

(PULL TYPE)

TANDEM DISC HARROW



Models 11-12, 11-13, 11-14 and 11-15



ASSEMBLY and OPERATING

Instructions

DEARBORN MOTORS CORPORATION - DETROIT 3, MICHIGAN

DESCRIPTION

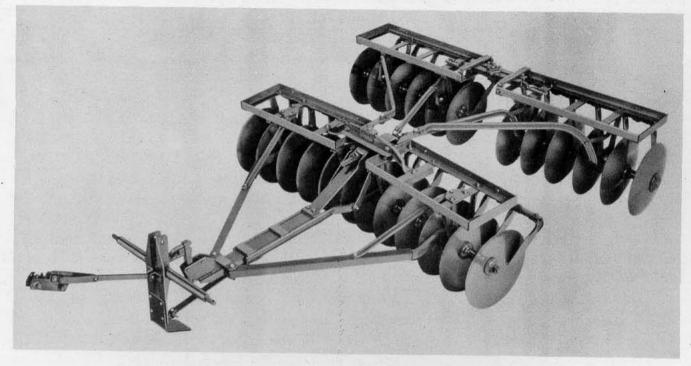


Figure 1
Dearborn Pull Type Tandem Disc Harrow

The Dearborn Pull Type Tandem Disc Harrow pictured above is a field tested implement that embodies the high quality manufacturing standards required of all implements in the Dearborn Farm Equipment line. The sturdy welded and riveted construction assures long life and dependable operation. The Tandem Disc Harrow is equipped with its own drawbar which is easily and quickly attached to the tractor lower and upper links. The disc gangs are readily adjusted to the desired cutting angle with the Ford Hydraulic Touch Control. The yoke-rack type angle adjustment linkage assures quick and positive disc angle adjustment action. The disc blades are made of heat treated high carbon steel to give maximum wear and shock resisting qualities. The scraper blades are of high carbon steel and are mounted in such a manner that they may be adjusted either individually or by

gangs. The eight bearing boxes are each equipped with two lubrication fittings which are easily accessible for lubrication. The Tandem Disc Harrow is easily attached to or detached from the Ford Tractor.

The various models of this harrow differ only in the diameter of the discs and the length of the gangs.

BUNDLE INFORMATION

The Dearborn Tandem Disc Harrow is shipped in eight bundles as listed below. Check shipment against this list to be sure all parts are received.

Bundle No. 1

Right rear disc gang assembly.

Bundle No. 2

Left rear disc gang assembly.

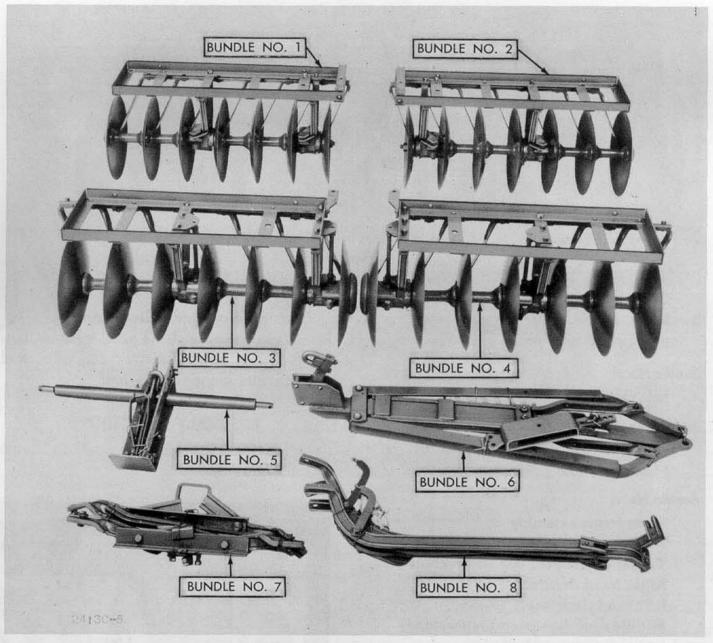


Figure 2
Implement Bundled for Shipment

NOTE: Assembly of the Dearborn Tandem Disc Harrow is the responsibility of your Dearborn Farm Equipment dealer. The implement should be delivered completely assembled. The following instructions are provided in case of need.

