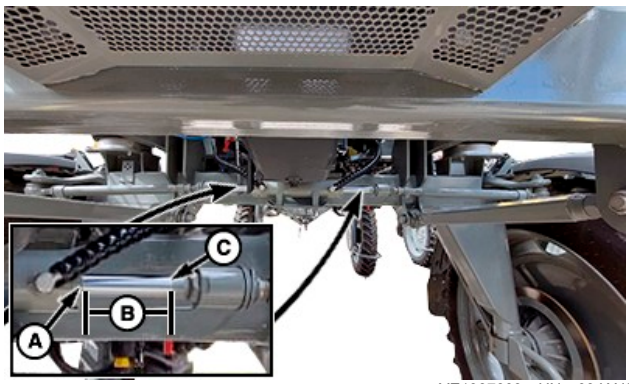
6. Unscrew or screw tie rod (F) as required:
   a. If wheels are positioned outward, screw the tie rod clockwise.
   b. If wheels are positioned inward, unscrew the tie rod counterclockwise.
7. Measure the distance (G) between the mark (H) and the visible steering cylinder end (I). The distance (G) must be as specified below.

Specification

Rod Adjustment—Distance. . . . . 12.5 mm (4.92 in)

8. Tighten clamps (B), in both sides of the machine.
9. Tighten the tie rod lock nut (C) , in both sides of the machine.
10. Reinstall the steering cylinder end (A), the castle nut (D) and the cotter pin (E).

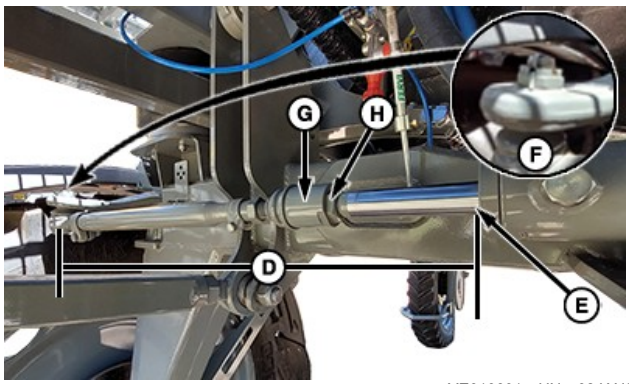
Machines with 2-Rod Steering Cylinder



YE1387603—UN—03JAN25

A—Visible Steering Cylinder End
B—Distance
C—Mark

1. Measure the distance (B) between the mark (C) and the visible steering cylinder end (A), in both sides of the machine. Distances (B) must be the same, if not turn the steering wheel to the left- and to the right-hand side, to center the steering cylinder.



YE010691—UN—02JAN24

D—Distance
E—Steering Cylinder End
F—End Bolt
G—Steering Cylinder Ball Joint

2. Measure the distance (D) between the visible steering cylinder end (E) and the center of the end bolt (F), in both sides of the machine. Distances (D) must be the same, if they are not, move the steering cylinder ball joint (G) until they are.
3. Check for the correct toe-in. If it is out of the specification, screw the steering cylinder ball joint (G) and loosen the lock nuts (H), on both sides of the machine.

edw8krp,1697727189154-19-03JAN25

Special Information for Hydraulic Services

IMPORTANT: Avoid hydraulic system damage:

- **Never mix different types or brands of oils.**
- **Do not add additives.**
- **Always clean the work local before removing filters or plugs.**
- **When a hose or terminal is damaged, replace it.**
- **When installing pumps or hydraulic motors, fill their housings with oil before the installation.**
- **Always drain the oil at standard working temperature.**
- **To check the oil levels, the machine must be leveled.**
- **Observe the correct installation position for the cylinders. Install them with their rod retracted, unless other instruction is given.**
- **Never run the engine with the hydraulic reservoir empty.**
- **Do not use cotton waste for the cleaning of the system.**
- **In case of problems, see your PLA BY JOHN DEERE/JOHN DEERE authorized dealer.**

jtlsx7f,1663101889383-19-02JAN25

Check Hydraulic Oil Level and Temperature (Self-Propelled Sprayers Only)

Perform this service every 50 hours or weekly.

IMPORTANT: Avoid damage to machine. If the oil level is critically low or the oil temperature is critically high, warning indicators will be shown on the machine right-hand side display.

At this situation, stop machine immediately and correct the problem.

YE1385899—UN—13DEC24

Machines Equipped with Central Engine

YE1387611—UN—03JAN25

Machines Equipped with Front Engine

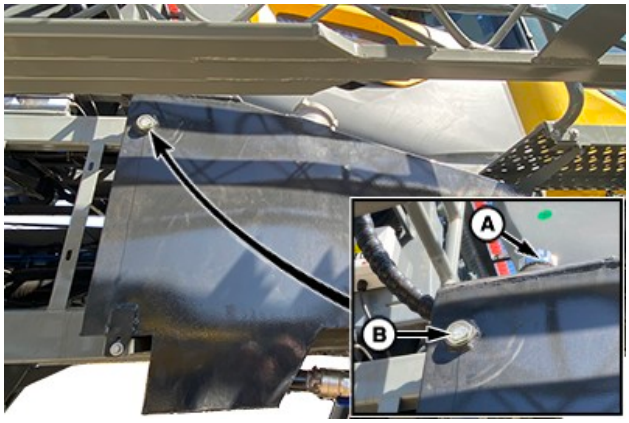
With the spray booms completely opened and lowered, check for the correct hydraulic oil level at the sight glass (A). It must be between minimum and maximum level marks.

It is also possible to check the hydraulic oil temperature at the thermometer (B).

jtlsx7f,1734032419479-19-03JAN25

Check Hydraulic Oil Level (Nutrient Applicators Only)

Perform this service every 50 hours or weekly.



YE001200—UN—03JAN24

With the application booms completely opened and lowered, check for the correct hydraulic oil level at the sight glass (B). The level must be at middle of the sight glass (B).

If necessary, fill the reservoir through the filler neck (A).

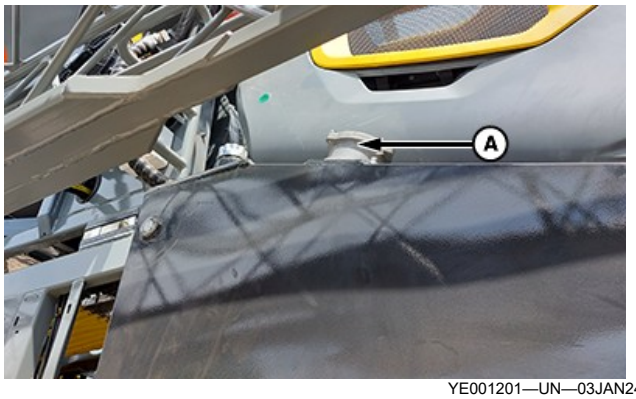
jtlsx7f,1668889251419-19-11AUG23

Change Hydraulic Oil Return Filter (Nutrient Applicators Only)

Perform this service at first 50 hours and then every 400 hours.

CAUTION: Avoid serious injury. Stop the machine engine and make sure that are no components at a high-temperature before performing this procedure.

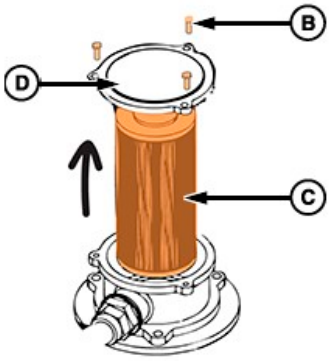
IMPORTANT: Avoid machine damage. Do not use the machine without the filter elements correctly installed.



YE001201—UN—03JAN24

The return filter (A) is on the upper portion of the hydraulic oil reservoir.

To replace the return filter (A) element, perform the following procedure:



YE001202—UN—03JAN24

1. Unscrew the screws of the filter cover (B).
2. Remove the filter cover (D).
3. Remove the filter element (C).
4. Install the new filter element (C).
5. Install the filter cover (D).
6. Screw the screws of the filter cover (B).

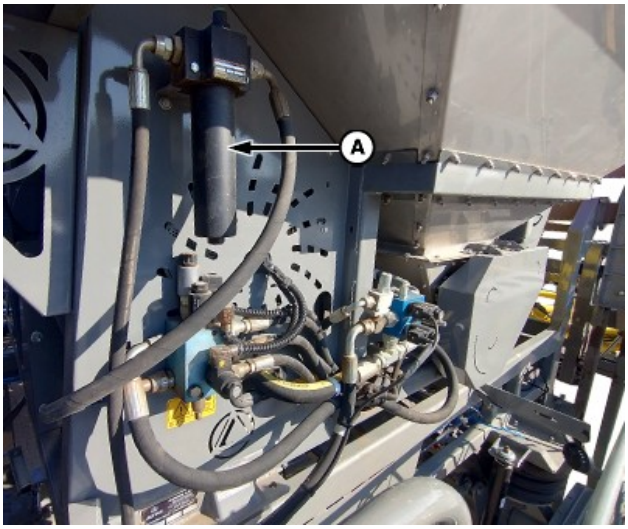
jtlsx7f,1668892272624-19-11AUG23

Change Hydraulic Oil Pressure Filter (Nutrient Applicators Only)

Perform this service at first 50 hours and then every 400 hours.

CAUTION: Avoid serious injury. Stop the machine engine and make sure that are no components at a high-temperature before performing this procedure.

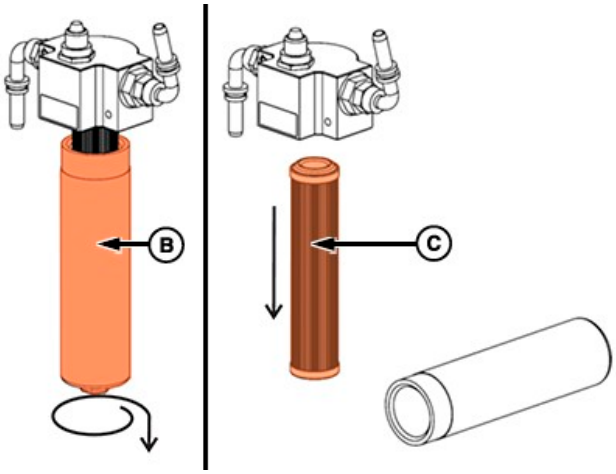
IMPORTANT: Avoid machine damage. Do not use the machine without the filter elements correctly installed.



YE1376708—UN—10SEP24

The pressure filter (A) is on the left-hand side of the machine.

To replace the pressure filter (A) element, perform the following procedure:



YE001204—UN—03JAN24

1. Unscrew the filter cover (B).
2. Remove the filter element (C).
3. Install the new filter element (C).
4. Screw the filter cover (B).

jtlsx7f,1725996508387-19-10SEP24

Change Hydraulic Oil Return Filter (Self-Propelled Sprayers Only)

Perform this service every 500 hours or every year, or as required when a restriction is shown at the manometer (A).

YE010438—UN—21MAR23

NOTE: The manometer (A) indicates a possible restriction at the return filter. When the manometer (A) reaches 150 kPa (1.5 bar) (21.7 psi), the return filter must be replaced regardless the service hours.

1. Warm the system to working temperature.
2. Park the machine on a firm, dry, and level ground.

YE010439—UN—21MAR23

3. Unscrew the black cap (B) and pull it up.

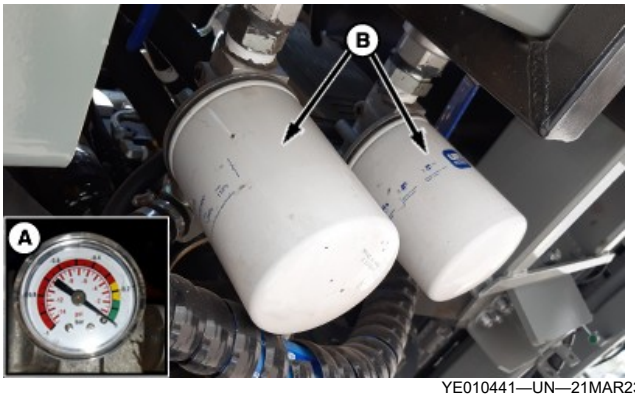
YE010440—UN—03APR23

4. Remove the return filter (C) and replace with a new one.
5. Screw in the black cap (B).

edw8krp,1678906752580-19-05OCT23

Change Hydraulic Oil Suction Filters (Self-Propelled Sprayers Only)

Perform this service every 500 hours or every year, or as required when a restriction is shown at vacuometers (A).



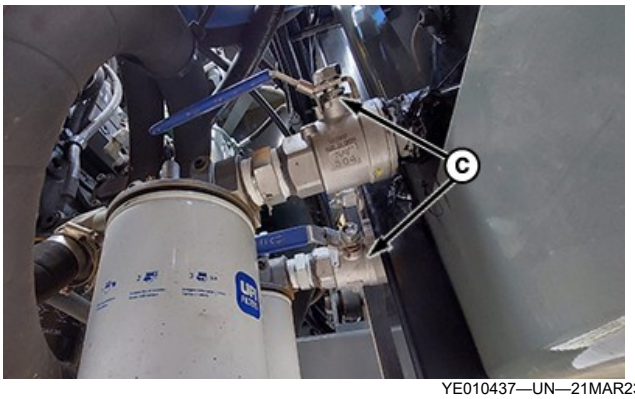
YE010441—UN—21MAR23

CAUTION: Avoid accidents. Hydraulic system contains oil under pressure. Use care and proper personal protective equipment when working on this system.

CAUTION: Avoid serious injury. Stop the machine engine and make sure that are no components at a high-temperature before performing this procedure.

NOTE: If the vacuometers (A) indicators enter in the yellow zone, filters (B) must be replaced regardless the service hours.

1. Warm the system to working temperature.
2. Park the machine on a firm, dry, and level ground.



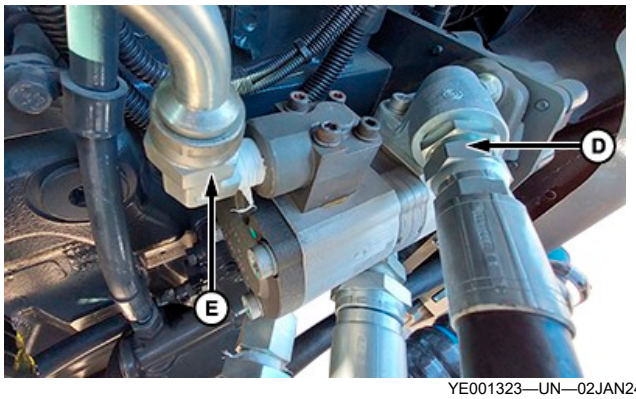
YE010437—UN—21MAR23

3. Close the spherical valves (C).
4. Position a suitable container under the suction filters to collect oil as it comes out.
5. Unscrew the suction filters (B) from their base, enough to drain the oil.

IMPORTANT: Before installing the new the suction filters (B), fill them with clean oil.

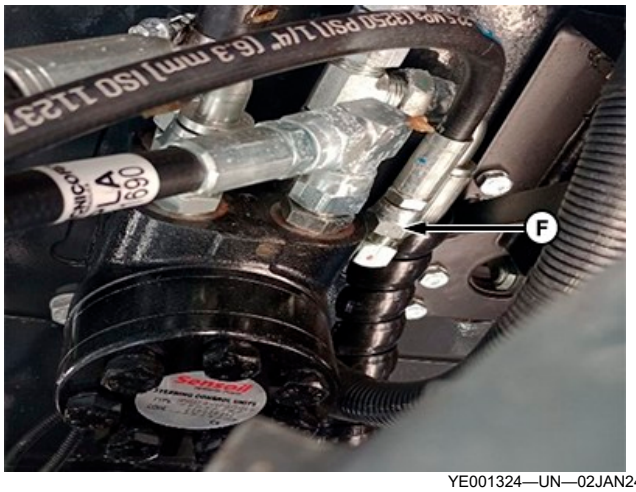
This prevents air from entering the system, as well as avoids damage to the hydraulic system during operation.

6. Replace the suction filters (B).
7. Open the spherical valves (C).
8. To remove air from the hydraulic system, perform the following procedure:



YE001323—UN—02JAN24

Hydraulic Pumps



YE001324—UN—02JAN24

Steering Valve

a. Loosen the pressure hose (D) of the hydraulic pump of the solution pump, the pressure hose (E) of the other hydraulic functions, and the load sensing hose (F) of the steering valve.

b. Make sure the solution tank contains at least 100 L (26.4 gal) of clean water.

c. Start the engine and activate the solution pump.

d. Let the air to be released from the hydraulic system. Once a continuous oil flow starts to be noticed, retighten the pressure hose (D). This way, air is removed from the first hydraulic pump.

e. Deactivate the solution pump.

f. With engine still running, once a continuous oil flow starts to be noticed at the second hydraulic pump, retighten the pressure hose (E). This way, air is removed from the second hydraulic pump.

g. Starts moving the steering wheel from one side to the other. Once an continuous oil flow starts to be noticed at the steering valve, retighten the load sensing hose (F). This way, air is removed from the steering system.

h. Shut off the engine.

edw8krp,1679334153173-19-07SEP23

Change Hydraulic Oil Suction Filter (Nutrient Applicators Only)

Replace the suction filter every 500 hours or every year, or as required when a restriction is shown at the vacuometer (B).

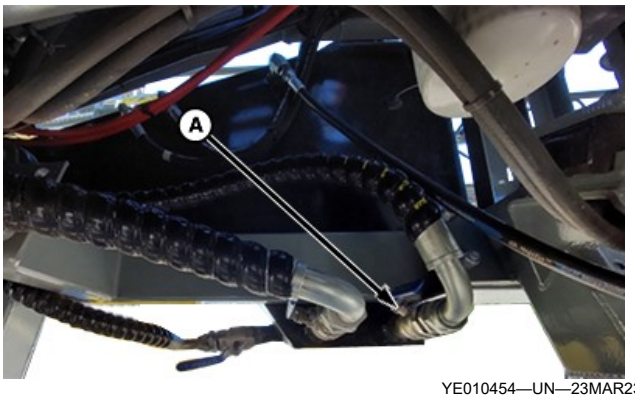
CAUTION: Avoid accidents. Hydraulic system contains oil under pressure. Use care and proper personal protective equipment when working on this system.

CAUTION: Avoid serious injury. Stop the machine engine and make sure that are no components at a high-temperature before performing this procedure.

IMPORTANT: Avoid machine damage. Do not use the machine without the filter elements correctly installed.

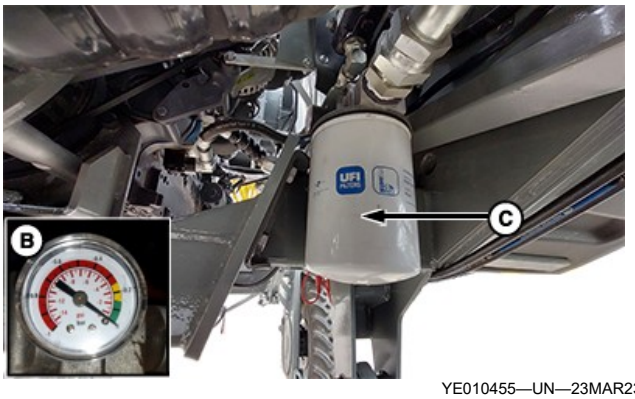
NOTE: If the vacuometer (B) indicator enters in the yellow zone, the filter (C) must be replaced, regardless the service hours.

1. Warm the system to working temperature.
2. Park the machine on a firm, dry, and level ground.



YE010454—UN—23MAR23

3. Close the spherical valve (A).
4. Position a suitable container under the suction filter to collect oil as it comes out.



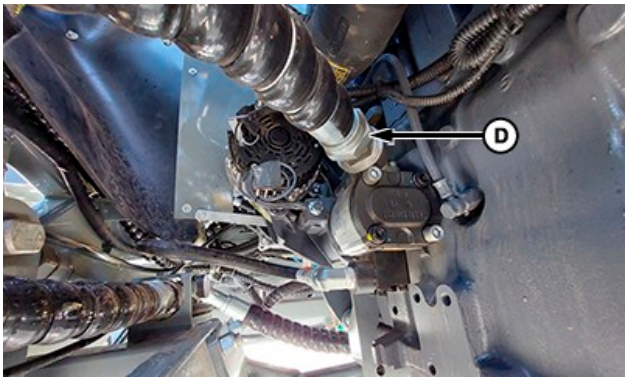
YE010455—UN—23MAR23

5. Unscrew the suction filter (C) from its base, enough to drain the oil.

IMPORTANT: Before installing the new the suction filter (C), fill it with clean oil.

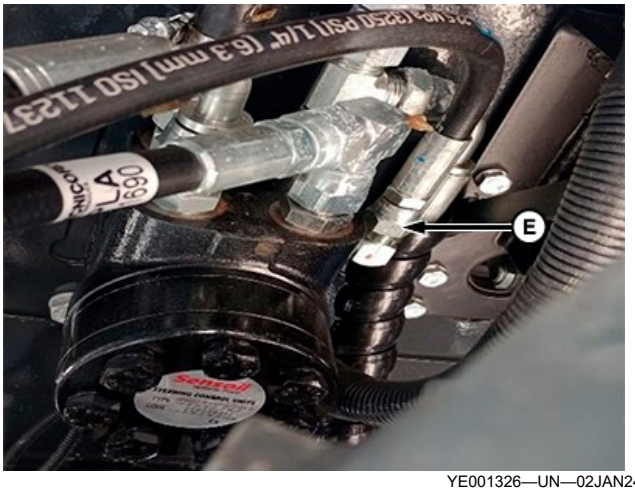
This prevents air from entering the system, as well as avoids damage to the hydraulic system during operation.

6. Replace the suction filter (C).
7. Open the spherical valve (A).
8. To remove air from the hydraulic system, perform the following procedure:



YE001325—UN—02JAN24

Hydraulic Pump



YE001326—UN—02JAN24

Steering Valve

a. Loosen the pressure hose (D) of the hydraulic pump and the load sensing hose (E) of the steering valve.

b. Start the engine and let it running.

c. Once an continuous oil flow starts to be noticed at the hydraulic pump, retighten the pressure hose (D). This way, air is removed from the hydraulic pump.

d. Starts moving the steering wheel from one side to the other. Once an continuous oil flow starts to be noticed at the steering valve, retighten the load sensing hose (E). This way, air is removed from the steering system.

e. Shut off the engine.

jtlsx7f,1668889254332-19-04SEP23

Check the Hydraulic System Pressure

Perform this service every 1000 hours.

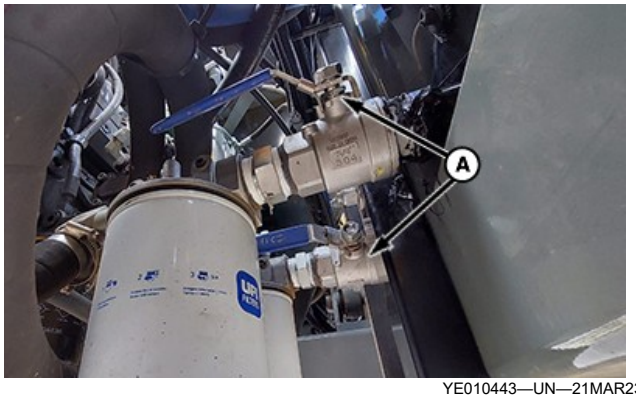
To check the pressure of the machine hydraulic system, see your PLA BY JOHN DEERE/JOHN DEERE authorized dealer.

jtlsx7f,1668798935402-19-02JAN25

Change Hydraulic Oil (Self-Propelled Sprayers Only)

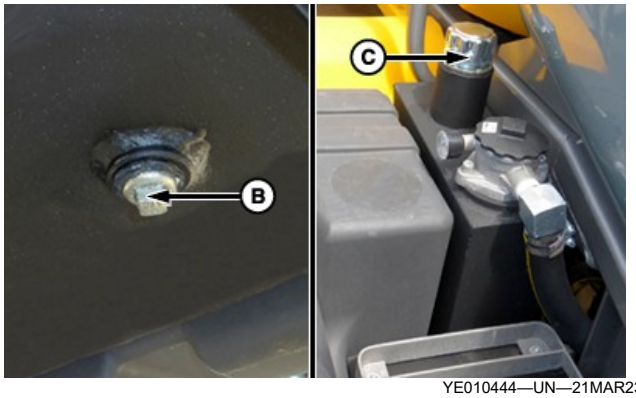
Change the oil every 1000 hours.

1. Warm the system to working temperature.
2. Park the machine on a firm, dry, and level ground.



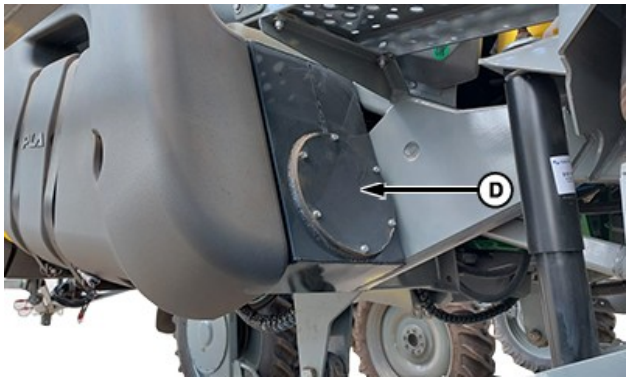
YE010443—UN—21MAR23

3. Close the spherical valves (A).



YE010444—UN—21MAR23

4. Position a suitable container under the drain plug (B).
5. Remove the drain plug (B) and drain the oil.



YE010436—UN—21MAR23

Machines Equipped with Central Engine

YE010435—UN—21MAR23

Machines Equipped with Front Engine

6. Remove the screws of the oil reservoir cover cap (D).
7. Remove the oil reservoir cover (D) and clean the inside with a cloth or magnet.
8. Reinstall the drain plug (B).
9. Fill the hydraulic oil reservoir through the filler neck (D) with the correct oil, up to middle of the sight glass (C). (See Fluid Specification by System in Maintenance and Service Intervals section.)

NOTE: See the oil capacity in Capacities procedure at Specifications of all the Self-Propelled Sprayers.

10. Replace the hydraulic oil filters. (See Change Hydraulic Suction Oil Filters (Self-Propelled Sprayers Only) and Change Hydraulic Return Oil Filter (Self-Propelled Sprayers Only), in Service—Hydraulics section.)
11. Open the spherical valves (C).
12. Reinstall the oil reservoir cover (D).

jtlsx7f,1662472331798-19-04SEP23

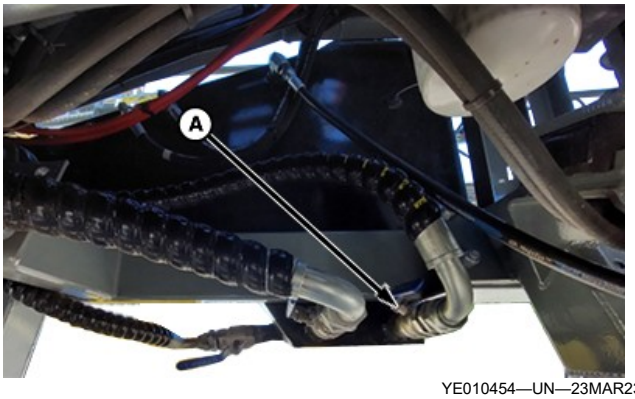
Change Hydraulic Oil (Nutrient Applicators Only)

Change the oil every 1000 hours.

CAUTION: Avoid serious injury. Stop the machine engine and make sure that are no components at a high-temperature before performing this procedure.

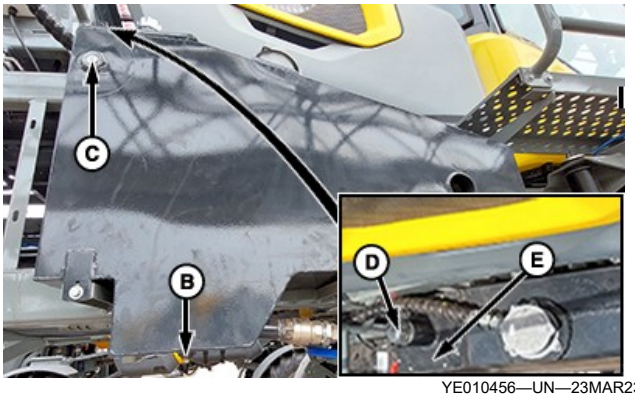
IMPORTANT: Avoid machine damage. Do not use the machine without the filter elements correctly installed.

1. Warm the system to working temperature.
2. Park the machine on a firm, dry, and level ground.



YE010454—UN—23MAR23

3. Close the spherical valves (A).



YE010456—UN—23MAR23

4. Position a suitable container under the drain plug (B).
5. Remove the drain plug (B) and drain the oil.
6. Remove the screws of the oil reservoir cover cap (E).
7. Remove the oil reservoir cover (E) and clean the inside with a cloth or magnet.
8. Reinstall the drain plug (B).
9. Fill the hydraulic oil reservoir through the filler neck (D) with the correct oil, up to middle of the sight glass (C). (See Fluid Specification by System in Maintenance and Service Intervals section.)

NOTE: See the oil capacity in Capacities procedure at Specifications—MAF 5000 Nutrient Applicators.

10. Replace the hydraulic oil filters. (See Change Hydraulic Suction Oil Filters (Self-Propelled Sprayers Only) and Change Hydraulic Return Oil Filter (Self-Propelled Sprayers Only), in Service—Hydraulics section.)
11. Open the spherical valves (A).
12. Reinstall the oil reservoir cover (E).

edw8krp,1678994467618-19-04SEP23

Check Tire Inflation Pressures

Perform this service every 50 hours or weekly.

The proper tire pressure is essential for the life of the tires and the correct functioning of the machine.

Regularly check the tire pressures. (See Tire Inflation Pressures in Specifications—General Information section.)

jtlsx7f,1662472479473-19-05DEC22

Tighten Wheel Nuts

Perform this service every 50 hours or weekly.

