

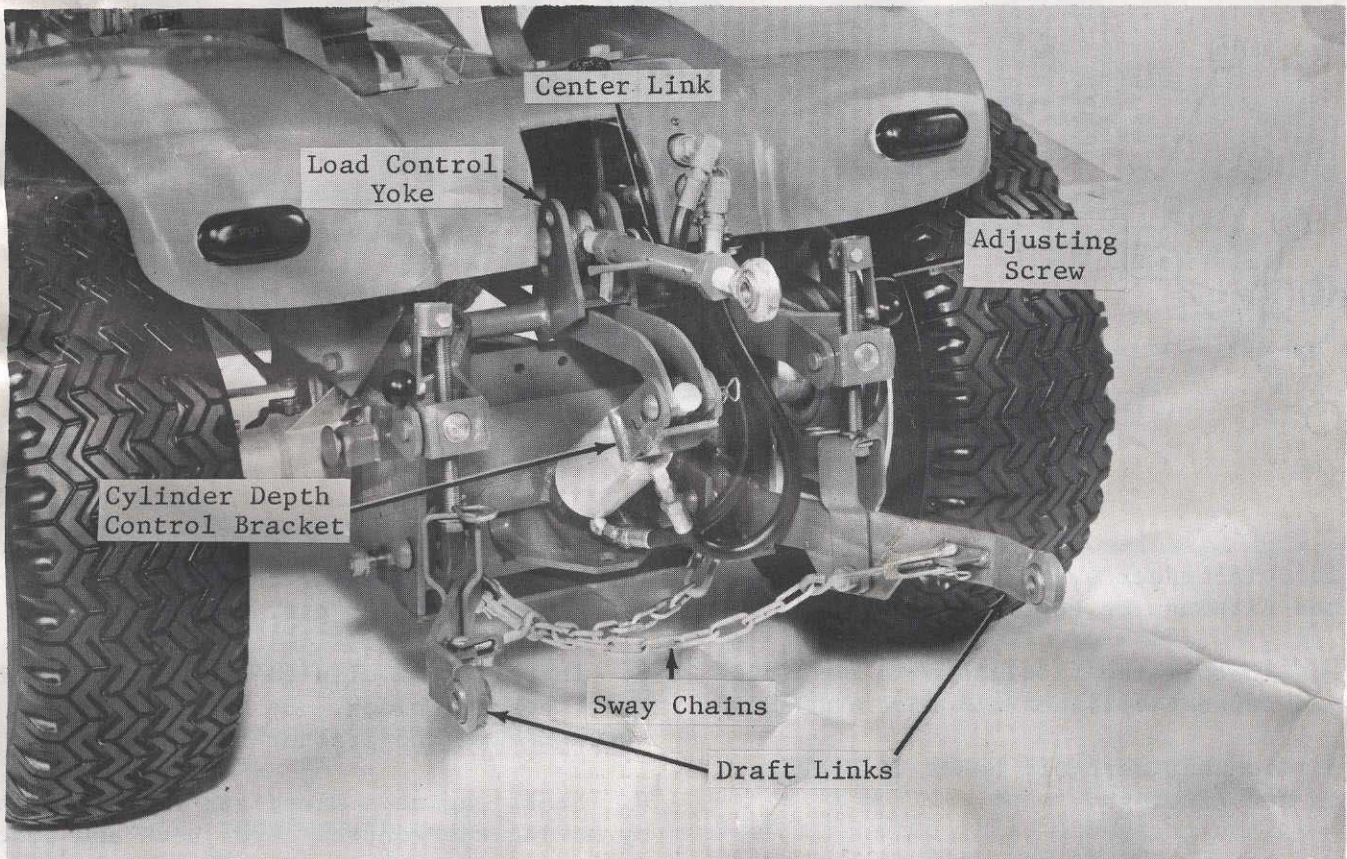
INSTRUCTIONS FOR OPERATING AND INSTALLING
3-POINT HITCH (BDL. NO. BM15158)
ON JOHN DEERE 140 HYDROSTATIC TRACTORS



FORM M574-568

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Mounting the hitch on the tractor is quick and easy utilizing the quik-tach feature of 140 Tractor equipment. The hitch is raised and lowered hydraulically from the rear hydraulic system.

Front wheel weights (Bundle No. BM15134 - 2 required), available as extra equipment, should be used with all rear-mounted equipment.

