



Standard Manure and Material Loader

MODEL 19-7



ASSEMBLY and OPERATING *Instructions*

DEARBORN MOTORS CORPORATION — DETROIT 3, MICHIGAN
www.ntractorclub.com

DESCRIPTION

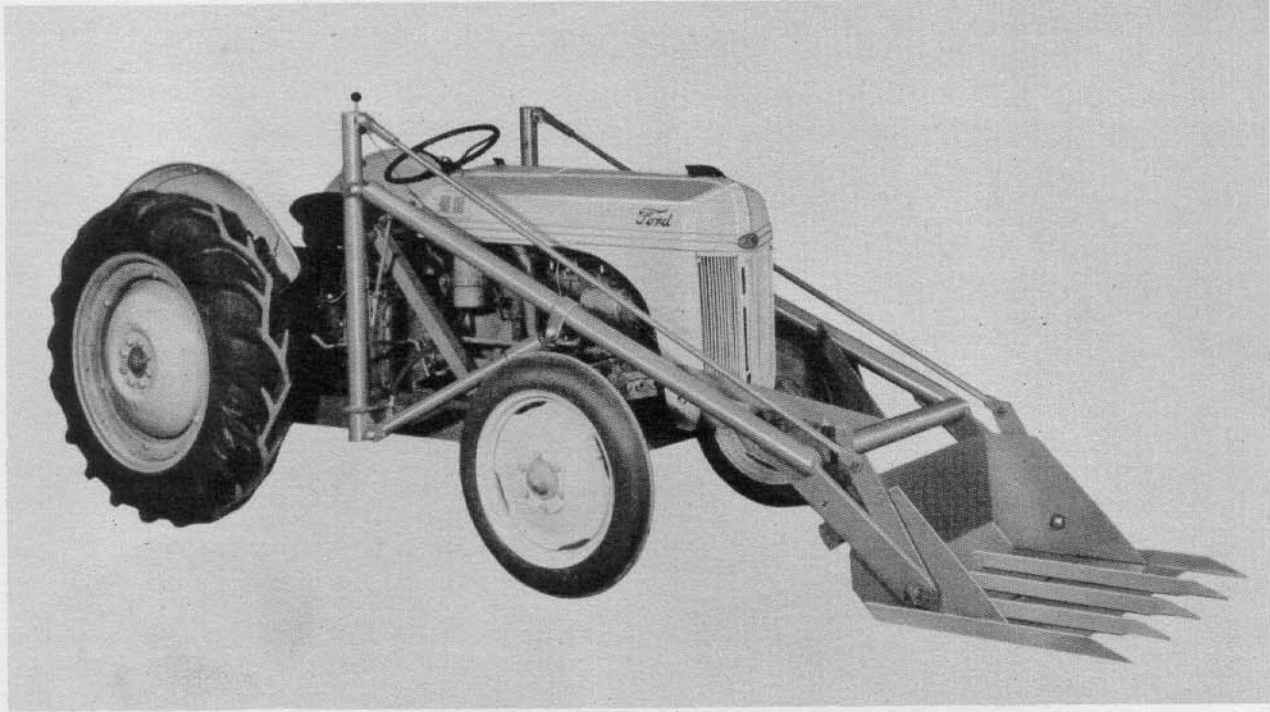


Figure 1

The Dearborn Standard Manure and Material Loader

The Dearborn Standard Manure and Material Loader, pictured above, is built to the high quality standards and specifications of all Dearborn equipment and engineered to assure long life and efficient operation.

The loader frame, constructed of welded tubular steel, is mounted on a heavy channel iron sub-frame which is attached to the tractor. The loader material bucket has a capacity of 6 cu. ft. It is equipped with five teeth and a removable dirt plate which, when removed, converts the bucket to a fork for loading manure and other materials containing straw and trash.

The loader will raise half a ton to a height of seven feet five inches. The tripped height of the bucket is approximately six feet. This loader is easily operated by means of the Ford Hydraulic Touch Control lever and a hand valve under the tractor seat which regulates the flow of oil to the loader hydraulic cylinders. The tractor hydraulic system powers these cylinders.

A safety chain, from the loader arms to the touch control lever, prevents the bucket from being raised above its maximum safe height.

ASSEMBLY

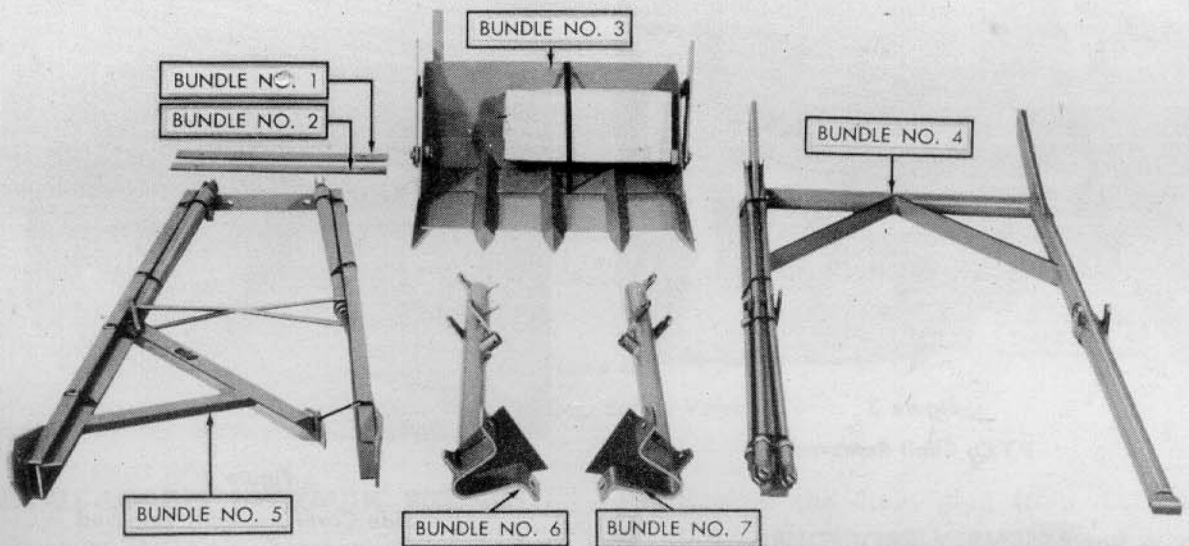


Figure 2

Implement Bundled for Shipment

NOTE: Assembly of the Dearborn Standard Manure and Material Loader is the responsibility of the Dearborn Farm Equipment dealer. The implement should be delivered completely assembled. The following instructions are provided in case of need.

BUNDLE INFORMATION

The Dearborn Standard Manure and Material Loader is shipped in seven bundles as listed below. Check shipment against this list and Figure 2, to be sure that all parts are received.

BUNDLE 1 AND 2

Bucket return weights.

BUNDLE 3

Bucket and carton containing miscellaneous bolts, nuts, cotter pins, link pins, linch pins, washers, hydraulic valve assembly, trip assembly, safety control chain, mounting brackets and tube containing instruction manual.

BUNDLE 4

Loader arm assembly, right and left leveling rods, right and left angle braces and cross brace assembly.

BUNDLE 5

Sub frame assembly, hold down assembly and hydraulic lift cylinders.

BUNDLE 6 AND 7

Right and left loader post assemblies.

CAUTION: Do not remove any plugs from the hydraulic assemblies until the loader is being assembled.

