ASSEMBLY and OPERATING Instructions
The Dearborn Lift Type Single Disc Harrow, pictured above, is a field tested implement that embodies the high quality manufacturing standards required of all Dearborn implements. The sturdy all-steel construction assures long life and efficient operation. The equalizer spring assembly on the lift frame permits adjustment to assure uniform penetration of the discs. The high carbon steel gang bolts are mounted in wear resistant, oil soaked maple bearings. The bearing boxes are equipped with grease fittings for easy and effective lubrication. The discs are made of heat treated, high-carbon steel to give maximum service and shock resistance. The disc scrapers are mounted in gangs and can be adjusted by gangs or individually. Each scraper is spring mounted to assure efficient cleaning.

This implement is available in three models: Model 11-1, 10 foot harrow with 16 inch discs, Model 11-2, 10 foot harrow with 18 inch discs, Model 11-3, 12 foot harrow with 16 inch discs. All models are assembled in the same manner.

**BUNDLE INFORMATION**

The Dearborn Single Disc Harrow is shipped in five bundles as listed below. Check shipment against this list and Figure 2 to be sure all parts are received.

**Bundle 1**—Right disc gang with angle frame.

**Bundle 2**—Left disc gang with angle frame.
NOTE: Assembly of the Dearborn Single Disc Harrow 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 3**—Right scraper gang.
**Bundle 4**—Left scraper gang.

**Bundle 5**—Lift frame assembly with center draw bars and instruction manual tube wired to it.
ASSEMBLY PROCEDURE

1. Remove right and left center draw bars from lift frame assembly bundle.

2. Place disc gangs in approximate operating position, as shown in Figure 1, and prop with suitable blocks so that angle frames (1), Figure 3, will remain in upright position.

3. Remove pin (2) and leg brace (3), Figure 3, from both gangs.

4. Attach lift frame assembly to disc gangs as follows:
   a. Place forged end draw bar (1), Figure 4, on left end of lift frame, in position so hole in end of draw bar aligns with leg brace hole in outer bearing assembly (2). Insert leg brace and secure upper end with bolt, lock washer, and nut (3), Figure 4.
   b. Swing connecting brace (4) into position under disc angle frame and secure with pin and cotter pin.

   NOTE: Tilting disc angle frames slightly forward will aid in making this attachment.
5. Attach other end of lift frame in same manner.

6. Attach left and right center draw bars (1), Figure 5, as follows:
   a. Raise front end of lift frame to level position and support it with a suitable block.
   b. Remove pin (2) from forward end of draw bar rack (3).
   c. Place center draw bars in position by sliding forged end of bar through center draw bar guides (4) and back to disc gang end bearing assembly (5). Be sure forging on rear end of center draw bars is down, as shown.
   d. Insert leg braces (6) and secure upper end with bolt, lock washer and nut (7) as shown in Figure 5.
   e. Align holes in forward end of center draw bars with hole in bearing on draw bar rack and insert pin (2). Secure with flat washer and cotter pin.

   **NOTE:** To align the holes it may be necessary to compress spring (8) slightly by pulling up on forward ends of center drawbars.

7. Connect inner ends of gangs together by bolting free end of disc gang connecting chain (9) to angle frame of right hand gang as shown in Figure 5.

8. Attach scraper assemblies (1) to disc gangs by bolting scraper frame mounting brackets (2) to rear surface of disc angle frames (3) as shown in Figure 6.

   **NOTE:** In order to align the bolt holes in the disc angle frame with those of the scraper mounting brackets, it may be necessary to loosen the scraper blade support bolts (4) and slide the bolts to the extreme end of the slotted holes as shown in Figure 6.
**ATTACHING HARROW TO TRACTOR**

2. Attach tractor lower left link, then lower right link to lift frame link pins, and secure with linch pins.
3. Attach tractor top link to "A" frame of harrow, secure with linch pin. Attach forward end of top link to tractor control spring yoke.

**DETACHING HARROW FROM TRACTOR**

1. Lower implement to ground or floor with Ford Hydraulic Touch Control lever.
2. Disconnect top link from "A" frame on harrow.
3. Disconnect tractor lower links from harrow.

**CAUTION:** Make certain the implement is completely disconnected before attempting to move tractor.

*Figure 7*

Single Disc Harrow Attached to Ford Tractor
The Dearborn Lift Type Single Disc Harrow is operated easily from the seat of the tractor. The implement is raised or lowered with the Ford Hydraulic Touch Control lever. The disc gangs are angled to desired working position with the implement gang angling lever. Any necessary adjustments are easily and quickly made. The lift feature of this implement permits working into field corners, simplifies turning and enables the operator to cross grass water ways without disturbing the sod.

