

JOHN DEERE F100H SERIES FIELD CONDITIONERS



OPERATORS MANUAL JOHN DEERE F100H SERIES FIELD CONDITIONERS

OMA22851 A3 English

OMA22851 A3


LITHO IN THE U.S.A.
ENGLISH





To the Purchaser

This new field conditioner was carefully designed and manufactured to give years of dependable service. To keep it operating 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 "Contents" to learn where each section is located.

 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.

In addition to the equipment furnished with your field conditioner, attachments are available to help you do a better job in special 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 field conditioner will travel when in use.

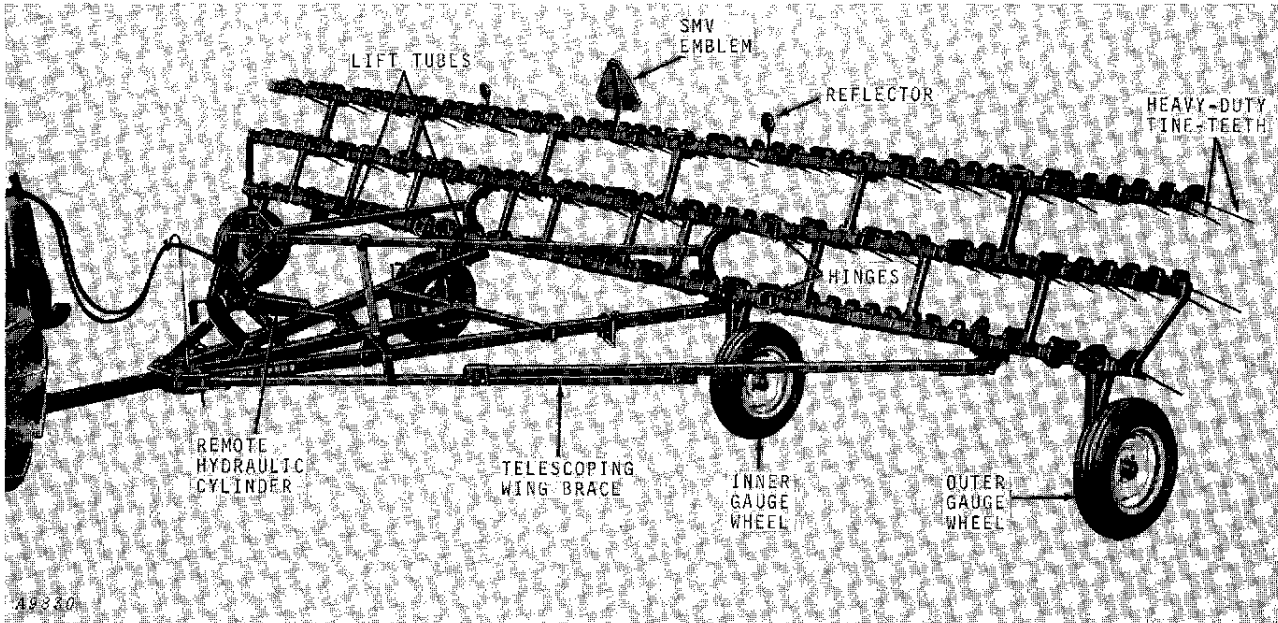
Record your field conditioner serial number in the space provided on page 51. Your dealer needs this information to give you prompt, efficient service when you order parts or attachments. If your field conditioner requires replacement parts, go to your John Deere dealer where you can obtain Genuine John Deere parts—accept no substitutes.