ASSEMBLY

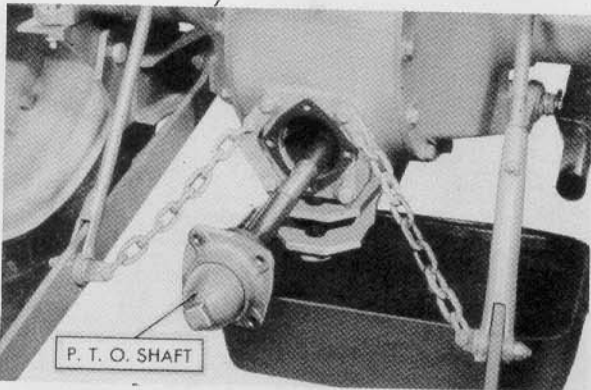


Figure 3

P.T.O. Shaft Removed

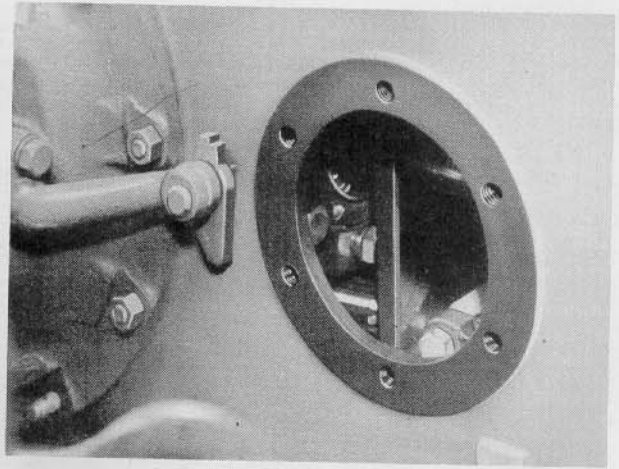


Figure 4

Side Cover Assembly Removed

ASSEMBLY PROCEDURE

Install Hydraulic Pump Safety Valve
(Dearborn No. 190680)

1. Drain oil from tractor transmission.
2. Remove the four cap screws from the P.T.O. housing at the rear of the tractor and pull the power take-off shaft assembly rearward. See Figure 3.
3. Remove the cover assembly from the right side of the tractor center housing. See Figure 4.
4. Remove the standard hydraulic pump safety valve from the rear of the pump housing.
5. Replace the standard valve with the special valve as shown in Figure 5. In making this replacement remove the spring and plunger from the standard valve (see Figure 6) and fit in position on the special valve. The special valve is in the box of small parts in the carton of Bundle No. 3.

NOTE: When once installed, the new safety valve may be left in the tractor.

6. Replace the power take-off assembly and the cover assembly.

NOTE: Do not replace the transmission oil at this time.

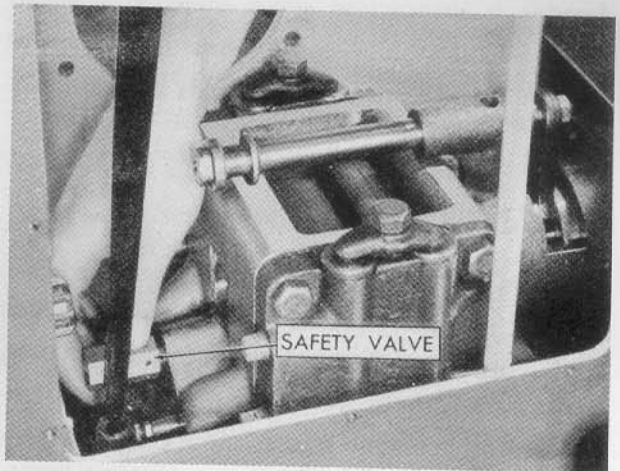


Figure 5

Cutaway Model Showing Installation of
Hydraulic Safety Valve

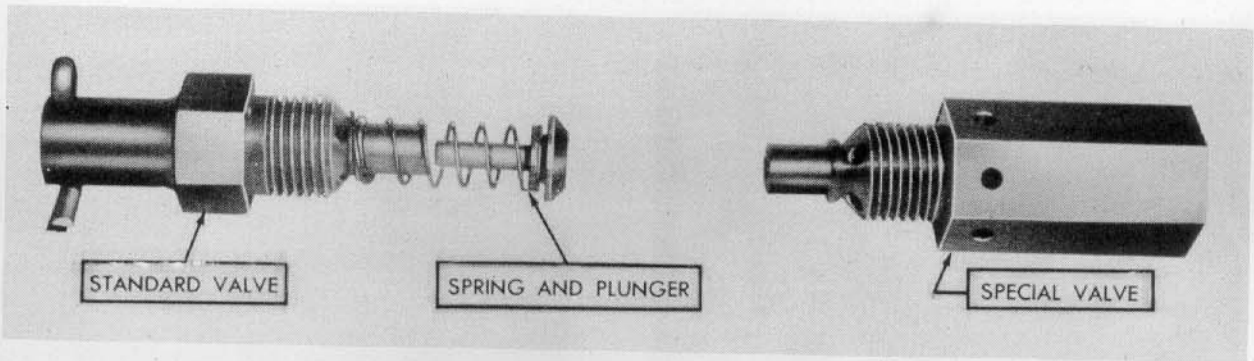


Figure 6
Hydraulic Pump Safety Valves

INSTALL LOADER HYDRAULIC FITTINGS

1. Remove the right hand tractor running board.
2. Remove nut and washer holding the muffler outlet pipe to the rear axle housing and swing the muffler assembly out from the tractor.

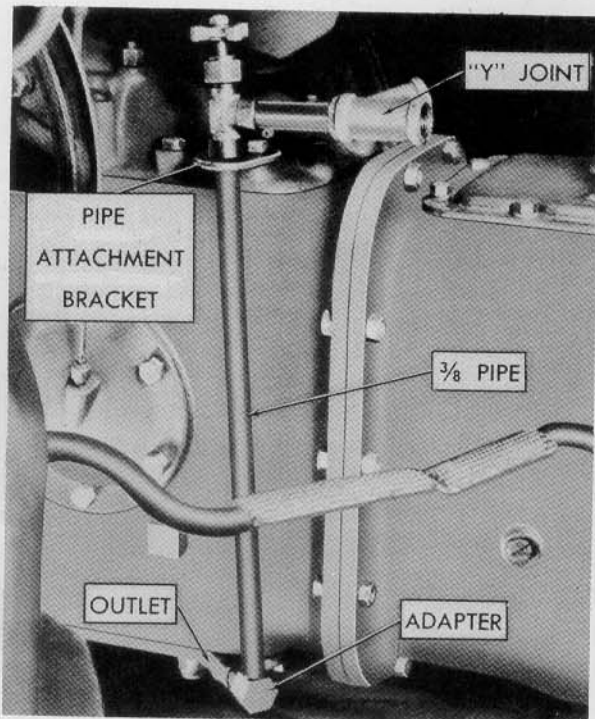


Figure 7
Loader Hydraulic Fittings Attached

3. Remove the drain plug from the outlet located at the forward right hand corner of the hydraulic pump base. See Figure 7. Save the gasket from this plug for use on the adapter.
4. Place the gasket on the adapter and screw the adapter (wrapped in with safety valve) into the drain plug hole tightly so that the tapped hole in the adapter is upward. Tighten the lock nut on the adapter firmly against the face of the outlet. See Figure 7.
5. Turn the $\frac{3}{8}$ " pipe into the adapter until tight. Be sure "Y" joint faces forward as shown in Figure 7.
6. Remove the cap screw from the right front corner of the tractor hydraulic lift cover and position the pipe attachment bracket, as shown in Figure 7. Secure with the cap screw.

NOTE: Transmission oil can now be put back in the tractor. Add two (2) additional quarts to provide sufficient oil for operating the loader hydraulic cylinders.

