

**LP40781, LP40782, LP40783,
LP40784, LP40785, LP40786,
and LP46459, LP46460,
LP46461, LP46462, LP46463,
LP46464 Sprayers -
110 and 150 Gallon
Operator's Manual**



OPERATOR'S MANUAL

**LP40781, LP40782, LP40783, LP40784,
LP40785, LP40786, LP46459-LP46464
Sprayers - 110 and 150 Gallon**

OMLVU25697 ISSUE A3 (ENGLISH)

CALIFORNIA

Proposition 65 Warning

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

If this product contains a gasoline engine:

⚠ WARNING

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

The State of California requires the above two warnings.

Additional Proposition 65 Warnings can be found in this manual.

John Deere Augusta Works

North American Edition
LITHO IN U.S.A.



Introduction

Foreword

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

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

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

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

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

WARRANTY is provided as part of John Deere's support program for customers who operate and maintain their

equipment as described in this manual. The warranty is explained on the warranty certificate or statement which you should have received from your dealer.

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

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

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

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

Product Identification

This Sprayer is compatible with Compact Utility Tractors: 3120, 3320, 3520, 3720, 4120, 4320, 4520, and 4720.

OUC1082,0002D92 -19-10FEB12-1/1

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

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Safety Labels

Safety Label Location

Understanding the Machine Safety Labels

The machine safety labels shown in this section are placed in important areas on your machine to draw attention to potential safety hazards.

On your machine safety labels, the words DANGER, WARNING, and CAUTION are used with this safety-alert symbol. DANGER identifies the most serious hazards.

The operator's manual also explains any potential safety hazards whenever necessary in special safety messages that are identified with the word CAUTION and the safety-alert symbol.



T81389 —UN—07DEC88

OUC1082,0002DFB -19-10FEB12-1/3

Warning - MT3980

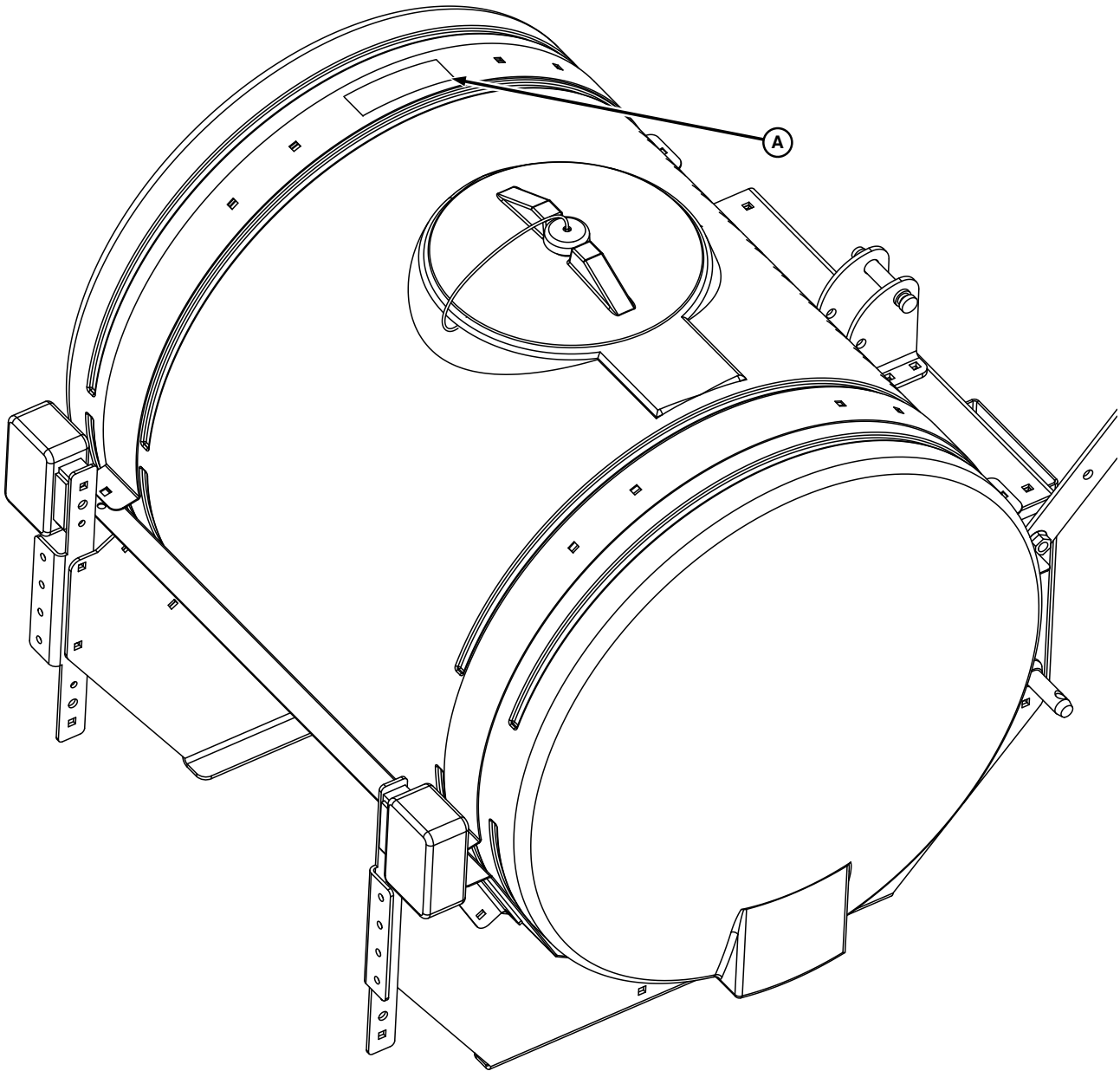
LV15463 —UN—09FEB12

- To avoid injury from chemical hazards, wear protective clothing. Read and follow chemical manufacturer's labels and instructions.



