

# John Deere 230 Wing-Fold Power-Flex Disk

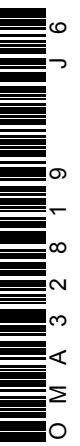


## OPERATORS MANUAL John Deere 230 Wing-Fold Power-Flex Disk

OMA32819 Issue J6 English

**OMA32819 Issue J6**

LITHO IN U.S.A.  
ENGLISH





## To the Purchaser

This new disk 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 service. Read "Contents" to learn where each section is located.

In addition to the equipment furnished with your disk, 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 disk will travel when in use.

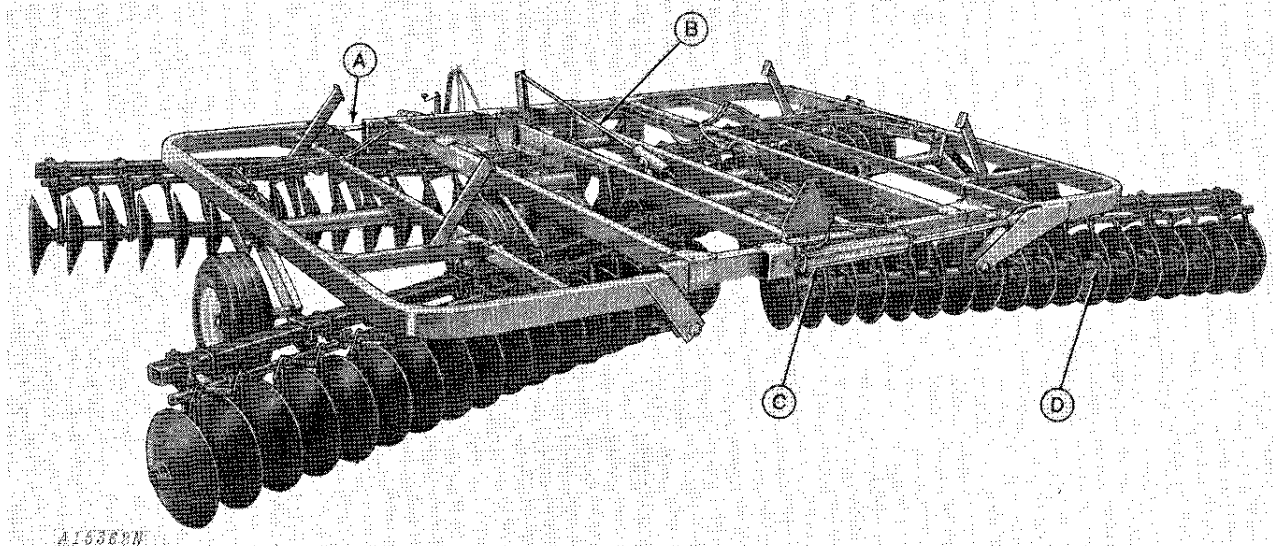
Record your disk serial numbers in the space provided on page 40. Your dealer needs this information to give you prompt, efficient service when you order parts or attachments. If your disk requires replacement parts, go to your John Deere dealer where you can obtain genuine John Deere parts—accept no substitutes.

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



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.



**A—Left-hand wind-fold cylinder**  
**B—Leveling rod and spring**

**C—Right-hand wing-fold cylinder**  
**D—Self-adjusting scrapers**

*John Deere Model 230 Power-Flex Disk - 25-Foot, 7-Inch (7.8 m) Width Illustrated*

