

5193 COTTON AND CORN PLANTER



OPERATORS MANUAL 5193 COTTON AND CORN PLANTER

OMB25520 D2 English

OMB25520 D2

LITHO IN THE U.S.A. ENGLISH





To the Purchaser

This planter was carefully designed and manufactured to give years of dependable service. To keep it running efficiently, read the instructions in this operator's manual. Each section is clearly identified so you can easily find the information you need—whether it is operation, lubrication, or adjustments and service. Read the Table of Contents to learn where each section is located. Use the alphabetical index for fast reference.

NOTE: Four 51 Unit Planters are incorporated into the design of the 5193 Planter. Refer to the 51 Unit Planter operator's manual for information on seed plates, hilldrop and drill planting, and respective charts.

In addition to the equipment furnished with your planter, attachments are available to help you do a better job in special crop conditions. These are described in the special equipment section of this manual and can be purchased from your John Deere dealer.

"Right-hand" and "left-hand" sides are determined by facing in the direction the planter will travel when in use.

Record your planter serial number in the space provided on page 37. Your dealer needs this information to give you prompt, efficient service when you order parts or attachments. If your planter requires replacement parts, go to your John Deere dealer where you can obtain genuine John Deere parts—accept no substitutes.

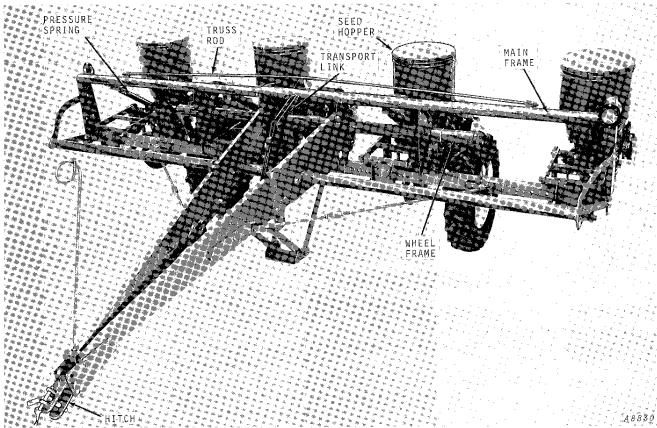
The warranty on this planter appears on your copy of the purchase order which you should have received from your dealer when you purchased the planter.

This safety alert symbol identifies important safety messages in this manual. When you see this symbol, be alert to the possibility of personal injury and carefully read the message that follows.



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5193 Cotton and Corn Planter



Operation

PREPARING THE TRACTOR

The tractor must be equipped with an 8-inch stroke remote hydraulic cylinder that conforms to ASAE-SAE standards.

On tractors with adjustable drawbar, place the drawbar approximately 15 inches from the ground and bolt it in the center of the tractor.

If possible, set the tractor rear wheels 72 inches, center to center of tread and equal distance from center line of tractor. The planter ground wheels will then run in the center of the tracks left by the rear wheels of the tractor. If this cannot be done it is best to adjust the tractor rear wheels so the planter wheels run entirely out of the tractor wheel tracks.

PREPARING THE PLANTER

Lubrication

Lubricate the planter as instructed on pages 9 and 10.

Regular and systematic lubrication is the best assurance against breakdowns and delays. It will help you get better service from your Cotton and Corn Planter and save on maintenance.

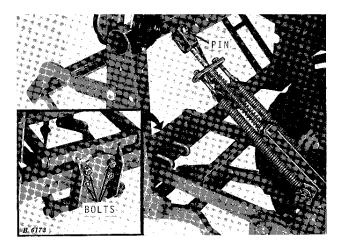
Tire Inflation

Inflate the planter 6.70-15 traction-type tires to 24 psi.

Row Widths

The 5193 Cotton and Corn Planter can be set to drill or hill-drop in 34-, 36-, 38-, or 40-inch row widths.

