

**JOHN DEERE
220
CENTER-FOLD
POWER-FLEX DISK**

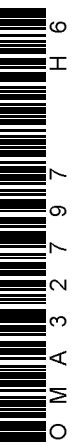


**OPERATORS MANUAL
JOHN DEERE 220 CENTER-FOLD
POWER-FLEX DISK**

OMA32797 H6 English

**JOHN DEERE PLOW
& PLANTER WORKS
OMA32797 H6**

LITHO IN THE U.S.A.
ENGLISH





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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 18-19. 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.

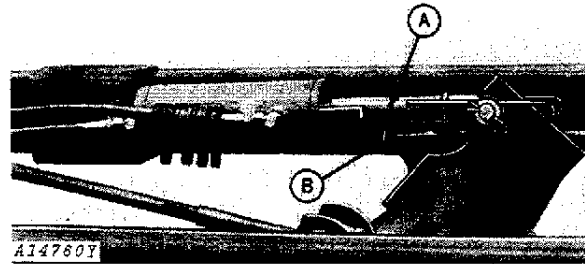
Park or block the disk so it will not roll when disconnected from the tractor drawbar.

Springs in the spring cushion tubes are under pressure, do not disassemble.

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.



A—Transport Stop

B—Retaining Pin

Hydraulic Cylinder

Before transporting the disk, fully extend the hydraulic cylinder and install stop (A) on cylinder rod as shown. Secure stop (A) with retaining pin (B) 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

Lubricate the disk as instructed on page 24.

Be certain all bolts are tightened securely. See torque chart on page 25.

Inflate the disk tires to 30 psi (2.1 bar) (2.1 kg/cm²) of air pressure.

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," "D," or "Min" position, depending upon your model tractor.

Tire Inflation

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

Rockshaft Height Stop Lock (4030, 4230, and 4430 Tractors)

If the tractor rockshaft is accidentally lowered with a Quik-Coupler hitch on the tractor, damage can occur to the 220 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.

Tractor Drawbar

The tractor drawbar can be placed in either the low or high position. Place the drawbar in the low position for hard ground conditions (disking stalks or primary disking) or when maximum weight is needed for penetration:

Place the drawbar in the high position for light soil or for depth gauging.

Secure drawbar in the center of the drawbar support with retainer bolts.

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.

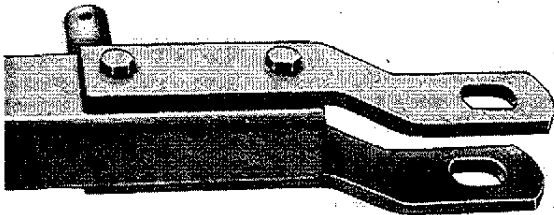
For maximum recommended rear wheel ballast see your tractor operator's manual.



Attaching and Detaching

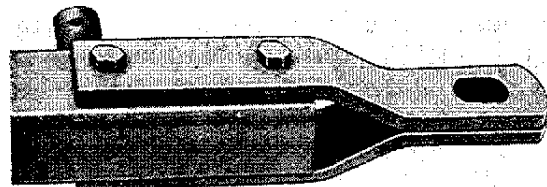
ATTACHING TO TRACTOR

4-5



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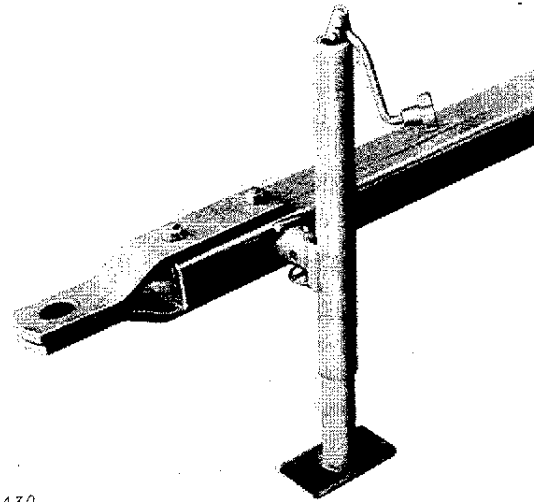
*Position of Disk Hitch When Tractor Is Equipped
With a Straight Drawbar*



