



DEARBORN

# TANDEM DISC HARROW

SERIES "F" (PULL TYPE)



**ASSEMBLY and OPERATING**

*Instructions*

DEARBORN MOTORS CORPORATION — BIRMINGHAM, MICHIGAN

## **PROTECT YOUR INVESTMENT**

You purchased this implement for a reason—to get maximum benefit from it. To do this you must understand clearly how it works, what can be done with it and how to make it operate properly.

This manual gives you this information. Read it carefully and follow the instructions to get satisfactory results from your investment.

Keep this manual available for ready reference at all times.

## DESCRIPTION

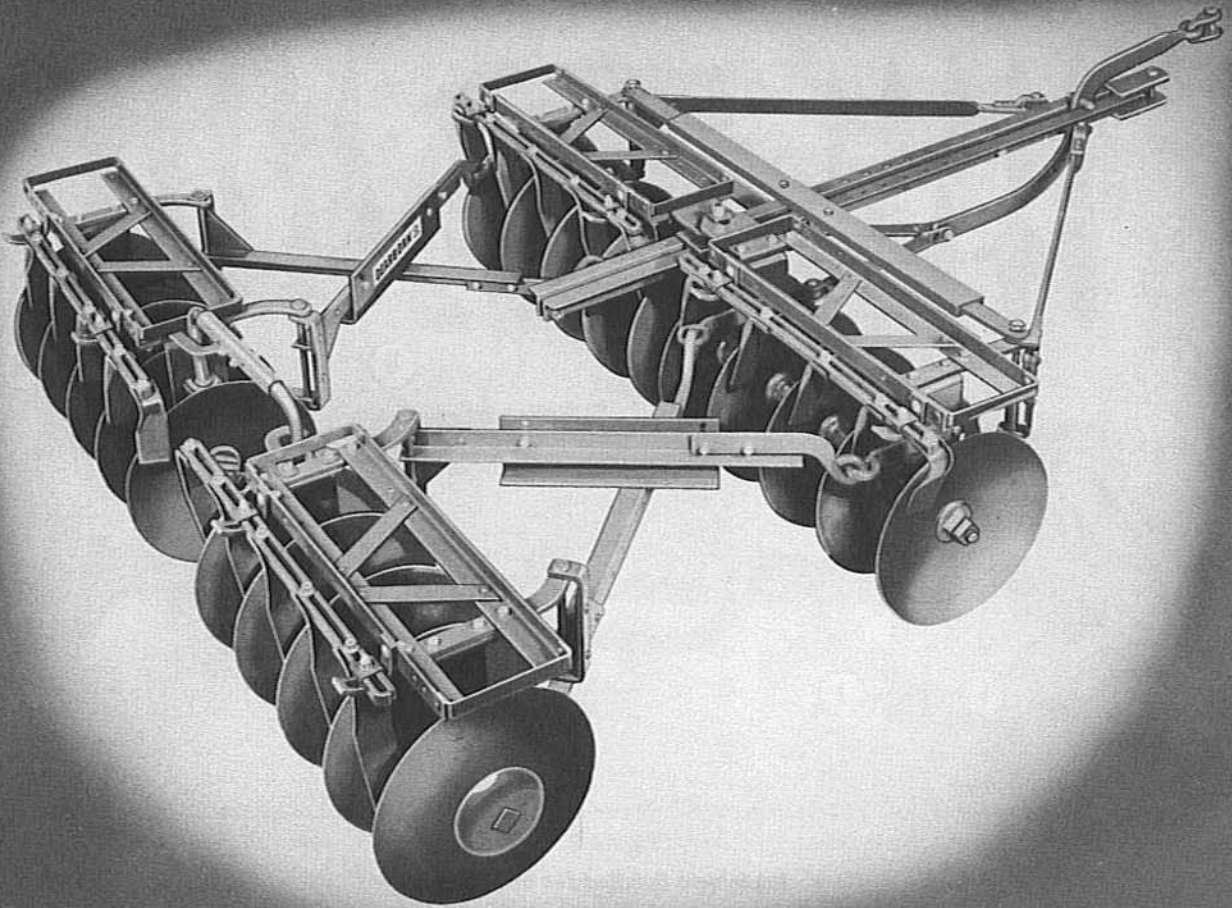


Figure 1

The Dearborn Pull Type Tandem Disc Harrow

The Dearborn Pull Type Tandem Disc Harrow is manufactured to give highly satisfactory service-free operation that means profits to you.

Adjustments are easy to make and assure efficient operation in various soil conditions. The cross-over hitch of the rear gangs gives a smoother running harrow under rough soil conditions and keeps the discs in the ground even at higher tractor speeds. The spacing of the discs is designed for modern tractor operation, and throughout the entire range of adjustment, each disc does its share in turning and pulverizing the earth.

The harrow frame is made of extra heavy angle

steel and braced to resist severe shock and abuse. All other parts are manufactured for long and efficient service. The active bearing surfaces are chilled white iron, uniformly hard and resistant to abrasion. Scrapers for the harrow are additional equipment, and when used may be adjusted separately or in gangs.

The Dearborn Pull Type Tandem Disc Harrows are available in eight models to meet your individual farm and tractor needs. Models 11-88, 11-89, 11-90 and 11-105 are equipped with the Ford Tractor Hydraulic Angling Device, while Models 11-112, 11-113, 11-114 and 11-116 are available with a Universal Hitch which is adaptable to any farm tractor.

