

# 15-Gallon Sprayer



JOHN DEERE

## OPERATORS MANUAL

15-Gallon  
Sprayer

OMM77684 Issue D8 English

John Deere Horicon Works  
OMM77684 Issue D8

LITHO IN U.S.A.  
ENGLISH



# Introduction

**Thank you** for purchasing a John Deere product.

**Read this manual** carefully to learn how to operate and service your sprayer correctly. Failure to do so could result in personal injury or equipment damage.

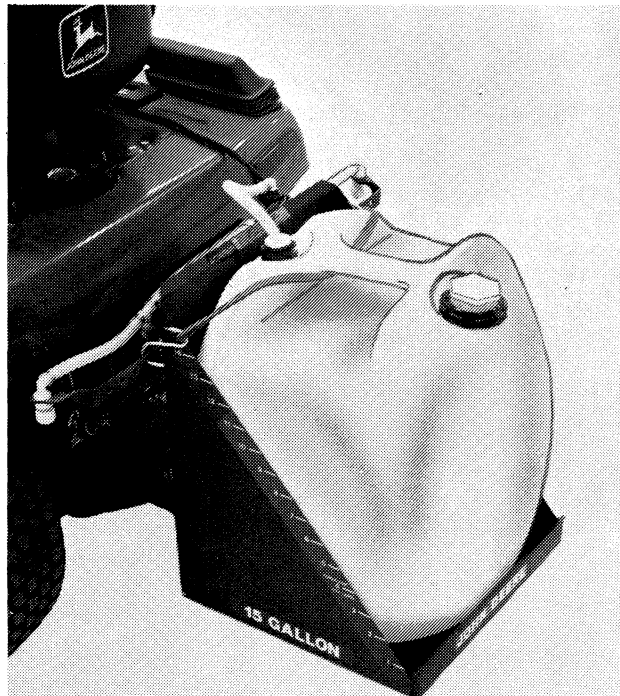
**This manual should be considered** a permanent part of your sprayer and should remain with the sprayer when you sell it.

**Measurements** in this manual are U.S. units and their metric equivalents.

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

**Right-hand and left-hand** sides are determined by facing in the direction of forward travel.

**Part Numbers** may differ outside U.S. Please check with your John Deere dealer.



M61141

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

# Specifications

## SPECIFICATIONS

Tank .....15 gal (57 L)  
Pump.....Electric motor and diaphragm  
Manufacturer.....Shurr Flo  
Current draw .....7 amp  
Fuse .....15 amp  
Flow rate .....1 gal/min (3.8 L/min)

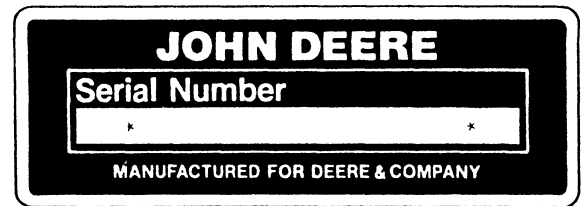
Suction hose strainer .....Stainless steel  
Spray tip.....Two #5, 80°  
Material.....Stainless steel  
Handgun material .....Brass  
Adjustment .....Fan to stream  
Net Weight .....40 lb (18 Kg)

## SPRAYER SERIAL NUMBER

Write your sprayer serial number below. Your John Deere dealer needs this number when you order parts.

Serial number plate is on front of frame, left side.

Serial Number \_\_\_\_\_



M61142

## ARE WE MEETING YOUR NEEDS?

This operator's manual was written by the Service Publications Department at John Deere Horicon Works.

In our effort to meet customer needs, we invite you to mail comments on this manual to address at right.

Call your dealer or sales branch if you have problems or need service. See map inside back cover.



JOHN DEERE HORICON WORKS  
400 N. VINE  
HORICON, WI 53032-1291  
ATTN: SERVICE PUBLICATIONS

M41312

# Safety

## FOLLOW SAFETY INSTRUCTIONS

**CAUTION**

- HELP AVOID CHEMICAL INJURY**
- WEAR PROTECTIVE CLOTHES, GLOVES AND GOGGLES
  - DO NOT USE FLAMMABLE CHEMICALS
  - FOLLOW CHEMICAL MANUFACTURER'S DIRECTIONS

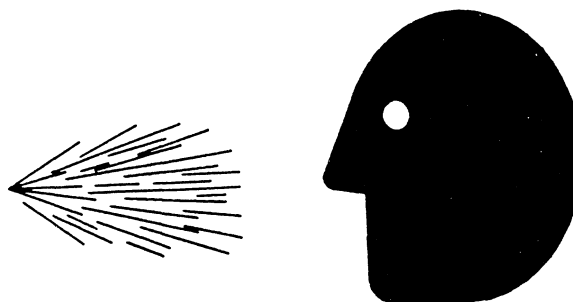
Carefully read all safety messages in this manual and on your machine safety signs. Follow recommended precautions and safe operation practices.

Keep safety signs in good condition. Replace missing or damaged safety signs.

M61040

## KEEP PEOPLE AND PETS AWAY FROM SPRAYING AREA

Do not direct spray toward bystanders or allow anyone near sprayer while it is in operation.



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Chemicals can be dangerous. Improper selection or use can injure persons, animals, plants, soil or other properties.

Follow directions for each specific chemical.



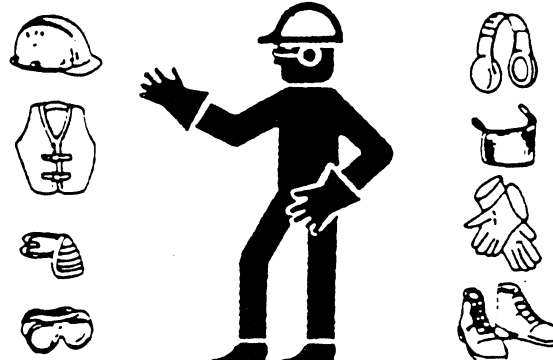
M61022

## WEAR PROTECTIVE CLOTHING

Wear protective clothing when you mix, calibrate or spray pesticides.

Order from your John Deere dealer:

Safety Goggles .....TY3099



M41443

## **SAFETY TIPS**

Do not let anyone operate sprayer without proper instruction.

Keep children and pets away from spraying area.

Do not spray during extreme heat or windy weather.

Keep riders off tractor and sprayer.

Select the right chemical for the job. Handle and apply chemicals with care. Follow manufacturer's instructions.

Do not store sprayer with chemicals in tank.

Do not put nozzle tip or other parts to your lips to blow out dirt.

Keep spare filters available for replacement.

Before you service, adjust, clean or inspect sprayer:

—Stop engine.

—Remove key.

—Turn sprayer switch OFF.