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*Position of Disk Hitch When Tractor Is Equipped
With a Clevis Drawbar*

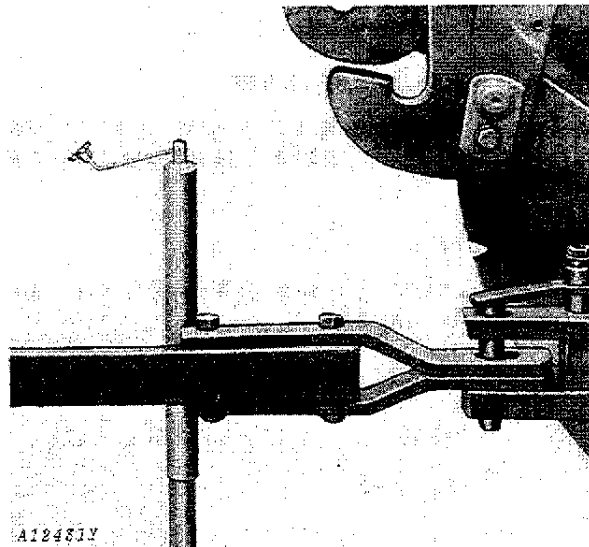
Position hitch as illustrated above for tractors equipped with straight drawbars or for tractor equipped with a clevis drawbar.



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Back the tractor up to the disk.

Raise hitch to drawbar height with jack.

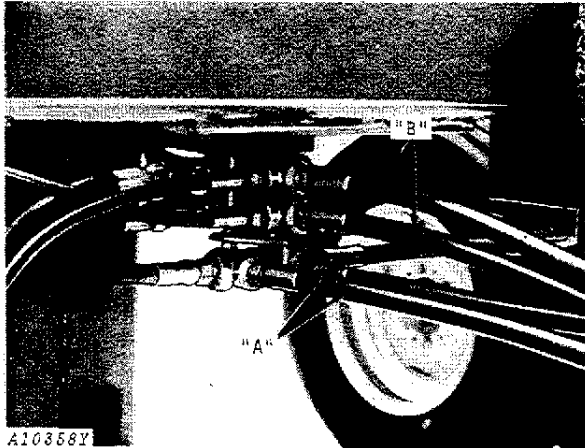


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Back tractor into position and attach to disk with drawbar pin. Secure drawbar pin with pin retainer.

CAUTION: 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.

CAUTION: To avoid injury from escaping hydraulic oil under pressure, turn engine off and relieve the pressure in the system by moving hydraulic control levers in both directions before attaching hoses to breakaway couplers.



A—Wheel Frame Hydraulic Hoses
B—Folding Wing Hydraulic Hoses

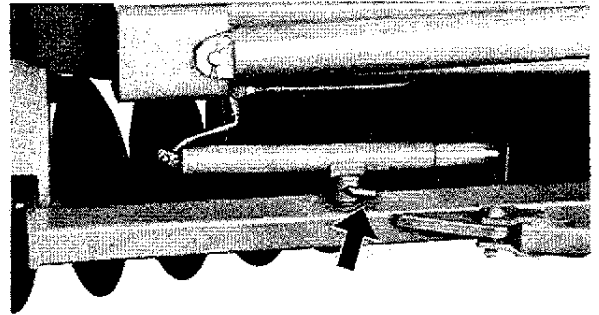
Right-Front View

Install wheel frame hydraulic hoses "A" into breakaway coupler No. 1 and folding wing hydraulic hoses "B" into breakaway coupler No. 2. Install hydraulic hoses in the tractor breakaway couplers so cylinders will extend, lifting disk and folding left wing when hydraulic control lever is moved rearward.

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

To remove trapped air, remove cylinder attaching pins and lay the cylinders 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 cylinders to the disk.



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Raise jack and remove jack retaining pin. Remove jack from hitch and install on cross tube as above.

Replace retaining pin (indicated by bold arrow) and secure with Quik-Lock pin.

4-5

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 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.

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 and moving hydraulic control lever in both directions.

