

25 3-POINT HITCH SPRAYER



OPERATORS MANUAL

25 3-POINT HITCH SPRAYER

OMB25280 J5 English

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ENGLISH



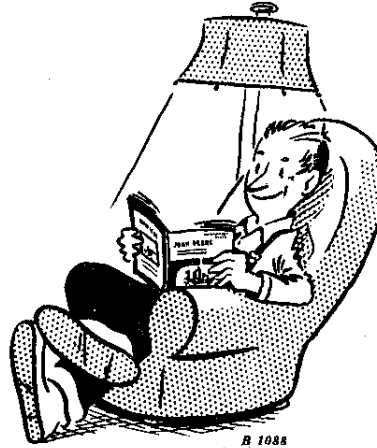
TO THE PURCHASER

Your new John Deere Sprayer is efficient and dependable. It will give long and efficient service if given proper care and operation.

This operator's manual is provided to furnish information on the proper operation, adjustment, and maintenance of your new sprayer.

When in need of parts, see your John Deere dealer. He will furnish genuine John Deere Parts and prompt and efficient service in the field or in the shop.

Right-hand and left-hand reference is determined by standing at the rear of the sprayer and facing the direction of travel.



Study this manual carefully. Keep it handy, in a safe place, for future reference.

JOHN DEERE 25 3-POINT HITCH SPRAYER

Date Purchased

Optional Equipment

TANK	
100 Gallon	☐
150 Gallon	☐
BOOMS	
6-Row	☐
8-Row	☐
PTO PUMP	
8-Roller Ni-Resist	☐
6-Roller Ni-Resist	☐
6-Roller Grey Iron	☐
Piston Pump	☐
HAND GUN	
25-Foot Hose	☐
50-Foot Hose	☐
High Pressure Hand Gun	☐
BOOM EXTENSION NOZZLES	☐
WIDE-SPRAY JET	☐
ROW-CROP DROPS	
10 Inches Long	☐
18 Inches Long	☐
30 Inches Long	☐

(To be filled in by purchaser)

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SPECIFICATIONS

TYPE

The 25 Sprayer is a 3-point hitch sprayer.

It can be used, less booms, with a 493, 493A, 494, 494A, 495, 495A, 694, 694A, 694AN, 695, 695A, or 894A Planter; 184, 186 or 186W Fertilizer Unit for pre-emergence spraying.

TANK

Regular - 100-gallon translucent fiber glass.

Optional - 150-gallon translucent fiber glass.

BOOMS

Regular - 6-row booms (21 feet, 8 inch) to cover six 40-inch rows.

Optional - 8-row booms (28 feet, 4 inch) to cover eight 40-inch rows.

Booms are made of square tubing. Nylon nozzles are clamped to the booms. Rubber hoses are connected to the nozzles.

The nozzle clamps are adjustable for row widths of 24 to 40 inches. Spacing between nozzles can be adjusted from 12 to 20 inches. Booms are made in three sections with the center section stationary and the outer sections mounted on four-way hinges.

PTO PUMP

Regular - Six-roller grey iron pump.

Optional - Six- or eight-roller ni-resist pump, or piston pump.

BOOM CONTROL

The boom control is a two-position selector valve. Either half of the total boom coverage may be operated independently of the other half.

WIDE-SPRAY JET--ATTACHMENT

A wide-spray jet is available as optional equipment in lieu of the booms and boom control. It is used for broadcast spraying grains, pastures, etc.

HAND GUN--ATTACHMENT

A light, regular, or heavy duty hand gun and controls may be ordered in lieu of the booms and boom controls.

Hand guns may also be used in conjunction with or independently of the boom type or wide-spray jet type sprayers. Each hand gun is available with either a 25-foot or a 50-foot hose.

High pressure hoses are available.

The hand gun may be used for spraying crops, animals, fence rows, etc.

HIGH CLEARANCE BOOM FRAME--ATTACHMENT

The high clearance boom frame provides additional crop clearance where required.

