

# John Deere FM Four-, Six-, Eight- and Twelve-Row Series Row-Crop Cultivators



## OPERATORS MANUAL

John Deere FM Four-, Six-, Eight- and Twelve-Row  
Series Row-Crop Cultivators

OMN159378 A6 English

**OMN159378 A6**

LITHO IN U.S.A.  
ENGLISH





## To the Purchaser

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This new cultivator 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. Read the Table of Contents to learn where each section is located.

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

Record your cultivator 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 cultivator requires replacement parts, go to your John Deere dealer where you can obtain genuine John Deere parts—accept no substitutes.

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



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.

Your operator's manual contains SI Metric equivalents which follow immediately after the customary U.S. units of measure.



# JOHN DEERE FM SERIES FRONT-MOUNTED CULTIVATORS

## PREDELIVERY CHECK LIST

- ☐ Frame is level and rigs are set at correct height. See page 13, 43 and 44.
- ☐ Row spacing of rigs is correct for row widths to be cultivated. See pages 20 through 24.
- ☐ Shovels or sweeps are set correctly. See pages 17 and 18.
- ☐ Rigs have been lubricated and work freely. See page 14 and 35.
- ☐ Attachments ordered with cultivator are properly installed. See pages 26 through 34.
- ☐ Rig gauge wheels assembled and set in correct position. See pages 14, 21-24, 31, 33, 45 and 46.
- ☐ Clamps, shanks and crossarms positioned in correct location. See pages 20 through 24.
- ☐ All attaching hardware tight, cotter pins spread.

*Signed* .....

*Date* .....

## OWNER REGISTER

Cultivator Model .....  
Serial No. ....  
Name .....  
R.R. No. ....  
Post Office .....  
State ..... Zip .....

## DELIVERY CHECK LIST

At the time of delivery, important information should be conveyed directly to the customer. Check off each item below as it is fully explained to the customer.

- ☐ Advise the customer to lubricate the machine as directed in the operator's manual.
- ☐ Give the operator's manual to the customer and explain all operating adjustments.
- ☐ Review with the customer the safety instructions in the operator's manual which must be observed when using this machine.
- ☐ When the cultivator is transported on a road or highway at night or during the day, accessory lights and devices should be used for adequate warning to operators of other vehicles. In this regard, tell customer to check local governmental regulations.


*Signed* .....

*Date* .....



# Safety Suggestions

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 The safety of the operator was one of the prime considerations in the minds of John Deere engineers when the FM Row-Crop Cultivator was designed. Simple adjustments and safety features were built into these cultivators wherever possible.

Only one person—the operator—should be allowed on the tractor when the cultivator is in operation.

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

Never allow anyone other than yourself on the tractor when operating or transporting the cultivator.

Never allow anyone around the cultivator when you are performing operating functions.

Reduce speed when transporting over uneven or rough terrain.

Shift the tractor into a lower gear when transporting down hills or steep slopes.

A protective four-post Roll-Gard is incorporated in each Sound-Gard Body. Your tractor may be equipped with a separate four-post Roll-Gard. Otherwise, a protective two-post Roll-Gard with seat belt is available for your tractor.

Under almost all operating conditions:

1. The use of a seat belt with the optional John Deere Roll-Gard is recommended.
2. Use of a seat belt without roll-over protective equipment is not recommended.

Always keep tractor in gear when driving down steep grades with cultivator raised.

Refer to safety instructions outlined under “Transporting” before road transport of cultivator. See page 19.

Always support cultivator frame and rigs on stands or blocks before working under or around cultivator.

Do not store cultivator with rigs raised unless lock pins are installed. Refer to storage instructions on page 10-11.

Escaping hydraulic 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.

If spray can paint is used, be careful when discarding empty can. Do not incinerate or puncture can.

Finally, remember this: An accident is usually caused by someone's carelessness, neglect, or oversight.