IMPORTANT: If the correct wheel nut torque is not maintained, damage to the final drive and wheel occurs. Tighten the wheel nuts in a crosswise pattern to specification.

YE000186—UN—22SEP22

Check the torque specification of the wheel nuts:

For R46 wheels, tighten the nuts to the following specification:

Specification	
Wheel Nuts for R46 Wheels—Torque (Wet with Oil)	550 N·m (406 lb·ft)

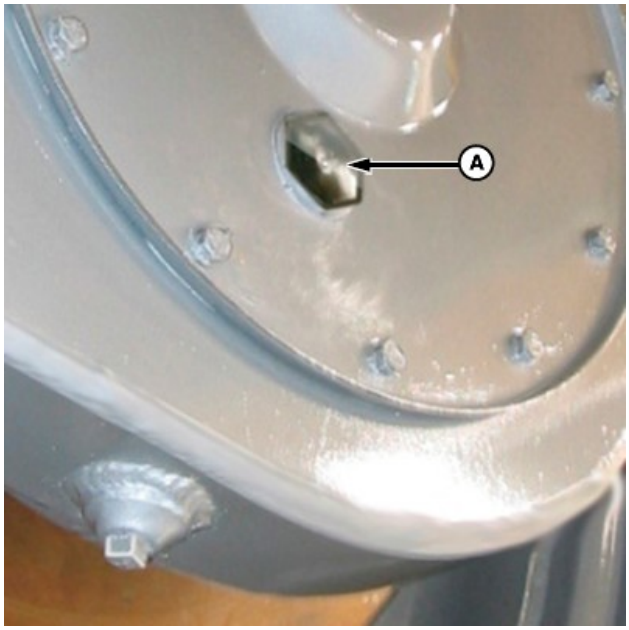
For R36 and R38 wheels, tighten the nuts to the following specification:

Specification	
Wheel Conical Nuts for R36 and R38 Wheels—Torque (Wet with Oil)	200 N·m (148 lb·ft)

jtlsx7f,1662472442075-19-06DEC22

Check the Oil Level of the Rear Axle Knees

Perform this service every 250 hours.



YE000193—UN—22SEP22

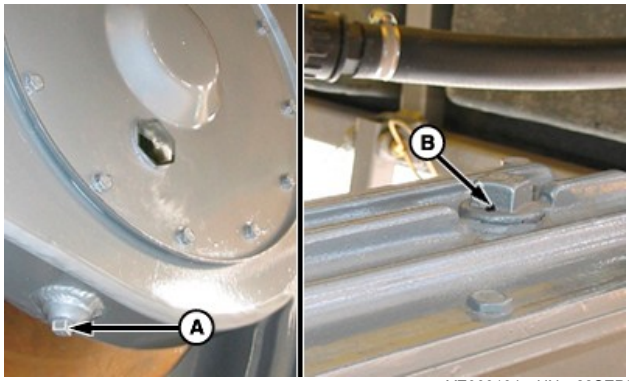
Check the oil level of the rear axle knees through the sight glass (A). The oil level must be at middle of the sight glass (A).

If necessary, refill it with the correct oil. (See Fluid Specification by System in Maintenance and Service Intervals section.)

jtlsx7f,1662472580294-19-30NOV22

Change the Oil of the Rear Axle Knees

Perform this service every 1000 hours.



YE000194—UN—22SEP22

1. Drain the oil of the rear axle knees:
   a. Remove the filling plug (B).
   b. Check that the breather is free of obstructions.
   c. Remove drain plug (A) and drain the oil into a suitable container.
2. Clean the reservoir.
3. Reinstall the drain plug (A).
4. Fill the rear axle knees with the correct oil. (See Fluid Specification by System in Maintenance and Service Intervals section.)

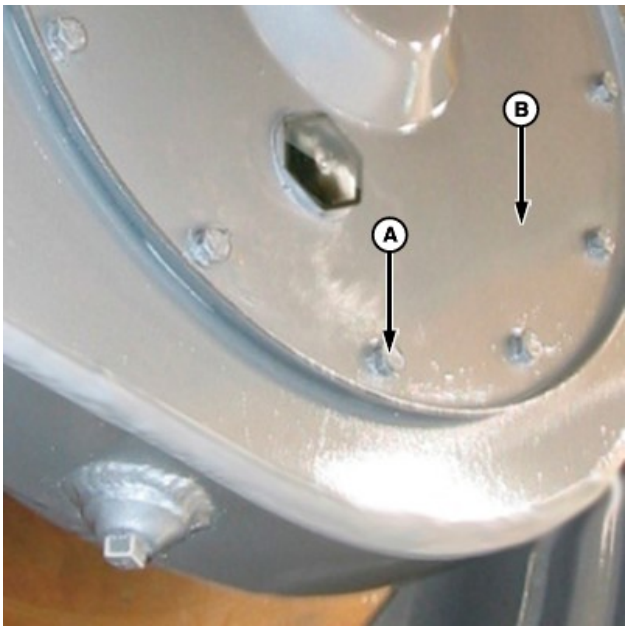
5. Reinstall the filling plug (B).

jtlsx7f,1662472602933-19-06DEC22

Adjust the Chain Tension and Upper and Lower Shafts

Perform this service at first 250 hours, at first 500 hours, and then, every 1000 hours.

Check the chain free play on rear axle knees and the adjust of the upper and lower shafts.



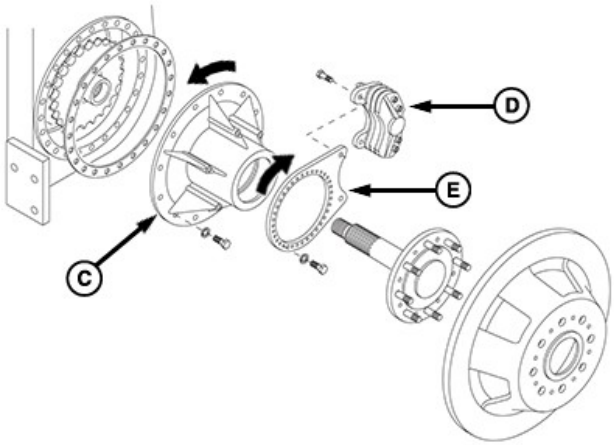
YE000197—UN—22SEP22

To check the tension of the chains, remove the screws (A) and the lower cover (B) of the rear axle knees. Rotate the control rod of the differential to make sure that the free play is not more than 1/4 of a turn.

Chain Tension Adjust

If the chain play is more than 1/4 of a turn, proceed to the chain tension adjust:

1. Park the machine on a firm, dry, and level ground.
2. To avoid any machine movement, install wheel chocks on wheels that are not being worked on.
3. Raise the desired rear axle knee using the hydraulic jack. (See Hydraulic Jack Usage in Service—Wheels and Hardware section.)
4. Remove the wheel and the crop divider.



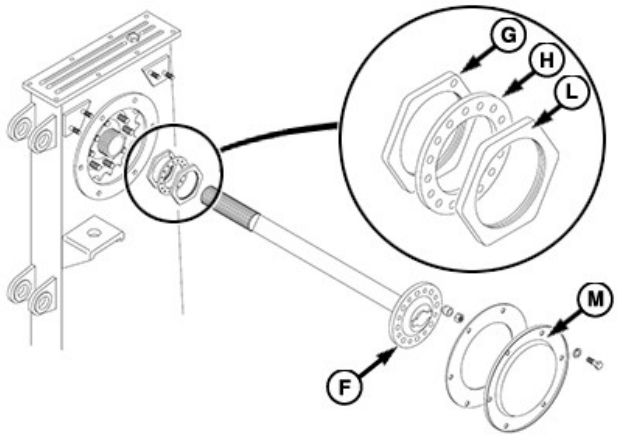
YE000195—UN—22SEP22

5. Remove the brake caliper (D) by removing the two plugs that keeps the caliper support (E) attached to the brake caliper (D).

NOTE: The shield is removed for clarity purposes.

6. Remove the screws of the wheel support (C).
7. Rotate the wheel support (C) towards the machine forward movement until the bore taken as a reference meets the next bore at rear axle knee structure.
8. If the chain is overtensioned, it must be returned to the initial position.
9. Check the clearance of the lower shaft by moving it in position. In case of excessive play is found on lower shaft:
   a. Remove the inspection cover on the internal side of the rear axle knee.
   b. Remove the cotter pin.
   c. Adjust the castle nut at maximum and return one notch of the castle nut, installing the cotter pin on this position.
   d. Reinstall the inspection cover.
10. Once the the wheel support (C) is adjusted and the screws reinstalled, reinstall the caliper support (E) and the brake caliper (D), ensuring the assembly is on its original position.
11. Proceed to the upper shaft adjust.

Adjust the Upper Shaft



YE000196—UN—22SEP22

1. Remove the upper cover (M).
2. Move the upper shaft in position. In case of excessive play being noticed, proceed to the adjustment.
3. Remove the screws that hold the shaft (F) in place and remove the shaft (F).
4. Loosen the nut (L), move the support (H), and adjust the nut (G) to reach the correct play. Once the correct play is reached, the nut (L) must be tightened.
5. Reinstall the shaft (F). Use a hammer to let the shaft (F) at correct installation position.
6. Reinstall the removed screws of the shaft (F).
7. Reinstall the upper cover (M).
8. Reinstall the wheel and any other removed component.
9. Lower the machine, remove the hydraulic jack, and let it on storage position.

jtlsx7f,1662472630848-19-06DEC22

Lubricate Axle End Hub

Perform this service every 500 hours or every year, or as required.

1. Turn on the engine.
2. Position machine on a firm, dry, and level ground.
3. Install the hydraulic jack. (See Hydraulic Jack Usage in Service—Wheels and Hardware section.)

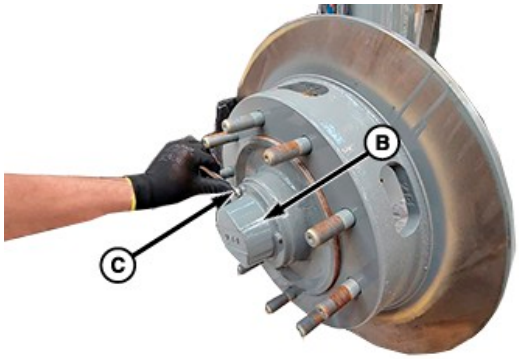
CAUTION: Avoid serious injury or death.

If necessary to remove the wheel, position a suitable support under the wheel before removing it.

YE001353—UN—02JAN24

4. For machines with R36 and R38 wheels only, remove the wheel nuts (A) and set the wheel aside.

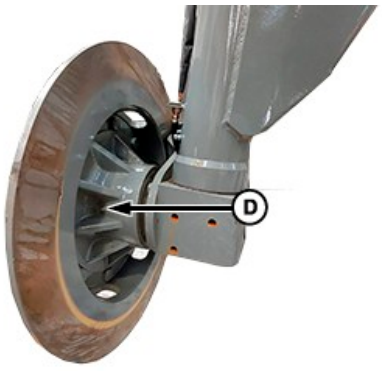
NOTE: For machines equipped with R46 wheels, it is not necessary to remove the wheel for performing this lubrication.



YE001354—UN—02JAN24

5. Remove the cover (B) from the assembly by removing the screws (C).
6. Remove the old grease from components and clean them.

IMPORTANT: Avoid damaging the wheel hub components. The lubrication of the grease fitting (D) must not be done with the cover (B) installed.



YE001355—UN—02JAN24

7. Without the cover (B) installed, lubricate grease fitting (D).

8. Clean the cover (B) and reinstall it.
9. Reinstall the wheel, if removed.
10. For machines with R36 and R38 wheels, tighten the wheel nuts (A) to specification. (See Tighten Wheel Nuts in Service—Wheels and Hardware section.)
11. Remove the hydraulic jack.

edw8krp,1680036031777-19-07SEP23

Rotate the Tires

Perform this service every 1000 hours.

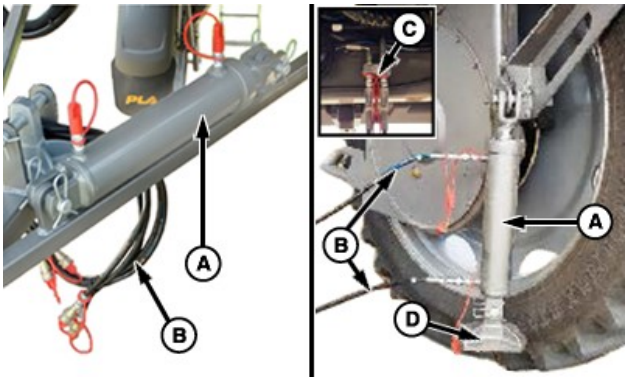
To ensure proper and equal wear on all tires, rotate them regularly at the indicated service period.

jtlsx7f,1662472468279-19-01DEC22

Hydraulic Jack Usage

Perform this service as required.

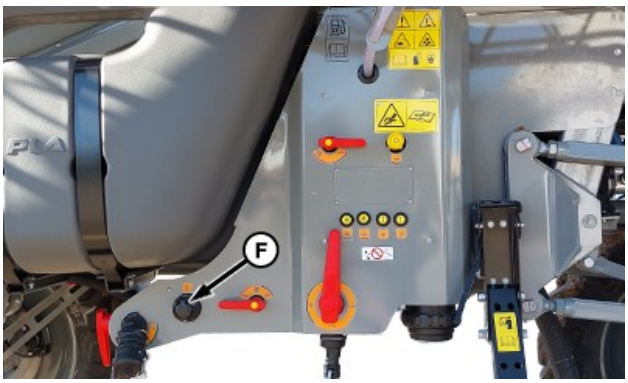
1. Fold the spray/application booms. (See Fold the Spray/Application Boom (for Transport) in Spray/Application Boom section.)



YE000184—UN—22SEP22

2. Remove the hydraulic jack (A) from its storage position.
3. Install the base (D) on the hydraulic jack (A) as shown.
4. Position the hydraulic jack (A) on the wheel that needs to be raised for service. The hydraulic jack (A) upper ball joint must be installed on the axle knee using pin and cotter pins, as shown in the image.
5. Connect the provided hydraulic hoses (B) on the hydraulic jack (A) and on the quick-couplers (C) of the machine left-hand side.

YE001205—UN—03JAN24



YE1376710—UN—10SEP24

6. Connect the remote control (E) of the hydraulic jack (A) on the connector (F) at the spray panel.
7. To raise the wheel, use the switch of the remote control (E).
8. After usage:
   a. Lower the wheel.
   b. Disconnect the remote control (E) from the connector (F).
   c. Disconnect the hydraulic hoses (B) and put them back to their storage position.
   d. Disassemble the base (D).
   e. Remove the hydraulic jack (A) and put it back to its storage position.

jtlsx7f,1725997332118-19-10SEP24

Replace Tires

Perform this service as required.

In case of being necessary to replace a machine tire, perform the procedure observing the following safety instructions:

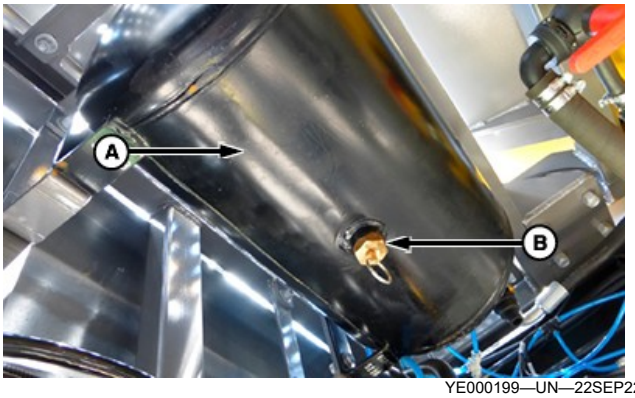
1. Park the machine on a firm, dry, and level ground.
2. To avoid any machine movement, install wheel chocks.
3. Raise the machine using the hydraulic jack. (See Hydraulic Jack Usage in Service—Wheels and Hardware section.)

4. Replace the desired machine tire.

jtlsx7f,1662472454711-19-08SEP22

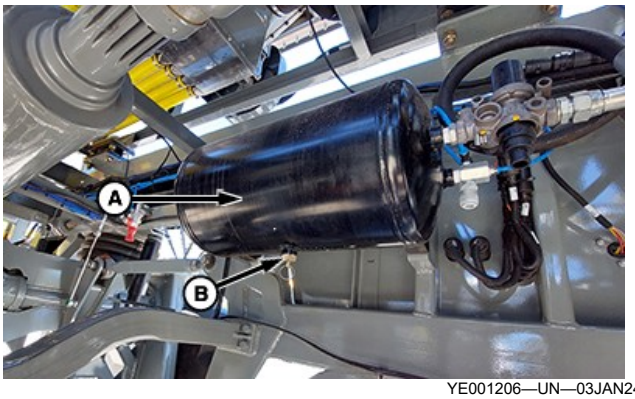
Drain Water from the Pneumatic System

Perform this service daily or every 10 hours, before starting the work.



YE000199—UN—22SEP22

Self-Propelled Sprayers



YE001206—UN—03JAN24

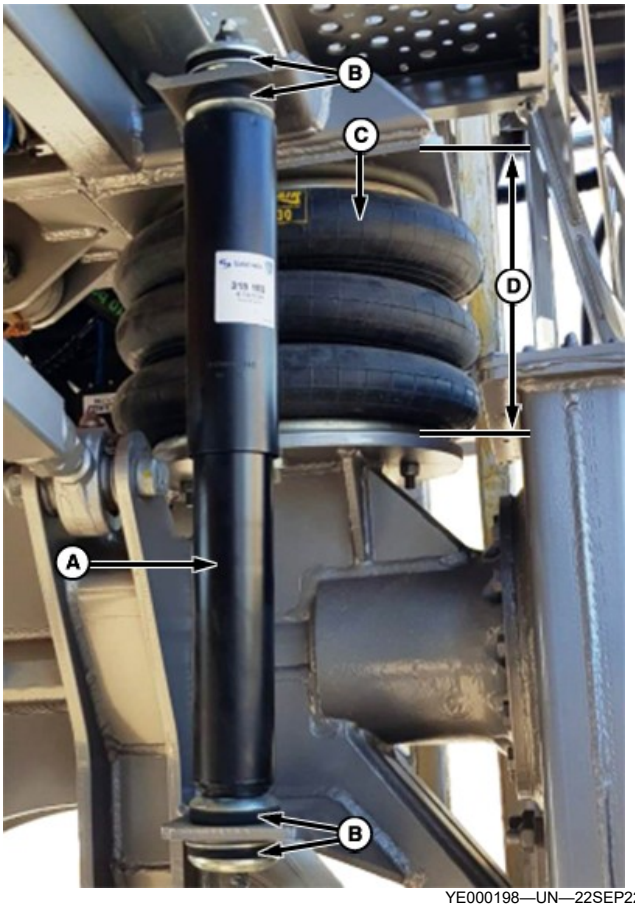
Nutrient Applicators

Drain accumulated water from the air tank (A). To do so, press the valve (B) located under the air tank (A).

jtlsx7f,1662472806728-19-11AUG23

Check and Adjust the Suspension Assemblies

Perform this service every 1000 hours.



YE000198—UN—22SEP22

NOTE: The distance (D) is measured in relation to the bases of the air bag (C).

It is necessary to regularly check for air losts at the suspension system, keeping the machine work height correctly adjusted.

To align the machine to the correct work height, the distance (D) must be at specification:

Specification	
Air Bag Height—Distance	240 mm (9.45 in)

Also check the conditions of the shock absorbers (A) and rubber bushings (B) and make sure they are functioning well.

jtlsx7f,1662472789631-19-06DEC22

Check Pneumatic Lines

Perform this service every 250 hours.

1. Turn on the machine.
2. Set the engine speed to 1600 rpm.
3. Wait until the pneumatic system is loaded with air.

NOTE: The system is loaded when the indicators show that the tank is full.

4. Park the machine on a firm, dry, and level terrain.
5. Shut off the machine engine.
6. Remove the ignition key.
7. Go under the machine and check for sounds of air loosing. Start from the outlet of the tank and pass through all the connections.
8. If any noise is found, check for air leaks with a solution of water and detergent.
9. With a sponge, wet the connections and check for bubbles. In case of bubbles being noticed, there is an air leak.
10. In the place where the air leak is found, replace the corresponding components.

jtlsx7f,1668798319738-19-21NOV22

Clean the Machine

Perform this service daily or every 10 hours.

See Clean the Sprayer in Machine Storage section for the cleaning instructions.

jtlsx7f,1662472956306-19-29NOV22

Clean the Solution System Filters

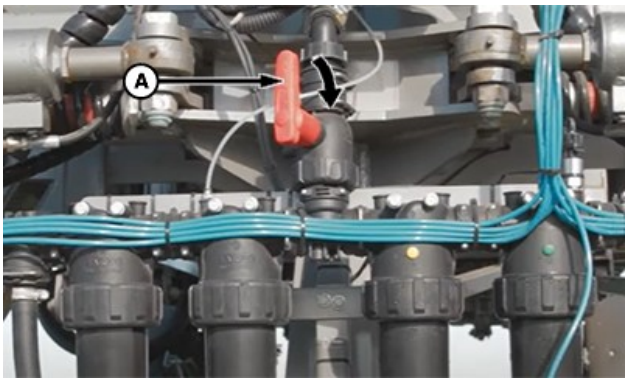
Perform this service daily or every 10 hours or as required according to the chemical product being used.

CAUTION: Exposure to chemicals, including pesticides, can cause injury or death. When working with chemicals, always use the recommended safety equipment. See Safety Equipment in Solution System section.

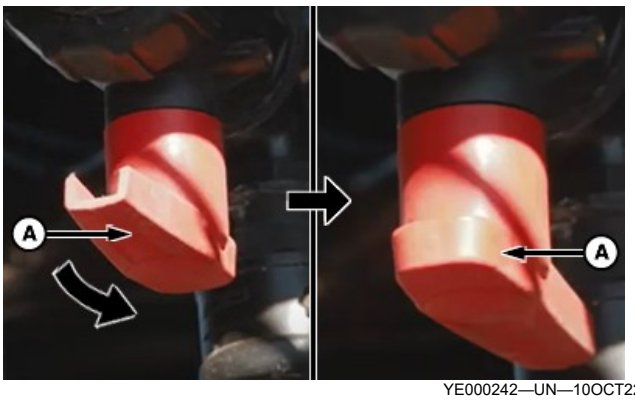
NOTE: The cleaning periodicity varies according to the chemical product being used.

To drain and clean the solution system filters, perform the following procedure:

1. Wear the recommended safety equipment. (See Safety Equipment in Solution System section.)
2. Turn off the solution pump and unload all the spray lines activating the spray system master button. Select and perform the spray section test with the machine stopped.



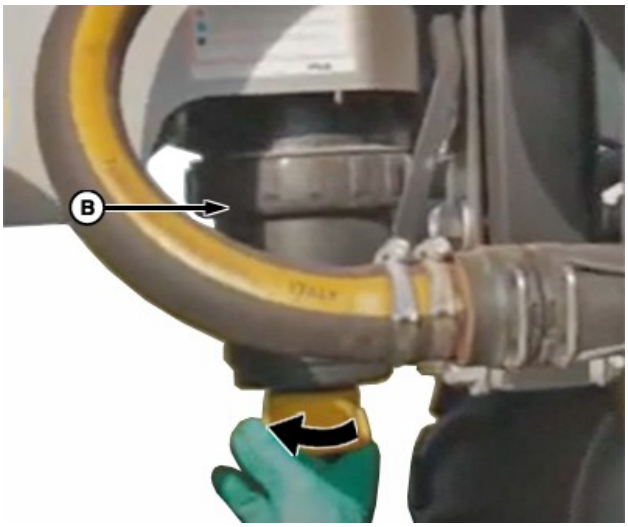
YE000243—UN—10OCT22



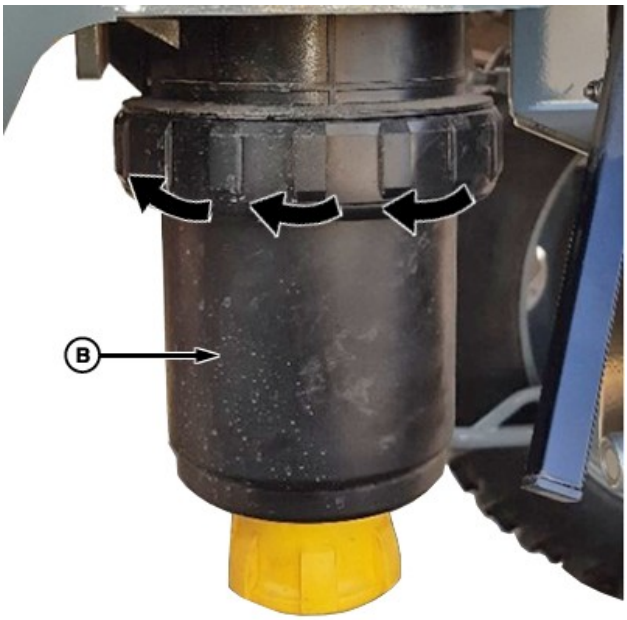
YE000242—UN—10OCT22

3. Close all the solution system valves (A).

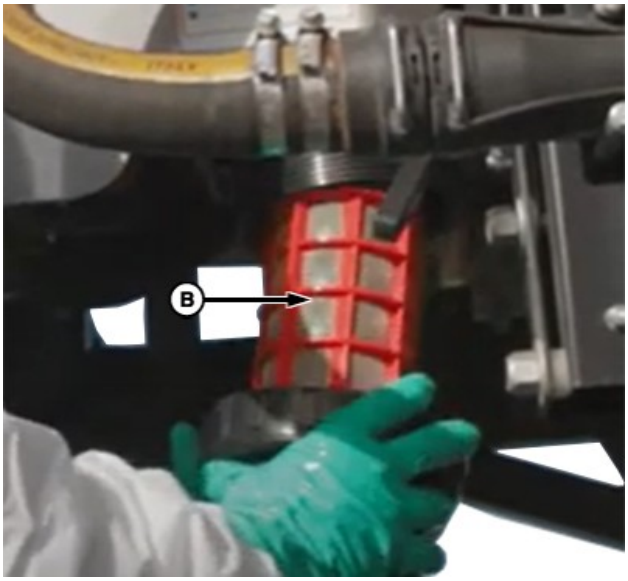
CAUTION: Spray system contains hazardous material that can cause serious injury or death to you or others. Drain solution in an area where people, animals, vegetation, and water supply cannot be contaminated.



YE000244—UN—10OCT22

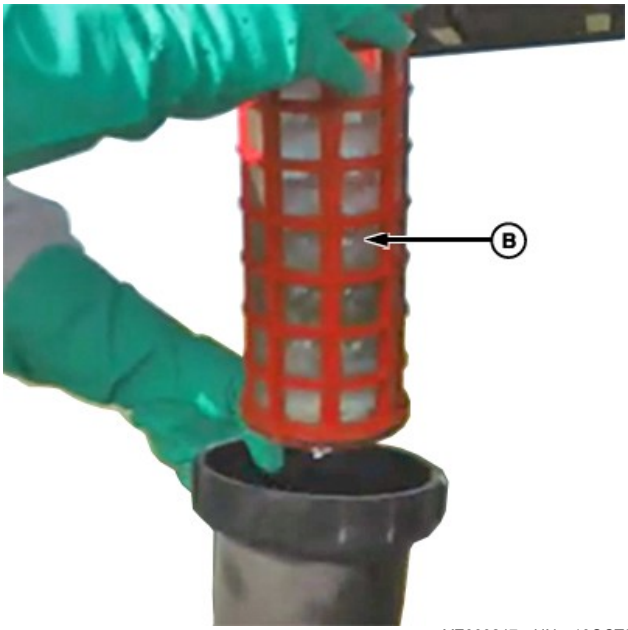


YE000245—UN—10OCT22



YE000246—UN—10OCT22

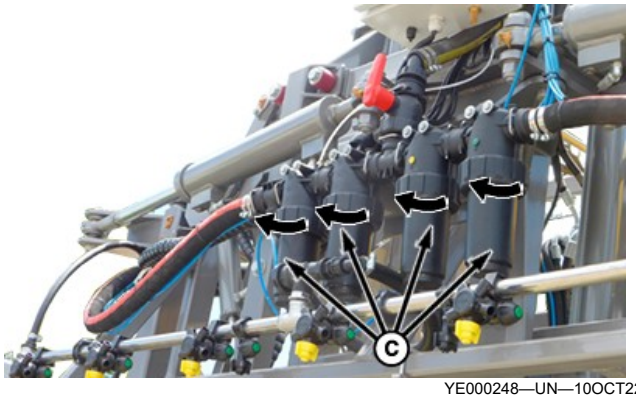
4. Remove the cover of the primary filter (B), draining any remaining liquid in the assembly.
5. Check that the primary filter (B) (50 micron mesh) is clean and free of obstructions. Clean it with clean water, if needed.



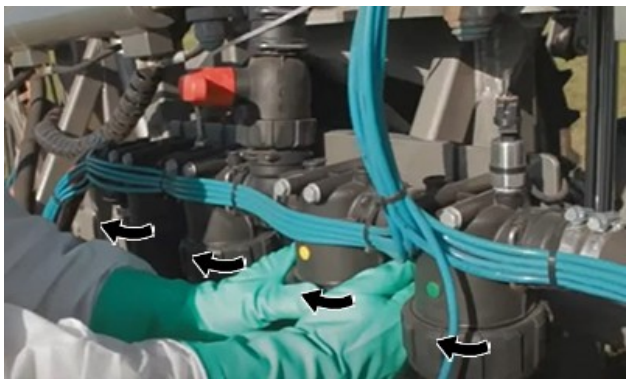
YE000247—UN—10OCT22

6. Reinstall the primary filter (B).

CAUTION: Spray system contains hazardous material that can cause serious injury or death to you or others. Drain solution in an area where people, animals, vegetation, and water supply cannot be contaminated.



