

John Deere 200 and 300 Stack Wagons



JOHN DEERE

OPERATORS MANUAL John Deere 200 and 300 Stack Wagons

OMN159362 I4 English

OMN159362 I4

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ENGLISH





To the Purchaser


This new stack wagon 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, trouble shooting, service, removal and storage, or safety suggestions. Read the Table of Contents to learn where each is located.

Should your stack wagon require replacement parts, go to your John Deere dealer where you can obtain Genuine John Deere Parts—accept no substitutes. Genuine John Deere Parts fit properly and insure satisfactory service because they are made from the original patterns and from the same materials as used in new machines.

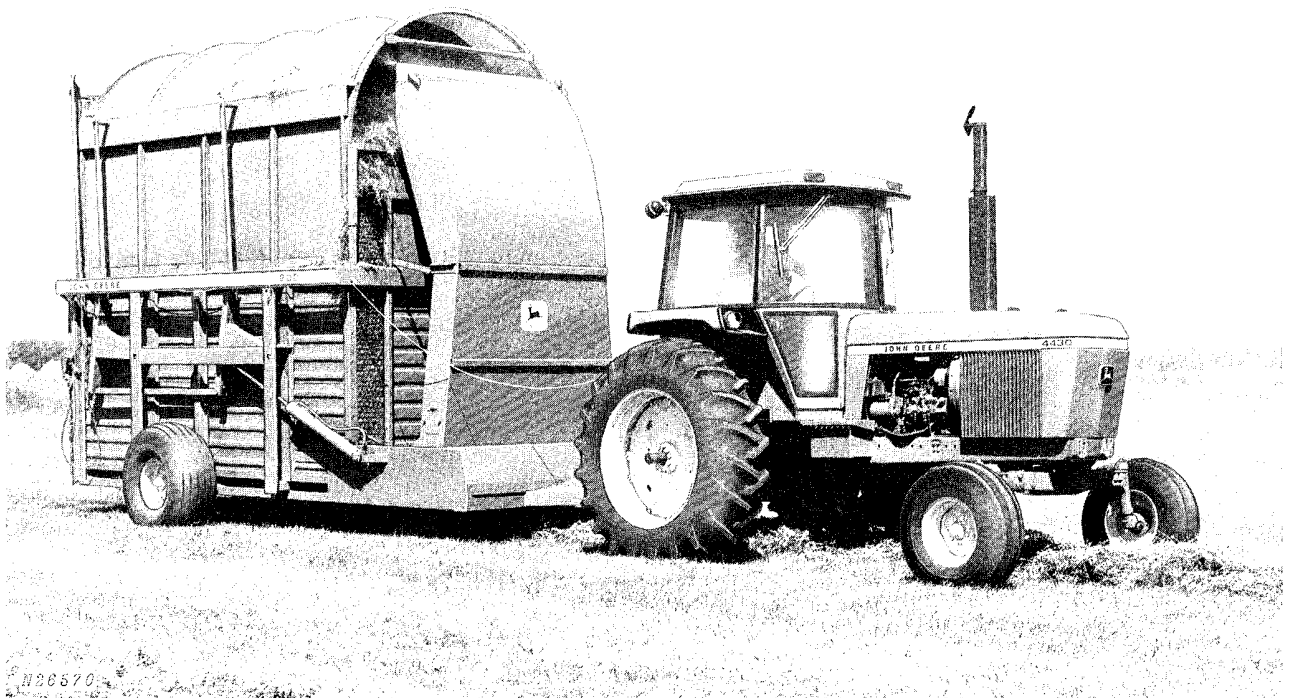
“Right-hand” and “left-hand” sides are determined by facing the direction the stack wagon will travel when in use.

Record your stack wagon serial numbers in the space provided on page 36. Your dealer needs this information to give you prompt, efficient service when you order parts or attachments.

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

 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 U.S. customary units of measure.





