Ford TRACTOR

DEARBORN

LIFT TYPE ROTARY HOE

MODEL 13-10

Dearborn FARM EQUIPMENT

ASSEMBLY and OPERATING *Instructions*

DEARBORN MOTORS CORPORATION — DETROIT 3, MICHIGAN

DESCRIPTION

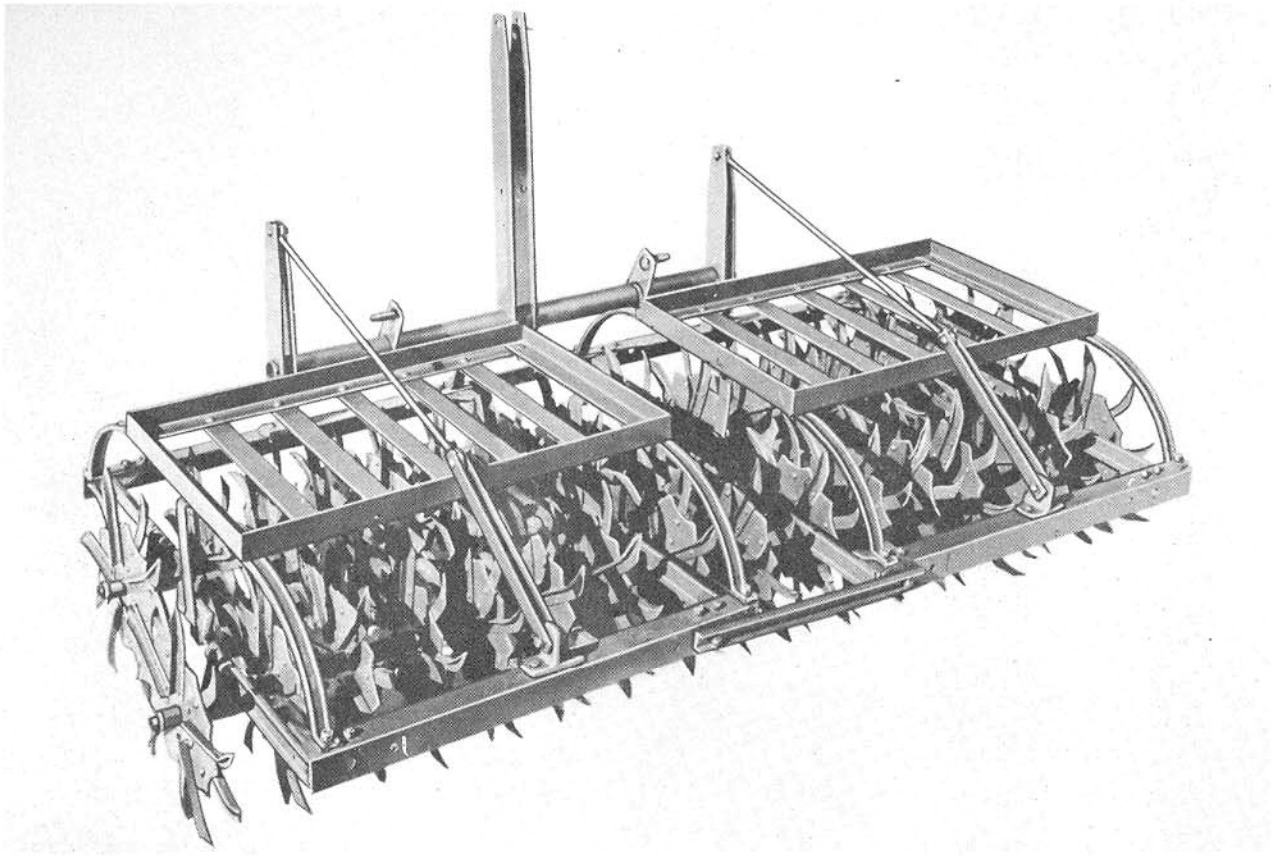

Figure 1

Dearborn Rotary Hoe (Model 13-10)

The Dearborn Lift Type Rotary Hoe pictured above embodies the high quality manufacturing standards required of all Dearborn Farm Equipment. The implement is sturdily constructed and designed for efficient operation. The front and rear spiders are staggered to permit the rear gangs to work the ground left between the front gangs. The Dearborn Rotary Hoe has two independently acting sections to permit uniform penetration in uneven land. The high-carbon steel axles are mounted in oil impregnated, hard maple bearings. The eight bearing boxes are equipped with lubrication fittings for easy and effective bearing lubrication.