NOZZLE TIPS

Nozzle tips are made of brass or stainless steel. B11875B brass nozzle tip is regular equipment. All other nozzle tips are optional equipment.

ROW-CROP DROPS — ATTACHMENT

Row-crop drops (10-, 18-, or 30-inch long) are available for the six- or eight-row booms. Each row-crop drop has two nozzles which can be turned up to spray the underside of the leaves, or down to spray the ground between the rows.

BOOM EXTENSION NOZZLES — ATTACHMENT

These nozzles are used as boom extensions to expand the over-all width of boom coverage approximately 7 feet on each side of the regular spray pattern.

OVER-ALL TRANSPORT DIMENSIONS WITH BOOMS

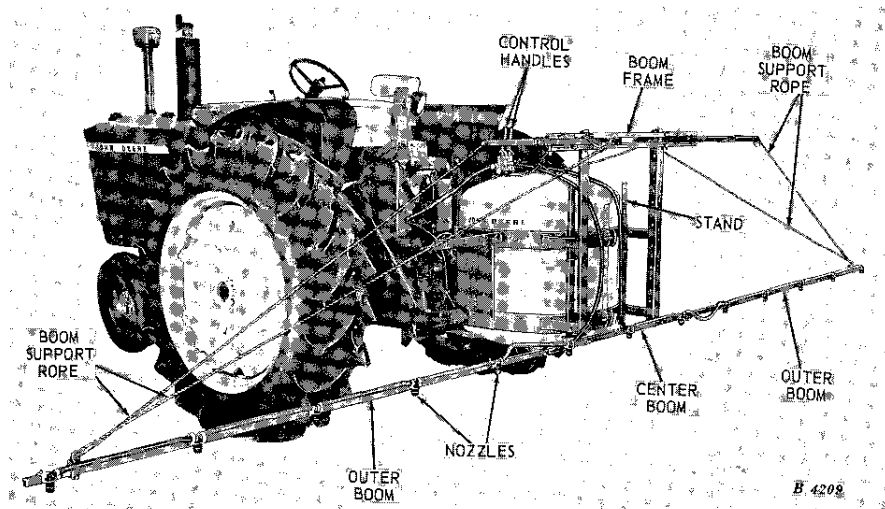
Transport Width: Approximately 7 feet.

Transport Height with Booms Vertical:

6-Row Boom: 13 feet 8 inches

8-Row Boom: 17 feet

(Specifications and design subject to change without notice.)



25 Sprayer with Six-Row Booms in Working Position

OPERATION

PREPARING THE TRACTOR

For complete operating instructions concerning the tractor refer to the tractor operator's manual.

CENTER LINK

Remove the center link from the tractor 3-point hitch.

BELT PULLEY

Remove the rear-mounted belt pulley from the tractor, if the tractor is so equipped.

TIRE PRESSURE

Consult your tractor operator's manual for front and rear tire pressure.

420, 430, OR 1010 SERIES TRACTORS

NOTE: The 150 gallon tank is not approved for use with the 420, 430, or 1010 Series Tractors.

On 1010 Series Tractors use 300 pounds of front end weight. On 420 or 430 Series Tractors, add front end weight as necessary for front end stability.

Adjust the tractor hydraulic system so integral cylinders are parallel and the lift arms operate together. See the tractor operator's manual.

Lock out the load-and-depth control system.

Attach the lift links to the inner holes on the rockshaft lift arms.

Pin the sway stop chains to the outer holes on each side of the center hole in the drawbar bracket.

2010 SERIES TRACTORS

Set the 3-point hitch lift links at their maximum length. See the tractor operator's manual.

Install sway blocks to eliminate all side sway when operating sprayer.

Adjust tractor hydraulic system so integral cylinders are parallel and the lift arms operate together. See tractor operator's manual.

Set the load-and-depth control selector lever in the "D" position.

