

John Deere 110 Disk



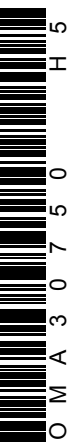
OPERATORS MANUAL

John Deere 110
Disk

OMA30750 Issue H5 English

OMA30750 Issue H5

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 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 service. Read the Table of 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 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 disk will travel when in use.

Record your disk 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 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.



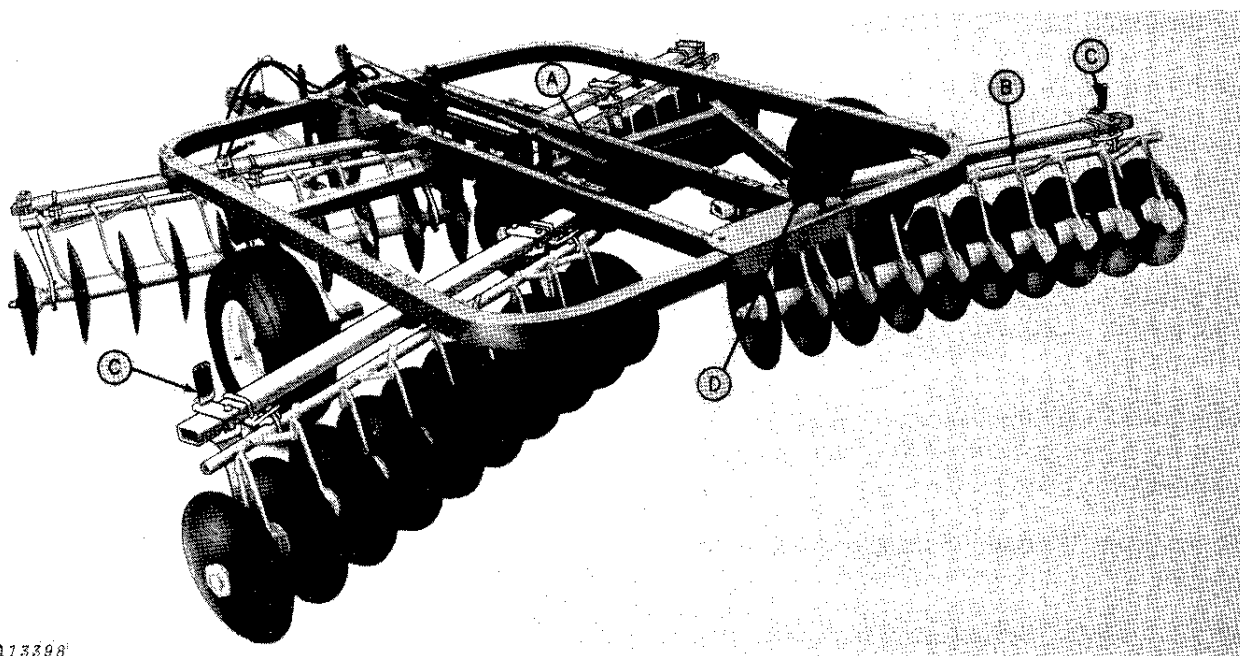
This safety alert symbol identifies important safety messages in this manual. When you see this symbol, be alert to the possibility of personal injury and carefully read the message that follows.

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



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A13398

A—Leveling Rod and Spring
B—Self Adjusting Scrapers

C—Reflector
D—Slow Moving Vehicle Emblem

John Deere 110 Disk



Safety Suggestions

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

However, investigation of thousands of farm accidents show that careless use of farm machinery causes nearly 1/2 of all farm accidents. 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.

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.

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 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.