YE000248—UN—10OCT22



YE000249—UN—10OCT22

7. Remove the covers of all the solution line filters (C), draining any remaining liquid in the assemblies.
8. Clean filters by emerging them in clean water and drying the filters before reinstalling them in the machine.

IMPORTANT: Avoid system malfunction. Make sure to not invert the colors of the filters, considering that the filtration capacity goes from thickest to thinnest. The yellow filter has an 80-micron mesh and the green one has a 100-mesh filter.

9. Reinstall the solution line filters (C) paying attention to the color of the filters installed.
10. Open all the solution system valves (A) previously closed.

jtlsx7f,1662472984512-19-05OCT22

Check Tightening of the Solution Tank Fixing Structures

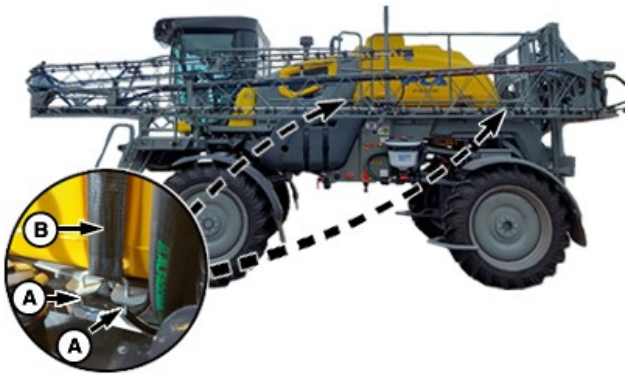
Perform this service every 250 hours.

IMPORTANT: Avoid loose hardware on the solution tank structure. The solution tank must be filled before performing this procedure.

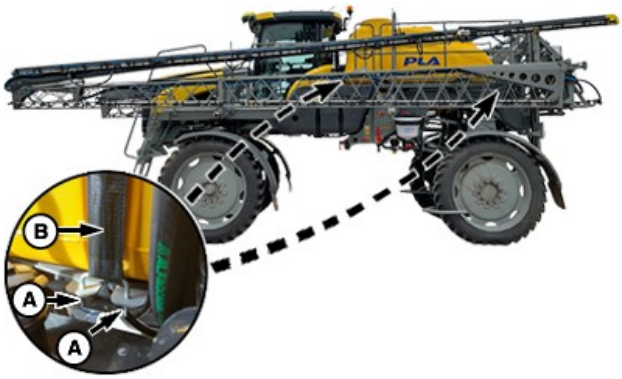
1. Park the machine on level ground.
2. To ensure the proper tightening of the solution tank fixing structures, make sure the solution tank is full

before performing the following steps. (See Solution System section for the proper filling procedure, if needed.)

3. Shut off the engine.



YE1385911—UN—13DEC24
Solution Tank Strap—Machines Equipped with Central Engine



YE001335—UN—02JAN24
Solution Tank Strap—Machines Equipped with Front Engine

4. Check fixing nuts (A) of the solution tank strap (B) for tightness. If hardware is loose, tighten the fixing nuts (A) until strap is snug, then tighten them two additional turns.
5. Check fixing nuts (A) of the other side of the solution tank strap (B) as well.

YE1385913—UN—13DEC24
Side Fixing Hardware of the Solution Tank—Machines Equipped with Central Engine

YE001333—UN—02JAN24
Side Fixing Hardware of the Solution Tank—Machines Equipped with Front Engine

6. Check fixing nuts (C) of the solution tank fixing hardware for tightness. If hardware is loose, tighten the fixing nuts (C) according to the torque specifications available at the Specifications section. Make sure the fixing hardware is perpendicular to the hardware rest surface.
7. Check fixing nuts (C) of the other side of the solution tank as well.

jtlsx7f,1734035775005-19-12DEC24

Control the Jet of Nozzles

Perform this service as required.

1. Turn on the machine.
2. Fill the solution tank with clean water up to middle capacity.

NOTE: See the correct solution tank filling procedure at Solution Tank Level Control in Solution System section.

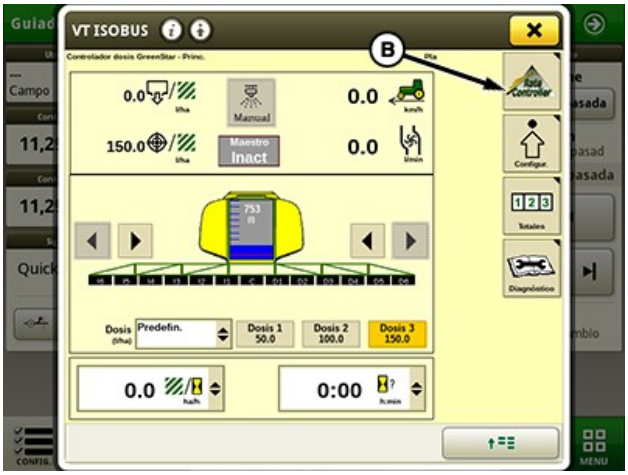
3. Clean the five solution line filters.

NOTE: See the correct cleaning of the filters on Clean the Solution System Filters in Service—Solution System section.

4. Set the engine speed to 1600 rpm.

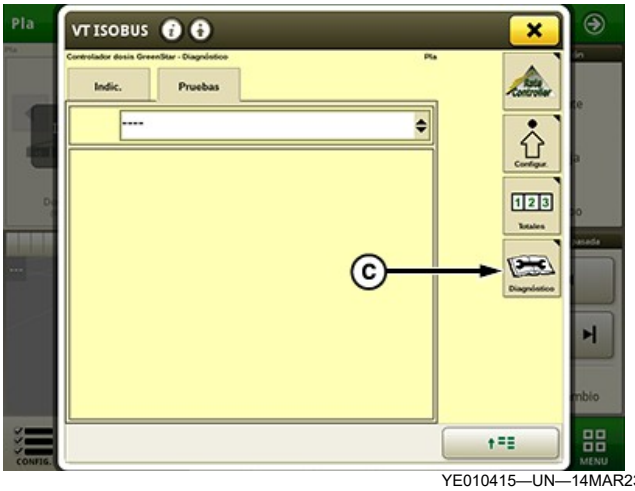
YE010267—UN—30JAN23

5. Press the ISOBUS softkey (A) in machine display.



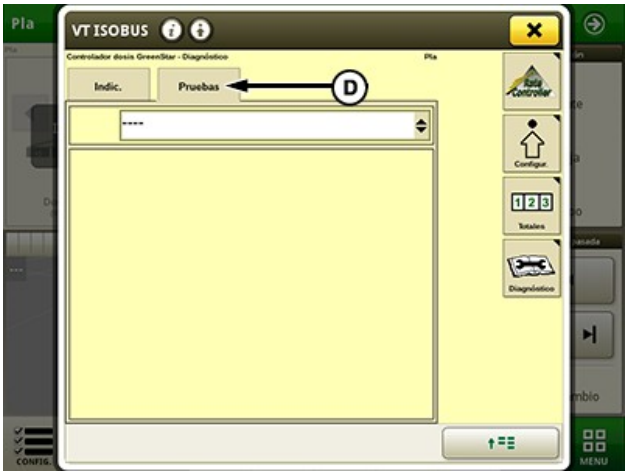
YE010268—UN—30JAN23

6. Press Rate Controller (B).



YE010415—UN—14MAR23

7. Press Diagnostic (C).



YE010416—UN—14MAR23

8. Press Tests (D).

YE010417—UN—14MAR23

9. Press Test of Sections (E).

YE001373—UN—02JAN24

Side Console—Sprayers with Central Engine and Manual Transmission

YE1385992—UN—23DEC24

Side Console—Sprayers with Central Engine and Automatic Transmission

YE001374—UN—02JAN24

Side Console—Sprayers with Front Engine and Manual Transmission

YE001372—UN—02JAN24

Side Console—Sprayers with Front Engine and Automatic Transmission

10. Turn on the solution pump switch (F).

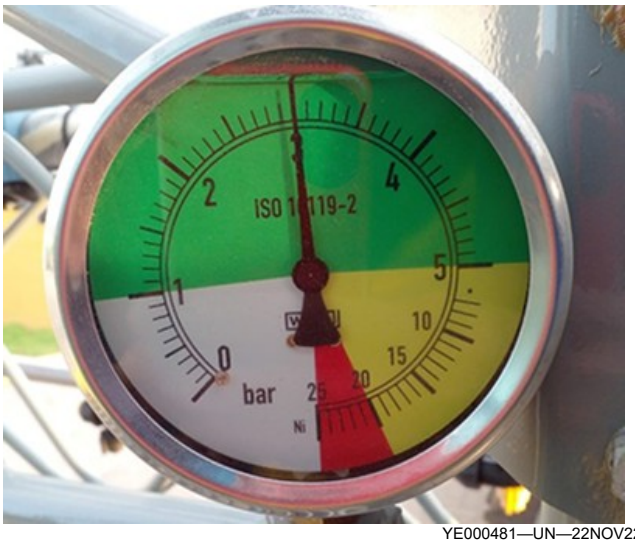
YE001207—UN—03JAN24

11. Press the spray system master button (G).

NOTE: An indication (H) that the spray system master button (G) is on appears on display.

YE010271—UN—30JAN23

12. Press Start (I).

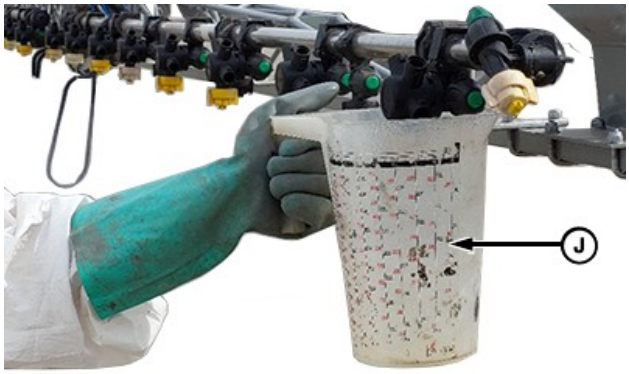


YE000481—UN—22NOV22

13. With plus (+) and minus (-) buttons on the Sections

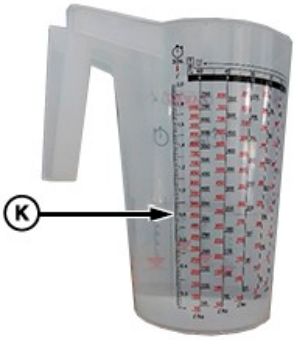
Test page, set the pressure to 300 kPa (3 bar) (43.5 psi) on the manometer.

14. Get down the machine.



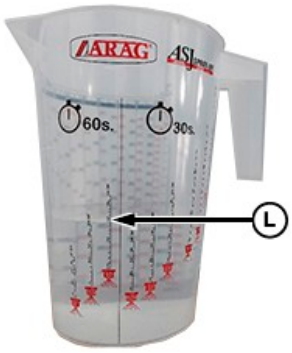
YE010462—UN—28MAR23

15. Position the measuring jug (J) provided with the machine under one of the spray nozzles. Let the measuring jug (J) to be filled for 1 minute.



YE001208—UN—03JAN24

16. If the nozzle is in good conditions, the measure of 0.80 (K) must be reached at the indicated scale.



YE001209—UN—03JAN24

17. If the nozzle is in good conditions, the 300 kPa (3 bar) (43.5 psi) mark (L) must be reached for a 02 nozzle (yellow), as the one used in this example.

Specification

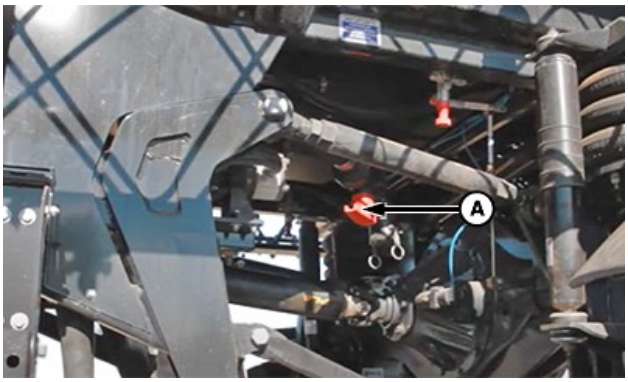
02 Yellow Nozzle—Flow Rate. . . . . 0.8 L/min (0.21 gal/min)

18. Repeat the measuring at one nozzle per section.
19. If the collected volume is 5% more or less out of the average of the values measured, it must be replaced. In this case, you have to replace all the nozzles from the section.
20. Get up the machine and enter the cab.
21. Turn off the solution pump.
22. Shut off the engine.

jtlsx7f,1734111048740-19-13DEC24

Clean the Flowmeter

Perform this service as required according to the chemical product being used.



YE000261—UN—10OCT22

1. Close the main lever (A) under the solution tank.

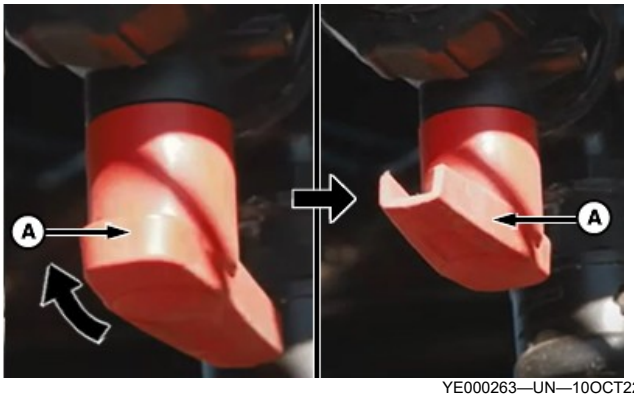
YE1376715—UN—10SEP24

2. Direct the flow from the solution pump to the eductor using the lever (B).
3. To avoid returns, close the agitation using the agitation control (C) and close the return to the general shutoff valve.

YE000265—UN—10OCT22

4. Remove the turbine of the flowmeter (D).
5. Clean the turbine with clean water.
6. Reinstall the turbine in the flowmeter (D).

YE1376720—UN—10SEP24



YE000263—UN—10OCT22

7. Position all controls and levers to spray position.

jtlsx7f,1725998619273-19-10SEP24

Purge the Load Pump

Perform this service as required.

IMPORTANT: Avoid damage to the water load system. ALWAYS purge the load pump before loading water into the solution tank.

YE010685—UN—02JAN24

1. Immerse the hose (A) in a water reservoir, taking care that the end with the filter (B) is under water.
2. Open the valve that has hose (C) and fill the hose (A) with water.

IMPORTANT: Filling the hose (A) with water prevents air from entering the system and causing damage.

3. When the hose is full, close the valve that has hose (C).

YE010686—UN—02JAN24

4. Close the valve (D) (perpendicular to the filling line).
5. Remove the cap (E).
6. Conect the hose (A) to the filling port.
7. Open the valve (B) (aligned to the hose [A]).

edw8krp,1696879016270-19-11OCT23

General Service Information

CAUTION: Avoid serious injury and death. Any service described in this section must be performed with the machine stopped and the engine OFF.

IMPORTANT: Avoid machine damage. Before performing any service on the machine, make sure to have all the necessary tools and parts.

jtlsx7f,1667829127730-19-08NOV22

Clean the Machine

Perform this service daily or every 10 hours.

IMPORTANT: Avoid machine damage. The cleaning of the nutrient applicator must be performed daily or every 10 hours with pressurized air only.

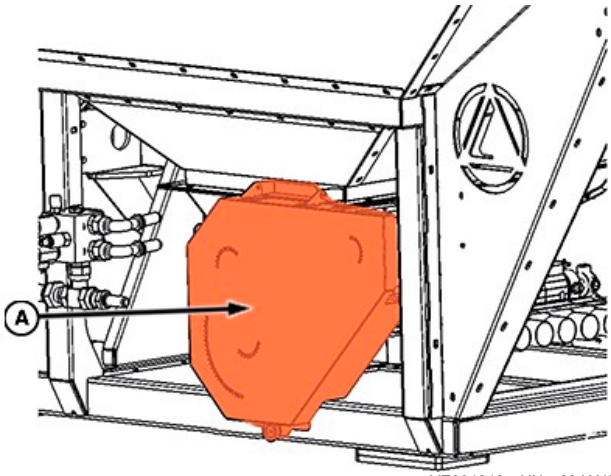
The cleaning with water must be performed only every 3 days. DO NOT clean the nutrient applicator with water daily.

See Clean the Nutrient Applicator in Machine Storage section for the cleaning instructions.

jtlsx7f,1669727508981-19-05DEC22

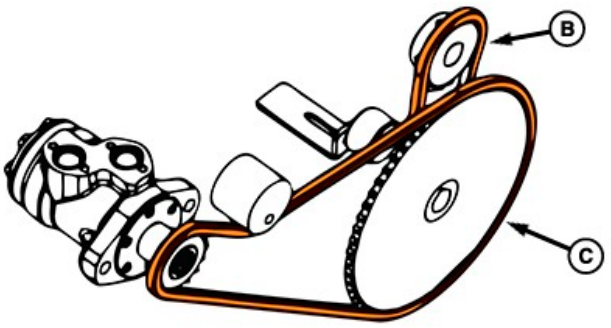
Lubricate the Chains

Perform this service daily or every 10 hours.



YE001210—UN—03JAN24

1. Open the side shield (A).
2. Completely lubricate the chains of the transmission:



YE001211—UN—03JAN24

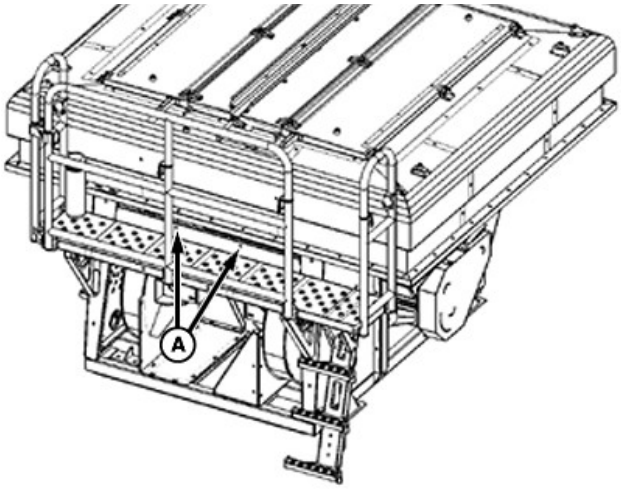
- Remover Chain (B)
- Dosifier Chain (C)

jtlsx7f,1667830668389-19-11AUG23

Lubricate the Shafts

Perform this service every 50 hours or weekly.

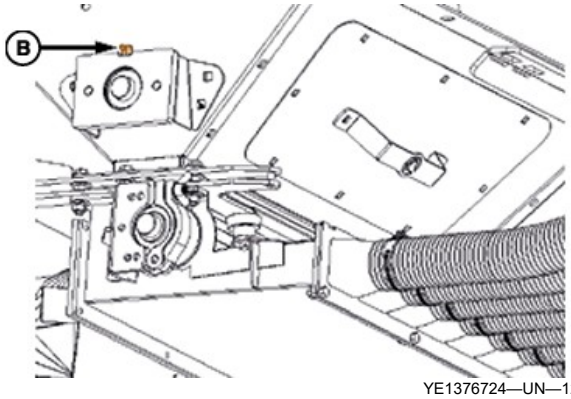
NOTE: For the grease specification, see Fluid Specification by System in Maintenance and Service Intervals section.



YE1376725—UN—12SEP24

Grease Fittings—Shaft of the Turbines

Lubricate the shaft of the turbines through the two grease fittings (A).



YE1376724—UN—12SEP24

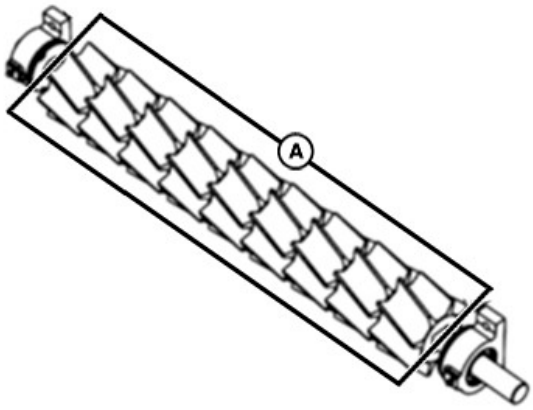
Grease Fitting—Shaft of Remover

Lubricate the shaft of remover through the two grease fittings (B). One at each side.

jtlsx7f,1726073136575-19-11SEP24

Check the Condition of the Dosifier Wheels

Perform this service every 50 hours or weekly.



YE001214—UN—03JAN24

Check the condition of the dosifier wheels (A). Replace them if worn or damaged. (See details in Operating the Nutrient Applicator section.)

jtlsx7f,1667830779015-19-11AUG23

Check and Tighten Nutrient Application System Screws

Perform this service at first day of work of each season.

YE1376777—UN—12SEP24

Check and retighten the screws of the following assemblies: turbine, dosifier, remover shaft, application boom, and nutrient application system structure.

jtlsx7f,1726073181436-19-11SEP24

Check and Tighten Turbine Screws

Perform this service every 500 hours or every year, between seasons.

Check and retighten the screws at bases and shafts of turbines.

jtlsx7f,1669899594053-19-05DEC22

Replace the Machine Bearings

Perform this service every 500 hours or every year, between seasons.

CAUTION: Avoid serious injury or death. When working under the machine, there is danger in various situations:

- **Crushing risks of heavy parts falling out of the machine over the body.**
- **Cutting and crushing risks on hands, fingers, and foot on sharp machine components and components with little space for service.**
- **Hitting the head and other body parts on machine components.**

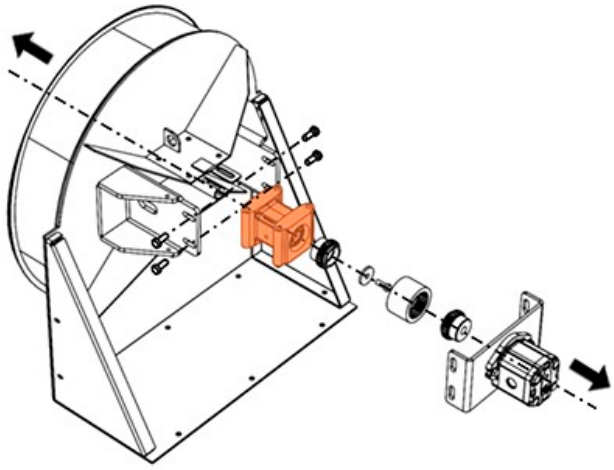
Always use personal protective equipment suitable for the service to be performed. See the Safety section of this manual for additional details.

Pay special attention when disassembling components under the machine.

Before performing the service, always position the machine on a firm, dry, and level terrain, with the the park brake engaged. Remove the ignition key and keep it with you during the services.

IMPORTANT: Avoid damaging machine systems. Always clean up the bearing housings before installing new bearings.

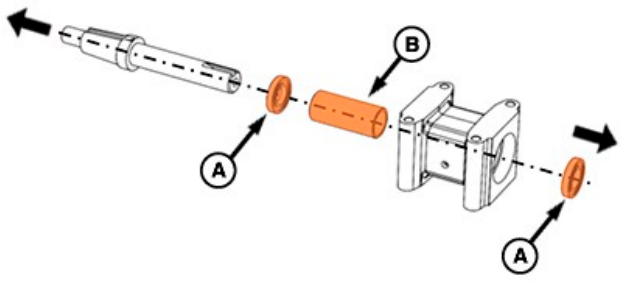
Tubine Bearings



YE001216—UN—03JAN24

Support of the Bearings

1. Disassemble the support of the bearings.
2. Remove the existing bearings (A).



YE001217—UN—03JAN24

3. Install the bearing separator (B) and the new bearings (A).

IMPORTANT: Make sure to install the bearing separator (B) before assembling the support of the bearings.

4. Reassemble the support of the bearings.

Dosifier Bearings

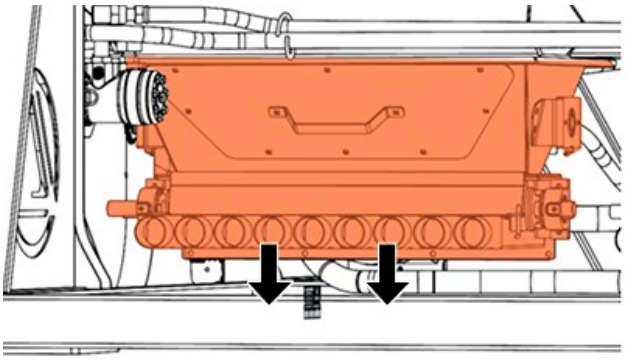
1. Remove the package of wheels from the dosifier. (See details in Operating the Nutrient Applicator section.)

YE1376782—UN—18SEP24

Dosifier Bearings

2. Remove the bearings of the dosifier shaft.
3. Install the bearings of the dosifier shaft.
4. Reinstall the package of wheels from the dosifier. (See details in Operating the Nutrient Applicator section.)

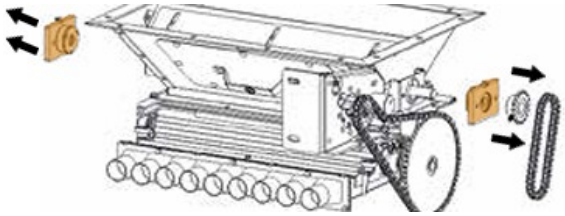
Remover Bearings



YE001220—UN—03JAN24

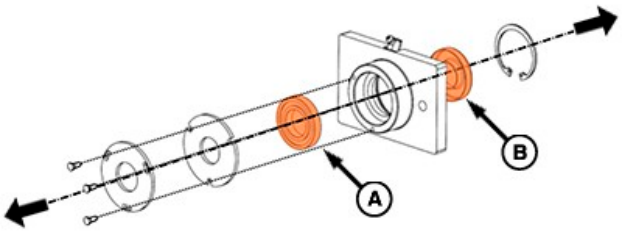
Dosifier Assembly

1. Disassemble the indicated dosifier assembly.



YE1376778—UN—18SEP24

2. Remove the bearing housings.



YE001222—UN—03JAN24

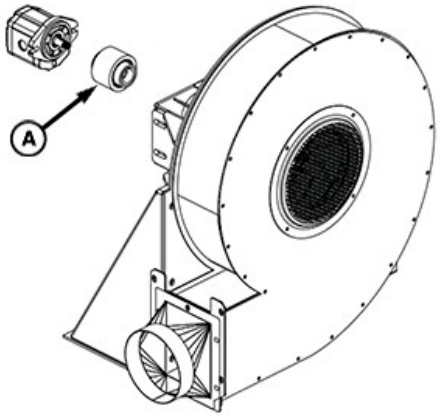
3. Disassemble and remove the existing bearings (A) and retainers (B).

4. Assembly and install the new bearings (A) and retainers (B).
5. Reinstall the bearing housings.
6. Reassemble the indicated dosifier assembly.

jtlsx7f,1726073205813-19-11SEP24

Check the Joints of the Turbine Drives

Perform this service every 500 hours or every year, between seasons.



YE001223—UN—03JAN24

Check the condition of the joints (A) of the turbine drives. Replace them, if needed.

jtlsx7f,1667930402754-19-11AUG23

Lubricate Machine Critical Points

Perform this service daily or every 10 hours.

YE1387612—UN—03JAN25

IMPORTANT: Some machine components may need special attention in relation to their lubrication conditions. The machine critical points have a decal indicating that a more frequent lubrication is required.

Check the conditions of the grease fittings located on the critical points of the machine as shown below. Replace them, if needed.

Before applying new grease, remove the old one, cleaning the components carefully.

Lubricate the greasing points using the grease specified at Fluid Specification by System in Maintenance and Service section.

The following components must be lubricated:

Front Axle

YE000651—UN—30MAR23

Front Axle Upper Ends—Outer Side (2 greasing points, 1 each side)

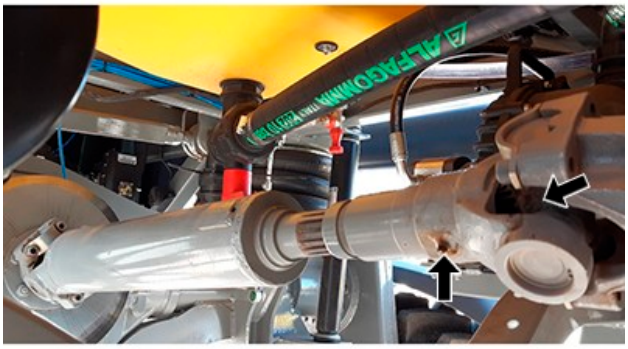
YE000652—UN—30MAR23

Front Axle Lower Ends—Inner Side (2 greasing points, 1 each side)

YE001351—UN—02JAN24

Front Axle Lower Ends—Outer Side (2 greasing points, 1each side)

Driveshaft and Differential

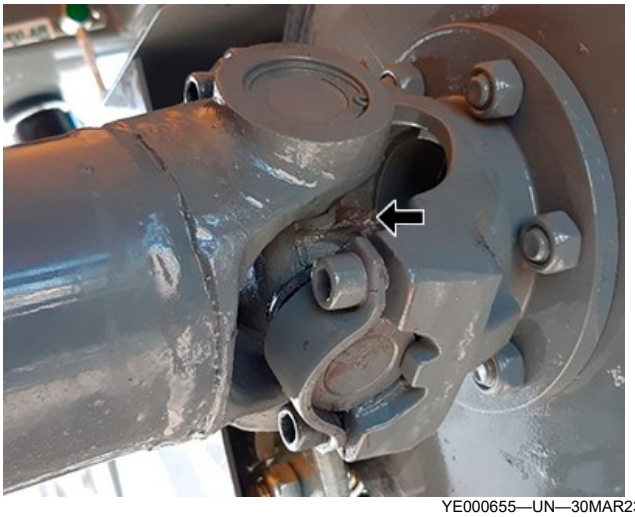


YE000654—UN—30MAR23

Driveshaft End and Splined Rod (2 greasing points)—Machines Equipped with Central Engine

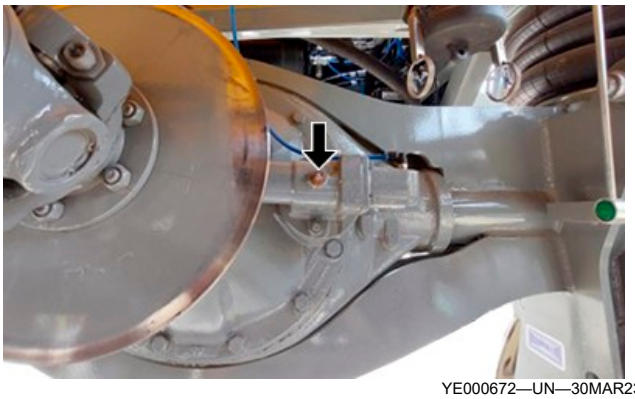
YE000683—UN—30MAR23

Driveshaft End and Splined Rod (2 greasing points)—Machines Equipped with Front Engine



YE000655—UN—30MAR23

Differential Cross Coupling (1 greasing point)



YE000672—UN—30MAR23

Differential High/Low Motor (1 greasing point)

jtlsx7f,1692278617343-19-03JAN25

General Greasing of the Machine

Perform this service every 50 hours or weekly.