ASSEMBLY

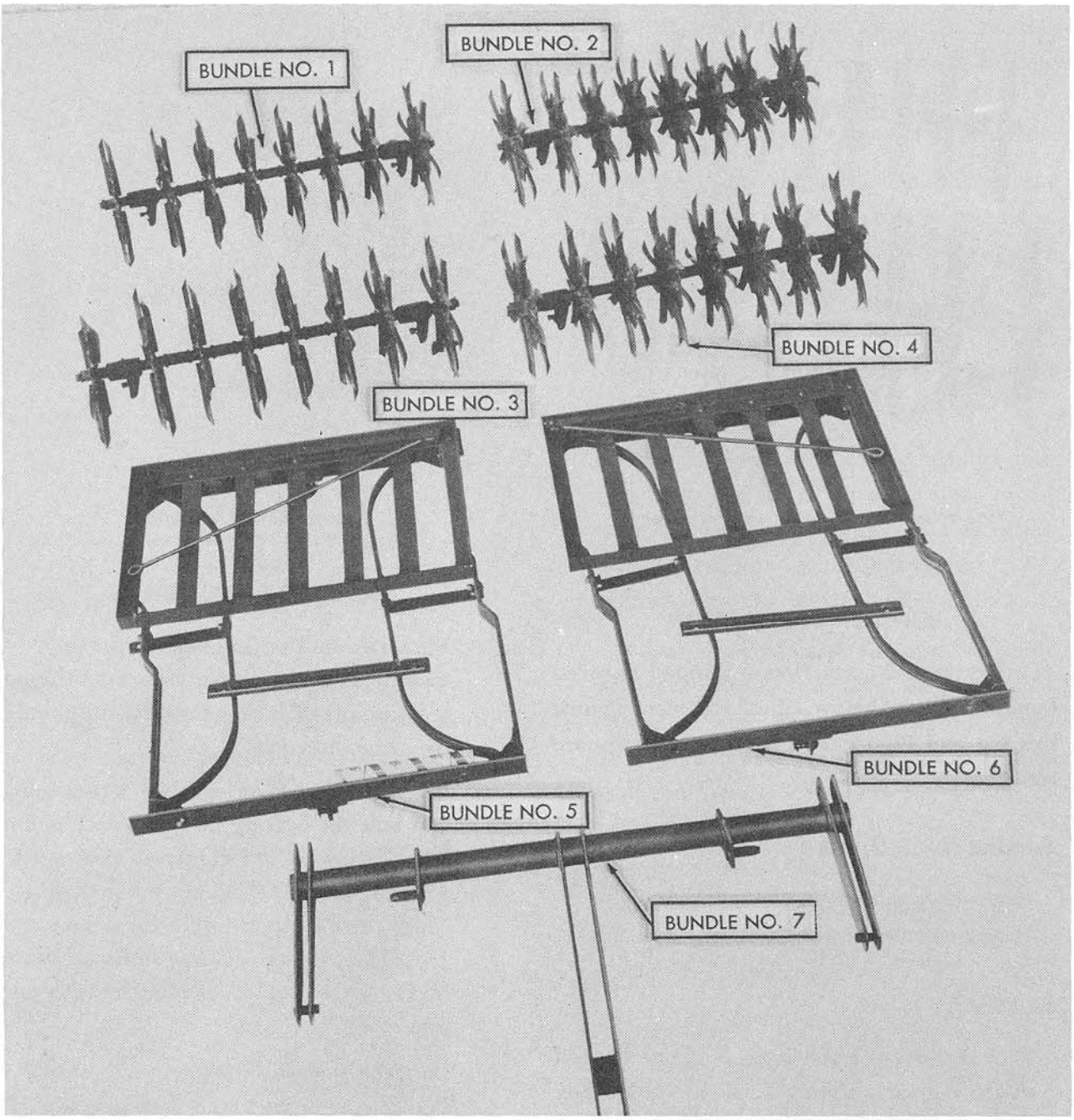

Figure 2

Implement Bundled For Shipment

NOTE: Assembly of the Dearborn Rotary Hoe is the responsibility of the Dearborn Farm Equipment dealer. The equipment should be delivered completely assembled. The following instructions are provided in case of need.