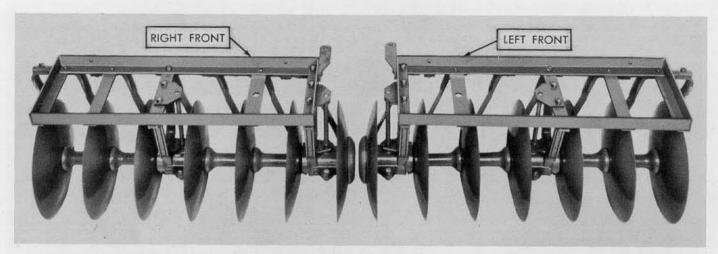


Figure 3
Front Gangs Positioned for Assembly

Bundle No. 3

Right front disc gang assembly.

Bundle No. 4

Left front disc gang assembly.

Bundle No. 5

One drawbar and shoe assembly, rack plate and hitch yoke assembly.

Bundle No. 6

Front frame assembly
Trailer adjustment frame assembly
Trailer adjustment bar and eyebolt
Right hand draft angle (welded)
Left hand draft angle (welded)
Middle draft bar assembly (welded)
Instruction manual tube.

Bundle No. 7

Front snubber assembly
Rear snubber assembly
Right hand middle draft bar brace
Left hand middle draft bar brace
Two draft angle braces.

Bundle No. 8

Right hand inside trailer reach Left hand inside trailer reach Right hand outside trailer reach Left hand outside trailer reach Bag containing clevis pins, washers, cotter pins, bolts, lockwashers, nuts, and contents identification list.

ASSEMBLY PROCEDURE

1. Place front disc gangs in position shown in Figure 3.

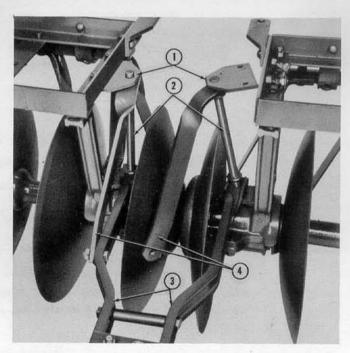


Figure 4 Attaching Middle Draft Bar

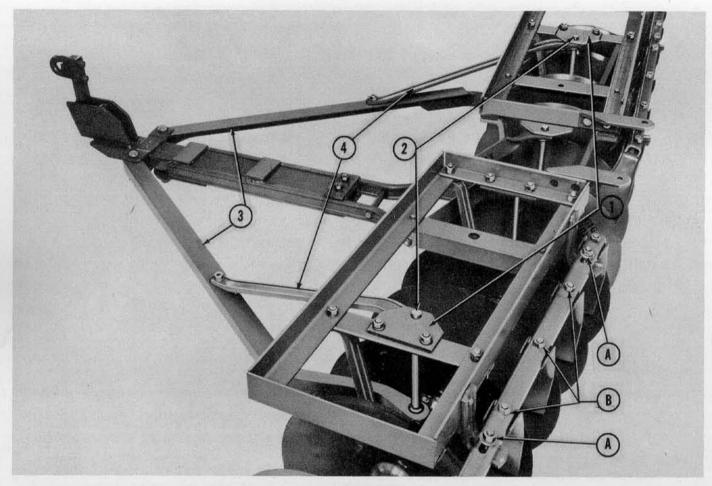


Figure 5
Draft Angles and Braces Attached

- 2. Remove draft pin plates (1) and draft pins (2), Figure 4, from each of the front gangs.
- Align holes in the fork ends of middle draft bar (3) with holes in bearing boxes and insert large end of draft pins.
- 4. Position draft bar braces (4) (marked "Right" and "Left") on draft bar pins and bolt lower ends into position on draft bar as shown in Figure 4.
- Bolt draft pin plates into position and tighten all nuts securely.
- 6. Remove outer draft pin plates (1), Figure 5, and draft pins (2) and align the

- rear holes of draft angles (3) with holes in bearing boxes.
- 7. Place large ends of draft pins (2) through the draft angle holes into bearing box holes as shown in Figure 5.
- 8. Place draft angle braces (4) over top end of draft pins and secure by bolting draft pin plates in place as shown in Figure 5.
- Bolt the other end of draft angle braces to draft angles as shown.
- 10. Mount front snubber assembly (1), Figure6, to front gangs as follows:
 - a. Loosen locking nut (2) and adjusting nut (3) on snubber assembly to give

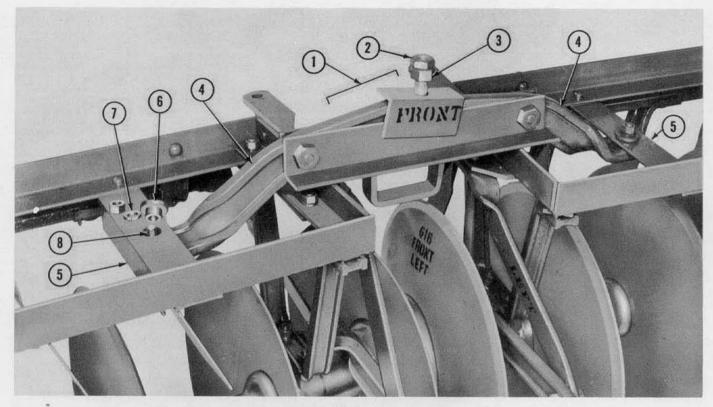


Figure 6
Mounting Front Snubber

maximum movement to snubber arms (4).

b. Bolt snubber arms to snubber angles (5), using bushing (6) and lock washer (7).