# SHIPPING INFORMATION

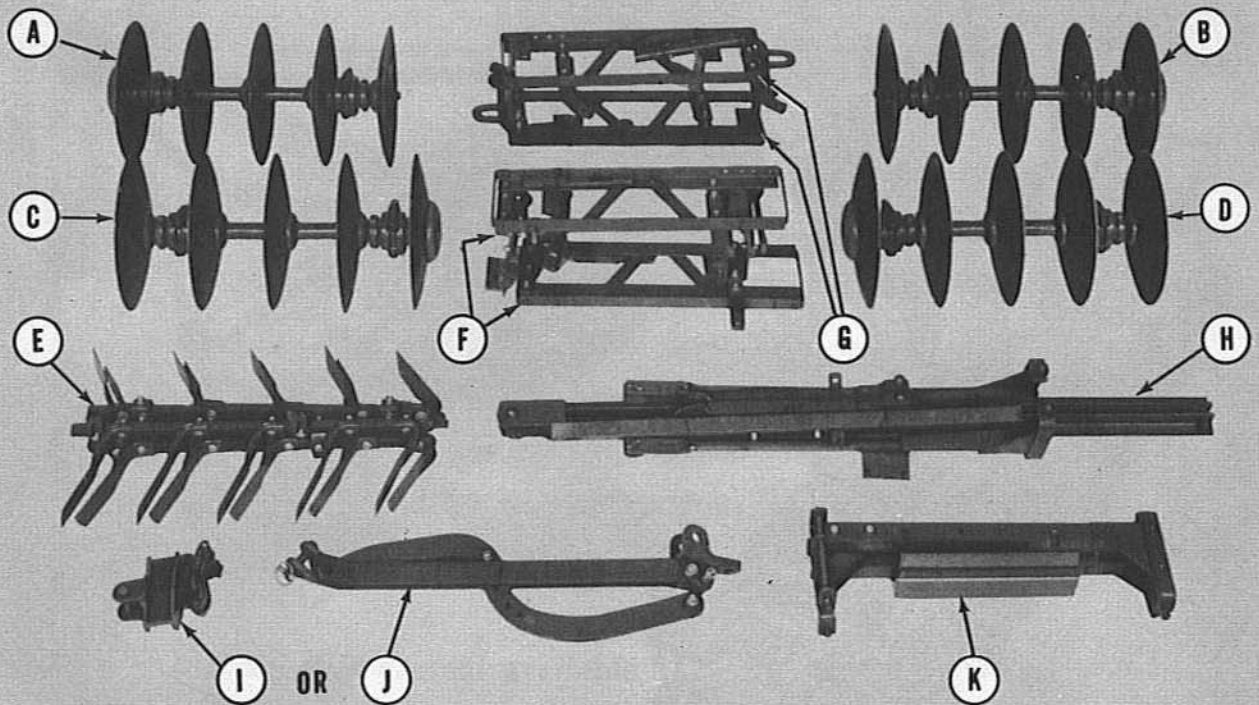


Figure 2  
Implement Bundled for Shipment

## SHIPPING INFORMATION

The Dearborn Pull Type Tandem Disc Harrow is shipped in nine bundles. Scraper assemblies are available as extra equipment and, if purchased, comprise an additional bundle. Check the shipment against the following list and Figure 2 to be sure all parts are received.

Used on Model No.	Key	Description	D.M.C. Bundle No.
11-88, 11-112	A,B,C,D	6' Gangs—20-16" Discs	111806
11-89, 11-113	A,B,C,D	6' Gangs—20-18" Discs	111807
11-90, 11-114	A,B	7' Rear Gangs—24-16" Discs.....	111838
	C,D	7' Front Gangs—24-16" Discs.....	111808
11-105, 11-116	A,B	6' Rear Gangs—20-18" Discs.....	111807
	C,D	6' Front Gangs—20-18" Cutout Discs.....	112480
11-88, 11-89, 11-105, 11-112, 11-113, 11-116	E	Scraper Assemblies (6')	11-109
11-90, 11-114	E	Scraper Assemblies (7')	11-110
All Models	F	Front Weight Box and Hanger Assembly...	112562
All Models	G	Rear Weight Box and Hanger Assembly...	112563
All Models	H	Tongue and Draft Bar Assembly.....	112560

Used on Model No.	Key	Description	D.M.C. Bundle No.
*11-112, 11-113, 11-114, 11-116	I	Universal Hitch Kit...	11-118
*11-88, 11-89, 11-90, 11-105	J	Ford Tractor Hydraulic Angling Hitch Kit...	11-111
All Models	K	Right and Left Drawbar Assemblies.....	112561

\*The Ford Tractor Hydraulic Angling Hitch Kit and the Universal Hitch Kit are sold separately so that you may purchase the one you desire.

## ASSEMBLY PROCEDURE

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

- Cut and remove the wires from the bundles and lay out the parts in their relative positions as shown in Figure 3.
- Assemble the front gang unit as follows:
  - Position each of the front weight boxes (1), Figure 4, on the disc gangs (5) as shown.
  - Position the two spacers (2), Figure 3, on top of the bottom flange of the center hangers.