The planters are assembled for 40-inch row widths, as illustrated on page 3. To change the row widths proceed as follows:

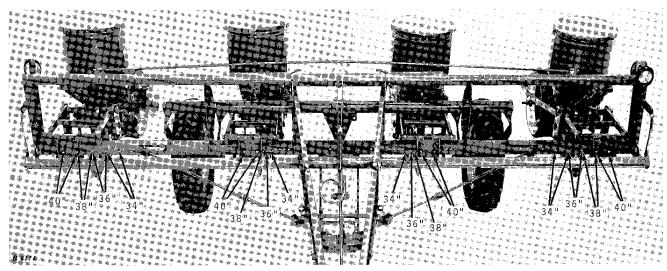


Lower the planter until the runners rest on the floor. Remove the four bolts holding the sill bar brackets to the main frame.

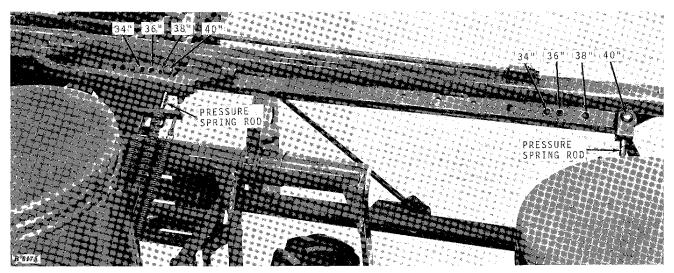
Remove the pin and cotter pin holding the pressure spring rods to the main frame.

Move the planting units and the spring rods to the desired row widths.

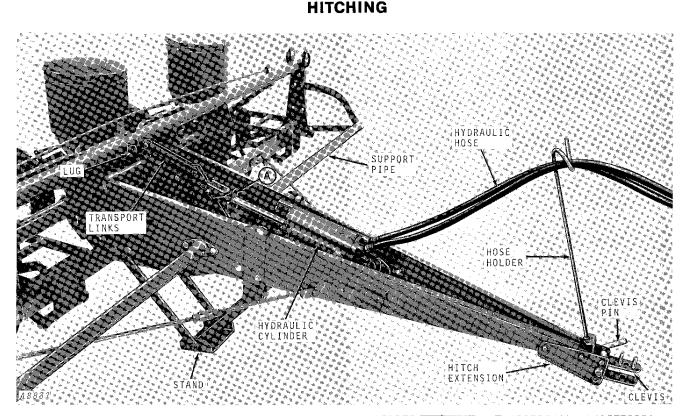
Bolt the sill bar brackets to the main frame and replace the pin and cotter pin in the pressure spring rods.



Front Sill Bar Brackets - set for 40-Inch Row Widths



Rear Pressure Spring Rods - set for 40-Inch Row Widths

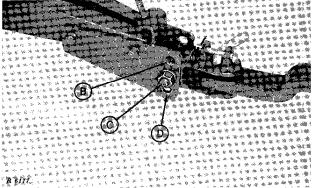


With the planter resting on the stand, back the tractor to the planter so the planter hitch is straight in line with the tractor drawbar. Install the remote hydraulic cylinder on the planter and set stop "A," as illustrated, so the cylinder will retract all the way. This will permit the planter press wheels to always gauge the planting depth. Install the hydraulic hose in the hose holder. Extend the cylinder and disconnect the transport links from the transport lug.

Remove the clevis pin from the clevis and place it in the hitch extension holes, as illustrated, to hold the clevis straight out. If the clevis is installed in the upper holes place clevis pin in the lower hitch extension holes.

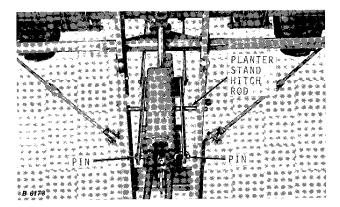
Place the marker control chains over the fertilizer drive, under the support pipes and through the chain guides. Attach the marker control chains to the springs and chain arm.

Retract the hydraulic cylinder until the planter hitch is the same height as the tractor drawbar. Attach the clevis to the tractor drawbar with the clevis pin and secure in place with the retaining pin as shown. Extend the hydraulic cylinder to raise the planter off the stand.



When the mechanical chain marker is used, attach the marker chain arm at right angles to the tractor drawbar. Tighten the bolt securely as the marker chain arm must be held rigidly to the tractor drawbar.