ASSEMBLY

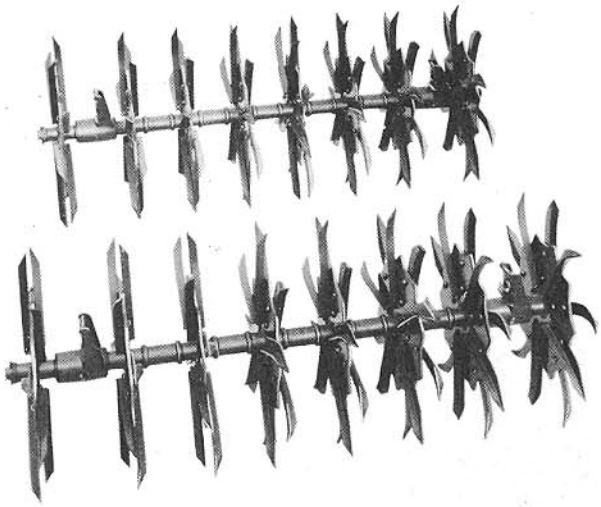

Figure 3

Hoe Wheel Gangs Positioned For Assembly Of One Section

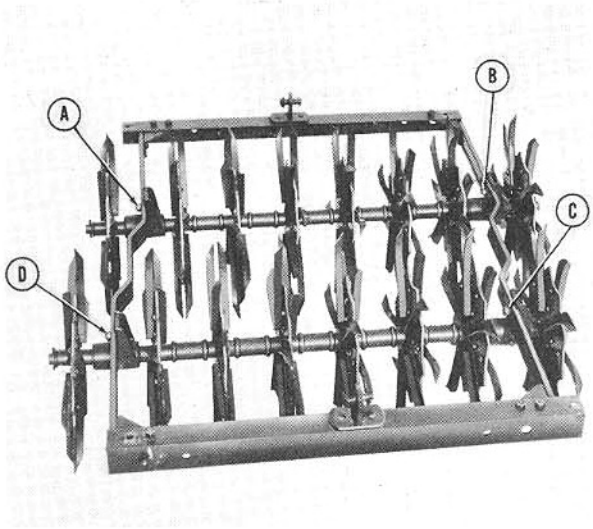

Figure 4

Frame Bolted To Gangs

BUNDLE INFORMATION

The Dearborn Rotary Hoe is shipped in seven bundles as listed below. Check shipment against this list and Figure 2 to be sure all parts are received.

Bundles No. 1, 2, 3 & 4

Hoe wheel gang assemblies.
(Gang assemblies are interchangeable.)

Bundles No. 5 & 6

Each consists of one weight box, one lift rod assembly, one coupling bar, two weight box supports with braces attached, and one gang frame assembly. A tube containing the instruction manual is wired to Bundle No. 5.

Bundle No. 7

Welded drawbar assembly.

ASSEMBLY PROCEDURE

1. Place two hoe wheel gangs in the approximate position shown in Figure 3. The hoe teeth points of both gangs should point in the same direction.
2. Place the frame on the hoe wheel gangs and bolt the bearing boxes on each end of both gangs to the frame at points (A), (B), (C) and (D), as shown in Figure 4. Place these bolts through the center hole (1) of the series of three holes as shown in Figure 5. Secure with lockwasher and nut.
3. Bolt the weight box support braces (1), Figure 6, and the weight box supports (2) to the weight box (3), as shown.
4. Set the weight box and support assembly on the gang frame assembly and bolt in place. See Figure 7. Use only the four holes (A), (B), (C) and (D) at the extreme corners of the gang frame.