# ASSEMBLY

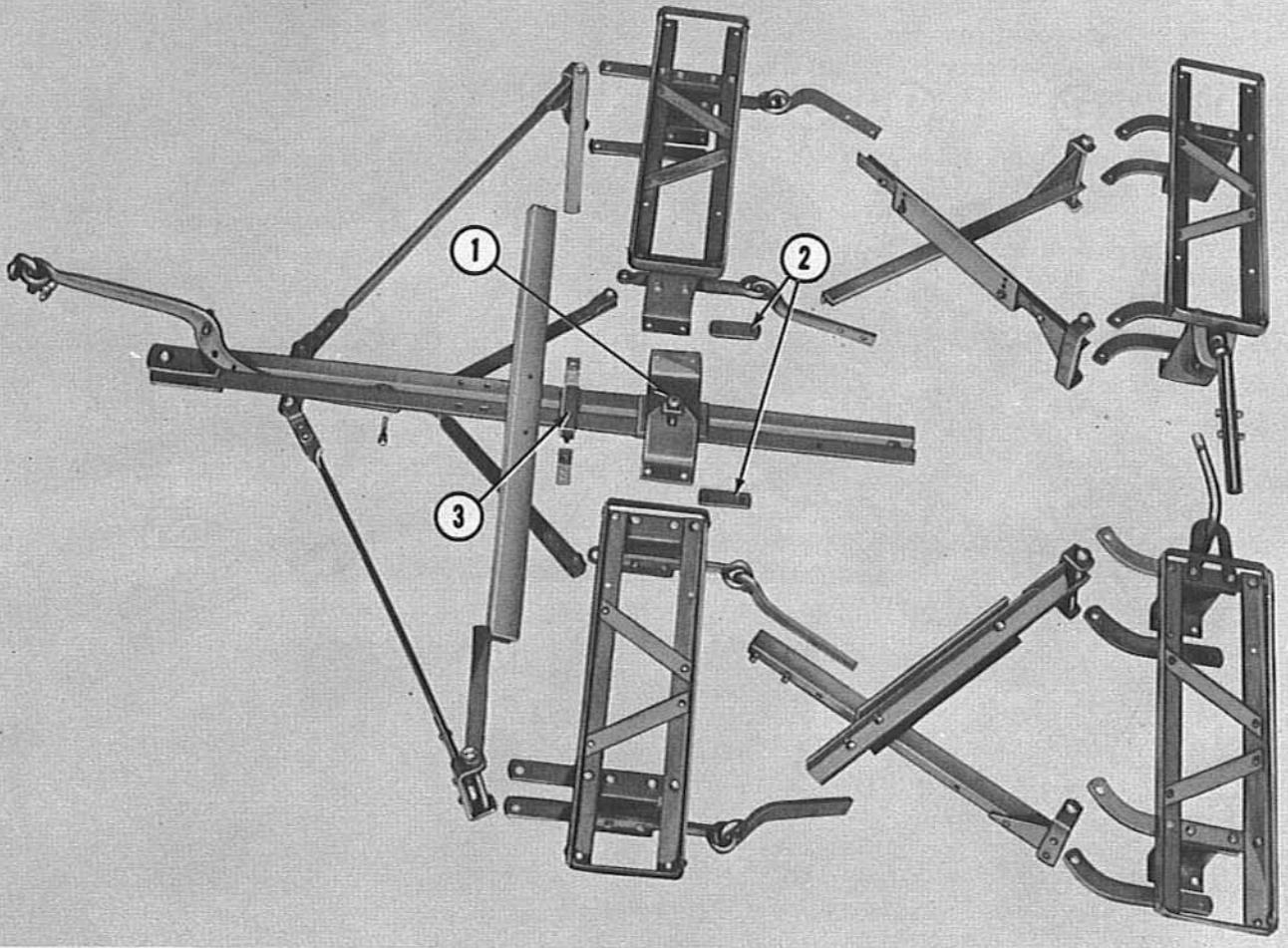


Figure 3

## Harrow Parts Laid Out in Relative Position for Assembly

- c. Position the disc bearings so that the grease fittings point to the rear of the implement.

**NOTE:** If this harrow is purchased with a universal hitch remove the bolt and bushing (2), Figure 4, and the leveling assembly (3), Figure 3. Slide the universal hitch on the tongue as shown in the insert, Figure 4, and replace the leveling assembly. Slide the front gang tie assembly (1), Figure 3, on the tongue and replace the bolt and bushing (2), Figure 4.

- d. Position the outer lower pull straps on top of the outside bottom hanger flanges (see (6), Figure 4) and secure the four bearings to the disc gang hangers with the bearing bolts provided.
- e. Position the harrow tongue assembly between the disc gangs as shown in Figure 4. Insert the two stabilizer tongues (7) and (14), Figure 4, in the stabilizer bar (8) and attach the outer draft bar assemblies (9) and (15) and the stabilizer tongues to the pull straps with the two bolts provided.
- f. Bolt the guide lugs (4), Figure 4, to the inner

ends of each weight box with the bolts (3) provided.

- g. Bolt the leveling guide assembly (10), Figure 4, to the stabilizer bar (8) with the bolts (13), lockwashers and nuts provided. Use the center hole in the leveling guide assembly under normal soil conditions. See the paragraph, Leveling Guide Assembly, under ADJUSTMENTS, page 7.
- h. Attach each center draft bar (11), Figure 4, to the links on the inner disc gang hangers with the button head pins and cotter pins provided.
- i. Position the cam angling assembly (12), Figure 4, as shown and attach the assembly to the front hole in the forward end of the center draft bars (11) with the bolt, spacers, flatwashers, lockwasher and nut provided.

**NOTE:** When the harrow is purchased with the universal hitch (see insert, Figure 4), fasten the draft bars (11) to the universal hitch with the bolt, spacer, flatwasher, lockwasher and nut provided.

