



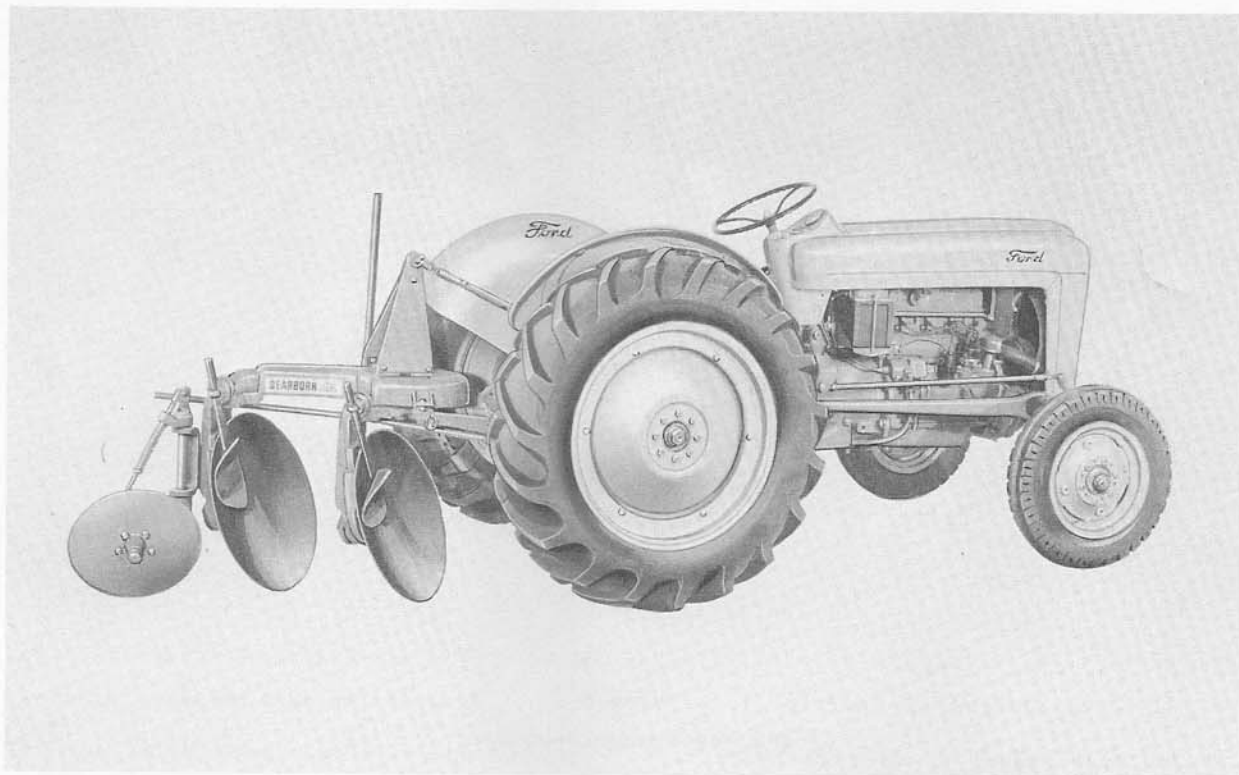
DEARBORN

# DISC PLOWS

MODELS 10-246, 10-247, 10-244 AND 10-245



## ASSEMBLY AND OPERATING INSTRUCTIONS



The Dearborn Disc Plow is a durable, versatile, lift-type implement and is available in four models. Model 10-246 and 10-247 are two disc plows designed for use with Ford Tractors. Model 10-246 is equipped with standard hoe type scrapers and Model 10-247 is equipped with fully adjustable moldboard type scrapers. Model 10-244 and 10-245 are three disc plows designed for use with the Fordson Major Diesel Tractor. Model 10-244 is equipped with standard hoe type scrapers and Model 10-245 is equipped with fully adjustable moldboard type scrapers.

The sturdy construction of the Dearborn Disc Plow provides long life and economical operation. The discs, mounted on heavy, high carbon cast steel beams, are equipped with tapered roller bearings to provide smooth operation. The 26 inch disc blades are made of electrically heat treated high carbon steel to withstand

severe shock and abrasive action. The Disc Plow is equipped with a spring loaded, steering furrow wheel which automatically keeps the plow in alignment behind the tractor, and permits it to ride over obstructions and adjust itself for proper height. The furrow wheel is also equipped with tapered roller bearings. The design of the three disc plow incorporates a gauge wheel which maintains the depth of plowing when used with the Fordson Major Diesel Tractor.

A weight block and an adjustable cross shaft are provided to increase the efficiency of the Dearborn Disc Plow.

This manual contains information on the assembly, lubrication and general operation of the Dearborn Disc Plow. Read it carefully, and keep it available for ready reference.

