



TANDEM DISC HARROW

(SERIES "B")



ASSEMBLY and OPERATING

Instructions

DEARBORN MOTORS CORPORATION — DETROIT 3, MICHIGAN

DESCRIPTION

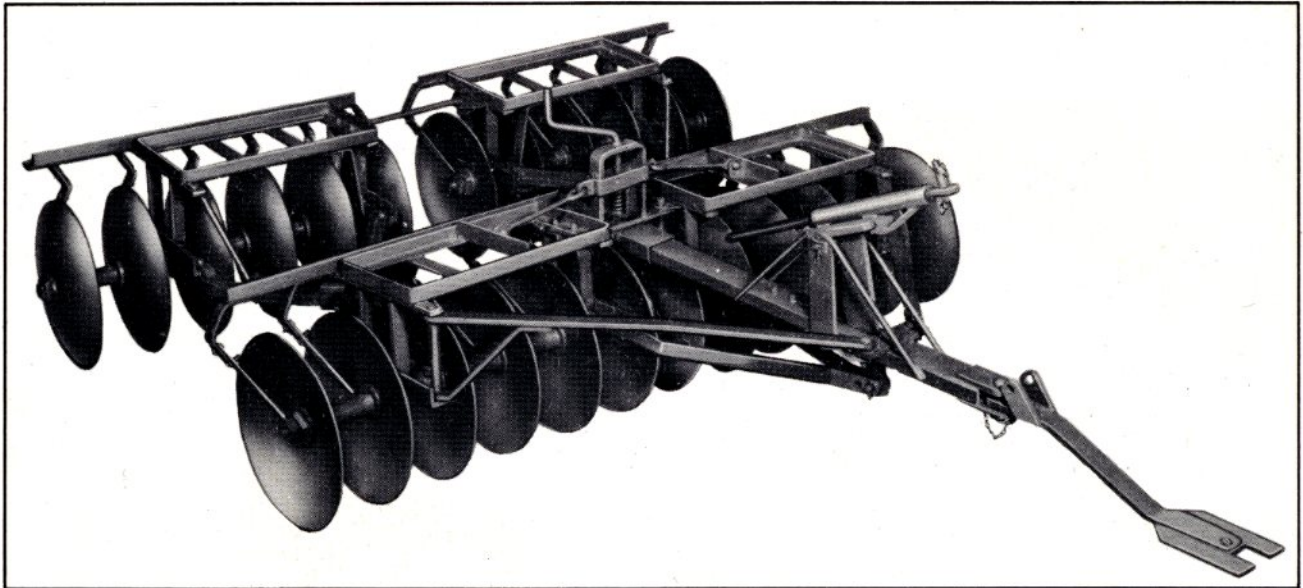


Figure 1
Tandem Disc Harrow (Series "B")

The Tandem Disc Harrow pictured above is a field tested implement that embodies the high quality manufacturing standards required of all implements in the Dearborn line. The rugged, all-steel construction assures long life and trouble free operation. The spring type front gang leveling assembly, and the cross type rear drawbars, permit uniform penetration of the discs. The high-carbon steel gang bolts are mounted in wear resistant white iron bearings. The eight bearing boxes are equipped with grease gun fittings for easy and effective bearing lubrication. The discs are made of special heat treated, high-carbon steel to give maximum wear and shock resistance. The disc scrapers are mounted in gangs and can be adjusted as a gang or separately. Each scraper is individually spring mounted to assure efficient cleaning.

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BUNDLE INFORMATION

Contents of bundles are as follows:

Bundle No. 1

1 Right rear disc gang assembly

Bundle No. 2

1 Left rear disc gang assembly

Bundle No. 3

1 Right front disc gang assembly

Bundle No. 4

1 Left front disc gang assembly

Bundle No. 5

1 Hitch tongue—angling assembly

1 Leveling assembly

2 Inside draft bars

2 Outside draft bars

1 Hitch bar

2 Upper cross drawbars

2 Lower cross drawbars

1 Instruction Manual tube

ASSEMBLY

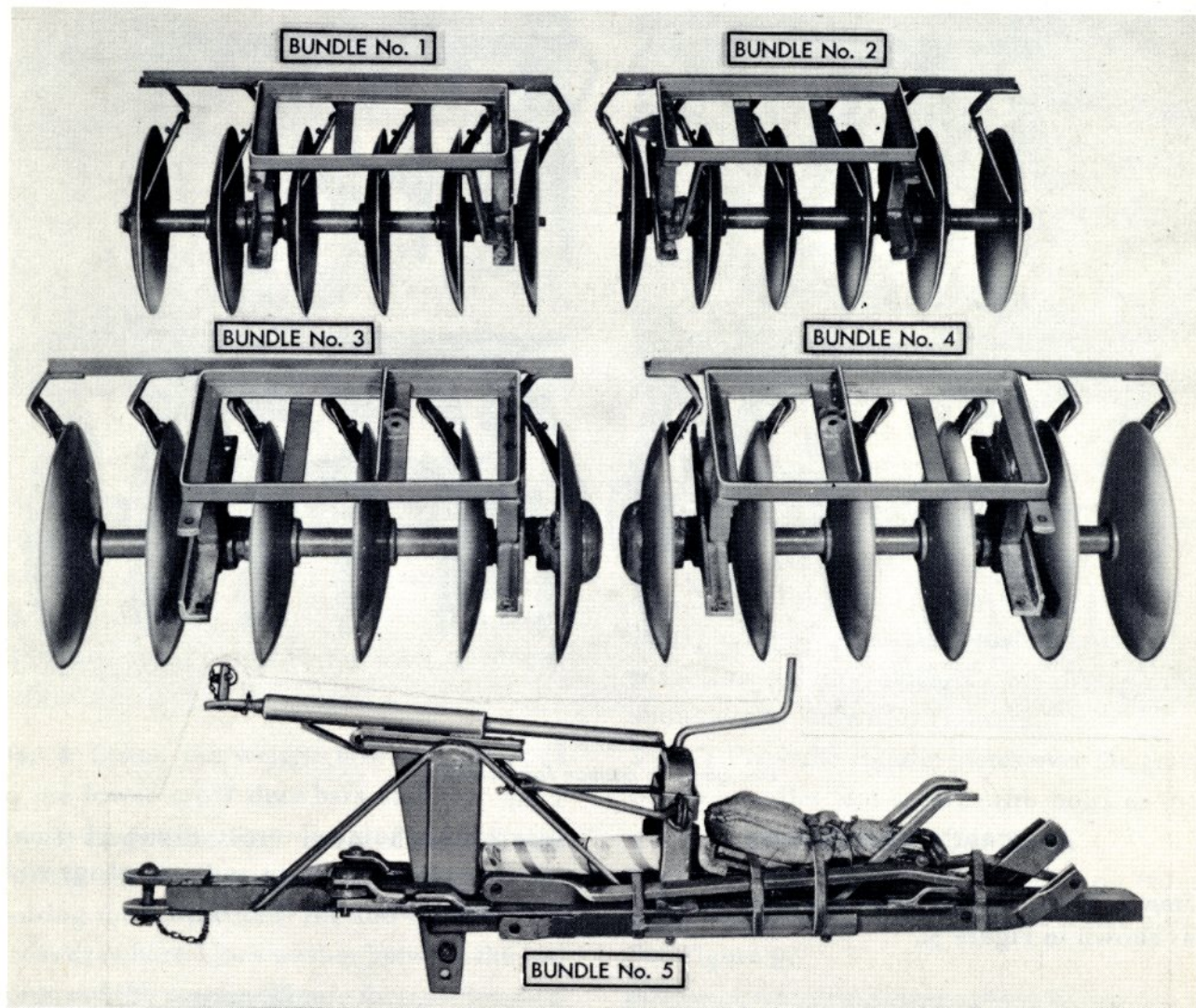


Figure 2

Implement bundled for shipment

NOTE: Assembly of the Series "B" Tandem Disc Harrow is the responsibility of your Dearborn dealer. The equipment should be delivered to you completely assembled. The following instructions are for your guidance, in case of need.

- 1 Bag of small parts:
2 support rods, 2 spindle plates,
2 swivel plates, 2 spindles,
1 tie rod, 2 draft pins, 2 spacers,
washers, nuts, bolts, pins, cotter pins.

NOTE: To make certain the shipment is complete, open bundles and check each item against packing slip and bundle contents information before starting to assemble implement.