—Disconnect pump connection.

# Assembly and Installation

## PARTS LIST

*NOTE: Quantities and parts may differ from those listed below:*

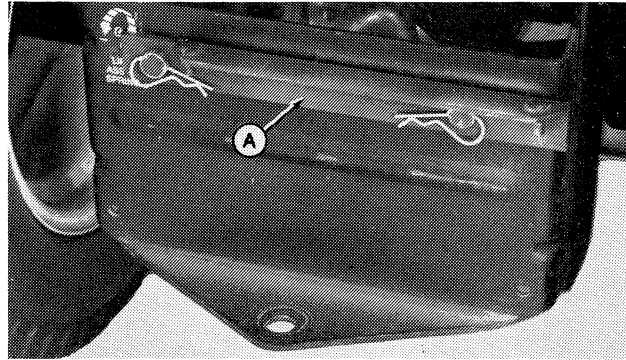
| Quantity | Description                           | Quantity | Description                  |
|----------|---------------------------------------|----------|------------------------------|
| 1        | Frame                                 |          | Bag of Hardware:             |
| 1        | Tank                                  | 1        | 1/2" Flat washer             |
| 1        | Drawbar                               | 2        | 5/16" Flat washers           |
| 1        | Pump w/hose assembly and tip supports | 1        | 1/2" Lock washer             |
| 1        | Wiring harness                        | 5        | 5/16 x 1/2" Truss-head bolts |
| 1        | Rubber strap w/S hooks                | 16       | 5/16" Flange nuts            |
| 1        | Tractor anchor                        | 4        | 1-5/8" Spring pins           |
| 1        | Sprayer anchor                        | 2        | 2-7/8" Spring pins           |
| 1        | Plate                                 | 2        | 5/16 x 3/4" Cap screws       |
| 4        | Metal straps                          | 2        | 5/16" Ext. star washers      |
| 2        | J-straps                              | 2        | 5/16" Lock nuts              |
| 1        | Support                               | 9        | 5/16 x 3/4" Truss-head bolts |
|          |                                       | 1        | Fill cap                     |
|          |                                       | 1        | Wing nut                     |
|          |                                       | 2        | 3/4 x 3/4" Drilled pins      |
|          |                                       | 2        | 5/16 x 1-3/4" Drilled pins   |

## INSTALL TRACTOR ANCHOR—240, 260, 265, AND 285 TRACTORS

Fasten anchor (A) to tractor drawbar with drilled pins and two 2-7/8" spring pins.

*NOTE: Anchor not used on tractors with a rear rockshaft.*

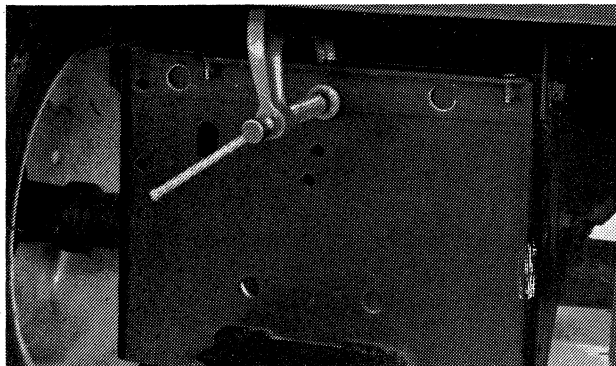
*265 Tractor shown*



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### INSTALL TRACTOR ANCHOR—OTHER 200 SERIES TRACTORS\*

1. Clamp anchor flush with top of frame and 1.3 in. (33 mm) in from left side of frame.
2. Mark and drill two 3/8" holes:
  - Each hole: down 1 in. (25 mm) from top of frame.
  - Left hole center: 2.3 in. (58 mm) from left side of frame.
  - Right hole center: 2.9 in. (74 mm) from right side of frame.
3. Fasten each end of anchor with a 3/8 x 1-in. bolt, flat washer, lock washer, and nut: these parts not furnished.



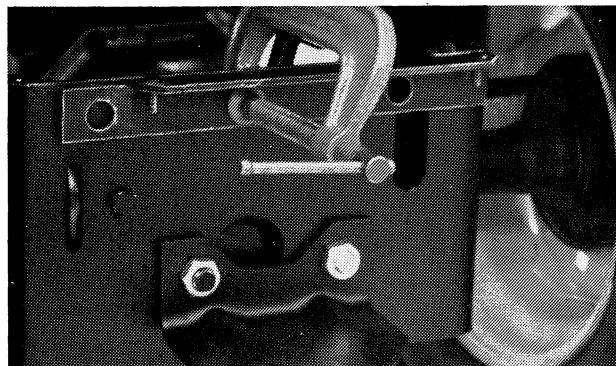
216 Tractor shown

\*This includes 110 and 112 Lawn and Garden Tractors, and 200, 208, 210, 212, 214, and 216 Lawn and Garden Tractors.

M61162

### INSTALL TRACTOR ANCHOR—120 AND 140 TRACTORS AND 300 SERIES TRACTORS WITHOUT REAR ROCKSHAFT

1. Clamp anchor flush with top of frame so center of left hole is approximately 2 in. (50 mm) from left side of frame.
2. Mark and drill two 3/8" holes:
  - Each hole: down 1 in. (25 mm) from top of frame.
  - Left hole center: 2 in. (50 mm) from left side of frame.
  - Right hole center: 1-1/4 in. (30 mm) from right side of frame.
3. Fasten each end of anchor with a 3/8 x 1-in. bolt, flat washer, lock washer, and nut: these parts not furnished.

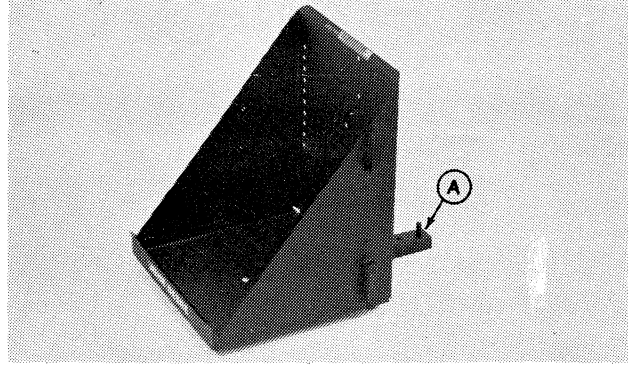


317 Tractor shown

M61163

## INSTALL DRAWBAR

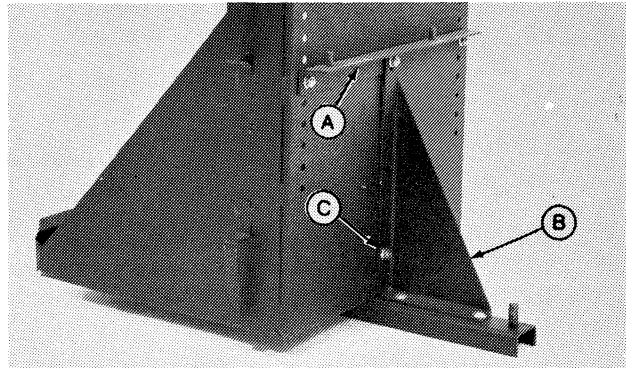
Fasten drawbar (A) with two 5/16 x 1/2-in. truss-head bolts and flange nuts: bolt heads inside frame.