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

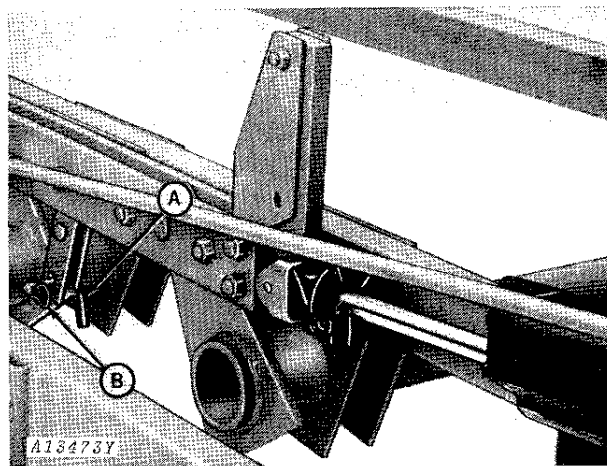
Only one person - the operator - should be permitted on the tractor platform while tractor and disk are in operation.

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

page 11. When installing scrapers, always install this scraper last. Wear protective gloves to prevent injury from cutting edges of disk blades or scraper blades.

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



A—Retaining Pin

B—Spring Locking Pin

Before transporting the disk, fully extend the hydraulic cylinder and insert retaining pin (A) and spring locking pin (B) in transport lock, then relax cylinder to prevent damage to cylinder.

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.



Operation

GENERAL

Your new disk is fully adjustable and, when properly adjusted to operate in the type soil and field conditions of 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 or lubrication results in rapid wear, possible breakage of parts, and inefficient operation.

PREPARING THE DISK

Lubricate the disk as instructed on page 12.

Be certain all bolts are tightened securely. See torque chart on page 35.

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

The 110 Disk can be used with any tractor equipped with an 8-inch (203 mm) stroke remote hydraulic cylinder that conforms to ASAE-SAE standards.

Install the remote hydraulic cylinder on the disk and disconnect the transport link, see pages 6 and 7.

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

Tire Inflation

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

Tractor Drawbar

Place the tractor drawbar in the lower position.

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. See your tractor operator's manual for recommended rear wheel weighting.

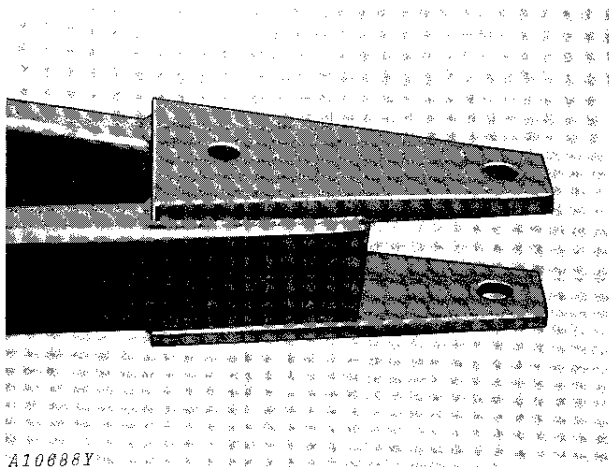
Rockshaft Operating Lever Stop 3020, 4000, 4010, 4020, 4030, 4230, 4320 and 4430 Tractors

If the tractor rockshaft is accidentally lowered with a quik-coupler hitch on the tractor, damage can occur to the 110 Disk hitch when turning the tractor.

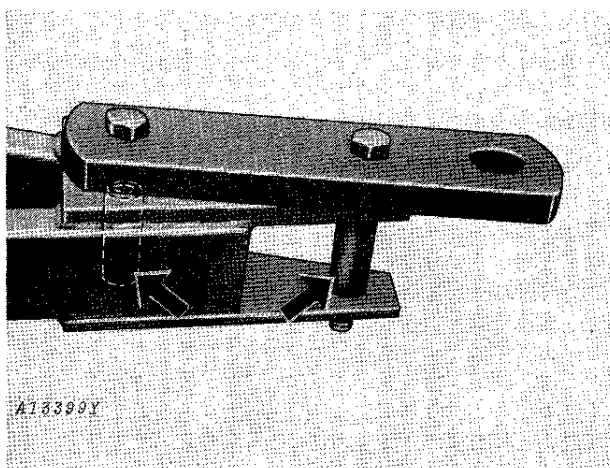
To prevent accidentally lowering the rockshaft while operating the disk, install AR60331 rockshaft height stop. Installation instructions are provided with the lever stop.