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Safety Suggestions

⚠ Careless use of machinery causes many accidents. Make your farm a safer place to live and work by following these safety suggestions. Insist that they be followed by those working with and for you.

Do not allow anyone to ride on the stack wagon when it is in motion. Observe the stack wagon operation only from the tractor platform.

Safety shields were designed with your safety in mind. Keep them in place when operating the stack wagon.

Always throttle the engine down; then shut the engine off. Place gear selector lever in "park", and disengage the PTO when leaving the tractor. Remove the ignition key when leaving the tractor unattended.

Reduce speed before turning or applying the brakes. Apply both tractor brakes evenly when making emergency stops. Drive at speeds slow enough to insure your safety.

Wear relatively tight and belted clothing. Loose clothing may catch on some part of the machine and cause an injury.

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.

Lower the pickup when the stack wagon is not in use. Block the pickup when working under the stack wagon when the pickup is raised.

Do not lubricate, adjust, or clean the stack wagon when it is in motion.

Always block the wheels and use a safety support if wheels are removed, or when working on, under, or around the stack wagon.

Always shut off the tractor engine before lubricating, adjusting, or refueling.

Do not smoke or use a light with an open flame when refueling any engine.

When transporting the stack wagon 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.

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

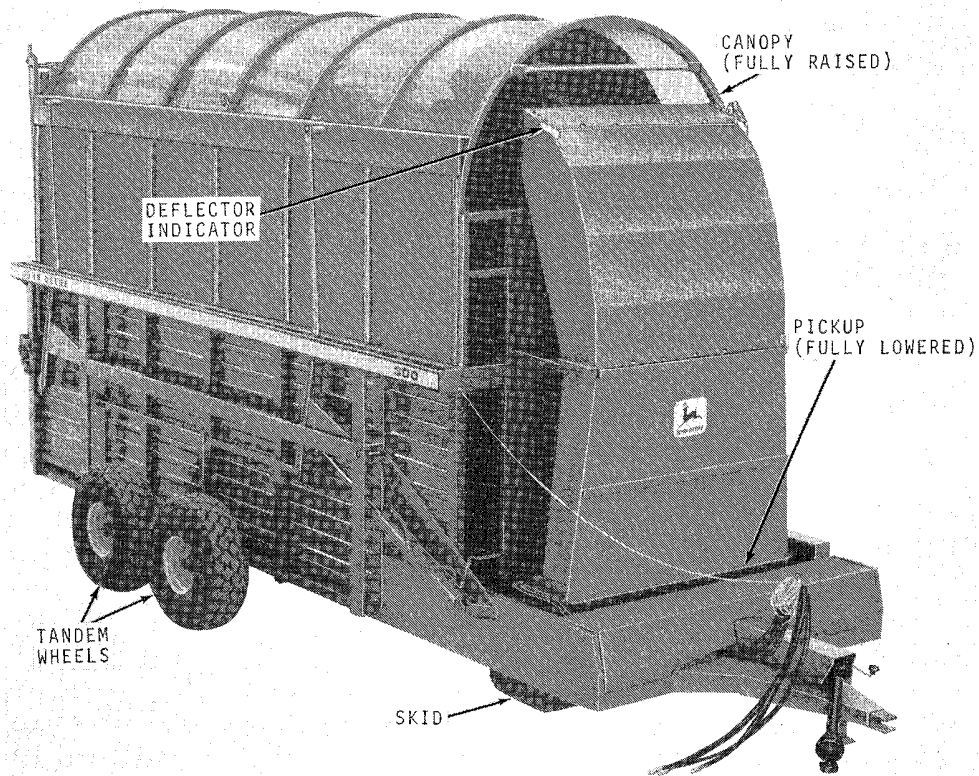
Make sure that your tractor has the required front end ballast as prescribed in your tractor operator's manual.

Reduce speed when transporting over uneven or rough terrain.