7. Re-attach the muffler outlet pipe and the running board in their original positions.

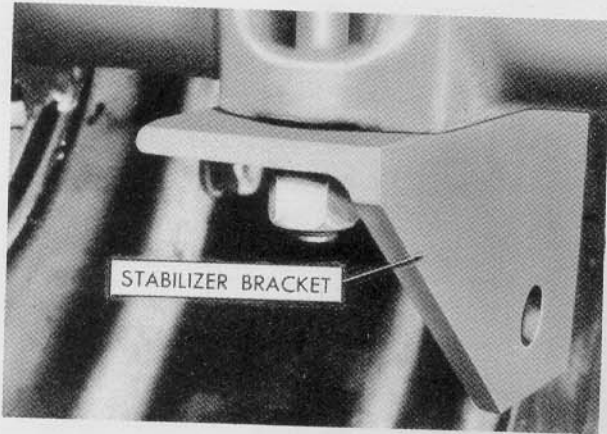


Figure 8

Left Stabilizer Bracket Attached

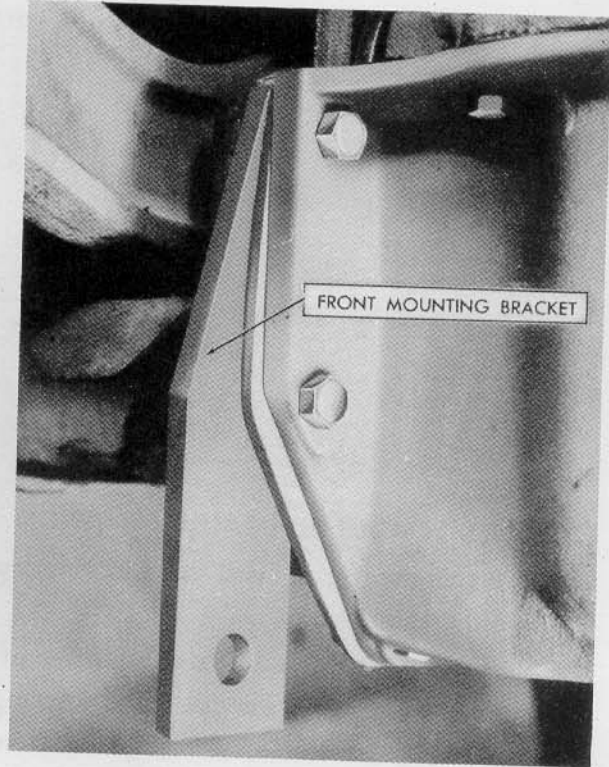


Figure 9

Left Front Mounting Bracket Attached

ATTACH SUB-FRAME TO TRACTOR

1. Remove the original tractor fender bolts and replace with the four $\frac{1}{2}$ " x $6\frac{1}{2}$ " bolts furnished in the carton of small parts. Do not remove the fenders. (Tractors above serial No. 67428 have fender bolts long enough to hold these brackets.)
2. Bolt the stabilizer brackets, furnished in the carton, under the right and left rear tractor axle, as shown in Figure 8. Place the lock washers and nuts on bolts and tighten securely.
3. Bolt the front mounting brackets to the front of the tractor crankcase as follows:
 - a. Remove the upper four bolts, two on each side, from the tractor front axle support. See Figure 9.
 - b. Position the brackets as shown in Figure 9 and 12. Secure with $\frac{7}{16}$ " x $1\frac{3}{4}$ " bolts and lock washers provided in the carton of small parts, and nuts removed from the tractor. Tighten nuts securely.
4. Loosen nuts on the four bolts, two on each side, near the forward end of the sub-frame. See Figure 10.
5. Place the sub-frame (narrow end forward) under the tractor so the rear end of the frame is directly under the stabilizer brackets.

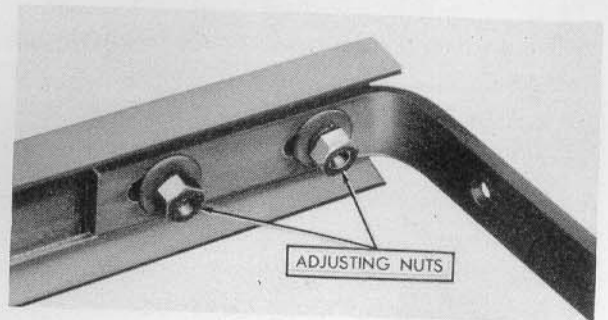


Figure 10

Sub-Frame Adjusting Nuts

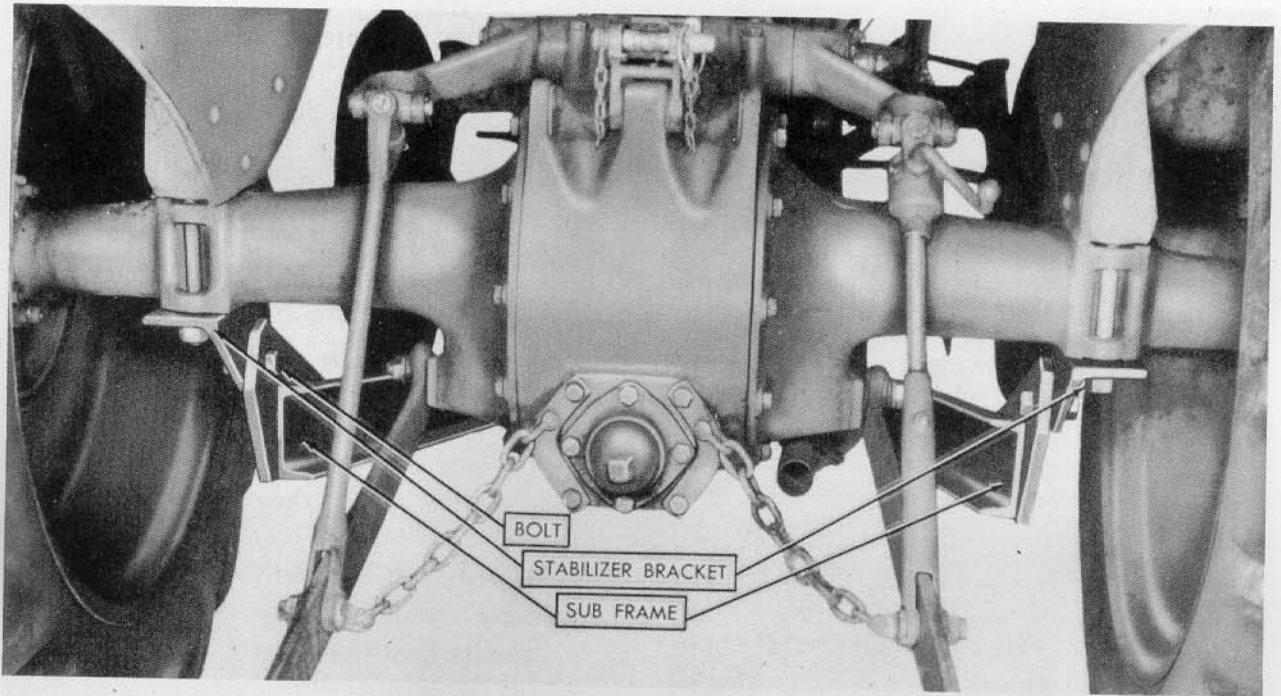


Figure 11

Sub-Frame Attached to Stabilizer Brackets

6. Raise the rear end of the sub-frame and attach it to the stabilizer brackets by inserting $\frac{5}{8}$ " x $1\frac{5}{8}$ " bolt through the hole in the bracket and the hole in the heavy plate welded to the side of the sub-frame. See Figure 11. Note that the welded plates fit inside of the brackets.
7. Place the lock washers and nuts on the bolts and tighten finger tight.
8. Raise the front end of the sub-frame and attach it to the front brackets with $\frac{5}{8}$ " x $1\frac{5}{8}$ " bolts, lock washers and nuts. It may be necessary to move the sub-frame nose piece forward or back to make it fit properly in front of the front brackets. See Figure 12.
9. Tighten all nuts and bolts on the sub-frame securely.