1020 OR 2020 SERIES TRACTORS

NOTE: The 150 gallon tank is not approved for use with the 1020 or 2020 Tractors equipped with 12.4 or smaller tires.

Use a minimum of 200 pounds front end weight on the John Deere 1020RU and LU Series Tractors and a minimum of 100 pounds on the front of the 1020 HU Tractor.

Set sway blocks on both tractors in the down position.

Set the load-and-depth control selector lever in the "D" position.

2510, 3010, 3020, 4010, OR 4020 SERIES TRACTORS

Set the selector lever in the "D" position.

Install the sway blocks to eliminate all side sway when operating sprayer.

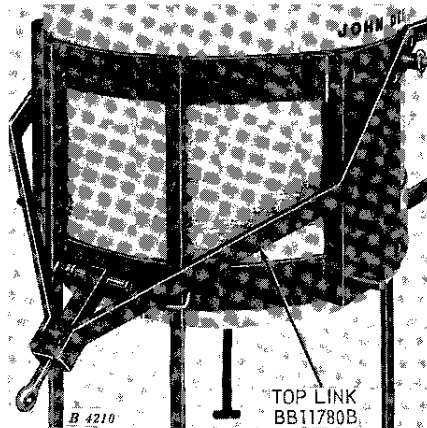
520 OR 530 SERIES TRACTORS

Install the sway locks to eliminate all side sway when operating sprayer.

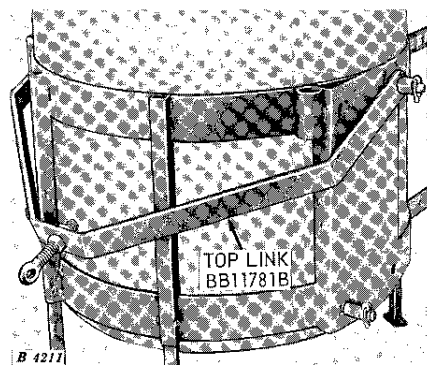
ATTACHING SPRAYER TO TRACTOR

TOP LINK

The correct top link, depending upon the make and model of the tractor, must be attached to the sprayer. This top link takes the place of the center link removed from the tractor 3-point hitch.



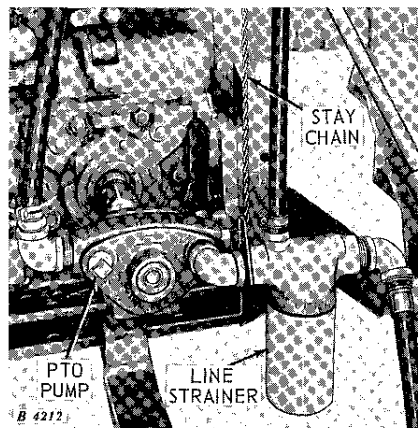
The BB11780B top link illustrated above must be installed on the sprayer when using the following tractors: John Deere 520, 530, 1010 Tricycle, 1020, 2010, 2020, 2510, 3010, 3020, 4010, or 4020; Ford 500; Farmall 706 or 806; or Massey Ferguson 65D.



The BB11781B top link must be installed on the sprayer when using the following tractors: John Deere 420, 430, or 1010RS; Ferguson; small Ford; or small Massey Ferguson.

PTO PUMP

Back the tractor up to the sprayer.



Install the pump on the tractor PTO shaft to obtain clearance between the draft links.

Arrows on the pump ports indicate proper rotation.

Place the key between the splines on the PTO shaft and tighten the set screws against the key to secure pump on shaft.

Attach the stay chain to some fixed point on the tractor and adjust the length so it will hold pump in a horizontal position.

6 Operation

HOOKUP AND ADJUSTING SAFETY SUPPORTS



Attach the top link and one end of each safety support to the tractor where the center link was removed.

NOTE: On a tractor with only one connecting hole for the center link, attach the safety support on the same pin that holds the top link. On a tractor with more than one connecting hole for the center link, use pin furnished and attach safety support as illustrated above.