ASSEMBLY

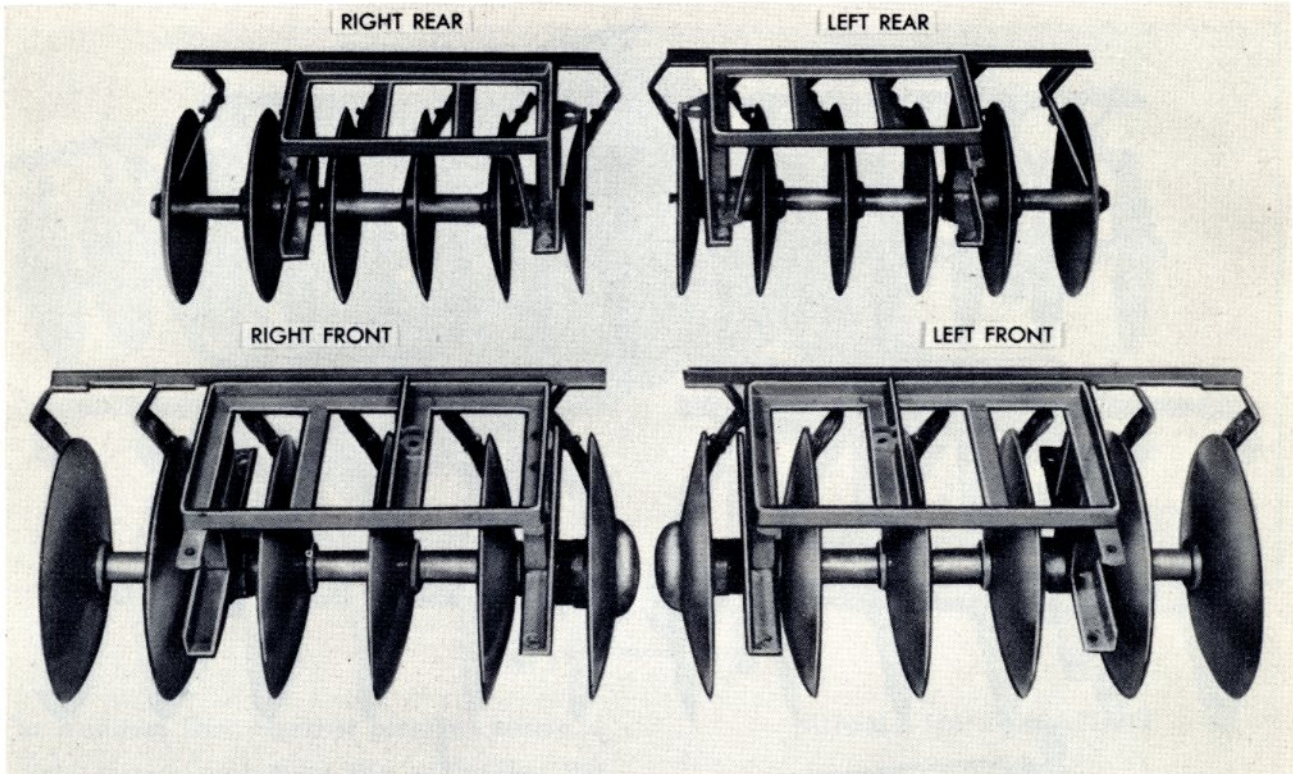


Figure 3

Disc gangs in position for assembling

ASSEMBLY PROCEDURE

Step 1: Place the four disc gangs in position as shown in Figure 3.

Step 2: Attach lower cross drawbars (with leveling plates) to front and rear gangs with pins and cotter pins. See Figure 4.

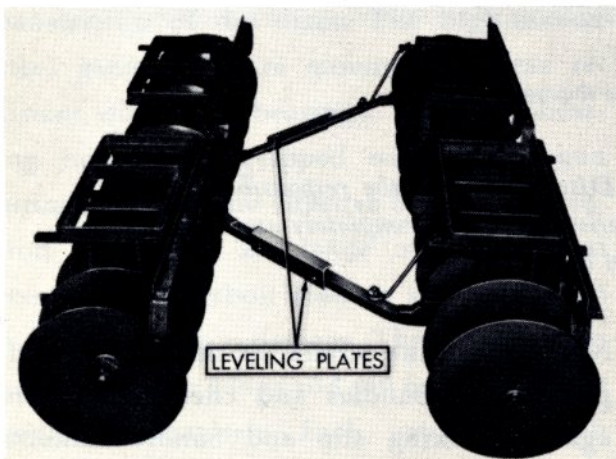


Figure 4

The lower cross drawbars attached

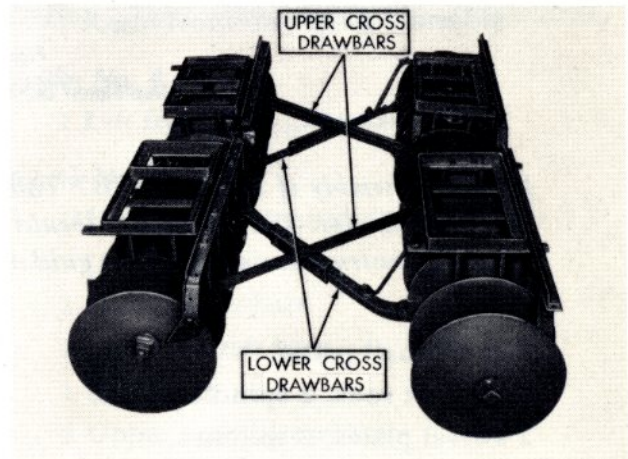


Figure 5

Cross drawbars attached to gangs

ASSEMBLY

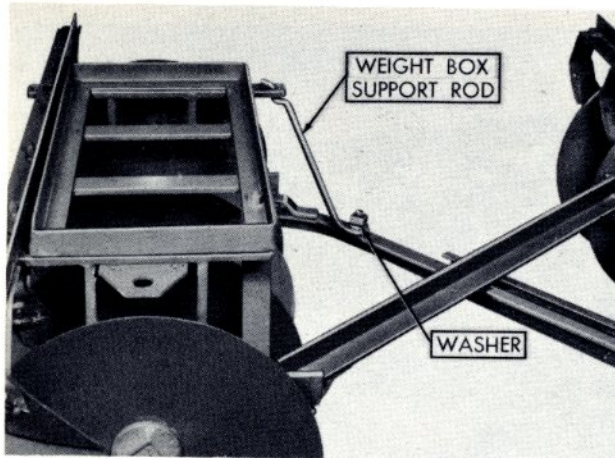


Figure 6
Weight box support rods attached

Step 3: Attach upper cross drawbars to front and rear gangs with pins and cotter pins as shown in Figure 5 (Note that the upper cross drawbars cross over the lower cross drawbars).