# ASSEMBLY

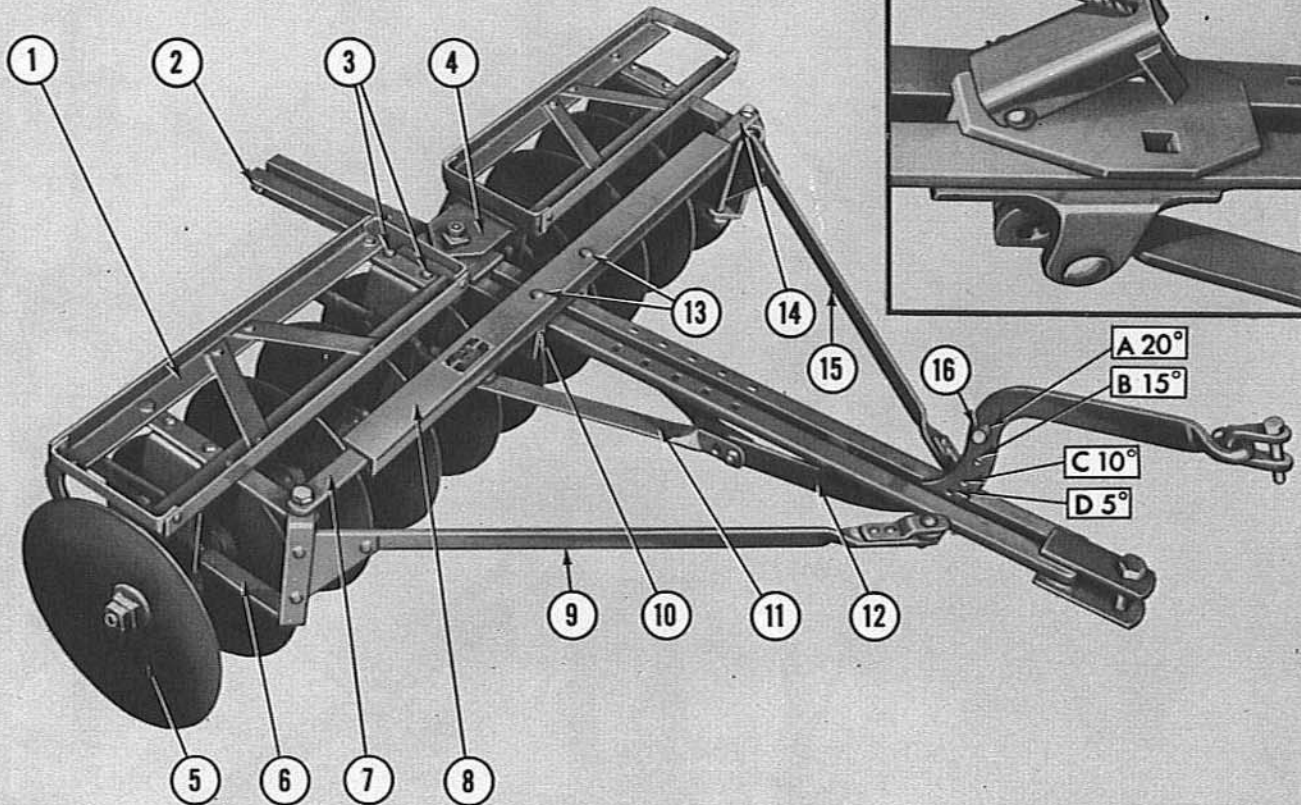


Figure 4

Front Half of the Harrow Assembled

3. Assemble the rear gang unit as follows:
  - a. Position the rear weight boxes on the disc gangs so that the holes in the hangers are aligned with the bearing bolts. Position the lower rear pull straps on top of the hanger flanges as shown at (1), Figure 5.
  - b. Position the disc bearings so that the grease fittings point to the rear of the implement and secure the bearings to each hanger with the bearing bolts provided.
4. Assemble the front and rear gang units as follows:
  - a. Attach the cross draw bars to the pull straps on the rear gangs with the long pins provided. See Figure 5.
  - b. Attach the forward ends of the cross draw bars to the links on the front gang hangers with the bolts, lockwashers and nuts provided.

**NOTE:** The cross drawbars are attached on top of the outer pull straps and under the inner pull straps. Proper installation of the cross drawbars on the rear pull straps is very important in the assembly of the harrow.

- b. Insert the tie rod (1), Figure 6, in the tie rod sleeve (2) and secure with the two bolts, lockwashers and nuts provided.
5. If scrapers are to be used on the harrow, attach them to the weight boxes as shown in Figure 9.