ASSEMBLY

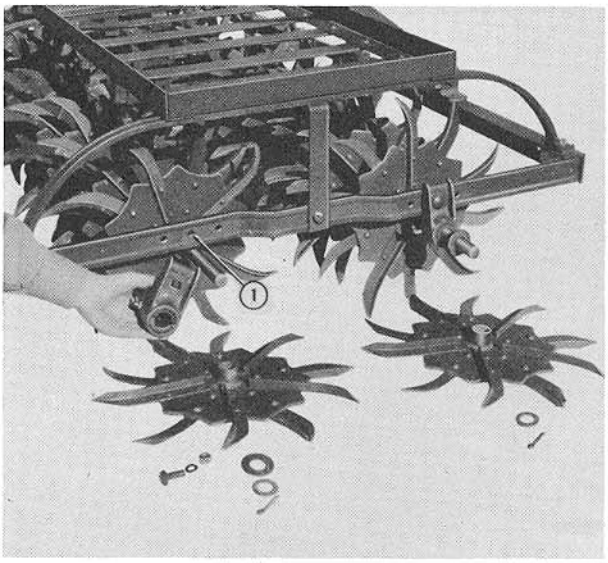

Figure 5
End Hoe Wheels Removed To Show Bolt Holes In Frame

5. Bolt weight box support brace (1), Figure 7, to the gang frame.
6. Assemble the other gang section in the same manner as explained in Steps 1, 2, 3, 4 and 5.
7. Set the two assembled gang sections side by side approximately one foot apart. Be sure that the hoe teeth in both gang sections are pointing in the same direction.
8. Bolt the front gang section coupling to the front gang frame angle bars as shown in Figure 8. Use the large holes in the frame and see that the bushings are in place in the large holes before tightening the nuts.
9. Bolt the rear coupling in place in the same manner as explained in Step 8.
10. Fasten the eye loop ends of the lift rods (1), Figure 9, to the hitch arms (2) of the drawbar assembly as shown. Be sure that the bushing provided is in place in the lift rod eye loop before tightening the nut.
11. Set the drawbar and lift rod assembly shown in Figure 9 in place over the front frame (frame toward which hoe teeth point) hitch brackets and secure with pins and cotter pins. See Figure 1.