Step 4: Fasten the weight box support rods to the lower cross drawbars and rear gang frames by putting curved end of rod through hole in the outer gang scraper support and bolting the loop end of the rod to the lower cross drawbars. Use a washer between the rod loop and the nut. See Figure 6.

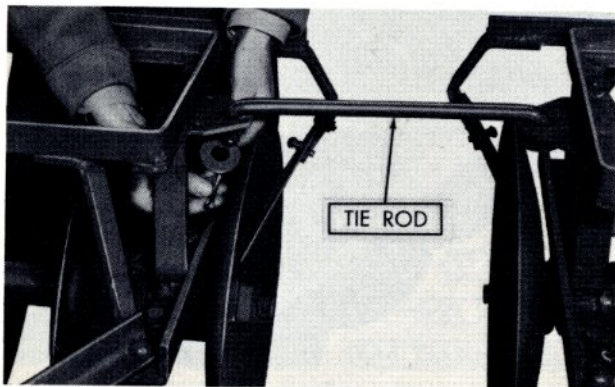


Figure 7
Fastening tie rod to rear gangs



Figure 8
Attaching leveling assembly

Step 5: Fasten the rear gang section tie rod to the rear gangs, as shown in Figure 7.

Step 6: Put long ends of the two spindles in the spindle holes of the bearing boxes and place the leveling assembly on the spindle shoulders as shown in Figure 8.

Step 7: Place the spindle plates over the ends of the spindles and secure with bolts to the gang frame as shown in Figure 9.

Step 8: Fasten lift rods to brackets on front gang weight boxes with pins and cotter pins. See Figure 9.