Continued on next page

OUC1082,0002DFB -19-10FEB12-2/3



A—MT3980 Label

MT3980 Location

LV15448 —UN—06FEB12

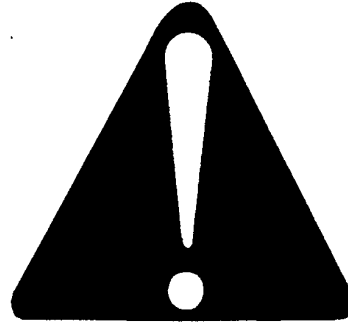
OUC1082,0002DFB -19-10FEB12-3/3

Safety

Recognize Safety Information

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

Follow recommended precautions and safe operating practices.



OUO1082,0002D93 -19-06FEB12-1/1

T81389 —UN—07DEC88

Understand Signal Words

A signal word—DANGER, WARNING, or CAUTION—is used with the safety-alert symbol. DANGER identifies the most serious hazards.

DANGER or WARNING safety signs are located near specific hazards. General precautions are listed on CAUTION safety signs. CAUTION also calls attention to safety messages in this manual.

 **DANGER**

 **WARNING**

 **CAUTION**

OUO1082,0002D94 -19-06FEB12-1/1

TS187 —19—30SEP88

Follow Safety Instructions

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

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

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

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



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

OUO1082,0002D95 -19-06FEB12-1/1

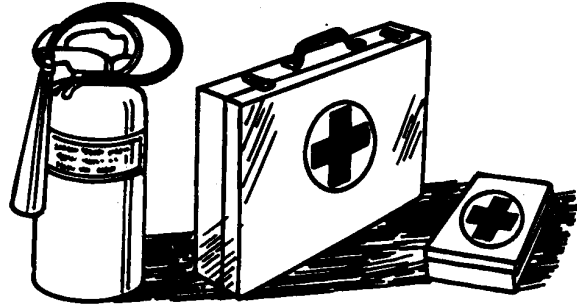
TS201 —UN—23AUG88

Prepare for Emergencies

Be prepared if a fire starts.

Keep a first aid kit and fire extinguisher handy.

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



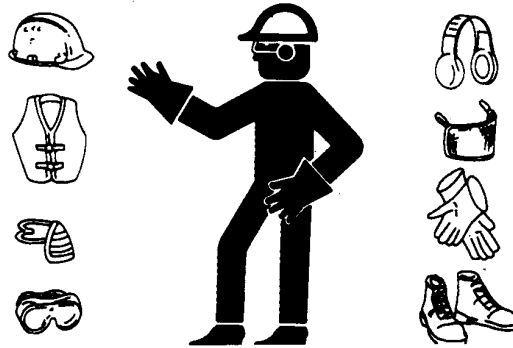
TS291 —UN—23AUG88

OUC1082,0002D96 -19-06FEB12-1/1

Wear Protective Clothing

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

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



TS206 —UN—23AUG88

OUC1082,0002D97 -19-06FEB12-1/1

Stay Clear of Rotating Drivelines

Entanglement in rotating driveline can cause serious injury or death.

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

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

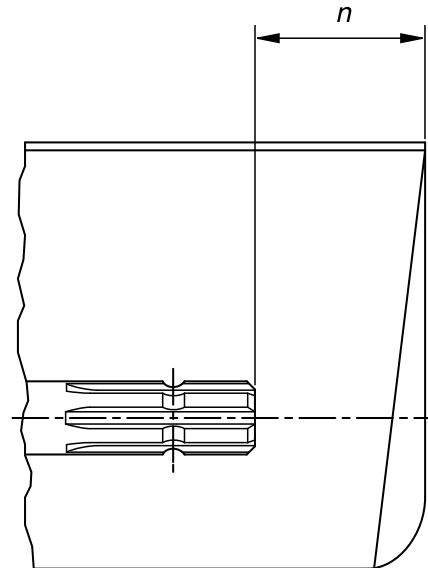
Do not install any adapter device between the tractor and the primary implement PTO drive shaft that will allow a 1000 rpm tractor shaft to power a 540 rpm implement at speeds higher than 540 rpm.

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

PTO Type	Diameter	Splines	$n \pm 5 \text{ mm (0.20 in.)}$
1	35 mm (1.378 in.)	6	85 mm (3.35 in.)
2	35 mm (1.378 in.)	21	85 mm (3.35 in.)
3	45 mm (1.772 in.)	20	100 mm (4.00 in.)



TS1644 —UN—22AUG95



H96219 —UN—29APR10

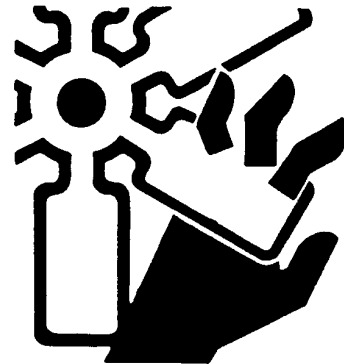
OUC1082,0002E06 -19-10FEB12-1/1

Install All Guards

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.



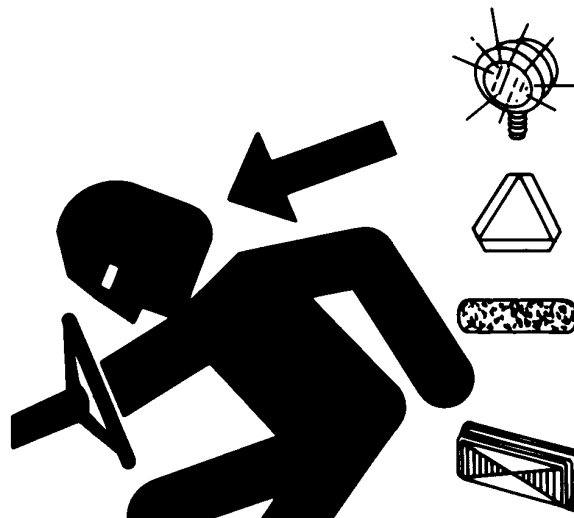
TS677 —UN—21SEP89

OUC1082,0002E0E -19-10FEB12-1/1

Use Safety Lights and Devices

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

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



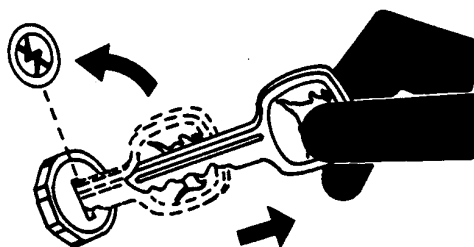
TS951—UN—12APR90

OUC1082,0002DA6 -19-06FEB12-1/1

Park Machine Safely

Before working on the machine:

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



TS230—UN—24MAY89

OUC1082,0002E07 -19-10FEB12-1/1

Practice Safe Maintenance

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

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

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

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

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

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



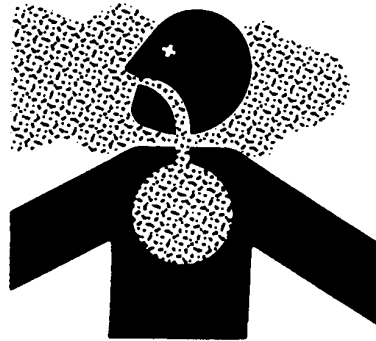
TS218 —UN—23AUG88

OUO1082,0002DB1 -19-06FEB12-1/1

Work In Ventilated Area

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

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



TS220 —UN—23AUG88

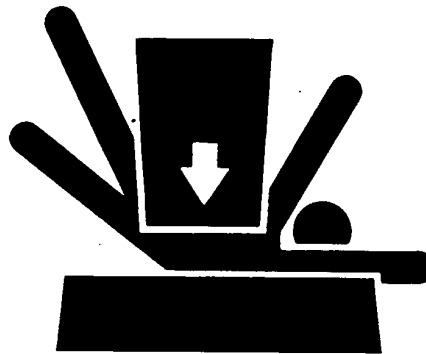
OUO1082,0002DB3 -19-06FEB12-1/1

Support Machine Properly

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

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

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



TS229 —UN—23AUG88

OUO1082,0002DB4 -19-06FEB12-1/1

Handle Fluids Safely—Avoid Fires

When you work around fuel, do not smoke or work near heaters or other fire hazards.

Store flammable fluids away from fire hazards. Do not incinerate or puncture pressurized containers.

Make sure machine is clean of trash, grease, and debris.

Do not store oily rags; they can ignite and burn spontaneously.



TS227 —UN—23AUG88

OUO1082,0002E08 -19-10FEB12-1/1

Avoid High-Pressure Fluids

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

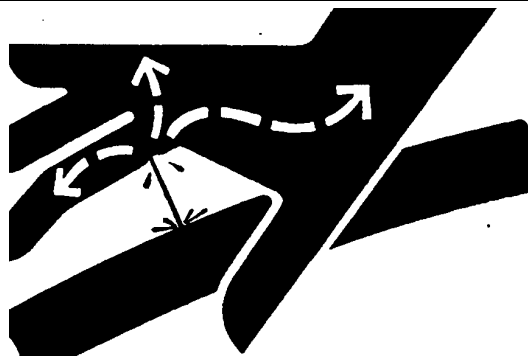
Replace worn or damaged hose assemblies immediately with John Deere approved replacement parts.

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

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

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

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



X9811 —UN—23AUG88

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.

OUO1082,0002E0F -19-10FEB12-1/1

Service and Operate Chemical Sprayers Safely

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.

OUO1082,0002E0B -19-10FEB12-1/1

TS272 —UN—23AUG88

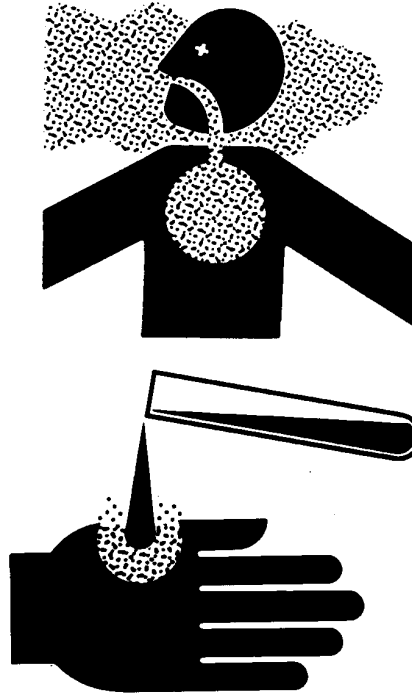
TS220 —UN—23AUG88

Avoid Contact with Agricultural Chemicals

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

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

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



TS220 — UN — 23AUG88

TS272 — UN — 23AUG88

OUC1082,0002E09 -19-10FEB12-1/1

Handle Agricultural Chemicals Safely

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

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

Reduce risk of exposure and injury:

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



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- 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.

OOU1082,0002E0A -19-10FEB12-1/1

Clean Vehicle of Hazardous Pesticides

CAUTION: During application of hazardous pesticides, pesticide residue can build up on the inside or outside of the vehicle. Clean vehicle according to use instructions of hazardous pesticides.

When exposed to hazardous pesticides, clean exterior and interior of vehicle daily to keep free of the accumulation of visible dirt and contamination.

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

DX,CABS2 -19-24JUL01-1/1

Dispose of Waste Properly

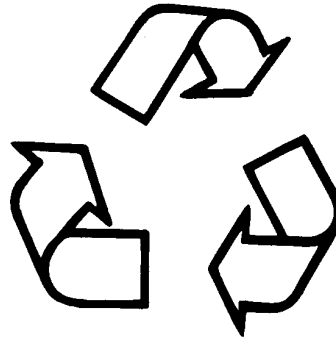
Improperly disposing of waste can threaten the environment and ecology. Potentially harmful waste used with John Deere equipment include such items as oil, fuel, coolant, brake fluid, filters, and batteries.

