

1350, 1450, 2350 AND 2450 SERIES SEMI-INTEGRAL MOLDBOARD PLOWS



JOHN DEERE

OPERATORS MANUAL

1350, 1450, 2350 AND 2450 SERIES
SEMI-INTEGRAL MOLDBOARD
PLOWS

OMA35294 E7 English

JOHN DEERE PLOW
& PLANTER WORKS
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To the Purchaser

This new plow 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.

Because John Deere sells its products world-wide, U.S. units of measure are shown with their respective Metric equivalents throughout this operator's manual. These equivalents are the SI (International System) Units of Measure.

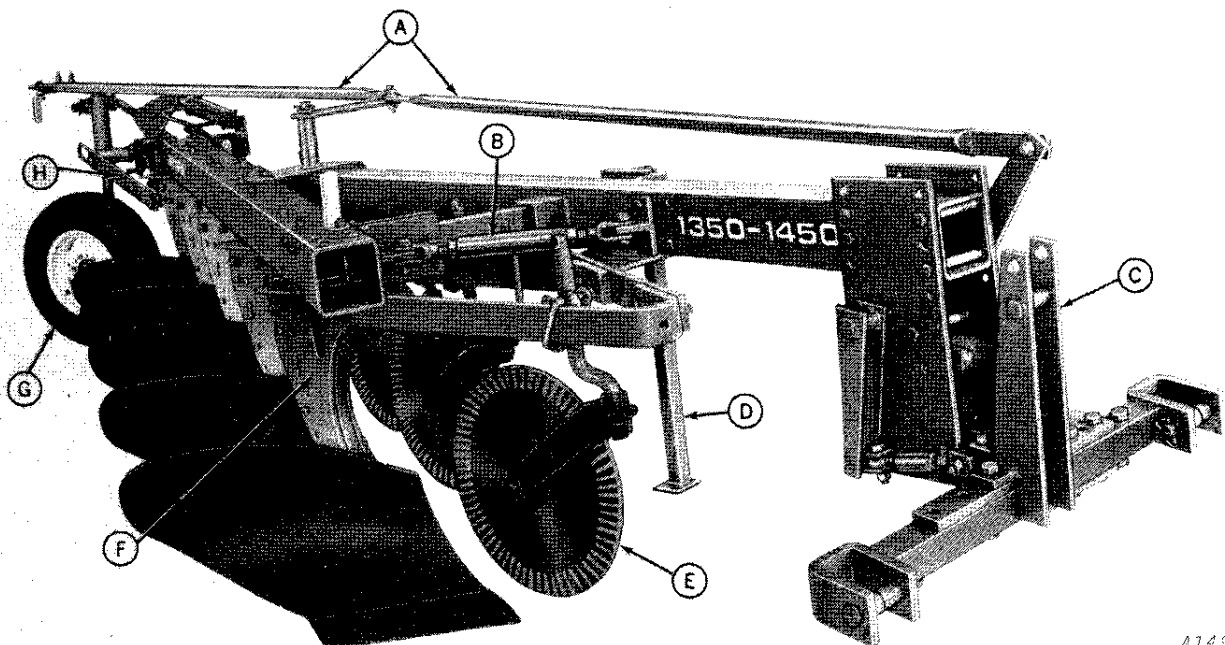
In addition to the equipment furnished with your plow, attachments are available to help you do a better job in special conditions. These are described in

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 plow will travel when in use.

Record your plow serial number in the space provided on page 44. Your dealer needs this information to give you prompt, efficient service when you order parts or attachments. If your plow requires replacement parts, go to your John Deere dealer where you can obtain Genuine John Deere parts—accept no substitutes.

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



A—Steering Pipes
B—Turnbuckle
C—Double Pivot Hitch
D—Support Stand

E—Rolling Coulter
F—Safety-Trip Standard
G—Rear Wheel
H—Rear Axle Lock Strap

A14953

John Deere 1450 5-Bottom Semi-Integral Moldboard Plow

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Safety Suggestions

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GENERAL

 The safety of the operator was one of the prime considerations in the minds of John Deere engineers when this plow was designed.