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

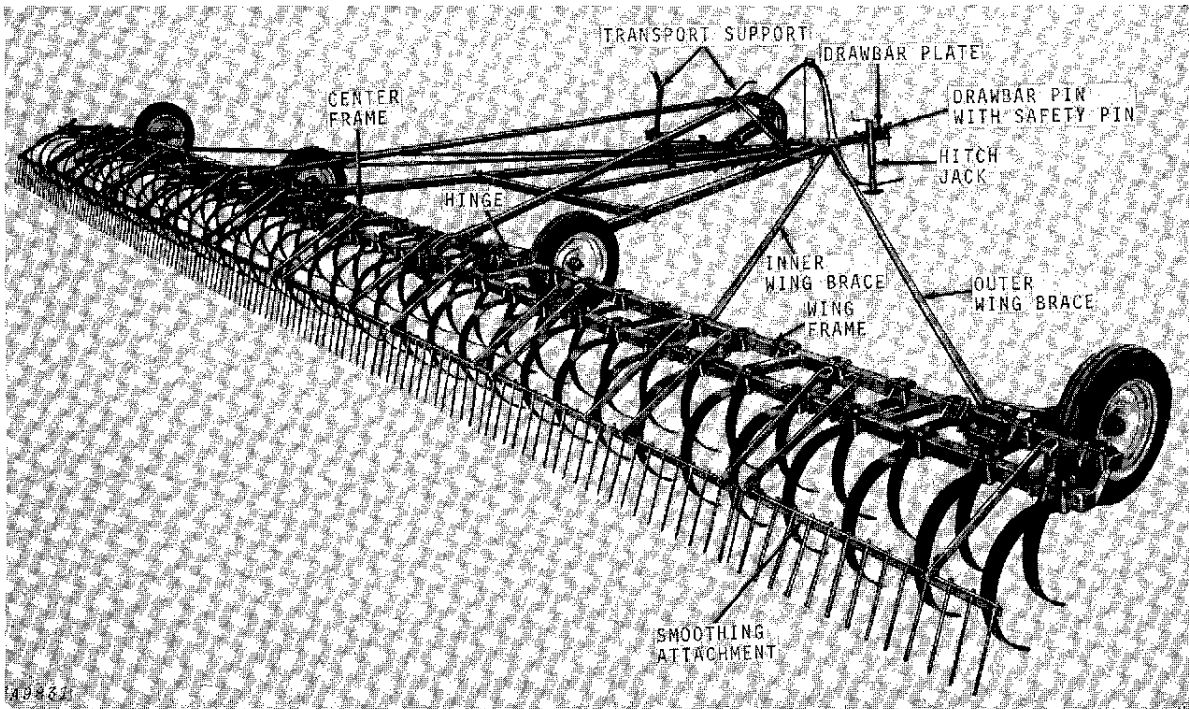


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John Deere F100H 28-Foot Field Conditioner in Field Transport Position
 (Telescoping Wing Braces and Heavy-Duty Tine Teeth with 2-Inch Spacing - Optional Equipment)



John Deere F100H 40-Foot Field Conditioner in Working Position
 (Smoothing Attachments - Special Equipment)



Operation

GENERAL

Your new field conditioner is designed for crust-breaking, summer fallowing, weeding, and preparing a seed bed.

PREPARING THE FIELD CONDITIONER

Bolts and Nuts

Before starting to work with a new field conditioner, check to see that all bolts and nuts are tight. Loose bolts can cause excessive wear or serious damage.

Some bolts are equipped with nylon ring lock nuts. For proper torque, see service on page 19.

Tire Inflation

Check the 5.90-15, 4-ply gauge wheel tires to be sure they are inflated to 28 psi. For increased stability in some soils, it may be desirable to increase the tire pressure.

CAUTION: Be sure tires used are of adequate capacity before increasing pressure.

Lubrication

Be sure field conditioner has been properly lubricated. See lubrication on page 19.

PREPARING AND ADJUSTING TRACTOR

For complete tractor operating instructions, refer to your tractor operator's manual.

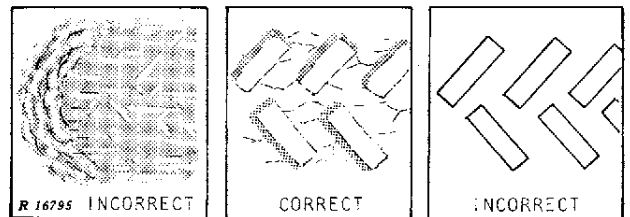
Tire Inflation

Inflate the tractor tires as recommended in the tractor operator's manual.

Rear Wheel Weighting

In conditions where it becomes necessary to add weight to the rear wheels, see your tractor operator's manual for weighting instructions.

Power can be lost and tire life cut drastically by wheel slippage. Adding weight also serves to stabilize the tractor when working in rough or hillside fields.



Tire Tread Patterns

The ideal amount of added weight can be determined by observing the tracks of the rear wheels. When the tractor is pulling its rated load, the soil between the tire lugs should be broken or shifted. If too much weight has been added, the tread marks will be clear and distinct. If too little weight has been added, the tread marks will be entirely obliterated.

If the tractor is equipped with a Power Weight-Transfer Hitch, rear wheel weighting may not be required in most draft conditions. See your tractor operator's manual.

Water and calcium chloride solution is an economical means of adding weight to tractor rear wheels. Calcium chloride solution is recommended rather than plain water as it will not freeze.

Where weight in addition to or in place of liquid weight is required, cast-iron weights can be bolted to the tractor rear wheels. See your tractor operator's manual for maximum permissible weight. This type of weight can be secured from your John Deere dealer.