Check the conditions of the grease fittings located on several locations of the machine. Replace them, if needed.

Before applying new grease, remove the old one, cleaning the components carefully.

Lubricate the greasing points using the grease specified at Fluid Specification by System in Maintenance and Service section.

The following components must be lubricated:

Chassis

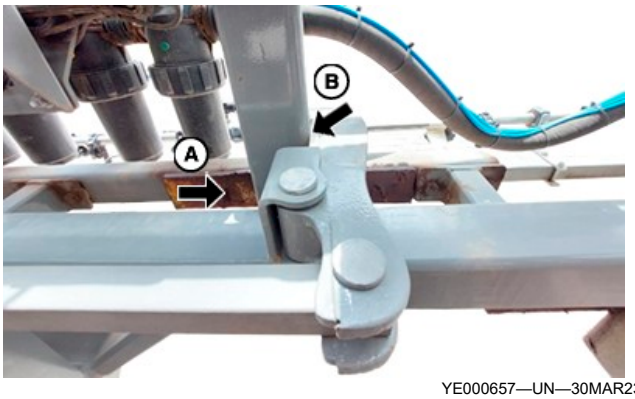
YE000650—UN—30MAR23

Tensioner Ball Joints (20 greasing points, 2 per tensioner)

Center Frame and Oscillation Structure

YE000656—UN—30MAR23

Center Frame Structure (4 greasing points, 2 each side)

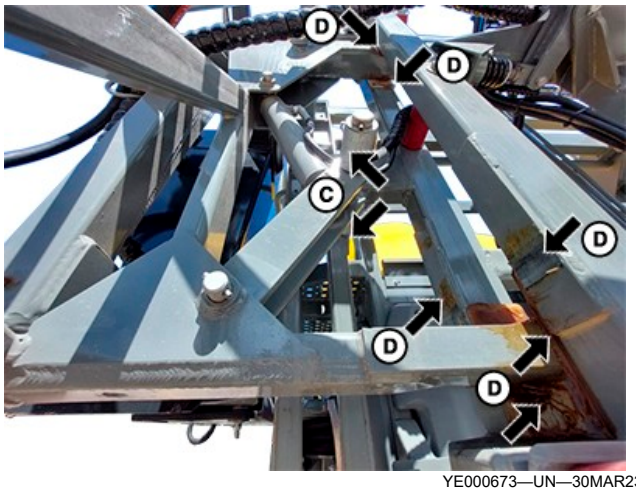


YE000657—UN—30MAR23

Middle Position Plates of the Oscillation Structure/ Oscillation Structure Lock of 2900 Sprayers

A—Greasing Points of Middle Position Plates (2 greasing points, 1 each side, all machine models)

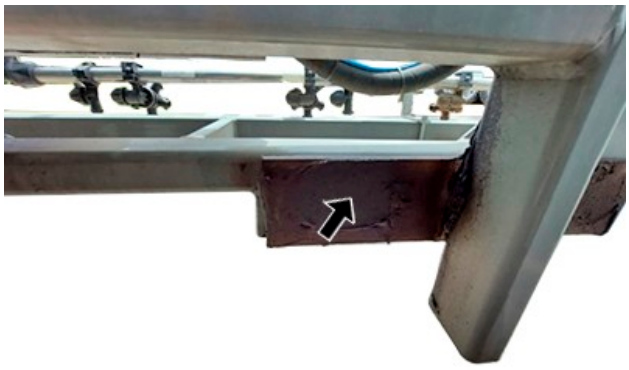
B—Oscillattion Structure Lock of 2900 Sprayers (2 greasing points, 1 each side)



YE000673—UN—30MAR23

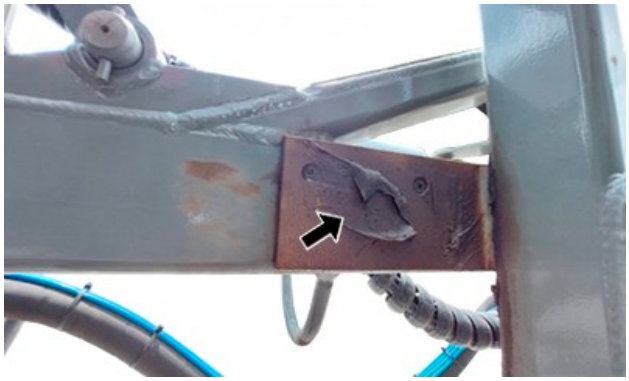
Oscillation Structure Lock of Other Machine Models/ Oscillation System Plates

C—Oscillattion Structure Lock of Other Machine Models (4 greasing points, 2 each side)
D—Oscillation System Plates (12 greasing points, 6 each side, all machine models)



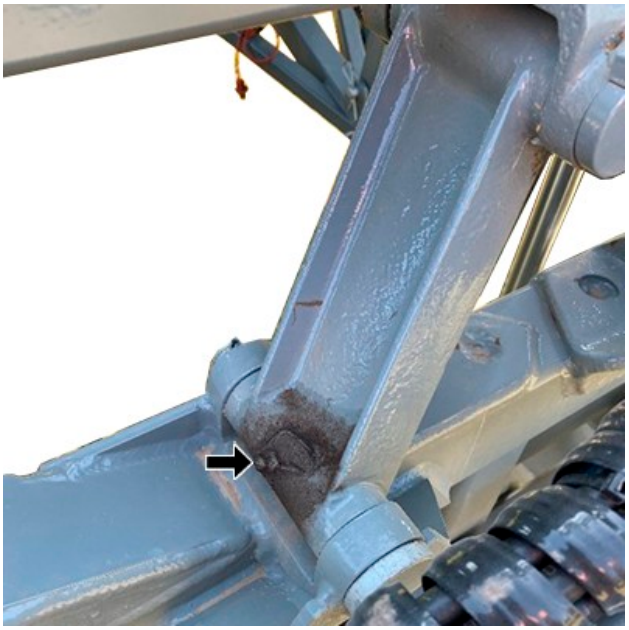
YE000658—UN—30MAR23

Lower Position Plates of the Oscillation Structure (2 greasing points, 1 each side)

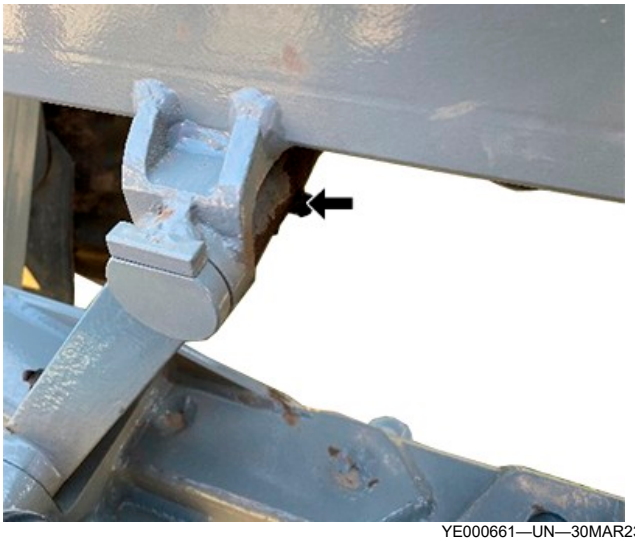


YE000659—UN—30MAR23

Upper Position Plates of the Oscillation Structure (2 greasing points, 1 each side)—2900 Self-Propelled Sprayers Only

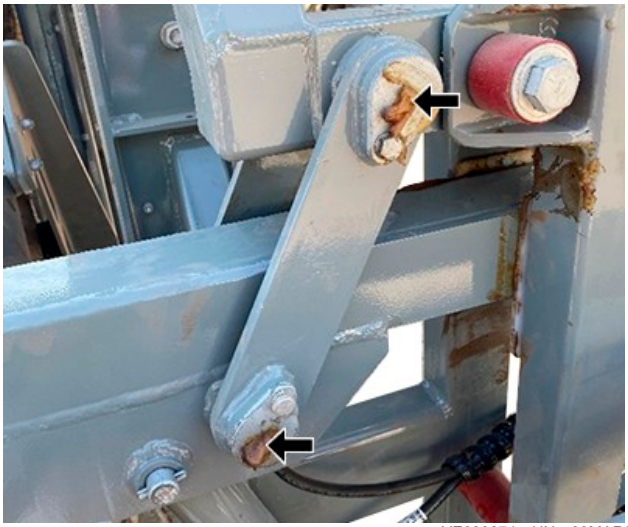


YE000660—UN—30MAR23



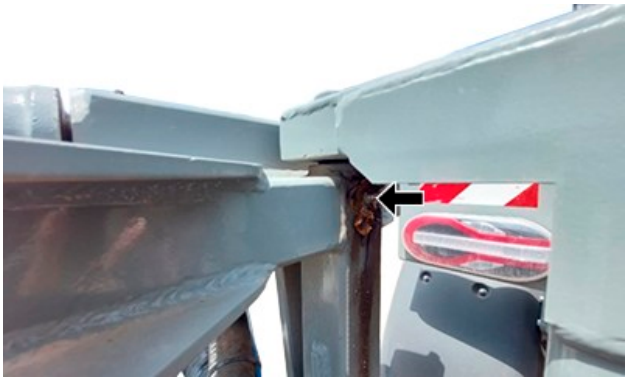
YE000661—UN—30MAR23

Oscillation Rod—2900 Self-Propelled Sprayer (4 greasing points, 2 each rod)



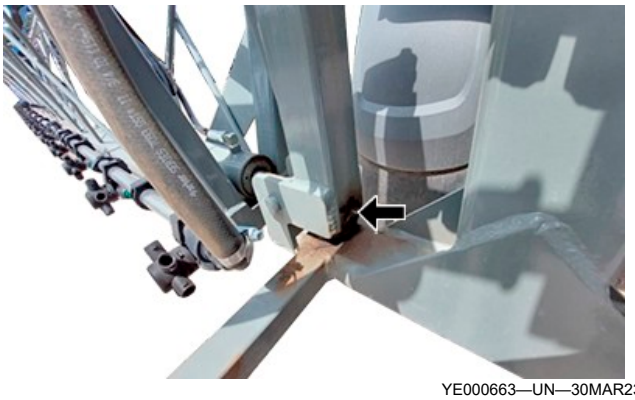
YE000674—UN—30MAR23

Oscillation Rod—Other Machine Models (4 greasing points, 2 each rod)



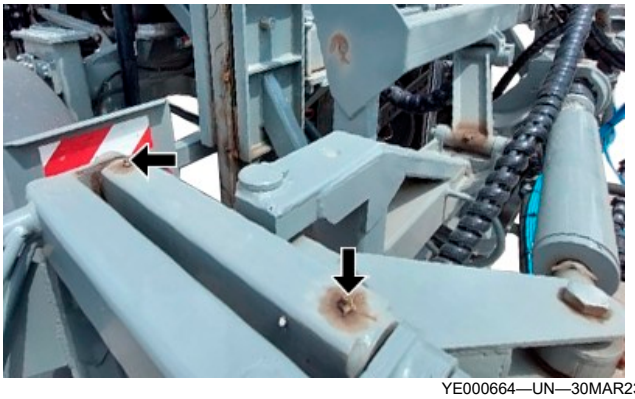
YE000662—UN—30MAR23

Center Frame Upper Hinge Structure (2 greasing points, 1 each side)



YE000663—UN—30MAR23

Center Frame Lower Hinge Structure (2 greasing points, 1 each side)

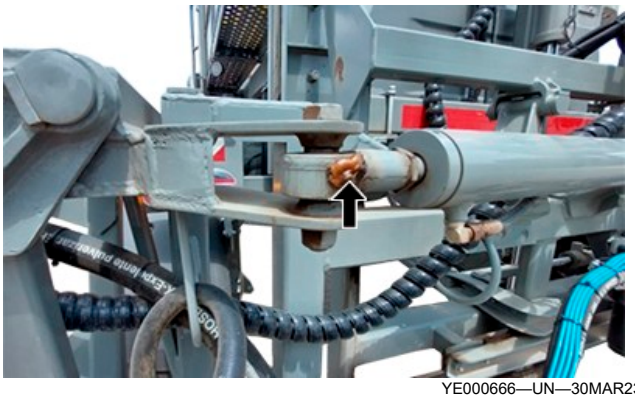


YE000664—UN—30MAR23

Upper Hinge of the Inner Spray Boom Section (4 greasing points, 2 each side)

YE000665—UN—30MAR23

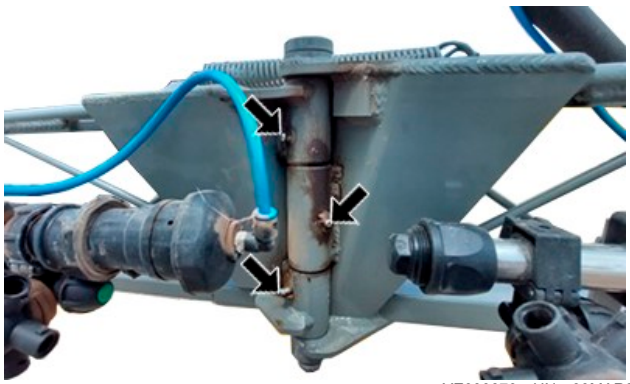
Oscillation Lock Cylinder (1 grease fitting)—2900 Self-Propelled Sprayers Only



YE000666—UN—30MAR23

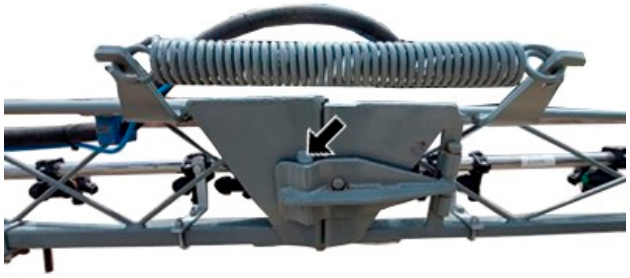
Folding Cylinder Ends of the Inner Spray Boom Section (4 grease fittings, 2 at each cylinder)

Steel Spray Boom (If Equipped)



YE000670—UN—30MAR23

Breakaway Section Cylinder Hinge Structure (6 greasing points, 3 each side)

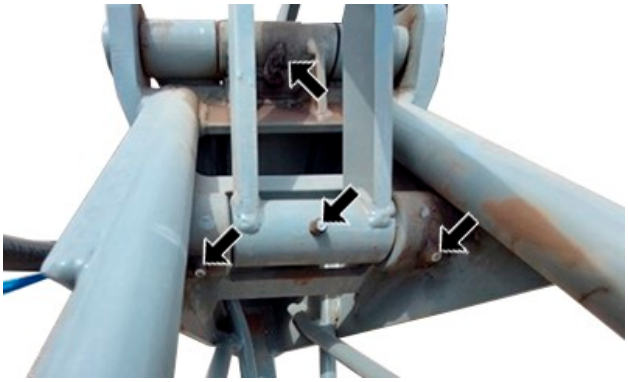


YE000671—UN—30MAR23

Spray Boom Safety Lock (2 greasing points, 1 each side)

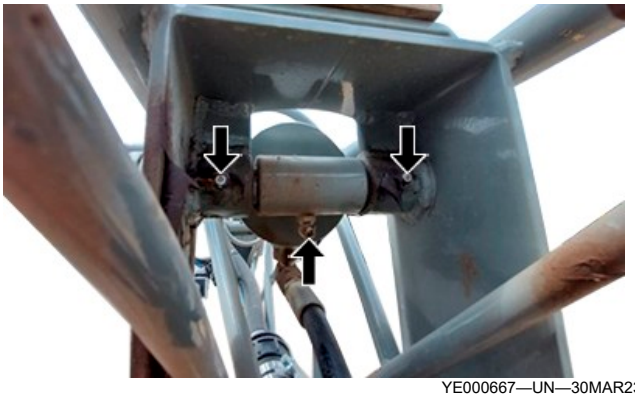
YE000669—UN—30MAR23

Outer Spray Boom Section Hinge—Outer Side (12 greasing points, 6 each side)



YE000668—UN—30MAR23

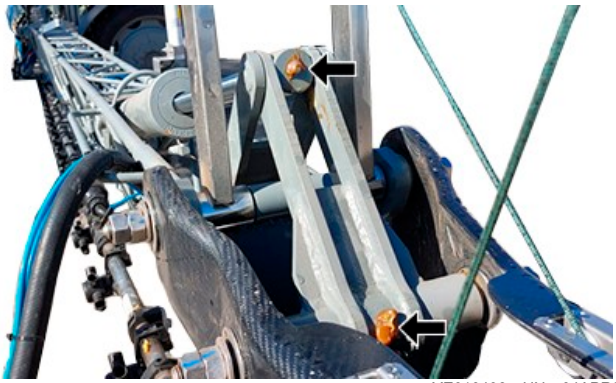
Outer Spray Boom Section Hinge—Inner Side (8 greasing points, 4 each side)



YE000667—UN—30MAR23

Outer Spray Boom Section Hinge—Cylinder Base Side (6 greasing points, 3 each side)

Hybrid Spray Booms (If Equipped)

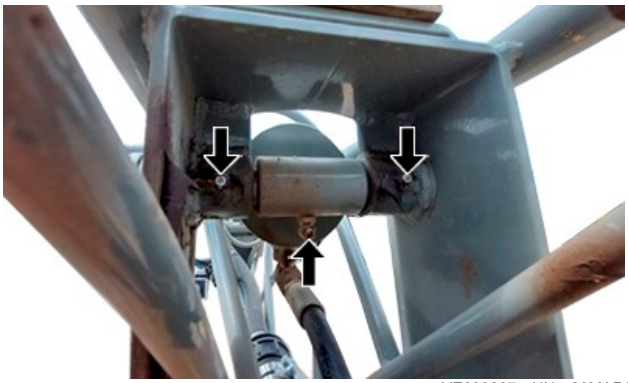


YE010498—UN—04APR23

Outer Spray Boom Section Hinge—Outer Side (4 greasing points, 2 each side)

YE010499—UN—04APR23

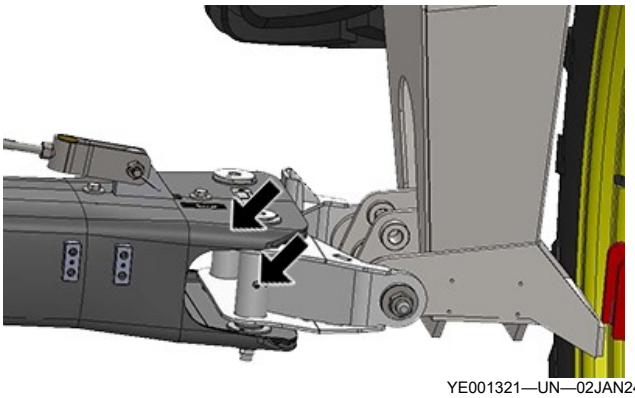
Outer Spray Boom Section Hinge—Inner Side (8 greasing points, 4 each side)



YE000667—UN—30MAR23

Outer Spray Boom Section Hinge—Cylinder Base Side (6 greasing points, 3 each side)

Carbon Fiber Spray Booms (If Equipped)



YE001321—UN—02JAN24

Fuse Box (4 greasing points, 2 each side)

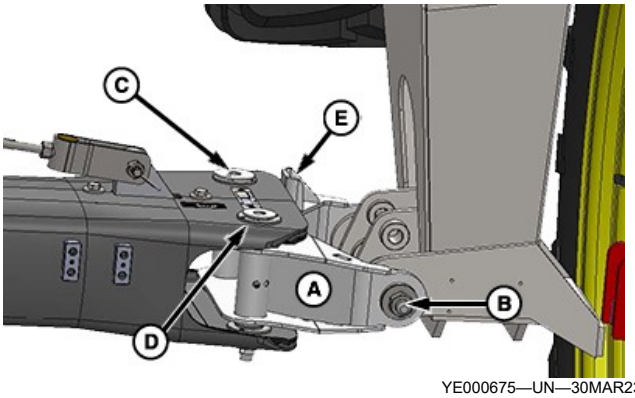
YE001322—UN—02JAN24

Spray Boom Locking Cylinders (2 greasing points, 1 each side)

jtlsx7f,1692278956540-19-04SEP23

Check the Fuse Box (Carbon Fiber Spray Booms Only)

Perform this service every 50 hours or weekly, or as required when the system is disassembled.



YE000675—UN—30MAR23

The fuse box (A) connects the spray boom to the machine center frame through the initial screw (B) and the spray boom screws (C) and (D).

The spray boom screw (C), with a high-diameter head, has a notch and work as a fuse. When hitting the spray boom against an obstacle, the spray boom screw (C) is cut, allowing the spray boom to rotate over the spray boom screw (D) that does not has a notch, absorving this way the major portion of the impact energy.

The fuse box (A) has a stop (E) to avoid the impact of the spray boom with the machine due to spray boom inertia.

IMPORTANT: The spray boom screw (C) that has a notch must be always positioned in forward direction.

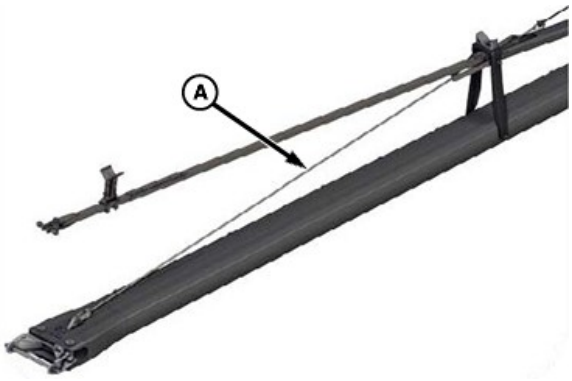
The stop (E) must be ahead, parallel to the spray boom screw (C), to the upside for the left-hand side spray boom, or to the downside at the right-hand side spray boom.

jtlsx7f,1726518017127-19-19SEP24

Check the T3 Tensioner (Carbon Fiber Spray Booms Only)

Perform this service at start of season, and every 50 hours or weekly.

IMPORTANT: Do not use the spray boom with the tensioner T3 (A) out of specificated tightening. If the tension of the tensioner T3 (A) is not correct, the risk os breaks is increased.



YE001224—UN—03JAN24

With the spray boom opened and none support under it, the tensioner T3 (A) must be adjusted to an specified tightening.

1. Open the spray boom.
2. With no support under the spray boom, check the tightening of the tensioner T3 (A). It must be as specified:

Specification	
Tensioner T3 (36 m (118.11 ft) spray booms)—Torque	44 N·m (32.45 lb·ft)
Tensioner T3 (40 m (131.23 ft) spray booms)—Torque	54 N·m (39.83 lb·ft)

3. If the tightening of the tensioner T3 (A) is out of specification, see Adjust the T3 Tensioner (Carbon Fiber Spray Booms Only) in Carbon Fiber Spray Boom section.)

jtlsx7f,1726755838327-19-19SEP24

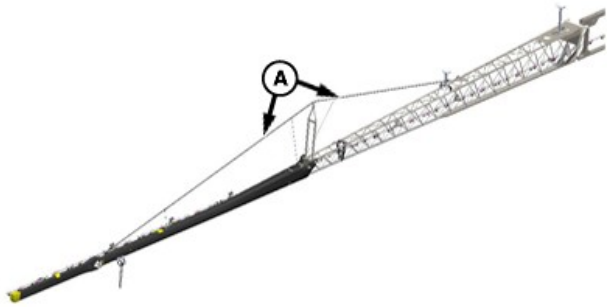
Check the T6/T7 Tensioner (Hybrid Spray Booms Only)

Perform this service every 50 hours or weekly.

IMPORTANT: Keep the rope T6/7 (A) properly tightened to avoid damages at spray boom.

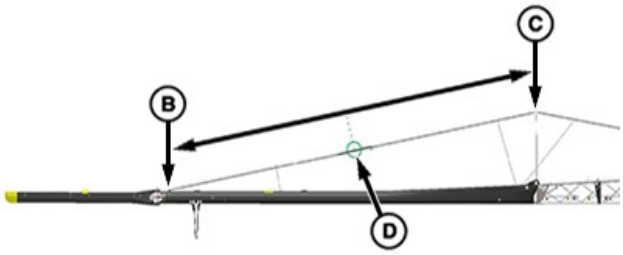
NOTE: The procedure is the same for both left- and right-hand side spray booms.

1. Completely unfold the spray boom.



YE001238—UN—03JAN24

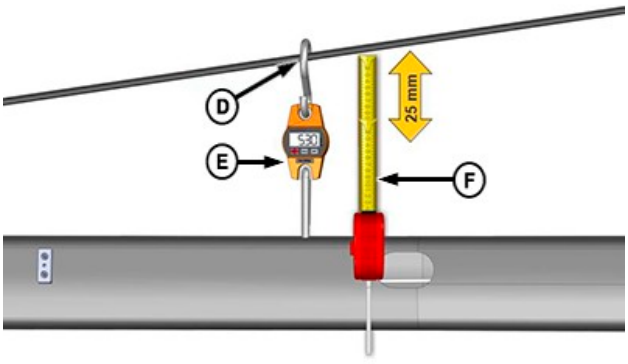
Hybrid Spray Boom



YE001240—UN—03JAN24

Hybrid Spray Boom

2. Measure the distance of the rope T6/7 (A) between the support point of the rope (B) and the center of the cylinder (C). Mark the middle point (D) as shown in the image.



YE001242—UN—03JAN24

3. Position a measuring tape (F) at the middle point (D) to measure flexion.
4. Use a scale (E) to flex the middle point (D) of the rope, as shown in the image. Measure the necessary force to flex the rope approximately 25 mm (1 in). The force measured must be as specified:

Specification	
T6/T7 Rope Flexion (36 m (118.11 ft) hybrid spray booms)—Force	5.5—7.5 kg (12.13—16.53 lbs)

Specification	
T6/T7 Rope Flexion (40 m (131.23 ft) hybrid spray booms)—Force	7.0—9.0 kg (15.43—19.84 lbs)

5. If the measured force is out of specification, perform the adjust of the tensioner. (See Adjust the T6/T7 Tensioner (Hybrid Spray Booms Only) in Hybrid Spray Boom section.)

jtlsx7f,1726754218290-19-19SEP24

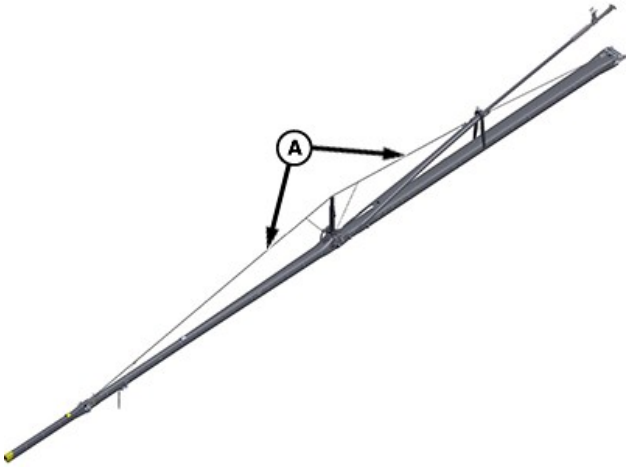
Check the T6/T7 Tensioner (Carbon Fiber Spray Booms Only)

Perform this service every 50 hours or weekly.

IMPORTANT: Keep the rope T6/7 (A) properly tightened to avoid damages at spray boom.

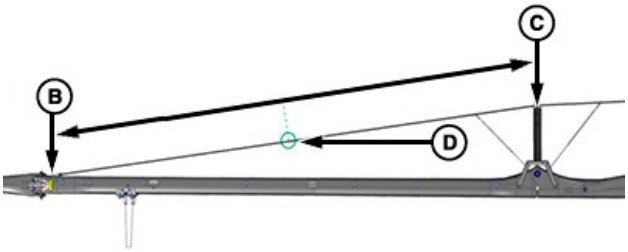
NOTE: The procedure is the same for both left- and right-hand side spray booms.