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.

Remember! An accident is usually caused by someone's carelessness, neglect, or oversight.

HYDRAULIC OIL

Escaping hydraulic oil 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. Hydraulic oil 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 hydraulic oil, see a doctor at once. Serious infection or reaction can develop if proper medical treatment is not administered immediately.

Always relieve pressure in the hydraulic system before working with hydraulic system components.

TRANSPORTING

While transporting the plow on a public road, follow safety instructions outlined under "Transporting," on pages 11-12.

Use care when transporting across rough ground.

OPERATION

To avoid injury, always be careful while operating a tractor and plow.

Never permit any person other than the operator on the tractor.

Never ride or permit others to ride on the plow.

Do not grease, oil, or adjust the plow while it is in motion.

Lower plow to within 2 inches (50 mm) of ground before releasing Quik-Coupler latch handles.

Always lower the plow to the ground when not in use. With tractor engine shut off, move the selective control lever back and forth to relieve pressure in cylinder and hoses.

Raise the tractor 3-point hitch only high enough to level the plow fore and aft for transporting or turning at field ends.

Always raise the rear of the plow when turning at field ends.

Allow the rear wheel to clear the furrow before making sharp turns at field ends.

If spray can paint is used for protecting plow bottoms to be put in storage, be careful when discarding empty can. Do not incinerate or puncture can.



Preparing For Use

IMPORTANCE OF PROPER ADJUSTMENT

A well adjusted plow pulls lighter, has furrow slices which are uniform in width and depth, covers trash and leaves the soil in proper condition to be worked down into the best type seed bed.

PREPARING THE PLOW

Plow Bottoms

The polished surfaces of the plow bottoms have been painted with protective black paint.

In most cases it is not necessary to remove the black paint because it will wear off quickly upon contact with the soil. In those soils where the black paint will not wear off, remove with diesel fuel.

If the plow is not to be used immediately, protect polished surfaces by applying a coat of cup or gun grease. If the plow is to be put in storage for a considerable length of time, see page 36.

Bolts And Set Screws

Before starting to work with a new plow or one which has been stored, be sure all bolts and set screws are tight and all cotter pins spread to keep them from falling out. Be sure the bolts that hold the plow bottoms are drawn up tight.

Check for loose bolts, screws, or parts when lubricating the plow. Loose bolts are easily lost or cause excessive wear on parts, resulting in possible damage to the plow. See page 36 for torque specifications.

Tire Inflation

Make certain the plow tires are inflated to pressures shown below:

Wheel	Recommended New Implement or New or Used Auto Tires	Inflation Pressure
Front and Rear Furrow	7.60-15, 4-ply rating	36 psi (2.5 bar) (2.5 kg/cm ²)
	9.5L-14, 6-ply rating	36 psi (2.5 bar) (2.5 kg/cm ²)
Gauge	7.60-15, 4-ply rating	36 psi (2.5 bar) (2.5 kg/cm ²)
	9.5L-14, 6-ply rating	36 psi (2.5 bar) (2.5 kg/cm ²)

3-6

Lubrication

Be sure plow has been properly lubricated. See Lubrication Charts on pages 33-35.

PREPARING AND ADJUSTING THE 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.

Tractor Drawbar

Set the tractor drawbar in the short high position.

Rear Wheel Setting

1350 and 1450 Plows (Tractor Wheel in Furrow)

Adjust rear wheels of the tractor equidistant from the center line of the tractor to inside edge of tire. The wheels can be set at 28, 30, 32, or 34 inches (710 mm, 760 mm, 815 mm, or 865 mm) from the center line of the tractor to the inside edge of the tire.

2350 and 2450 Plows (Tractor Wheels on the Land)

The rear wheels should be set equidistant from the center line of the tractor to insure maximum performance.

When operating the tractor with all wheels on the land, set the rear wheels (depending on size of plow) to leave at least four inches (100 mm) between the furrow wall and the outside edge of the right tractor tire.

NOTE: When tractor is equipped with dual rear wheels, set wheels in narrowest available setting. See your tractor operator's manual.