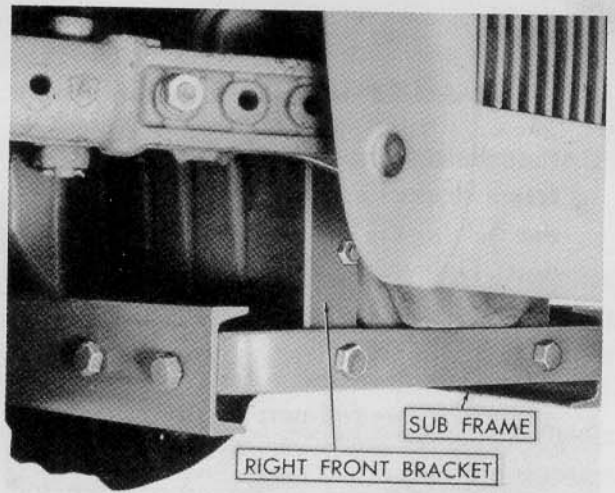


Figure 12

Sub-Frame Attached to Front Mounting Brackets

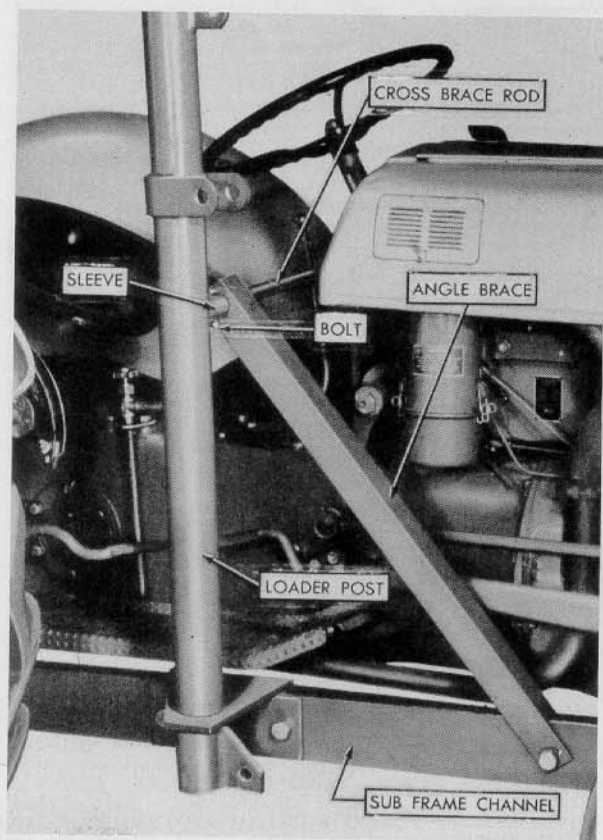


Figure 13

Right Hand Post, Angle Brace and Cross
Brace Rod Attached

ASSEMBLE LOADER FRAME

1. Bolt the right hand loader post to the sub-frame channel as shown in Figure 13. Use the $\frac{5}{8}$ " x $1\frac{5}{8}$ " bolts with washers and nuts. Tighten the nuts finger tight.
2. Attach the post cross brace and the post angle brace as follows:
 - a. Insert the end of the cross brace rod through the hole in the upper end of the angle brace and into the sleeve welded to the loader post. See Figure 13.

- b. Align the hole in the cross brace rod with the hole in the sleeve and insert $\frac{5}{16}$ " x 2" bolt. See Figure 13.
 - c. Place the lock washer and nut on the bolt. Leave the nut loose.
 - d. Bolt the lower end of the angle brace to the sub-frame as shown in Figure 13. Use $\frac{5}{8}$ " x $1\frac{3}{8}$ " bolt with lock washer and nut. Tighten the nut finger tight.
3. Place the left hand angle brace in position on the left end of the cross brace rod.
4. Place the left hand loader post on the sub-frame channel, fit the end of the cross brace rod into the sleeve on the post and bolt the post to the sub-frame.
5. Attach the left end of the cross brace rod to the loader post with bolt, lock washer and nut.
6. Attach the lower end of the left hand angle brace to the sub-frame with bolt, lock washer and nut.
7. Tighten all nuts on posts and braces securely.
8. Attach the rear end of the loader arms to the "U" brackets on the loader posts with $5\frac{7}{16}$ " link pins and secure with the linch pins as shown in Figure 14.

NOTE: Assemble the lock rings on the linch pins before using.

9. Attach the rear end of the hydraulic cylinders to the base of the loader posts with $3\frac{1}{16}$ " link pin and secure with the linch pin. See Figure 14.