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

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

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

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



TS1133 —UN—26NOV90

OUO1082,0002E0C -19-10FEB12-1/1

Store Attachments Safely

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

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



TS219 —UN—23AUG88

OUO1082,0002E0D -19-10FEB12-1/1

Assembly

Parts in Kit

Qty.	Description
1	Sprayer Assembly (on pallet)
1	SMV Sign
1	Boom Assembly (boxed separately)

OUC1082,0002DCB -19-10FEB12-1/1

Hardware Bag

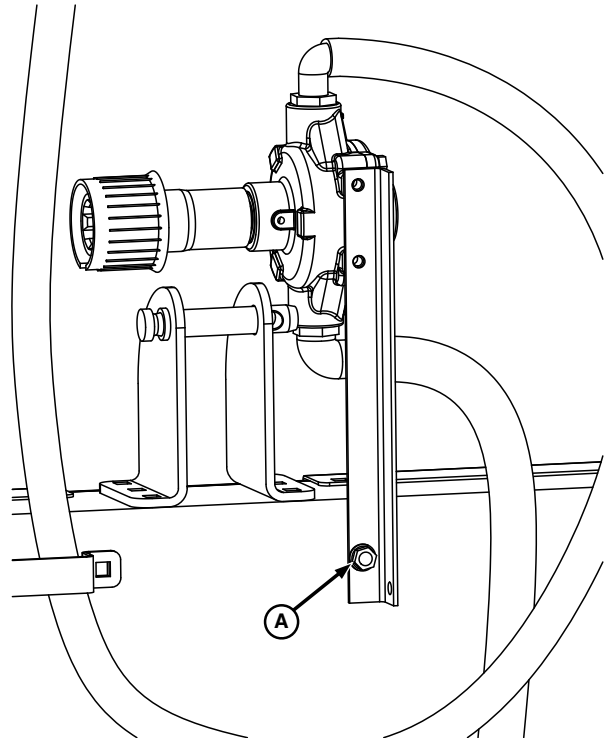
Qty.	Description
3	1/2" Hose Clamp
3	Square U-Bolt
2	5/16" x 3/4" Flange Bolt (24 ft boom only)
8	5/16" Flange Nut

OUC1082,0002DCC -19-10FEB12-1/1

Remove Sprayer from Shipping Crate

1. Remove plastic wrap from sprayer.
2. Remove hardware securing assembly to shipping crate and remove sprayer assembly.
3. Remove nut (A) to free pump, and discard nut and bolt.

A—Nut



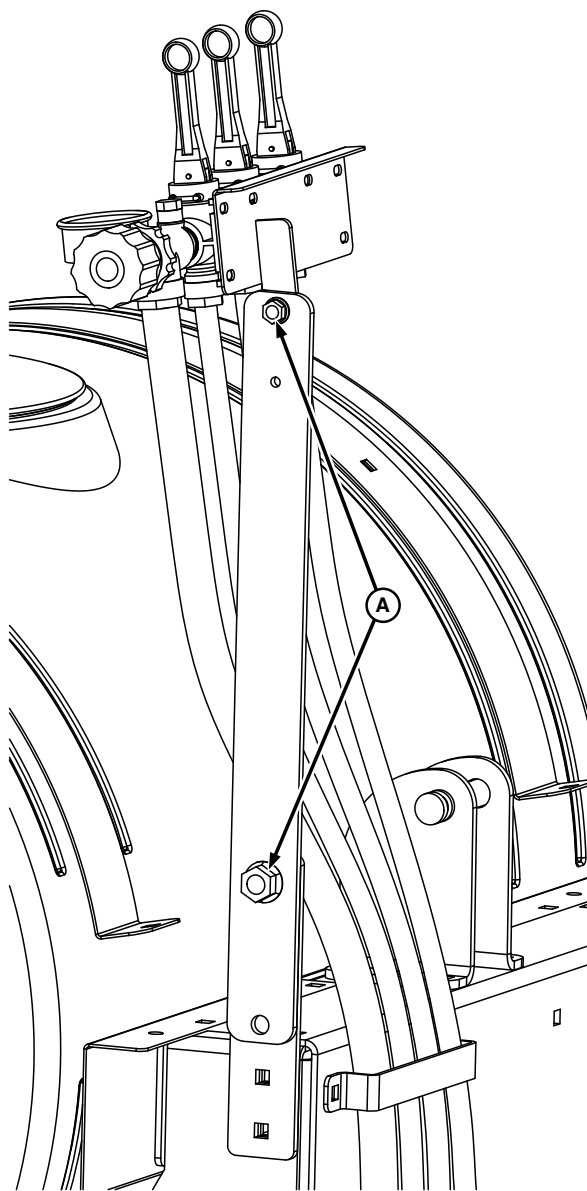
LV15449 —UN—06FEB12

OUC1082,0002DCD -19-10FEB12-1/1

Control Valve Assembly

1. Loosen bolts (A).

A—Bolts



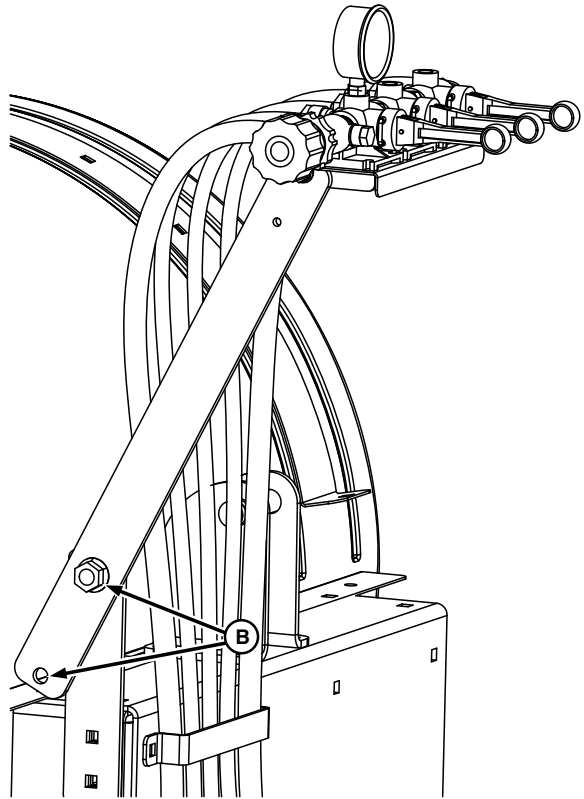
LY15450—JUN—06FEB12

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OUO1082,0002DCE -19-10FEB12-1/2

2. Rotate control valve to height required and place bottom bolt in appropriate hole for desired position of valve. Tighten bolts.