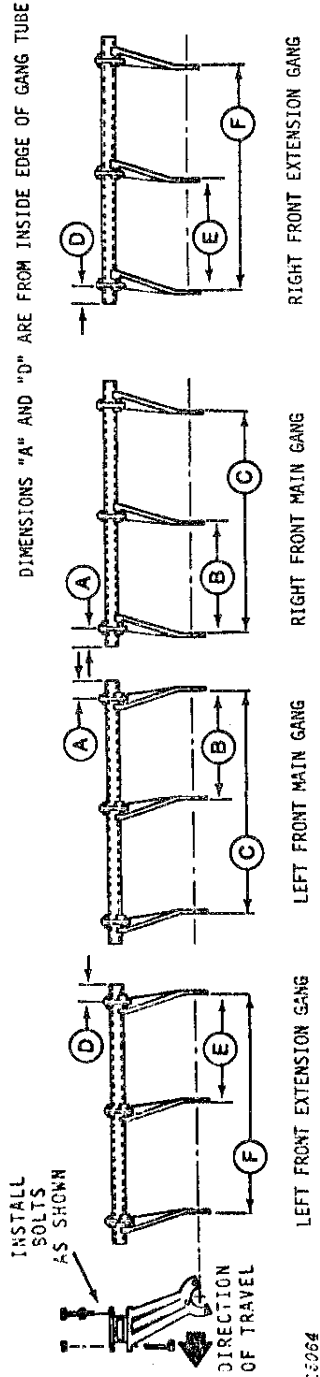
# SUPPLEMENTAL INSTRUCTION SHEET FOR 230 DISK OPERATOR'S MANUAL A 32819

The following charts and instructions replace those charts and instructions found on pages 27 and 28.

## BEARING STANDARD LOCATIONS

The bearing standards are attached to the gang frames at the factory. If for any reason they should be disassembled, the following illustrations and charts show their correct location.

**IMPORTANT:** Leave bearing flange bolts loose until after gangs are attached to standards, then tighten bolts evenly. This will help prevent bearing misalignment and premature bearing failure.

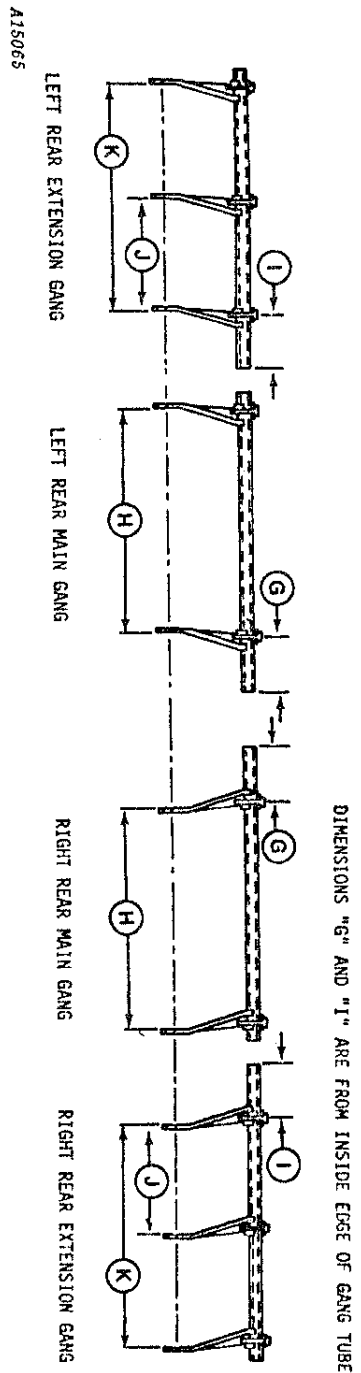


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## FRONT BEARING STANDARD LOCATIONS

Disk Cutting Width	Spacing	Size and Type of Blade	DIMENSIONS					
			FRONT Inches (mm)					
			A*	B	C	D*	E	F
19'11" (6.1 m)	9" (230 mm)	22-Inch (560 mm) Spherical 22-Inch (560 mm) Cone	7-3/8 (185) 6 (150)	27 (685) 27 (685)	63 (1 600) 63 (1 600)	11-5/8 (295) 10-1/8 (255)	- - -	27 (685) 27 (685)
21'4" (6.5 m)	9" (230 mm)	22-Inch (560 mm) Spherical 22-Inch (560 mm) Cone	7-3/8 (185) 6 (150)	27 (685) 27 (685)	63 (1 600) 63 (1 600)	11-5/8 (295) 10-1/8 (255)	- - -	36 (915) 36 (915)
22'9" (6.7 m)	9" (230 mm)	22-Inch (560 mm) Spherical 22-Inch (560 mm) Cone	7-3/8 (185) 6 (150)	27 (685) 27 (685)	63 (1 600) 63 (1 600)	11-5/8 (295) 10-1/8 (255)	- - -	45 (1 145) 45 (1 145)
25'7" (7.8 m)	9" (230 mm)	22-Inch (560 mm) Spherical 22-Inch (560 mm) Cone	7-3/8 (185) 6 (150)	27 (685) 27 (685)	63 (1 600) 63 (1 600)	11-5/8 (295) 10-1/8 (255)	45 (1 145) 45 (1 145)	63 (1 600) 63 (1 600)

\*NOTE: (A and D) are measured from inside edge of the gang tube and are critical dimensions (B, C, E, and F) are approximate.