4 Operation

ATTACHING TO TRACTOR



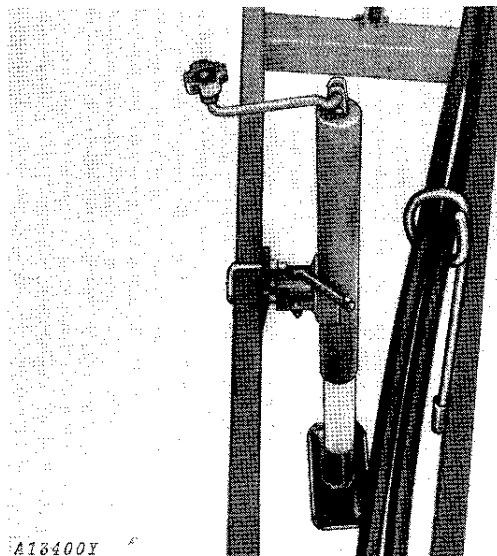
Position of Disk Hitch When Tractor Is Equipped With Straight or Offset Drawbars



Hitch Adapter for Tractor Equipped With a Clevis Drawbar

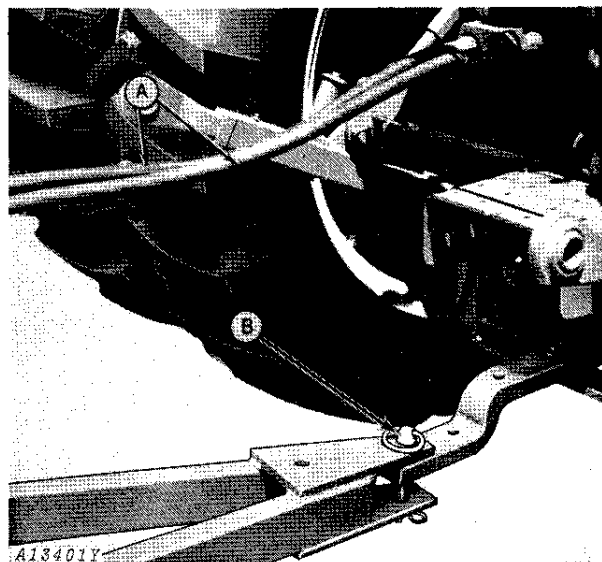
Position hitch as illustrated for tractors equipped with straight drawbars or for tractors equipped with clevis drawbars.

Attach hitch adapter with spacers positioned as shown.



Back the tractor up to the disk.
Raise hitch to drawbar height with jack (special equipment).

NOTE: If jack is not used, the disk drawbar must be supported to prevent it from dropping below tractor drawbar height.



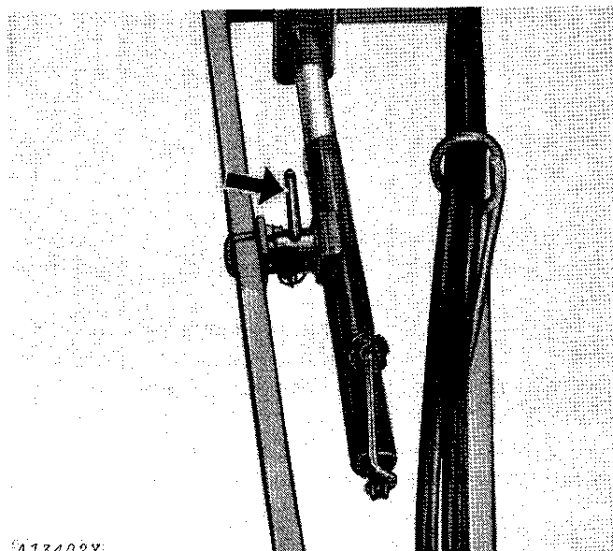
A—Remote Cylinder Hydraulic Hose

B—Drawbar Pin

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

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

Install the disk hydraulic hoses (A) in the tractor breakaway couplers so cylinders will extend, lifting disk, when hydraulic control lever is moved rearward.