B—Mounting Holes



LV15451 —UN—09FEB12

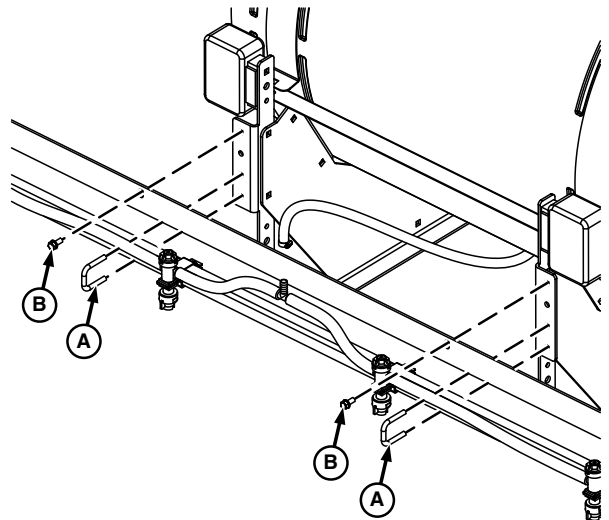
OUO1082,0002DCE -19-10FEB12-2/2

Install Boom

1. Center the boom on the rear of the sprayer.
2. Bolt the boom to the support bracket using two 5/16" square U-bolts (A) and four 5/16" flange nuts.
3. 24 ft and 30 ft Booms Only: Fasten hinge brace to support brackets using two 5/16" x 3/4" flange bolts (B) and two 5/16" flange nuts.

A—Square U-Bolts

B—Flange Bolts



LV15452 —UN—06FEB12

24ft Boom Shown

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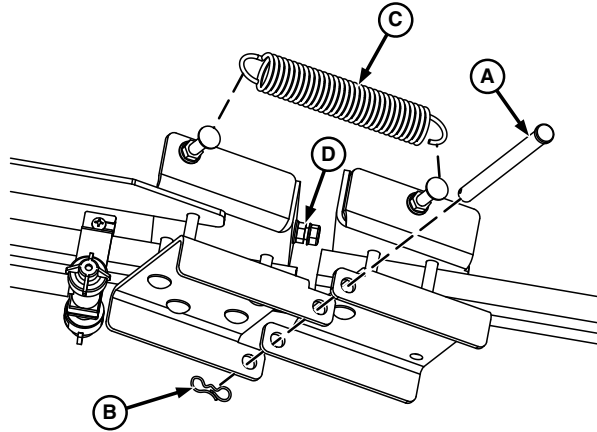
Install Side Booms

NOTE: 24 ft and 30 ft booms only. 18 ft boom is boxed fully assembled.

1. Secure side boom hinge to center boom with hinge pin (A) and fasten with bowtie clip (B).
2. Connect spring (C) to bolts on the hinge backplate.
3. 24 ft Boom Only: Adjust bolt (D) so that side boom is in line with center boom when extended.

A—Hinge Pin
B—Bowtie Clip

C—Spring
D—Bolt



Right Side Shown

OUC2005,0000198 -19-28DEC12-1/2

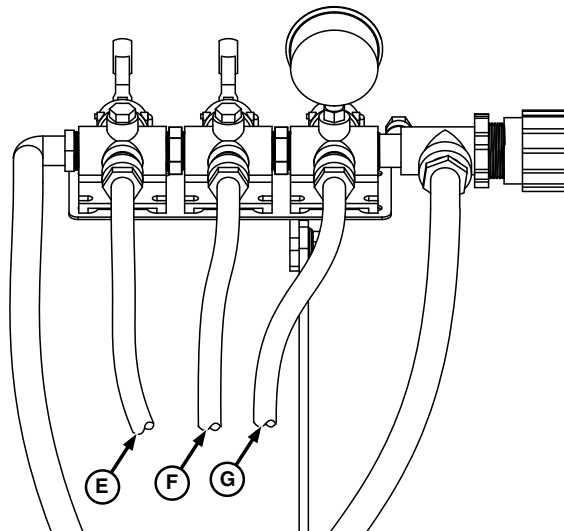
LV15453 —UN—06FEB12

NOTE: The hoses are the length needed for the 18 ft boom. For the 24 ft and 30 ft boom, cut 8" off hoses for the side booms (E and G). For the boomless sprayers, pull the hoses out to the side fittings and cut as needed, leaving a little slack for adjustment of the control valve assembly.

4. Connect the hoses from the control valve to the appropriate sections of the boom.
5. Fasten with 1/2" hose clamps.

E—Left Boom Hose
F—Center Boom Hose

G—Right Boom Hose



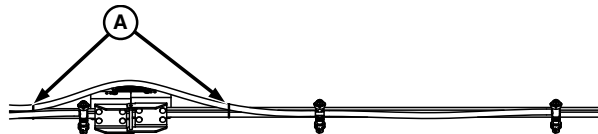
OUC2005,0000198 -19-28DEC12-2/2

LV15454 —UN—09FEB12

Boom Hoses

18 ft Boom: Use wire ties (A) to fasten the hoses to the top of the side booms about 1 foot away from the hinge point, leaving all the slack in the hose around the hinge area. Be sure the boom folds without pinching the hose.

A—Wire Ties



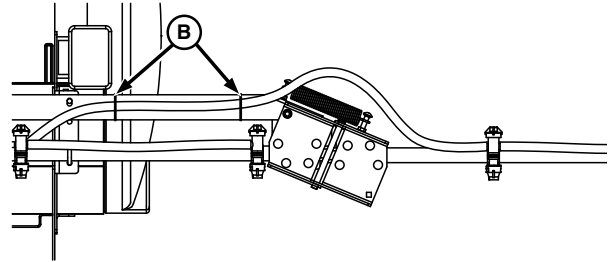
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OUC2005,0000199 -19-28DEC12-1/2

LV15455 —UN—06FEB12

24 ft and 30 ft Boom: Use wire ties (B) to fasten the hoses to the flat piece connecting the side hinges of the side booms, leaving the slack in the hose around the hinge area. Be sure boom folds without pinching the hose.