M61144

## INSTALL SPRAYER ANCHOR AND TRIANGLE SUPPORT

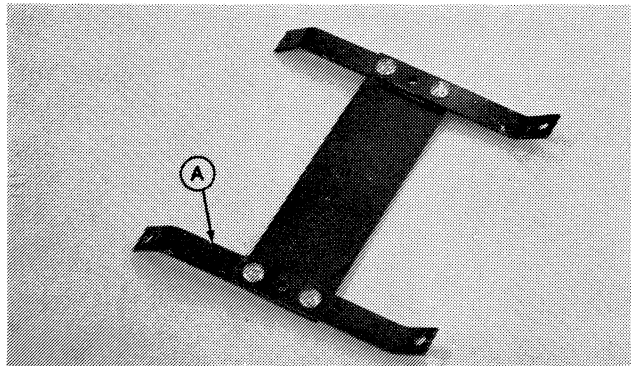
1. Fasten each end of anchor (A) with a 5/16 x 3/4-in. truss-head bolt, flat washer, and nut: bolt heads and washers inside frame.
2. Fasten top of support (B) with 5/16 x 3/4-in. truss-head bolt and nut: bolt head inside frame.
3. Fasten bottom of support with three 5/16 x 1/2-in. truss-head bolts and nuts: bolt head (C) inside frame.



M61145

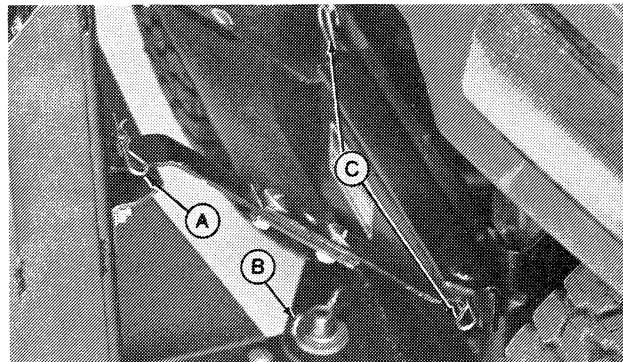
## ASSEMBLE/INSTALL STABILIZER ON TRACTORS WITHOUT REAR ROCKSHAFT

1. Overlap straps (A) and align holes.
2. Assemble straps and plate loosely with four 5/16 x 3/4-in. truss-head bolts and flange nuts. Do not tighten nuts until you install stabilizer on tractor.



M61146

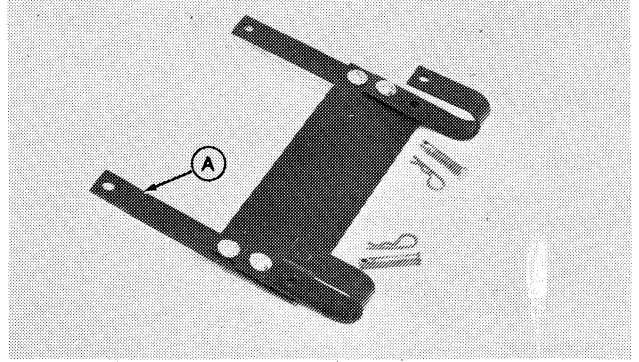
3. Fasten stabilizer to frame with two 1-5/8-in. spring pins (A).
4. Install drawbar loosely with 1/2-in. flat washer, lock washer, and wing nut (B).
5. Fasten stabilizer to anchor with two 1-5/8-in. spring pins (C).
6. Tighten four stabilizer nuts. Tighten wing nut.



M61243

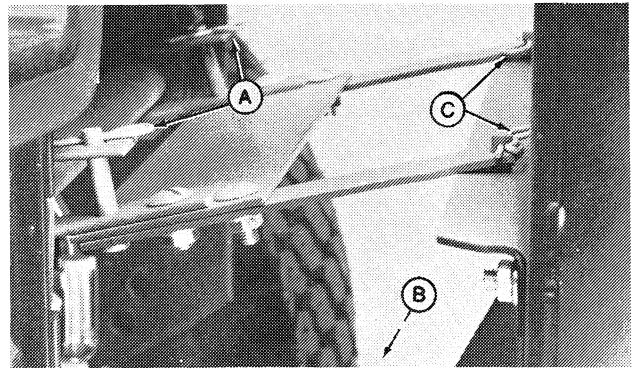
## ASSEMBLE/INSTALL STABILIZER ON TRACTORS WITH REAR ROCKSHAFT

1. Straighten straps (A).
2. Overlap straight straps and J-straps on plate. Align holes.
3. Assemble straps and plate loosely with four 5/16 x 3/4-in. truss-head bolts and flange nuts. Do not tighten nuts until you install stabilizer on tractor.



M61154

4. Fasten J-straps to rockshaft with two 1-3/4-in. drilled pins and two 1-5/8-in. spring pins (A).
5. Install drawbar loosely with 1/2-in. flat washer, lock washer, and wing nut (B). See key B on previous illustration.
6. Fasten stabilizer to frame with two 1-5/8-in. spring pins (C).
7. Tighten four stabilizer nuts. Tighten wing nut.

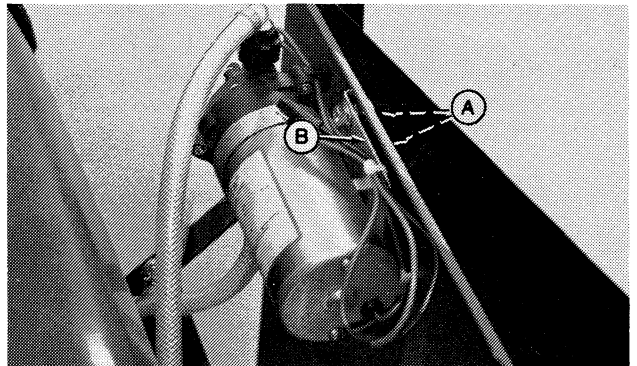


M61244

## INSTALL PUMP

**NOTE:** Flange nuts in step 1 act as spacers. Put bracket (step 2) against these nuts.

1. Install two 5/16 x 3/4-in. truss-head bolts and flange nuts (A): bolt heads inside frame.
2. Put bracket (B) on bolts. Fasten bracket with 5/16-in. flange nuts.