Tractor Drawbar

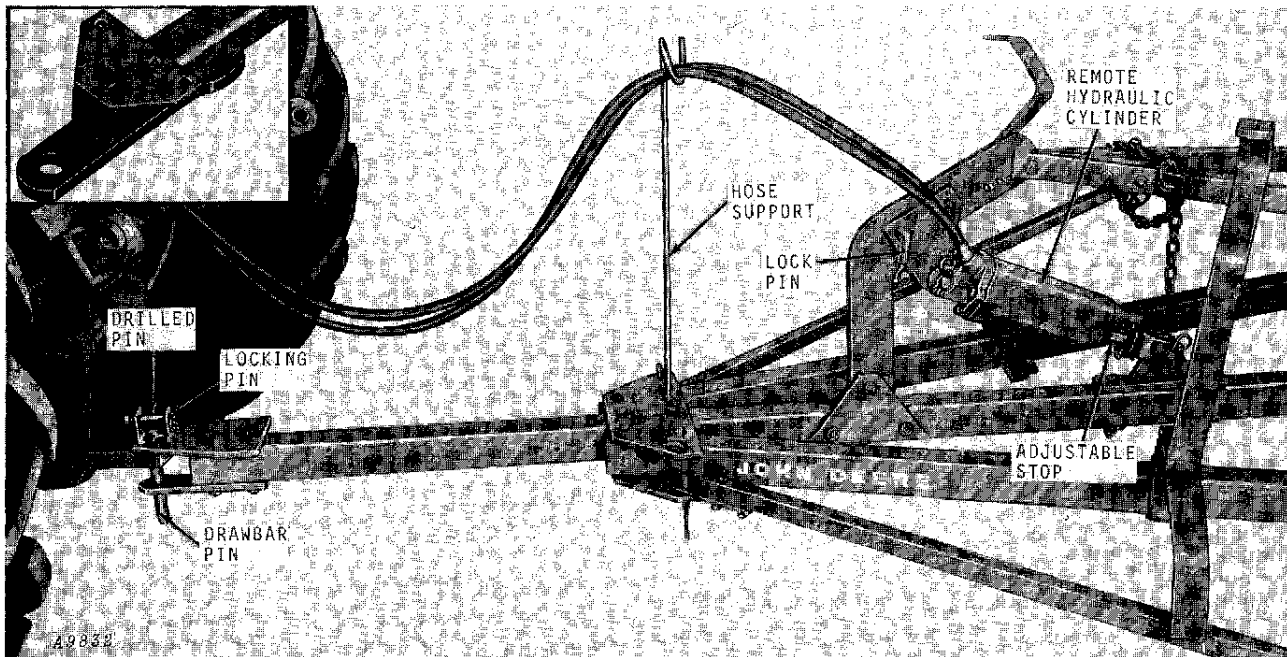
Set the tractor drawbar in the high position. The drawbar can be allowed to swing free when working, or pinned in the center of the tractor.

CAUTION: Be sure the drawbar is pinned in the center of the tractor before road transporting of the field conditioner.

Rear Wheel Setting

Set tractor tires equidistant from the center line of the tractor.

ATTACHING TO TRACTOR



Hitching to Tractor and Attaching Remote Hydraulic Cylinder

CAUTION: Do not attach a field conditioner with a clevis hitch to a tractor with clevis drawbar as drawbar pin failure may result.

When attaching to tractor with a straight drawbar, secure the field conditioner hitch to the tractor drawbar using the drawbar pin, drilled pin, and spring locking pin.

When attaching to tractor with a clevis-type drawbar, secure the field conditioner hitch to the tractor drawbar with drawbar pin. Place drawbar pin retainer over drawbar pin. See inset in above illustration. Hitch loop can be reversed for different diameter drawbar pins.

Attaching Hoses and Installing Cylinder

Refer to specifications on page 50 for remote hydraulic cylinder requirements.

Before attaching hoses to tractor, relieve pressure in the tractor hydraulic system. To relieve pressure, stop tractor engine and move remote cylinder operating lever back and forth several times.

Wipe hose ends to remove any dirt before inserting them in breakaway couplers.

On 3010, 3020 (serial no. below 123,000), 4010, 4020 (serial no. below 201,000), 5010, and 5020 Tractors, attach hoses to tractor breakaway couplers so pushing the remote cylinder operating lever forward extends the remote cylinder and pulling the lever rearward retracts the cylinder.

On 3020 (serial no. 123,000 and above), 4000, 4020 (serial no. 201,000 and above), 4030, 4230, 4320, 4430, 4520, 4620 and 4630 Tractors, attach

hoses to tractor breakaway couplers so pulling the remote cylinder operating lever rearward extends the remote cylinder and pushing the lever forward retracts the cylinder.