B—Wire Ties



LV15456 —UN—10FEB12

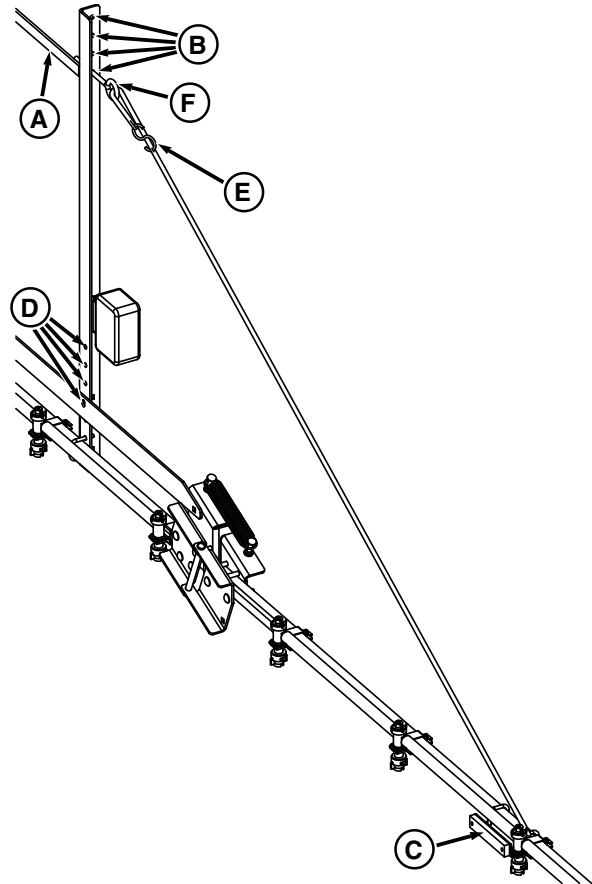
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Boom Adjustment (24 and 30 ft Booms)

1. Move the cross brace (A) to the appropriate upper position (B) so that when the boom is folded, the rubber bumper (C) stops against the cross brace (A). (If the top bolt holding the boom is using the top hole among lower positions (D) the cross brace will use the top hole among upper positions (B) etc.)
2. Put the S-hook (E) through the eyebolt (F) and mark the farthest spot down on the rope where the S-hook reaches.
3. Fold the boom.
4. Grab the rope with a hand an inch or two on either side of the marked spot on the rope and push together to open the weave in the rope. Put the end of the S-hook through the rope.
5. Open the boom.
6. Adjust the side boom until it is parallel with the ground either by folding the boom and attaching the S-hook out farther on the rope, or adjusting the eyebolt.

A—Cross Brace
B—Upper Positions
C—Rubber Bumper

D—Lower Positions
E—S-Hook
F—Eyebolt



LV1001927 —UN—28DEC12

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Install SMV

Use a 5/16" square u-bolt and two 5/16" flange nuts to attach SMV sign to boom. On 24 ft and 30 ft boom

sprayers, attach in the center of boom; on 18 ft boom and boomless sprayers, just left of the center spray tip.

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Installation

Sprayer Installation

Installing Ballast

⚠ CAUTION: Avoid Injury! Machine can become unstable when operating with attachment. Ballast is required when the attachment is installed.

When the attachment is removed, also remove any ballast that was added to the machine.

Use only attachments and accessories recommended by the manufacturer.

Compact Utility Tractors

See Ballasting Machine in your tractor operator's manual to determine the number of front weights required to ballast the tractor.

Use the following table to ballast these tractor models.

Tractor Model	No. of Weights	Weight (kg/lb)	Implement Code
3120, 3320, 3520, and 3720	9	70	70
4120, 4320, 4520, and 4720	9	70	90

Mounting the Pump

1. Connect pump to tractor PTO shaft.
2. Brace torque arm against solid member of tractor frame in the direction of PTO rotation. **DO NOT** brace against the 3-point lift arms or any other moving parts.
3. Connect chain fairly tight to tractor frame in opposite direction.



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We recommend using the drawbar (if possible) and wrapping the chain as shown above.

Attaching the Sprayer to Tractor

1. Park machine safely. (See Park Machine Safely in Safety section.)
2. Lower tractor lift link to lowest position.
3. Mount sprayer on 3-point hitch.

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Removing and Storing Sprayer

Removing Sprayer from Tractor

1. Park machine safely. (See Park Machine Safely in Safety section.)
2. Empty the sprayer tank.
3. Lower tractor lift link to lowest position.
4. Disconnect sprayer from tractor 3-point hitch.

⚠ CAUTION: Avoid Injury! Machine can become unstable when operating with attachment. Ballast is required when the attachment is installed.

When the attachment is removed, also remove any ballast that was added to the machine.

Use only attachments and accessories recommended by the manufacturer.

5. Remove any added ballast from machine.

Store Sprayer Safely

⚠ CAUTION: To Avoid Chemical Injury:

- Wear protective clothes, gloves and goggles when handling sprayer.
- Do not store sprayer with chemicals in tank.
- If sprayer comes in contact with your body, immediately follow directions on chemical container pertaining to spray material.



Pump Storage

1. Pump all spray material from tank. (See Dispose of Waste Properly in Safety section.)
2. Rinse tank, pump, spray wand and all hoses thoroughly with fresh clean water.
3. Repeat step 2 several times.
4. Wipe out sump with a clean cloth or paper towel.
5. Drain hoses and pump filter.
6. Check sprayer for worn or damaged parts. Replace parts as needed.
7. Tighten loose hardware.
8. Store sprayer in a place where it will not freeze.
9. The pump rests conveniently on top of the 3-point top pin brackets as shown to prevent damage.

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Operation

Sprayer Set-Up

Filling Sprayer Tank

CAUTION: Chemicals can be dangerous. Avoid injury to operator or bystanders.

- Read chemical container label for mixing and handling instructions. A Material Safety Data Sheet (MSDS) should be supplied by the chemical dealer and provides proper safety information.
- Wear proper clothing and safety equipment while handling or applying spray chemicals.
- Wear a full covering of clothing, protective goggles and rubber gloves.
- Prohibit all smoking, drinking, and eating around chemicals.
- When filling tank, never allow end of water hose to contact chemical mixture.

IMPORTANT: Avoid damage! Clean any spills immediately with clean water prior to operating sprayer.