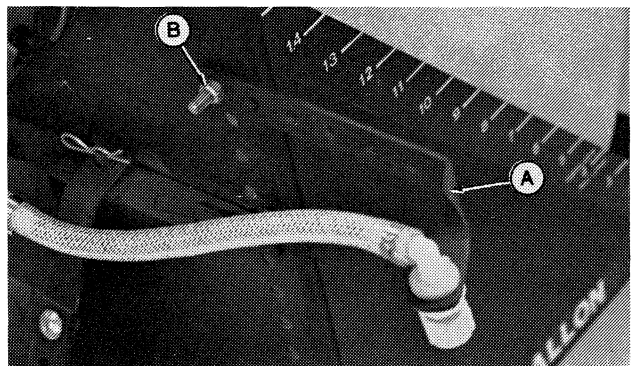


M61150

## INSTALL TIP HOLDERS

**NOTE:** See ADJUSTING TIP HEIGHT AND WIDTH in Operation section.

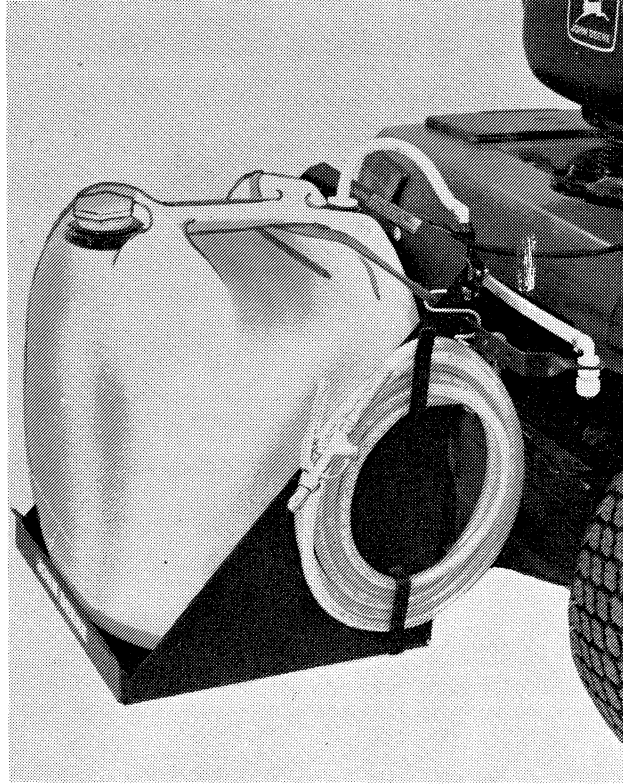
1. Put star washer between frame and tip holder: offset (A) toward tractor.
2. Fasten each tip holder with a 5/16 x 3/4-in. cap screw (B) and lock nut: head inside frame.
3. CHECK: Nozzle slots should be sideways.



M61149

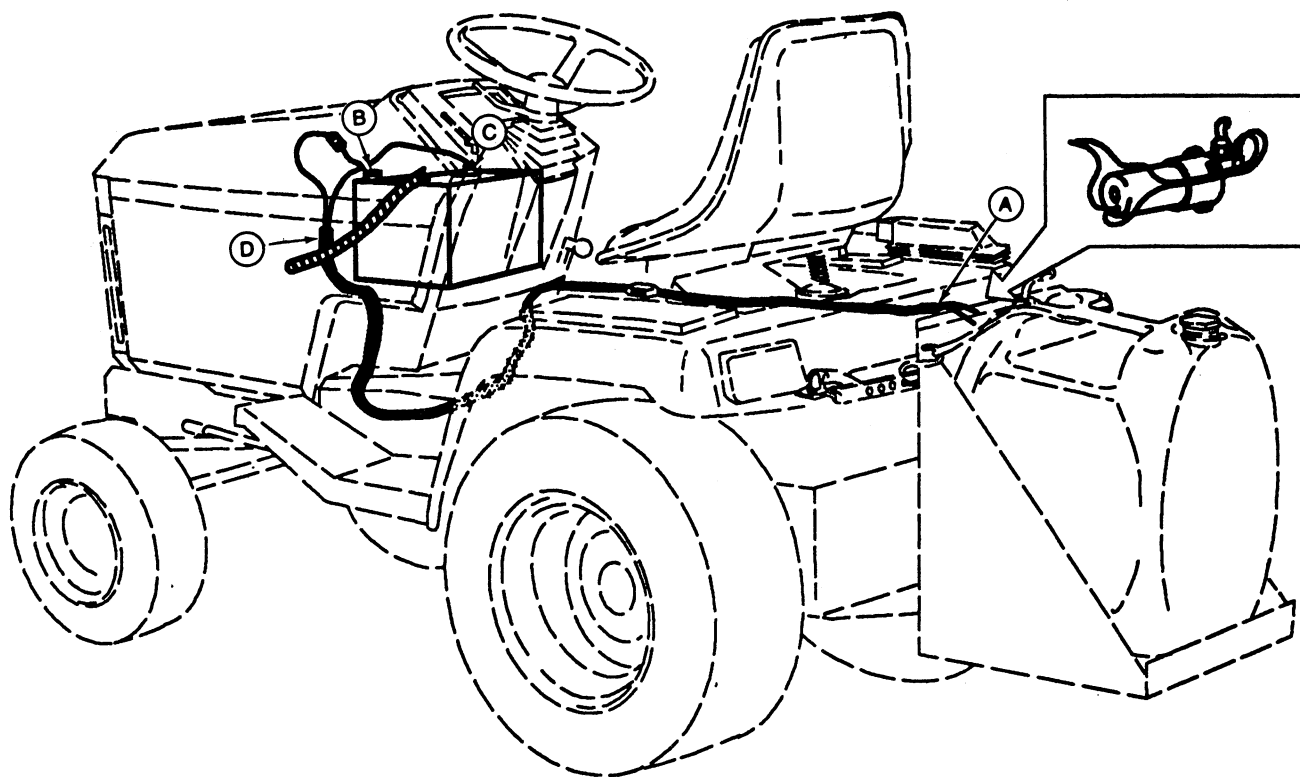
## **INSTALL TANK**

1. Install tank as shown.
2. Install suction hose in tank.
3. Fasten tank with rubber strap.
4. Wrap hose fairly tight around brackets.
5. Install cap.