REAR BEARING STANDARD LOCATIONS

Disk Cutting Width	Spacing	Size and Type of Blades	DIMENSIONS				
			G*	H	I*	J	K
19'-11" (6.1 m)	9" (230 mm)	22-Inch (560 mm) Spherical 22-Inch (560 mm) Cone	19-13/32 (495) 20-29/32 (530)	45 (1 145) 45 (1 145)	10 (255) 11-1/2 (290)	- -	36 (915) 36 (915)
21'-4" (6.5 m)	9" (230 mm)	22-Inch (560 mm) Spherical 22-Inch (560 mm) Cone	19-13/32 (495) 20-29/32 (530)	45 (1 145) 45 (1 145)	10 (255) 11-1/2 (290)	- -	45 (1 145) 45 (1 145)
22'-9" (6.7 m)	9" (230 mm)	22-Inch (560 mm) Spherical 22-Inch (560 mm) Cone	19-13/32 (495) 20-29/32 (530)	45 (1 145) 45 (1 145)	10 (255) 11-1/2 (290)	- -	54 (1 370) 54 (1 370)
25'-7" (7.8 m)	9" (230 mm)	22-Inch (560 mm) Spherical 22-Inch (560 mm) Cone	19-13/32 (495) 20-29/32 (530)	45 (1 145) 45 (1 145)	10 (255) 11-1/2 (290)	45 (1 145) 45 (1 145)	72 (1 830) 72 (1 830)

\* Dimensions (G and I) are measured from inside edge of the gang tube and are critical dimensions while dimensions (H, J, and K) are approximate.



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# Safety Suggestions

## GENERAL

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**!** The safety of the Operator was one of the prime considerations in the minds of John Deere engineers when this disk 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.

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

## OPERATION

When hitching the tractor to the disk, back the tractor past the clevis. Then move forward so that in making the connection the tractor will be moving away from you.

Be careful when operating the disk to avoid injury.

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

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

Be careful when operating on hillsides because the tractor may tip sideways if it strikes a hole, ditch, or other irregularity.

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

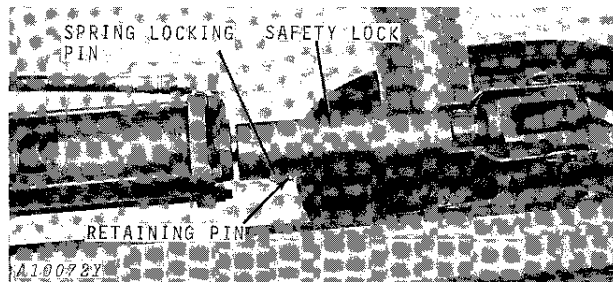
When removing self-adjusting scrapers for any reason, always remove scraper which has spring attached to upper portion of tension lever first. See pages 15-16. When installing scrapers always install this scraper last. Wear protective gloves to help prevent injury from cutting edges of disk blades or scraper blades.

Do not leave the disk in the raised position when it is not in use. Always lower it to the ground.

## TRANSPORTING

When transporting the disk on a smooth surface road, do not exceed maximum tractor transport speed of 20 mph (32 km/h). Reduce speed considerably when traveling over rough ground.

When transporting disk 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. Lights and devices may be obtained from your John Deere dealer.



Before transporting the disk, fully extend the hydraulic cylinder and install stop on cylinder rod as shown. Secure stop with retaining pin and spring locking pin. Relax cylinder to prevent damage to cylinder.

## 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.



# Preparing for Use

## GENERAL

Your new disk is fully adjustable and, when properly adjusted to operate in the type soil and field conditions on your farm, it will do a good job of disking at a minimum of expense. A well-adjusted disk levels the soil uniformly and leaves it in proper condition for the best type of seedbed.

Improper adjustment results in rapid wear, possible breakage of parts, and inefficient operation.