Attach the tractor draft links and the other end of each safety support to the sprayer.

Adjust the safety supports so the sprayer cannot be lowered far enough to damage the tank.

CAUTION: Do not operate sprayer so low that all the weight of the sprayer is on the safety supports.

Remove the pin and raise each stand. Replace the pin to lock each stand in the raised position.

LEVELING SPRAYER

Level the sprayer tank fore-and-aft by adjusting the length of the sprayer top link. Level the sprayer tank laterally by adjusting the right-hand draft link.

DETACHING SPRAYER FROM TRACTOR

Remove the pin and lower each stand. Replace the pin to lock each stand in the lowered position.

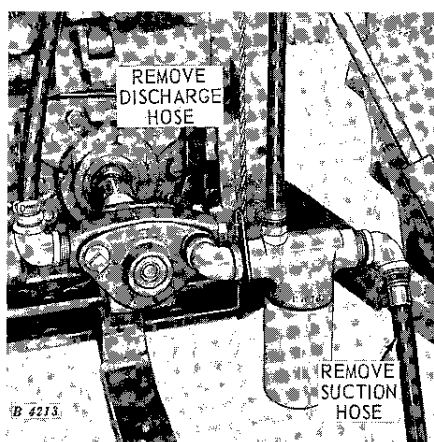
Detach the draft links, top link, and safety supports.

Remove the pump from the tractor PTO shaft.

FILLING THE TANK

Open the lid and fill the tank with water. Add the chemical to be used as tank is being filled. Close the lid. After tank is filled, operate the spray pump to mix chemical thoroughly.

To use the spray pump to fill the tank proceed as follows:



Disconnect the suction hose from the line strainer.

Obtain one length of 1 inch I.D. hose, not over 50 feet long, with a female hose connection on one end.

Attach the female hose connection to the line strainer where the suction hose was removed.

Place the other end of the hose into the supply of water.

NOTE: Do not place pump at height of more than 20 feet above source of water.

Disconnect the discharge hose from the pump.

Obtain a 3/4 inch I.D. hose of sufficient length to reach from the pump to the tank. The hose must have a female connection on one end.

Attach the female hose connection to the pump where the discharge hose was removed.

Place the other end of the hose in the tank.

Start the spray pump and fill tank.

NOTE: The hoses for filling the tank do not have to be chemical resistant.

Disconnect the hoses used for filling the tank. Replace the suction hose on the line strainer and discharge hose on the pump.

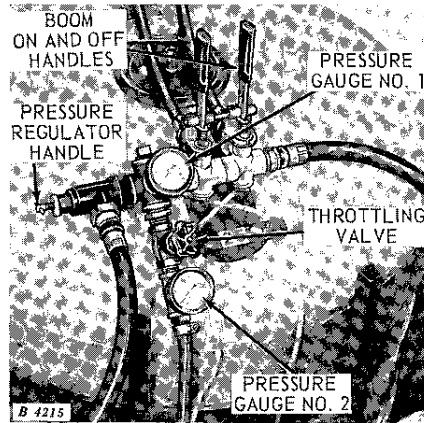
CAUTION: Never run the pump dry. Excessive heat will damage the rollers and seals.

Agricultural chemicals can be dangerous! Improper **selection** or **use** can injure persons, animals, plants, soils or other property. **BE SAFE:** Select the right chemical for the job. Handle and apply it with care. Follow instructions of the chemical manufacturer.

8 Operation

SPRAYER FOR BOOM OPERATION

CONTROLS



The spray delivery to either half of the sprayer is regulated by the control handles.

When both handles are forward and horizontal, both sides of the sprayer are in operation.

When the right-hand handle is forward and horizontal and the left-hand handle is vertical, the right-hand side of the sprayer is in operation.

When the left-hand handle is forward and horizontal and the right-hand handle is vertical, the left-hand side of the sprayer is in operation.