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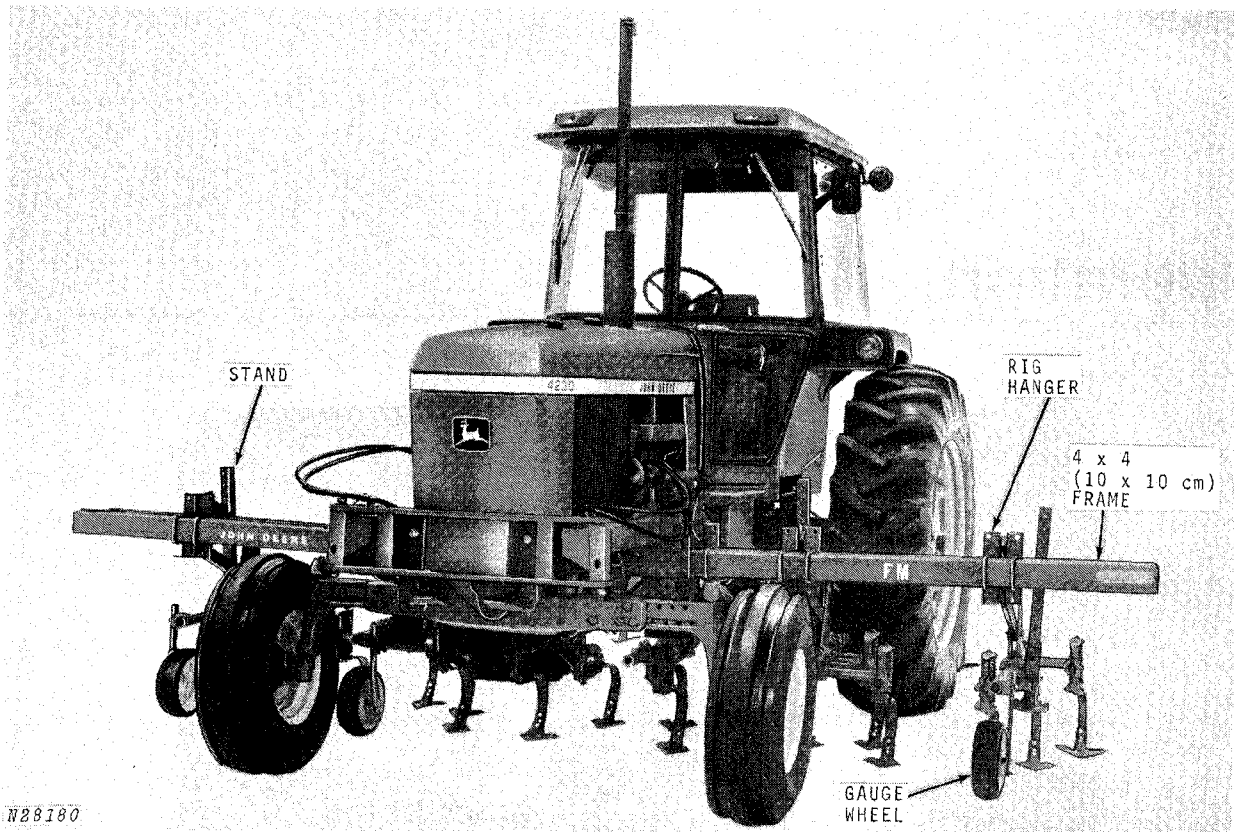
### AFTER-SALE CHECK LIST

The following is a suggested list of items to be checked at a dealer-customer mutually agreeable time during the first operating season.