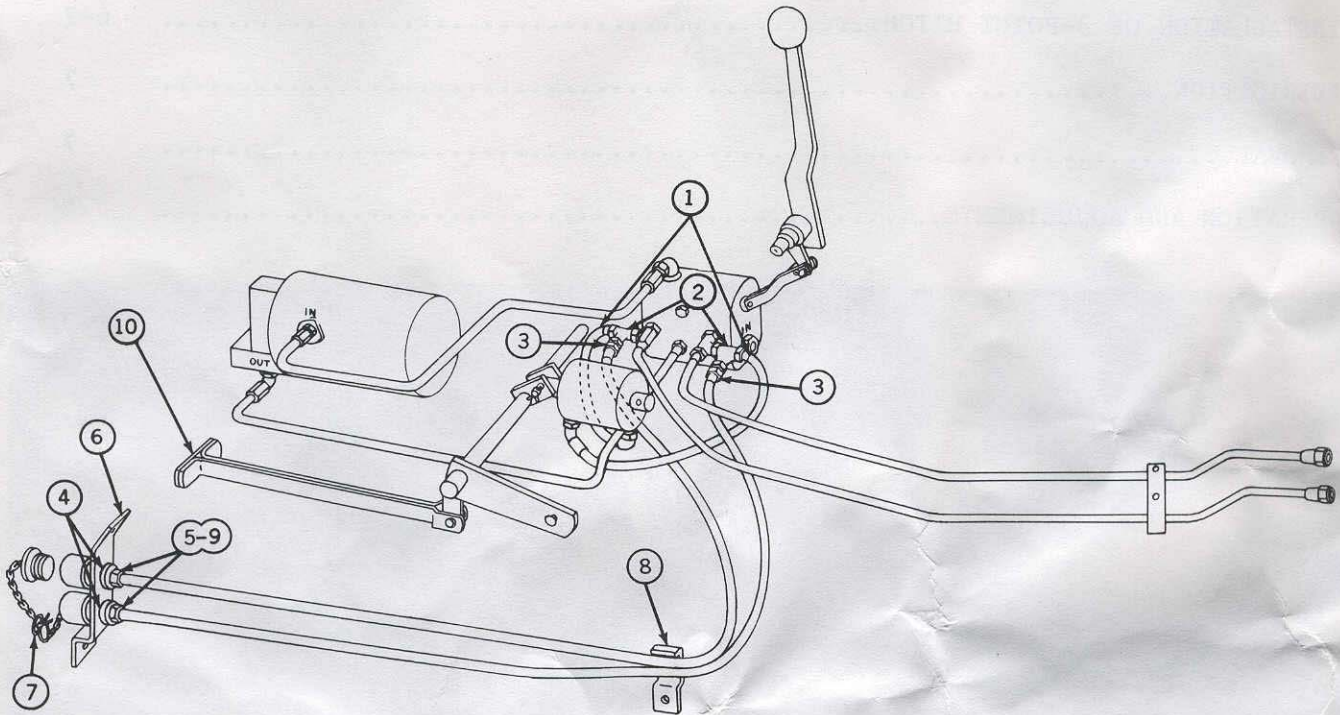
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SPECIFICATIONS

Mast Height	12-inches	Lift Range	10-inches
Hitch Point Spread	20-inches	Lift Capacity	400-lbs.*
Leveling Adjustment Range	4-inches		

*With Max. Front End Ballast

ASSEMBLY OF REAR HYDRAULIC SYSTEM ON ALL 140 TRACTORS WITH SINGLE CONTROL LEVER (H-1)