Placing both handles in the vertical position shuts off the sprayer.

Gauge No. 1 shows the operating pressure. Gauge No. 2 shows the agitation pressure.

Regulate the operating pressure (gauge No. 1) by turning the pressure regulator handle clockwise to increase the operating pressure and counterclockwise to decrease the operating pressure.

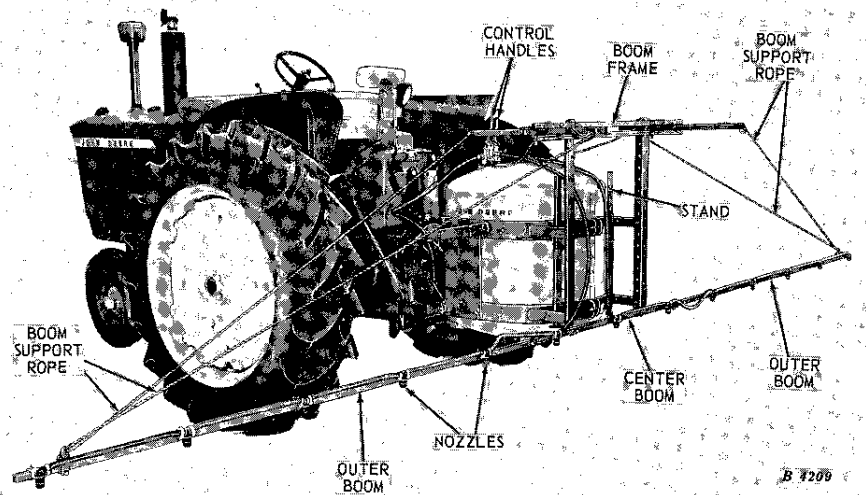
Regulate the agitation pressure (gauge No. 2) by turning the throttling valve handle counterclockwise to increase the agitation pressure and clockwise to decrease the agitation pressure.

NOTE: The agitation pressure should never be less than 30 psi.

CAUTION: Never regulate the pressure unless the sprayer is in operation. Do not operate the sprayer at pressures so high that the maximum pressure gauge capacity will be exceeded when the flow to the booms is shut off.

CAUTION: Do not operate the boom at pressure in excess of 150 psi.
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BOOMS



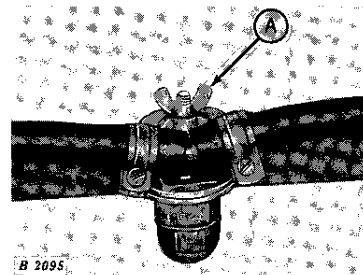
Lower the booms to the operating height. Adjust the rope stops on the boom support ropes so the booms are level and so the outer booms are in line with the center boom section.

Adjust the height of the booms so there is approximately 18 inches of clearance between the nozzle tips and the surface to be sprayed.

Adjust the safety supports (page 6) after raising or lowering the sprayer to the proper height.

The boom frame may be adjusted up or down on the tank frame, or the whole sprayer may be raised or lowered with the tractor hydraulic system. If the tractor hydraulic system is used to adjust to the operating height, level the sprayer fore-and-aft with the top link of the sprayer after the desired operating height has been reached, then readjust the safety supports.

ADJUSTING NOZZLES



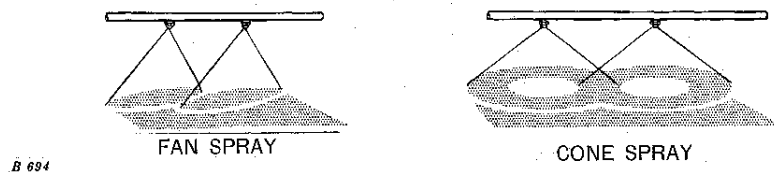
The nozzles may be adjusted for different row spacings. Loosen nut "A," and slide the nozzle clamp on the boom to the desired spacing and tighten nut "A."