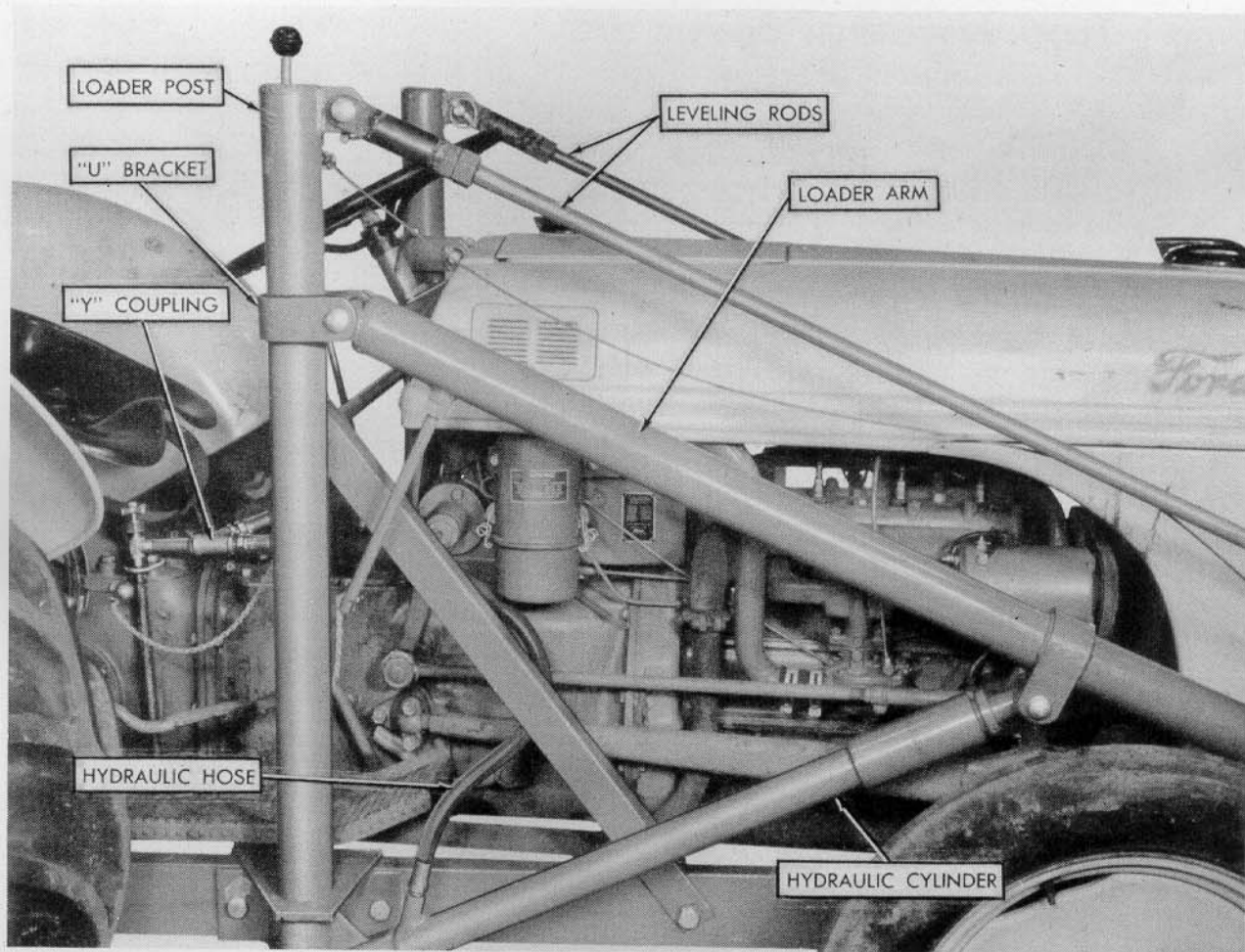


Figure 14

Hydraulic Cylinders, Loader Arms and Leveling Rods Attached

10. Raise the loader arms and attach the ram end of the hydraulic cylinder to the loader arms with the $5\frac{7}{16}$ " link pin. Secure with the linch pin. See Figure 14.
11. Attach the "turnbuckle" end of the leveling rods to the flange on the loader post with $3\frac{1}{4}$ " link pin and secure with the linch pin. See Figure 14.
12. Remove the plugs from the hose fittings on the hydraulic cylinders and from the "Y" couplings, and attach the hydraulic hoses. See Figure 14.
13. Attach the bucket to the loader arms as follows:
 - a. Remove the bucket pins from the bucket, see Figure 15, to permit removal of the wooden spacer.
 - b. Position the bucket between the loader arms and insert the bucket pin through the hole in each side of the bucket and loader arms. Secure with washer and cotter pin. See Figure 15.

ASSEMBLY

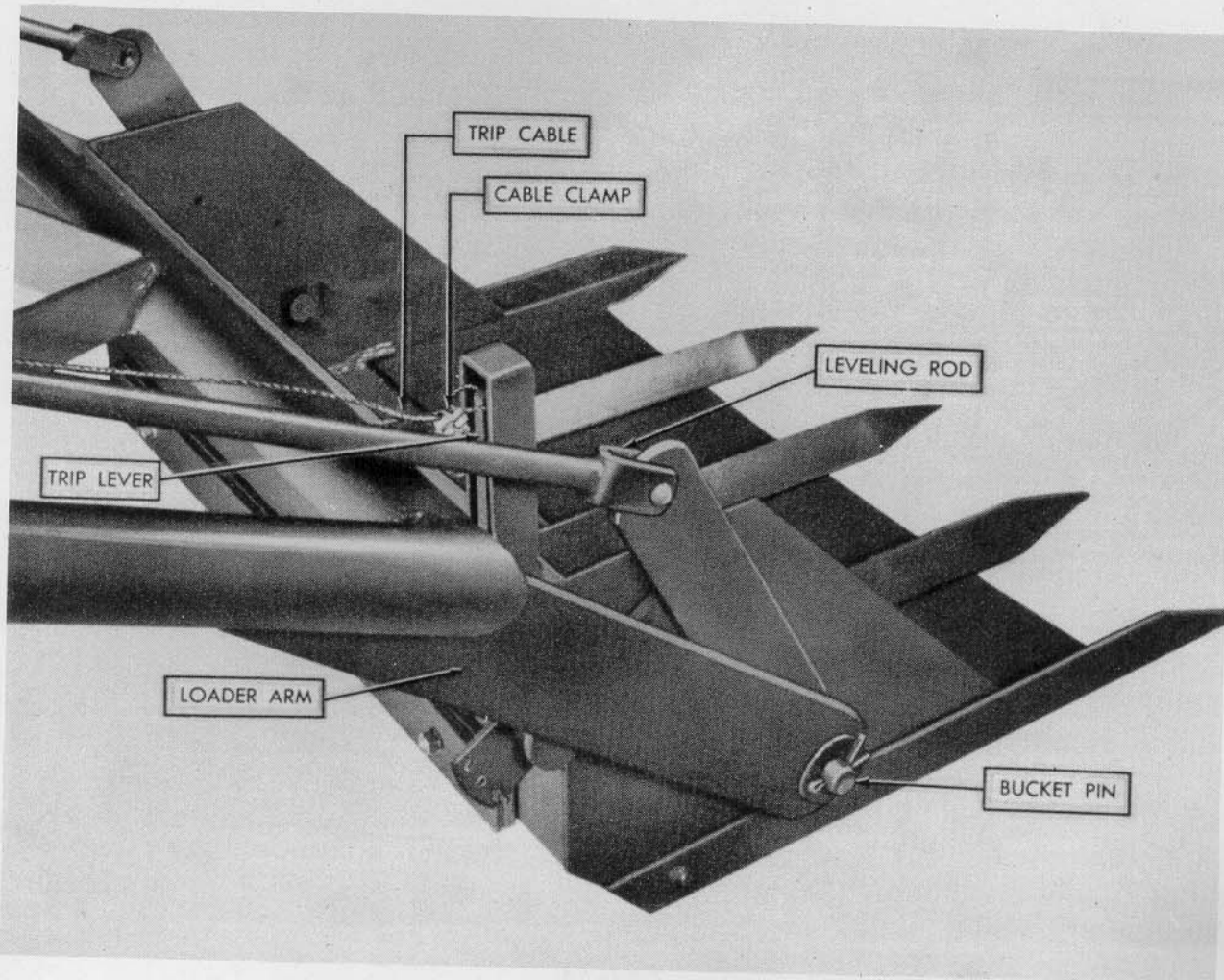


Figure 15
Bucket Attached

NOTE: Loader arms fit outside of the bucket brackets.

- c. Attach the clevis end of the leveling rods to the upper end of the bucket pivoting arms with drilled rivet and cotter pin. See Figure 15.

NOTE: The trip cable guide on the right hand leveling rod faces inward. Leveling rods may be turned out of

the turnbuckle to align the holes in the clevis with those in the bucket pivoting arms.

14. Attach the trip cable to the bucket trip lever as shown in Figure 15. Use the cable clamp provided in the small carton.
15. Thread the trip cable through the guide loop welded to the center of the right hand leveling rod.

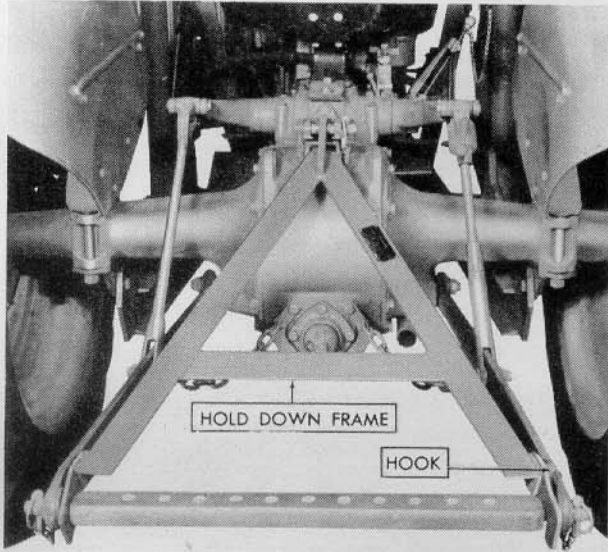


Figure 16
Hold Down Frame Attached

16. Attach the loader hold down assembly ("A" frame) to the rear of the tractor as follows:
 - a. Attach the forward end of the hold down assembly to the tractor control spring yoke with link pin and linch pin. See Figure 16.
 - b. Place the tractor draw bar in position between the lower ends of the hold down frame and attach the draw bar to the tractor lower links. Secure with linch pins.