M61151

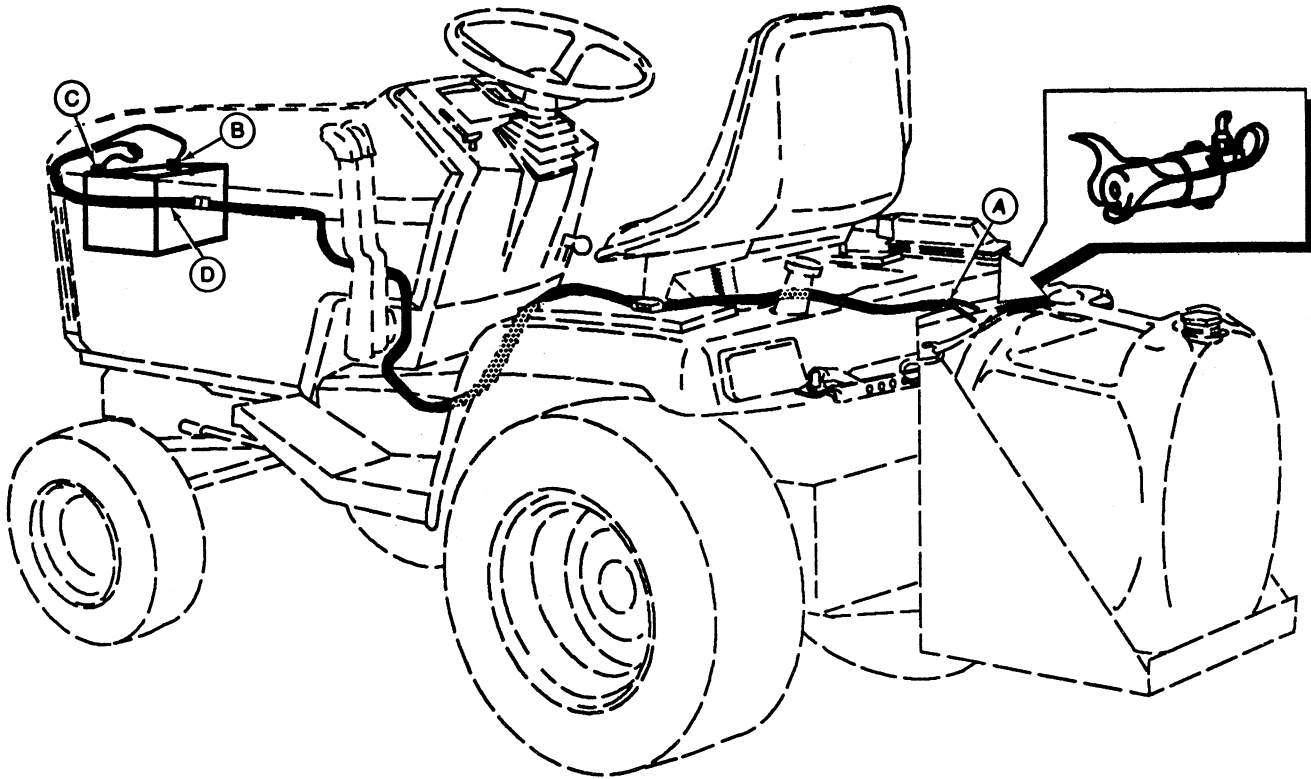
## ROUTE WIRE HARNESS TO MID-BATTERY



1. Connect short end from switch to pump leads (A).
2. Route harness as shown. On some units route wire on right side of fuel tank filler.
3. Fasten red lead to positive (+) terminal (B).
4. Fasten black lead to negative (—) terminal (C).
5. Connect long end to battery leads (D).
6. CHECK: No part of hood should close on a wire or connector.

M61157

## ROUTE WIRE HARNESS TO FRONT BATTERY



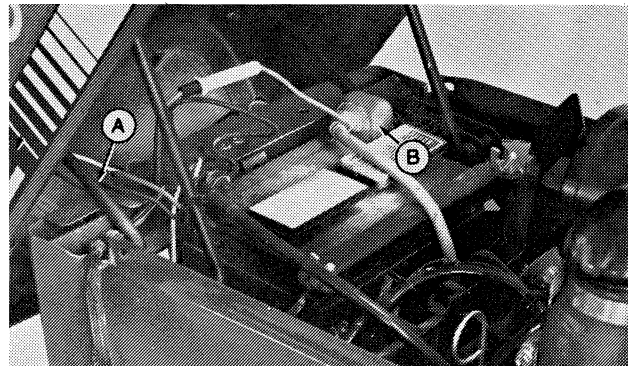
**NOTE:** You will need a 29-in. (74 cm) extension wire (AM105666), available from your John Deere dealer.

1. Connect short end from switch to pump leads (A).
2. Route wire on right side of fuel tank filler.
3. Fasten red lead to positive (+) terminal (B).
4. Fasten black lead to negative (—) terminal (C).
5. Connect extension (D, not furnished) to long end from switch. Then route extension under forward hood rod and connect it to battery leads.
6. CHECK: No part of hood should close on a wire or connector.

M61158

## ROUTE WIRES TO FRONT BATTERY

1. Route main wire under forward hood rod (A).
2. Route red lead inside red rubber terminal cover (B).
3. CHECK: No part of hood should close on a wire or connector.



M61160

# Operation

## TRACTOR REQUIREMENTS

Your 15-Gallon Sprayer mounts on:

240, 260, 265, and 285 Tractors  
316, 318, 322, and 332 Tractors  
420 and 430 Tractors  
Older 200, 300, and 400 Series Tractors  
110, 112, 120, and 140 Lawn and Garden Tractors

Tractor must have:

—Battery and alternator  
—Drawbar



**CAUTION:** Tractor weights improve stability in most slope operations. Add front weights for better front-end stability and steering.

## ADJUSTING TIP HEIGHT AND WIDTH

Move tip supports to adjust tip height and width. Run sprayer on dry pavement to check spray width and overlap. Spray should meet in center but not overlap.

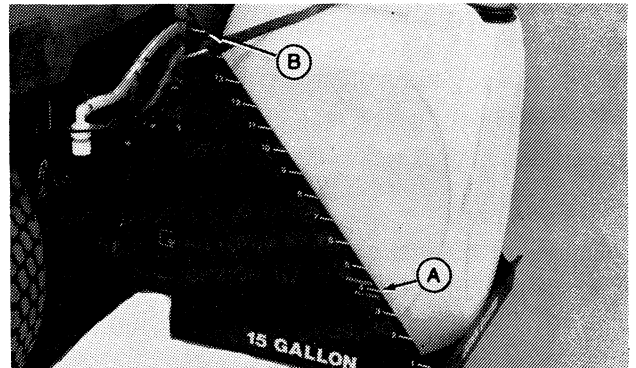
| Mower Cut<br>in. (m) | Tip Height<br>in. (mm) | Tip Width<br>in. (mm) | Travel Speed<br>mph (kph) | Travel Distance<br>ft/min (m/min) |
|----------------------|------------------------|-----------------------|---------------------------|-----------------------------------|
| 38 (0.95)            | 15 (375)               | 18 (450)              | 3.8 (5.3)                 | 337 (100)                         |
| 46 (1.15)            | 17 (425)               | 22 (550)              | 3.2 (4.5)                 | 278 ( 84)                         |
| 50 (1.25)            | 20 (500)               | 25 (625)              | 2.9 (4.1)                 | 256 ( 81)                         |
| 60 (1.5)             | 24 (600)               | 30 (750)              | 2.4 (3.4)                 | 213 ( 68)                         |

## MIXING FERTILIZER

**NOTE:** John Deere TLC Liquid Lawn Fertilizer is recommended. When you use other fertilizers or spray material, follow directions on container.