Raise jack, remove jack retaining pin and swing jack into horizontal position as shown for field operation.

Replace retaining pin and secure with Quik-Lock pin.

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 hoses from breakaway couplers. Remove jack retaining pin and swing jack into vertical position as illustrated on page 4. Raise hitch with jack until weight of hitch is transferred from tractor drawbar to jack.

NOTE: If jack is not used, raise hitch by hand and block at desired height.

Remove drawbar pin and drive tractor forward away from hitch.

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.

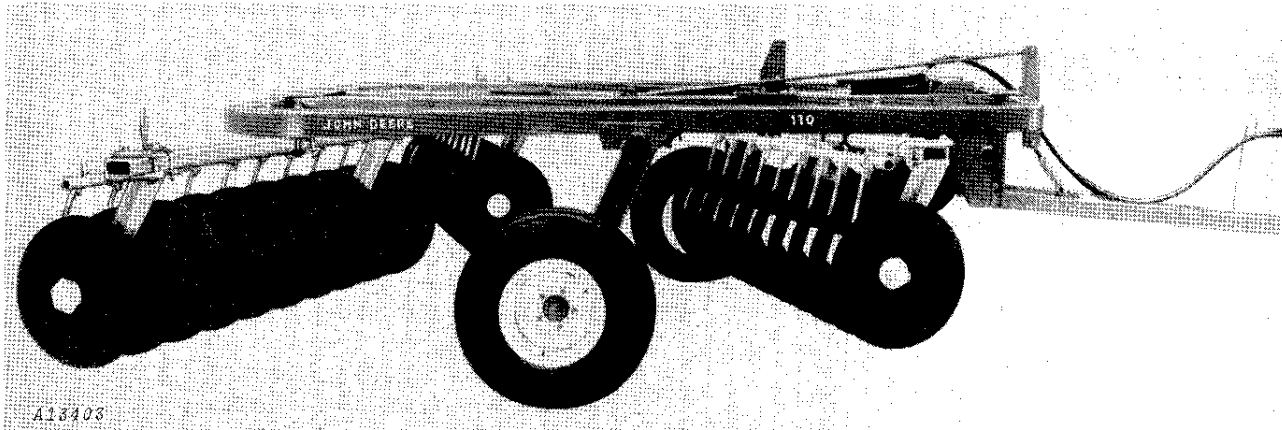
Hydraulic oil escaping from a very small hole can be almost invisible. Use a piece of cardboard or wood, rather than hands, to search for suspected leaks.

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.

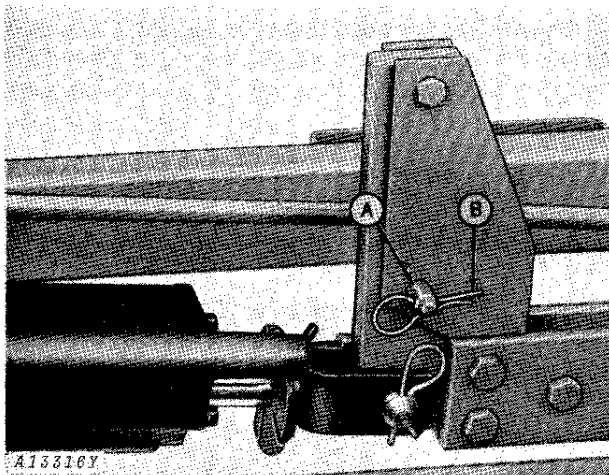
Accidents don't always happen to the other guy