## PREPARING THE DISK

Inflate the disk tires to 30 psi (2.1 bar) (2.1 kg/cm<sup>2</sup>) of air pressure.

Lubricate the disk as instructed on page 21.

Be certain all bolts are tightened securely. See torque chart on page 22.

## PREPARING THE TRACTOR

### General

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

### Rockshaft Selector Lever

Set the tractor rockshaft selector lever in the "zero," "min," or "D" position, depending upon your model tractor. Be sure rockshaft lever is set to keep 3-point hitch up at all times.

### Rockshaft Operating Lever Height Stop (4430, 4630 and 8430 Tractors)

If the tractor rockshaft is accidentally lowered with a Quik-Coupler hitch on the tractor, damage can occur to the disk hitch when turning the tractor.

To prevent accidentally lowering the rockshaft while operating the disk, install AR60331 rockshaft height stop. Installation instructions are provided with the stop.

### Tire Inflation

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

### Tractor Drawbar

For most field conditions place the drawbar in the low position. The drawbar can be placed in the high position for light soil or depth gauging.

### 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.

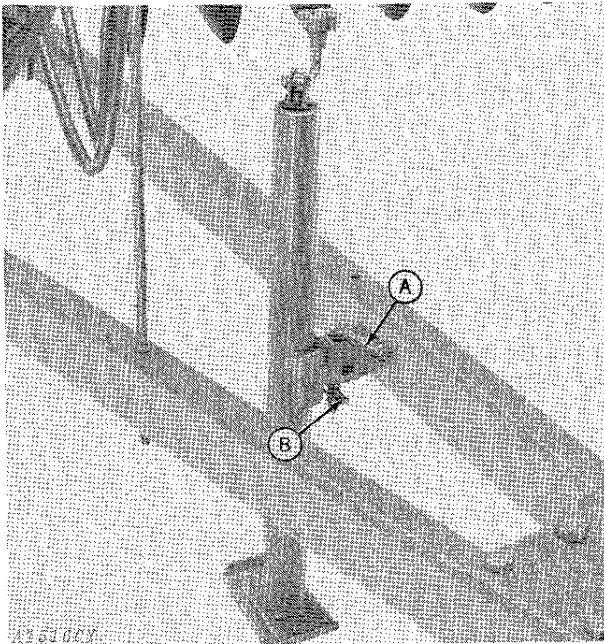
For maximum recommended rear wheel ballast see your tractor operator's manual.



# Attaching and Detaching

## ATTACHING TO TRACTOR

4-5



A—Retainer Pin

B—Quik-Lock Pin

Jack Positioned for Attaching

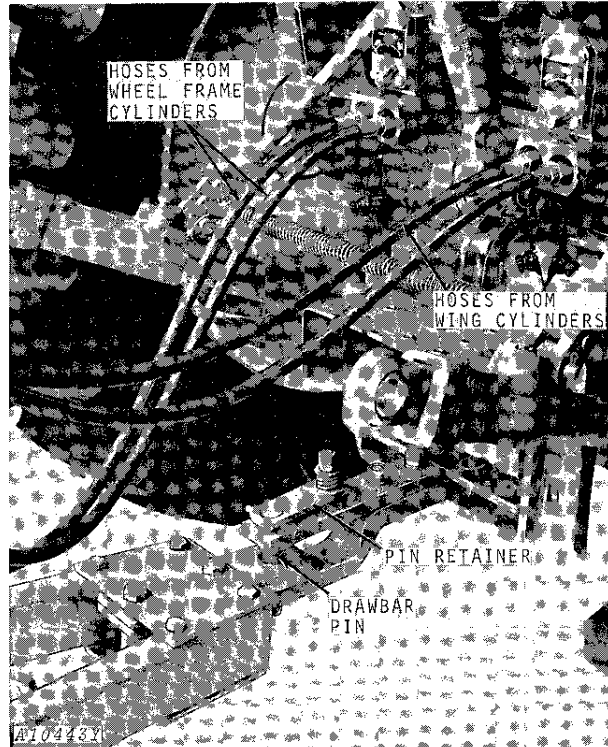
Back the tractor up to the disk. Secure jack in vertical position with retainer pin (A) and Quik-Lock pin (B). Raise hitch to drawbar height with jack.