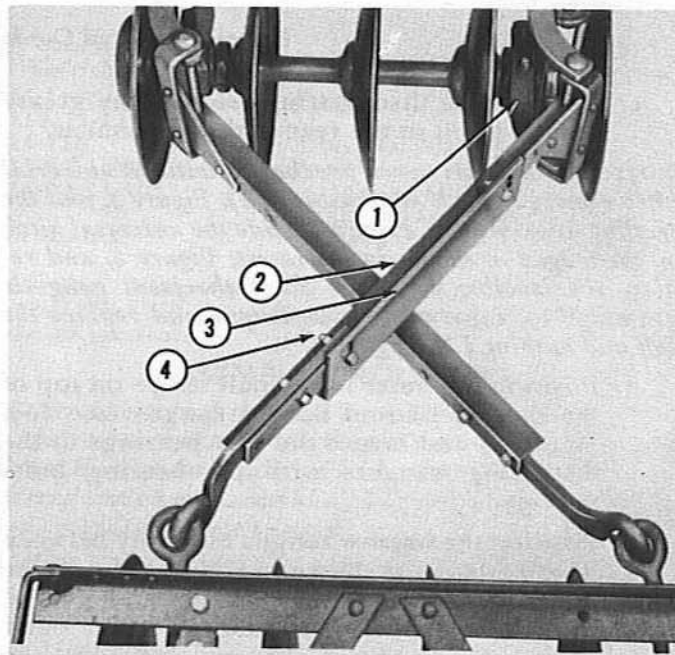


Figure 5

Cross Drawbars Attached

# ATTACHING AND DETACHING

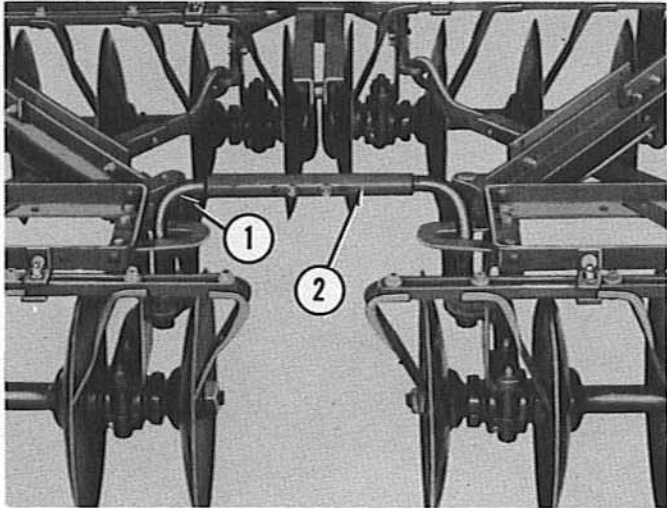


Figure 6  
Tie Rod Installed

## ATTACHING HARROW TO TRACTOR

1. Back the tractor into position.
2. Attach the "Y" frame to the stabilizer brackets (sold separately) on the tractor rear axle housing as shown in Figure 7.
3. Place the tractor top link in the "Y" frame yoke and attach the "Y" frame yoke to the harrow tongue clevis as shown.
4. Attach the angling arm to the tractor drawbar with the clevis, pin and linch pin provided.

## DETACHING HARROW FROM TRACTOR

1. Detach the angling arm from the tractor drawbar.
2. Disconnect the top link and harrow hitch from the "Y" frame yoke.
3. Remove the "Y" frame from the stabilizer brackets.