TRANSPORTING



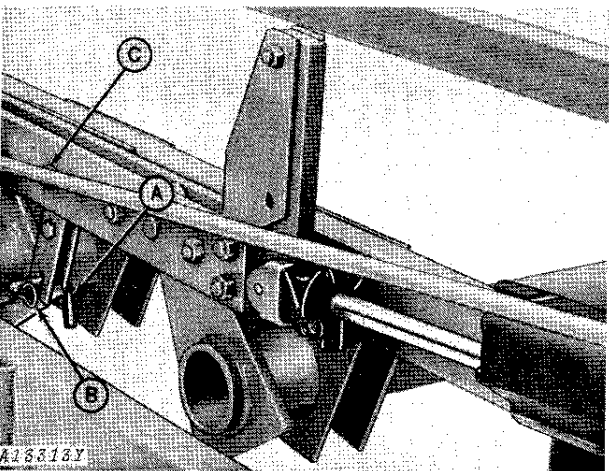
Transport Position



A—Retaining Pin

B—Spring Locking Pin

Before transporting the disk, remove retaining pin (A) and spring locking pin (B).



A—Retaining Pin

B—Spring Locking Pin

C—Transport Strap Bolt

Fully extend hydraulic cylinder and insert retaining pin (A) and spring locking pin (B), then retract cylinder.

IMPORTANT: If unable to insert retaining pin, lower disk to the ground, loosen transport strap bolt (C) and pull transport straps downward and tighten bolt.

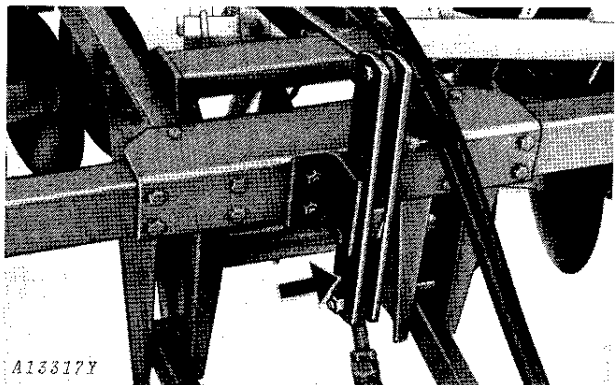
If tractor is equipped with wide-swing drawbar, be certain to lock drawbar in a fixed position.

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.

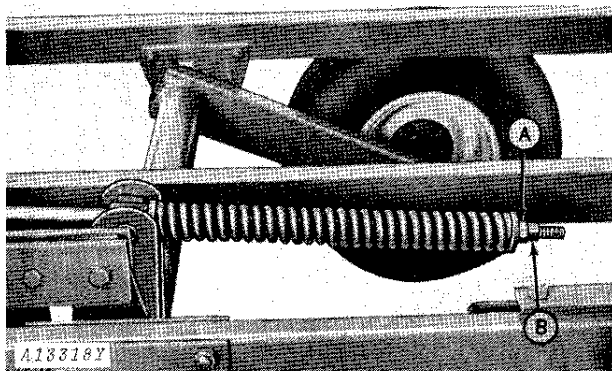
When transporting the disk on a road or highway at night or during the day, use accessory lights and devices for adequate warning to operators of other vehicles. In this regard, check local governmental regulations. Various safety lights and devices are available from your John Deere dealer.