1. Completely unfold the spray boom.



YE001239—UN—03JAN24

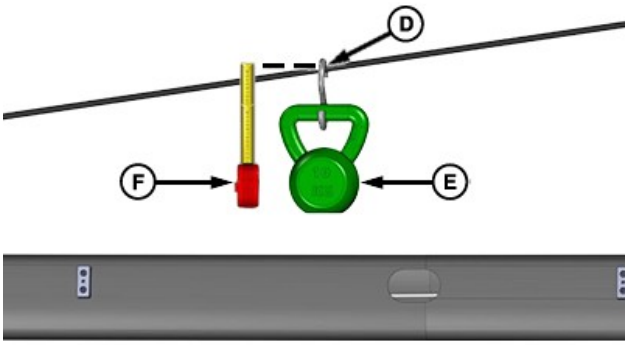
Carbon Fiber Spray Boom



YE001241—UN—03JAN24

Carbon Fiber Spray Boom

2. Measure the distance of the rope T6/7 (A) between the support point of the rope (B) and the center of the cylinder (C). Mark the middle point (D) as shown in the image.



YE1377203—UN—18SEP24

3. Position a measuring tape (F) at the middle point (D) to measure flexion.
4. Use a 10 kg (22 lbs) weight (E) to flex the middle point (D) of the rope, as shown in the image. Measure the deflected distance on this point in comparison to the original position of the middle point (D). The measured distance must be as specified:

Specification	
T6/T7 Rope Flexion—Distance	25—32 mm (0.98—1.26 in)

5. If the measured distance is out of specification, perform the adjust of the tensioner. (See Adjust the T6/T7 Tensioner (Carbon Fiber Spray Booms Only) in Carbon Fiber Spray Boom section.)

jtlsx7f,1726604250913-19-19SEP24

Check the Breakaway System (Carbon Fiber or Hybrid Spray Booms Only)

Perform this service every month.

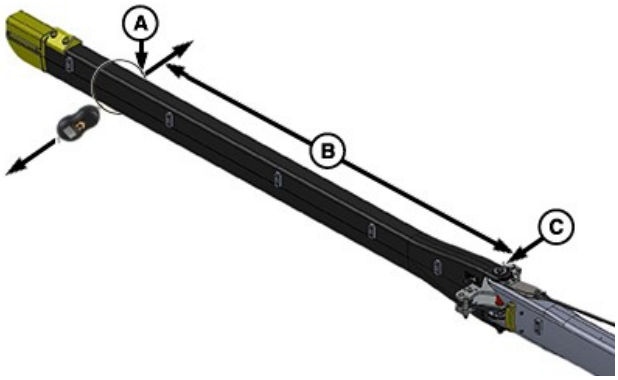
YE001236—UN—03JAN24

The breakaway system offers a certain resistance (maximum load) that when it is overcome, allows the breakaway section to rotate between the assembly screw, maintaning the integrity of the spray boom when maneuvering errors occur.

Check the Tension of the Breakaway System

NOTE: The procedure is the same for both left- and right-hand side spray booms.

1. Unfold the spray boom completely.



YE001237—UN—03JAN24

2. With the breakaway aligned, make a mark (A) at 2 m (6.56 ft) distance (B) since the screw of the breakaway assembly (C).
3. Install a loop with a dynamometer at the mark (A).
4. Generate a perpendicular force to the breakaway until the system force is overcome, registering the maximum load at the dynamometer. For a correct working of the system, his maximum load must be as specified:

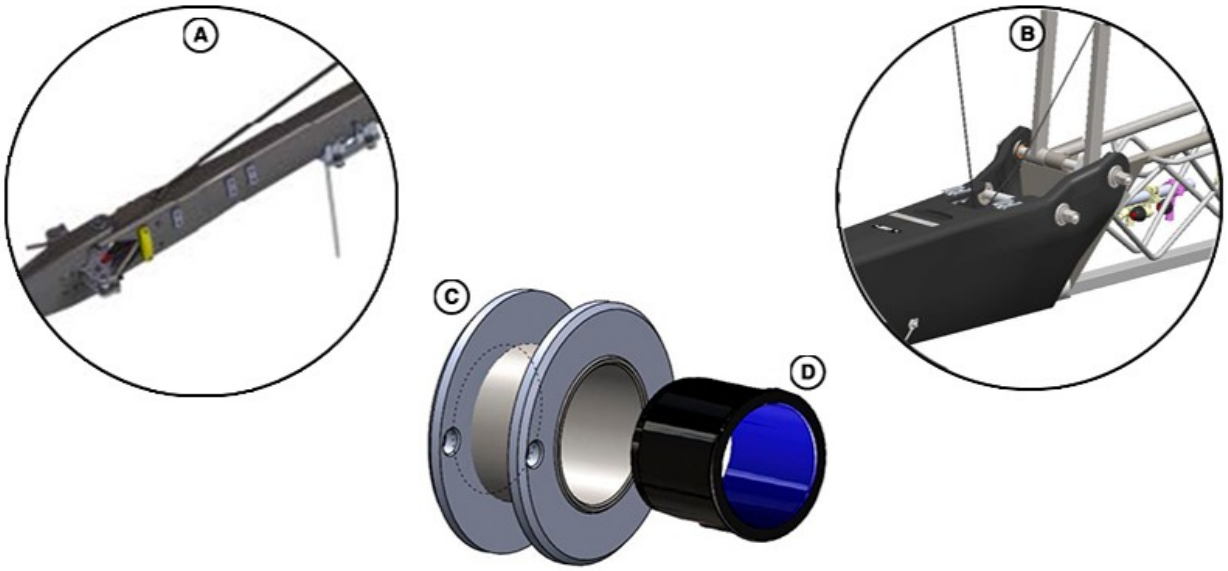
Specification	
Breakaway—Force	16—19 kg (35.3—41.9 lbs)

5. If the force measured is out of speficication, adjust the tension of the breakaway system:
   a. If equipped with hybrid spray boom, see Adjust the Breakaway System in Hybrid Spray Boom section.
   b. If equipped with carbon fiber spray boom, see Adjust the Breakaway System in Carbon Fiber Spray Boom section.

jtlsx7f,1726658787907-19-19SEP24

Check the Bushings (Carbon Fiber or Hybrid Spray Booms Only)

Perform this service every month.



YE1387613—UN—03JAN25

Hybrid Spray Boom

YE1387614—UN—03JAN25

Carbon Fiber Spray Boom

A—Breakaway Joint
B—Inner and Outer Joint
C—Steel Bushing
D—Vesconite Bushing
E—Initial Joint (carbon fiber spray booms only)

The spray boom contains two system of joints that

connect the sections of the spray boom through screws and bushings. These systems allow the folding/unfolding of the spray boom, as well as the breakaway system to work.

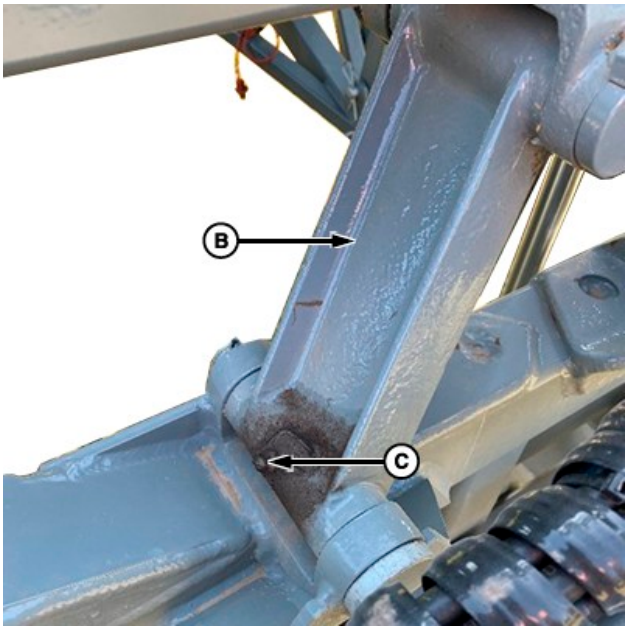
The bushings are composed of steel and vesconite. The steel bushing must be attached to the carbon fiber of the spray boom, and in its inside, there is other bushing of vesconite.

Visually check the bushings periodically to avoid damages on the spray boom. Search for:

- Cracked bushings.
- Worn bushings.
- Bushings out of position.
- Significant bushing movement or gap between the screw and the bushings.

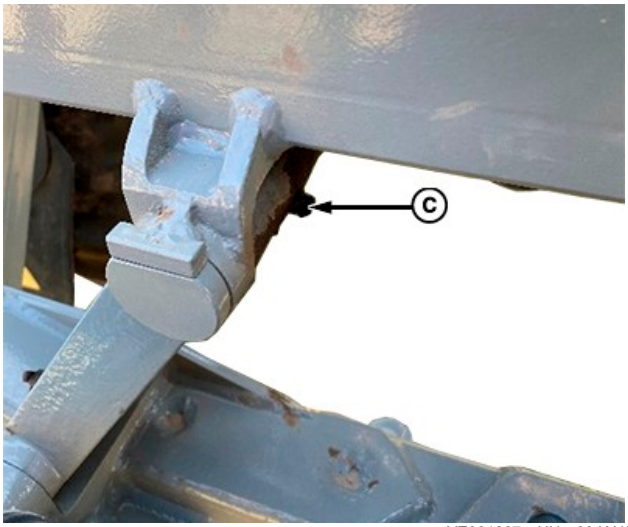
If one or more bushings are in the previously described conditions, see your PLA BY JOHN DEERE/JOHN DEERE authorized dealer to replace them.

jtlsx7f,1726755983341-19-03JAN25



YE001226—UN—03JAN24

2900 Self-Propelled Sprayer



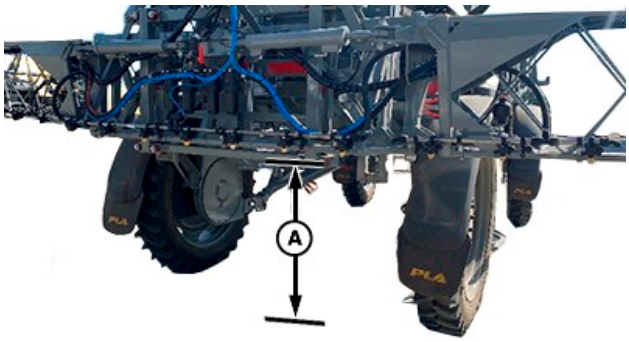
YE001227—UN—03JAN24

2900 Self-Propelled Sprayer

Check the Oscillation Structure of the Spray/Application Boom

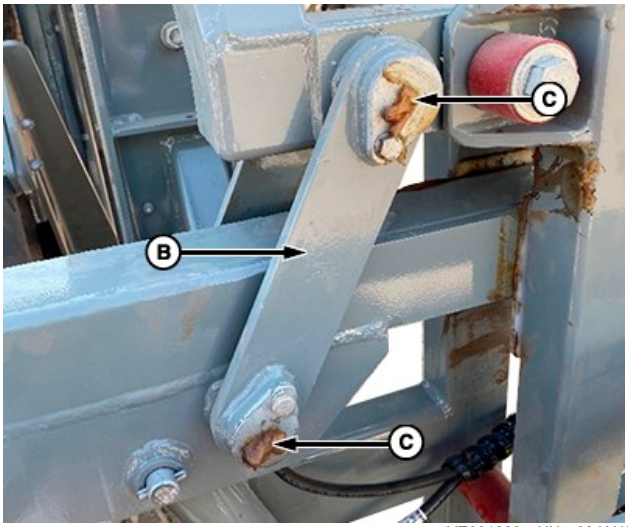
Perform this service every 250 hours.

1. Turn on the machine.
2. Park the machine on a firm, dry, and level surface.
3. Open and unlock the spray/application boom.



YE001225—UN—03JAN24

4. Position the spray boom at 1.5 m (4.92 ft) height (A).



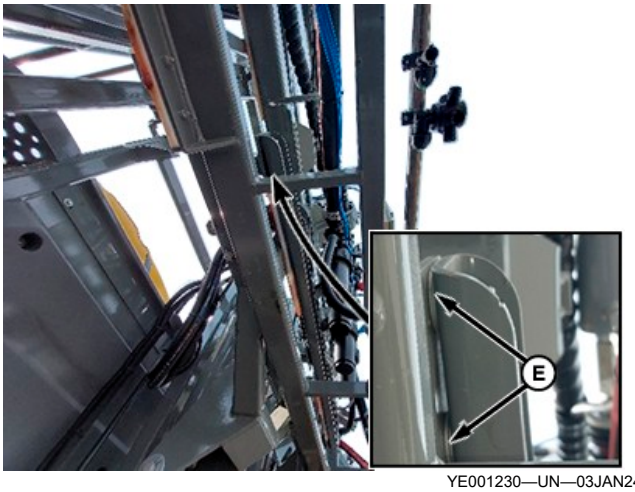
YE001228—UN—03JAN24

Other Machine Models

5. Check that the connecting rods (B) of the oscilating structure of the spray/application boom are greased at grease fittings (C).

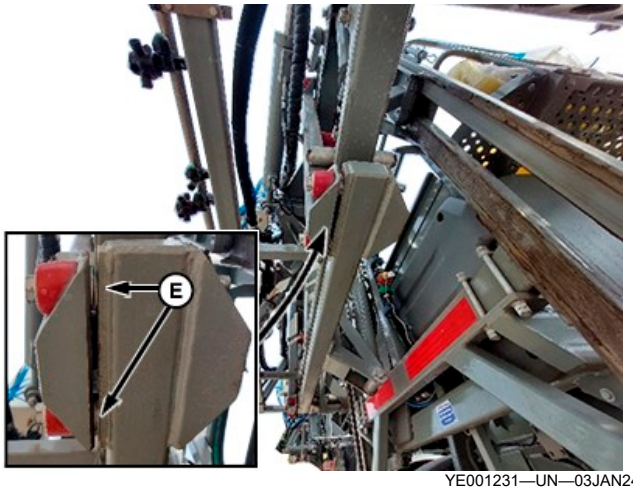
YE001229—UN—03JAN24

6. Go to the end of the spray/application boom (D) and apply down force as the image shows so the connecting rods (B) of the oscilating structure will go to the end of its movement course.
7. Release the spray/application boom. The assembly must perform only one oscillation, otherwise, it does not have the tightness enough and an adjust is needed.



YE001230—UN—03JAN24

2900 Self-Propelled Sprayer



YE001231—UN—03JAN24

Other Machine Models

8. Remove the shim washers (E) so the assembly is tightened, or add so the assembly is loosen.
9. Once the adjust is done, if needed, close the spray/application boom.
10. Turn off the machine.

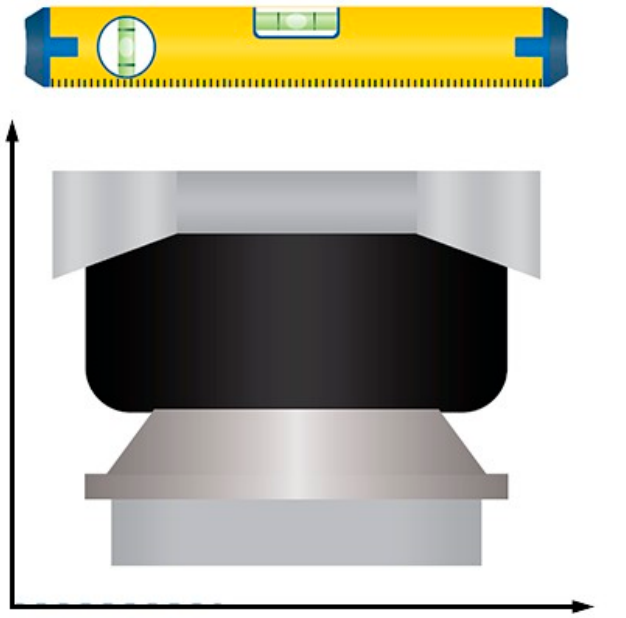
jtlsx7f,1668799293492-19-11AUG23

Check Alignment of Front and Rear Axles

Perform this service every 250 hours.

1. Park the machine on level ground.
2. Shut off the engine.
3. Check the longitudinal and transverse alignment of the machine in relation to rear and front axles.

NOTE: To perform this procedure correctly, the four air springs from suspension assemblies must be in the correct height specification. (See Check and Adjust the Suspension Assemblies in Service—Suspension System section.)



YE001232—UN—03JAN24

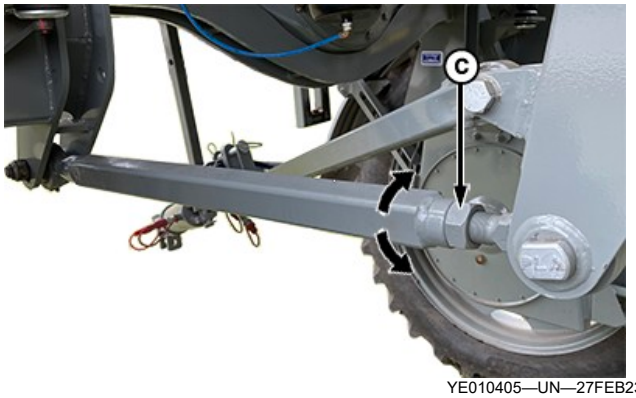
Air Spring

NOTE: The suspension air spring is used as a reference to check the machine alignment. The check is visually done. A level tool can also be used.

YE010404—UN—27FEB23

IMPORTANT: Avoid machine chassis damage. The ball joints (A) must be aligned in order to have the machine suspension system working correctly.

4. Check that ball joints (A) on both extremities are aligned.
5. Perform the vertical and horizontal alignment of the axles:
   a. Stand at the side of a machine wheel (facing it), in a way that the air spring can be visualized.
   b. Check the vertical alignment of the air spring.
   c. Check the horizontal alignment using the inclination of the air spring base as a reference.
6. Perform the longitudinal alignment of the axle:
   a. Stand in front of the machine, in a way that the air springs can be visualized.
   b. Check the alignment of the base of the air springs.
7. Repeat the procedures on all four wheels.
8. In case of deviations being noticed, the axles can be aligned by adjusting the corresponding tensioners:



YE010405—UN—27FEB23

   a. Loosen the tensioner locknut (C).
   b. Rotate the tensioner until the correct alignment is reached.
   c. Tighten the tensioner locknut (C) to specification:

Specification

Tensioner Nut—Torque	975 N·m (719 lb·ft)

   d. For the adjust of the tensioner ball joint nuts (B), tighten these nuts to specification:

Specification

Tensioner Ball Joint Nuts—Torque	975 N·m (719 lb·ft)

jtlsx7f,1662471261040-19-11AUG23

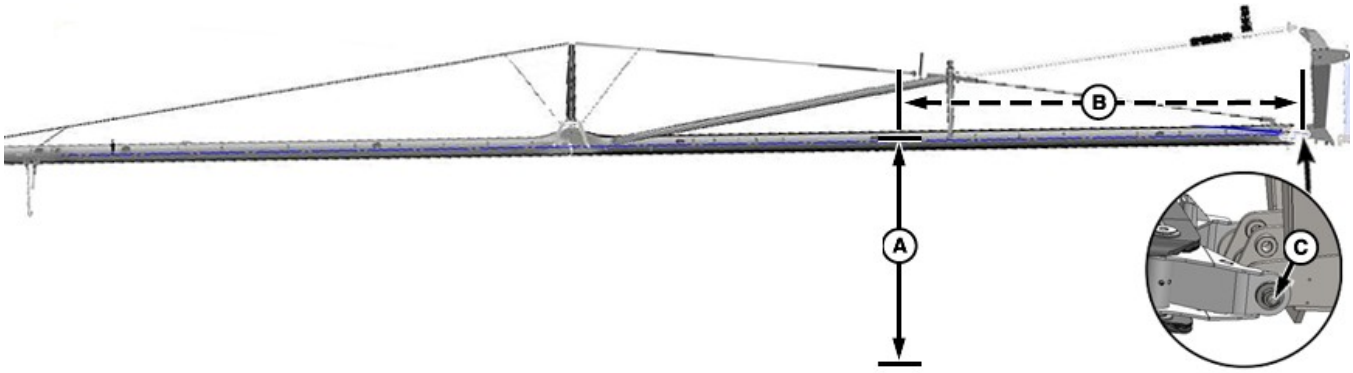
Check the Position of the Inner Spray Boom Section (Carbon Fiber Spray Booms Only)

Perform this service every 500 hours or every year, or as required when the system is disassembled.

NOTE: The procedure is the same for both left- and right-hand side spray booms.

The tilt cylinder must allow a range between -5° and -15°. To achieve that, perform the following procedure:

1. Park the machine on level ground.
2. Unfold both sides of the spray boom.
3. Raise the center spray boom.
4. Tilt down the spray boom until it is horizontally aligned to the ground.



YE1377191—UN—18SEP24

5. Measure the distance (B) of 10 m (32.8 ft) from the hinge pin (C).
6. At the end of the distance (B) measured on the spray boom, measure the distance from the ground (A). Note this value for futher reference. See the image.
7. Tilt down the spray boom to the mechanical stop near to the hinge pin (C).
8. Measure the distance from the ground (A) again and compare with the value previously measured. The difference between the distances measured must be as specified:

Specification	
Difference between Distances from the Ground—Distance	700—900 mm (27.6—35.4 in)

9. If the distance range is out of specification, the inner spray boom section must be adjusted. See Adjust the Inner Spray Boom Section (Carbon Fiber Spray Booms Only) in Carbon Fiber Spray Boom section.

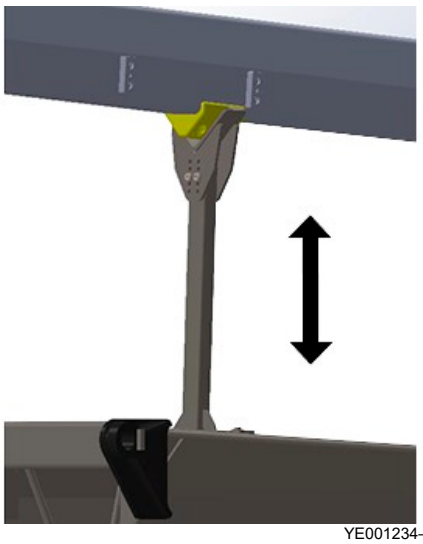
NOTE: With the spray boom at horizontal position, the mechanical stop near the hinge pin (C) must have at least 40 mm (1.57 in) gap.

jtlsx7f,1726584111167-19-19SEP24

Check the Position of the Breakaway Section Support (Carbon Fiber or Hybrid Spray Booms Only)

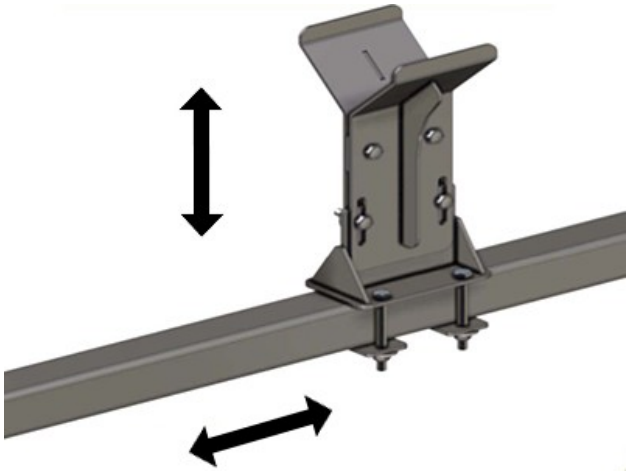
Perform this service every 500 hours or every year, or as required when the system is disassembled.

NOTE: The procedure is the same for both left- and right-hand side spray boom.



YE001234—UN—03JAN24

Hybrid Spray Boom



YE001235—UN—03JAN24

Carbon Fiber Spray Boom

The spray boom is equipped with a V-support that is a side contention for the breakaway section during transpot. Its height must be adjusted so the V-support does not touches the breakaway section when the spray boom is folded, maintaining gap bewteen breakaway section and the V-support.

The complete support of the spray boom sections must be performed through the supports of the outer spray boom section.

IMPORTANT: The breakaway section must be smoothly supported by its support during transport.

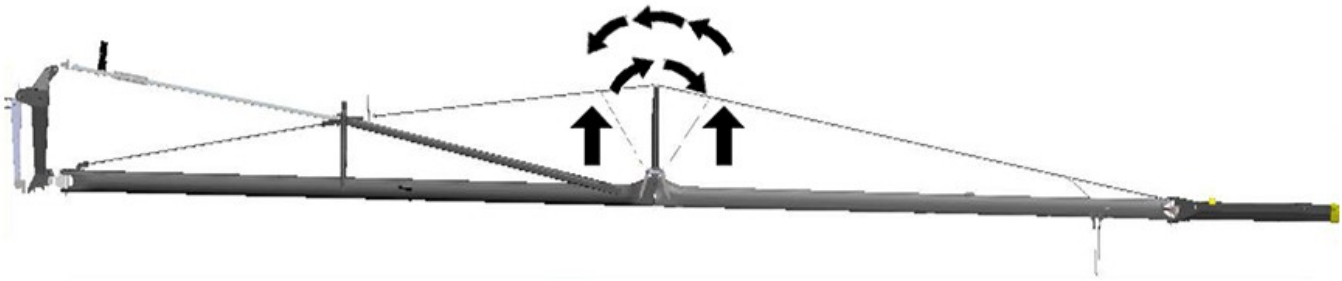
jtlsx7f,1726602554476-19-19SEP24

Check the Folding System (Carbon Fiber Spray Booms Only)

Perform this service every 500 hours or every year, or as required when the system is disassembled.

NOTE: The procedure is the same for both left- and right-hand side spray booms.

The outer fold cylinder is equipped with hydraulic brakes to avoid impacts at the end of its courses.



YE001243—UN—03JAN24

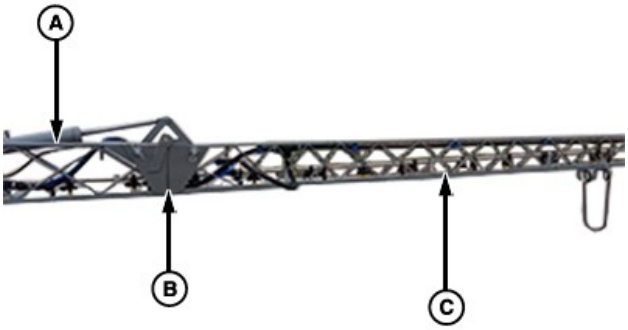
Carbon Fiber Spray Boom

To check the braking speed, it is necessary to unfold and fold both sides of the cylinder, checking that the pressure and return speed of the cylinder decrease before ending each movement (pressure or return), allowing this way to smooth the movements over the supports and over the folding stops.

If the pressure and return speed of the cylinder is not as explained, see Adjust the Outer Fold Cylinder (Carbon Fiber Spray Booms Only) in Carbon Fiber Spray Boom section.

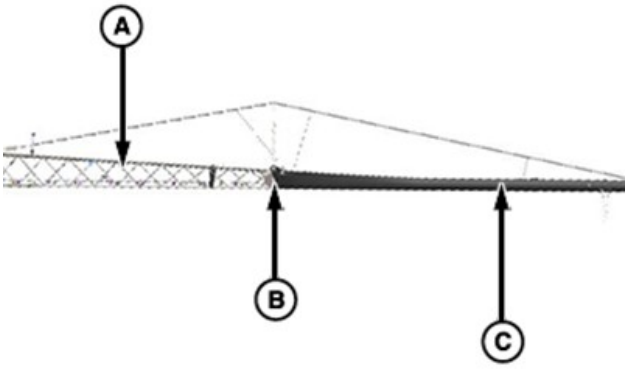
IMPORTANT: Damages can occur at the spray boom if the hydraulic system does not slows the outer fold cylinder speeds during its movements.

jtlsx7f,1726753969584-19-19SEP24



YE010478—UN—03APR23

Steel Spray Boom



YE010500—UN—04APR23

Hybrid Spray Boom

Check the Outer Spray Boom Section Position (Steel or Hybrid Spray Booms Only)

Perform this service as required.

1. Turn on the machine.
2. Park the machine on a level ground.
3. Fully open spray booms.
4. Check if the inner spray boom section (A) and the outer spray boom section (C) touch each other at joint (B).

YE001246—UN—03JAN24

Steel Spray Boom

YE010502—UN—04APR23

Hybrid Spray Boom

5. Push and pull the breakaway section (D) and observe the joint (B). If no gap is observed, no adjust is needed.
6. If any gap is observed, see Adjust the Outer Spray Boom Section Position in Hybrid Spray Boom section or Steel Spray Boom section, according to the spray boom model equipped on the machine.

jtlsx7f,1680696493253-19-11AUG23

Replace the Fresh Air Filter (Sprayers with Central Engine)

Perform this service every 500 hours or every year, whichever occurs first.

Also perform this service as required if the machine operates in dusty or dry conditions. At these situations, replace the fresh air filter more often.

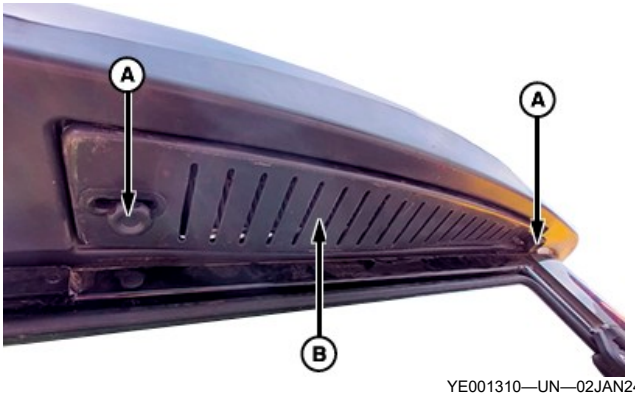
CAUTION: The fresh air filter is an activated carbon filter. It reduces the quantity of dust and contaminants at the cab, being considered a safety feature of the machine. Make sure this filter is always properly installed on the cab before starting operation.

CAUTION: Exposure to chemicals, including pesticides, can cause injury or death. Wear personal protective equipment, in accordance with the chemical manufacturer label. If respiratory protection is required for use of pesticides, wear an appropriate mask inside the cab.