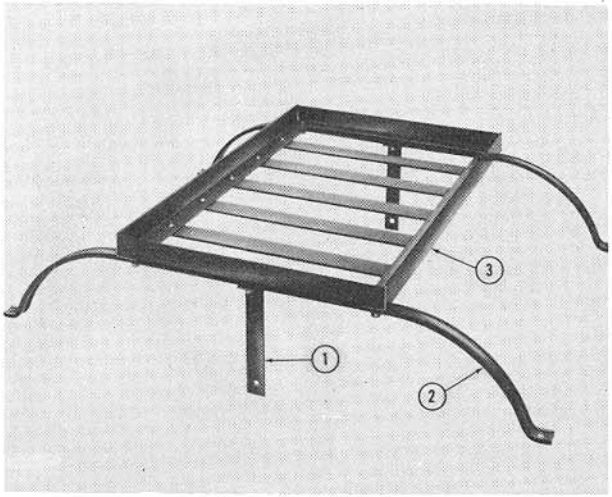

Figure 6
Weight Box And Support Assembly

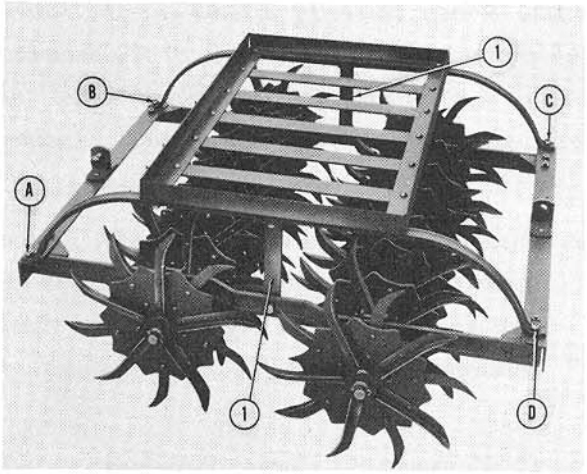

Figure 7
Weight Box Attached To Gang Frame

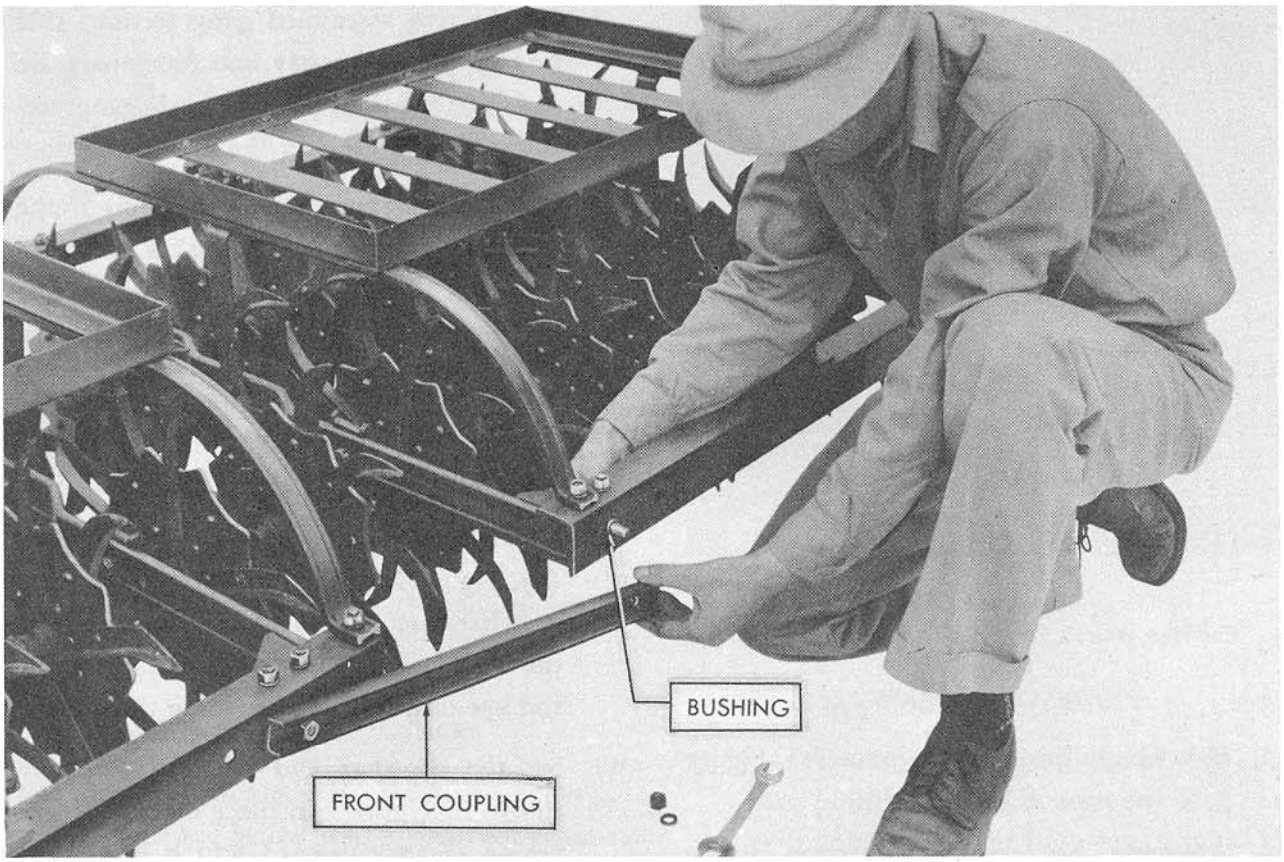

Figure 8
Coupling Gang Sections

NOTE: When correctly assembled, the lower link pin brackets (3), Figure 9, of the drawbar should lean toward the implement when the struts of the drawbar are in a vertical position.

12. Fasten the lift rod connectors (4), Figure 9, to the rear frame hitch brackets with pins and cotter pins. Figure 1 shows these connectors attached.