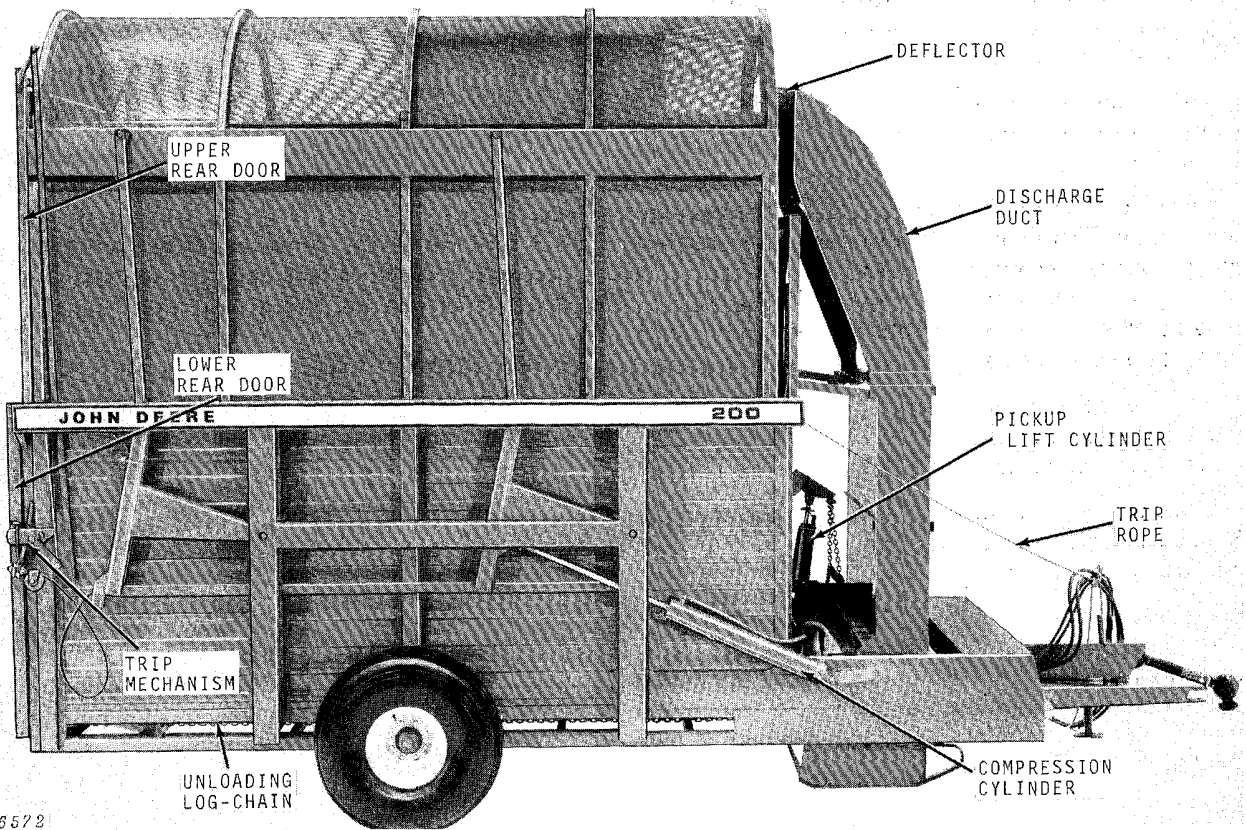
be careful.....
avoid accidents

X 1275



N28364

John Deere 300 Stack Wagon (Pickup Lowered—Canopy Raised)



N26572

John Deere 200 Stack Wagon (Right-Hand Side View)



Operation

HOW THE STACK WAGON WORKS

General Description

Your stack wagon provides a high-capacity minimum-labor method of handling loose hay and corn stover. It produces high-density stacks with firm, smoothly-rounded tops to resist moisture penetration. The 200 Stack Wagon produces a stack weighing approximately 3 tons (2700 kg). The 300 Stack Wagon produces a stack weighing approximately 6 tons (5400 kg). Successful operation requires a thorough understanding of the components of the stack wagon and their functions.