DO NOT rely only on the sprayer cab, cab pressure indicator, or on the cab air filters as a full protection against chemical exposure.

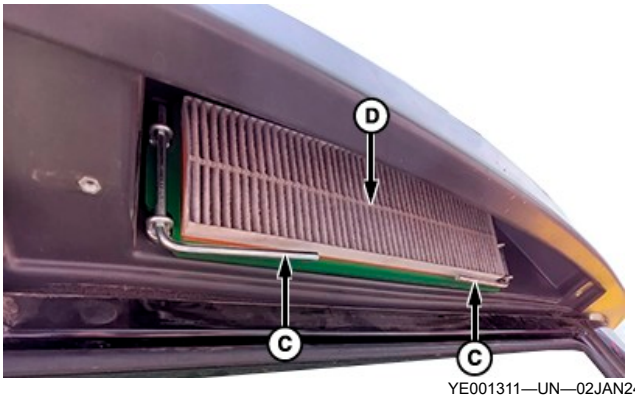
IMPORTANT: Activated carbon filters cannot be cleaned. Replace this kind of filter at the indicated service intervals.

1. Park the machine on level ground.
2. Shut off the engine.
3. Access the filter location at the left-hand side of the cab.



YE001310—UN—02JAN24

4. Turn the knobs (A) clockwise and remove the filter cover (B). Set the cover (B) aside for reassembly.



YE001311—UN—02JAN24

5. Pull the rods (C) to opened position.
6. Remove the filter element (D) and discard it properly.
7. Install a new filter element (D).
8. Move the rods (C) to locked position.
9. Reinstall the cover (B) and the knobs (A). Make sure the cover (B) is well fixed.

jtlsx7f,1734020752014-19-12DEC24

Replace the Air Recirculation Filter (Sprayers with Central Engine)

Perform this service every 500 hours or every year, whichever occurs first.

Also perform this service as required if the machine operates in dusty or dry conditions. At these situations, replace the fresh air filter more often.

CAUTION: The air recirculation filter is an activated carbon filter. It reduces the quantity of dust and contaminants at the cab, being considered a safety feature of the machine.

Make sure this filter is always properly installed on the cab before starting operation.

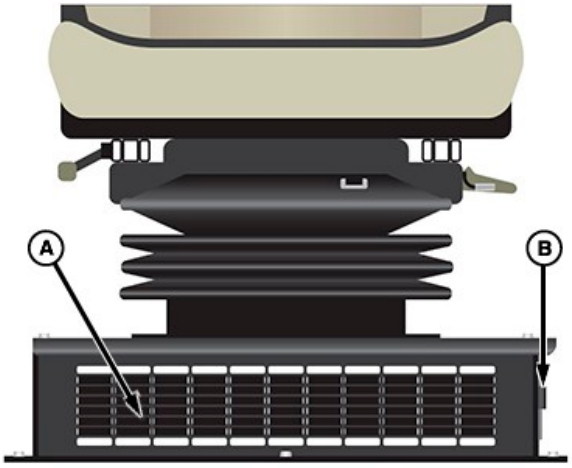
CAUTION: Exposure to chemicals, including pesticides, can cause injury or death. Wear personal protective equipment, in accordance with the chemical manufacturer label. If respiratory protection is required for use of pesticides, wear an appropriate mask inside the cab.

DO NOT rely only on the sprayer cab, cab pressure indicator, or on the cab air filters as a full protection against chemical exposure.

IMPORTANT: Activated carbon filters cannot be cleaned. Replace this kind of filter at the indicated service intervals.

1. Park the machine on level ground.

2. Shut off the engine.
3. Access the filter location under the operator's seat.



YF000402—UN—06JUN23

4. Remove the filter cover (B).
5. Pull the filter element (A) out of its housing and discard it properly.
6. Install a new filter element (A) on its housing under the operator's seat.
7. Reinstall the filter cover (B).

jtlsx7f,1734020792097-19-12DEC24

Replace the Activated Carbon Filters (Sprayers with Front Engine and Nutrient Applicators with Central Engine)

Perform this service every 250 hours.

Also replace it in case of odors start to be noticed.

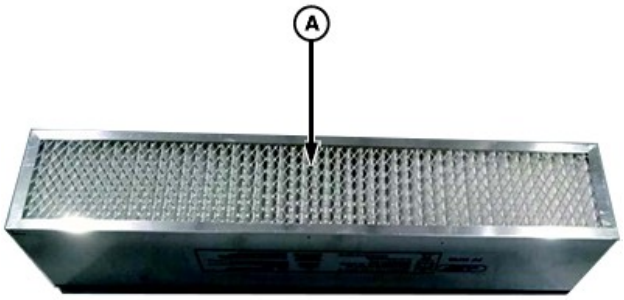
CAUTION: Avoid injury. The service interval of the activated carbon filters varies according to the chemical product used.

CAUTION: Do not wash or use compressed air to clean the activated carbon filter. This filter meets the ISO 15695/2 with an efficiency of 99%. It must be changed every 250 hours.

When replacing the activated carbon filter, return it to its original packing and discard according to safety instructions and environmental regulations. Contact your local environmental or recycling center or your PLA BY JOHN DEERE/JOHN DEERE authorized dealer.

CAUTION: Avoid contact with chemical products. Do not rely only on the machine cab or filters as a full protection against chemical exposure. If pesticide use instructions require respiratory protection, wear an appropriate respirator inside the cab. (See Safety Equipment in Solution System section.)

IMPORTANT: Activated carbon filters cannot be cleaned. Replace this filter at the correct service interval.



YE000179—UN—22SEP22

The cab has activated carbon filters (A) for helping in the protection from chemicals used during spraying operation.

YE000181—UN—22SEP22

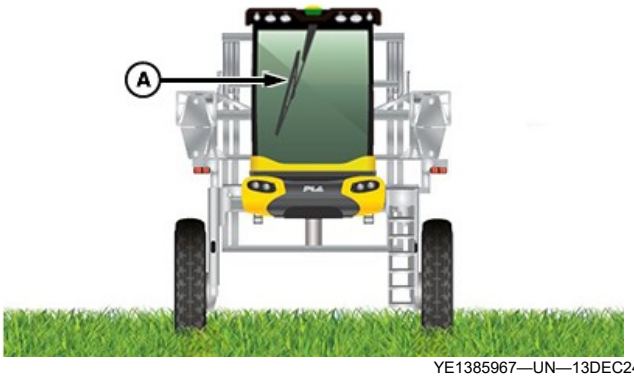
To access the activated carbon filters (A), remove the upper side covers (B) at cab roof.

Check the state of the gaskets that ensure the airtightness of the cab. In case of excessive drying or breakage, they must be replaced as well.

jtlsx7f,1734020834234-19-02JAN25

Replace the Windshield Wiper Blade

Perform this service as required.



YE1385967—UN—13DEC24

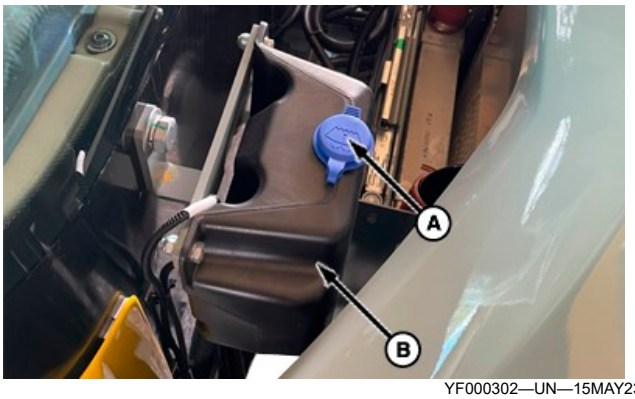
Regularly check the windshield wiper blade (A). Replace it if dry or damaged.

NOTE: The image is for illustrative purposes only. Your machine may have differences.

jtlsx7f,1734087974430-19-13DEC24

Check the Level of the Windshield Washer Reservoir

Perform this service as required.

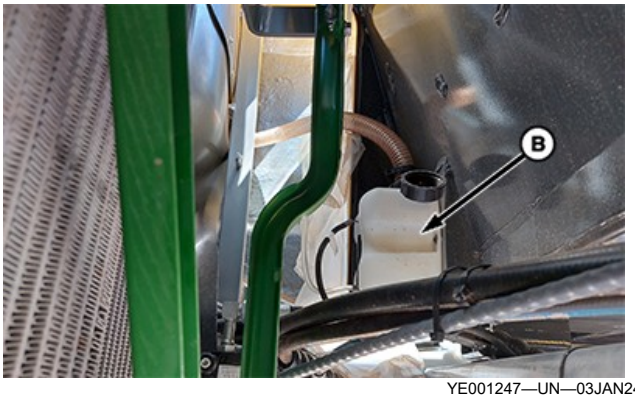


YF000302—UN—15MAY23

Sprayers with Central Engine

YE001248—UN—03JAN24

Nutrient Applicators



YE001247—UN—03JAN24

Nutrient Applicators

YE000180—UN—22SEP22

Sprayers with Front Engine

IMPORTANT: Avoid damage to the windshield washer system:

- **Keep the windshield washer reservoir (B) always filled.**
- **If using detergent, only use products specified for this kind of purpose. Using other products than the suitable ones in the reservoir may lead to damage to the rubber of the windshield wiper blade.**

The windshield washer reservoir (B) is behind the cab.

1. Regularly check the level of the windshield washer reservoir (B).
2. Remove the lid (A) and fill the windshield wiper reservoir (B) with water and some detergent drops, if necessary.
3. After completing the windshield washer reservoir (B), reinstall the lid (A).

jtlsx7f,1734095279241-19-13DEC24

Turn On the Machine for Some Minutes

Perform this service as required, when the machine was not used for more than 30 days.

IMPORTANT: Avoid air conditioning system and fuel system damage:

- **When the system was not used for more than 30 days, run machine at no more than low idle for 10 minutes. During this time, turn on the air conditioning system at hot temperature. The heating on system reduces the proliferation of microorganisms and prevent compressor seal failure due to lack of lubrication.**
- **Turning on the engine at these situation also prevents damages on fuel system due to residues accumulation on system.**

1. Turn on the engine and run at low idle.
2. Turn on the air conditioning system at hot temperature for 10 minutes so all the system components are properly lubricated.

IMPORTANT: Avoid damage to the air conditioning system. Before shutting off the engine, turn off the air conditioner.

3. Turn off the air conditioning system.
4. Shut off the engine.

jtlsx7f,1692901594553-19-24AUG23

Specifications-General Information

Introduction to Specifications

NOTE: Specifications and design subject to change without notice.

RP46668,00002A0-19-20JUL23

Machine Design Life

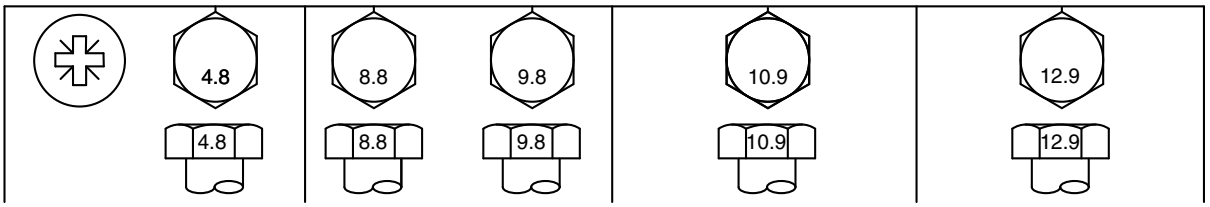
This machine is designed and manufactured to provide a long life of productive operation, however actual attainable life depends on a number of factors including the severity of working conditions and completion of recommended maintenance. (See the Service section of this manual.)

Periodically inspect and review the machine in conjunction with your John Deere dealer. The review may result in recommendations for service, component repair, remanufacture or replacement, or, if at the end of life, that the machine be removed from operation. (See separate decommissioning section of this manual for information on disposal and recycling of machine components.)

No machine should be operated if safety-related components are missing or in need of service. All missing or damaged safety-related components, including safety signs, should be repaired or replaced before operating.

DX,MACH,DESIGN,LIFE-19-14SEP15

Metric Bolt and Screw Torque Values



TS1742—UN—31MAY18

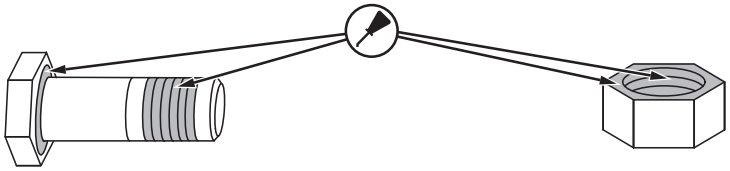
Bolt or Screw Size	Class 4.8				Class 8.8 or 9.8				Class 10.9				Class 12.9			
	Hex Head[a]		Flange Head[b]		Hex Head[a]		Flange Head[b]		Hex Head[a]		Flange Head[b]		Hex Head[a]		Flange Head[b]	
	N·m	lb·in	N·m	lb·in	N·m	lb·in	N·m	lb·in	N·m	lb·in	N·m	lb·in	N·m	lb·in	N·m	lb·in
M6	3.6	31.9	3.9	34.5	6.7	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.

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]
• Properly start thread engagement.								

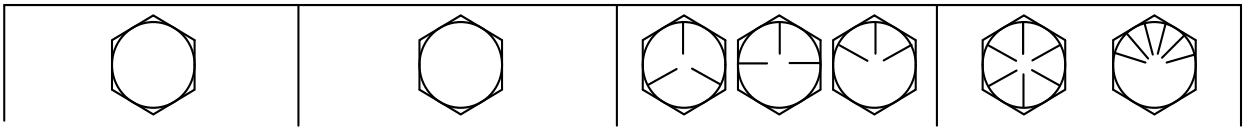


TS1741—UN—22MAY18

[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(T)-19-09MAY22

Unified Inch Bolt and Screw Torque Values



TS1671—UN—01MAY03

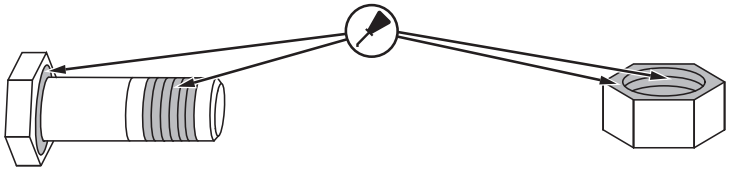
Bolt or Screw Size	SAE Grade 1[a]				SAE Grade 2[b]				SAE Grade 5, 5.1 or 5.2				SAE Grade 8 or 8.2			
	Hex Head[c]		Flange Head[d]		Hex Head[c]		Flange Head[d]		Hex Head[c]		Flange Head[d]		Hex Head[c]		Flange Head[d]	
	N·m	lb·in	N·m	lb·in	N·m	lb·in	N·m	lb·in	N·m	lb·in	N·m	lb·in	N·m	lb·in	N·m	lb·in
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.

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]
• Properly start thread engagement.								

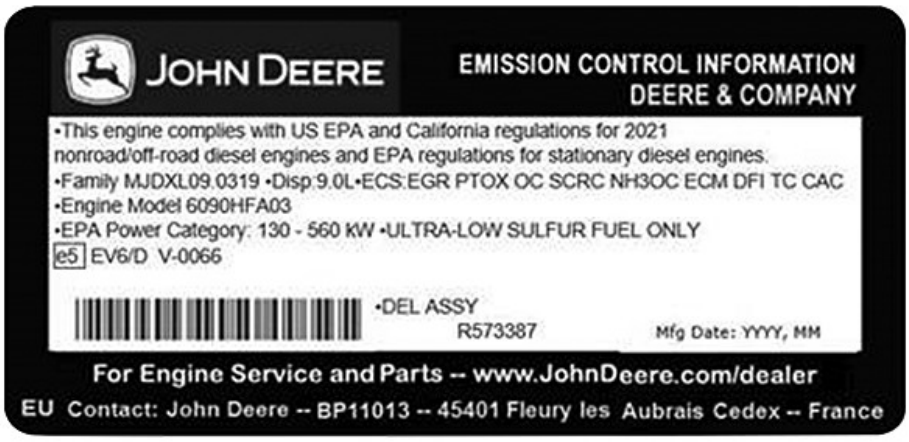


TS1741—UN—22MAY18

[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(T)-19-09MAY22

Carbon Dioxide Emissions (CO_2)



RG33429—UN—04FEB21

SAMPLE - Engine Emissions Label

To identify the carbon dioxide (CO_2) output, locate the engine emissions label. Find the appropriate family on the emissions label and reference the chart.

NOTE: The first letter of the family number is not utilized for family identification on the chart.

Emissions Label Family	CO_2 Result
_JDXL02.9323	952 g/kW-hr
_JDXL02.9327	784 g/kW-hr
_JDXL04.5337	819 g/kW-hr
_JDXL04.5338	682 g/kW-hr
_JDXL04.5304	1004 g/kW-hr
_JDXN04.5174	792 g/kW-hr
_JDXL06.8324	720 g/kW-hr
_JDXL06.8328	683 g/kW-hr
_JDXL06.8336	701 g/kW-hr
_JDXN06.8175	771 g/kW-hr

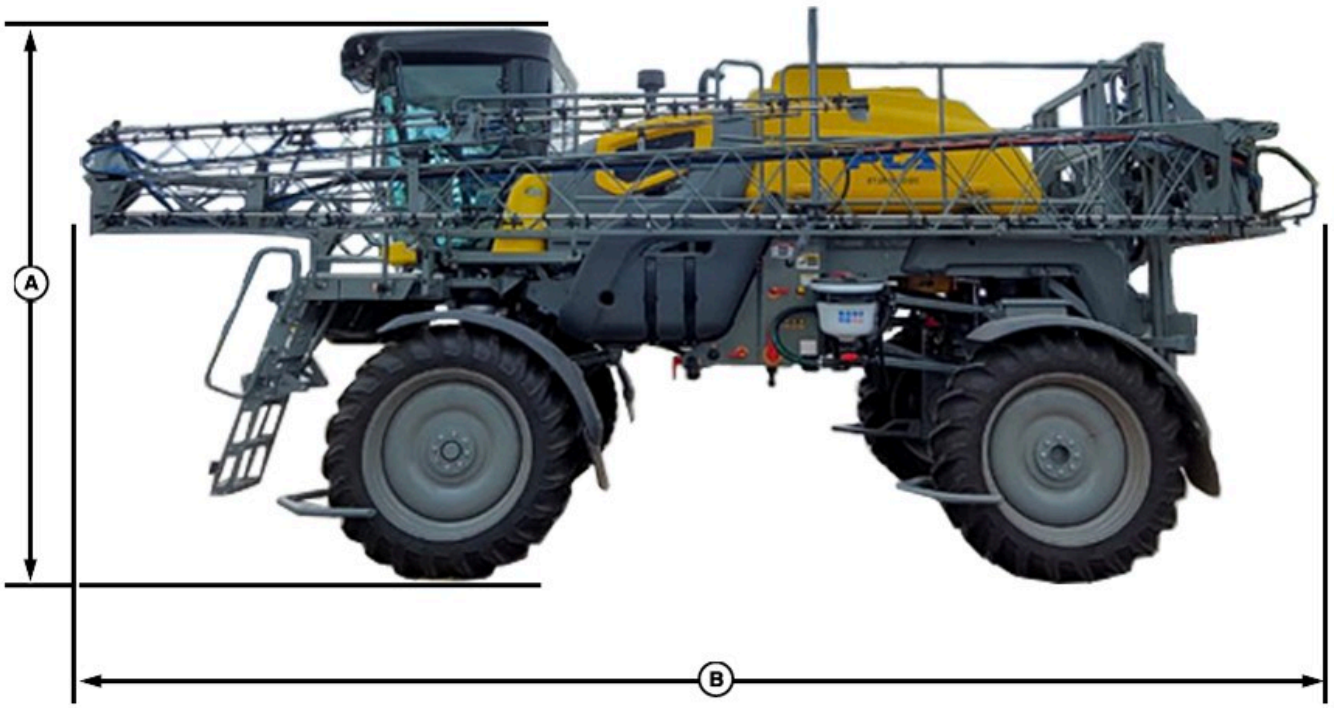
Emissions Label Family	CO_2 Result
_JDXL09.0319	646 g/kW-hr
_JDXL09.0325	695 g/kW-hr
_JDXL09.0329	657 g/kW-hr
_JDXL09.0333	650 g/kW-hr
_JDXL13.5326	684 g/kW-hr
_JDXL13.6320	651 g/kW-hr
_JDXL13.5340	632 g/kW-hr
_JDXL18.0341	683 g/kW-hr
_JDXL18.0342	687 g/kW-hr
F28	870 g/kW-hr
F32	710 g/kW-hr
F33	677 g/kW-hr

This CO_2 measurement results from testing over a fixed test cycle under laboratory conditions a(n) (parent) engine representative of the engine type (engine family)

and shall not imply or express any guarantee of the performance of a particular engine.

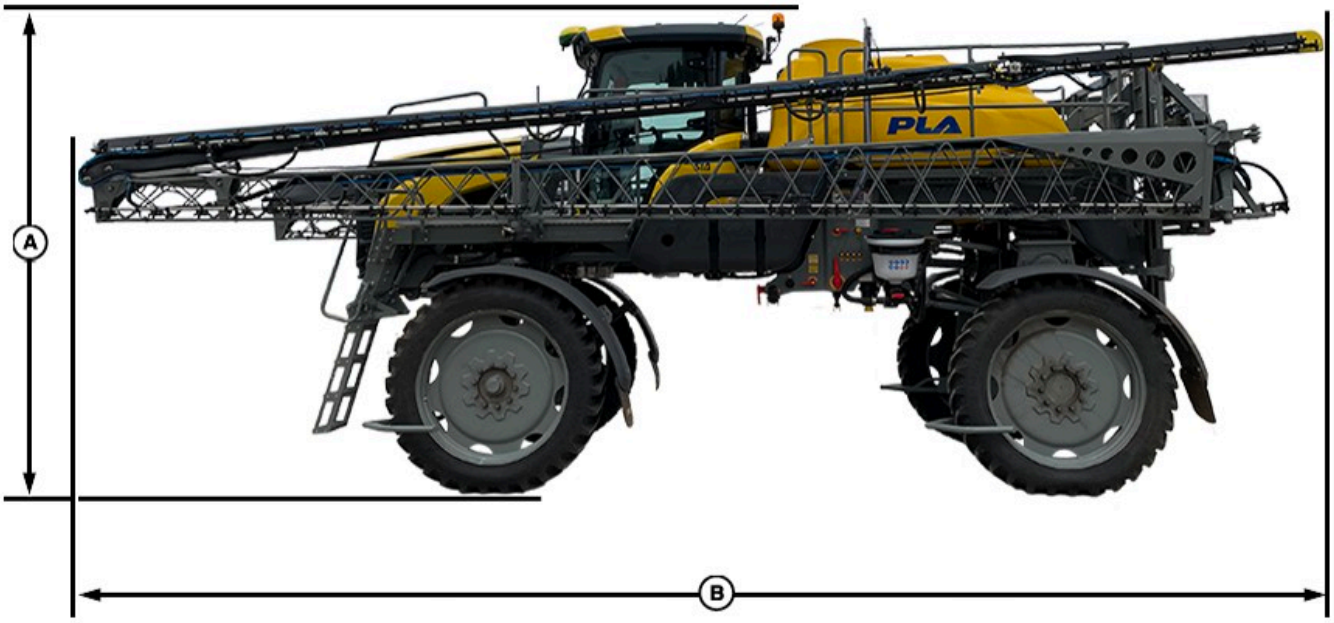
DX,EMISSIONS,CO2-19-23JUN23

Dimensions



YE001312—UN—02JAN24

Left-Hand Side View—Self-Propelled Sprayers with Central Engine

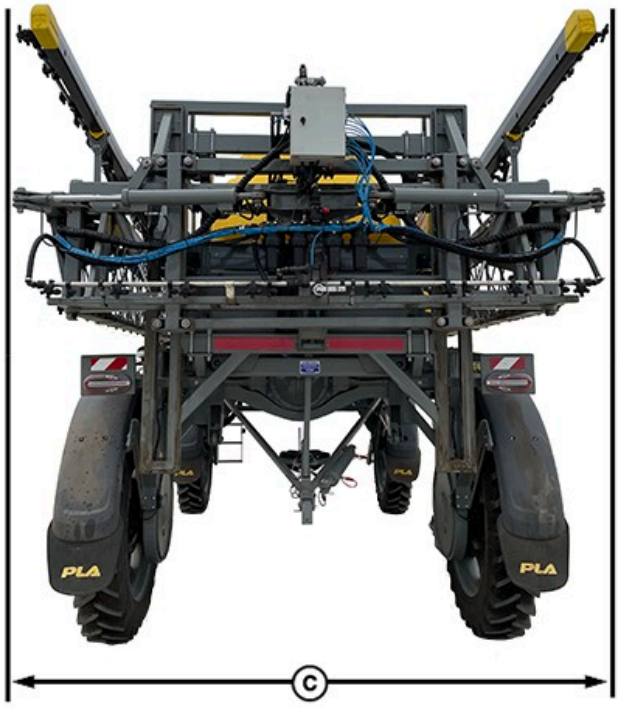


YE001250—UN—03JAN24

Left-Hand Side View—Self-Propelled Sprayers with Front Engine

YE001251—UN—03JAN24

Rear View—Self-Propelled Sprayers with Central Engine



YE001252—UN—03JAN24

Rear View—Self-Propelled Sprayers with Front Engine

Model	Sprayers with Central Engine	Sprayers with Front Engine
Dimension	**m (ft)**	**m (ft)**
A - Minimum Height[a]	3.83 (12.57)	3.83 (12.57)
A - Maximum Height[a]	4.00 (13.12)	4.08 (13.39)
B - Minimum Length [a]	7.79 (25.56)	8.53 (27.99)
B - Maximum Length[a]	9.80 (32.15)	9.92 (32.55)
C - Minimum Width[a]	3.52 (11.55)	3.52 (11.55)
C - Maximum Width[a]	3.94 (12.93)	4.17 (13.68)

[a]*Spray boom closed.*

Clearance Specification for Self-Propelled Sprayers			
Machine Model	**Tread**	**Tires**	**Clearance**
			m (ft)
2900	2100	R36	1.30 (4.27)
	2625	R38	1.35 (4.43)
3300	2625	R38	1.35 (4.43)
3300 MD	2625	R38	1.49 (4.89)
3300 GD	2625	R46	1.63 (5.35)
3600 MD	2625	R46	1.63 (5.35)

jtlsx7f,1734096251114-19-23DEC24

Weights

Self-Propelled Sprayers		
Model	**Machines with Central Engine**	**Machines with Front Engine**
Measure and Condition	**kg (lbs)**	**kg (lbs)**
Minimum Weight (Empty)	7978 (17 588)	9325 (20 558)
Maximum Weight (Empty)	9880 (21 782)	10 630 (23 435)
Minimum Weight (Full)	11 120 (24 515)	12 330 (27 183)
Maximum Weight (Full)	13 412 (29 568)	14 490 (31 945)

Nutrient Applicators	
Measure and Condition	**kg (lbs)**
Weight (Empty)	10 553 (23 265)

jtlsx7f,1734096253035-19-23DEC24

Tire Inflation Pressures

Machine Model	Tread	Tire	Pressure
			KPa (bar) (psi)
2900	2100	12.4-36 12 PR R1	331 (3.31) (48.0)
	2625	13.6-38 14 PR R1	345 (3.45) (50.0)
3300	2625	13.6-38 14 PR R1	345 (3.45) (50.0)
3300 MD	2625	13.6-38 14 PR R1	345 (3.45) (50.0)
3300 GD	2625	320/90 R46 R1W 151 A8	360 (3.60) (52.2)
		380/90 R46 R1W 159 A8	400 (4.00) (58.0)
3600 MD	2625	320/90 R46 R1W 151 A8	360 (3.60) (52.2)
		380/90 R46 R1W 159 A8	400 (4.00) (58.0)
MAF 5000	2625	380/90 R46 R1W 159 A8	400 (4.00) (58.0)

jtlsx7f,1659462433128-19-22NOV22

Electrical System

Battery Voltage . . . . . 12 V - 160 Ah
Alternator . . . . . 150 A

jtlsx7f,1659527663819-19-04AUG22

Air Conditioning System

Refrigerant Fluid R-134a

CAUTION: Avoid serious injury or death. The charge of the air conditioning system must be performed by technicians only and with adequate tools. Never disconnect hoses that contain refrigerant fluid.

jtlsx7f,1668629571470-19-17NOV22

Brakes

Service Brake
Type . . . . . Disk brake in all four wheels, hydraulic air-assisted
Actuation . . . . . Controlled by pedal
Park Brake
Type . . . . . .Air brake
Type . . . . . .Controlled by switch
Fluid of Brakes

Type . . . . . DOT 3

jtlsx7f,1663088278252-19-25NOV22

Steering System

Type . . . . . .Hydraulic with load sense

jtlsx7f,1659642556453-19-19AUG22

Maximum Speeds

NOTE: For the following tables, consider that A = high range, B = low range.

NOTE: The maximum speeds shown at table are for reference only. The machine real speeds may vary according to various factors.