NOTE: Hook welded to the hold down frame goes under the right lower link.

17. Attach the trip lever to the pin welded on the right hand loader post as shown in Figure 17. Secure with cotter pin.

18. Screw the height control arm into the nut welded on the under side of the right hand loader arm as shown in Figure 18.
19. Attach the height control safety chain to the hydraulic touch control lever with the clamp provided on the chain. See Figure 18.
20. Start the tractor, open the loader hydraulic system hand valve and raise the bucket slowly to approximately maximum lift height (seven feet, five inches).

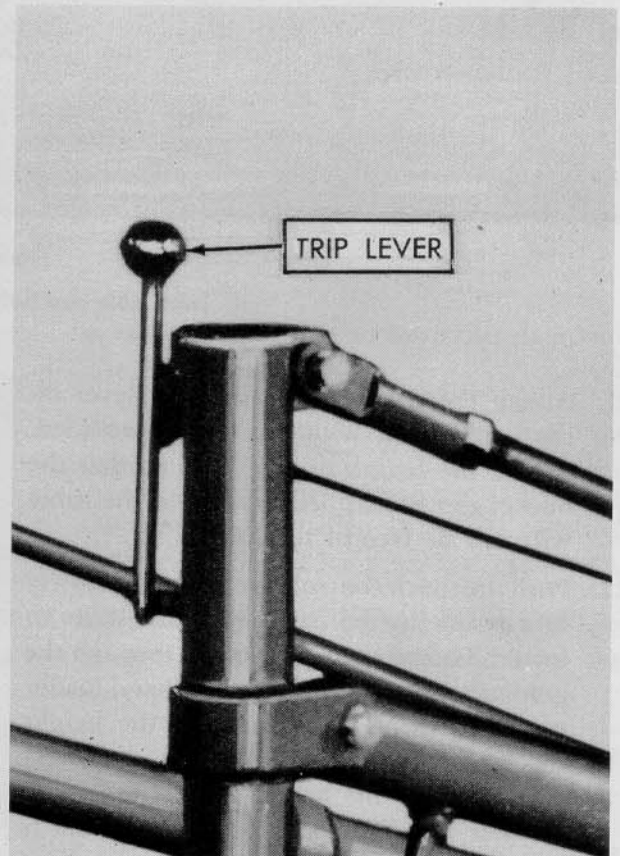


Figure 17
Trip Lever Attached

ASSEMBLY

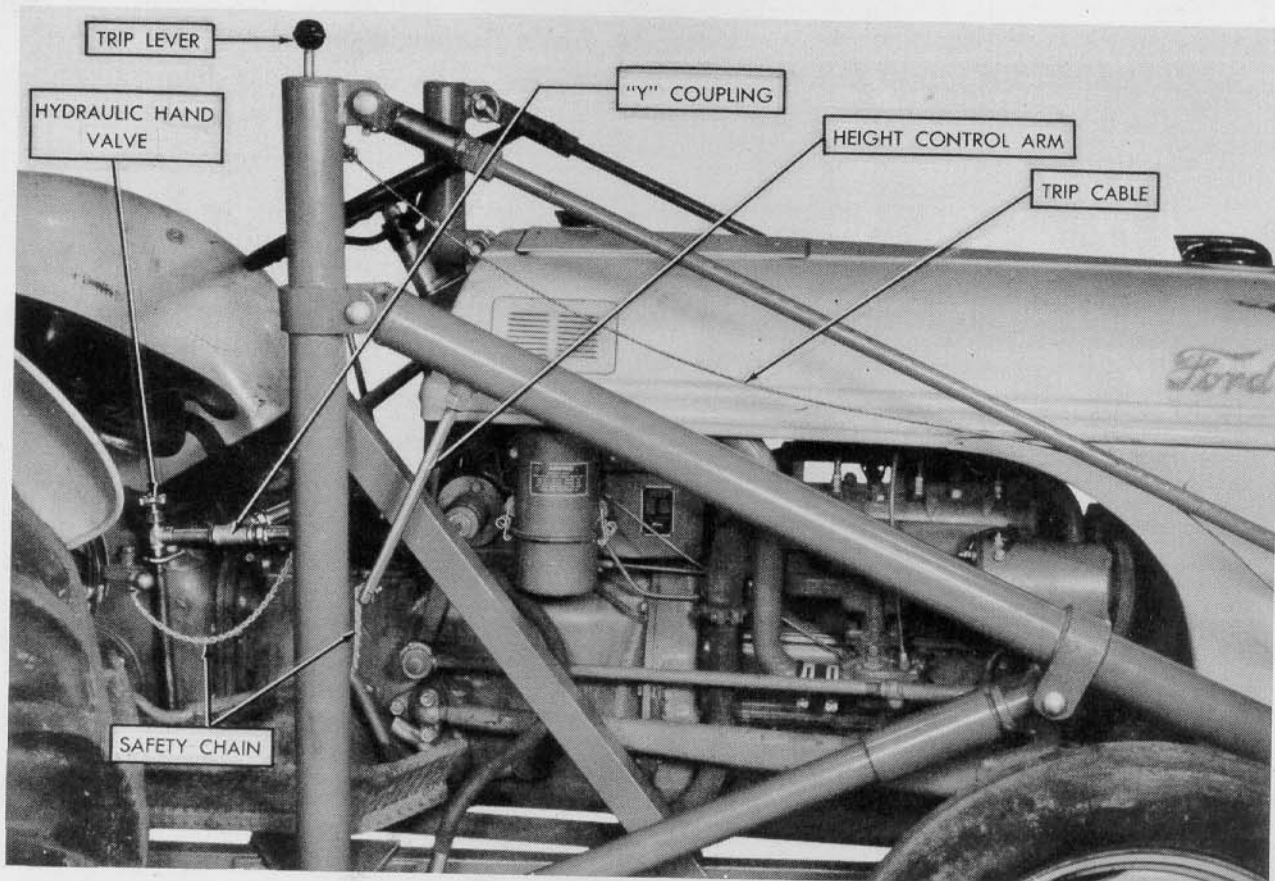


Figure 18

Trip Cable and Safety Chain Attached

21. Attach the trip cable to the trip lever on the loader post with the clamp provided. Adjust the length of the cable so that the bucket can be tripped easily and the cable will still be free of tension.
22. Push the touch control lever forward slowly to a point just before the bucket starts to lower. Thread the safety chain through the guide loop welded to the right hand loader post and through the hole in the height control arm. Take up slack in the chain and secure to the height control arm with a cotter pin. The function of this chain is to prevent the bucket from being raised above its maximum safe height. See Figure 18.
23. After the trip cable and safety chain are attached, lower the bucket slowly. Then raise the bucket and check the action of the safety chain on the hydraulic touch control lever. The length of the chain should be adjusted so that the touch control lever will be pulled slightly forward just before the bucket reaches its maximum height. This action will stop the upward motion of the bucket and thus prevent the bucket from being raised above its maximum safe height.
24. Lower the bucket to the ground and turn off the ignition.