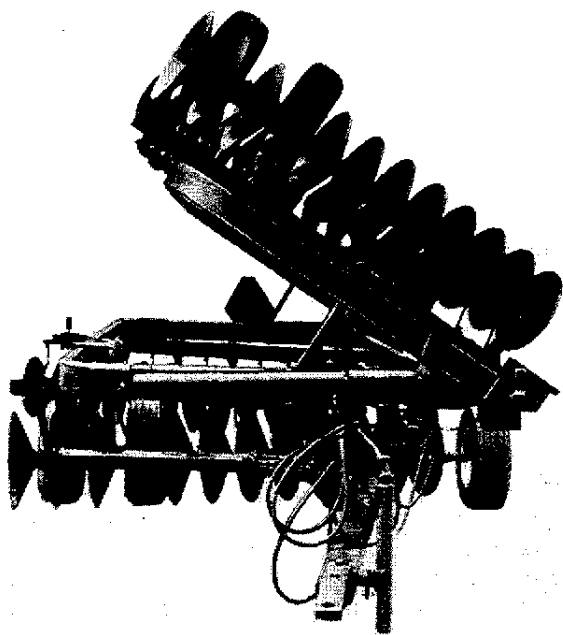
Remove Quik-Lock pin, retaining pin and jack from storage position. Install jack on hitch tube and secure with retaining pin and Quik-Lock pin, as illustrated on page 4. Remove hoses from tractor breakaway couplers.

Remove drawbar pin and drive tractor forward, away from hitch.



Transporting

6-7



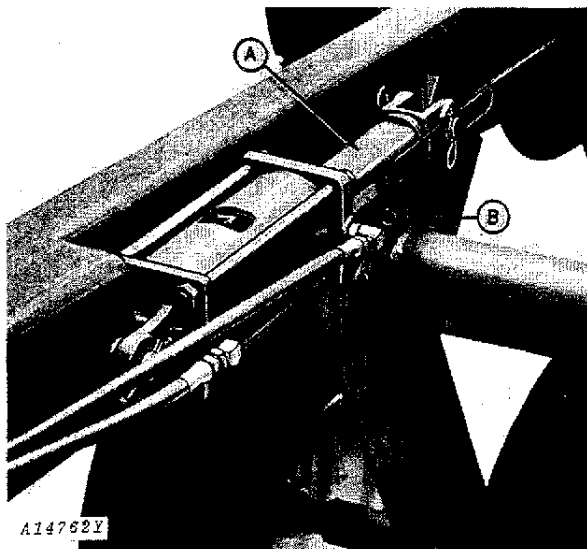
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Transport Position

CAUTION: When transporting the disk on a smooth surface road, do not exceed maximum tractor transport speed. Reduce speed considerably when traveling over rough ground.

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

NOTE: Use of a safety chain is recommended when towing this implement on public roads. Tensile strength of the safety chain should be at least equal to the gross weight of the towed load. Safety chains are available from your John Deere dealer.



A—Transport Lock

B—Spring Locking Pin

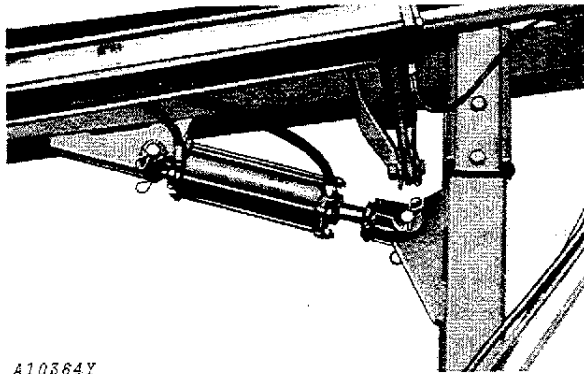
Hydraulic Cylinder

Before transporting the disk, fully extend the wheel frame hydraulic cylinders and insert transport lock (A) and spring locking pin (B).

Retract wing fold hydraulic cylinders and fold left wing extension.

If tractor is equipped with wide-swing drawbar, be certain to lock drawbar in a fixed position.