Maximum Speeds for Sprayers Equipped with Eaton Manual Transmission			
Tires	**R36**	**R38**	**R38**
Machine Model	**2900**	**2900**	**3300 and 3300 MD**
Gear and Range	**km/h (mph)**	**km/h (mph)**	**km/h (mph)**
1B	4.4 (2.73)	5.3 (3.29)	5.3 (3.29)
1A	6.1 (3.79)	7.3 (4.54)	7.3 (4.54)
2B	8.1 (5.03)	9.8 (6.09)	9.8 (6.09)
2A	9.8 (6.09)	13.6 (8.45)	13.6 (8.45)
3B	14.4 (8.95)	17.4 (10.81)	17.4 (10.81)
3A	20.0 (12.43)	24.1 (14.98)	24.1 (14.98)
4B	23.9 (14.85)	28.7 (17.83)	28.7 (17.83)
4A	33.2 (20.63)	39.9 (24.79)	39.9 (24.79)
5B	35.3 (21.93)	42.5 (26.41)	42.5 (26.41)
5A	49.1 (30.51)	59.1 (36.72)	59.1 (36.72)

Maximum Speeds for Sprayers Equipped with Alisson Automatic Transmission		
Tire Size	**R38**	**R46**
Machine Model	**3300 and 3300 MD**	**3600 MD and 3300 GD**
Gear and Range	**km/h (mph)**	**km/h (mph)**
1B	12.1 (7.52)	10.3 (6.40)
1A	16.8 (10.44)	14.3 (8.89)
2B	22.4 (13.92)	19.1 (11.87)
2A	31.1 (19.32)	26.5 (16.47)
3B	29.5 (18.33)	25.2 (15.66)
3A	41.1 (25.54)	35.0 (21.75)
4B	42.5 (26.41)	36.2 (22.49)
4A	59.1 (36.72)	50.4 (31.32)

Maximum Speeds for Nutrient Applicators	
Tires	**R46**
Machine Model	**MAF 5000**
Gear and Range	**km/h (mph)**
1B	4.5 (2.80)
1A	6.3 (3.91)
2B	8.3 (5.16)
2A	11.6 (7.21)
3B	14.8 (9.20)
3A	20.6 (12.80)
4B	24.5 (15.22)
4A	34.0 (21.13)
5B	36.2 (22.49)
5A	50.4 (31.32)

jtlsx7f,1668609171294-19-05DEC22

Specifications-2900 Self-Propelled Sprayers

Introduction to Specifications

NOTE: Specifications and design subject to change without notice.

RP46668,00002A0-19-20JUL23

Engine

Engine	John Deere PowerTech
Model	4045 HYE01
Type	Inline Diesel Engine, 2 valves
Nominal Power	93 kW (125 hp)
Nominal Speed	2300 rpm
Low Idle Speed	850 +- 50 rpm
High Idle Speed	2450 +- 50 rpm
Injection System	Conventional
Number of Cylinders	4
Displacement	4.5 L
Aspiration	Turbocharged and aftercooled, air-to-air
Cooling System	Coolant

edw8krp,1679775332500-19-25MAR23

Fuel System

Injection Pump	Delphi DP100 rotary pump (mechanical)
Transfer Pump	Mechanical fuel pump
Filtering System	Two-stage with water separator fuel filter system

jtlsx7f,1659462614659-19-10NOV22

Transmission System

Traction	Mechanical 4X2
Primary Transmission	**Eaton FS 4205**
Number of Speed Ranges	5 + reverse
Secondary Transmission	**Eaton differential 19050 (7.17:1)**
Number of Speed Ranges	2 (high and low)
Clutch Control	Hydraulic
Clutch Reservoir Fluid	DOT 3

jtlsx7f,1659702328345-19-20JUL23

Hydraulic System

Hydraulic Commands	Multi-function lever
Actuation of Hydraulic Motors	Hydraulic pump

jtlsx7f,1659462668519-19-20JUL23

Tires, Tread, and Suspension

Tires (BT 2100)

Type	12.4-36 12 PR R1

Tires (BT 2625)

Type	13.6-38 14 PR R1

Tread Option 1 (BT 2100)

Distance	2.10 m (6.89 ft)
Adjust	Not applicable
Distance Between Axles	3.71 m (12.17 ft)

Tread Option 2 (BT 2625)

Distance	2.62 or 2.80 m (8.60 or 9.19 ft)
Adjust	Manual wheel rotation
Distance Between Axles	3.71 m (12.17 ft)

Suspension

Type	Pneumatic

jtlsx7f,1659462678123-19-21NOV22

Solution System

Solution Pump

Model	Hypro 9303
Material	Stainless steel
Type	Centrifugal
Actuation	Hydraulic motor
Maximum Nominal Capacity	540 l/min (142.65 gal/min)
Safety Automatic Shutoff	Empty tank electric shutoff (with safety reserve)

Load Pump

Brand	Banjo
Material	Polypropylene
Type	Centrifugal
Actuation	Hydraulic motor
Maximum Nominal Capacity	738 l/min (195.00 gal/min)
Safety Automatic Shutoff	Full tank electric shutoff

Solution Tank

Capacity	2900 L (766.10 gal)
Material	Rotational molded high-density polyethylene
Agitation	Hydro injectors
Tank Level	Level indicator ruler

Spray Boom

Location	Machine rear
Actuation	Electro-hydraulic valves
Type	Steel
Working Width	27 m (88.60 ft)

Solution Lines

Material	Stainless steel

Dimension	19.05 mm (0.75 in)
Sections	9 (pneumatic valves)
Type	Mixed

Nozzles

Distance Between Nozzles (5-position nozzle bodies)	35.0 cm (13.78 in)
Distance Between Nozzles (simple nozzle bodies)	52.5 cm (20.69 in)
Nozzle Bodies	5-position or simple with anti-drip system

jtlsx7f,1659462690811-19-04SEP23

Technology

Display	Generation 4 universal display 4640
Telematics	JDLink
Satellite Guidance	StarFire 7000
PLA Application (standard)	SIA standard tracking (renewal from 5º year on)
PLA Application (optional)	SIA sustainability license (renewal from 5º year on)
Automatic Pilot	AutoTrac ATC 300
DAT (high-voltage detector)	Yes
Remote Control for the Section Shutoff	Only if equipped with SIA sustainability optional

jtlsx7f,1694023900595-19-02NOV23

Comfort Features

Internal Features

Cab	John Deere 1530
Cab Suspension	Rubber dampers
Pressurization	Yes
Carbon Activated Filters	Yes
Air Conditioning System	Yes
Heating System	Yes
Steering Column	Two movements
Pull-Down Sunshade	Retractable curtain
Operator's Seat	Pneumatic suspension with electrical drive
Radio	AM/FM + USB + Bluetooth
Fire Extinguisher	Yes

External Features

Rinse Tank	Yes
Clean Water Tank	Yes
Cab Worklights	Six adjustable worklights
Night Kit	Yes
Hydraulic Jack	Yes
Eductor	Yes
Ladder Actuation	Electro-hydraulic

jtlsx7f,1694431526910-19-11SEP23

Capacities

Fuel Tank	250 L (66.04 gal)
Engine Crankcase	12.5 L (3.30 gal)
Hydraulic Reservoir	140.0 L (36.98 gal)
Hydraulic System	240.0 L (63.40 gal)
Eaton Transmission Housing	5.0 L (1.32 gal)
Differential Housing	9.5 L (2.51 gal)
Rear Knees (each)	6.5 L (1.72 gal)
Solution Tank	2900.0 L (766.10 gal)
Rinse Tank	250.0 L (66.04 gal)
Clean Water Tank	15.0 L (3.96 gal)
Trailer Hitch—Maximum Towing Capacity	3000.0 L (792.52 gal)

jtlsx7f,1659462730851-19-02JAN24

Specifications-3300 Self-Propelled Sprayers

Introduction to Specifications

NOTE: Specifications and design subject to change without notice.

RP46668,00002A0-19-20JUL23

Engine

Engine	John Deere PowerTech
Model	6068 TYE02
Type	Inline Diesel Engine, 2 valves
Nominal Power	120 kW (160 hp)
Nominal Speed	2300 rpm
Low Idle Speed	850 +- 50 rpm
High Idle Speed	2450 +- 50 rpm
Injection System	Conventional
Number of Cylinders	6
Displacement	6.8 L
Aspiration	Turbocharged
Cooling System	Coolant

edw8krp,1679775558018-19-25MAR23

Fuel System

Injection Pump	Stanadyne DB4 rotary pump (mechanical)
Transfer Pump	Mechanical fuel pump
Filtering System	Two-stage with water separator fuel filter system

jtlsx7f,1668076875152-19-10NOV22

Transmission System

Traction	Mechanical 4X2
Configuration 1 - Eaton FS 4205 Primary Transmission	
Number of Speed Ranges	5 + reverse
Clutch Control	Hydraulic
Clutch Reservoir Fluid	DOT 3
Configuration 2 - Allison 2500 Primary Transmission	
Number of Speed Ranges	4 + reverse
Secondary Transmission . . . . . Differential Ratio (5.57:1)	
Number of Speed Ranges	2 (high and low)

jtlsx7f,1659705531961-19-23MAR23

Hydraulic System

Hydraulic Commands	Multi-function lever
Actuation of Hydraulic Motors	Hydraulic pump

jtlsx7f,1659527760194-19-07OCT22

Tires, Tread, and Suspension

Tires

Type	13.6-38 14 PR R1

Tread

Distance	2.62 or 2.80 m (8.60 or 9.19 ft)
Adjust	Manual wheel rotation
Distance Between Axles	4.12 m (13.52 ft)

Suspension

Type	Pneumatic

jtlsx7f,1659527770200-19-21NOV22

Solution System

Solution Pump

Model	Hypro 9306
Material	Stainless steel
Type	Centrifugal
Actuation	Hydraulic motor
Maximum Nominal Capacity	810 l/min (214.00 gal/min)
Safety Automatic Shutoff	Empty tank electric shutoff (with safety reserve)

Load Pump

Brand	Banjo
Material	Polypropylene
Type	Centrifugal
Actuation	Hydraulic motor
Maximum Nominal Capacity	738 l/min (195.00 gal/min)
Safety Automatic Shutoff	Full tank electric shutoff

Solution Tank

Capacity	3300 L (871.77 gal)
Material	Rotational molded high-density polyethylene
Agitation	Hydro injectors
Tank Level	Level indicator ruler (standard) and electronic level indicator for machines equipped with SIA sustainability and carbon fiber spray boom

Spray Boom

Location	Machine rear
Actuation	Electro-hydraulic valves
Type (option 1)	Steel
Working Width (option 1)	32 m (105.00 ft)
Type (option 2)	Hybrid

Working Width (option 2)	36 m (118.11 ft)
Type (option 3)	Carbon Fiber
Working Width (option 3)	36 m (118.11 ft)

Solution Lines

Material	Stainless steel
Dimension	19.05 mm (0.75 in)
Sections (for 32 m (105.00 ft) spray booms)	9 (pneumatic valves)
Sections (for 36 m (118.11 ft) spray booms)	13 (pneumatic valves)
Type	Mixed

Nozzles

Distance Between Nozzles (5-position nozzle bodies)	35.0 cm (13.78 in)
Distance Between Nozzles (simple nozzle bodies)	52.5 cm (20.69 in)
Nozzle Bodies	5-position or simple with anti-drip system

jtlsx7f,1726671035531-19-18SEP24

Technology

Display	Generation 4 universal display 4640
Telematics	JDLink
Satellite Guidance	StarFire 7000
PLA Application (standard)	SIA standard tracking (renewal from 5º year on)
PLA Application (optional)	SIA sustainability license (renewal from 5º year on)
Automatic Pilot	AutoTrac ATC 300
DAT (high-voltage detector)	Yes
Remote Control for the Section Shutoff	Only if equipped with SIA sustainability optional

jtlsx7f,1694023900595-19-02NOV23

Comfort Features

Internal Features

Cab	John Deere 1530
Cab Suspension	Rubber dampers
Pressurization	Yes
Carbon Activated Filters	Yes
Air Conditioning System	Yes
Heating System	Yes
Steering Column	Two movements
Pull-Down Sunshade	Retractable curtain
Operator's Seat	Pneumatic suspension with electrical drive
Radio	AM/FM + USB + Bluetooth
Fire Extinguisher	Yes

External Features

Rinse Tank	Yes
Clean Water Tank	Yes
Cab Worklights	Six adjustable worklights
Night Kit	Yes
Hydraulic Jack	Yes
Eductor	Yes
Ladder Actuation	Electro-hydraulic

jtlsx7f,1694431526910-19-11SEP23

Capacities

Fuel Tank	400.0 L (105.67 gal)
Engine Crankcase	19.0 L (5.02 gal)
Hydraulic Reservoir	140.0 L (36.98 gal)
Hydraulic System	240.0 L (63.40 gal)
Eaton Transmission Housing	5.0 L (1.32 gal)
Allison Transmission Housing	14.0 L (3.70 gal)
Differential Housing	9.5 L (2.51 gal)
Rear Knees (each)	6.5 L (1.72 gal)
Solution Tank	3300.0 L (871.77 gal)
Rinse Tank	250.0 L (66.04 gal)
Clean Water Tank	15.0 L (3.96 gal)
Trailer Hitch—Maximum Towing Capacity	3000.0 L (792.52 gal)

jtlsx7f,1659527885767-19-02JAN24

Specifications-3300 GD Self-Propelled Sprayers

Introduction to Specifications

NOTE: Specifications and design subject to change without notice.

RP46668,00002A0-19-20JUL23

Engine

Engine	John Deere PowerTech
Model	6068 TYE01
Type	Inline Diesel Engine, 2 valves
Nominal Power	134 kW (180 hp)
Nominal Speed	2300 rpm
Low Idle Speed	850 +- 50 rpm
High Idle Speed	2450 +- 50 rpm
Injection System	Conventional
Number of Cylinders	6
Displacement	6.8 L
Aspiration	Turbocharged
Cooling System	Coolant

edw8krp,1679775640245-19-25MAR23

Fuel System

Injection Pump	Stanadyne DB4 rotary pump (mechanical)
Transfer Pump	Mechanical fuel pump
Filtering System	Two-stage with water separator fuel filter system

jtlsx7f,1668076875152-19-10NOV22

Transmission System

Traction	Mechanical 4X2
Primary Transmission	**Allison 2500**
Number of Speed Ranges	4 + reverse
Secondary Transmission	**Differential Ratio (4.88:1)**
Number of Speed Ranges	2 (high and low)

jtlsx7f,1659707161095-19-23MAR23

Hydraulic System

Hydraulic Commands	Multi-function lever
Actuation of Hydraulic Motors	Hydraulic pump

jtlsx7f,1659527760194-19-07OCT22

Tires, Tread, and Suspension

Tires

Type (option 1)	320/90 R46 R1W 151 A8
Type (option 2)	380/90 R46 R1W 159 A8

Tread

Distance	2.62 or 2.80 m (8.60 or 9.19 ft)
Adjust	Manual wheel rotation
Distance Between Axles	4.04 m (13.25 ft)

Suspension

Type	Pneumatic

jtlsx7f,1659528217139-19-21NOV22

Solution System

Solution Pump

Model	Hypro 9306
Material	Stainless steel
Type	Centrifugal
Actuation	Hydraulic motor
Maximum Nominal Capacity	810 l/min (214.00 gal/min)
Safety Automatic Shutoff	Empty tank electric shutoff (with safety reserve)

Load Pump

Brand	Banjo
Material	Polypropylene
Type	Centrifugal
Actuation	Hydraulic motor
Maximum Nominal Capacity	738 l/min (195.00 gal/min)
Safety Automatic Shutoff	Full tank electric shutoff

Solution Tank

Capacity	3300 L (871.77 gal)
Material	Rotational molded high-density polyethylene
Agitation	Hydro injectors
Tank Level	Level indicator ruler (standard) and electronic level indicator for machines equipped with SIA sustainability and carbon fiber spray boom

Spray Boom

Location	Machine rear
Actuation	Electro-hydraulic valves
Type (option 1)	Steel
Working Width (option 1)	32 m (105.00 ft)
Type (option 2)	Hybrid
Working Width (option 2)	36 m (118.11 ft)
Type (option 3)	Carbon Fiber
Working Width (option 3)	36 m (118.11 ft)
Type (option 4)	Hybrid
Working Width (option 4)	40 m (131.23 ft)
Type (option 5)	Carbon Fiber
Working Width (option 5)	40 m (131.23 ft)

Solution Lines

Material	Stainless steel
Dimension	19.05 mm (0.75 in)
Sections (for 32 m (105.00 ft) spray booms)	9 (pneumatic valves)
Sections (for 36 m (118.11 ft) and 40 m (131.23 ft) spray booms)	13 (pneumatic valves)
Type	Mixed

Nozzles

Distance Between Nozzles (5-position nozzle bodies)	35.0 cm (13.78 in)
Distance Between Nozzles (simple nozzle bodies)	52.5 cm (20.69 in)
Nozzle Bodies	5-position or simple with anti-drip system

jtlsx7f,1669037919233-19-04SEP23

Technology

Display	Generation 4 universal display 4640
Telematics	JDLink
Satellite Guidance	StarFire 7000
PLA Application (standard)	SIA standard tracking (renewal from 5º year on)
PLA Application (optional)	SIA sustainability license (renewal from 5º year on)
Automatic Pilot	AutoTrac ATC 300
DAT (high-voltage detector)	Yes
Remote Control for the Section Shutoff	Only if equipped with SIA sustainability optional

jtlsx7f,1694023900595-19-02NOV23

Comfort Features

Internal Features

Cab	John Deere 1530
Cab Suspension	Rubber dampers
Pressurization	Yes
Carbon Activated Filters	Yes
Air Conditioning System	Yes
Heating System	Yes
Steering Column	Two movements
Pull-Down Sunshade	Retractable curtain
Operator's Seat	Pneumatic suspension with electrical drive
Radio	AM/FM + USB + Bluetooth
Fire Extinguisher	Yes

External Features

Rinse Tank	Yes
Clean Water Tank	Yes
Cab Worklights	Six adjustable worklights
Night Kit	Yes
Hydraulic Jack	Yes
Eductor	Yes
Ladder Actuation	Electro-hydraulic

jtlsx7f,1694431526910-19-11SEP23

Capacities

Fuel Tank	400.0 L (105.67 gal)
Engine Crankcase	19.0 L (5.02 gal)
Hydraulic Reservoir	140.0 L (36.98 gal)
Hydraulic System	240.0 L (63.40 gal)
Allison Transmission Housing	14.0 L (3.70 gal)
Differential Housing	9.5 L (2.51 gal)
Rear Knees (each)	9.5 L (2.51 gal)
Solution Tank	3300.0 L (871.77 gal)
Rinse Tank	250.0 L (66.04 gal)
Clean Water Tank	15.0 L (3.96 gal)
Trailer Hitch—Maximum Towing Capacity	3000.0 L (792.52 gal)

jtlsx7f,1659528339199-19-02JAN24

Specifications-3300 MD Self-Propelled Sprayers

Introduction to Specifications

NOTE: Specifications and design subject to change without notice.

RP46668,00002A0-19-20JUL23

Engine

Engine	John Deere PowerTech
Model	6068 TYE02
Type	Inline Diesel Engine, 2 valves
Nominal Power	120 kW (160 hp)
Nominal Speed	2300 rpm
Low Idle Speed	850 +- 50 rpm
High Idle Speed	2450 +- 50 rpm
Injection System	Conventional
Number of Cylinders	6
Displacement	6.8 L
Aspiration	Turbocharged
Cooling System	Coolant

edw8krp,1679496480720-19-27MAR23

Fuel System

Injection Pump	Stanadyne DB4 rotary pump (mechanical)
Transfer Pump	Mechanical fuel pump
Filtering System	Two-stage with water separator fuel filter system

jtlsx7f,1668076875152-19-10NOV22

Transmission System

Traction	Mechanical 4X2
Configuration 1 - Eaton FS 4205 Primary Transmission	
Number of Speed Ranges	5 + reverse
Clutch Control	Hydraulic
Clutch Reservoir Fluid	DOT 3
Configuration 2 - Allison 2500 Primary Transmission	
Number of Speed Ranges	4 + reverse
Secondary Transmission . . . . . Differential Ratio (4.88:1)	
Number of Speed Ranges	2 (high and low)

jtlsx7f,1659710018023-19-23MAR23

Hydraulic System

Hydraulic Commands	Multi-function lever
Actuation of Hydraulic Motors	Hydraulic pump

jtlsx7f,1659527760194-19-07OCT22

Tires, Tread, and Suspension

Tires

Type	13.6-38 14 PR R1

Tread

Distance	2.62 or 2.80 m (8.60 or 9.19 ft)
Adjust	Manual wheel rotation
Distance Between Axles	4.50 m (14.76 ft)

Suspension

Type	Pneumatic

edw8krp,1679497259044-19-27MAR23

Solution System

Solution Pump

Model	Hypro 9306
Material	Stainless steel
Type	Centrifugal
Actuation	Hydraulic motor
Maximum Nominal Capacity	810 l/min (214.00 gal/min)
Safety Automatic Shutoff	Empty tank electric shutoff (with safety reserve)

Load Pump

Brand	Banjo
Material	Polypropylene
Type	Centrifugal
Actuation	Hydraulic motor
Maximum Nominal Capacity	738 l/min (195.00 gal/min)
Safety Automatic Shutoff	Full tank electric shutoff

Solution Tank

Capacity	3300 L (871.77 gal)
Material	Rotational molded high-density polyethylene
Agitation	Hydro injectors
Tank Level	Level indicator ruler (standard) and electronic level indicator for machines equipped with SIA sustainability and carbon fiber spray boom

Spray Boom

Location	Machine rear
Actuation	Electro-hydraulic valves
Type (option 1)	Steel
Working Width (option 1)	32 m (105.00 ft)
Type (option 2)	Hybrid

Working Width (option 2)	36 m (118.11 ft)
Type (option 3)	Carbon Fiber
Working Width (option 3)	36 m (118.11 ft)

Solution Lines

Material	Stainless steel
Dimension	19.05 mm (0.75 in)
Sections (for 32 m (105.00 ft) spray booms)	9 (pneumatic valves)
Sections (for 36 m (118.11 ft) and 40 m (131.23 ft) spray booms)	13 (pneumatic valves)
Type	Mixed

Nozzles

Distance Between Nozzles (5-position nozzle bodies)	35.0 cm (13.78 in)
Distance Between Nozzles (simple nozzle bodies)	52.5 cm (20.69 in)
Nozzle Bodies	5-position or simple with anti-drip system

edw8krp,1679497488207-19-04SEP23

Technology

Display	Generation 4 universal display 4640
Telematics	JDLink
Satellite Guidance	StarFire 7000
PLA Application (standard)	SIA standard tracking (renewal from 5º year on)
PLA Application (optional)	SIA sustainability license (renewal from 5º year on)
Automatic Pilot	AutoTrac ATC 300
DAT (high-voltage detector)	Yes
Remote Control for the Section Shutoff	Only if equipped with SIA sustainability optional

jtlsx7f,1691782131207-19-09OCT23

Comfort Features

Internal Features

Cab	MAP 3
Cab Suspension	Rubber dampers
Pressurization	Yes
Carbon Activated Filter	Yes
Air Conditioning System	Yes
Heating System	Yes
Steering Column	Three movements
Pull-Down Sunshade	Retractable curtain
Operator's Seat	Pneumatic suspension
Radio	AM/FM + USB + Bluetooth
Fire Extinguisher	Yes

External Features

Rinse Tank	Yes
Clean Water Tank	Yes
Cab Worklights	Six adjustable LED worklights
Night Kit	Yes
Hydraulic Jack	Yes
Eductor	Yes
Ladder Actuation	Electro-hydraulic

jtlsx7f,1659462710110-19-11SEP23

Capacities

Fuel Tank	400.0 L (105.67 gal)
Engine Crankcase	19.0 L (5.02 gal)
Hydraulic Reservoir	140.0 L (36.98 gal)
Hydraulic System	240.0 L (63.40 gal)
Eaton Transmission Housing	5.0 L (1.32 gal)
Allison Transmission Housing	14.0 L (3.70 gal)
Differential Housing	9.5 L (2.51 gal)
Rear Knees (each)	6.5 L (1.72 gal) for R38
Solution Tank	3300.0 L (871.77 gal)
Rinse Tank	400.0 L (105.67 gal)
Clean Water Tank	15.0 L (3.96 gal)
Trailer Hitch—Maximum Towing Capacity	3000.0 L (792.52 gal)

jtlsx7f,1659532288251-19-02JAN24

Specifications-3600 MD Self-Propelled Sprayers

Introduction to Specifications

NOTE: Specifications and design subject to change without notice.

RP46668,00002A0-19-20JUL23

Engine

Engine	John Deere PowerTech
Model	6068 TYE01
Type	Inline Diesel Engine, 2 valves
Nominal Power	134 kW (180 hp)
Nominal Speed	2300 rpm
Low Idle Speed	850 +- 50 rpm
High Idle Speed	2450 +- 50 rpm
Injection System	Conventional
Number of Cylinders	6
Displacement	6.8 L
Aspiration	Turbocharged
Cooling System	Coolant

edw8krp,1679514172487-19-27MAR23

Fuel System

Injection Pump	Stanadyne DB4 rotary pump (mechanical)
Transfer Pump	Mechanical fuel pump
Filtering System	Two-stage with water separator fuel filter system

jtlsx7f,1668076875152-19-10NOV22

Transmission System

Traction	Mechanical 4X2
Configuration 1 - Eaton FS 4205 Primary Transmission	
Number of Speed Ranges	5 + reverse
Clutch Control	Hydraulic
Clutch Reservoir Fluid	DOT 3
Configuration 2 - Allison 2500 Primary Transmission	
Number of Speed Ranges	4 + reverse
Secondary Transmission	**Differential Ratio (4.88:1)**
Number of Speed Ranges	2 (high and low)

jtlsx7f,1659710018023-19-23MAR23

Hydraulic System

Hydraulic Commands	Multi-function lever
Actuation of Hydraulic Motors	Hydraulic pump

jtlsx7f,1659527760194-19-07OCT22

Tires, Tread, and Suspension

Tires

Type (option 1)	320/90 R46 R1W 151 A8
Type (option 2)	380/90 R46 R1W 159 A8

Tread

Distance	2.62 or 2.80 m (8.60 or 9.19 ft)
Adjust	Manual wheel rotation
Distance Between Axles	4.50 m (14.76 ft)

Suspension

Type	Pneumatic

edw8krp,1679514505754-19-22MAR23

Solution System

Solution Pump

Model	Hypro 9306
Material	Stainless steel
Type	Centrifugal
Actuation	Hydraulic motor
Maximum Nominal Capacity	810 l/min (214.00 gal/min)
Safety Automatic Shutoff	Empty tank electric shutoff (with safety reserve)

Load Pump

Brand	Banjo
Material	Polypropylene
Type	Centrifugal
Actuation	Hydraulic motor
Maximum Nominal Capacity	738 l/min (195.00 gal/min)
Safety Automatic Shutoff	Full tank electric shutoff

Solution Tank

Capacity	3600 L (951.02 gal)
Material	Rotational molded high-density polyethylene
Agitation	Hydro injectors
Tank Level	Level indicator ruler (standard) and electronic level indicator for machines equipped with SIA sustainability and carbon fiber spray boom

Spray Boom

Location	Machine rear
Actuation	Electro-hydraulic valves
Type (option 1)	Steel
Working Width (option 1)	32 m (105.00 ft)

Type (option 2)	Hybrid
Working Width (option 2)	36 m (118.11 ft)
Type (option 3)	Carbon Fiber
Working Width (option 3)	36 m (118.11 ft)
Type (option 4)	Carbon Fiber
Working Width (option 4)	40 m (131.23 ft)
Type (option 5)	Hybrid
Working Width (option 5)	40 m (131.23 ft)

Solution Lines

Material	Stainless steel
Dimension	19.05 mm (0.75 in)
Sections (for 32 m (105.00 ft) spray booms)	9 (pneumatic valves)
Sections (for 36 m (118.11 ft) and 40 m (131.23 ft) spray booms)	13 (pneumatic valves)
Type	Mixed

Nozzles

Distance Between Nozzles (5-position nozzle bodies)	35.0 cm (13.78 in)
Distance Between Nozzles (simple nozzle bodies)	52.5 cm (20.69 in)
Nozzle Bodies	5-position or simple with anti-drip system

edw8krp,1679514567326-19-04SEP23

Technology

Display	Generation 4 universal display 4640
Telematics	JDLink
Satellite Guidance	StarFire 7000
PLA Application (standard)	SIA standard tracking (renewal from 5º year on)
PLA Application (optional)	SIA sustainability license (renewal from 5º year on)
Automatic Pilot	AutoTrac ATC 300
DAT (high-voltage detector)	Yes
Remote Control for the Section Shutoff	Only if equipped with SIA sustainability optional

jtlsx7f,1691782131207-19-09OCT23

Comfort Features

Internal Features

Cab	MAP 3
Cab Suspension	Rubber dampers
Pressurization	Yes
Carbon Activated Filter	Yes
Air Conditioning System	Yes
Heating System	Yes
Steering Column	Three movements
Pull-Down Sunshade	Retractable curtain
Operator's Seat	Pneumatic suspension
Radio	AM/FM + USB + Bluetooth
Fire Extinguisher	Yes

External Features

Rinse Tank	Yes
Clean Water Tank	Yes
Cab Worklights	Six adjustable LED worklights
Night Kit	Yes
Hydraulic Jack	Yes
Eductor	Yes
Ladder Actuation	Electro-hydraulic

jtlsx7f,1659462710110-19-11SEP23

Capacities

Fuel Tank	400.0 L (105.67 gal)
Engine Crankcase	19.0 L (5.02 gal)
Hydraulic Reservoir	140.0 L (36.98 gal)
Hydraulic System	240.0 L (63.40 gal)
Eaton Transmission Housing	5.0 L (1.32 gal)
Allison Transmission Housing	14.0 L (3.70 gal)
Differential Housing	9.5 L (2.51 gal)
Rear Knees (each)	9.5 L (2.51 gal) for R46
Solution Tank	3600.0 L (951.02 gal)
Rinse Tank	400.0 L (105.67 gal)
Clean Water Tank	15.0 L (3.96 gal)
Trailer Hitch—Maximum Towing Capacity	3000.0 L (792.52 gal)

edw8krp,1679948151345-19-02JAN24

Specifications-MAF 5000 Nutrient Applicators

Introduction to Specifications

NOTE: Specifications and design subject to change without notice.