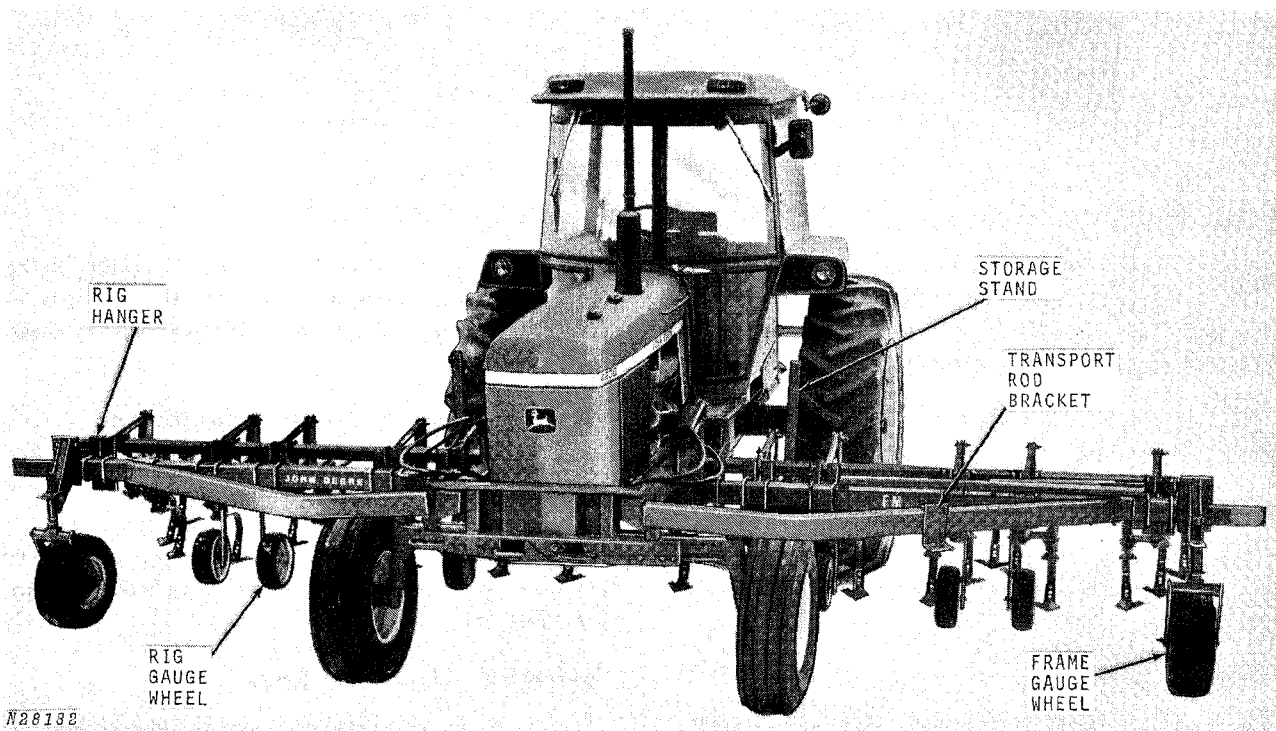
- ☐ Check with the customer as to the performance of the cultivator. Make certain the proper operating adjustments are understood.
- ☐ If possible, operate the cultivator to see that it is functioning properly.
- ☐ Acquaint the customer with any special attachment which will help do a better job.
- ☐ Go over entire cultivator for loose or missing bolts.
- ☐ Check for broken or damaged parts.
- ☐ Check to see that all safety shields are in place.
- ☐ Check with the customer to see if the recommended periodic lubrication has been performed.
- ☐ Review the operator's manual with the customer and stress the importance of proper lubrication and safety precautions.