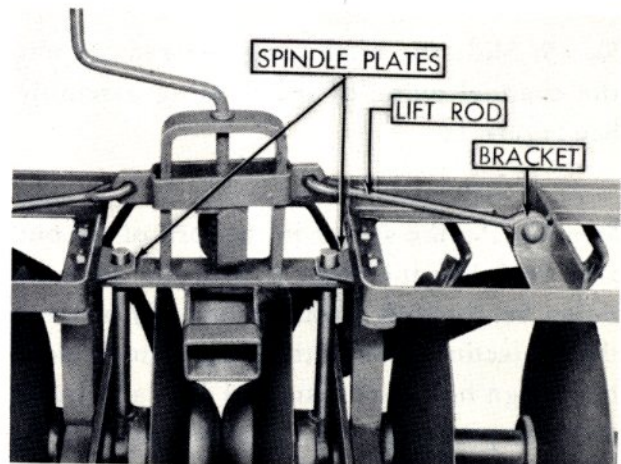


Figure 9
Leveling assembly attached

ASSEMBLY

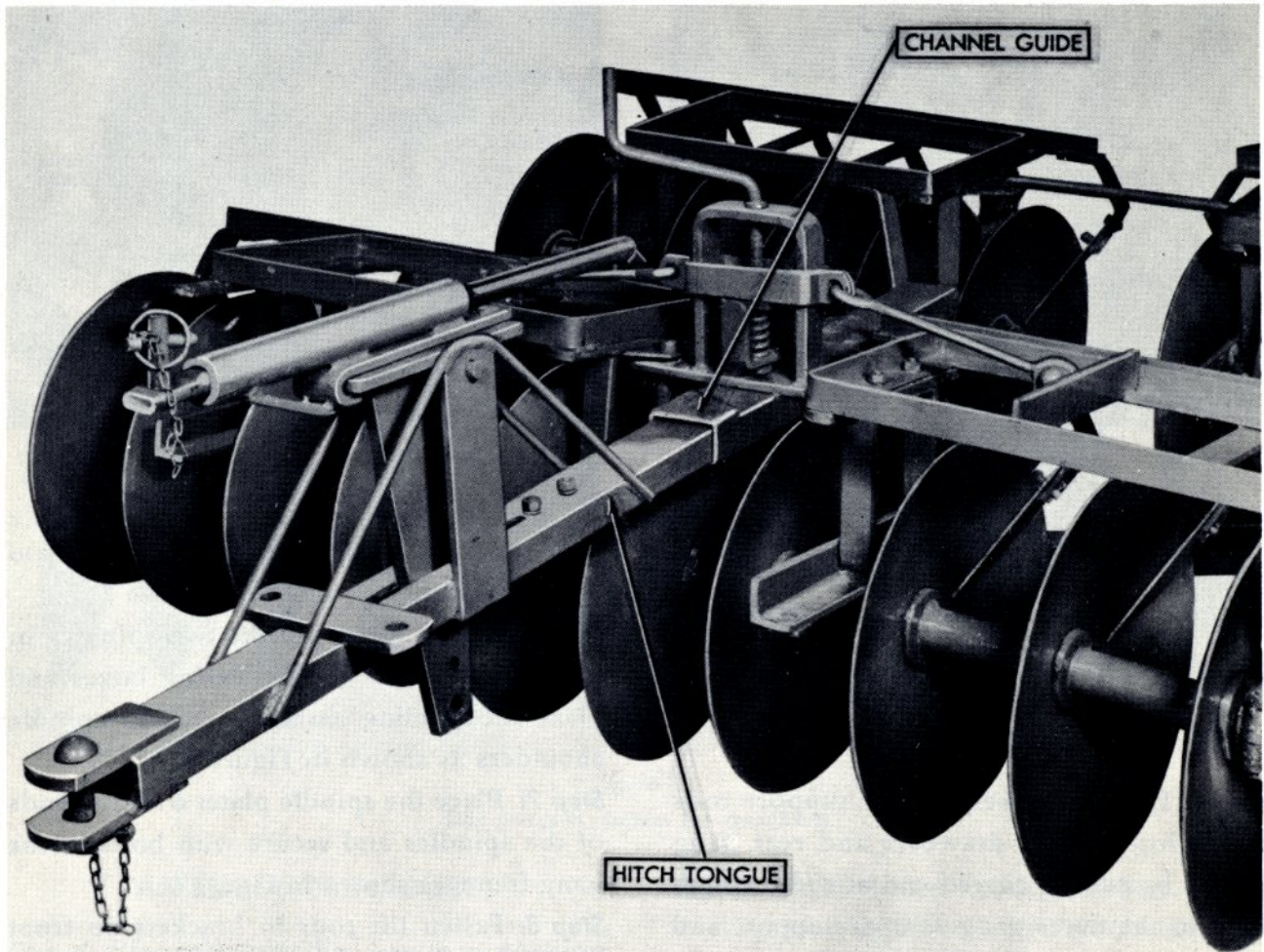


Figure 10

Hitch tongue in channel guide of leveling assembly

Step 9: Slide the hitch tongue assembly into the channel guide of the leveling assembly. See Figure 10.

Step 10: Put the spacer in the fork of the outside draft bar and align it with the draft bar holes. Set the fork (straight side up) between the projecting ends of the gang frame assembly. Align holes in frame and fork and insert the draft pin. Align the cotter pin holes in the spacer with the hole in the draft pin and secure with a cotter pin. See Figure 11.