Front Wheel Setting

On wide-front-end tractors, to get proper field maneuverability when working with tractor wheel in the furrow, set the front wheels to conform to rear-wheel setting, center-to-center of tread, or set at least 2 inches (50 mm) wider than rear tires, measured from center of tractor to inside edge of tire.

Front End Weighting

Tractor front-end weighting is necessary for maximum field performance.

The amount of front weight required will have to be determined by field operating conditions and the gear in which the tractor is operated.

 **CAUTION:** In this regard it is important to note that when the tractor is operated in lower gears, under 4 mph (6.5 km/h), maximum permissible front-end weighting is necessary to avoid front-end tip-up. If more front-end stability is required, see "Vertical Hitch Adjustments" on pages 13 and 14.

Rear Wheel Weighting

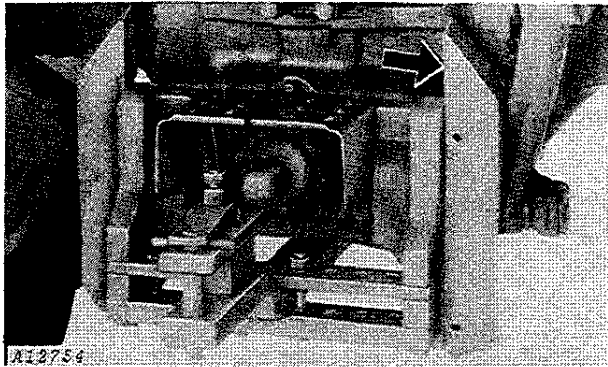
Rear wheel weights may be necessary to eliminate excessive wheel slippage or for stability in rough or hillside fields. However, weights should not be added to the point where all slippage is eliminated. To do so would hinder maximum performance of the tractor.

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. See your tractor operator's manual.

3-Point Hitch and Hydraulic System

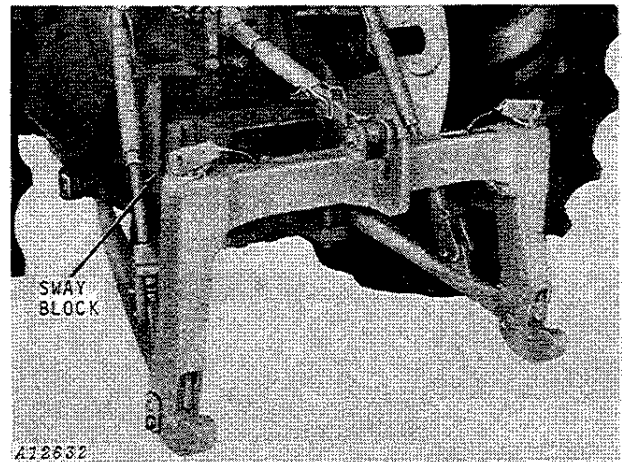
Once the plow is attached to the tractor 3-point hitch, the depth or load is maintained by the tractor hydraulic system according to the setting of the rock-shaft selector lever. See your tractor operator's manual for complete explanation of the hydraulic system.

Sway Blocks



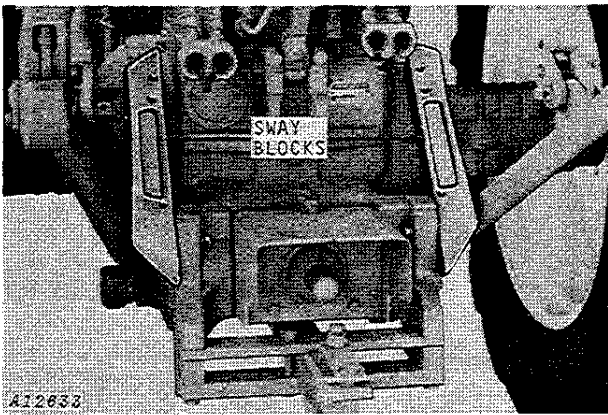
Sway Blocks in Down and Wide Position

Set the sway blocks in the down and wide position as shown above for 4030, 4230, 4430, 4630, and 6030 tractors for in-furrow or on-land plows in normal ground conditions.