13. Check over the whole implement to see that all lockwashers are in place and that all nuts have been drawn up tight.

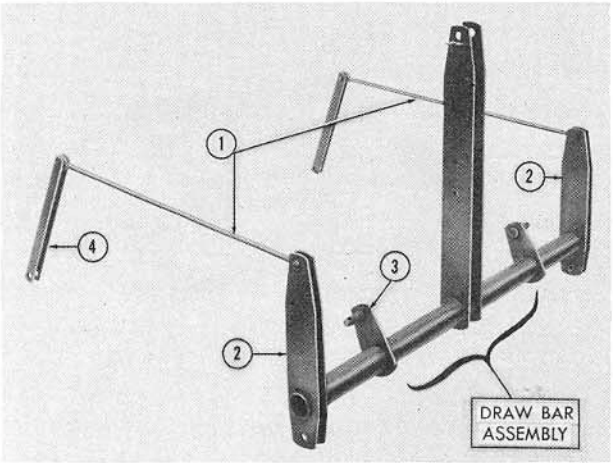

Figure 9
Drawbar And Lift Rod Assembly

ATTACHING AND DETACHING

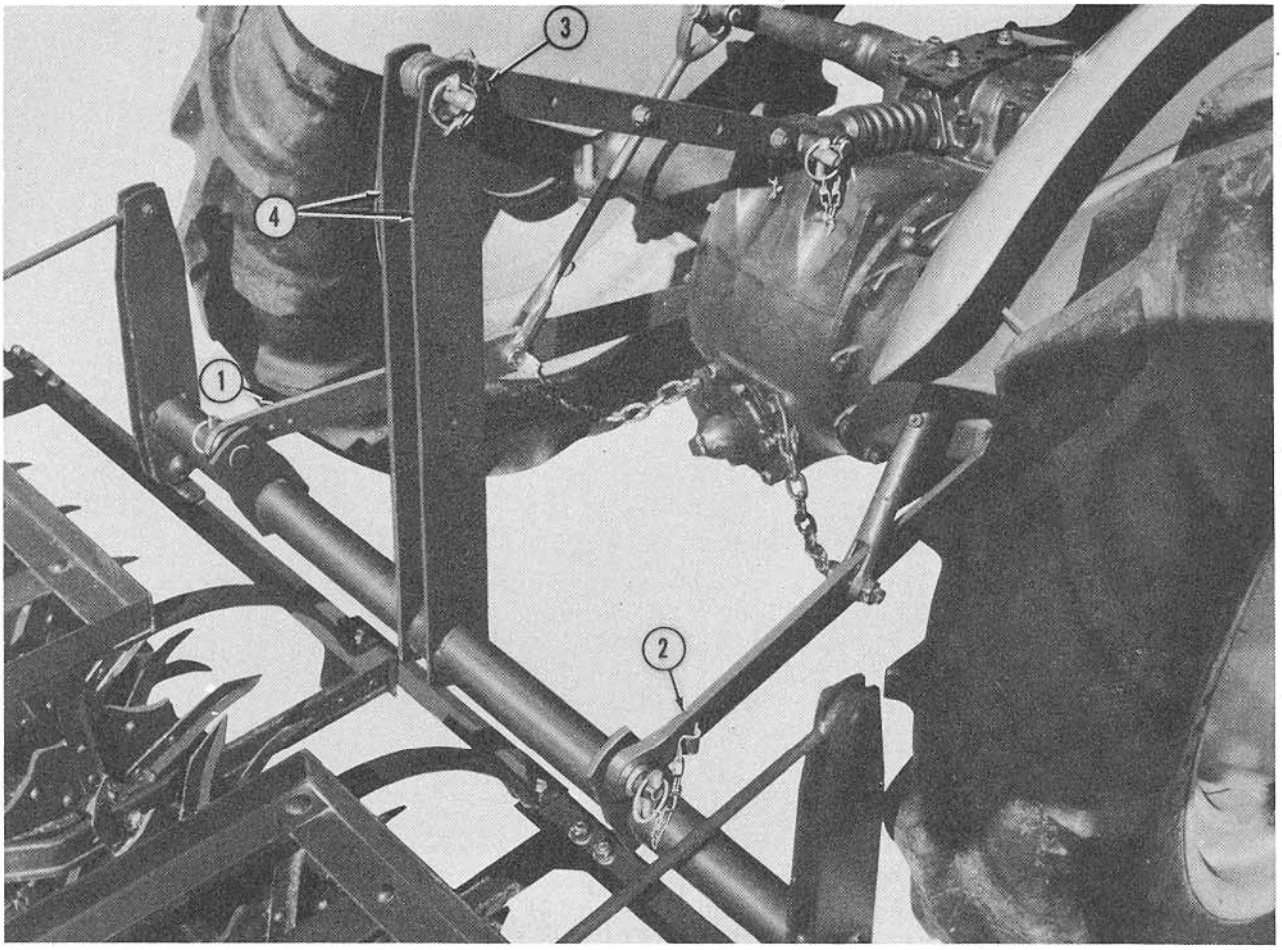

Figure 10

Rotary Hoe Attached To Ford Tractor

ATTACHING ROTARY HOE TO TRACTOR

1. Back tractor into position in front of implement.
2. Attach tractor lower left link (1), Figure 10, and secure with linch pin.
3. Attach tractor lower right link (2) and secure with linch pin.
4. Attach tractor upper link (3) to the implement drawbar struts (4), and to the tractor main control spring yoke and secure with linch pin.

DETACHING ROTARY HOE FROM TRACTOR

1. Disconnect tractor top link from the tractor control spring yoke.
2. Disconnect tractor right lower link.
3. Disconnect tractor left lower link.

CAUTION: Be sure that the Dearborn Rotary Hoe is completely disconnected before attempting to move the tractor.

OPERATION

Figure 11

Dearborn Rotary Hoe At Work

The Dearborn Lift Type Rotary Hoe is an implement designed to do an effective job of destroying weeds in the early stages of growth. It is well suited for use on corn and other row crops as well as many of the small grains. It is used to best advantage when the crops are just coming through the ground or after the soil has been packed by heavy rains.

The implement is used over the entire surface of the field. The aggressive action of the teeth uproots the young weeds and leaves the deeper rooted crops relatively undisturbed. This action serves to loosen the soil and cultivate the crops.

When the drawbar assembly is attached so that the hoe can be pulled "backwards," the implement can be used to good advantage to break up soil crusts and to weed newly planted fields. The rotary hoe is raised and lowered with the Ford Hydraulic Touch Control lever. This feature simplifies the operation of the implement. It makes turning at the end of the field easy, permits the operator to work into field corners and protects the teeth when transporting the implement.

The following information is presented to aid the operator in getting maximum performance from this implement. Read it carefully.