TRACTOR AND IMPLEMENT DIVISION

*Ford Motor Company*

BIRMINGHAM, MICHIGAN

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# DEARBORN DISC PLOW

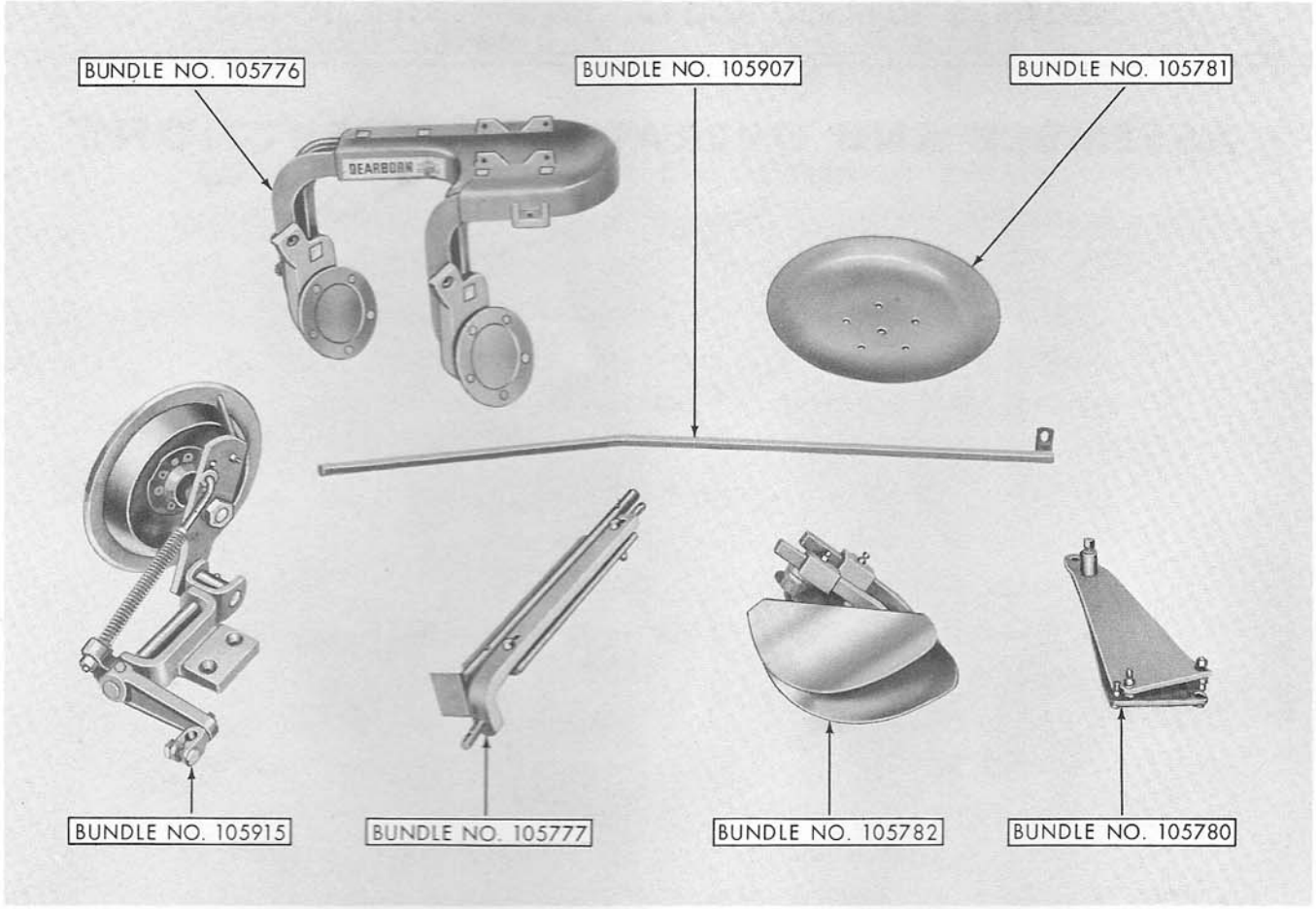


Figure 1  
Disc Plow Shipment Breakdown

## SHIPPING INFORMATION

The Dearborn Disc Plow, Model 10-246 or 10-247, is shipped in six bundles as shown in Figure 1. Check the shipment against the following list and Figure 1, to be sure all parts are received.

Bundle Number	Description	Quantity	
		(10-246)	(10-247)
105776	Main Plow Frame with Assembly and Operating Instructions Attached	1	1
105907	Steering Rod Assembly	1	1
105781	Two Disc Blades	1	1
105915	Tail Wheel and Bracket Assembly	1	1
105777	Plow Stand and Cross Shaft Wired Together	1	1
105779	Two Scrapers and Scraper Brackets Wired Together	1	1

Bundle Number	Description	Quantity	
		(10-246)	(10-247)
105782	Two Scrapers and Scraper Brackets Wired Together		1
105780	"A" Frame Assembled and Bolted Together	1	1

## ASSEMBLY PROCEDURE

NOTE: Assembly of the Dearborn Disc Plow is the responsibility of your Ford Tractor and Implement Dealer. This implement should be delivered completely assembled, as outlined in the following instructions.

1. Remove the wires from the bundles and lay out all parts shown in Figure 1, to facilitate assembly.
2. Block the plow frame up with a jack or other suitable support as shown in Figure 2. The support should be approximately 18 inches in height.