RP46668,00002A0-19-20JUL23

Engine

Engine	Deutz 914
Nominal Power	125 kW (168 hp)
Nominal Speed	2300 rpm
Injection System	Conventional
Number of Cylinders	6
Displacement	6.5 L
Aspiration	Turbocharged and aftercooled
Cooling System	Air

edw8krp,1679775807940-19-03APR23

Fuel System

Injection Pump	Delphi DP100 rotary pump (mechanical)
Transfer Pump	Mechanical fuel pump
Filtering System	Two-stage with water separator fuel filter system

jtlsx7f,1659462614659-19-10NOV22

Transmission System

Traction	Mechanical 4X2
Primary Transmission	**Eaton FS 4205**
Number of Speed Ranges	5 + reverse
Clutch Control	Hydraulic
Clutch Reservoir Fluid	DOT 3
Secondary Transmission	**Differential Ratio (4.88:1)**
Number of Speed Ranges	2 (high and low)

jtlsx7f,1659708880167-19-23MAR23

Hydraulic System

Hydraulic Commands	Multi-function lever
Actuation of Hydraulic Motors	Hydraulic pump

jtlsx7f,1659462668519-19-20JUL23

Tires, Tread, and Suspension

Tires

Type	380/90 R46 R1W 159 A8

Tread

Distance	2.62 or 2.80 m (8.60 or 9.19 ft)
Adjust	Manual adjust
Distance Between Axles	4.04 m (13.25 ft)

Suspension

Type	Pneumatic

jtlsx7f,1659979126907-19-21NOV22

Fertilization System

Nutrient Applicator Box

Pressurized with remover. Scale included.

Capacity	4 200 L (4.2 m³)
Maximum Load Capacity	3600 kg (7937 lbs)

Dosifier

ALTINA HP 9X2 with electro-hydraulic control and three package of wheels for different seeds and fertilizers. Variable dosage/mapping.

Turbines

Type	Pneumatic/mechanic

Two high-flow turbines with electro-hydraulic control.

Others

Air and fertilizer/seeds transportation through stainless steel pipes and flexible hoses.

Stainless steel nutrient applicator nozzles with sensors.

Application Boom

Type	Steel
Working Width	30 m (98.43 ft)
Location	Machine rear

jtlsx7f,1725305217511-19-02SEP24

Technology

General Information

Display	Generation 4 Universal Display 4640
Satellite Guidance	StarFire 7000
Automatic Pilot	AutoTrac ATC 300
DAT (high-voltage detector)	Yes

Fertilizer Control System

Display Brand	Agrotax
Display Model (if not equipped with section control)	AG Fusion
Display Model (if equipped with section control)	FGS

Crop Monitoring	Yes

jtlsx7f,1725303001706-19-02SEP24

Comfort Features

Internal Features

Cab	MAF 3
Cab Suspension	Rubber dampers
Pressurization	Yes
Carbon Activated Filter	Yes
Air Conditioning System	Yes
Steering Column	Three movements
Pull-Down Sunshade	Retractable curtain
Operator's Seat	Pneumatic suspension
Radio	AM/FM + USB

External Features

Clean Water Tank	Yes
Cab Worklights	Six adjustable LED worklights
Night Kit	Yes
Hydraulic Jack	Yes
Ladder Actuation	Electro-hydraulic
Fire Extinguisher	Yes

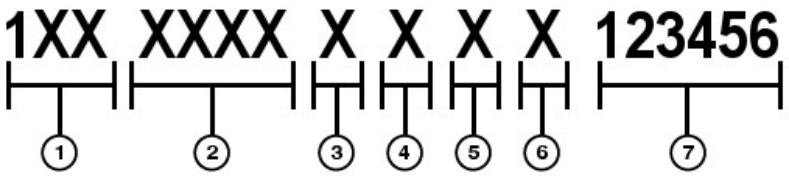
jtlsx7f,1660141972458-19-11SEP23

Capacities

Fuel Tank	400.0 L (105.67 gal)
First Oil Filling (without filter)	14.5 L (3.83 gal)
First Oil Filling (with filter)	16.0 L (4.23 gal)
Hydraulic Oil Reservoir	160.0 L (42.27 gal)
Hydraulic System	240.0 L (63.40 gal)
Differential Housing	9.5 L (2.51 gal)
Rear Knees (each)	9.5 L (2.51 gal)
Nutrient Applicator Box	4200.0 L (4.2 m^3)
Maximum Load Capacity for the Nutrient Applicator Box	3600 kg (7937 lbs)
Clean Water Tank	15.0 L (3.96 gal)
Trailer Hitch—Maximum Towing Capacity	3000.0 L (792.52 gal)

jtlsx7f,1659532861047-19-02JAN24

Interpreting Machine Serial Number



H105725—UN—22AUG12

1	Manufacturer Code	AX - John Deere Seeding Group BM - John Deere Montenegro CC - John Deere Arc-les-Gray CD - John Deere Usine De Saran CE - John Deere Iberica Getafe CJ - John Deere Nigel CP - John Deere Tianjin Works CQ - John Deere Horizontina DM - John Deere Roberine Enschede DW - John Deere Davenport Works DX - Deere & Company EK - John Deere Orenburg EX - John Deere Ottumwa Works FD - DCEO-Mannheim FX - DCEO-Mannheim GX - John Deere Power Products H0 - John Deere Harvester Works J0 - Industrias John Deere Argentina S.A. JZ - John Deere Domodedovo KM - Kemper KV - Knoxville LG - Mannheim 5x20 LV - John Deere Augusta Works L0 - John Deere Werke Mannheim MC - DCEO Parts Marketing MX - John Deere Horicon Works MY - John Deere Sirhind Works N4 - John Deere Ningbo Works	NF - John Deere Tianjin Tractor Co.,Ltd NW - John Deere Catalão NX - John Deere Des Moines Works PC - John Deere Intelligent Solutions Group P0 - Industrias John Deere S.A. de C.V. PY - John Deere India Pvt. Ltd RG - John Deere Power Systems RW - John Deere Waterloo Works SA - SABO Gummersbach T8 - John Deere Thibodaux TC - John Deere Turf Care TX - Worldwide Construction And Forestry Division TY - John Deere Merchandise Division WX - John Deere Welland Works WZ - John Deere Fabriek Horst B.V. XJ - Ashok Leyland John Deere Construction Equipment Company, Pvt. Ltd. XU - Xuzhou XCG John Deere Machinery Manufacturing Co., Ltd. YC - John Deere Jiamusi Agricultural Machinery YE - PLA Argentina Las Rosas YF - PLA Brazil Canoas YH - John Deere Harbin Works YN - John Deere Tianjin Construction Works YZ - John Deere Coffeyville Works ZT - JDI GmbH-ISB Z0 - John Deere Werke Zweibrucken 9Q - John Deere Water
2	Machine Model Identifier		
3	Model Identifier Suffix Machine Configuration Code Additional Machine Information		Example: N, T, W, etc.
4	Check Letter		Example: A, B, C, D, etc.
5	Calendar Year of Manufacture		Refer to Year of Manufacture Code table
6	Additional Information		
7	Manufacturing Serial Number		Example: 000001, 000127, etc.

Year of Manufacture Code							
Year	**Code**	**Year**	**Code**	**Year**	**Code**	**Year**	**Code**
2008	8	2018	J	2028	W	2038	8
2009	9	2019	K	2029	X	2039	9
2010	A	2020	L	2030	Y	2040	A
2011	B	2021	M	2031	1	2041	B
2012	C	2022	N	2032	2	2042	C
2013	D	2023	P	2033	3	2043	D
2014	E	2024	R	2034	4	2044	E
2015	F	2025	S	2035	5	2045	F
2016	G	2026	T	2036	6	2046	G
2017	H	2027	V	2037	7	2047	H

jtlsx7f,1660236674995-19-13MAR23

Interpreting Engine Serial Number

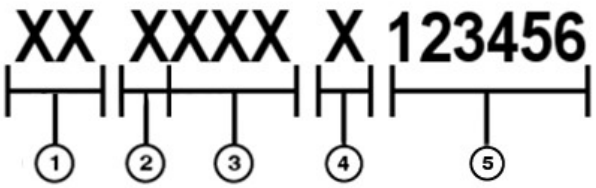
NOTE: The information shown here refers only to John Deere engines. For information related to Deutz engines, see the Deutz engine manual.

Each engine has a 13-digit John Deere engine serial number identifying the producing factory, engine model designation, and a 6-digit sequential number.

H112201—UN—06NOV14

Sample Engine Serial Number Plate

Engine Serial Number (A)



BM010811—UN—17MAR16

Engine Serial Number

1	Factory Code	J0 . . . . . Industrias John Deere Argentina S.A RG . . . . . John Deere Power Systems PY . . . . . John Deere India Pvt. Ltd
2	Number of Cylinders	
3	Total Displacement	Example: 029 . . . . . 2.9 L 045 . . . . . 4.5 L 068 . . . . . 6.8 L 090 . . . . . 9.0 L 135 . . . . . 13.5 L
4	Emission Certification	B . . . . . Non-Emissions Certified C . . . . . Tier 1-Stage I D . . . . . Tier 2-Stage II L . . . . . Tier 3-Stage III A R . . . . . Interim Tier 4-Stage III B U or V . . . . . Final Tier 4-Stage IV
5	Engine Serial Number	Example: 000001, 000123, and so on.

Engine Model Number (B)

BM010812—UN—17MAR16

Engine Model Number

1	Number of Cylinders	
2	Total Displacement	Example: 029 . . . . . 2.9 L 045 . . . . . 4.5 L 068 . . . . . 6.8 L 090 . . . . . 9.0 L 135 . . . . . 13.5 L
3	Engine Aspiration	D . . . . . Naturally aspirated T . . . . . Turbocharged A . . . . . Turbocharged and aftercooled, air-to-coolant H . . . . . Turbocharged and aftercooled, air-to-air S . . . . . Turbocharged and aftercooled, air-to-sea water
4	User Type	F . . . . . OEM (John Deere Power Systems) XX . . . . . Other letters are used to identify John Deere Equipment manufacturing locations
5	Industrial	C . . . . . Industrial G . . . . . Gen-Set
6	Engine Configuration	09 . . . . . PSS (Turbochargers, DOC/DPF, and SCR Series) 94 . . . . . PVX (Single VGT Turbocharger) 95 . . . . . PSX (Turbochargers and Aftertreatment Series)

jtlsx7f,1660236758147-19-16NOV22

Identification Numbers

The machine and main components have identification serial number plates.

It is important to record these serial numbers in the following pages. This helps when requesting technical assistance or requesting service parts.

This information identifies the specific configuration of the equipment, making possible to request correct parts for the machine and to have fast and precise technical assistance.

Product Identification Number

NOTE: See details of the product identification number at Interpreting Machine Serial Number in Serial Numbers section.

YE1385973—UN—13DEC24

Self-Propelled Sprayers Equipped with Central Engine

YE010451—UN—23MAR23

Self-Propelled Sprayers Equipped with Front Engine

YE010450—UN—23MAR23

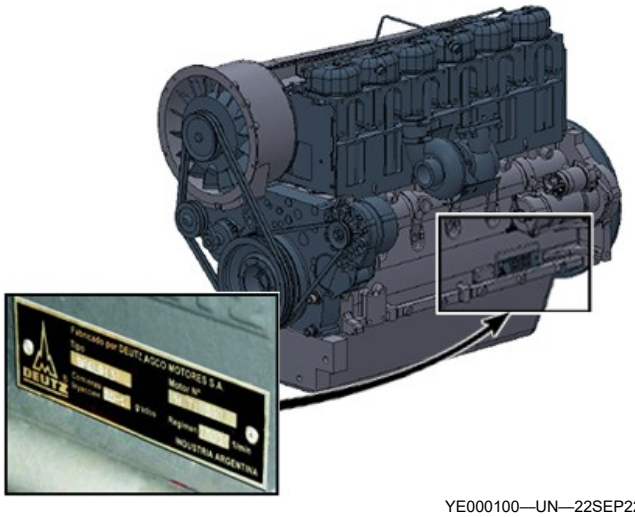
Nutrient Applicator

The product identification number is on machine front right-hand side.

Write here the product identification number:

Engine Identification Number

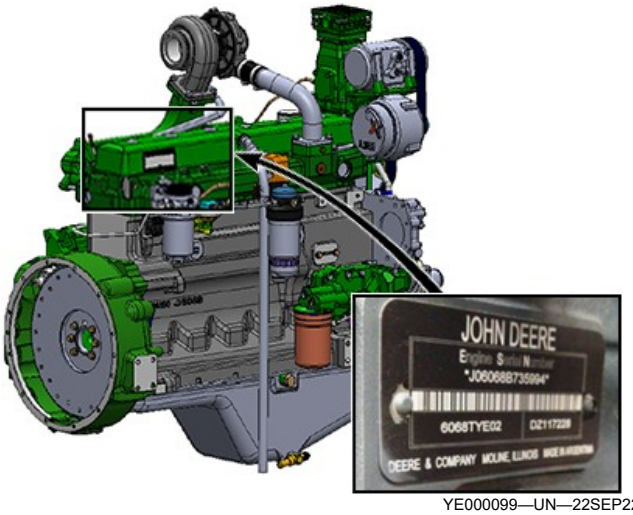
The engine identification number includes the brand, type, serial number, and other important information.



YE000100—UN—22SEP22

Deutz Engine

For Deutz engines, the engine identification number is under the starter motor.



YE000099—UN—22SEP22

John Deere Engine

For John Deere engines, the engine identification number is behind a filter on the engine right-hand side.

NOTE: See details of the engine identification number at Interpreting Engine Serial Number in Serial Numbers section.

Write here the engine serial number:

Transmission Identification Number

YE000056—UN—22SEP22

Eaton Transmission

YE000057—UN—22SEP22

Allison Transmission

The transmission has an identification number that identifies the brand, manufacturer, model, and serial number.

Write here the transmission serial number:

Nutrient Applicator Box Identification Number (Nutrient Applicators Only)

YE1376070—UN—03SEP24

The nutrient applicator box has an identification number that identifies the brand, manufacturer, model, and serial number.

Write here the nutrient applicator box serial number:

jtlsx7f,1734098885511-19-13DEC24

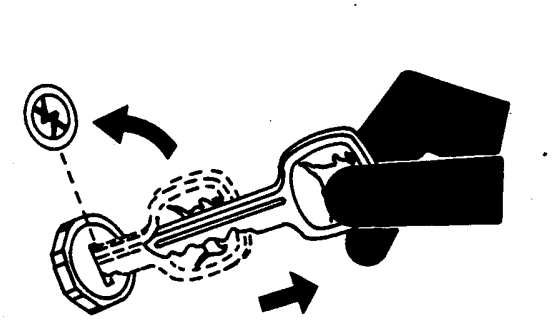
Keep Proof of Ownership

TS1680—UN—09DEC03

1. Maintain in a secure location an up-to-date inventory of all product and component serial numbers.
2. Regularly verify that identification plates have not been removed. Report any evidence of tampering to law enforcement agencies and order duplicate plates.
3. Other steps you can take:
   - Mark your machine with your own numbering system
   - Take color photographs from several angles of each machine

DX,SECURE1-19-18NOV03

Keep Machines Secure



TS230—UN—24MAY89

1. Install vandal-proof devices.
2. When machine is in storage:
   - Lower equipment to the ground
   - Set wheels to widest position to make loading more difficult
   - Remove any keys and batteries
3. When parking indoors, put large equipment in front of exits and lock your storage buildings.
4. When parking outdoors, store in a well-lighted and fenced area.
5. Make note of suspicious activity and report any thefts immediately to law enforcement agencies.
6. Notify your John Deere dealer of any losses.

DX,SECURE2-19-18NOV03

Lubrication and Service Records

How to Use the Service Records

NOTE: For specific and detailed service and maintenance information, refer to the appropriate system service section in this Operator's Manual.

In this section, you find a summary of all the machine services, divided by their respective intervals.

For each service interval, a chart is provided for recording maintenance and service information. Use a pen to record it in the following fields every time a service interval is reached:

- **Date:** Fill in the date the service is performed.
- **Machine Hours:** Fill in the current working hours of the machine.
- **Signature:** Field intended for signature of the responsible service technician or dealer.

Always keep all charts updated to create a historical record of all service and maintenance done on your machine. Such information can help dealers with better troubleshooting, and even add more value to your machine in a sale.

K2F379Y,0000307-19-28JUL21

Start of Season Service Record

Date	Hours	Signature	Date	Hours	Signature	Date	Hours	Signature

- Check and tighten nutrient application system screws.
- Check the T3 tensioner (carbon fiber spray booms only).

jtlsx7f,1726761181510-19-19SEP24

First 50 Hours Service Record

Date	Hours	Signature	Date	Hours	Signature	Date	Hours	Signature

- Replace the return filter (nutrient applicators only).
- Replace the pressure filter (nutrient applicators only).
- Change differential oil.
- Change the oil of Eaton transmission housing.

edw8krp,1669923139108-19-06DEC22

First 100 Hours Service Record

Date	Hours	Signature	Date	Hours	Signature	Date	Hours	Signature

- Adjust the axle ends.

edw8krp,1670353172152-19-06DEC22

First 250 Hours Service Record

Date	Hours	Signature	Date	Hours	Signature	Date	Hours	Signature

- Adjust the chain tension and upper and lower shafts.

edw8krp,1670349022525-19-06DEC22

First 500 Hours Service Record

Date	Hours	Signature	Date	Hours	Signature	Date	Hours	Signature

- Change engine oil.[1]
- Replace engine oil filter.[1]
- Adjust the chain tension and upper and lower shafts.

edw8krp,1669923781868-19-06DEC22

Daily or Every 10 Hours Service Record

Date	Hours	Signature	Date	Hours	Signature	Date	Hours	Signature

[1] *If Break-In Plus Engine Oil is used.*

Date	Hours	Signature	Date	Hours	Signature	Date	Hours	Signature

Date	Hours	Signature	Date	Hours	Signature	Date	Hours	Signature

Date	Hours	Signature	Date	Hours	Signature	Date	Hours	Signature

Date	Hours	Signature	Date	Hours	Signature	Date	Hours	Signature

Date	Hours	Signature	Date	Hours	Signature	Date	Hours	Signature

- Check engine oil level.
- Check coolant level.
- Drain water from the fuel filters.
- Check level of the fluid of brakes.
- Clean the machine.
- Clean the solution system filters (nutrient applicators).
- Lubricate the chains (nutrient applicators).
- Lubricate machine critical points.
- Drain water from the pneumatic system.

jtlsx7f,1692281526296-19-30AUG23

Every 50 Hours or Weekly Service Record

Date	Hours	Signature	Date	Hours	Signature	Date	Hours	Signature

Date	Hours	Signature	Date	Hours	Signature	Date	Hours	Signature

- Control the general functioning of the service brake system.
- Check hydraulic oil level and temperature (self-propelled sprayers only).
- Check hydraulic oil level (nutrient applicators only).
- Check tire inflation pressures.
- General greasing of the machine.
- Check the fuse box (carbon fiber spray booms only).
- Check the T3 tensioner (carbon fiber spray booms only).
- Check the T6/T7 tensioner.[2]
- Tighten wheel nuts.
- Lubricate the shafts (nutrient applicators only).
- Check the condition of the dosifier wheels (nutrient applicators).

jtlsx7f,1726760634520-19-19SEP24

[2] *If equipped with carbon fiber or hybrid spray booms.*

Every Month

Date	Hours	Signature	Date	Hours	Signature	Date	Hours	Signature

- Check the breakaway system.[3]
- Check the bushings. [3]

jtlsx7f,1726760917870-19-19SEP24

[3] *If equipped with carbon fiber or hybrid spray booms.*

Every 125 Hours Service Record

IMPORTANT: The engine oil and filter service intervals vary according to the engine oil and to the sulfur content of the fuel used.

NOTE: Comply with all the instructions described in the Fuels, Lubricants, and Coolant—John Deere Engines Only section.

Date	Hours	Signature	Date	Hours	Signature	Date	Hours	Signature

- Change engine oil.[4] [5]
- Replace engine oil filter.[4] [5]

jtlsx7f,1669048862234-19-05DEC22

[4] *If using other oils than Plus-50 II.*
[5] *If using fuel with 5000-10 000 mg/kg (5000-10 000 ppm) sulfur.*

Every 250 Hours Service Record

IMPORTANT: The engine oil and filter service intervals vary according to the engine oil and to the sulfur content of the fuel used.

NOTE: Comply with all the instructions described in the Fuels, Lubricants, and Coolant—John Deere Engines Only section.

Date	Hours	Signature	Date	Hours	Signature	Date	Hours	Signature

- Check the oil level of the Eaton transmission housing.
- Check differential oil level.
- Check the driveshaft.
- Check the oil level of the Allison transmission housing.
- Check level of the fluid of clutch (manual machines only).
- Lubricate the clutch system ball (manual machines only).
- Check the oil level of the rear axle knees.
- Check the oscillation structure of the spray/ application boom.
- Change engine oil.[6] [7]
- Replace engine oil filter.[6] [7]
- Check pneumatic lines.
- Check tightening of the solution tank fixing structures.
- Check machine electrical connections.
- Check alignment of front and rear axles.
- Check the steering ends, ball joints, and bushings.
- Check condition of the brake assemblies.
- Check and adjust park brake.
- Replace the activated carbon filter.[8]
- Check engine mounts.

jtlsx7f,1734099750940-19-02JAN25

[6] *If using other oils than Plus-50 II and fuel with less than 5000 mg/kg (5000 ppm) sulfur.*

[7] *If using Plus 50-II oil and fuel with 5000-10 000 mg/kg (5000-10 000 ppm) sulfur.*

[8] *Sprayers with front engine and nutrient applicators with central engine.*

Every 400 Hours Service Record (Nutrient Applicators Only)

Date	Hours	Signature	Date	Hours	Signature	Date	Hours	Signature

- Replace the return filter.
- Replace the pressure filter.

jtlsx7f,1669049422599-19-05DEC22

Every 500 Hours or Every Year Service Record

IMPORTANT: The engine oil and filter service intervals vary according to the engine oil and to the sulfur content of the fuel used.

NOTE: Comply with all the instructions described in the Fuels, Lubricants, and Coolant—John Deere Engines Only section.

Date	Hours	Signature	Date	Hours	Signature	Date	Hours	Signature

- Replace hydraulic oil return filter (self-propelled sprayers).
- Replace the hydraulic suction filters.
- Lubricate axle end hub.
- Check torque of brake caliper components.
- Check the position of the inner spray boom section.[9]
- Check position of the breakaway section support. [10]
- Check the folding system.[9]
- Check engine electrical ground connections.
- Check engine speeds.
- Clean engine vent tube.
- Change engine oil. [11] [12]
- Replace engine oil filter.[11] [12]
- Test coolant.
- Check cooling system.
- Pressure testing cooling system.
- Replace fuel filters.
- Check air intake system.
- Check and tighten turbine screws (nutrient applicators).
- Replace the machine bearings (nutrient applicators).
- Check the joints of the turbine drives (nutrient applicators).
- Replace the fresh air filter (sprayers with central engine).
- Replace the air recirculation filter (sprayers with central engine).

jtlsx7f,1734099904358-19-13DEC24

[9] *If equipped with carbon fiber spray booms.*
[10] *If equipped with carbon fiber or hybrid spray booms.*
[11] *If using Plus-50 II Engine Oil.*
[12] *If using fuel with less than 5000 mg/kg (5000 ppm) sulfur.*

Every 1000 Hours Service Record

Date	Hours	Signature	Date	Hours	Signature	Date	Hours	Signature

- Check the hydraulic system pressure.
- Change the oil of the Eaton transmission housing.
- Change differential oil.
- Change the hydraulic oil.
- Change the oil of the rear axle knees.
- Adjust the chain tension and upper and lower shafts.
- Rotate the tires.
- Check and adjust the suspension assemblies.
- Adjust the axle ends.

jtlsx7f,1726761411585-19-19SEP24

Every 1500 Hours or 2 Years Service Record

Date	Hours	Signature	Date	Hours	Signature	Date	Hours	Signature

Date	Hours	Signature	Date	Hours	Signature	Date	Hours	Signature

- Adjust chain tension and upper and lower shafts (if equipped with Allison automatic transmission).
- Replace the oil filter of the Allison transmission housing.
- Replace engine air cleaners (machines equipped with front engine).

jtlsx7f,1669050372208-19-05DEC22

Every 2000 Hours or 2 Years Service Record

Date	Hours	Signature	Date	Hours	Signature	Date	Hours	Signature

- Adjust the engine valve clearance.
- Check thermovalve opening temperature.
- Replace the engine thermovalves.[13]
- Check engine torsion damper (6-cylinder engines only).
- Change the Engine Coolant.[13]

jtlsx7f,1669050377872-19-05DEC22

[13] *If Cool-Gard II or Cool-Gard II PG is not used.*

Every 3000 Hours or 4 Years Service Record

Date	Hours	Signature	Date	Hours	Signature	Date	Hours	Signature

- Change the oil of the Allison transmission housing.

jtlsx7f,1669050380473-19-02DEC22

Every 4500 Hours or 5 Years Service Record

Date	Hours	Signature	Date	Hours	Signature	Date	Hours	Signature

Date	Hours	Signature	Date	Hours	Signature	Date	Hours	Signature

- Replace engine torsion damper (6-cylinder engines only).

jtlsx7f,1669050907892-19-02DEC22

Every 6000 Hours or 6 Years Service Record

Date	Hours	Signature	Date	Hours	Signature	Date	Hours	Signature

- Replace the engine thermovalves.[14]
- Change the engine coolant.[14]

jtlsx7f,1669050954561-19-07DEC22

[14] *If Cool-Gard II or Cool-Gard II PG is used.*

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John Deere Service Literature Available

Technical Information

Technical information can be purchased from John Deere. Publications are available in print or CD-ROM format.

Orders can be made using one of the following:

- John Deere Technical Information Store: **www.JohnDeere.com/TechInfoStore**
- Call 1-800-522-7448
- Contact your John Deere dealer

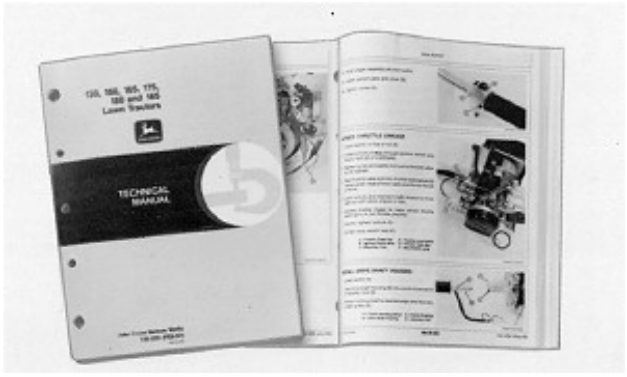
Available information includes:

TS189—UN—17JAN89

PARTS CATALOGS list service parts available for your machine with exploded view illustrations to help you identify the correct parts. It is also useful in assembling and disassembling.

TS191—UN—02DEC88

OPERATOR'S MANUALS providing safety, operating, maintenance, and service information.



TS224—UN—17JAN89

TECHNICAL MANUALS outlining service information for your machine. Included are specifications, illustrated assembly and disassembly procedures, hydraulic oil flow diagrams, and wiring diagrams. Some products have separate manuals for repair and diagnostic information. Some components, such as engines, are available in a separate component technical manual.

TS1663—UN—10OCT97

EDUCATIONAL CURRICULUM including five comprehensive series of books detailing basic information regardless of manufacturer:

- Agricultural Primer series covers technology in farming and ranching.
- Farm Business Management series examines "real-world" problems and offers practical solutions in the areas of marketing, financing, equipment selection, and compliance.
- Fundamentals of Services manuals show you how to repair and maintain off-road equipment.
- Fundamentals of Machine Operation manuals explain machine capacities and adjustments, how to improve machine performance, and how to eliminate unnecessary field operations.
- Fundamentals of Compact Equipment manuals provide instruction in servicing and maintaining equipment up to 40 PTO horsepower.

DX,SERVLIT-19-07DEC16

John Deere—Keeps You On The Job

John Deere Parts

TS100—UN—23AUG88

We help minimize downtime by putting genuine John Deere parts in your hands in a hurry.

That's why we maintain a large and varied inventory—to stay a jump ahead of your needs.

DX,IBC,A-19-04JUN90

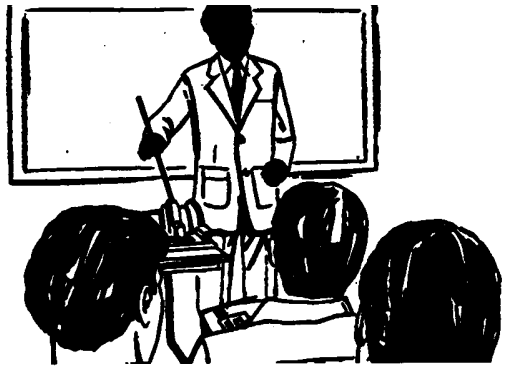
The Right Tools

TS101—UN—23AUG88

Precision tools and testing equipment enable our Service Department to locate and correct troubles quickly . . . to save you time and money.

DX,IBC,B-19-04JUN90

Well-Trained Technicians



TS102—UN—23AUG88

School is never out for John Deere service technicians.

Training schools are held regularly to be sure our personnel know your equipment and how to maintain it.

Result?

Experience you can count on!

DX,IBC,C-19-04JUN90

Prompt Service

TS103—UN—23AUG88

Our goal is to provide prompt, efficient care when you want it and where you want it.

We can make repairs at your place or at ours, depending on the circumstances: see us, depend on us.

JOHN DEERE SERVICE SUPERIORITY: We'll be around when you need us.

DX,IBC,D-19-04JUN90