NOTE: There is no drain plug provided for draining sprayer tank. When filling tank, consider the area to be sprayed and the amount of solution required to complete the task.

1. Clean area around tank filler cap to prevent tank contamination.
2. Remove tank filler cap and fill tank.
3. Install tank filler cap.

Draining and Cleaning Sprayer Tank

IMPORTANT: Avoid Damage!

- Proper disposal of excess spray is very important. Dilute it with water and apply it to area previously treated.
 - Never dump excess into a storm drain or near a lake or stream.
1. To quickly empty the tank of excess material, close the ball valve under the tank, remove the filter and open the valve to drain.
 - Empty remaining solution into an appropriate container for proper disposal.
 - Dilute remaining solution with water and apply it to the area previously treated.
 2. Spray all inside surfaces of tank with low pressure garden hose to remove any remaining solution. Rinse sprayer tank, pump, sprayer wand and all hoses thoroughly with fresh, clean water. Rinse several times to make sure sprayer tank is clean and free of chemicals.
 3. Once the tank is empty, wipe out inside of sprayer tank with clean cloth or paper towel.

4. Install filler cap.

Calibrating the Sprayer

When spraying with boom, sprayer must be calibrated to ensure proper spray coverage and to combat over-application or under-application. The calibration process consists of three steps:

- Calculate speed of tractor.
- Determine nozzle size and consult calibration chart for desired or instructed gallon per acre (GPA).
- Set pressure using relief valve.

Calculating the Speed

It is important to determine what speed the tractor will be traveling while spraying. Even if tractor has a speedometer, it is still recommended that speed be checked for accuracy. Perform the following steps to determine speed:

1. Measure a 200 or 300 foot distance on a field or surface similar to where sprayer will be used.
2. Drive tractor with half-full sprayer across measured distance at a constant and comfortable speed for spraying. There can be no changes in speed while measuring time.
3. When using a gear-driven tractor, select a gear where PTO is at or near 540 rpm. This is important for pump to provide adequate pressure to sprayer when spraying.
4. Determine amount of time, in seconds, it takes to travel the measured distance.
5. Speed can be determined by entering data into the following equation:
speed (mph) = (distance (ft) x 60) / (time (sec) x 88)
or by consulting the following table:

Speed in MPH	Time (sec) required to travel a distance of:	
	200 ft	300 ft
1	136	205
1.5	91	136
2	68	102
2.5	55	82
3	45	68
3.5	39	58
4	34	51
4.5	30	45
5	27	41
5.5	25	37
6	23	34
6.5	21	31
7	19	29

NOTE: If using boomless nozzles, use the Boomless Nozzle Calibration Chart.

Determining Nozzle Size and Using Calibration Chart

STANDARD CALIBRATION CHART						
Tip Size	PSI	GPM of One Nozzle	GPA			
			3 mph	4 mph	5 mph	6 mph
XRC11004	15	0.24	23.8	17.8	14.3	11.9
	20	0.28	27.8	21.0	16.6	13.9
	30	0.35	34.6	26.0	21.0	17.3
	40	0.40	39.6	30.0	24.0	19.8
	50	0.45	44.0	33.0	27.0	22.0
	60	0.49	48.0	36.0	29.0	24.0

The spray nozzles on your sprayer are XRC11004, which match up with the calibration chart. Refer to the calibration chart. Using tractor speed, nozzle size, and desired gallons per acre (GPA), find pressure (psi) necessary to achieve your GPA. It is important to note that lower pressure settings will result in less spray drift.

Example:

Assume tractor speed is determined to be 4 mph, nozzles are red (XRC11004), and desired GPA is 20 GPA. The calibration charts shows that you should set sprayer's pressure at about 20 psi in order to apply 20 GPA.

Boomless Calibration

Right and Left Nozzles: 1/4XP20
Center Nozzle: 1/4TTJ08

BOOMLESS CALIBRATION CHART FOR 24" HEIGHT						
PSI	Cap. 3 Nozzle GPM	Spray Width (ft)	GPA			
			4 mph	6 mph	8 mph	10 mph
30	4.19	26.3	19.7	13.1	9.9	7.9
40	4.8	30.3	19.6	13.1	9.8	7.8
50	5.39	32.3	21.0	13.8	10.3	8.3
60	5.98	33.3	22.0	14.8	11.1	8.9

BOOMLESS CALIBRATION CHART FOR 36" HEIGHT						
PSI	Cap. 3 Nozzle GPM	Spray Width (ft)	GPA			
			4 mph	6 mph	8 mph	10 mph
30	4.19	27.3	19.0	12.7	9.5	7.6
40	4.8	31.3	19.0	12.7	9.5	7.6
50	5.39	33.3	20.0	13.4	10.0	8.0
60	5.98	35.3	21.0	14.0	10.5	8.4

Adjusting the Sprayer Pressure

NOTE: All calibration needs to be done with clean water.

Once correct pressure setting has been determined, the sprayer must be adjusted to that pressure setting. Before adjusting sprayer's pressure, it is important to set tractor rpm at rate that was used to determine tractor speed. The relief valve controls sprayer pressure and is located directly beside the pressure gauge. Go to spray, and turn relief valve until necessary pressure is achieved. Sprayer is now calibrated.

NOTE: Due to normal wear, Teejet® recommends replacing sprayer nozzles after every spraying season. Nozzle replacement will ensure accurate spraying performance.

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Operating the Sprayer

Pump Safety Precautions

⚠ CAUTION: Avoid injury! Chemicals can be dangerous. Avoid injury to operator or bystanders:

- Read chemical container label for mixing and handling instructions. A Material Safety Data Sheet (MSDS) should be supplied by the chemical dealer and provides proper safety information.
- Wear proper clothing and safety equipment while handling or applying spray chemicals.
- Wear a full covering of clothing, protective goggles and rubber gloves.
- Prohibit all smoking, drinking, and eating around chemicals.
- When filling tank, never allow end of water hose to contact chemical mixture.

IMPORTANT: Avoid damage!