Back tractor into position and attach to disk with drawbar pin. Secure drawbar pin with pin retainer.

### Attaching Hydraulic Hoses

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

**IMPORTANT:** Wipe hose ends to remove any dirt before inserting in the breakaway couplers.



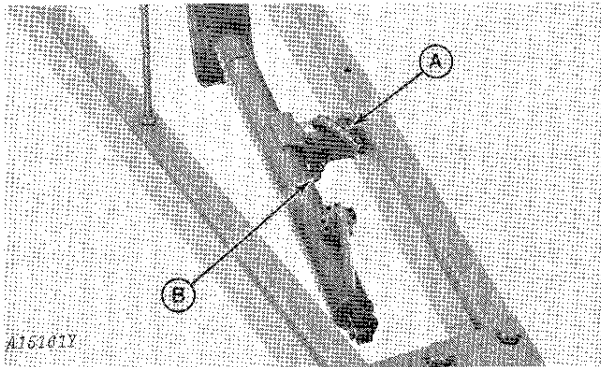
Install hydraulic hoses from wheel frame cylinders in tractor breakaway coupler No. 1 and hoses from wing cylinders in breakaway coupler No. 2. Position hoses in each outlet so wheel frame cylinders will extend to lift the disk and wing cylinders will retract to fold gangs when hydraulic control levers are moved rearward.

*NOTE: If the hoses have been disconnected from the hydraulic cylinder or if the cylinder has not been used before, all trapped air must be removed from the cylinder.*

To remove trapped air, remove cylinder attaching pins and lay the cylinder across the disk frame with the oil outlets up to allow the trapped air to escape. Start the engine and operate the remote cylinder operating lever back and forth seven or eight times, allowing the full stroke each time.

Reattach the hydraulic cylinder to the disk.





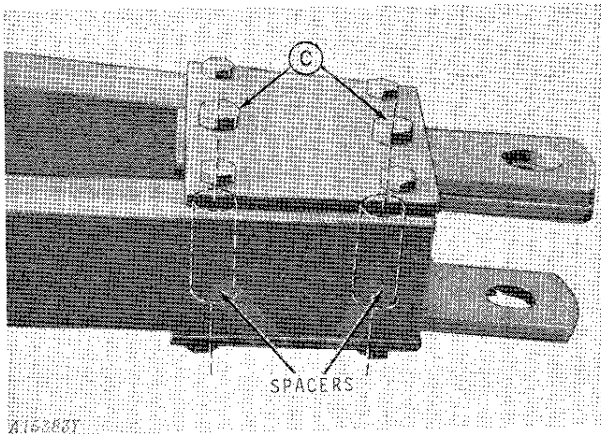
A—Retainer Pin

B—Quik-Lock Pin

*Jack Positioned For Field Use or Transport*

Raise jack, remove jack retainer pin (A) and swing jack into horizontal position as shown for field operation.

Replace retainer pin (A) and secure with Quik-Lock pin (B).



C—Bolts

For tractors equipped with straight drawbar, convert hitch as follows:

Remove bolts (C) and 1-1/4 x 2-15/16-inch (30 x 75 mm) spacers.

Install 1-11/16- x 2-3/16-inch (40 mm x 55 mm) spacers and hitch drawbar straps as shown. Position third single strap directly below spacers and double straps above spacers.

Replace bolts (C) and tighten to 300 ft-lbs (405 Nm) (40.5 kgm) of torque.

## Checking Hydraulic System

After attaching disk to tractor for the first time, check all hydraulic connections, lines, and hoses for leaks.

**CAUTION:** Escaping hydraulic oil under pressure can have sufficient force to penetrate the skin, causing serious personal injury. Before disconnecting hoses, be sure to relieve all pressure. Before applying pressure to the system, be sure all connections are tight and that 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.

## DETACHING FROM TRACTOR

When detaching disk from tractor, lower disk to ground with hydraulic control lever. Relieve hydraulic pressure from system by shutting off tractor engine and moving hydraulic lever in both directions.

Remove hoses from breakaway couplers. Remove jack retainer pin, swing jack into vertical position and replace retainer pin. Raise hitch with jack until weight of hitch is transferred from tractor drawbar to jack.

Remove drawbar pin and drive tractor forward away from hitch.

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