Leveling for Transport

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



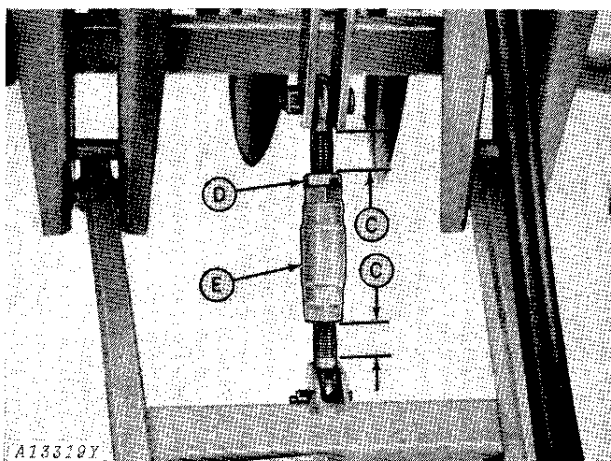
Make certain the stop on back of pivot link (indicated by bold arrow) is resting against front of main frame.



A—Spring Adjusting Nut

B—Jam Nut

If link is not against main frame, tighten spring adjusting nut (A) until link rests solidly against main frame, then lock adjusting nut with jam nut (B) on leveling rod.

C—2-1/4 inch (57 mm)
MaximumD—Jam Nut
E—Turnbuckle

Lower disk completely and raise carrying wheels off ground. Loosen turnbuckle jam nut (D) and adjust turnbuckle (E) to level main frame when disk is raised to transport position.

NOTE: Use turnbuckle to level disk for transport only. Do not level with turnbuckle for field operation. See "Leveling the Disk" at right.

CAUTION: Never expose more than 2-1/4 inches (57 mm) of turnbuckle eyebolt thread (C).

When frame is level, tighten jam nut against turnbuckle.

OPERATING ADJUSTMENTS

Adjusting Disking Depth

The depth of disking is controlled by the tractor hydraulic cylinder control lever, by the angle of the disking gangs, or by the use of a depth stop on the hydraulic cylinder. The carrying wheels act as gauge wheels to regulate the working depth of the disk.

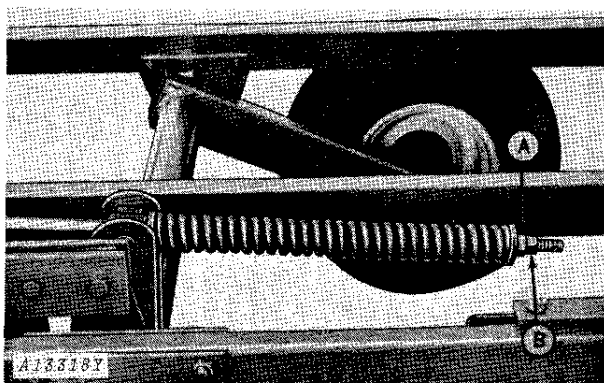
For maximum penetration, set the gangs at a full cutting angle (see page 9) and raise carrying wheels completely off the ground.

For less than maximum penetration, lower the carrying wheels to raise the gangs, or reduce the cutting angle of the gangs.

Leveling the Disk

To level the disk for field operation, proceed as follows:

Level the disk in transport position as described on pages 6 and 7.



A—Spring Adjusting Nut

B—Jam Nut

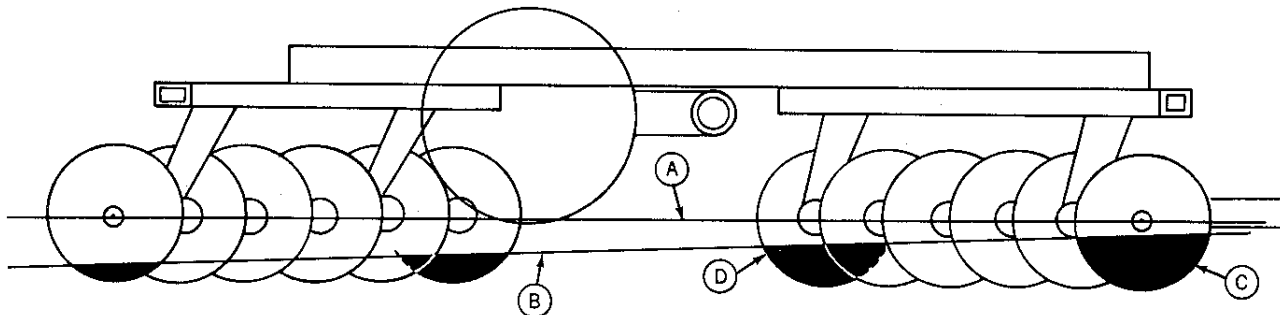
While the disk is operating, check to be sure main frame is level. If front gangs are penetrating too deep, tighten spring adjusting nut. If rear gangs are penetrating too deep, loosen spring adjusting nut.