If the cylinder has not been used before, it may be necessary to bleed the air from the cylinder as explained in the tractor operator's manual.

The remote cylinder can be installed on the field conditioner with the rod end forward or rearward.

IMPORTANT: Cylinder must be attached with the hoses on the top side.

If the cylinder attaching holes are too close together so cylinder cannot be attached in the retracted position, insert several blocks or boards (located across width of field conditioner) under the teeth and raise hitch with hitch jack (or auxiliary jack).

This procedure will lengthen the distance between the cylinder attaching holes.

If the cylinder attaching holes are too far apart, remove the spring locking pin and lock pin from cylinder break plate, and pivot break plate until cylinder attaching holes line up with cylinder.

IMPORTANT: After attaching cylinder, extend cylinder and lock break plate with lock pin and spring locking pin.

Set adjustable stop on cylinder as desired. See "Tooth Bar Leveling" on page 5.

Attach hoses to the hose support.

If field conditioner is equipped with a hitch jack, rotate jack 90 degrees to provide ground clearance when operating or transporting. See page 13.

DETACHING FROM TRACTOR

With field conditioner raised, position blocks or boards under several tooth point locations and then lower field conditioner teeth to the ground.

This procedure keeps the teeth from sinking into the ground after the remote hydraulic cylinder is removed.

Relieve hydraulic pressure by shutting off the tractor engine and move remote cylinder operating lever back and forth several times.

Disconnect hoses from breakaway coupler.

Disconnect the field conditioner hitch from the tractor drawbar.

CAUTION: To prevent drawbar tip-up, do not remove the tractor drawbar pin with the field conditioner in field transport position. Lower teeth to the ground or place in road transport position before detaching. Support drawbar with hitch jack or block before driving tractor away from the field conditioner.

RAISING OR LOWERING

The remote cylinder raises and lowers the field conditioner for field operation and also raises the field conditioner to field transport position after which it is folded for road transporting behind the tractor.

Retracting the cylinder **lowers** the field conditioner. **Extending** the cylinder **raises** the field conditioner.

When using the hydraulic cylinder size as shown in specifications on page 50, the tractor must have a rated hydraulic system of at least 2000 psi. Other combinations must have a comparable cylinder size and rated hydraulic system pressure.

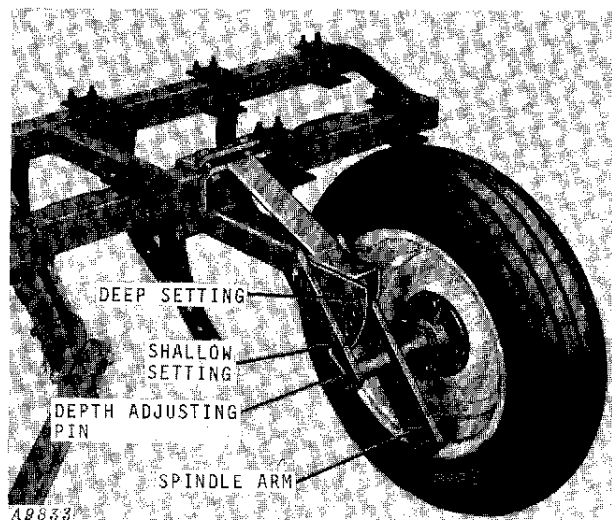
IMPORTANT: Do not use a hydraulic cylinder substantially larger than 3-1/2-inch diameter with a 2000 psi hydraulic system. If a 4-inch diameter cylinder is used, the hydraulic system should not exceed 1700 psi. If a 5-inch diameter cylinder is used, the hydraulic system should not exceed 1100 psi.

For complete operating and adjusting instructions on the remote cylinder, refer to the tractor operator's manual.

If teeth have to be raised when operating through ditches or swales, they should be fully raised, **never**

half-raised unless the field conditioner is equipped with telescoping wing braces. Telescoping wing braces permit telescoping of braces as needed to follow ground contours, even on terraced land, without fully raising field conditioner.

WORKING DEPTH



The working depth of the field conditioner is controlled by the setting of the gauge wheels.

Gauge wheels are located on the center frame and on the wing frames.

The bottom hole in the adjusting plate provides the shallowest setting, while the top hole provides the deepest setting.

To adjust gauge wheels, push spindle arm up or down as desired and secure with gauge wheel adjusting pins.

To obtain a uniform working depth, set gauge wheel adjusting pins independently as required.