DETACHING

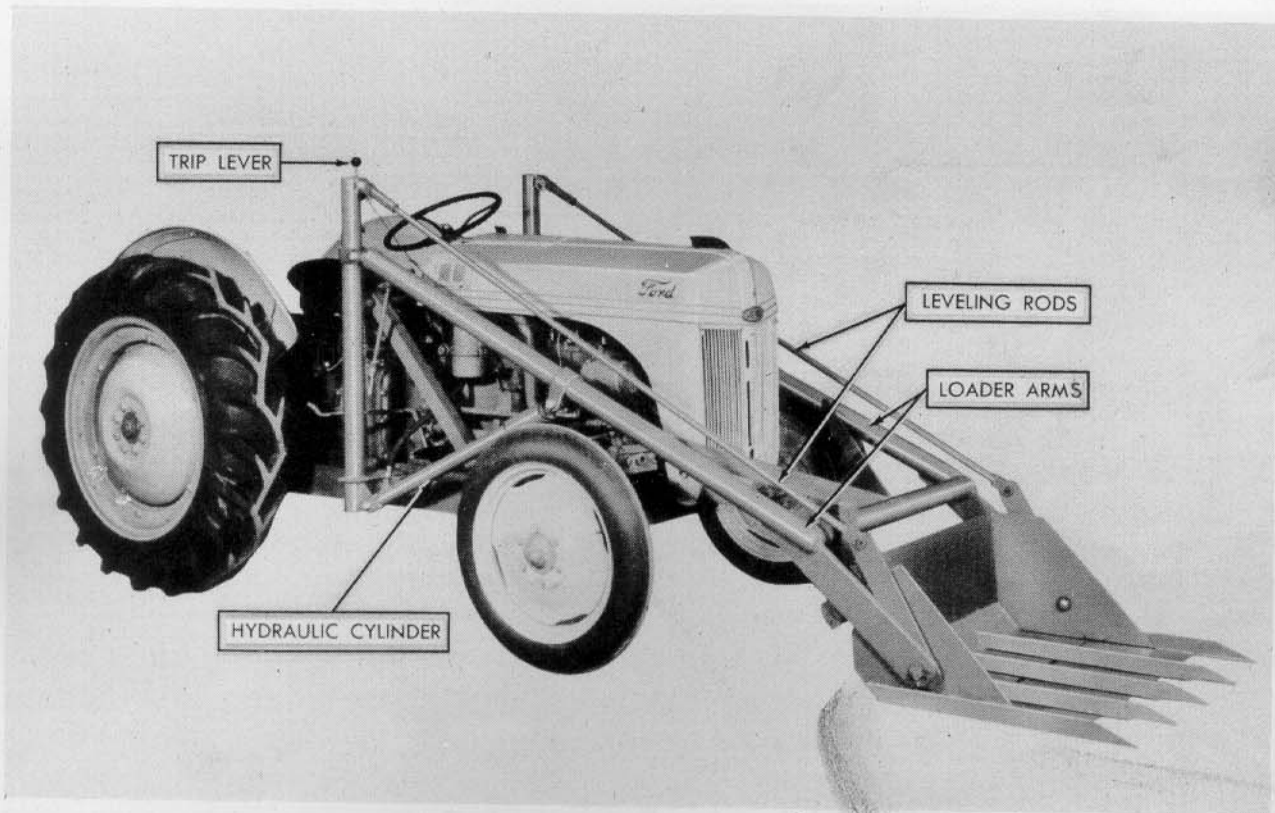


Figure 19

Detaching Loader from Tractor

If desired, the loader may be removed when the tractor is needed for other work. In most instances the sub-frame, loader posts, angle braces and cross brace rod need not be removed. The remainder of the loader is detached from the tractor as follows:

1. Close the hydraulic hand valve. See Figure 18.
2. Disconnect the safety chain from the *hydraulic touch control* and pull it through the loop welded to the loader post.
3. Remove the trip lever from the loader post.
4. Disconnect the hydraulic hoses from the "Y" coupling and plug both hoses as well

as the "Y" coupling to keep out dust and dirt. See Figure 18.

5. Remove the hydraulic cylinders. See Figure 19.
6. Disconnect the loader arms and leveling rods from the loader post. See Figure 19.
7. Slide the bucket, with loader arms and leveling rods still attached, away from the tractor.
8. Remove the hold down frame, see Figure 16, before using the tractor hydraulic lift.

NOTE: For normal tractor operation, it is not necessary to drain the additional two (2) quarts of oil from the pump reservoir, when the loader is removed from the tractor.



Figure 20
Loading Manure

The Dearborn Standard Manure and Material Loader is easy to operate. It performs well in many types of work involving moving and loading such materials as sand, gravel, manure and trash. The load may be scooped up, transported and dumped, easily and quickly. The proper bucket height for carrying a load is shown in Figure 25.

The loader saves much time and labor around the farm. With it, one operator can do the work of several men. The loader is readily converted to a manure fork by removing the dirt plate from the bucket. When in the tripped position the bucket will clear a height of six feet. To suit various working conditions, the bucket level may be tilted from horizontal to

slightly above or below horizontal, by adjusting the length of the leveling rods.

The material presented in this section of the manual will aid the operator in obtaining maximum loader performance. Read it carefully.

LUBRICATION

As indicated in Step 7 in the procedure for Installing Loader Hydraulic Fittings, it is necessary to add two (2) quarts of regular transmission oil to the oil supply, before operating the loader. This additional oil is necessary to provide sufficient volume for operating the loader's hydraulic cylinders.



Figure 21
Handling Dirt

There are no lubrication fittings on the loader, but all pivot points on the loader posts, arms, leveling rods and bucket should be lubricated with a good grade of machine oil.

PREPARING THE LOADER FOR OPERATION

After the loader is completely assembled, three things should be done before the loader is put to work.

1. *Check the assembled loader:* See that all nuts, bolts, pins and fittings are properly tightened.
2. *Bleed air from loader hydraulic lines:* Move the tractor hydraulic touch control lever to its highest position on the quad-

rant and open the loader hand valve. Detach the loader hydraulic hose connections from the hydraulic cylinders. Start the tractor engine and permit a little oil to be pumped out of each hose. Then stop the tractor engine and reattach the hoses. This bleeding operation will eliminate most of the air from the oil supply line.

3. *Operate the loader:* Start the tractor engine and raise and lower the bucket several times with the tractor hydraulic touch control lever. This will allow air, trapped in the cylinders, to work itself out. Any erratic movement of the bucket arms during this operation should be ignored because the action of the arms will become smooth when the air is expelled from the loader hydraulic cylinders.

OPERATION

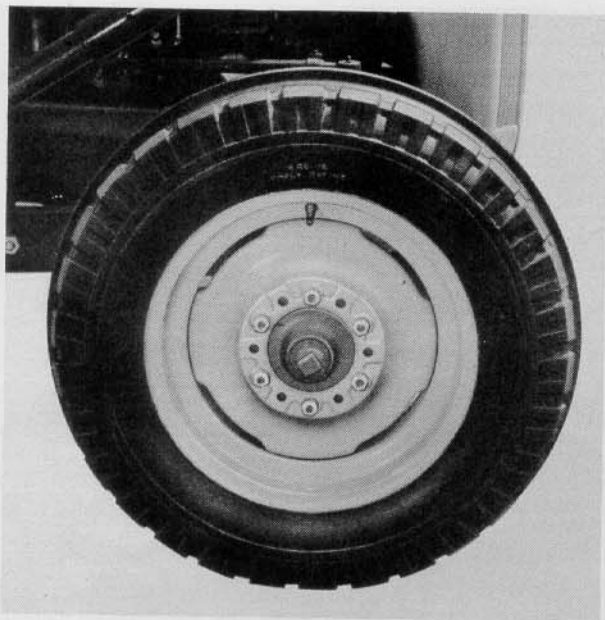


Figure 22

Recommended Front Tires and Wheels

TRACTOR FRONT TIRES AND WHEELS

It is recommended that the tractor on which this loader is mounted, be equipped with 8-ply 6.00 x 16 front tires and heavy duty wheels. This equipment is available at additional cost from your Dearborn Farm Equipment dealer.

ADJUSTMENTS

Only a few simple adjustments are required to make the loader operate efficiently and adapt it to meet various working conditions. These adjustments are explained below.