**CAUTION:** Be sure the harrow is completely disconnected before attempting to move the tractor.

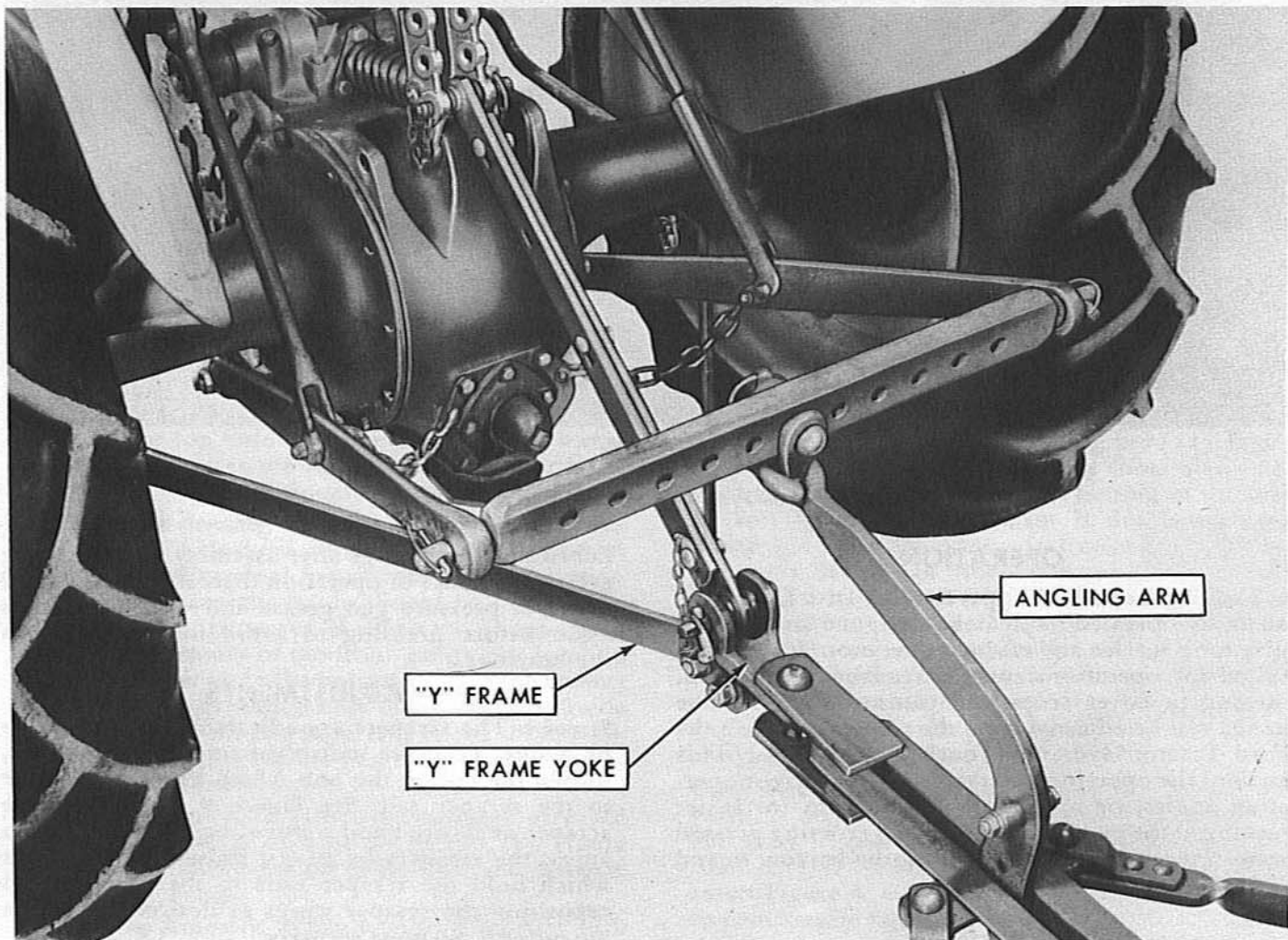


Figure 7  
Harrow Attached to Ford Tractor



Figure 8

*Dearborn Pull Type Tandem Disc Harrow at Work*

## OPERATION

The Dearborn Pull Type Tandem Disc Harrow is an easily operated implement, designed and built to give long service and efficient operation. It is ideally suited for operations such as seedbed preparation, turning in cover crops and cutting up trash. The gangs can be adjusted from the tractor seat with the Ford Tractor Hydraulic Touch Control Lever. This enables the operator to set the gangs at various operating angles, or to straighten the gangs for easier turning at the end of the field, when crossing grassed waterways or when transporting the harrow to and from the field.

## LUBRICATION

There are eight grease fittings on the Dearborn Pull Type Tandem Disc Harrow. One each of these is located on the disc bearings as shown in Figure 9.

Lubricate the bearings after assembly and following every four hours of operation thereafter. Use a good grade of pressure gun grease and wipe the fittings clean before greasing to avoid forcing dirt into the bearings.

## ADJUSTMENTS

**Scrapers:** The scrapers are adjustable individually or by gangs. To make individual scraper adjustments, loosen the nut on the bolt which holds the scraper to the scraper rail. See Figure 9. Reposition the scraper as desired and tighten the nut securely. To adjust the scrapers by gangs, loosen the two bolts which hold the scraper rails to the brackets and reposition the scraper gangs as desired. Retighten the nuts on the bolts securely.

**Cross Draw Bars:** Adjust the leveler plates (3), Figure 5, on the top cross drawbar (2) to level the rear disc gangs. To raise the centers, position the bolt (4) in



## MAINTENANCE

1. Keep all bolts and nuts tightened securely. Special attention in this respect, should be given the harrow when it is new.
2. Keep the disc blades sharp so that the Dearborn Tandem Disc Harrow will continue to give good service. Sharp disc blades help assure good penetration and positive trash cutting action.
3. Keep the bearings well lubricated.
4. Use touch-up paint where necessary on painted surfaces to prevent rust and maintain the appearance of the harrow.
5. Store the harrow in a dry place between operating seasons and coat non-painted surfaces with a good grade of rust preventive.
6. The Dearborn Farm Equipment dealer carries a complete stock of genuine Ford Tractor and Dearborn Equipment repair parts. These parts are precision manufactured and inspected, thus assuring high quality and accurate fit. Insist on genuine Ford Tractor and Dearborn Equipment 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 the tractor at any time.
2. Do not permit anyone to ride on the implement.
3. The operator should never leave the tractor seat while the tractor is in motion.
4. Never make adjustments or repairs on the tractor or harrow while the tractor is in motion.
5. Always shut off the engine when leaving the tractor.
6. Keep the tractor keys where they are not available to children.