Hydraulic Drawbar Link

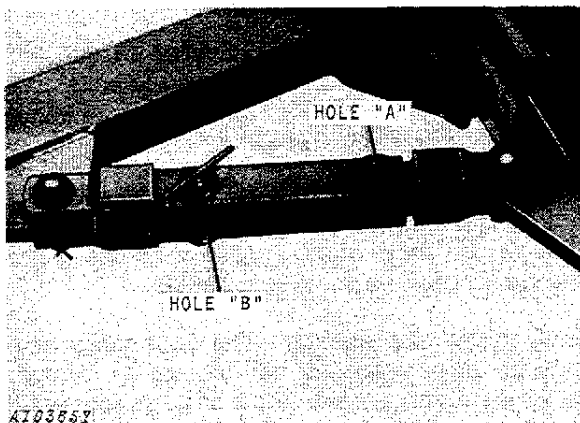


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Folding the left wing extension for transport will automatically retract the hydraulic drawbar link to transport position.

Use a remote hydraulic cylinder with an 8-inch (200 mm) stroke that conforms to ASAE-SAE standards which is available at your John Deere dealer.

Telescoping Drawbar Link

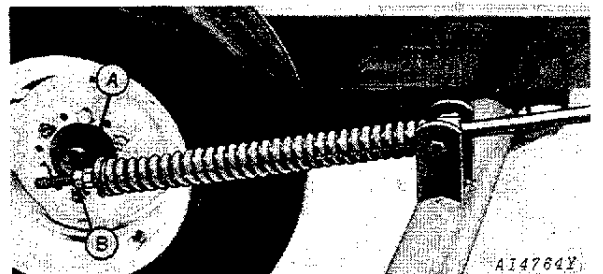
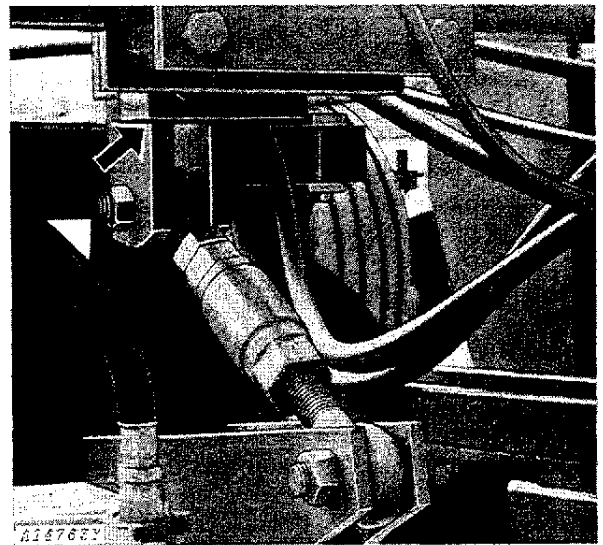


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If your disk is equipped with a telescoping drawbar link, it should be in the closed position for transport. If the link is in the open position, proceed as follows: Pull the pin and Quik-Lock pin from hole "A", turn the tractor wheels to the right and back up slowly. Lock the link in closed position by inserting the pin and Quik-Lock pin in hole "B."

Leveling the Disk for Transport

The disk must be level when transporting. Level the disk as follows:



A—Spring Adjusting Nut

B—Nut

Make certain pivot link is resting against pivot link stop (indicated by bold arrow).

CAUTION: Do not attempt to adjust leveling rod spring until disk is lowered completely to ground. Retract transport wheel hydraulic cylinders fully to remove maximum amount of compression from the leveling spring.

If link is not against stop, lower disk to the ground and raise carrying wheels. Tighten spring adjusting nut (A), then raise disk to be sure link is against stop. Secure spring adjusting nut with jam nut (B).

If disk is not level when raised, adjust turnbuckle as follows:

Loosen jam nut on turnbuckle. Extend the turnbuckle to raise front of disk frame. Reduce turnbuckle length to lower front of frame. Tighten jam nut after adjustment.

NOTE: Use turnbuckle to level disk for transport only. Level the disk for transport with the left wing extension unfolded. Do not use turnbuckle to level disk for field operation.

CAUTION: Never expose more than 2-1/4 inches (55 mm) of turnbuckle eyebolt thread. When frame is level, tighten jam nut against turnbuckle.

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