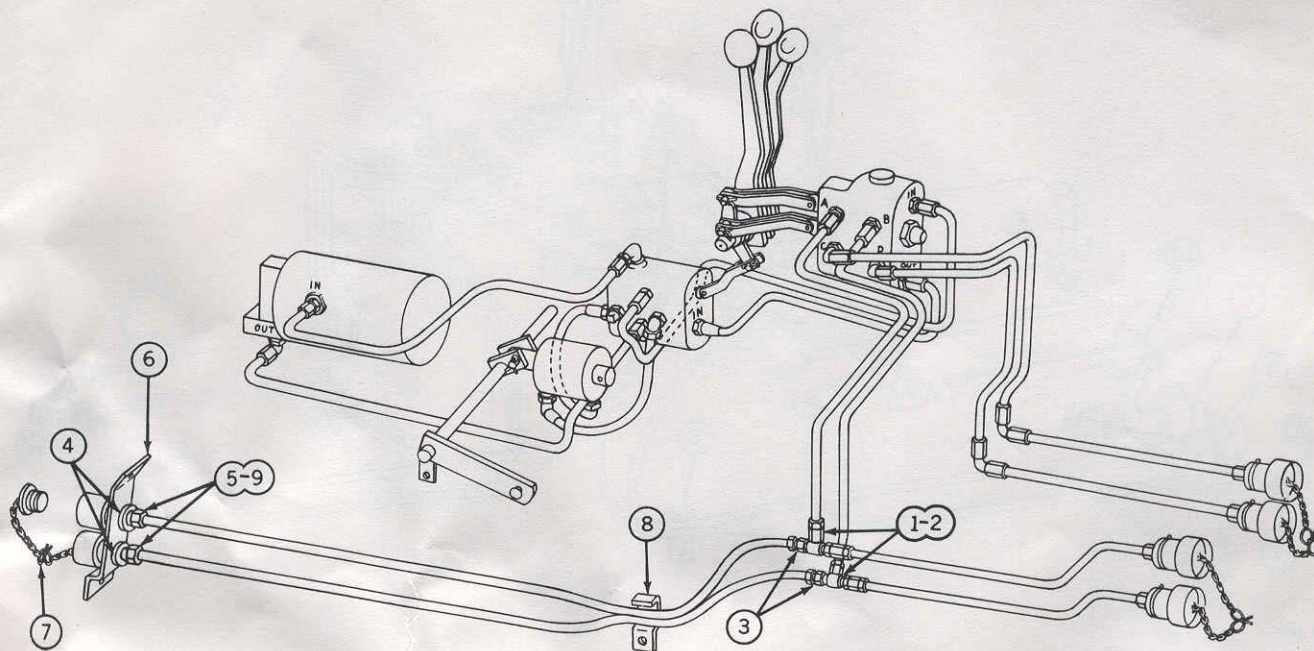
M 6995

1. Disconnect cylinder oil hoses from tee fittings on control valve.
2. Install tee fittings with bushing and connect cylinder oil hoses as shown.
3. Connect rear oil hoses to bushings on tee fittings.
4. Assemble couplers to rear bracket with snap ring.
5. Insert hoses above lift shaft. Connect oil hose from rear of control valve to the upper coupler. Connect oil hose from front of control valve to lower coupler. Keep hoses clear of transmission fan.
6. Assemble coupler bracket to inside of fender deck with 1/4 x 1/2-inch self-tapping screws.
7. Assemble dust plug chains to deck with 1/8 x 1-inch cotter pin.
8. Install hose clip to front bolt of lift shaft bearing block. Be sure hoses are between clip and tractor frame.
9. Start engine. Bleed air from oil lines by moving the control lever back and forth while unseating ball in each rear coupler. Shut off engine and check oil level in transmission. Be sure it is in the "safe" range.
10. Install cylinder lock-out link so there will be no delay in hydraulic operation of the rear circuit. See page 8.

NOTE: Delay is caused by satisfaction of cylinder's oil requirement before that of rear circuit, if link is not installed.

ASSEMBLY OF REAR HYDRAULIC SYSTEM
ON 140 TRACTORS WITH THREE CONTROL LEVERS (H-3)
BELOW SERIAL NO. 10,001

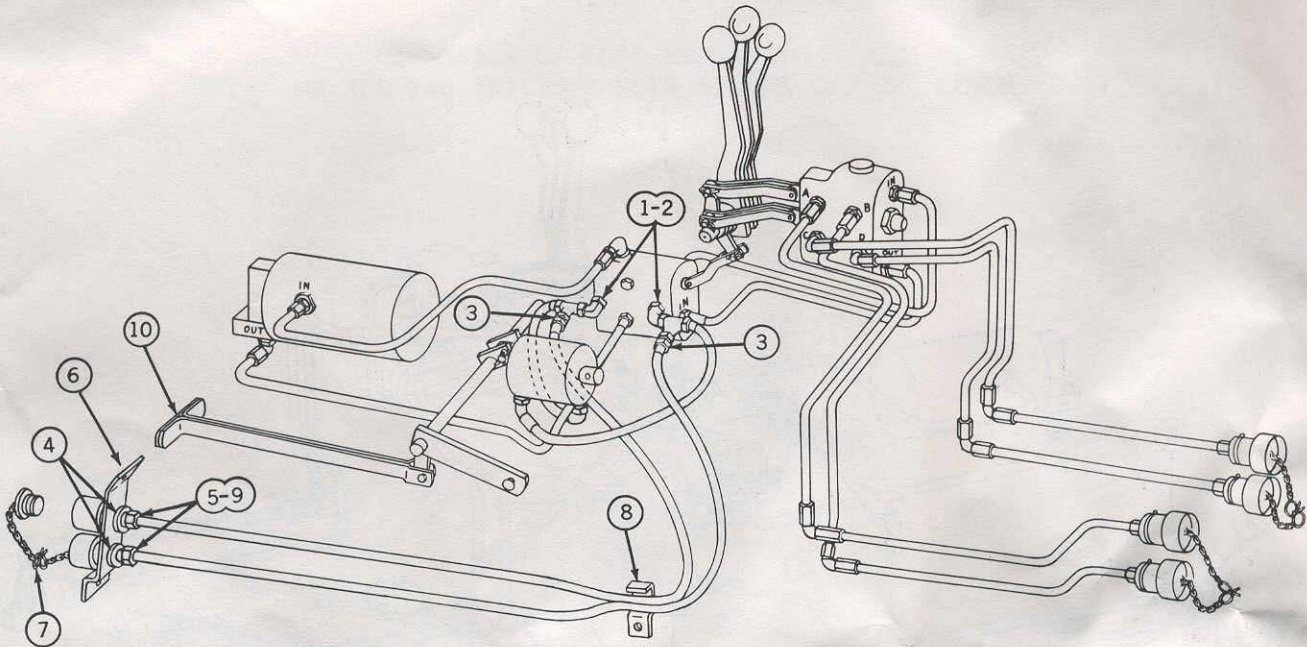
See Optional Hookup on Next Page.