This implement lends itself to a wide variety of uses. Land can be "double" disced as well as "single" disced. Double discing is done by simply overlapping each round by approximately one-half the over-all width of the disc gangs. When double discing, use the ridge left between the inner ends of the gangs as a guide in determining where to drive the tractor. The disc should be pulled so that this ridge is broken down on each succeeding round of the area being worked.

This harrow is well suited for discing fields of corn or cotton stalk and stubble land, both in preparation for plowing and after plowing. It works well for leveling plowed fields by breaking up and pulverizing clods of soil and chopping up trash; for discing plowed fields before planting to kill weeds; and for working fallow land and orchard areas. This disc has wide use in stubble-mulch farming.
The Dearborn Single Disc Harrow may also be used as an aid in controlling field moisture. Moisture is conserved by criss-crossing the field. This eliminates the trenches or ridges formed by normal disc operation and leaves a waffle-like pattern which retards water flow. The drying of wet fields can be speeded by discing once over, thereby exposing greater soil surface to the air. This will permit the field to dry more rapidly than it otherwise would.

The following information deals with the operation of the Dearborn Lift Type Single Disc Harrow.
LUBRICATION

Before this implement is taken into the field, it should be thoroughly lubricated. There are grease gun fittings (one on each of the bearing boxes, see Figure 9, and one on each forged end drawbar bearing sleeve, see "A", Figure 4). Wipe the fittings clean before lubricating to give a good grease gun fit and to prevent outside dirt from being forced into the bearing. Lubricate all fittings with a good grade of gun grease. Force enough grease into each bearing to carry out grit, dirt, some of the old grease, and to seal the bearings from outside dirt and dust. Grease the bearings frequently enough to keep them well lubricated.

ADJUSTMENTS

Setting Angle of Disc Gangs: The angle of the disc gangs is adjusted by means of the angling lever (1) and rack (2), Figure 10, on the lift frame. The design of the rack permits setting the disc gangs in four different positions. The maximum cutting angle of the disc gangs is obtained with the lock plate (3) in the front notch in the rack. The gangs are set at the minimum angle when the lock plate is in the rear notch of the rack.

Leveling the Gangs: The disc gangs are leveled to provide uniform depth of penetration by adjusting the tension on equalizer spring (4), Figure 10. This adjustment is made by tight-
OPERATION

omen or loosening nut (5). Adjust tension on the spring until the inner ends of the gangs cut the same depth as the outer ends.

**Scaper Setting:** The scrapers and scraper mounting brackets are designed to permit individual scraper adjustment or adjustment by gangs. Set the scrapers so as to just clear the disc blades.

**DEPTH OF CUT**

The operating depth of the single disc harrow is largely determined by three factors: The angle at which the disc gangs are set, the downward position of the Hydraulic Touch Control lever on the quadrant, and the condition and type of land being worked. A trial run will enable the operator to quickly determine the proper gang angle setting and position of the touch control lever to produce desired results.

**CARE OF DISC BLADES**

Because the disc harrow is a ground engaging implement, it is important that the disc blades be kept in good condition. Keep the blades reasonably sharp. Sharp blades cut trash, bite into the soil, aid penetration and are essential to efficient implement performance.

When the disc harrow is not in use, it is recommended that the disc blades be protected against rusting by coating them with a rust preventative such as machine oil. This practice will help maintain the smooth, clean surface of the blades.

**TRANSPORTING**

When moving the single disc harrow from one area to another, always carry it in transport position. This will protect the cutting edge of the blades by keeping them free and clear of the ground. Drive carefully when transporting the disc about the farm or on the open highway.
MAINTENANCE SUGGESTIONS

1. Keep all bearings well lubricated.
2. Keep disc blades sharp.
3. Do not attempt to turn corners with disc engaged in the ground.
4. Do not permit bumpers to wear down enough to allow cutting edge of center disc to touch when in operation.
5. Use touch-up paint where necessary to prevent rust and maintain appearance of implement.
6. Store the disc in a dry place on concrete or wood floor between operating seasons and coat non-painted surfaces with a good grade of rust preventative.
7. 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 prevented by following these simple precautions:

1. Do not permit any one but the operator to ride the tractor at any time.
2. Do not permit any one to ride on the implement.
3. Do not make tractor or implement adjustments when tractor is in motion.
4. Shut off engine before leaving tractor.
5. Keep tractor keys where they are not available to children when tractor is in farmyard.
6. Always lower lift-type implements to the ground with Ford Hydraulic Touch Control lever before leaving tractor.