- Do not pump flammable or explosive fluids such as gasoline, fuel oil, or kerosene.
- Do not pump acids (i.e., acid fertilizer) with super rollers. For acid fertilizer, Hypro recommends Silver Series castings with Teflon rollers.
- Do not run pump dry! Do not pump faster or above maximum recommended speed and pressure (1200 rpm, 300 psi).
- Do not pump liquids at temperatures higher than recommended maximum temperature (60°C, 140°F).

- Disconnect power, release all pressure and drain all liquids before servicing pump.

Spraying with the Boom

1. Calibrate the sprayer to achieve the desired gallons per acre (GPA). Refer to Calibrating the Sprayer and the Calibration Chart to determine the correct pressure settings.
2. Connect pump PTO coupler to PTO shaft.
3. Fill tank with water to set pressure and test for leaks.
4. Prepare to spray by opening ball valve on inlet line from tank and closing control valve handle. Handle must be in horizontal position.
5. Start tractor and engage pump. For adequate spraying pressure and tank agitation, PTO should be running at or near 540 rpm. Ensure pump is primed and there are no leaks in any lines.
6. Use relief valve to adjust sprayer pressure to pressure rating determined during sprayer calibration. When opening control valve, it may be necessary to adjust pressure again.
7. Ensure that tractor PTO is disengaged. Fill tank with amount of water and chemicals recommended by chemical being used. After filling tank, engage pump and allow ample amount of time for jet agitator to mix water and chemicals.

NOTE: Do not start sprayer operation until chemicals and water are mixed for the recommended time listed on the chemical instructions.

8. At spraying location, open booms, engage pump, and make sure pressure setting is correct. While spraying, maintain a constant level of speed and rpm (rates determined when calibrated).

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Service

Servicing Sprayer

Servicing Sprayer Safely

 **CAUTION: Avoid injury! To avoid chemical injury:**

- Wear protective clothes, gloves and goggles when handling sprayer.
- Do not put the nozzle tips or other parts to your lips to blow out dirt.
- If spray comes in contact with your body, immediately follow directions on chemical container pertaining to spray material.

Servicing the Pump

Follow all pump safety precautions and warnings. Following these guidelines will help to ensure many years of smooth and trouble-free sprayer operation.

- Flush pump out with fresh water after every use.
- Winterize pump to prevent freezing and corrosion. Refer to Winterizing Sprayer for instructions.
- Change seals and rollers if pump is leaking or has a noticeable decrease in performance.

Winterizing Sprayer

It is important to winterize sprayer to avoid damage from freezing and corrosion before temperatures reach freezing levels.

1. Empty and rinse tank.

 **CAUTION: Avoid injury! Do not use standard antifreeze. Standard antifreeze can be harmful to humans, animals, crops and the environment.**

2. Put one to two gallons of RV nontoxic antifreeze in tank.
3. Engage pump and spray with boom and subsequently spray gun (if applicable). Ensure that antifreeze has been pumped through entire system, including all spray nozzles.
4. Store sprayer in a dry location away from elements.

Placing Sprayer Back in Service after Winterizing

1. Flush sprayer with fresh water to clean out all antifreeze and any other buildup.
2. Do a thorough inspection of all components before spraying.

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Getting Quality Service

John Deere Quality Continues with Quality Service

John Deere provides a process to handle your questions or problems, should they arise, to ensure that product quality continues with your John Deere dealer's parts and service support.

Follow the steps below to get answers to any questions you may have about your product.

1. Refer to the appropriate attachment, machine or equipment operator's manuals.
2. Contact your John Deere dealer with unanswered questions.

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Troubleshooting

Troubleshooting Sprayer

Using Troubleshooting Chart

If you are experiencing a problem that is not listed in this chart, see your authorized dealer for service.

When you have checked all the possible causes listed and you are still experiencing the problem, see your authorized dealer.

Troubleshooting Chart

IF	CHECK
Pump loses suction.	Clean pump suction screen. Check tank fill level. Fill tank. Clean or replace pump. Check for loose pump fittings.
Pump capacity decreased.	Clean pump suction screen. Clean spray nozzle(s). Selection lever is not completely turned on, or is in the OFF position.
Poor spray pattern.	Clean spray nozzles. Adjust nozzle height. Align spray tips with boom.
Pump does not work.	Clean debris from pump.

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Specifications

Sprayer Specifications

110 GALLON, 3-POINT HITCH SPRAYER

Pump

Model..... Series 6500C or 6500XL
Type Six Roller Pump
Manufacturer Hypro
Max Pressure..... 1034 kPa (150 psi)
Max Flow Rate 9.7 gpm
Max RPM..... 540 rpm
Ports 3/4" NPT Inlet & Outlet, 1" Hose Barb Included
Continuous Operation 689 kPa (100 psi)
Intermittent Operation..... 1034 kPa (150 psi)

Sprayer Tank

Capacity 416 L (110 gallon)
Spraying Width 24 ft Boom 7 m (23.5 ft)
Spraying Width 18 ft Boom 5 m (17.5 ft)
Spraying Width Boomless 9 m (30 ft)

Weight (with boom)

Empty 136 kg (300 lb)
Full 551 kg (1216 lb)

Weight (without boom)

Empty 109 kg (240 lb)
Full 524 kg (1156 lb)

150 GALLON, 3-POINT HITCH SPRAYER

Pump

Model (30 ft Boom) Series 7700C or 7700XL
Model (Boomless and 18 ft Boom) Series 6500C or 6500XL
Type Seven Roller Pump
Manufacturer Hypro
Max Pressure..... 1379 kPa (200 psi)
Max Flow Rate 22.4 gpm
Max RPM..... 800 rpm
Ports 3/4" NPT Inlet & Outlet, 1" Hose Barb Included
Continuous Operation 689 kPa (100 psi)
Intermittent Operation..... 1379 kPa (200 psi)

Sprayer Tank

Capacity 468 L (150 gallon)
Spraying Width 30 ft Boom 9 m (30 ft)
Spraying Width 18 ft Boom 5 m (17.5 ft)
Spraying Width Boomless 9 m (30 ft)

Weight (with boom)

Empty 168 kg (370 lb)
Full 734 kg (1619 lb)

Weight (without boom)

Empty 131 kg (290 lb)
Full 698 kg (1539 lb)

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