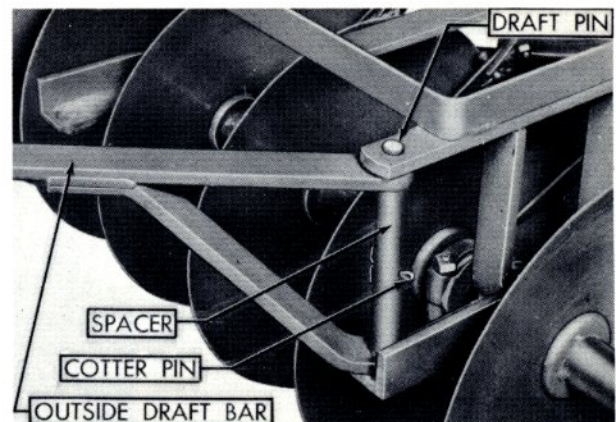


Figure 11

Outside draft bar attached

ASSEMBLY

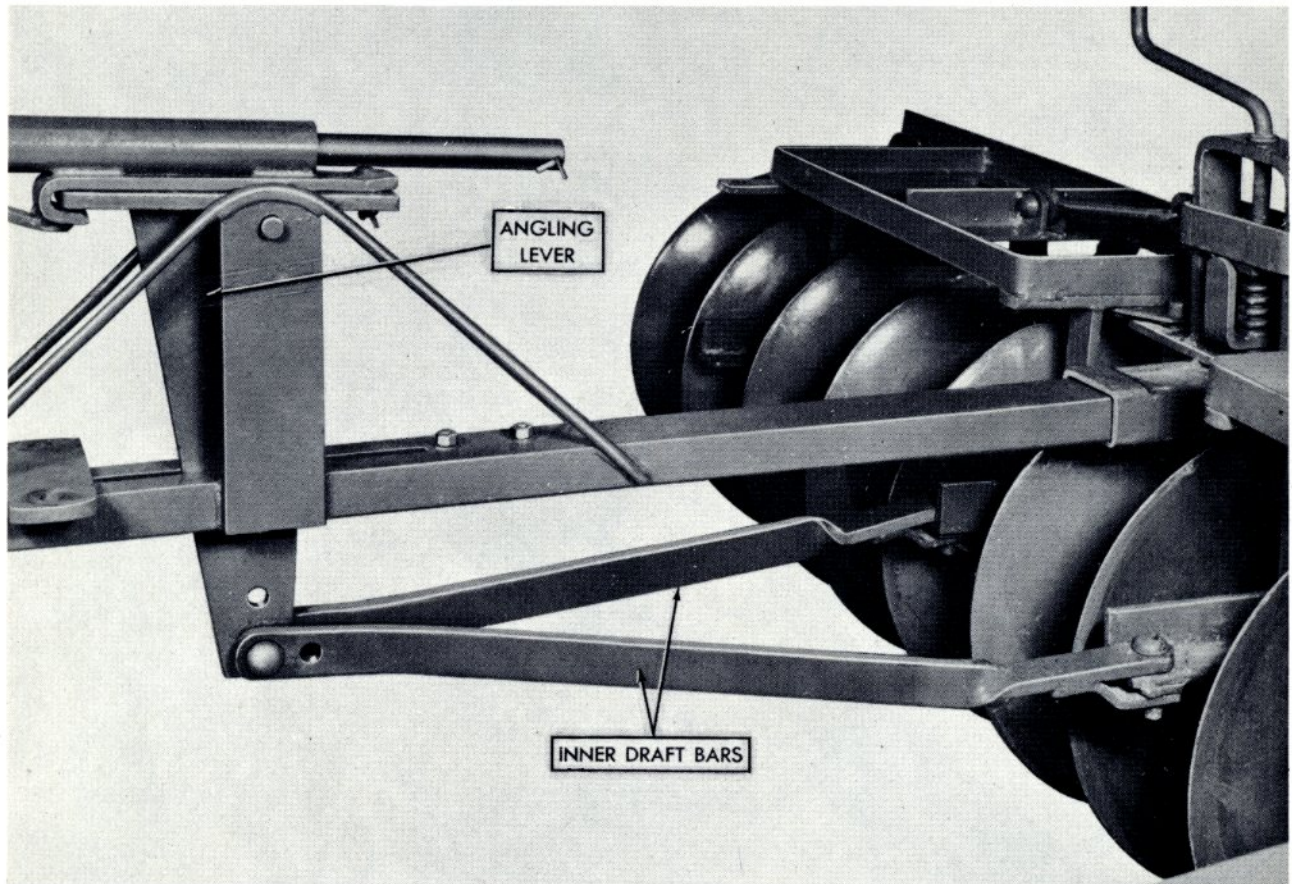


Figure 12
Inner draft bars attached

Step 11: Fasten gang frame ends of inner draft bars to gang frames with pins and cotter pins. Attach forward ends of inner draft bars

to lower end of angling assembly lever and secure with pin, washer, and cotter pin. See Figure 12.