The basic components of the stack wagon include the main frame and wheels, flail pickup, discharge duct and deflector, compression chamber and mechanism, and rear doors.

Main Frame and Wheels

The heavy gauge steel box frame of the stack wagon is supported at the front by the tractor drawbar when coupled. This transfers part of the operating load to the tractor rear wheels for increased flotation. Two wheels with high-flotation tires are regular equipment. For maximum buoyancy, tandem wheels and axles are optional equipment.

When not coupled to the tractor, the stack wagon is supported at the front by a demountable screw-type jack. The jack may be stored on top of the hitch, to prevent interference with the crop being harvested.

Flail Pickup

The pickup is 6-1/2 feet (1.98 m) wide to adequately cover three 30-inch (76 cm) rows of corn. It allows for variations in windrows and minimizes hay loss when turning.

A high speed rotor with (34) specially contoured flails, rotating toward the direction of travel at the bottom, sweeps the material up into the duct at high velocity.

Discharge Duct and Deflector

The discharge duct is tapered to concentrate the material received from the pickup flails. The material enters the spout at the top of the duct at high velocity and is distributed evenly across the width of the deflector.

A cable linkage from the canopy to the deflector provides synchronous positioning of the deflector with respect to the canopy position. The deflector is curved to direct the material into the compression chamber at the desired angle. The deflector position is indicated to the operator by a position indicator on the right-hand side of the discharge duct cap.

Compression Chamber And Mechanism

The compression chamber determines the size and shape of the finished stack. A large chamber, round canopy top, 184 lbs. per sq. ft. (8.8 kPa) compression pressure, and 15 second compression cycle are important factors insuring a compact, weather-resistant stack in a minimum amount of time.

A push-off device, consisting of two log chains with connecting slats, is actuated by opening the rear doors to unload the stack.

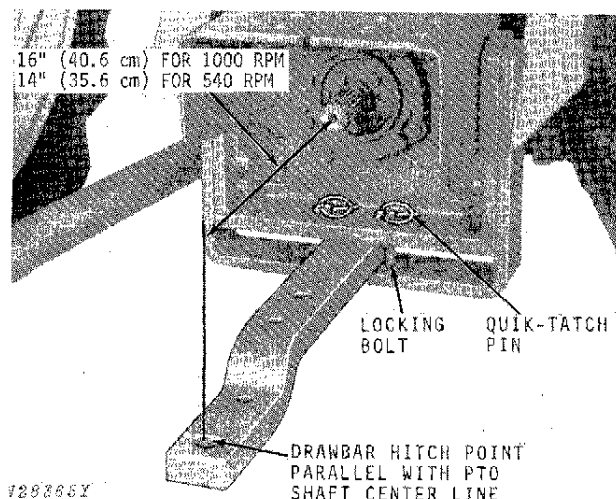
Rear Doors

A trip rope controls the opening of the rear doors, when the canopy is down. As the canopy is raised, the upper door swings up and the lower door swings down. When the lower door is completely down, a cable linkage engages the clutch which drives the push-off chain.

If the rear door conveyor attachment is used, the drag chain on the lower door is actuated by engagement of two spur gears when the door is lowered.

PREPARING THE TRACTOR

IMPORTANT: The stack wagon is shipped from the factory equipped for 1000-rpm PTO operation **ONLY**. It may be operated by a tractor with a 540-rpm PTO by changing the gear case and the powershaft input yoke. (See page 27.)



Place the drawbar in the extended position with the hole in the end of the drawbar 14 inches (35.6 cm) (540-rpm operation) or 16 inches (40.6 cm) (1000-rpm operation) from the end of the PTO shaft.

Lock the drawbar in its crossbar, parallel with the centerline of the powershaft. Place the locking pins on either side of the drawbar.

IMPORTANT: If the tractor has an offset drawbar, the offset should always be down for PTO work. Possible damage to the powershaft universal joints can be avoided if the drawbar adjustment is made before attaching and operating the stack wagon.