# DEARBORN DISC PLOW

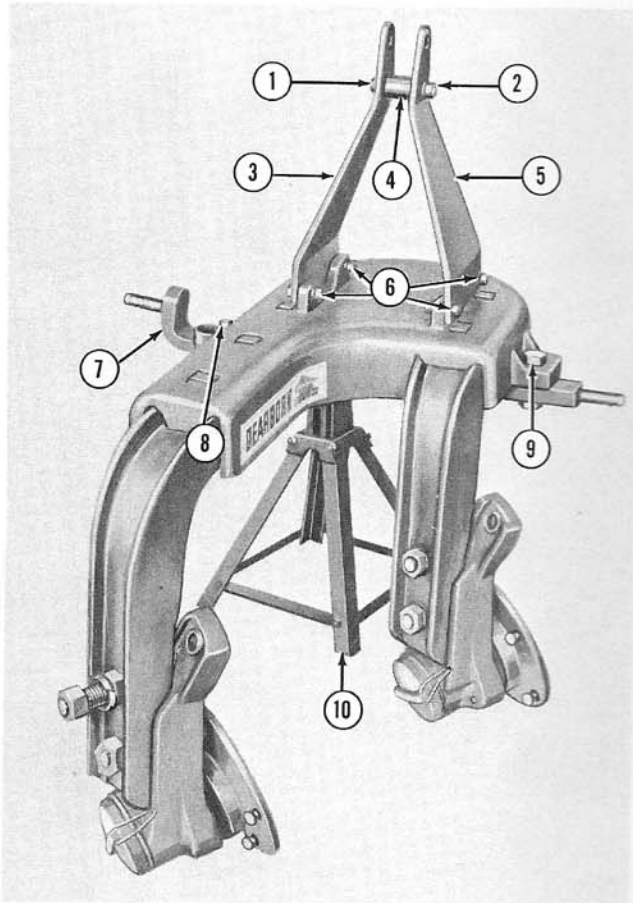


Figure 2

"A" Frame and Cross Shaft Attached

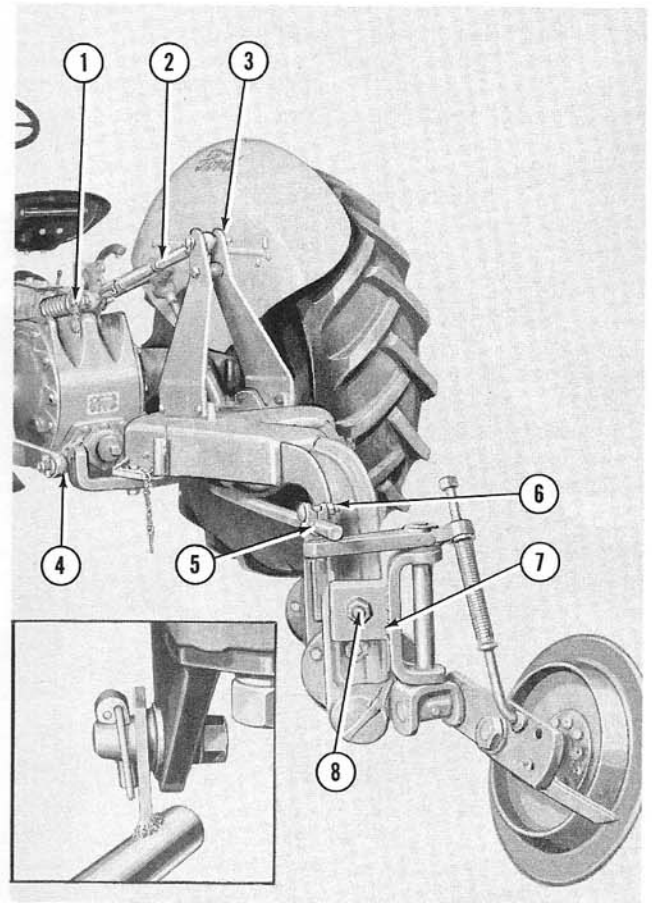


Figure 3

Tail Wheel Assembly Attached

3. Attach the "A" frame to the main plow frame as follows:
  - a. Position the "A" frame members (3) and (5), Figure 2, on the main plow frame with the angled side of the members toward the rear of the plow. Attach these members to the plow frame loosely with the four bolts, lockwashers and nuts shown at (6).
  - b. Secure the top of the "A" frame with the bolt (2), Figure 2, spacer (4), and the lockwasher and nut (1) provided.
4. Attach the cross shaft (7), Figure 2, to the plow frame with the bolts, lockwashers and nuts (8) and (9) as shown. Under normal conditions, install the bolts through the right hand set of holes in the cross shaft. (See adjustment)
5. Attach the tail wheel assembly to the plow frame as follows:
  - a. Back the tractor up to the plow frame and attach the lower links to the cross shaft as shown at (4), Figure 3.
  - b. Attach the tractor top link (2), Figure 3, in the lower hole (1) in the tractor three hole

rocker, and to the "A" frame with the link pin (3) and linch pin provided.