M 6996

1. Remove elbows at the rear of the right front oil tubes and discard.
2. Install tee fittings with the bushing to the rear.
3. Connect rear oil hoses to bushings on tee fittings.
4. Assemble couplers to rear bracket with snap ring.
5. Insert hoses above lift shaft. Connect the upper hose to the upper coupler and the lower hose to the lower coupler. Keep hoses clear of transmission fan.
6. Assemble coupler bracket to inside of fender deck with 1/4 x 1/2-inch self-tapping screws.
7. Assemble dust plug chains to deck with 1/8 x 1-inch cotter pin.
8. Install hose clip to front bolt of lift shaft bearing block. Be sure hoses are between clip and tractor frame.
9. Start engine. Bleed air from oil lines by moving center control lever back and forth while unseating ball in each rear coupler. Shut off engine and check oil level in transmission. Be sure it is in the "safe" range.

OPTIONAL ASSEMBLY OF REAR HYDRAULIC SYSTEM
ON 140 TRACTORS WITH THREE CONTROL LEVERS (H-3)
BELOW SERIAL NO. 10,001



M 6997

If a customer desires to use the 3-Point Hitch in conjunction with a front-mounted blade, the system shown on page 3 would prove impractical as each time the blade is raised, the hitch would be activated. Using the left-hand outlets for raising the blade would provide independent operation of circuits.

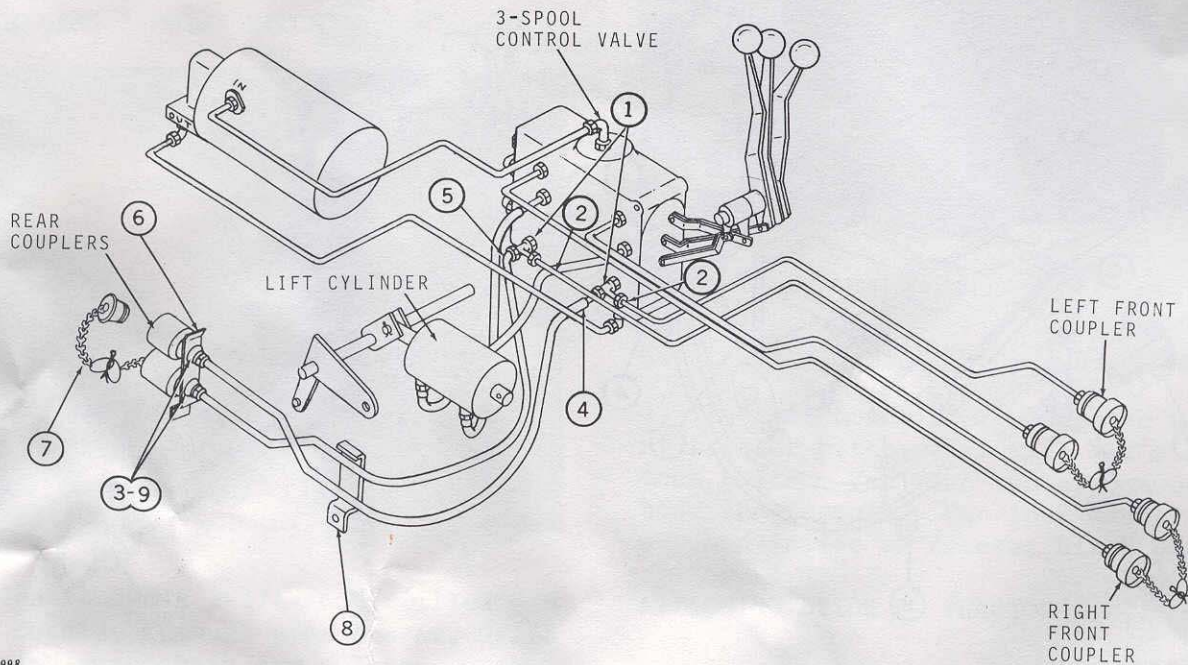
However, if the front blade is to be angled hydraulically, connect rear hydraulic system as follows:

1. Remove hoses from valve to cylinder.
2. Install tee fittings in ports from which hoses were removed.
3. Connect rear oil hoses to tee fittings. Install cylinder hoses as in No. 1, above.
4. Assemble couplers to rear bracket with snap ring.
5. Insert rear hoses above lift shaft. Connect the hose from the rear valve tee to the upper coupler and the hose from the front valve tee to the lower coupler. Keep hoses clear of transmission fan.
6. Assemble coupler bracket to inside of fender deck with 1/4 x 1/2-inch self-tapping screws.
7. Assemble dust plug chains to deck with 1/8 x 1-inch cotter pin.
8. Install hose clip to front bolt of lift shaft bearing block. Be sure hoses are between clip and tractor frame.
9. Start engine. Bleed air from oil lines by moving inner control lever back and forth while unseating ball in each rear coupler. Shut off engine and check oil level in transmission. Be sure it is in the "safe" range.
10. Install cylinder lock-out link so there will be no delay in hydraulic operation of the rear circuit.