# SERVICE PARTS

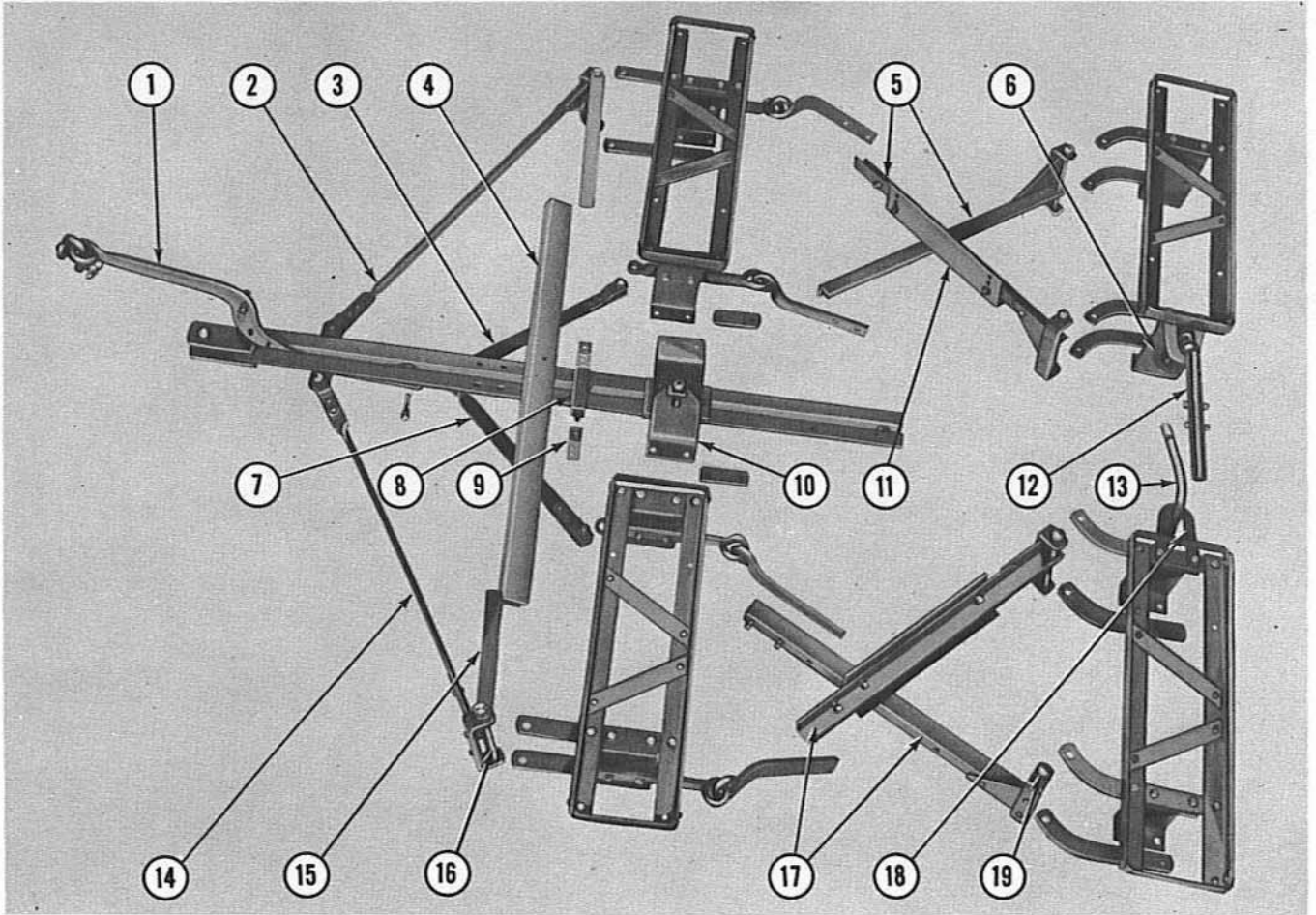


Figure 10

Service Parts for the Tandem Disc Harrow

*NOTE: The following part numbers are subject to change and should be checked with your local Ford Tractor and Dearborn Farm Equipment dealer when placing orders.*

Item No.	D.M.C. Part No.	Description	Required
1	112550	Cam, Angling (Forged Assembly).....	1
2	112491	Bar, Outer Draft, Right.....	1
3	112364	Bar, Inner Draft, Right.....	1
4	112343	Stabilizer, Hitch (Welded Assembly).....	1
5	112485	Drawbar (Riveted Assembly), Right.....	2
6	112375	Hanger, Disc Gang.....	8
7	112365	Bar, Inner Draft, Left.....	1
8	112691	Guide, Leveling.....	1
9	112694	Support, Leveling Guide.....	2
10	112342	Lug, Front Guide.....	2
11	112380	Plate, Leveling.....	2
12	112496	Sleeve, Tie Rod.....	1
13	112501	Rod, Tie.....	2
14	112489	Bar, Outer Draft, Left.....	1
15	112346	Tongue, Stabilizer.....	2
16	302962	Bolt, 5/8-18 x 11 Hex Head.....	2
17	112490	Drawbar (Riveted Assembly), Left.....	2
18	112499	Cradle, Tie Rod.....	2
19	112382	Pin.....	2