1. *Adjusting bucket level:* For general purposes, the level of the bucket should be such that when the tractor is standing on

the level with the bucket resting on the ground, the bottom of the bucket should be horizontal. For digging, the bucket teeth should be pointed slightly downward. The bucket level is adjusted as follows:

- a. Remove the linch pins and link pins from the upper end of the leveling rods and loader posts.
- b. Turn the turnbuckles until the bottom of the bucket is angled in the desired position, above or below horizontal or at horizontal.
- c. Tighten the lock nuts against the turnbuckle and reattach leveling rods to the loader posts.

NOTE: Both leveling rods should be shortened or lengthened the same amount.

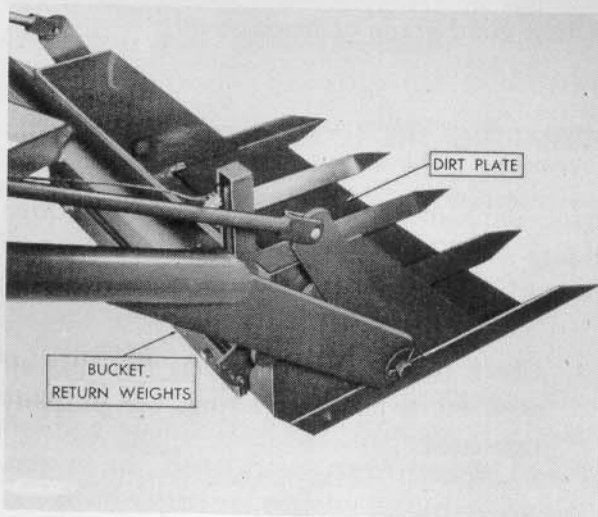


Figure 23

Bucket with Dirt Plate in Place

OPERATION

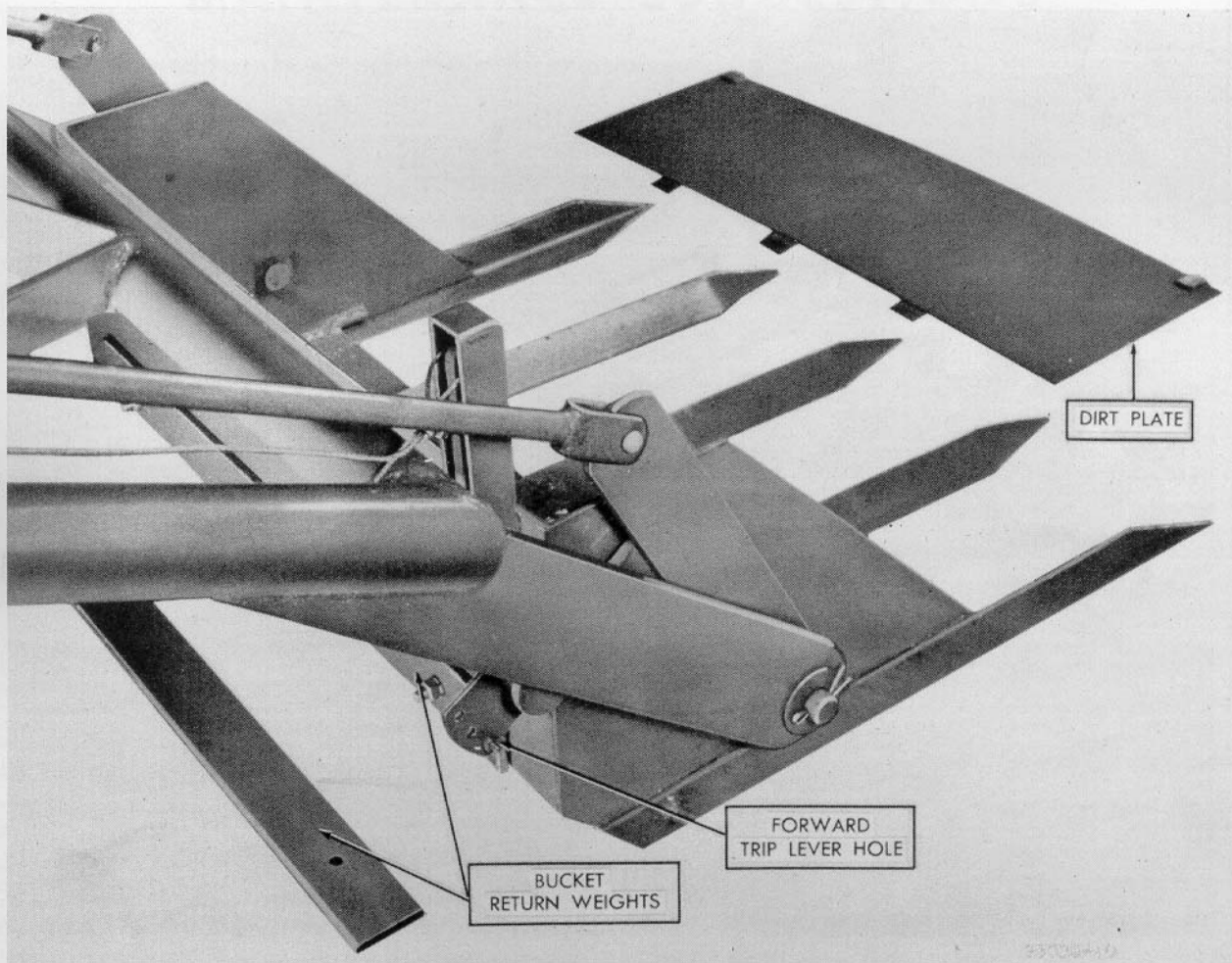


Figure 24

Bucket with Dirt Plate Removed

- Dirt plate and bucket weights:* If the bucket is to be used for sand, dirt or gravel, leave the dirt plate in and use two bucket return weights as in Figure 23. If the bucket is to be used as a fork, remove the dirt plate and one bucket return weight as in Figure 24.
- Trip trigger spring:* The trip trigger spring is anchored in the forward hole at the base of the trigger as shown in Figure 24. After use, it may be necessary to adjust the spring tension. Do this by anchoring the spring in the second or third hole.

OPERATION



Figure 25

Transport Position of Loader

4. *Tractor wheel spacing:* The tractor wheels should be set as received from the factory:

Front wheels in the 48 inch position.

Rear wheels in the 52 inch position.

When traveling from one location to another, with the bucket either loaded or empty, it is recommended that the loader bucket be carried in the position as shown in Figure 25.

MAINTENANCE SUGGESTIONS

1. Keep oil at the proper level in the transmission.
2. Keep all nuts tight.
3. Keep the pivot points well lubricated.
4. Keep all linch pins locked in position.
5. Store the loader in a clean dry place.
6. Put a plug in the hydraulic hose and "Y" coupling when the loader is not on the tractor, to keep out dirt and dust.
7. Use touch up paint to prevent rust and maintain the appearance of the implement.
8. Cover the bucket surfaces with a good grade of rust preventative.
9. Your Ford Tractor dealer carries a complete stock of genuine Ford Tractor and Dearborn Equipment repair parts. These parts are precision manufactured and inspected to assure high quality and accurate fit. Insist on genuine Ford Tractor and Dearborn Equipment repair parts.

SAFETY PRECAUTIONS

Most farm implement accidents can be avoided by following these safety precautions:

1. Do not permit anyone but the operator to ride the tractor at any time.
2. Do not permit anyone to ride in the loader bucket.
3. Never attempt to make adjustments on the tractor or the loader while either is in motion.
4. Lower the bucket to the ground when not being used.
5. Be sure no one is under the bucket when dumping a load.
6. Be sure the bucket is clear of the ground before moving the tractor.
7. Always shut off the engine and remove the keys before leaving the tractor.