NOTE: Delay is caused by the fact that the oil requirement of the cylinder is satisfied before that of 3-point hitch, if link is not installed.

ASSEMBLY OF REAR HYDRAULIC SYSTEM
ON 140 TRACTORS WITH THREE CONTROL LEVERS (H-3)
ABOVE SERIAL NO. 10,000

See Optional Hookup on Next Page.



M 6998

1. Remove lines from two lower hydraulic ports. Install two AM31410 tee fittings, which must be purchased separately.

2. Connect left-hand front couplers to tee fittings--lower coupling to rear tee; upper coupling to front tee.

3. Attach couplers to rear bracket with snap ring. Attach oil hoses to couplers.

4. Insert hoses above lift shaft. Connect the oil hose from the upper coupler to the front tee of the 3-spool valve.

5. Connect the oil hose from the lower coupler to the rear tee of the 3-spool valve. Keep hoses clear of transmission fan.

6. Assemble coupler bracket to inside of fender deck with 1/4 x 1/2-inch self-tapping screws.

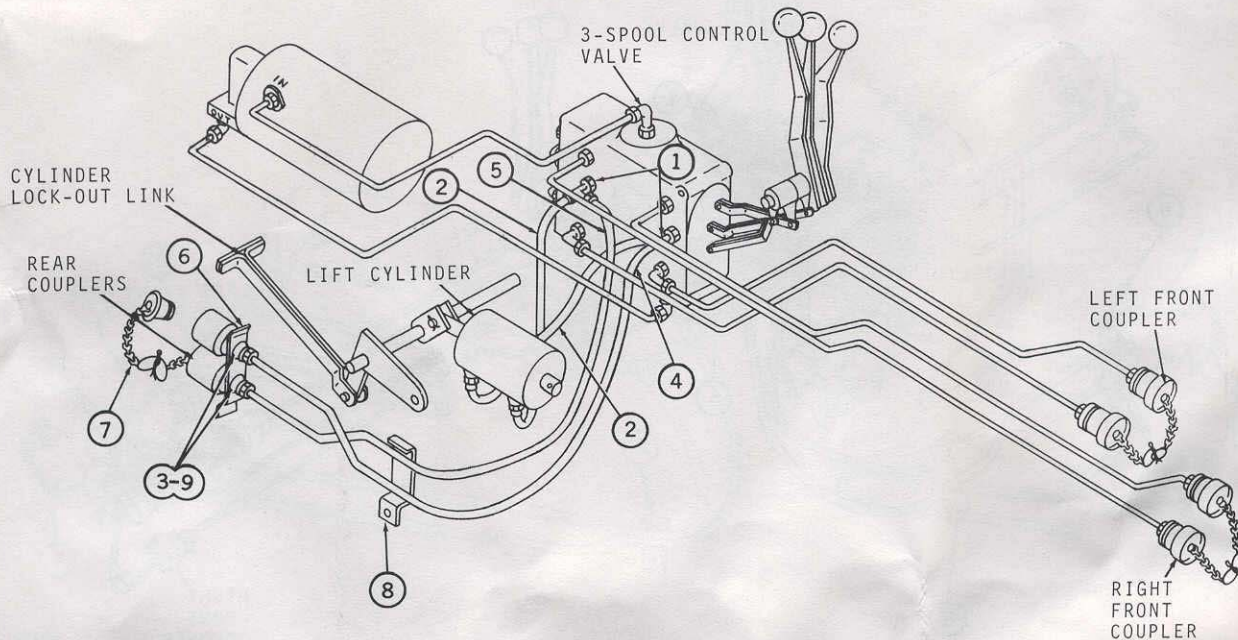
7. Assemble dust plug chains to deck with 1/8 x 1-inch cotter pin.

8. Install hose clip to front bolt of lift shaft bearing block. Be sure hoses are between clip and tractor frame.

9. Start engine. Bleed air from oil lines by moving outer control lever back and forth while unseating ball in each rear coupler. Shut off engine and check oil level in transmission. Be sure it is in the "safe" range.

NOTE: Inner lever operates rockshaft lift cylinder; center lever, the right front couplers' and outer lever, the left front couplers and rear circuit.