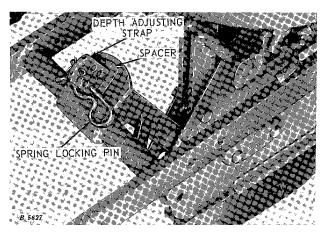
Set the clevis in holes "B," "C," or "D," so the lower edge of the planter hitch panel is parallel to the ground when in planting position.



Pull the pins and push the planter stand up over the planter stand hitch rod and hook the front legs of the stand over the rod on the hydraulic cylinder bracket. Hold the planter stand in place with the pins.

To place the planter stand back into position for unhooking from planter, reverse the above procedure.

PLANTING DEPTH



The planting depth is gauged by the planter press wheel except when using gauge wheels, gauge shoe, or v-wing.

When the press wheel is used for gauging depth, the planting depth of each unit is determined by the setting of the spring locking pin in the depth adjusting strap. To change the planting depth, move the pin up to increase the depth or down to decrease the depth.

Each hole in the depth adjusting strap represents a change of approximately 1/2 inch in the planting depth. To change the planting depth by 1/4 inch remove the spacer from under the locking pin.

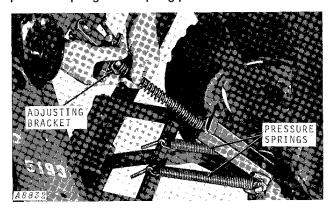
Adjust all units to plant at the same depth.

When gauge wheels, V-wings, or gauge shoes are used, the depth of planting depends upon the position of each pair of gauge wheels, each V-wing, or gauge shoe in relation to the planter runner.

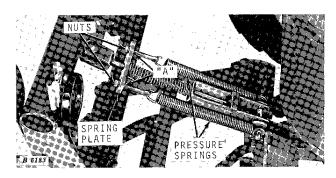
Decreasing Penetration Pressure



Lower planter into planting position and remove pressure springs from spring plate as shown above.



Raise planter and move adjusting bracket up to next position as shown.



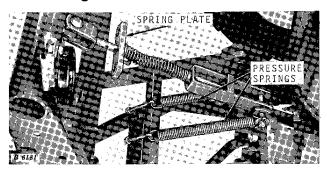
Lower planters and reinstall pressure springs in spring plate at "A." Adjustment can be made at "A" by tightening nuts on pressure springs.

Adjust all four planting units so the spring pressure is the same on each unit.

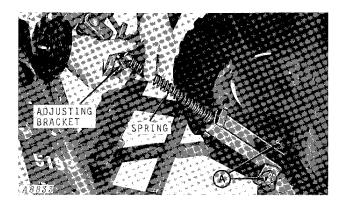
NOTE: When operating in the field, lower the planter only when the tractor is moving forward. This will prevent the planter runners from clogging in moist soil.

PLANTING DEPTH—Continued

Increasing Penetration Pressure



Lower the planter into planting position and remove the pressure springs from spring plate as shown above.



Remove pressure springs from unit at "A." Reinstall washer and cotter pin.

If the runner tends to ride out of the ground, raise the planter and move the adjusting bracket down to the next position as shown.

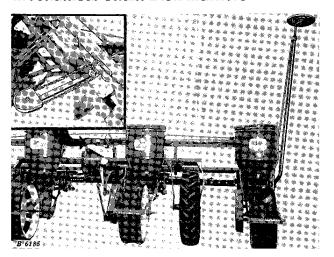
NOTE: Do not attempt to penetrate the plow pan. In hard ground ground conditions, this could cause the planter drive wheels to raise off the ground.

Adjust all four planting units so the spring pressure is the same on each unit.

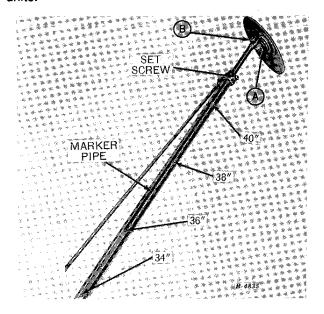
NOTE: When operating in the field, lower the planter only when the tractor is moving forward. This will prevent the planter runners from clogging in moist soil.

MARKERS

Mechanical Chain Disk Markers



The mechanical chain disk markers raise and lower when the planter is raised and lowered. Down marker raises automatically as other marker is lowered. When unit is raised, but no turn is made, the marker that was down is lowered again with the planting units.