Date \_\_\_\_\_

Signed \_\_\_\_\_



*John Deere FM4V Single Rig Five-Shank Cultivator*

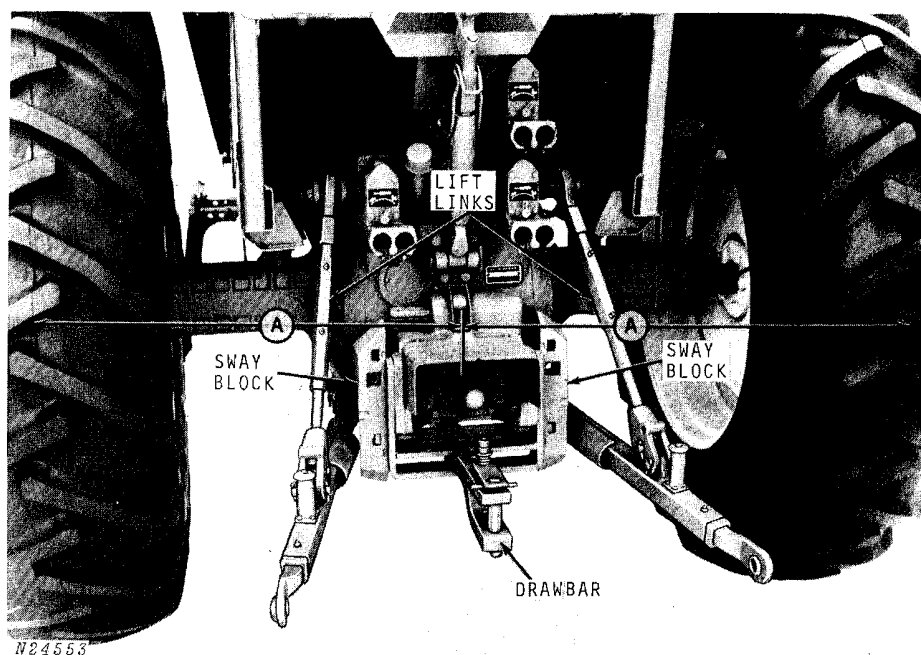


*John Deere FM6 Sweep Cultivator with Quick-Return Spring-Trip Shanks*



# Operation

## PREPARING THE TRACTOR



*Tractor with Category 2 Three-Point Hitch*

### Wheel Spacing

Set the tractor wheels for the desired row spacing so the wheels are centered between the rows. The dimension "A" from the center of the tractor to the center of each tire should be the same.

See your tractor operator's manual for correct tire inflation pressures.

### Sway Blocks

Place the sway blocks in the category 2 down position for use with rear rigs. See your tractor operator's manual.

### Drawbar Position

Place the drawbar in the short position to provide maximum clearance between rear of drawbar and rear rig.

### Lift Links

Adjust length of lift links to minimum length, being sure to maintain adequate clearance between tractor tires and rear rig components. See your tractor operator's manual.

### Lift Link Lateral Float Adjustment

For rear rigs without gauge wheels, lock out lateral float. See your tractor operator's manual.

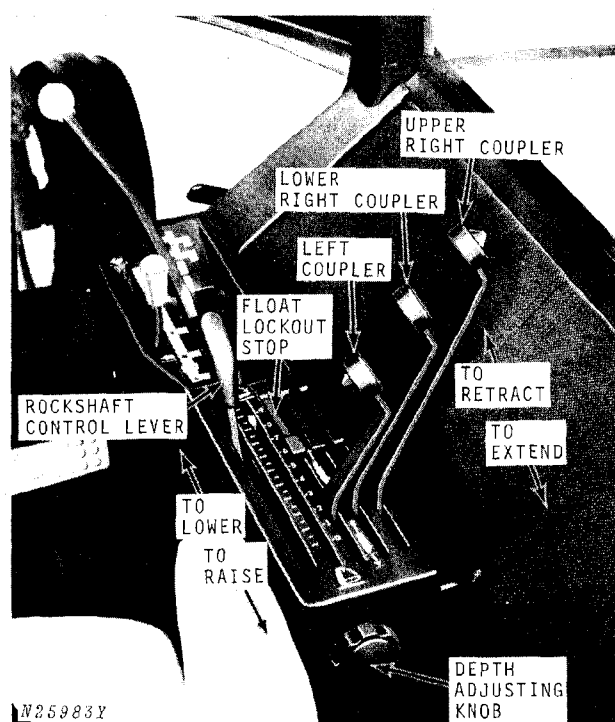
If rear rig is equipped with gauge wheels, adjust lift link pins to allow lateral float. See your tractor operator's manual.

### Rockshaft Selector Lever

If rear rig is used, place rockshaft selector lever in the "ZERO" or "D" (depth control) position.



## Rockshaft Control And Remote Cylinder Operating Levers



N25983Y

Typical Console-4030 or Larger Tractor

### Rockshaft Control Lever

Use the tractor rockshaft control lever to raise the rear rig for transport and lower the rear rig for operations.