*Sway Blocks in Down and Narrow Position
Quik-Coupler (Category 3)*

Set the sway blocks in the down and narrow position as shown above for 8430 and 8630 tractors for on-land plows.



Sway Blocks in Up and Wide Position

Set the sway blocks in the up and wide position as shown above for 8430 and 8630 tractors for in-furrow plows.

3-6



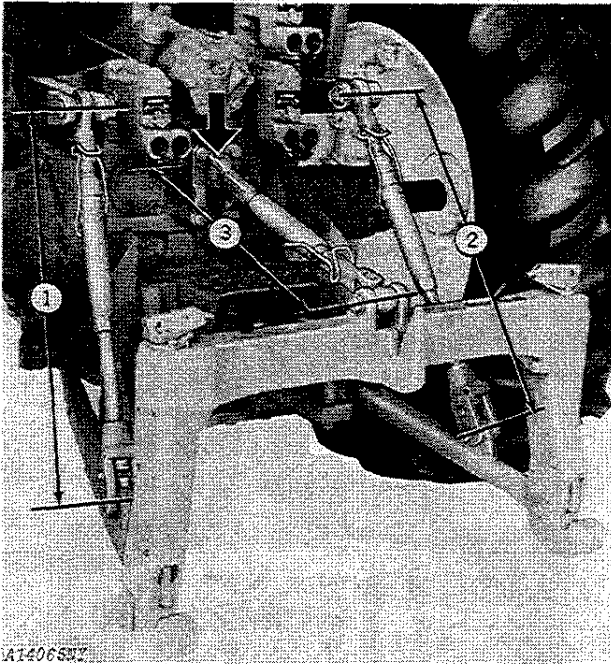
**be careful.....
avoid accidents**

X 1275

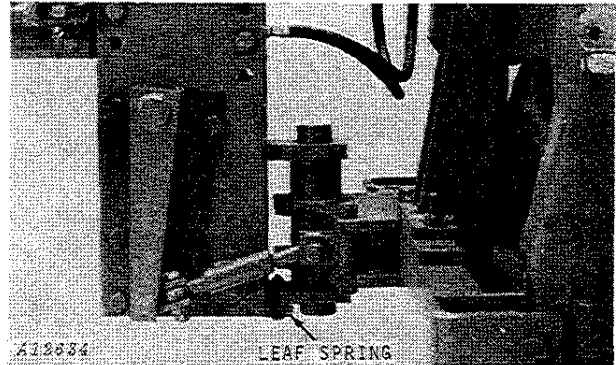
**3-Point Hitch and Hydraulic System—
Continued**

Link Lengths

Set the lift links and center link as shown in the following illustration and chart. Measure from center to center of pins as shown.



4630 Tractor Illustrated



IMPORTANT: Do not set the tractor center link in the shortest setting. This will damage the hitch leaf spring.

DIMENSIONS

Tractor	IN FURROW			ON LAND		
	*Left Lift Link (Dimension "1")	*Right Lift Link (Dimension "2")	*Center Link (Dimension "3")	*Left Lift Link (Dimension "1")	*Right Lift Link (Dimension "2")	*Center Link (Dimension "3")
4030, 4230	30-in. (760 mm)	29-in. (735 mm)	26-1/2-in. (675 mm)	30-in. (760 mm)	30-in. (760 mm)	26-1/2-in. (675 mm)
4430	34-in. (865 mm)	33-in. (840 mm)	26-1/2-in. (675 mm)	34-in. (865 mm)	34-in. (865 mm)	26-1/2-in. (675 mm)
4630	36-in. (915 mm)	35-in. (890 mm)	31-1/2-in. (800 mm)	36-in. (915 mm)	36-in. (915 mm)	31-1/2-in. (800 mm)
6030	40-in. (1 015 mm)	39-in. (990 mm)	31-1/2-in. (800 mm)	40-in. (1 015 mm)	40-in. (1 015 mm)	31-1/2-in. (800 mm)
8430, 8630	37-in. (940 mm)	36-in. (915 mm)	31-1/2-in. (800 mm)	37-in. (940 mm)	37-in. (940 mm)	31-1/2-in. (800 mm)
8630-When used with 1450 8-Bottom plow only.	35-3/4-in. (910 mm)	36-3/4-in. (925 mm)	30-3/4-in. (780 mm)	—	—	—

*Note: For 4030, 4230, and 4430 tractors with long draft links add 1-1/2 inches (40 mm) to the left and right lift link dimensions and 2-1/2 inches (65 mm) to the center link dimensions.