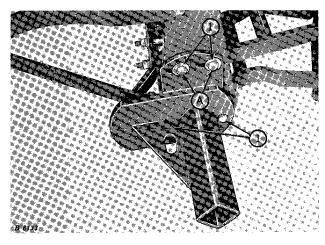
The marker illustrated above is set for 36-inch row widths. To change the markers for other row widths loosen the set screw so marker pipes will slide. Set the inside end of each marker pipe to line up with the center of the hole in the marker arm, for approximate row width. Turn each marker pipe so bracket "A" is in position illustrated.

Tighten the set screws securely to hold markers in position. The angle of each marker disk may be adjusted for various soil conditions by loosening bolt "B" and turning the disk. After adjustment is made tighten bolt "B" securely.

Hydraulic Markers

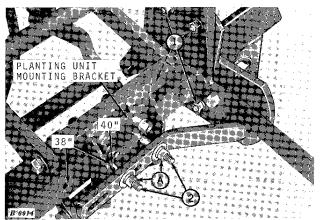
Hydraulic markers are available for the 5193 Planter. See direction accompanying the hydraulic markers for operating information.

Hydraulic Marker Adapters

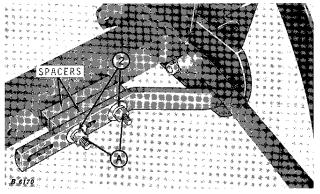


1. Install hydraulic marker adapter on the main frame of the planter.

NOTE: Be sure flat washers are installed at "A" as shown.



38- and 40-Inch Row Spacings



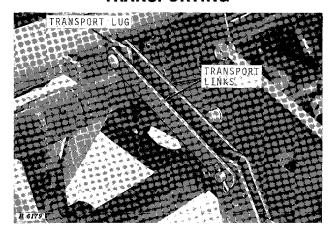
34- and 36-Inch Row Spacings

2. Install hydraulic marker adapter on the planting unit mounting bracket.

Use two spacers when units are set at 34- and 36inch row spacings.

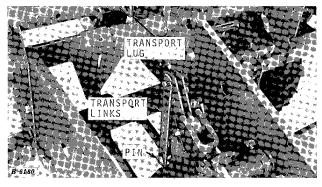
NOTE: Be sure flat washers are installed at "A" as shown.

TRANSPORTING



Connect the transport links to the transport lug before transporting the planter.

CAUTION: When transporting the planter on a road or highway at night or during the day, use accessory lights and devices for adequate warning to operators of other vehicles. In this regard, check local governmental regulations. Various safety lights and devices are available from your John Deere dealer.



After reaching the field, remove the transport links from the transport lug and place the transport links in position illustrated. Reinstall pin and spring locking pin.

SAFETY SUGGESTIONS

The safety of the operator was one of the prime considerations in the minds of John Deere engineers when this planter was designed. Shielding, simple adjustments, and other safety features were built into the planter wherever possible.

However, investigation of thousands of farm accidents show that careless use of farm machinery causes nearly one-third of all farm accidents. You can make your farm a safer place to live and work if you observe the safety suggestions given. Study these suggestions carefully and insist that they be followed by those working with you and for you.

Be careful when operating the planter, to avoid injury to the operator and his assistants.

The planter should always be lowered to the ground when not in use. Whenever possible, service work and adjustments should be performed with the planter on the ground.

If the planter must be in a raised position while working on or near it, it should be securely supported by blocks.

Only one person—the operator—should be permitted on the tractor platform while tractor and planter are in operation.

Keep the loose end of each marker chain in the marker stop at all times, except when planting.

Never clean, lubricate, or adjust a machine that is in motion.

Never ride, or permit others to ride, on the drawbar of the tractor or on the planter.

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

Escaping fluid under pressure can have sufficient force to penetrate the skin, causing serious personal injury. Before disconnecting lines, be sure to relieve all pressure. Before applying pressure to the system, be sure all connections are tight and that lines, pipes and hoses are not damaged. Fluid escaping from a very small hole can be almost invisible. Use a piece of cardboard or wood, rather than hands, to search for suspected leaks.

If injured by escaping fluid, see a doctor at once. Serious infection or reaction can develop if proper medical treatment is not administered immediately.

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