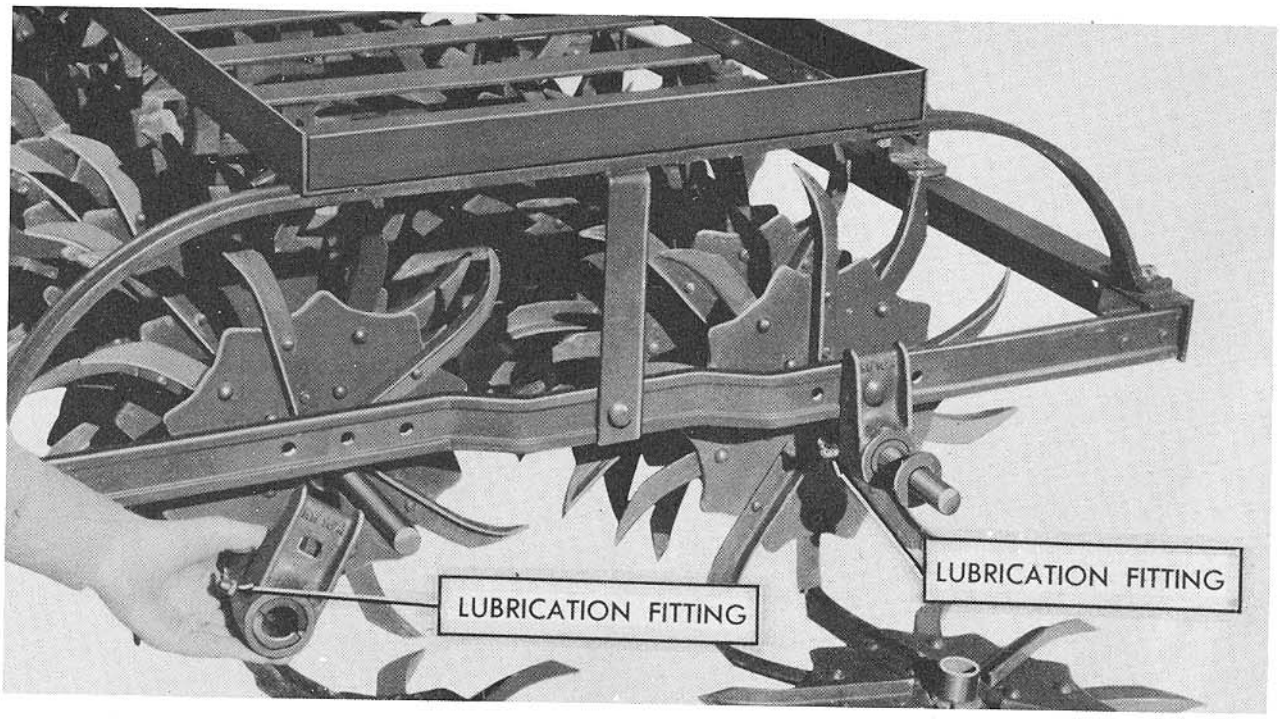

Figure 12

Lubrication Fittings And Bolt Holes For Gang Space Adjustment

LUBRICATION

There are eight lubrication fittings on the Dearborn Rotary Hoe. Figure 12 shows the grease fittings on the outer bearings of the left section. Lubricate all of these fittings with a good grade of gun grease. Wipe the fittings clean and force enough grease into the bearings to carry out the grit and dirt and to seal the bearings from outside dirt and dust.

ADJUSTMENT

The Dearborn Rotary Hoe has two adjustments: (1) to change the spacing between the front and rear gangs to suit operating conditions, (2) to reverse the implement.

Setting Space Between Gangs: Figure 12 shows the location of the series of three holes that are used to change the spacing between the front and rear gangs. For normal operating conditions, bolt the bearing boxes to the frame, with bolt in the center holes, as shown in Figure 12. For extremely trashy conditions, set the gangs as close together as possible. This will enable the rear gangs to tear up and clean trash off the front gangs. For excessively stony field conditions, space the gangs as far apart as possible to keep stones from getting caught between the front and rear gangs.

Reversing the Implement: To reverse the Rotary Hoe, remove the complete drawbar assembly shown in Figure 9, from the frame. Attach the drawbar to the hitch brackets on the rear frame and secure the lift rod and straps in place with pins and cotter pins. The teeth of the hoe will now point rearward. This setting reduces the aggressiveness of the hoe teeth and is recommended for working fields where, if the teeth pointed forward, the action would be too harsh.