**IMPORTANT:** If gauge wheels are not used on rear rig, the depth of operation is controlled with the depth stop.

To lower the cultivator farther without resetting the depth stop, move rockshaft control lever to left-hand side of slot and forward past the stop.

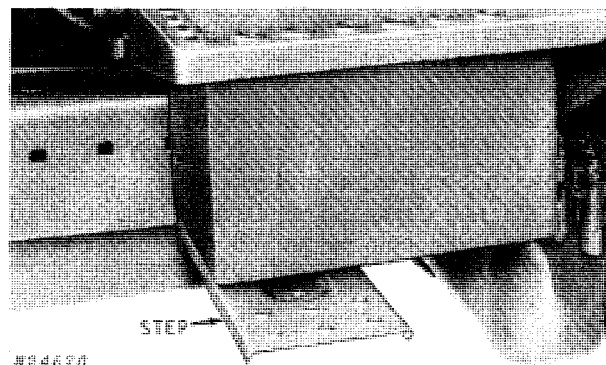
If gauge wheels are used on rear rig, push the rockshaft control lever all the way forward in the slot to obtain "floating" action.

### Remote Cylinder Operating Levers

Raise or lower rigs on either side of cultivator by operating proper remote cylinder operating lever.

**NOTE:** Remote cylinder hoses must be inserted in proper tractor outlets to obtain indicated operation.

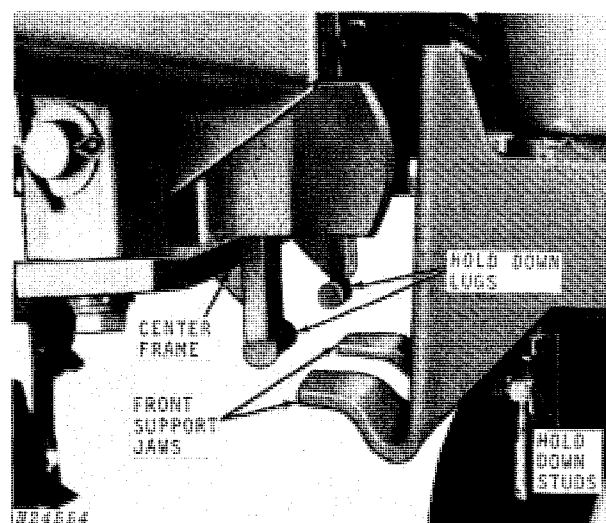
## Replacing Tractor Step



Remove tractor mounting step and attach step provided beneath the battery box, using one of the bolts removed from tractor step.

## ATTACHING CULTIVATOR TO TRACTOR FOR TRANSPORT—FROM STORAGE POSITION

If front supports have been removed from tractor refer to page 40 and install front supports.



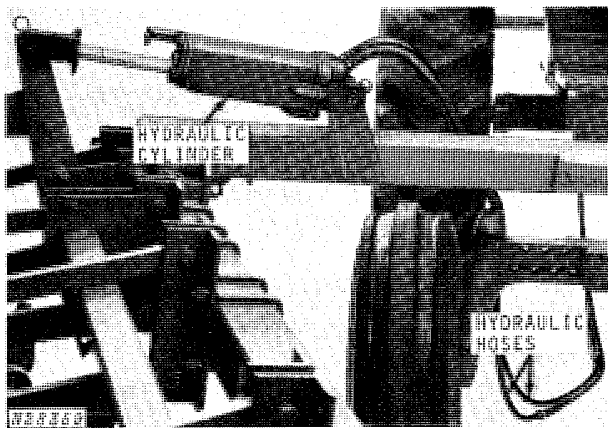
Back out hold down studs until tips are flush with front supports.

Position tractor so the front supports and cultivator center frame are in line with each other, leaving clearance for vertical adjustment.