1. Add fertilizer to FERTILIZER FILL LEVEL (A).
2. Add water to 15-gallon mark (B).

**NOTE:** 4 gal (15 L) fertilizer and 11 gal (42 L) water cover 16,000 sq ft (1,488 m<sup>2</sup>).



M61155

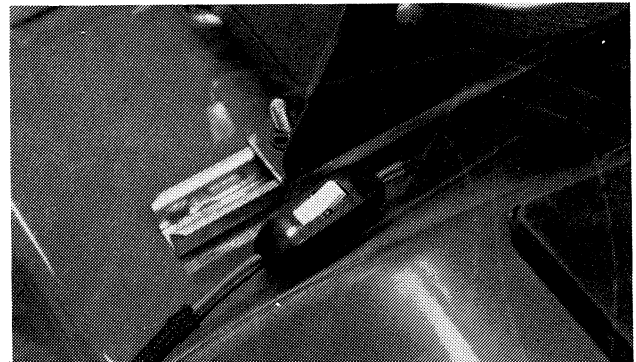
## STARTING AND STOPPING SPRAYER

**NOTE:** Sprayer will start when tractor is NOT running.

Push switch to ON or OFF position to start or stop sprayer.



**CAUTION:** Before you leave sprayer, disconnect pump connection.

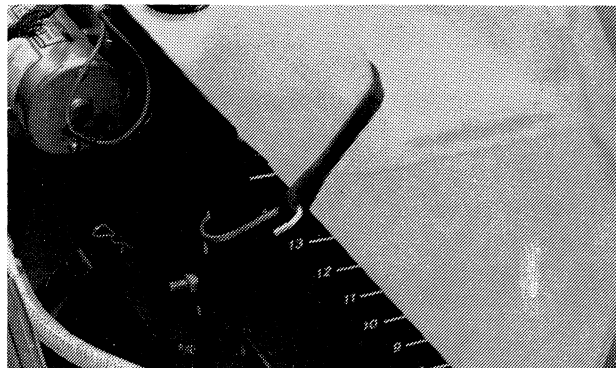


M61152

## INSTALLING RUBBER STRAP

**IMPORTANT:** Install strap before you drive tractor or operate sprayer.

Install S-hook in a frame hole to hold tank.



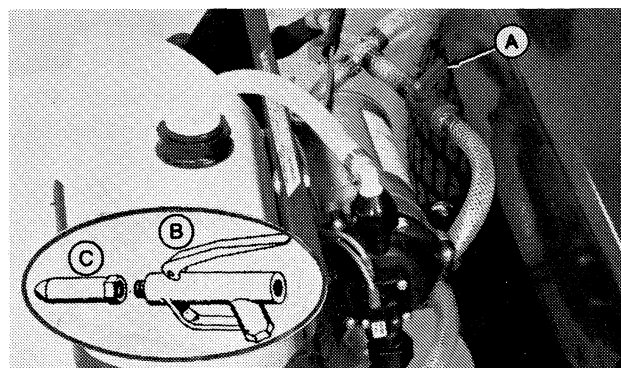
M61156

## USING HANDGUN

Turn lever (A) 1/4 turn to shut off spray to nozzles.

Squeeze handle (B) to spray.

Remove tip (C) for cleaning.



300 Series Tractor shown

M61161

## SPRAYING TIPS

—Adjust sprayer tip height so spray covers width of mower cut.

—Do not let sprayer run in one spot.

—Do not overspray when you use weedkillers.

—Liquid spray material is recommended. Sprayer does not agitate wettable powders.

—Timely applications of a smaller dosage are better than large applications.

—Turn sprayer OFF during turns to avoid double spraying.

—Fill sprayer where spills cannot harm grass.

—Follow manufacturer's recommendations for application of specific chemicals.

—Start tractor where you use sprayer to avoid running down battery.

—Stop sprayer when tank is empty.

## REMOVING SPRAYER

1. Empty the tank or remove the tank.

2. Disconnect wire harness from pump leads.

3. Disconnect stabilizer: remove spring pins.

4. Disconnect drawbar: remove wing nut and two washers.

5. Remove stabilizer from tractor.

6. Disconnect wire harness from battery leads.

# Troubleshooting

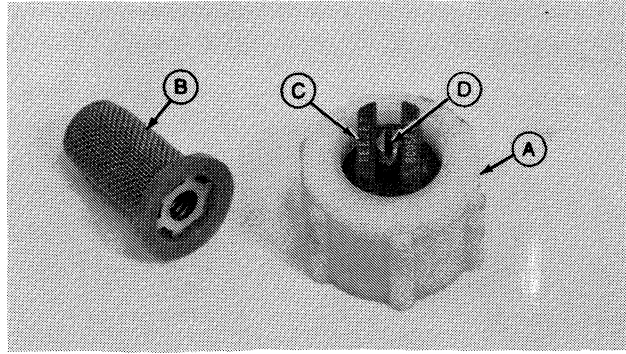
| Problem                                 | Solution                              | Section   |
|-----------------------------------------|---------------------------------------|-----------|
| <b>Pump loses suction.</b>              | Clean strainer.                       | Service   |
|                                         | Fill tank.                            | Operation |
|                                         | Clean or replace suction hose.        | —         |
|                                         | Push suction hose down into solution. | —         |
|                                         | Clean or replace pump.                | —         |
| <b>Pump capacity decreased.</b>         | Clean strainer.                       | Service   |
|                                         | Replace suction hose.                 | —         |
|                                         | Clean spray nozzle(s).                | Service   |
|                                         | Clean pump valves.                    | —         |
| <b>Pump does not work.</b>              | Check wiring connections.             | Assembly  |
|                                         | Check tractor battery.                | —         |
|                                         | Check pump valves.                    | —         |
|                                         | Clean debris from pump.               | —         |
|                                         | Check pump switch.                    | —         |
|                                         | Check pump motor.                     | —         |
|                                         | Check fuse at battery.                | —         |
| <b>Spray pattern poor.</b>              | Clean spray nozzle(s).                | Service   |
| <b>Nozzle(s) drips.</b>                 | Replace nozzle filter.                | Service   |
| <b>Tank is collapsed.</b>               | Check cap vent.                       | —         |
| <b>Pump vibrates or spray pulsates.</b> | Adjust pump.                          | Service   |

# Service

## CLEANING SPRAY NOZZLE

1. Remove spray nozzle (A) from sprayer.
2. Disassemble filter (B) and spray tip (C).
3. Wash filter and spray tip in a non-flammable solvent.