NOTE: Snubber arms go under snubber angles and bolt (8) is inserted upwards through snubber arms and snubber angles.

- Slide rear end of trailer adjusting assembly (1), Figure 7, through bracket (2) and bolt front end to middle draft bar (3) as shown in Figure 7.
- 12. Insert trailer adjusting bar (4) through trailer adjusting assembly and secure with eye bolt (5). See Figure 7.
- 13. Attach inside reaches (1), Figure 8, to

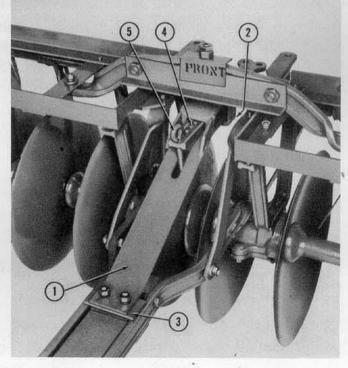


Figure 7
Trailer Adjusting Assembly Attached

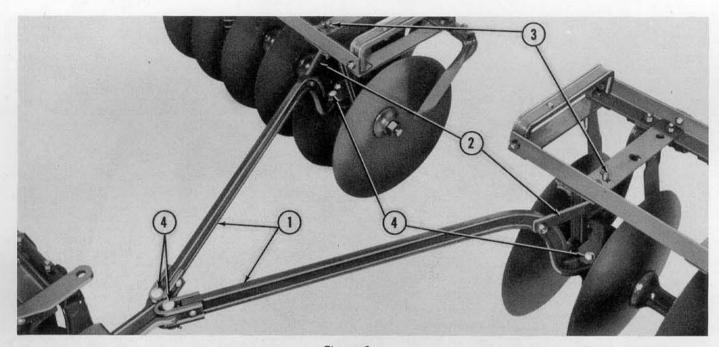


Figure 8
Inside Reaches Attached

front and rear gangs as shown. The reach braces (2) are bolted to reach arms and secured to disc gang with cotter pins (3) as shown in Figure 8.

- 14. Secure pins (4) at both ends of the reaches with cotter pins.
- 15. Attach outside reaches (1), Figure 9, to

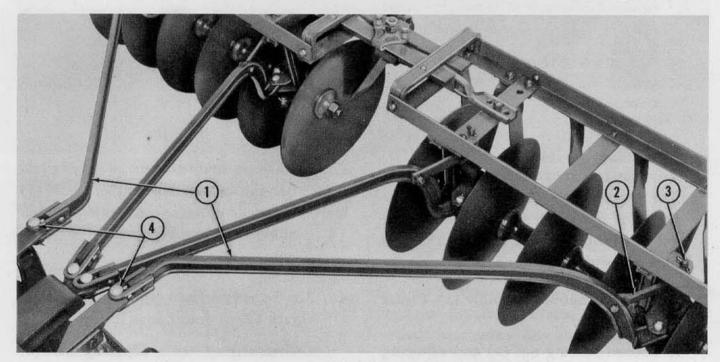


Figure 9 Outside Reaches Attached

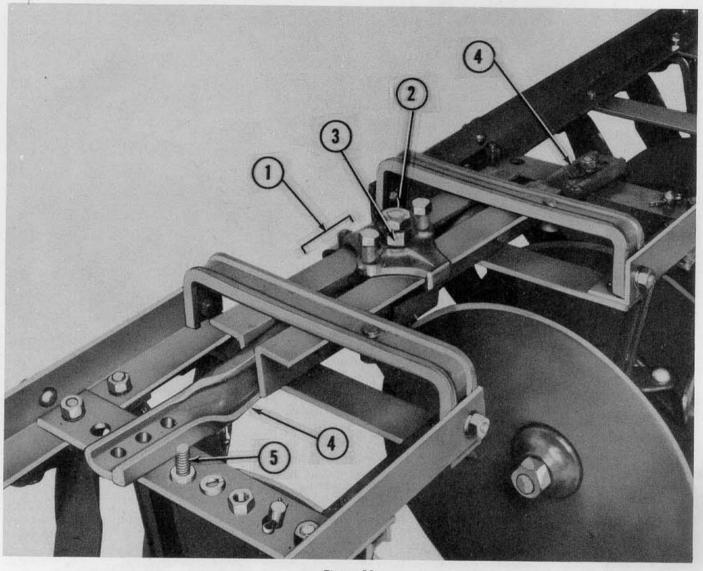


Figure 10
Attaching Rear Snubber

front and rear gangs as shown in Figure 9. The reach braces (2) are bolted to the *inside* of the reach and are secured to gangs with cotter pins (3). Secure clevis pins (4) with cotter pins.