OPTIONAL ASSEMBLY OF REAR HYDRAULIC SYSTEM
ON 140 TRACTORS WITH THREE CONTROL LEVERS (H-3)
ABOVE SERIAL NO. 10,000



M 6999

If the customer desires to use the 3-point hitch in conjunction with a front-mounted blade with hydraulic angling, the system shown on page 5 would prove impractical as each time the blade was angled, the rear equipment would be raised or lowered.

Should the customer wish to operate a hydraulically-angled blade on the front and a 3-point hitch mounted rake or scarifier on the back, the following procedure is recommended:

1. Remove hoses from two center ports and install tee fittings.
2. Connect hose from rear of rockshaft lift cylinder to front tee. Connect hose from front of cylinder to rear tee.
3. Carry out steps 3 through 8 on page 5, using illustration, above.

9. Start engine. Bleed air from oil lines by moving inner control lever back and forth while unseating ball in each rear coupler. Shut off engine and check oil level in transmission. Be sure it is in the "safe" range.

NOTE: If this method of hookup is used, it is recommended that a cylinder lock-out link be installed so that there will be no delay in hydraulic operation of the rear circuit. See page 8.

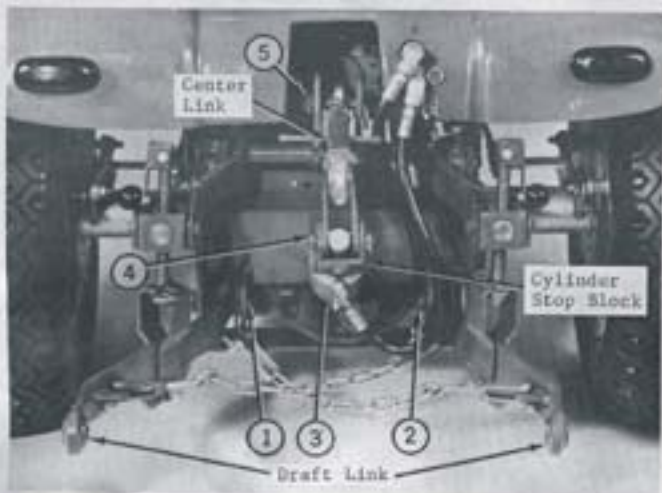
Lower ports on the 3-spool valve will be attached to the left-hand front couplers; upper ports to the right-hand front couplers.

When this method is used in hooking up the rear hydraulic system, the inner hydraulic lever operates the hitch, the center operates the right-hand front couplers and the outer lever, the left-hand front couplers

INSTALLATION OF 3-POINT HITCH

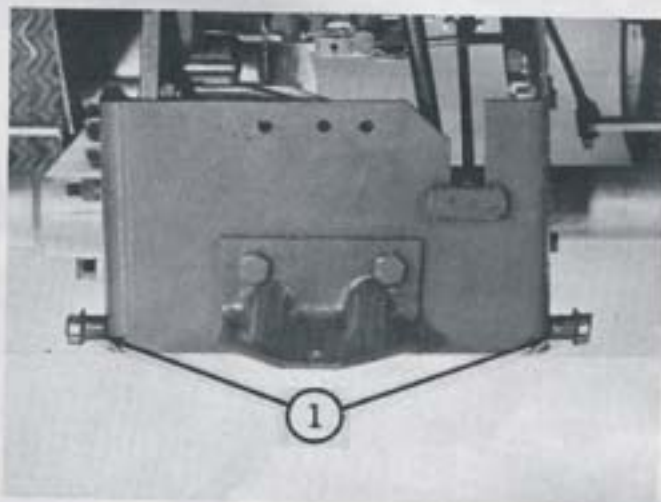
CAUTION: Before installing 3-Point Hitch, move hydraulic levers back and forth to be sure shafts and linkage do not strike hydraulic hoses from control valve to couplers.

ASSEMBLING 3-POINT HITCH



1. Insert $5/8 \times 2-3/4$ -inch drilled pin from outside through pipe spacer, draft link and sway chain arm. Secure with $3/16 \times 1$ -inch cotter pin.
2. Insert $5/8 \times 2-1/4$ -inch drilled pin from left through sway chain arm and draft link. Attach with $3/16 \times 1$ -inch cotter pin.
3. Assemble cylinder body with hose outlets at bottom to center bracket with $1/2 \times 2-1/4$ -inch drilled pin. Insert small spring locking pin.
4. Position cylinder stop block over rod of cylinder and assemble to lift arm with $1/2 \times 2-5/8$ -inch drilled pin in the first hole from the cylinder. Install small spring locking pin.
5. Assemble center link to top hole of lift yoke with $5/8 \times 2-3/4$ -inch drilled pin. Secure with large spring locking pin.