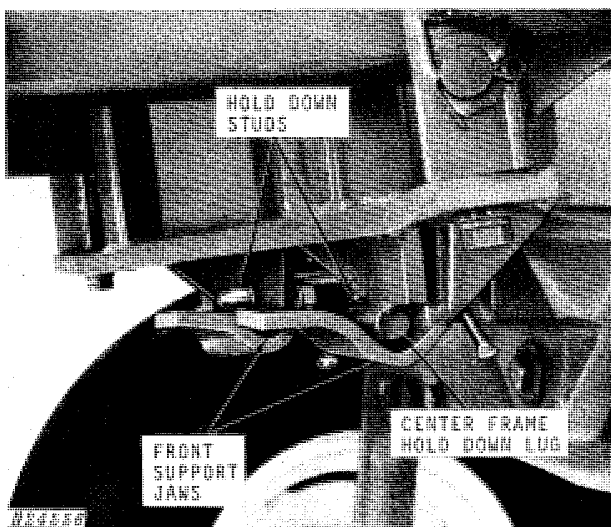
## ATTACHING CULTIVATOR TO TRACTOR FOR TRANSPORTING—Continued

**CAUTION:** 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.

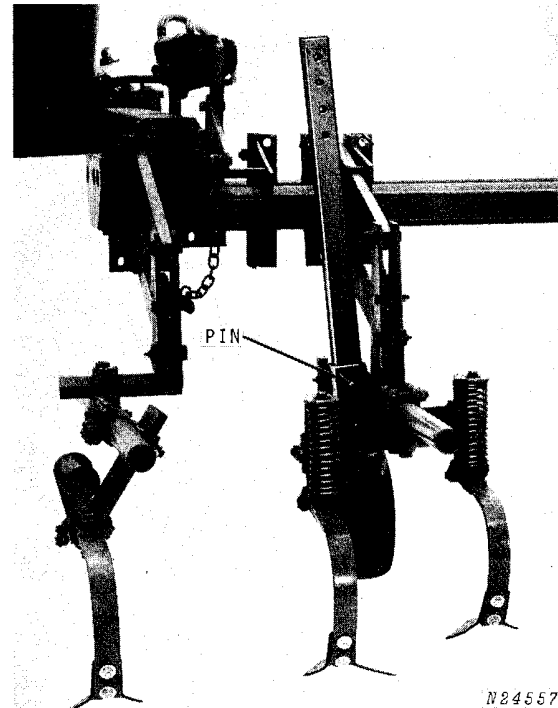
If injured by escaping fluid, see a doctor at once. Serious infection or reaction can develop if proper medical treatment is not administered immediately.



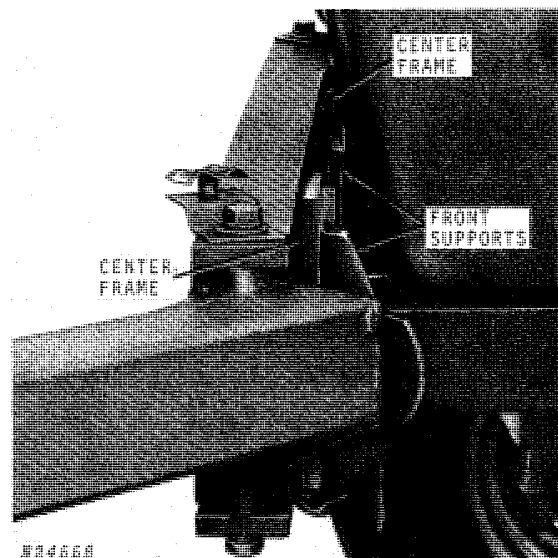
Install hydraulic cylinders on cultivator and insert hoses into tractor outlets. Use tractor remote cylinder operating levers to position cultivator center frame hold-down lugs above front support jaws when tractor is moved forward.



Drive tractor forward until center frame hold-down lugs are directly above front support jaws. Extend cylinders to lower hold-down lugs into front support jaws. Secure in place with hold-down studs.



Retract cylinders to raise rigs slightly. Raise storage stands (inner stands only on rigid cultivators) and pin in upper position.



Extend hydraulic cylinder to lower rigs and position cultivator center frame against front supports.

**IMPORTANT:** Hydraulic cylinder and cultivator rigs will be damaged if too much pressure is applied after center frame is attached to front supports.

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