Front End Ballast

Provide sufficient front end ballast to stabilize the front end of the tractor when operating on uneven terrain or other adverse conditions. (See your tractor operator's manual for front end ballast information.)

Tractor Hydraulic System

The tractor hydraulic system must be capable of providing at least 12 gpm (45.6 lpm) to obtain a minimum compression cycle time of 15 seconds.

Set the metering valves to the fully clockwise position. (See page 6.)

An 8-inch (20.3 cm) stroke remote hydraulic cylinder, with 220-inch (5.6 m) minimum length hoses, is required to operate the pickup lift mechanism. (See page 6.)

PREPARING THE STACK WAGON

General Preparations

Before starting the stack wagon in the field, read the "operation" section of this manual carefully and check the proper function of each control and field adjustment. Review these instructions each year to learn what they can accomplish to meet the wide range of field conditions. This will allow you to obtain the highest satisfaction and best results possible with your stack wagon. Check the following items before taking the stack wagon to the field:

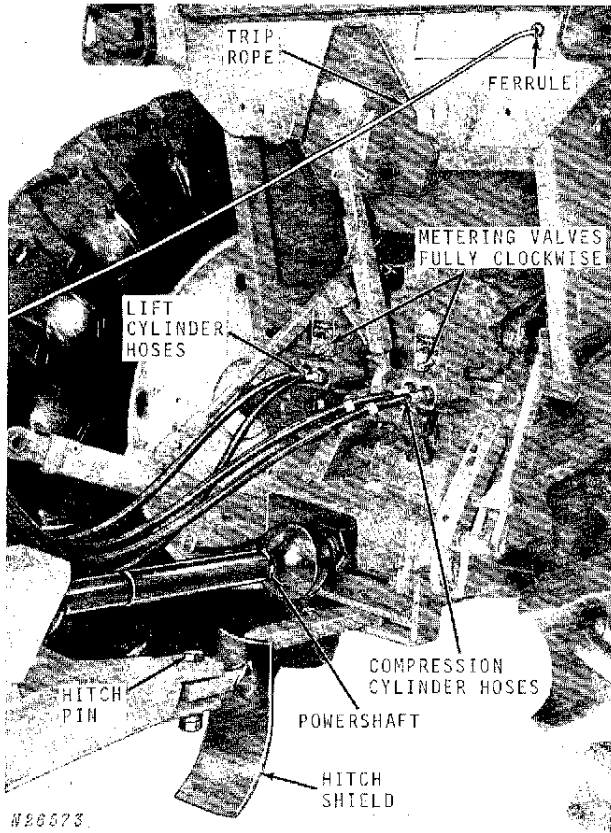
1. Tractor to be used meets requirements specified for use with the stack wagon.
2. Hookup requirements conform to these noted at left when stack wagon is attached to tractor.
3. Hydraulic hoses are correctly connected and installed. (See page 6.)
4. Trip rope for rear doors properly installed and connected. (See page 30.)
5. Stack wagon is equipped and adjusted for the anticipated field conditions.
6. Inspect and operate the stack wagon as indicated in the following "Daily Inspection".

Daily Inspection

Careful inspection and maintenance of the stack wagon before starting work each day will prevent needless delays and break-downs in the field. Make the following checks and adjustments:

1. Perform the lubrication services (See pages 15-18).
2. Inspect and adjust drive belt and chains to proper tension and alignment.
3. Check and tighten loose bolts and connections. (See page 19).
4. Check tire inflation. Correct air pressure is 32 psi (221 kPa). (See page 7.)
5. Remove dirt, weeds, or vines from chains, shafts, and other working components.
6. Inspect and service the tractor as recommended in your tractor operator's manual. Pay particular attention to the hydraulic system.
7. Operate the stack wagon for several minutes; stop and readjust drive belt and chains as necessary.