- c. Remove the jack (10), Figure 2.
  - d. Raise the plow frame slowly with the Ford Tractor Hydraulic Touch Control Lever.
  - e. Attach the tail wheel support bracket (7), Figure 3, to the upper bolt in the long beam and secure with the lockwasher and nut (8).
  - f. Insert the steering arm in the steering arm clamp (5), Figure 3.
- NOTE:** It will be necessary to use one Right Hand Stabilizer Bracket, Part No. 230043, when attaching the Disc Plow to the Ford Tractor.
- g. Attach the steering arm to the stabilizer bracket as shown in the insert, Figure 3.
6. Attach the disc blades and scrapers to the plow as follows:
    - a. Position the scraper mounting brackets (3), Figure 4, on the top rear of the disc bearing

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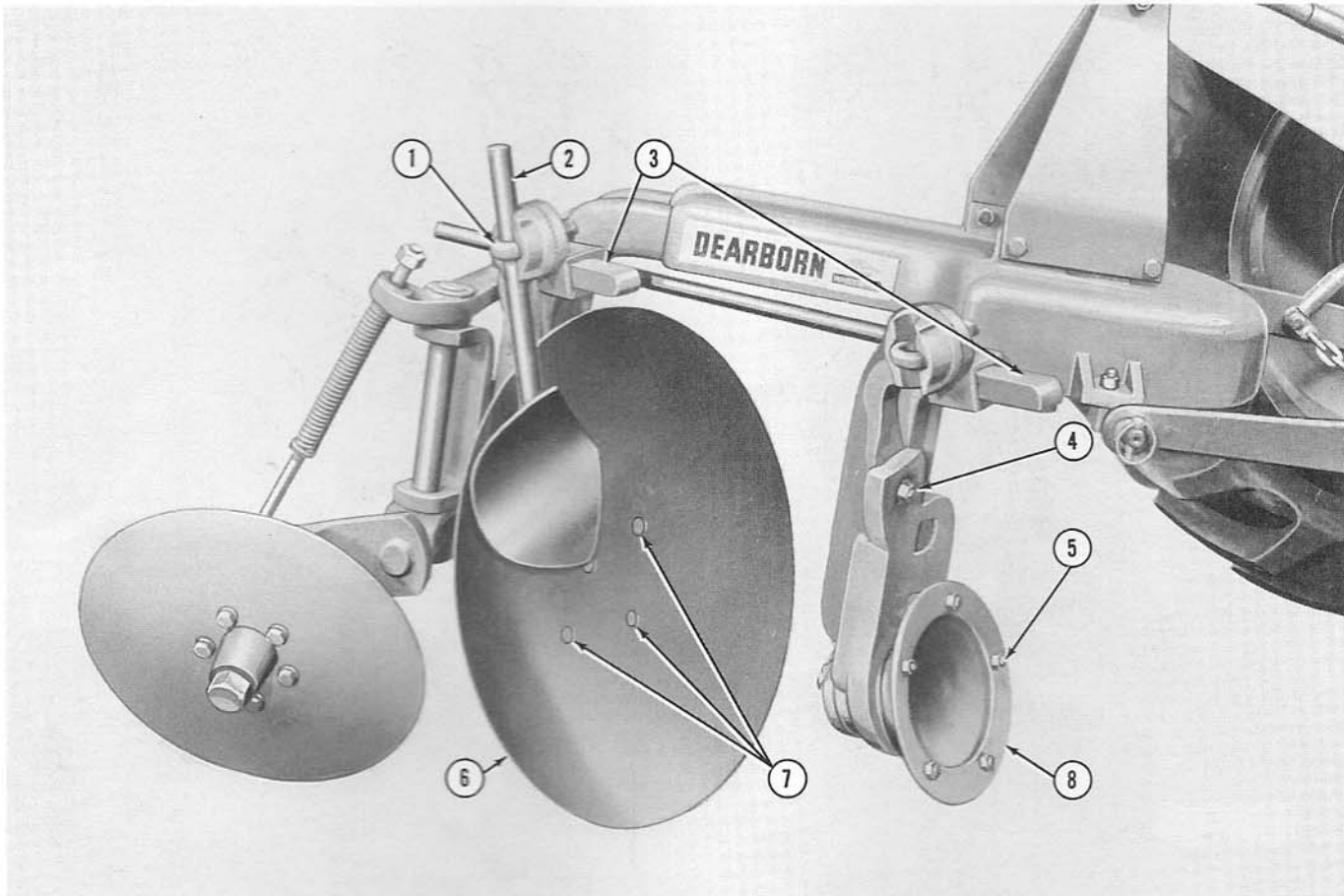