ATTACHING AND DETACHING

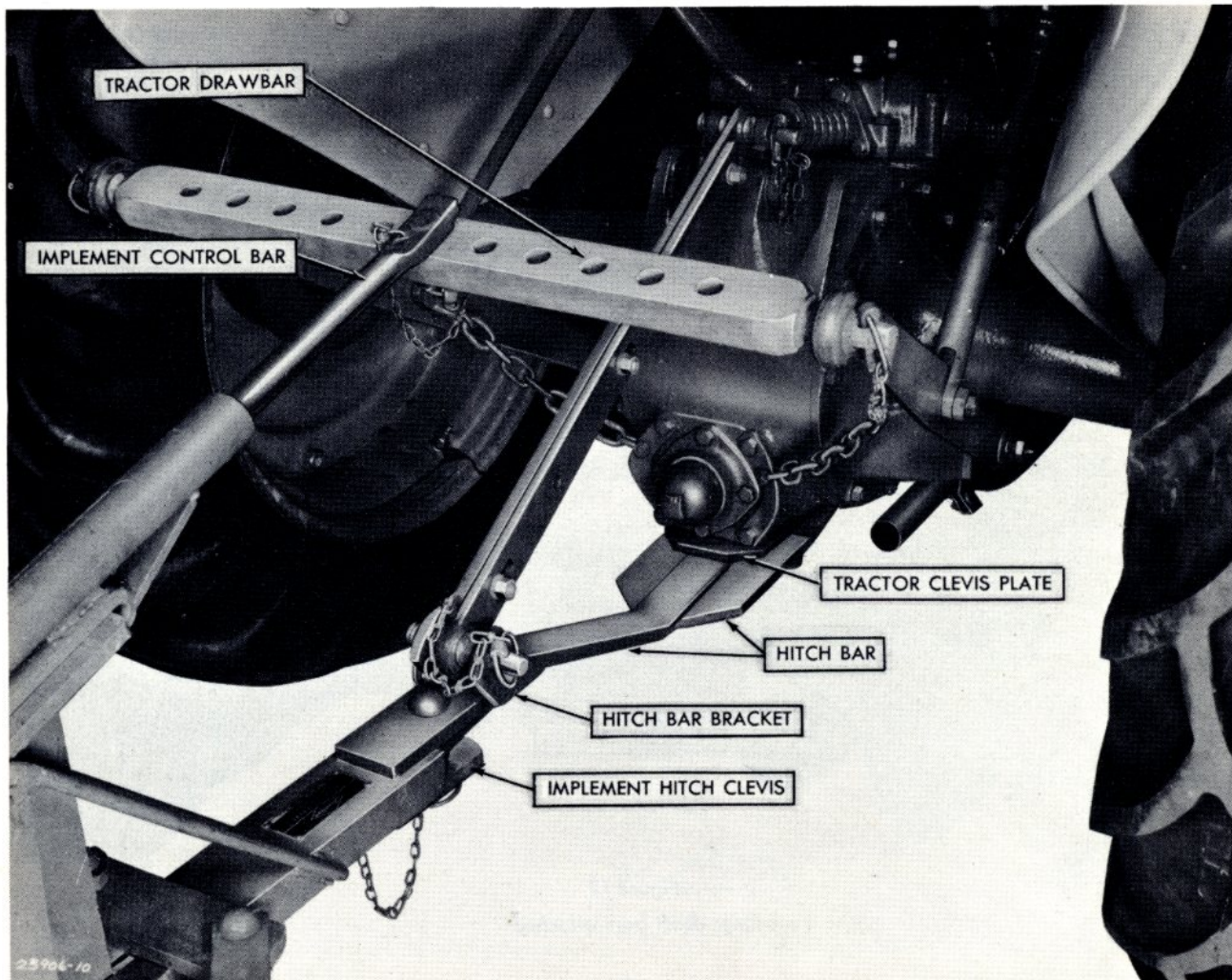


Figure 13

Harrow attached to Ford Tractor

ATTACHING HARROW TO TRACTOR

Step 1: Attach harrow hitch bar to tractor clevis plate with the clevis pin.

Step 2: Attach tractor top link to hitch bar bracket and secure with linch pin. (See Figure 13).

Step 3: Fasten tractor cross drawbar to tractor lower links and secure with linch pins. (See Figure 13).

Step 4: Back tractor into position and secure hitch bar to implement hitch clevis with clevis pin and linch pin. (See Figure 13).

Step 5: Attach implement control bar by inserting the welded pin through center hole of tractor drawbar and secure with linch pin. (See Figure 13).

DETACHING HARROW FROM TRACTOR

Step 1: Detach implement control bar from tractor cross drawbar by removing linch pin.

Step 2: Remove clevis pin and detach hitch bar from implement hitch clevis. Tractor is now completely detached from implement.

OPERATION



Figure 14

ADJUSTMENT

The angle of the Dearborn Tandem Disc Harrow disc gangs can be easily and quickly adjusted to suit variations in soil conditions. By means of the Ford Hydraulic Touch Control the operator can set the disc gangs at any angle from straight to full angle position.

The following preliminary leveling adjustment should be made before the harrow is taken into the field:

1. Set the implement on a level floor or on two boards on level ground. If boards are used, they should be of the same thickness and long enough to reach the full width of the implement when the gangs are in the straight position. Place one board under the discs of the front gangs, the other under the rear gangs.
2. Adjust gangs to straight position.
3. Turn leveling crank until the spring is loose.
4. Place a block of wood $\frac{3}{4}$ inches thick under the disc blade at the outer end of each front gang.
5. Place $\frac{1}{2}$ inch thick blocks under the disc blades at the inner ends of each rear gang.
6. Tighten up the leveling crank until the spring in the leveling assembly is in compression.