OPERATION

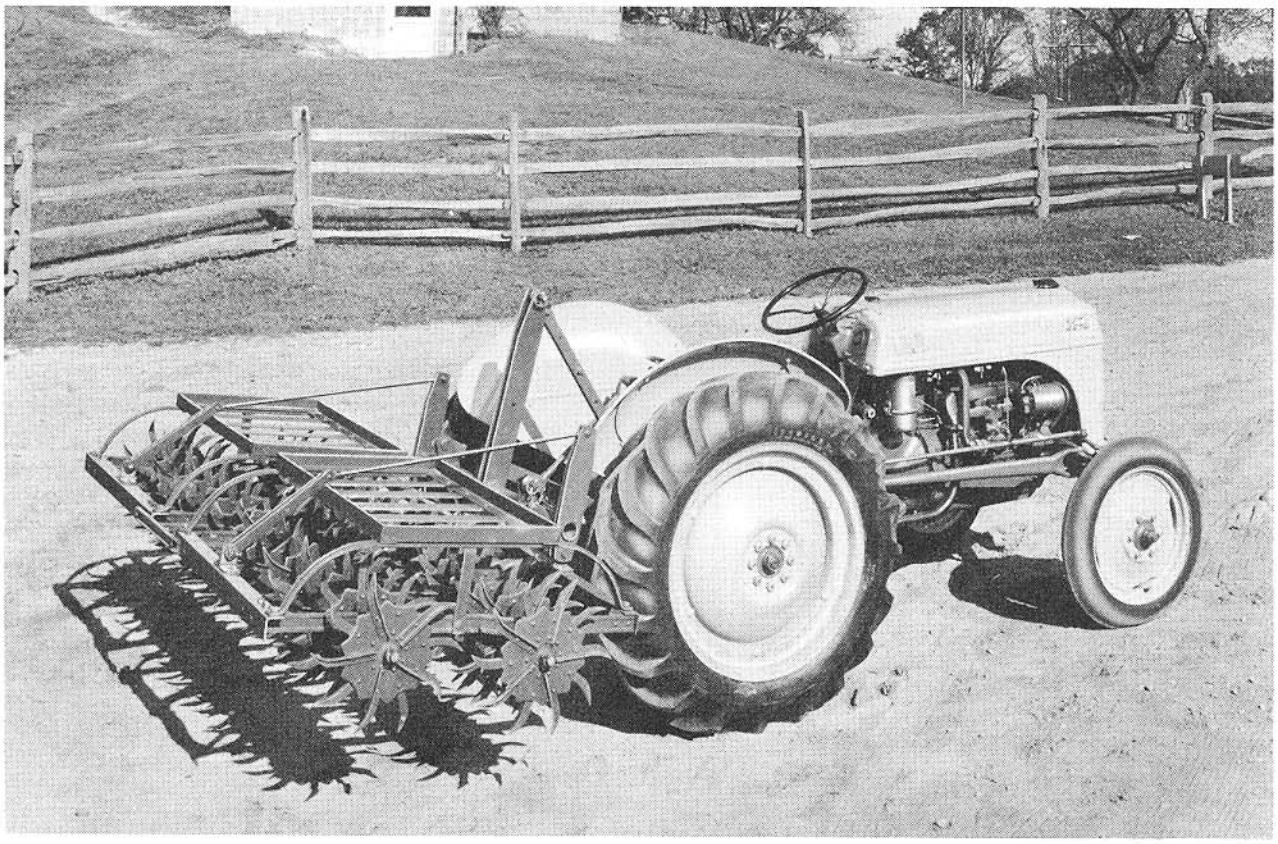

Figure 13

Rotary Hoe In Transport Position

TRACTOR SPEED

The Dearborn Rotary Hoe should be operated at a medium tractor speed when working very young seedlings, and at a relatively high tractor speed when working crops that have their roots well established in the soil. The hoe teeth are made to give their maximum picking, weed uprooting, and crust breaking action at relatively high speeds.

TRACTOR WHEEL SPACING

When using the Dearborn Rotary Hoe on row crops, the wheels of the tractor must be set so that they will travel between the crop rows.

PENETRATION

To increase the penetration of the hoe teeth, place weight (sand bags, rock, cement blocks, etc.) on the weight boxes of the implement to get desired working depth.

MAINTENANCE

1. Keep bearings well lubricated when in use.

2. Use touch up paint where necessary to prevent rust and maintain appearance of the implement.

3. Store the Dearborn Rotary Hoe in dry place between operating seasons.

4. Replace worn parts promptly with genuine Dearborn repair parts.

SAFETY PRECAUTIONS

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

1. Do not permit anyone but the operator to ride the tractor at any time.

2. Lower implement to the ground when not in use.

3. Do not leave tractor while it is in motion.

4. Do not make tractor or implement adjustments when tractor is in motion.

5. Shut off engine before leaving tractor.

6. Keep tractor keys where they are not available to children when tractor is in the farmyard.