MOUNTING FERRULES



1. Install mounting ferrules on each side of tractor hitch plate with $1/2 \times 1-1/2$ -inch bolts. Use flat washer between bolt head and ferrule. Use lock washer between nut and inside of tractor hitch plate.

ATTACHING HITCH ON TRACTOR

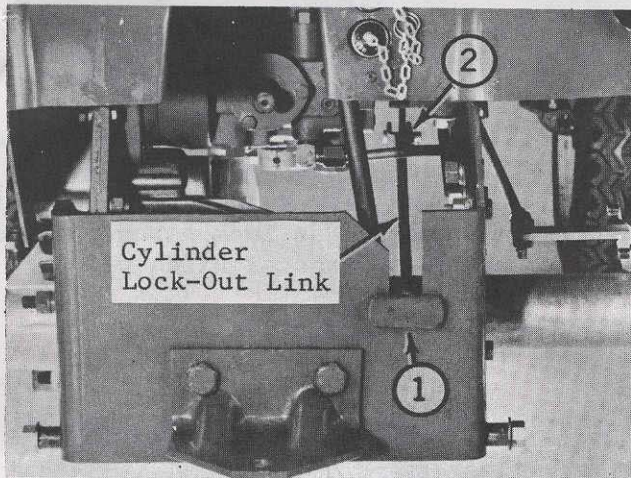


1. Remove square cover from fender deck. Store in a safe place for future use after hitch is removed.
2. If PTO extension drive shaft for the rotary tiller is installed, this assembly must be removed. See instructions in the Operator's Manual for the 33 Rotary Tiller. (Not illustrated).
3. Lock spring-loaded pins in extracted position.

INSTALLATION (Cont.)

4. Position hitch bracket on mounting ferrules and lift hitch against tractor hitch plate. Release spring-loaded pins.
5. Install hose from back of cylinder to top hydraulic coupler and hose from rod end of cylinder to bottom hydraulic coupler.
6. Connect dust plugs from coupler and dust caps from hoses to keep out dirt.

CYLINDER LOCK-OUT LINK (Bd1. No. AM31716)



A cylinder lock-out link, available as extra equipment, is required for tractors with single hydraulic control lever when using front or rear-mounted hydraulically operated equipment.

NOTE: This lock-out link is also required for H-3 Tractors if the optional method of assembling the rear hydraulic system in the center ports (pages 4 and 6) is used.

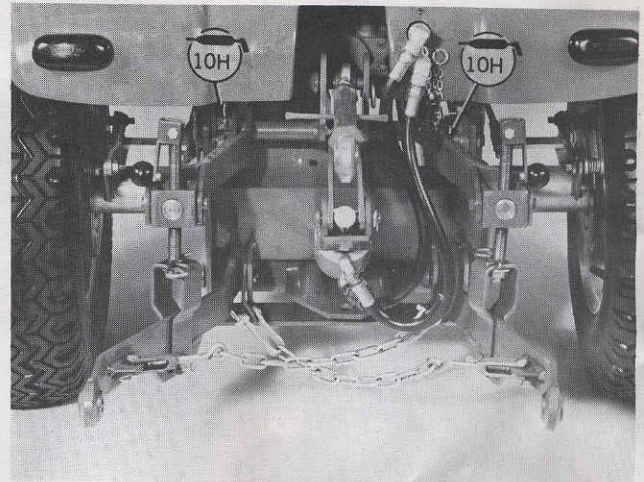
This lock-out link prevents the rockshaft cylinder from operating, giving instantaneous operation of cylinders and equipment.

To install, fully retract rockshaft cylinder. Turn depth control knob on tractor deck to lowest position so that rockshaft arms may be rotated to lowest position. This can be done manually if arms are not completely down.

1. Install link in slot with ears outside tractor hitch plate.

2. Fasten forward end to rockshaft tiller lift arm with 3/8 x 1-1/4-inch drilled pin and spring locking pin.

LUBRICATION



Using hand grease gun or Pisto-Luber, lubricate lift shaft bearings with SAE (seasonal grade) multi-purpose type grease at time of installation. Bearings should be lubricated every 10 hours of operation. Wipe fittings clean after lubrication.

REMOVAL

Disconnect cylinder hoses from hydraulic couplers. Place dust caps over hose ends and dust plugs into couplers.