OPERATION

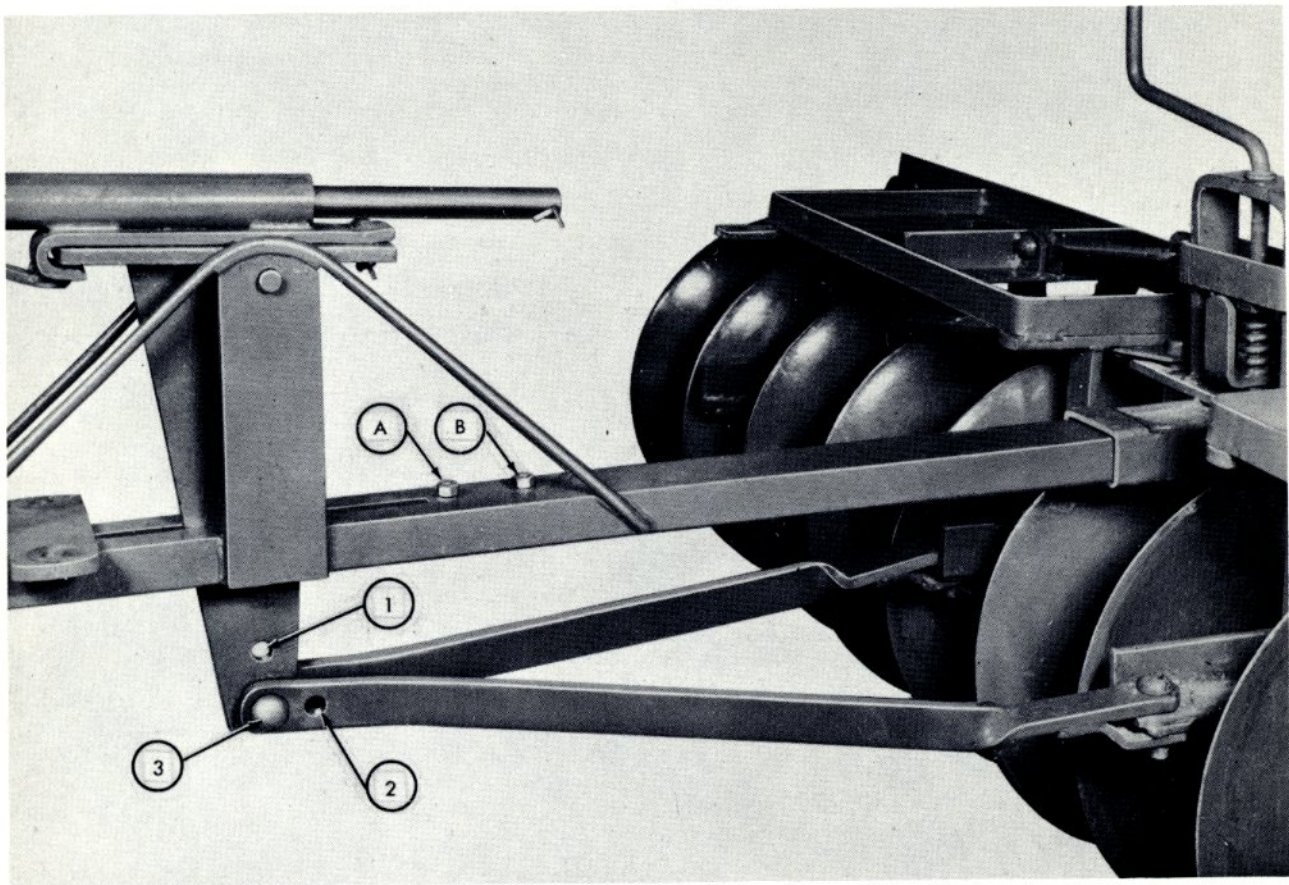


Figure 15

Disc gang angle-control adjustments

7. Adjust the leveling plates of the lower cross drawbars to contact the upper cross drawbars and bolt them securely.

FIELD ADJUSTMENT

If the outer ends of the front gangs are cutting too deep, tighten up on the leveling crank until the front discs are penetrating at a uniform depth. The cross drawbars will then readjust the rear gangs to do a uniform job.

The disc scrapers can be adjusted by gangs to accommodate soil and operating conditions by means of the slotted holes in the scraper support angles. These holes permit lateral adjustment. Each scraper can be adjusted individually for spring tension.

The maximum disc angle may be set by removing the bolts (A) and (B) shown in Figure 15 and adjusting the lever stop plate under the hitch tongue. This stop plate may be set to give maximum disc angle desired by limiting the movement of the angling lever in the tongue slot. The shorter the tongue slot is made with the lever stop plate, the less the maximum angle will be.

The two holes (1) and (2) shown in Figure 15, are for minor angle adjustments and are seldom used. The greatest possible disc gang angle of 21° is obtained by using hole (3) in the inside draft bars and the bottom hole in the angling lever, with the lever stop plate set clear of the tongue slot. Figure 15 shows this setting.

LUBRICATION

There are eight lubrication fittings (one on each bearing box). 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 the bearings to carry out the grit and dirt and to seal the bearings from outside dirt and dust. Grease the angling control bar to facilitate action and prevent rusting.

MAINTENANCE

1. Keep bearings well lubricated.
2. Use touch-up paint where necessary on painted surfaces to prevent rust and maintain appearance of the implement.
3. Store the harrow in a dry place between operating seasons and coat non-painted surfaces with a good grade of rust preventative.
4. Replace worn and damaged parts promptly with genuine Dearborn repair parts.

SAFETY

Most farm implement accidents can be prevented by following these simple precautions.

1. Do not permit anyone but the operator to ride tractor at anytime.
2. Do not permit anyone to ride on implement.
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.