ATTACHING STACK WAGON TO TRACTOR



IMPORTANT: Before attaching stack wagon to tractor, make certain that tractor PTO speed matches the stack wagon drive requirement. Convert tractor PTO if necessary. (See your tractor operator's manual.)

Install hitch shield on drawbar as shown. Raise tractor draft links to highest position, or remove three-point hitch components as desired. (See your tractor operator's manual.) Install remote hydraulic cylinder for pickup lift if necessary. (See at right.)

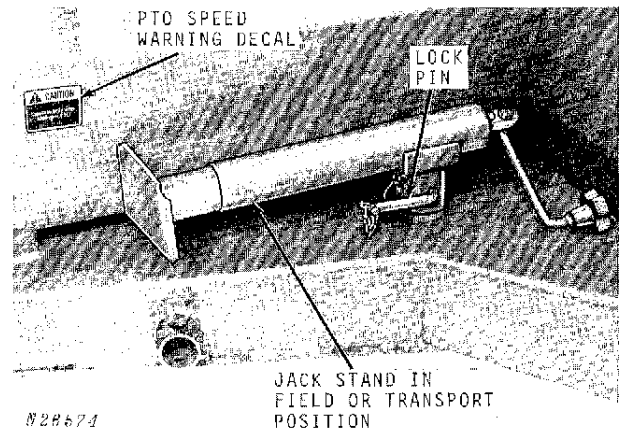
Raise or lower stack wagon hitch with jack stand to engage tractor drawbar. Back tractor to align holes; then install hitch pin furnished with stack wagon. Tighten nuts securely. Attach powershaft to PTO.

Install hydraulic hoses in tractor breakaway couplers.

NOTE: Use left-hand couplers for pickup lift cylinder hoses. Use right-hand couplers for compression cylinder hoses. Observe proper hose sequence for desired lever operation. Tape one pair of hoses as indicated to facilitate later assembly.

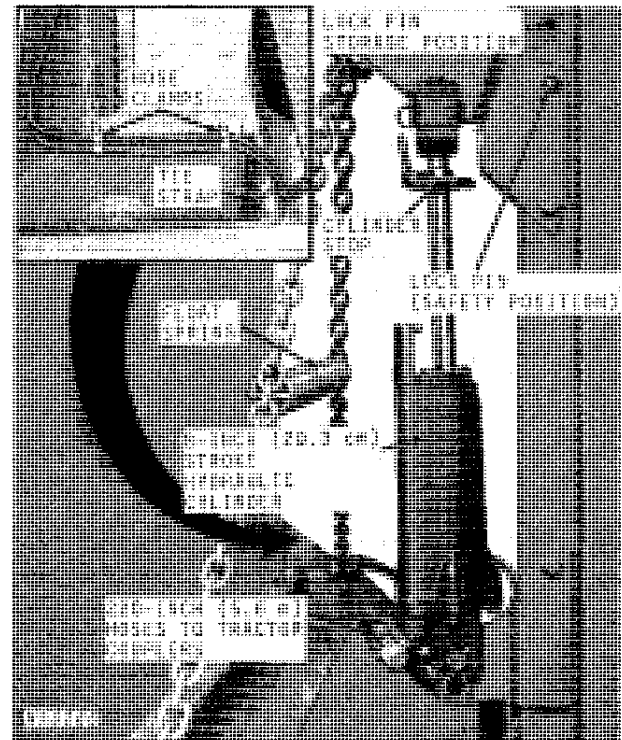
Thread trip rope through ferrule in tractor panel (or attach in a location convenient to tractor seat on tractor without cab). Allow sufficient slack for turning.

NOTE: It is recommended that the jack stand be stored on the tongue for field use, to prevent it from dragging hay or stover.



Lower jack stand, remove lock pin, and install stand in field or transport position on tongue.