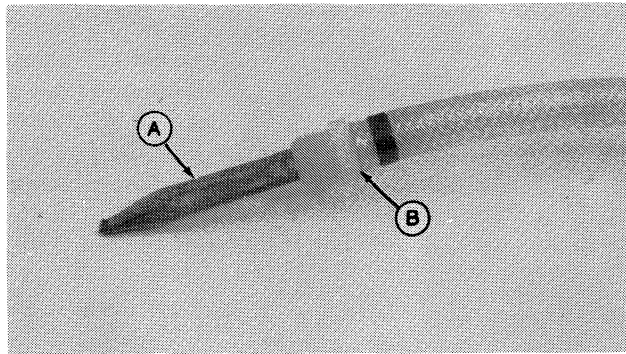
**NOTE:** Do not use a wire to clean opening (D) in spray tip.



M61039

## CLEANING SUCTION SCREEN

1. Remove suction screen (A) from hose (B).
2. Wash screen in liquid detergent and warm water.
3. Install screen on hose.



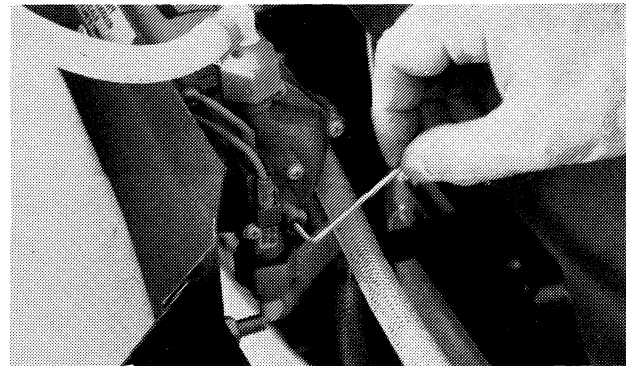
M61038

## ADJUSTING PUMP

1. Park tractor where spray will do no damage. Stop engine.
2. Turn key ON to operate pump.

**IMPORTANT:** Stop turning wrench as soon as pump runs smoothly, or you may damage pump.

3. Turn allen wrench clockwise until pump runs smoothly.

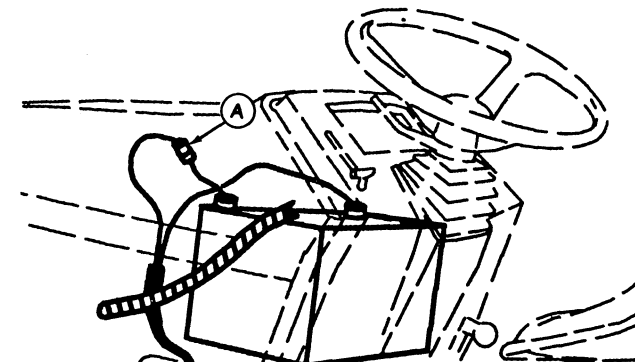


M61153

## CHANGING FUSE

1. Hold each end of fuse holder (A).
2. Twist the holder.
3. Remove fuse.

**IMPORTANT:** Use only 15-amp fuse. Do not run sprayer without fuse.



M61159

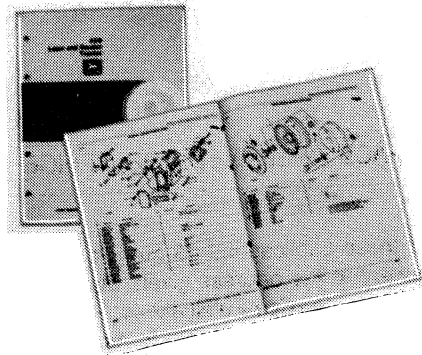
## **STORING SPRAYER**

1. Pump all spray material from tank.
2. Flush tank with water.
3. Wash tank with detergent.
4. Rinse tank with clear water.
5. Rinse tank thoroughly with a solution of household ammonia and water. Flush again with clear water.
6. Remove wiring harness from tractor.
7. Remove sprayer from tractor.
8. Check sprayer for worn or damaged parts. Replace parts as needed.
9. Tighten loose hardware.

# John Deere Service Literature Available

## PARTS CATALOG

The parts catalog lists service parts available for your machine with exploded view illustrations to help you identify the correct parts. It is also used in assembling and disassembling.

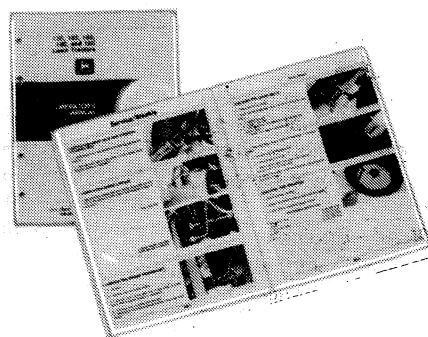


TS189

## OPERATOR'S MANUAL

The operator's manual provides safety, operating, maintenance, and service information about John Deere machines.

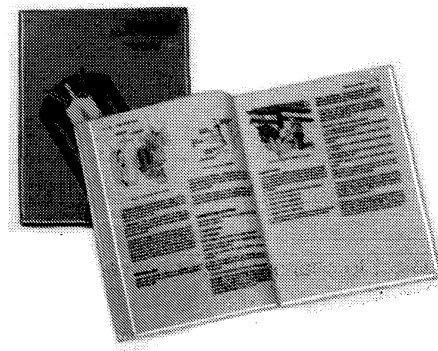
An extra copy of the operator's manual is important if the copy furnished with your machine is misplaced.



TS190

## FUNDAMENTALS OF SERVICE MANUALS

These basic manuals cover most makes and types of machines. FOS manuals tell you how to *service* machines. Each manual starts with basic theory and is fully illustrated with colorful diagrams and photographs. Both the "whys" and "hows" of adjustments and repairs are covered in this reference library.



TS194

*John Deere Service Literature Available*

**THIS SPACE RESERVED FOR OFFICE USE ONLY**

John Deere Distribution Service Center  
Department S/P  
P.O. Box 186, Moline, IL 61266-0186

Please send to . . .