Figure 4

## Disc and Scraper Attached

- boxes and secure with bolts, lockwashers and nuts as shown at (4).
- b. Remove the five bolts (5), Figure 4, from the holes in each disc mounting spindle (8).
- NOTE: These bolts were placed in the spindles in reverse position to prevent damage in shipping.*
- c. Position a disc (6), Figure 4, (discs are interchangeable) on each mounting spindle (8) and insert the five plow bolts (7) so that the flat heads fit the contour of the disc as shown.
  - d. Tighten the nuts on the bolts (7), Figure 4, until the discs are securely attached to each mounting spindle.
  - e. Place the scraper stem (2), Figure 4, through the eye bolt (1). Adjust the scraper until the point is approximately  $\frac{1}{2}$ " from the center of the disc with the blade as close as possible but not touching the disc face, then tighten the nut on the eye bolt (1) securely.
  - f. Attach the other scraper in the same manner and tighten securely.
7. Attach the plow support stand (5), Figure 5, to the plow as follows:
    - a. Remove the cotter pin (1), Figure 5, from the top hole in the support stand (5).
    - b. Insert the stand through the bottom of the bracket (11), Figure 5, on the left side of the weight block, and replace the cotter pin (1) as shown.
    - c. For transport purposes, raise the support stand (5), Figure 5, until the bottom hole is above the bracket (11). Secure the stand by inserting the cotter pin (8) through the stand and placing it over the pin (6) as shown.
    - d. When using the stand to support the plow, remove the cotter pin (8), Figure 5, and lower the stand until the hole (2) is below the bracket (11). Then insert the cotter pin (8) in the hole (2) and detach the plow from the tractor.
- CAUTION:** The plow stand must always be raised when the plow is in operation.

# DEARBORN DISC PLOW

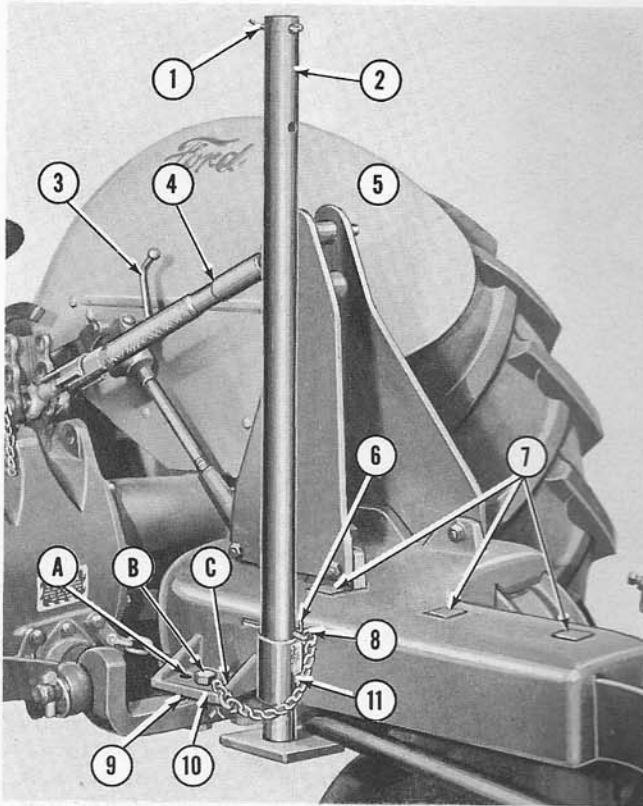


Figure 5

## Adjusting the Dearborn Disc Plow

### TRACTOR WHEEL SPACING

Before attaching the Dearborn Disc Plow to the Ford Tractor, the right front tractor wheel should be moved out to 28" from the center of the tractor. The tractor rear wheels should be spaced at 52", as shipped from the factory.

### LUBRICATION

Use a standard grease gun to lubricate the grease fittings shown in Figure 6: hub (3) of front disc, hub (2) of rear disc, hub (1) of furrow wheel. Wipe the fittings clean and force enough grease into the bearings to carry out dirt and grit and to seal the bearings from outside dirt and dust. Apply a good grade of grease to these fittings daily.

### ADJUSTMENTS

**Leveling the Plow:** The plow should be leveled after making the first cut in a new plowing operation to allow for the fact that the tractor and plow are tilted because the tractor right wheels travel in the furrow. This adjustment is made by turning the tractor leveling crank (3), Figure 5, until the plow is level when the right tractor wheels are in the furrow.

**Top Link:** Under normal, heavy soil conditions, the tractor adjustable upper link (4), Figure 5, should be adjusted approximately 25 inches. Under certain soil conditions, however, it may be necessary to increase the pressure on the furrow wheel over that obtained by the depth adjusting rod and spring so the plow will follow the tractor in the proper operating position. (See Furrow Wheel Adjustment) When these conditions are encountered, the tractor top link should be lengthened and the leveling crank (3) should be adjusted until the desired results are obtained.

**Adjusting the Long Beam:** Under excessively trashy conditions, the long, rear beam may be moved rearward to increase the distance between the front and rear discs. To do this, remove the three bolts (7), Figure 5, which hold the beam to the main frame and move the beam out until the extra set of holes are properly aligned. Replace the bolts (7), lockwashers and nuts and tighten securely.

**NOTE:** When this adjustment is made, it may be necessary to change the cross shaft adjustment as described below.

**Cross Shaft Adjustment:** The cross shaft can be adjusted laterally by changing the position of the bolts which hold it to the main frame. The width of cut on the front disc will be 9" to 10" when the right set of holes (10), Figure 5, are used, and approximately 12" when the left holes (9) are used.