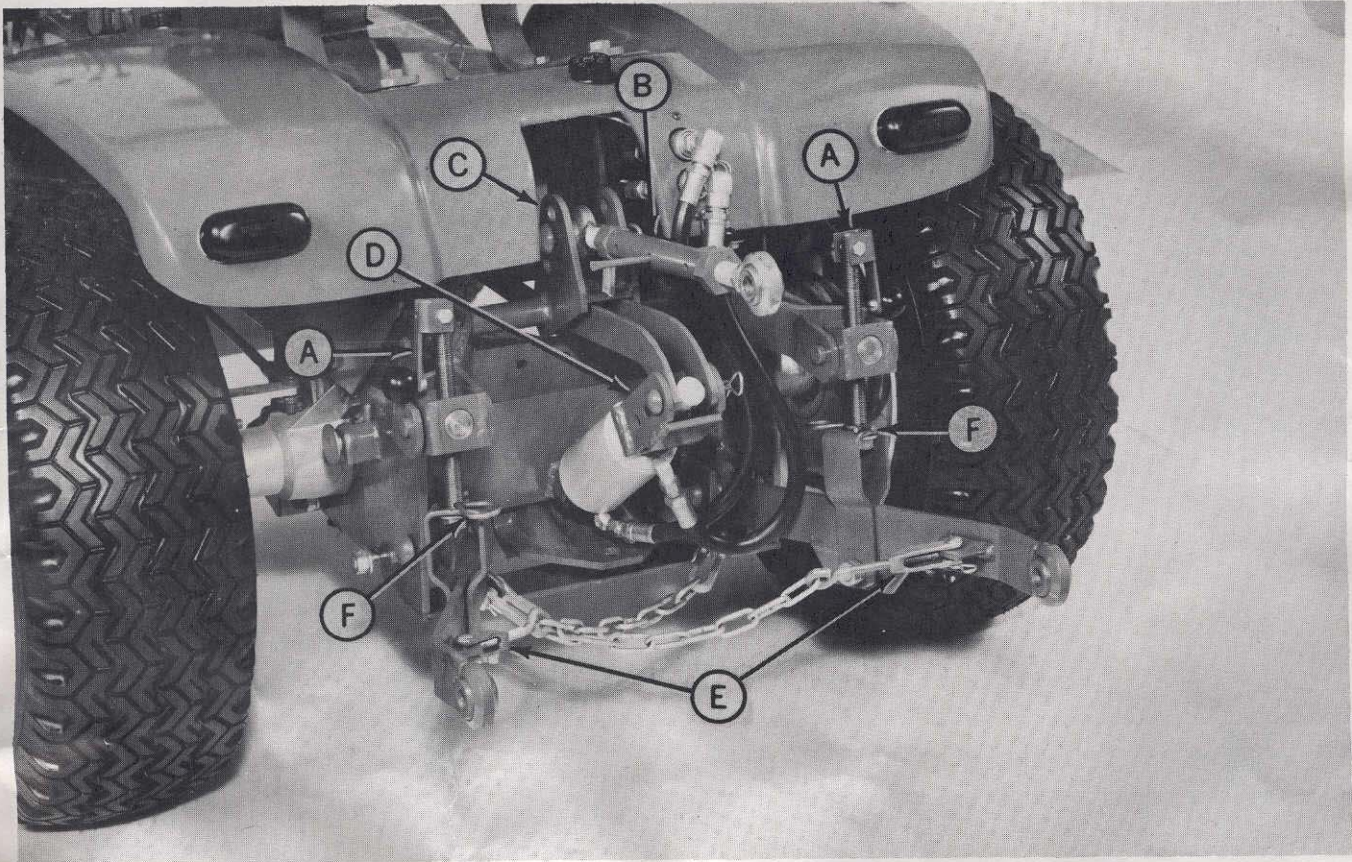
Pull spring-loaded pins to extracted position. Allow hitch bracket to pivot downward and lift hitch off mounting ferrules.

NOTE: Mounting ferrules need not be removed from tractor hitch plate.

Replace cover on PTO opening in tractor fender deck.

Turn spring-loaded pins to locked in position after hitch is removed.

OPERATION AND ADJUSTMENTS



Several adjustments of the hitch can be made to meet varied soil conditions and tillage requirements.

A. The adjusting screws on the draft links are used to level the implement and also for depth control.

B. The center link turnbuckle is used for front-to-rear leveling of implements. Adjust so that all ground-engaging parts of the implement, such as a disk or cultivator, are working at a uniform depth.

C. The load control yoke at the forward connection of the center link has three adjustments that sense the drawbar load of the implement providing lesser or greater traction. Use the top hole for plowing and tillage in heavy soils. Use the center or lower hole for cultivating, etc.

D. Preset depth control using the hydraulic control lever is accomplished with the bracket on the rod end of the cylinder. This bracket restricts motion of the cyl-

inder to stop the implement at the same working depth each time the hitch is lowered. The first hole from the cylinder permits full cylinder stroke while the middle hole restricts the cylinder stroke by one inch and the outer hole by two inches.

E. Sway chains can be adjusted to limit the side-sway of the hitch when a straight-row operation is required, such as planting and row-crop cultivating. After the implement is attached, remove the chain clevis at the rear of the draft links and turn the clevis on the eye-bolt as required to provide a stable hitch.

F. Adjustment for float of each draft link is made by removing the spring pin at the bottom of the adjusting screws. These pins should be installed when using the plow. Float of other implements may be desirable in rough or stony ground conditions.