When adjustments are complete, lock spring adjusting nut with jam nut.

CAUTION: Do not attempt to adjust leveling rod spring until disk is lowered completely to ground.

OPERATING ADJUSTMENTS—Continued

Nosediving



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A—Machine Level Line
B—Disking Line

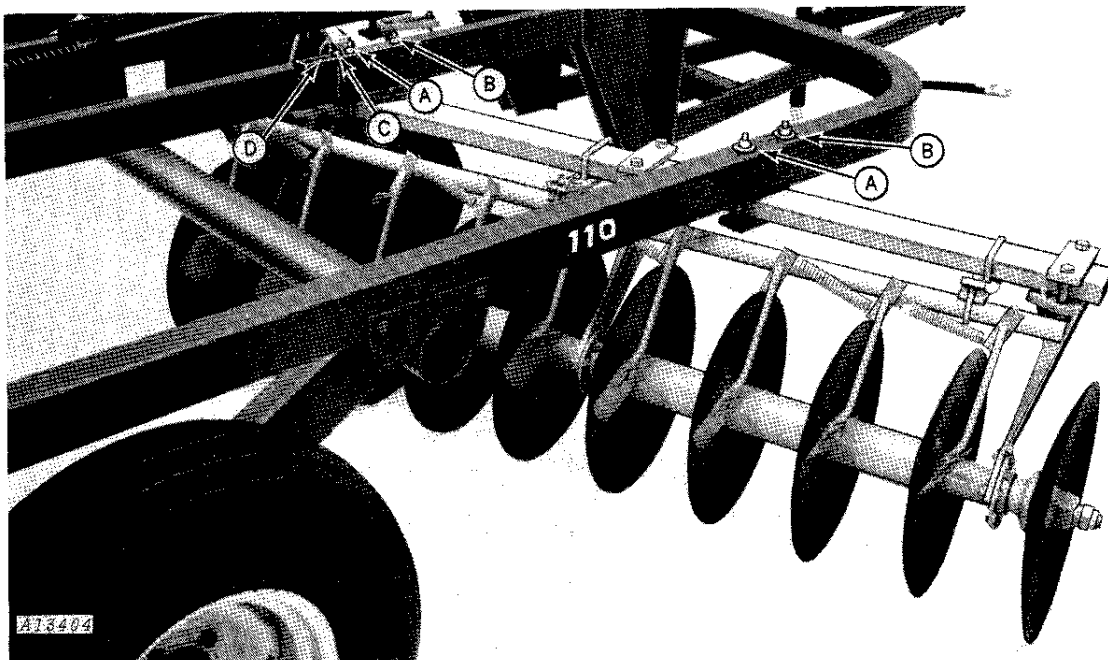
C—Front Outside Disk Blades
D—Front Inside Disk Blades

When a disk is nosediving (disking line [B]) the front outside disk blades (C) are moving more soil than the inside front disk blades (D). Therefore, a ridge will occur to the outside of the disk cutting width. To eliminate these ridges,

raise front gangs in relation to rear gangs (to machine level line [A]) by tightening the spring adjusting nut.

IMPORTANT: All disk blades must move an equal amount of soil before machine will level.

Angling The Gangs



A—Bolt

B—Bolt

C—Adjusting Stop Pin

D—Minimum Gang Angle Hole

Right-Hand Front Gang Illustrated

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