To increase the width of cut on the rear disc to conform to the cut of the front disc, a three hole angle adjustment is provided on the left side of the plow frame. Use the front hole (A), Figure 5, for a 9" cut, the center hole (B) for a 10" cut, and the rear hole (C) for a 12" cut. Under extreme conditions, the width of cut of the front disc may be increased by reversing and inverting the cross shaft from the position shown in Figure 5. The left holes in the cross shaft should be used with the cross shaft in this position.

**Furrow Wheel Adjustment:** To decrease the width of cut on the front disc, loosen the  $\frac{5}{8}$ " nut (6), Figure 3, on the steering arm clamp (5) and slide the clamp forward along the steering arm. Reverse this proce-

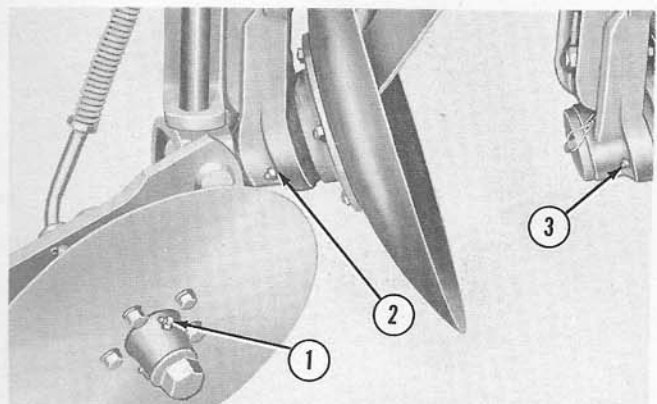


Figure 6

## Location of Lubrication Fittings

# DEARBORN DISC PLOW

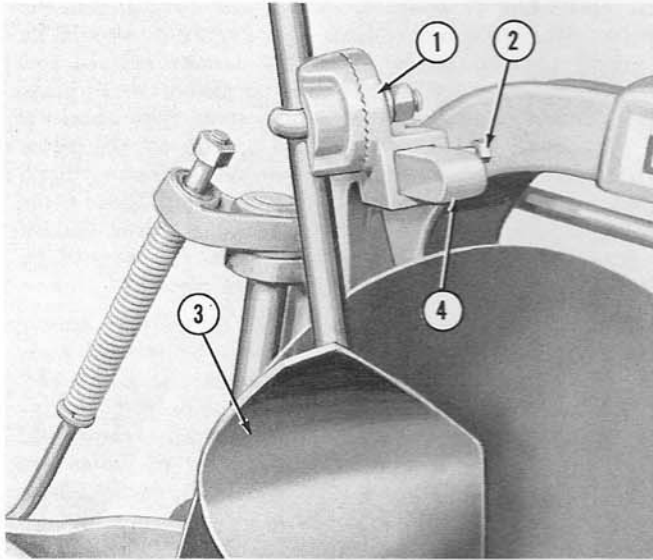


Figure 7

Moldboard Scraper Adjustment

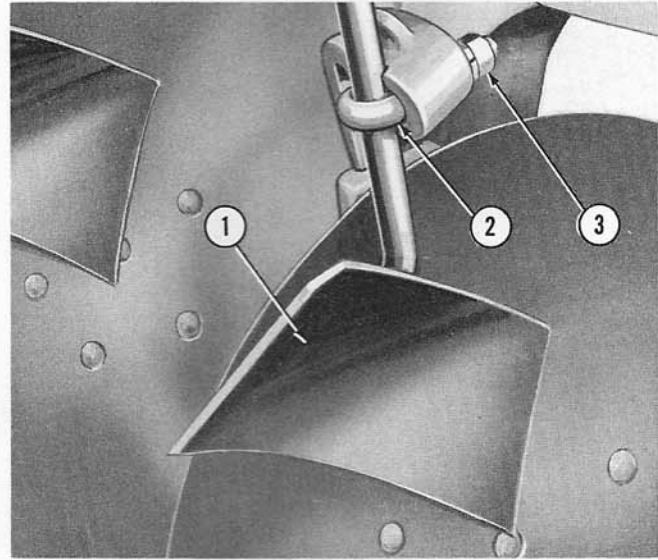


Figure 8

Hoe Type Scraper Adjustment

ture to increase the width of cut.

The depth adjusting rod (1), Figure 11, is provided to vary the pressure on the furrow wheel (6). The depth rod (1) should be placed in the center hole (4) on the furrow wheel arm (2) for a normal setting. With the rod set in the forward hole (3), pressure is increased on the furrow wheel. Conversely, pressure is decreased with the rod set in the rear hole (5).

**Scraper Adjustment:** The moldboard type scrapers shown in Figure 7, are adjusted by loosening the nut (1) on the eye bolt and raising, lowering, or changing the pitch of the scrapers (3) as desired.

The entire scraper assembly may also be moved on the scraper bracket (4) by loosening the set screw (2). Set the scraper as close as possible but not touching

the disc face and tighten the set screw securely.