# OPERATION

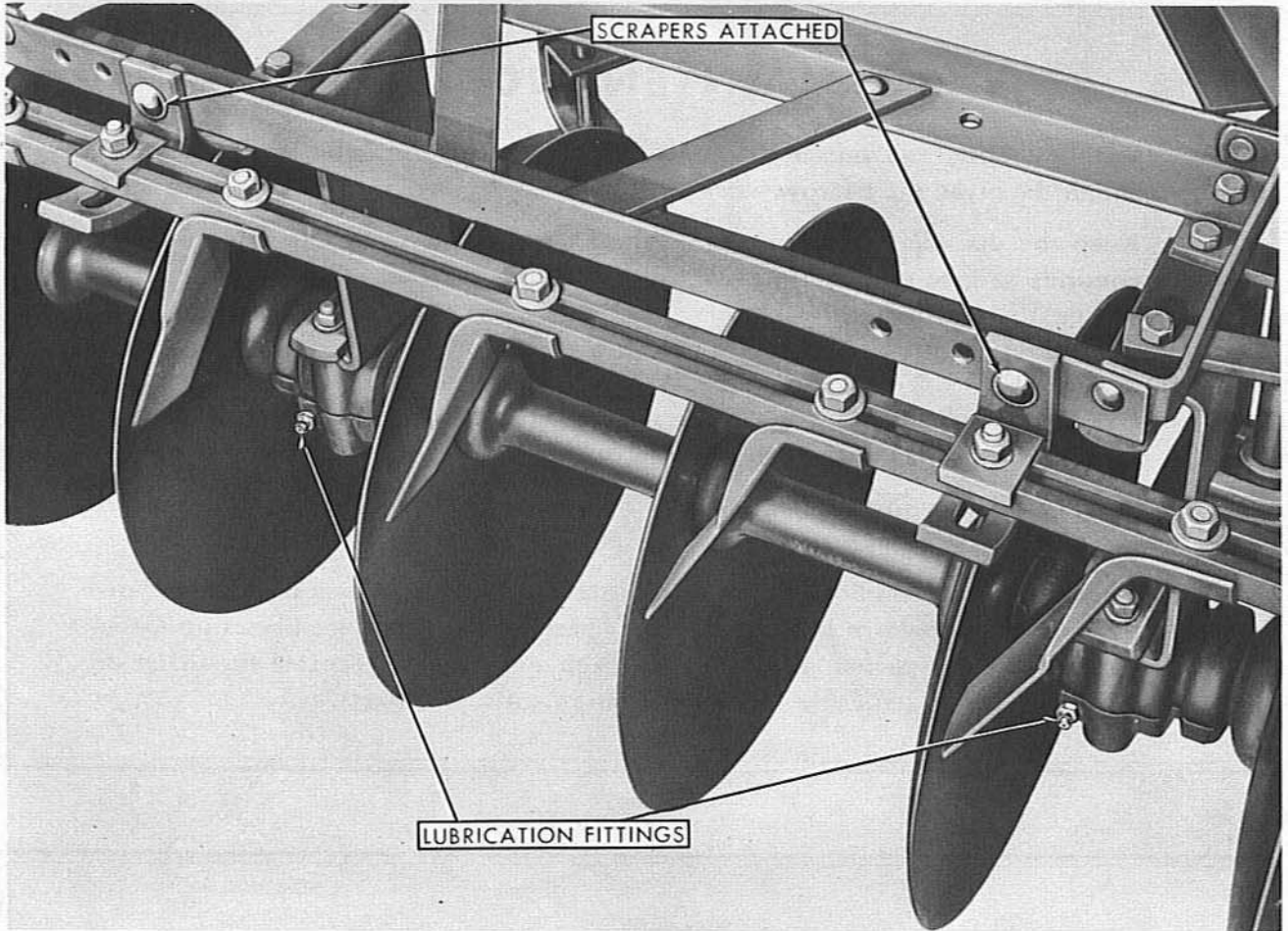


Figure 9

## Scrapers Attached and Lubrication Fittings

the center or top hole of the leveler plate. The rear bolt should be left in the bottom hole. The rear holes may be used when additional adjustment is required.

**Leveling Guide Assembly:** The leveling guide assembly (10), Figure 4, located beneath the stabilizer bar, provides an adjustment for various soil conditions. In most instances, the guide should be installed in the center hole. However, if ridging is encountered between the centers of the front gangs, the leveling guide should be set in the bottom hole. If the centers of the front gangs tend to bury themselves, the guide should be set in the top hole. Any of the three positions will permit complete flexibility of the harrow under all soil conditions.

**Tie Rod:** If ridging occurs when operating at increased speeds in very loose soil, set the tie rod (1), Figure 6, in the extended position to increase the distance between the gangs.

**Cam Angling Assembly:** When using the harrow with the 8N Ford Tractor, set the hydraulic selector lever on the tractor housing in the Implement Position control, which is the "up" position. Angle the gangs with the Hydraulic Touch Control Lever. The holes

(A, B, C and D) in the cam angling bar (12), Figure 4, permit the disc gang angle to be controlled when the Implement Position Control Setting of the Ford Tractor Hydraulic mechanism is not being used. When operating the tractor in Constant Draft Control, as in the case of Model 9N and 2N Ford Tractors, position the stop (16) in the hole which gives the desired degree of disc gang angle. To angle the gangs with the universal hitch, raise the pawl as shown in the insert, Figure 4, and move the tractor either forward or rearward to obtain the desired gang angle. Then lower the pawl to maintain the proper angle setting.

**Gang Wear Adjustment:** After the harrow has become worn, it may be advisable to bolt the cam angling bar (12), Figure 4, to the rear hole in the center draft bars (11), Figure 4. The universal hitch, see insert Figure 4, may also be adjusted in this manner to compensate for wear.

**Additional Weight:** It may be necessary to add weight to the harrow to obtain proper trash pulverization. Place as much weight on each weight box as is needed.

*Here are some of the implements in the Dearborn Farm Equipment Line:*

MOLDBOARD PLOWS

DISC PLOWS

TILLERS

TWO-WAY PLOWS

ONE-WAY PLOWS

MIDDLEBUSTERS

TANDEM DISC HARROWS

SPRING TOOTH HARROWS

BUSH & BOG HARROWS

SUBSOILERS

GRAIN DRILLS

LIME & FERTILIZER SPREADERS

SPRING SHANK CULTIVATORS

RIGID SHANK CULTIVATORS

FIELD CULTIVATORS

ROTARY HOES

BUSTER PLANTERS

COTTON & CORN PLANTERS

CORN PICKERS

CORN HARVESTERS

FRONT & REAR LOADERS

COMBINES

MOWERS

CRANES

SWEEP RAKES

SIDE DELIVERY RAKES

SCOOPS

MANURE SPREADERS

BLADES

SCRAPERS

WAGONS

POST HOLE DIGGERS

DISC RIDGERS

SNOW PLOWS

*For Further Information . . .*

# SEE YOUR LOCAL FORD TRACTOR DEALER

## DEARBORN MOTORS CORPORATION EQUIPMENT WARRANTY

DEARBORN MOTORS CORPORATION warrants all parts (other than pneumatic tires, inner tubes and batteries) of equipment bearing the trade-mark "Dearborn" to the original purchaser thereof at retail, for a period of six (6) months from the date of delivery thereof to the original purchaser at retail, to be free from defects in workmanship and material under normal use and service. The obligation of Dearborn Motors Corporation under this warranty shall be limited to shipment, without charge to the original purchaser at retail, of the part or parts of such Dearborn Equipment intended to replace the part or parts acknowledged by Dearborn Motors Corporation to be defective in workmanship or material. This warranty is in lieu of all other warranties, expressed or implied, and of all obligations or liabilities on the part of Dearborn Motors Corporation, and it neither assumes nor authorizes any person to assume for it, any other obligation or liability in connection with workmanship or material of equipment bearing the trade-mark "Dearborn" or any part thereof. This warranty shall not apply to any Dearborn Equipment, or any part thereof, which has been damaged in any accident, or by fire, flood, or Act of God, or abused or misused, or which has been altered elsewhere than at the place of manufacture, or in which the original purchaser thereof at retail, has used or allowed to be used, parts not made or supplied by Dearborn Motors Corporation. Dearborn Motors Corporation reserves the right at any time to make changes in the design, materials and/or specifications of equipment bearing the trade-mark "Dearborn" and/or accessories therefor, without thereby becoming liable to make similar changes in equipment bearing the trade-mark "Dearborn" and/or accessories therefor, previously manufactured.

**DEARBORN MOTORS CORPORATION**  
**BIRMINGHAM, MICHIGAN**