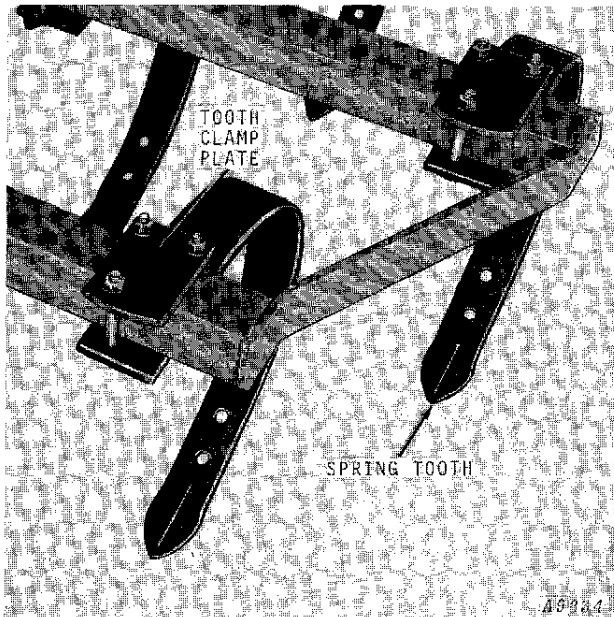
TOOTH BAR LEVELING

Leveling of the tooth bars is controlled by the remote hydraulic cylinder. Set the adjustable stop on the cylinder as desired for fore-and-aft leveling.

Operating with the tooth bar shallow and level leaves ridges in the soil to reduce soil blowing.

Operating with the rear tooth bar lower than the front tooth bar leaves the soil smooth.

SPRING TEETH



The spring teeth are secured to the tooth bars by the tooth clamp plates, U-bolts, and cap screws.

Two types of spring teeth are available.

The A15849 Spring Tooth has a broad point. See illustration above.

The A16694 Spring Tooth has a sharper, narrower point. This tooth penetrates better in tight, moist soil conditions.

Reversible points can be attached to either of the above teeth when the teeth have worn to a minimum distance of 1-1/4 inches from the lower hole in the teeth. The reversible points, Y763AN standard or N130153 heat treated and hard faced, and attaching hardware can be obtained from your John Deere dealer.

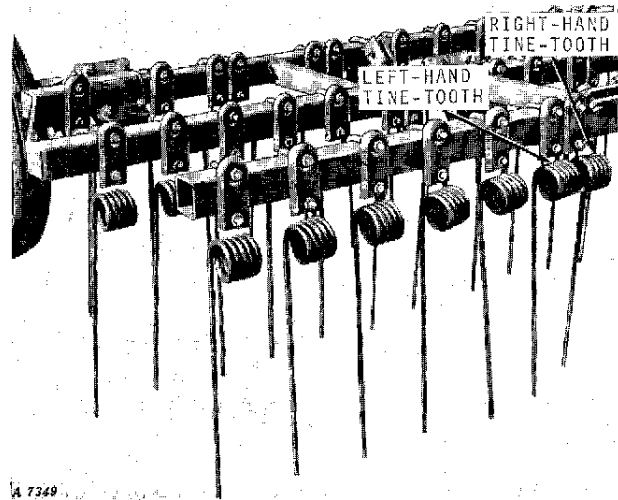
To add reversible points, each spring tooth requires the following:

- | | | |
|--------------|----|---------------------------------|
| 1 - N130153 | or | |
| 1 - Y763AN | | reversible point |
| 2 - 10H 1072 | | 7/16 x 1-1/4-inch
plow bolts |
| 2 - 12H 293 | | 7/16-inch lock washers |
| 2 - 14H 813 | | 7/16-inch hex. nuts |

NOTE: Do not add reversible points before they are needed as trash could collect between the spring tooth point and the reversible points.

For proper tooth spacings, see charts on pages 29-45.

HEAVY-DUTY TINE TEETH (Optional Equipment)



These heavy-duty tine teeth produce a firm, settled seed bed. They penetrate plowed or disked soil, remove air pockets, provide good soil tilth, and are adaptable to rocky soils because of the tine flexibility when a rock or obstruction is encountered.

The tine teeth can be positioned for a working spacing of 3 inches on a two-bar field conditioner or 2 inches on a three-bar field conditioner.

The tine teeth can be spaced farther apart to help clear trash. Spacings of 9-3/16 and 12-1/4 inches on a bar (4-5/8- and 6-1/8-inch machine spacing on two-bar field conditioner) are recommended in excessive trash conditions.

There are right- and left-hand tine teeth to permit equal tooth spacing even by gauge wheel axle clamps, third bar spacer clamps, or wing brace brackets.

For tooth spacings, see page 28.

Thank you so much for reading.
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