When using Quik-Coupler (Category 3) the center link must be in the top hole of the center link bracket.

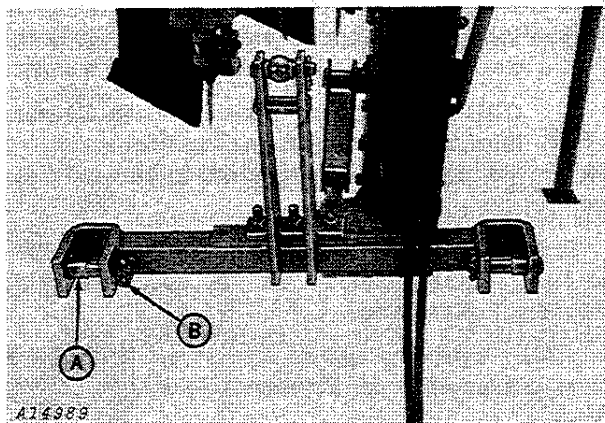


Attaching and Detaching

ATTACHING PLOW TO TRACTOR

3-Point Hitch

4030, 4230, and 4430 Tractors
In-Furrow



A—Hitch Pin

B—Klik Pin

For ease in attaching, lift tractor draft link lock pin and pull out ball socket end of draft link.

Place the rockshaft selector lever in the "D", zero, or "min" position.

Slip hitch pins (A) through crossbar plates and tractor draft link ball sockets. Secure hitch pins with klik pins (B).

Close the telescoping draft links by slowly backing up the tractor.

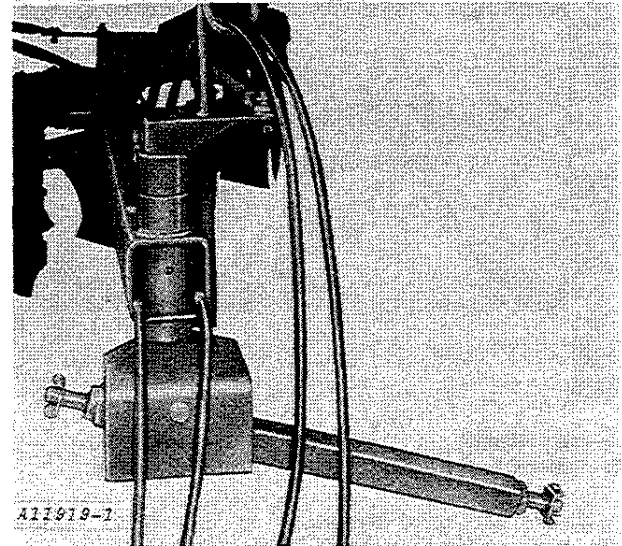
Be sure lock pins snap into place.

IMPORTANT: Do not raise plow before connecting center link.

Connect center link to plow mast. Before connecting, it may be necessary to change length of center link with the adjusting handle. After connecting, reset center link to recommended length as shown in chart on page 6.

After hitching return rockshaft lever to "LD" or middle position.

On-Land



For ease in attaching, lift draft link lock pin and pull out ball socket end of tractor draft link.

Place the rockshaft selector lever in the "D", zero or "min" position.

Remove cotter pin, drilled pin and washer from ends of hitch crossbar.

Back tractor until draft link ball sockets are in line with hitch crossbar.

Slip hitch crossbar through draft link ball sockets and secure with washer, drilled pin and cotter pin.

Close the telescoping draft links by slowly backing up the tractor.

Be sure lock pins snap into place.

After hitching, return rockshaft lever to "LD" or middle position.

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