- Attach rear snubber assembly (1), Figure 10, as follows:
 - a. Loosen locking nut (2) and adjusting nut (3) to give maximum movement to snubber arms (4).

- b. Position snubber arms on top of snubber angles with bushing and bolt (5) inserted upwards through snubber angles and snubber arms.
- c. Tighten nuts securely.
- 17. Attach cross drawbar shoe assembly (1), Figure 11, to draft bar as follows:
 - a. Attach gang angle adjusting bar (2) to clevis (3) on forward face of drawbar assembly.

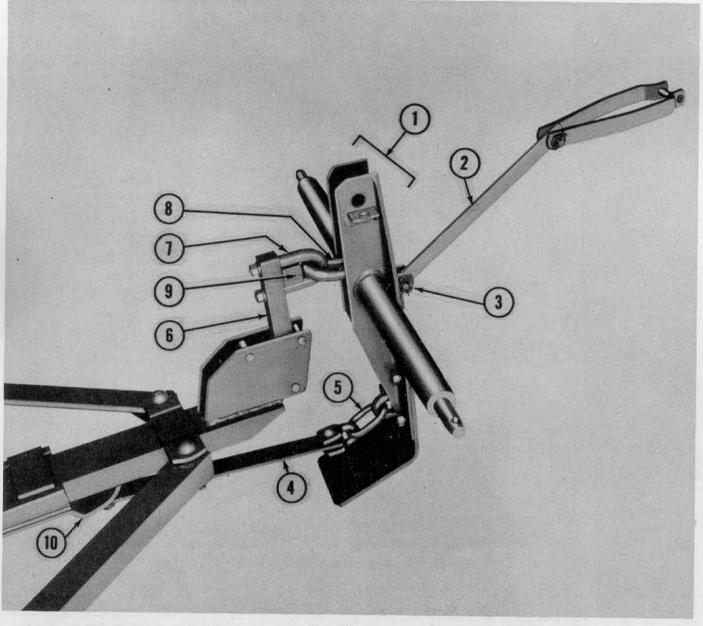


Figure 11
Drawbar Mounted to Harrow

- b. Attach connecting strap (4) to shoe link (5).
- c. Attach drawbar assembly to hitch post (6) by inserting hitch post yoke (7) through welded link (8) in draw bar. Bolt yoke to hitch post as shown in Figure 11.

NOTE: Make sure hitch post yoke filler (9) is in position as shown in Figure 11.

d. Attach rear end of connecting strap (4) to bracket (10) on underside of draft bar with bolt, bushing, lock washer and nut.

NOTE: Insert bolt downward through bracket.

ATTACHING AND DETACHING

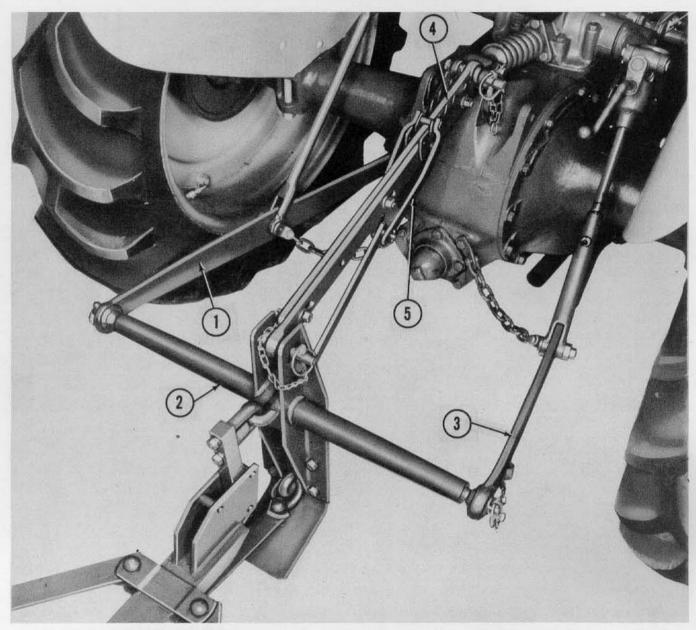


Figure 12 Harrow Attached to Tractor

ATTACHING HARROW TO TRACTOR

- 1. Attach tractor left lower link (1), Figure 12, to cross drawbar (2).
- Attach tractor right lower link (3) to cross drawbar.
- 3. Bolt angle adjusting rack (4) in place on tractor upper link as shown.