DETERMINING AND ADJUSTING RATE OF APPLICATION

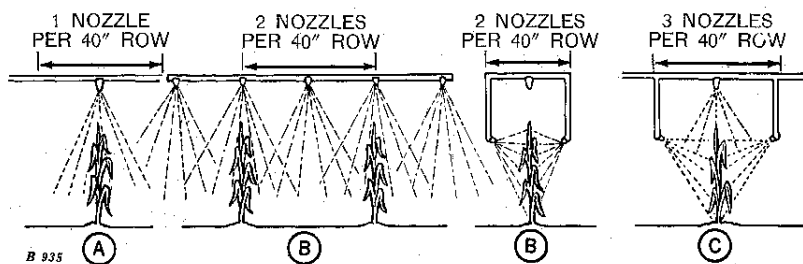
Most manufacturers of chemicals used for spraying recommend a definite amount of active ingredient of the particular chemical being used to be applied per acre. However, the chemical must be diluted with water for proper usage and easy handling.

Follow the chemical manufacturers' instructions for mixing the spray for the rate of application.

The "Rates of Application" chart is based on clear water. Spray mixtures will vary. For greater accuracy calibrate the sprayer as instructed on page 12.



The above pictures illustrate the types of spray patterns for a fan spray nozzle and a cone spray nozzle.



The above illustrations show the various nozzle combinations which can be used.



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Nozzle Tip Chart for Boom Sprayers								
Approximate capacity in gallons per acre at 40 psi pressure and 5 mph								
Gallons per Acre			Type of Spray Pattern	John Deere Tip Number	Number Stamped on Tip	John Deere Core Number	Number Stamped on Core	Material
1 Nozzle Per 40' Row (a)	2 Nozzles Per 40' Row (b)	3 Nozzles Per 40' Row (c)						
2.3	4.6	6.9	Fan	B11891B#	730077B or FS 2.5	--	--	Brass
2.3	4.6	6.9	Fan	B16022B#	730077SS or FS 2.5	--	--	Stainless Steel
4.5	9.1	13.6	Fan	B11875B#	730154B or FS 4.5	--	--	Brass
4.5	9.1	13.6	Fan	B12286B#	730154SS or FS 4.5	--	--	Stainless Steel
6.8	13.7	20.5	Fan	B12287B*	730231SS or FS 5.5	--	--	Stainless Steel
9.2	18.3	27.5	Fan	B12288B*	730308SS or FS 6.5	--	--	Stainless Steel
13.5	27.0	40.5	Fan	B15266B*	730462B or FS 8.5	--	--	Brass
13.5	27.0	40.5	Fan	B16023B*	730462SS or FS 8.5	--	--	Stainless Steel
0.5	1.0	1.5	Cone	B12281B#	Y1 or BC 2.0	--	--	Brass
1.0	2.0	3.0	Cone	B12282B#	X2 or BC 3.5	--	--	Brass
1.5	3.0	4.5	Cone	B12283B#	X3 or BC 5.0	--	--	Brass
2.0	4.0	6.0	Cone	B14243B*	X4	--	--	Brass
2.4	4.7	7.1	Cone	B16005B*	D2	B16008B	13	Stainless Steel
2.7	5.3	8.0	Cone	B16006B*	D3	B16008B	13	Stainless Steel
3.0	6.0	9.0	Cone	B14244B*	X6	--	--	Brass
3.1	6.2	9.3	Cone	B16005B*	D2	B16009B	23	Stainless Steel
3.5	7.0	10.5	Cone	B16006B*	D3	B16009B	23	Stainless Steel
3.6	7.1	10.7	Cone	B16007B*	D4	B16008B	13	Stainless Steel
4.8	9.6	14.3	Cone	B16007B*	D4	B16009B	23	Stainless Steel

Use with 100 mesh strainers (AB12077B). B11875B is regular equipment.

*Use with 50 mesh strainers (AB12076B).

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