Installing Pickup Lift Cylinder

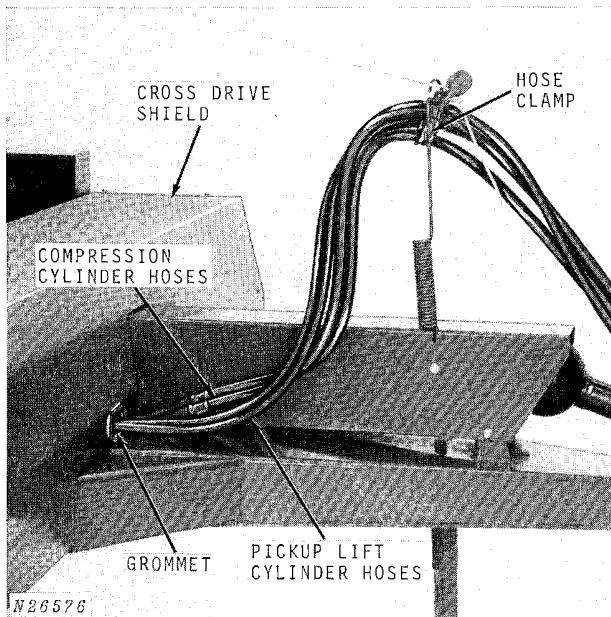


Install pickup lift cylinder as shown. Attach hoses to side of pickup with hose clamps and strap them to the cross tube in two places, using plastic straps provided. Avoid sharp bends and be careful not to crush or pinch hoses.

NOTE: A single- or double-acting hydraulic cylinder may be used. (See page 8.)

IMPORTANT: Move lock pin from safety position to storage position before actuating lift cylinder.

To adjust pickup "float", block pickup in highest position; then move float spring down to increase float.



Pull lift cylinder hoses through grommet in cross drive shield and attach to hose clamp with compression cylinder hoses. Leave enough slack in hoses to allow for vertical movement of the pickup, but avoid loops which might hang down and snag on crop.

Checking Hydraulic System

After hookup is complete, operate the lift and compression cylinders several times. Hold the tractor remote hydraulic control levers in the operating position long enough to cause the hydraulic pump to operate in the relief mode for a few seconds. This will eliminate air in the hydraulic system, which might cause improper operation of the hydraulic cylinders.

Check the oil level in the tractor hydraulic reservoir and add oil as necessary. (See your tractor operator's manual.) Operate the hydraulic cylinders several times and recheck oil level.

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.

Check the entire stack wagon hydraulic system and eliminate any leaks before operating the stack wagon in the field.

DETACHING STACK WAGON FROM TRACTOR

Remove jack stand from storage position (or rotate from horizontal position) and pin in vertical position. Raise stand to remove load from tractor drawbar.

Uncouple hydraulic hoses from tractor. Install dust covers on hose ends and dust plugs in breakaway couplers.

Remove trip rope from tractor. Coil and store rope on stack wagon.

Remove hitch pin, pull tractor forward, and remove hitch guard from tractor drawbar.

Store hitch pin and guard with stack wagon, convenient for later use.

If desired, the remote hydraulic cylinder used for the pickup lift may be removed for other uses. Refer to "Installing Pickup Lift Cylinder" on page 6 and at left for disassembly detail.

CAUTION: Install lock pin in safety position before removing lift cylinder. (See page 6.) Install safety lock pin in storage-transport position. (See page 12.)

TIRES

Proper inflation is essential to long tire life. Lack of air pressure allows the tire to slip on the rim and buckles the side walls, resulting in torn valve stems and uneven tread wear. Too much pressure causes undue strain on tire structure and may result in ruptures due to impact with stones, roots, or ruts. It also causes excessive tread wear and allows tire to cut in more on wet ground.

IMPORTANT: Never operate stack wagon with tires at shipping pressure.

Check tire pressure frequently and inflate or deflate tires to obtain proper air pressure (32 psi [221 kPa]).

Keep valve caps screwed finger-tight onto valve stems. This will prevent dust, fine gravel, mud and other foreign material from accumulating in the valve core and permitting the compressed air to escape.

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