- NOTE: Notches in adjusting rack should be up and point forward.
- Insert tractor upper link through adjusting yoke (5) and attach tractor upper link to harrow and tractor.

DETACHING HARROW FROM TRACTOR

1. Remove tractor upper link.

OPERATION



Figure 13
Tandem Disc Harrow at Work

NOTE: Angle adjusting rack need not be removed from tractor upper link.

2. Remove tractor right and left lower links.

CAUTION: Do not attempt to move the tractor until harrow is completely detached.

LUBRICATION

There are 16 lubrication fittings (two on each bearing box) on the "Series C" Tandem Disc Harrow. Wipe these fittings clean before lubrication to give a good grease gun fit and to eliminate outside dirt and dust from being forced into the bearings. Use a good grade lubricant and force enough grease into the

bearings to force out dirt and to seal the bearing from outside dirt or dust.

ADJUSTMENTS

Leveling the Gangs: The front and rear gangs are leveled individually by means of the front and rear snubber assembly. These adjustments are made as follows:

- Loosen snubber adjusting bolt lock nut (1), Figure 14.
- Loosen snubber adjusting nut (2) to lower outer ends of disc gangs or tighten snubber adjusting nut to raise outer ends of disc gangs.

OPERATION

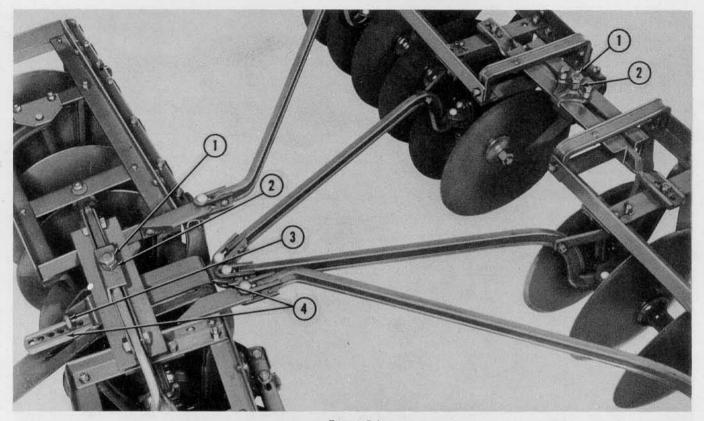


Figure 14
Gang Adjustments

- 3. Tighten locking nuts when disc gangs are in position desired.
- 4. Tighten trailer snubber cap screws down snug to snubber arms to maintain rear gang setting.

Rear Gang Angle Adjustment: The angle of the rear gangs may be adjusted independently by removing the eyebolt (3), Figure 14, and sliding the adjusting bar (4) forward or backward until rear gangs have desired angle. Replace eyebolt.

Gang Angle: The angle of the disc gangs is controlled by the Ford Hydraulic Touch Control. By lowering the hydraulic lift the gang angle is increased. By raising the hydraulic lift the gang angle is decreased. Adjustments are made by positioning the yoke (1) on the rack (2), Figure 15. By raising the yoke on

the rack the gang angle will be increased, and by lowering the yoke on the rack the gang angle will be decreased.

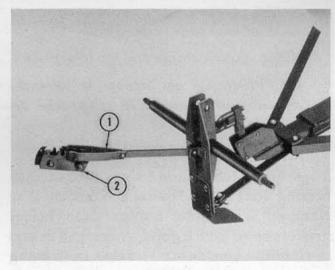


Figure 15
Gang Angle Adjustments

OPERATION

Scraper Adjustment: The scrapers may be adjusted by gangs. For a gang adjustment, loosen the nuts (A) Figure 5, on the scraper rail and move the scraper assembly to desired position. To make individual scraper adjustments, loosen the nuts (B), Figure 5, and set each scraper as desired. Tighten nuts to hold setting.

The above adjustments are determined by

types and conditions of soil. The operator must adjust the disc harrow accordingly to give desired results in conditions that prevail.

TRANSPORTING THE DISC HARROW

Raise the hydraulic lift with the Ford Hydraulic Touch Control to straighten the gangs.

MAINTENANCE SUGGESTIONS

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