Name \_\_\_\_\_

Address \_\_\_\_\_

Town \_\_\_\_\_ State \_\_\_\_\_

Zip \_\_\_\_\_ Phone (\_\_\_\_) \_\_\_\_\_

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| Title                                                                              | Order Number | Price Each | x Quantity | = Total |
|------------------------------------------------------------------------------------|--------------|------------|------------|---------|
| 15-Gallon Sprayer                                                                  |              |            | x          | =       |
| Parts Catalog                                                                      | PC-2231      |            | x          | =       |
| Operator's Manual                                                                  | OM-M77684    |            | x          | =       |
| For current prices of John Deere Service Literature,<br>please call 1-800-522-7448 |              |            | x          | =       |
|                                                                                    |              |            | x          | =       |
|                                                                                    |              |            | x          | =       |
|                                                                                    |              |            | x          | =       |
| FOS Manual—Engines                                                                 | FCP-80101B   |            | x          | =       |
| FOS Manual—Electrical Systems                                                      | FCP-83101B   |            | x          | =       |
| FOS Manual—Hydraulics                                                              | FCP-82101B   |            | x          | =       |
| FOS Manual—Power Trains                                                            | FCP-81101B   |            | x          | =       |
| Catalogs of Available Service Publications:                                        |              |            |            |         |
| Consumer Product Publications                                                      | CPC-1704     |            |            |         |
| Agricultural Product Publications                                                  | CPC-1703     |            |            |         |
| Industrial Product Publications                                                    | CPC-1852     |            |            |         |
|                                                                                    |              |            |            |         |

NOTE: If you want manuals or catalogs not shown on this list, list the model number, serial number and name of the product.

Subtotal

Illinois State Residents add 6%  
for Retail Occupation Tax or  
show tax exemption number

Check or money order in U.S.  
Dollars enclosed. . . . . Total  
(Do not send cash or stamps)

Prices subject to change without notice.  
SP-317-Jan-88









## John Deere is at your service when you need it

It is John Deere's objective to train all of their authorized dealer service personnel effectively so they can handle your service needs. Your dealer therefore has service technicians who are trained to give your machine the best of care. We would encourage you to use the service provided by your dealer whenever possible.

If for some reason you are unable to locate a dealer in your area, our sales branches are available to provide you with such information. The location and listing of such sales branches are shown below. Check the listing for the location of the area in which you reside.

### Sales Branch

1. JOHN DEERE COMPANY  
701 Georgeville Road  
Columbus, Ohio 43228  
614-275-1500

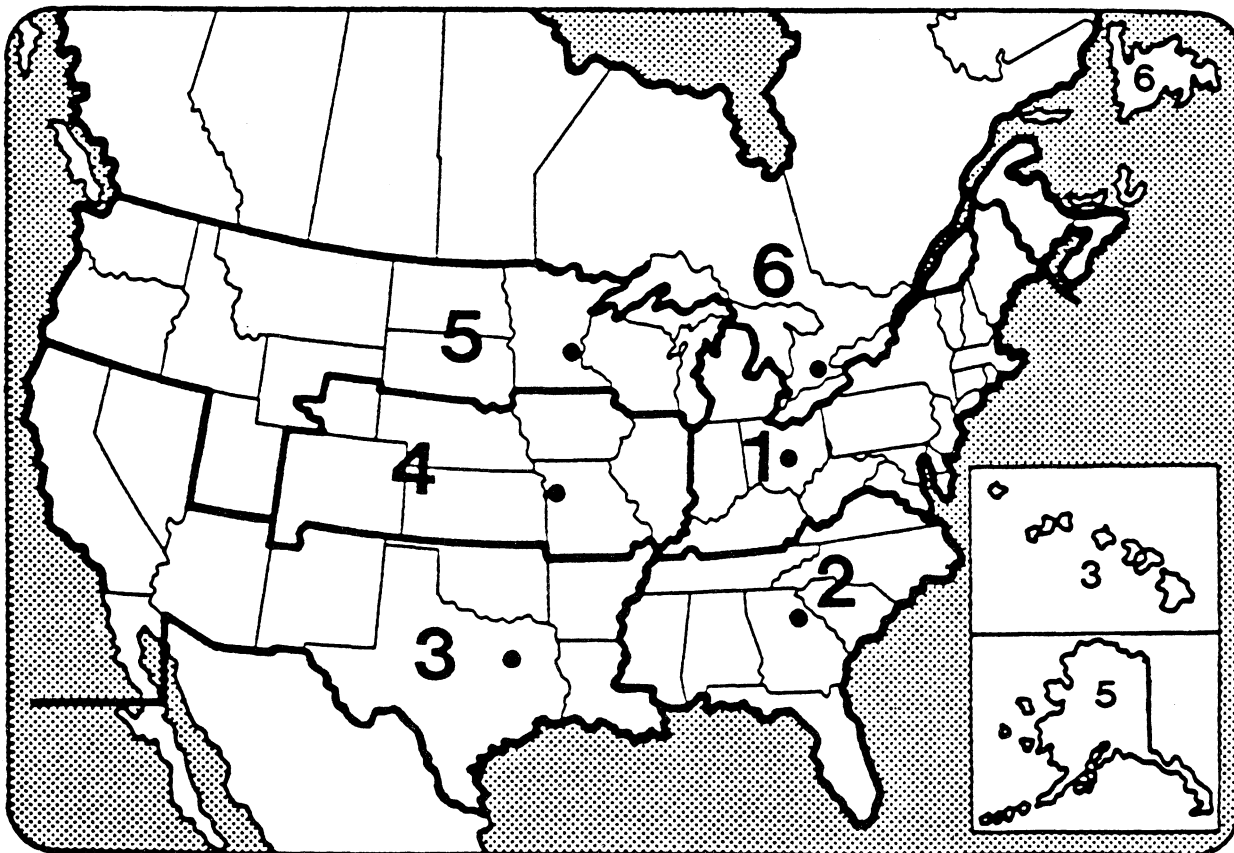
2. JOHN DEERE COMPANY  
2001 Deere Drive  
Conyers, Georgia 30208  
404-922-7040

3. JOHN DEERE COMPANY  
10650 Hines Boulevard  
Dallas, Texas 75220-2635  
214-352-1701

4. JOHN DEERE COMPANY  
3210 East 85th Street  
Southeast Station  
Kansas City, Missouri 64132-2586  
816-361-4000

5. JOHN DEERE COMPANY  
2001 West 94th Street  
Bloomington, Minnesota 55431-2311  
612-887-6200

6. JOHN DEERE COMPANY  
South Service Road at Hunter  
Grimsby, Ontario, Canada L3M 4H5  
416-945-9281



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