The hoe type scrapers shown in Figure 8, can be adjusted to suit the particular soil and operating conditions encountered. Loosen the nut (3) on the eye bolt (2) and raise or lower the scraper (1) until the proper setting is obtained.

**Bearing Adjustments:** The tapered bearings in the disc hub should be checked occasionally and adjusted if necessary. Remove the lock wire, dust cap, and cotter pin as shown in Figure 11. Turn the castellated nut until reasonably tight, then back it off to the first castellation. Secure the nut with the cotter pin. Replace and lock wire the dust cap as shown in the insert, Figure 11. The furrow wheel bearing adjustment is made in the same manner. See Figure 12.

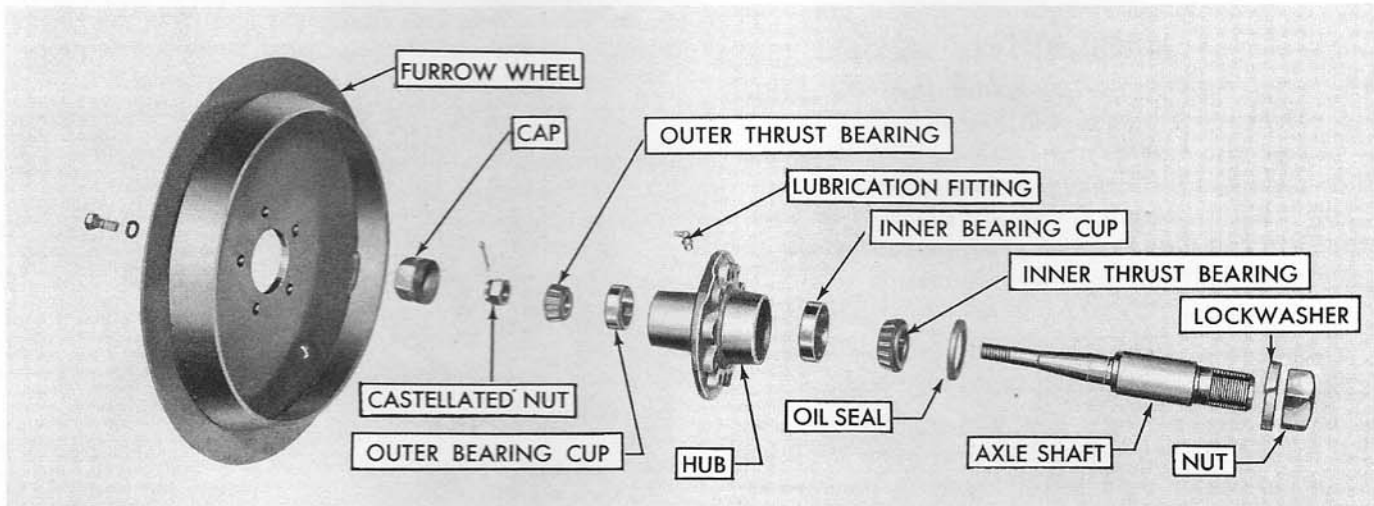


Figure 9

Furrow Wheel Bearing Assembly

# DEARBORN DISC PLOW

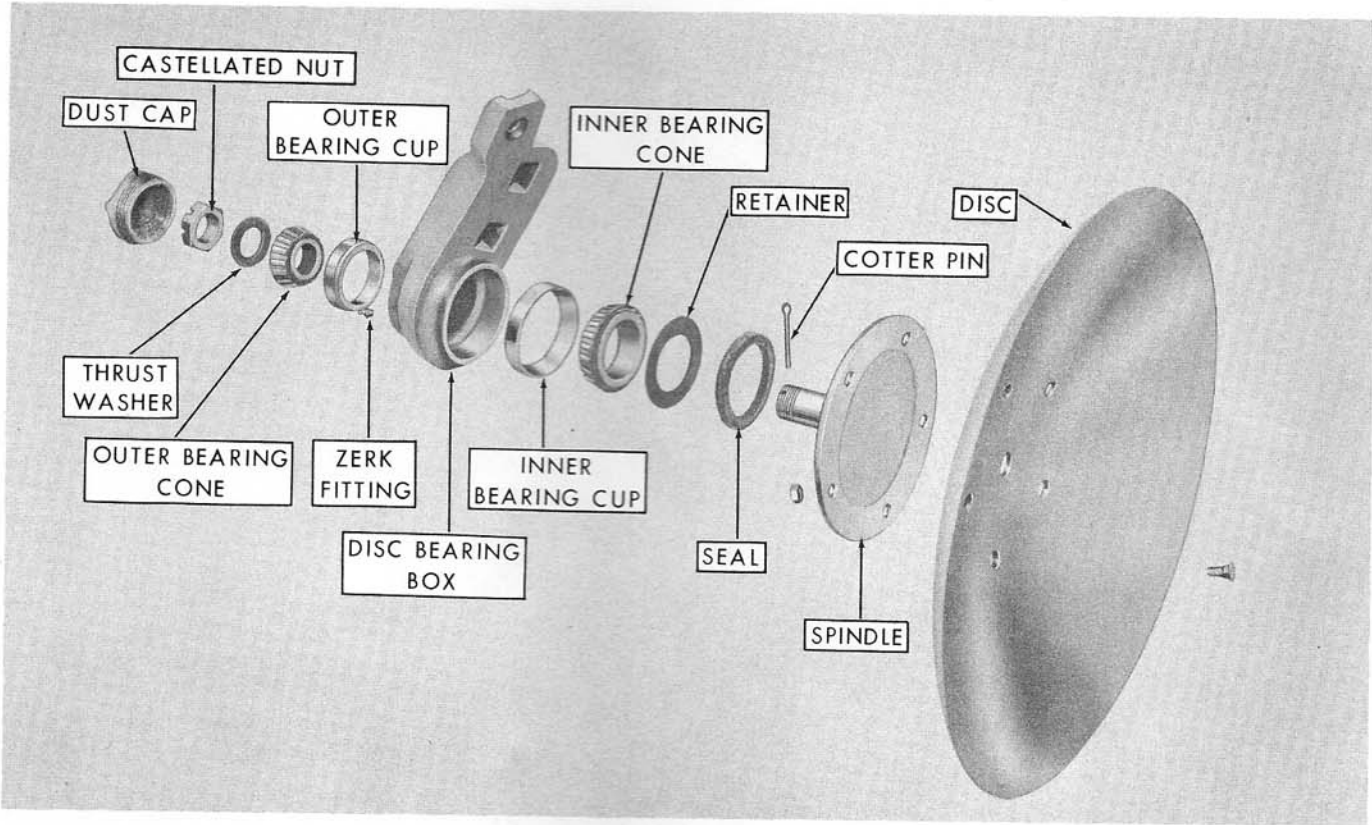


Figure 10

Disc Hub Bearing Assembly

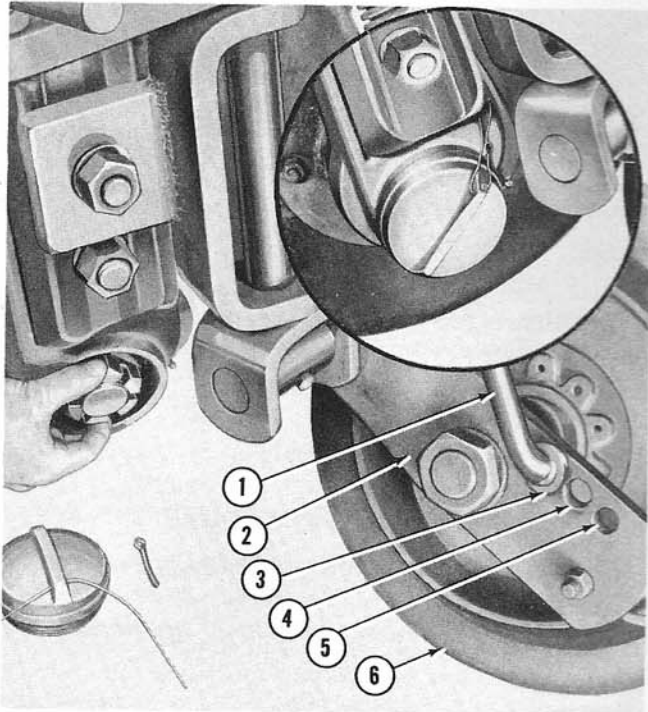


Figure 11

Adjusting the Disc Hub Bearing

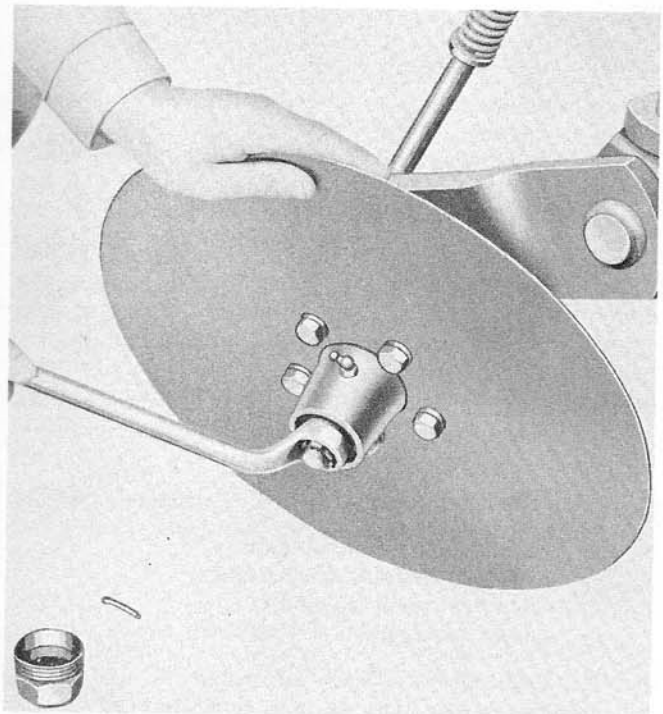


Figure 12

Adjusting the Furrow Wheel Bearing

# DEARBORN DISC PLOW

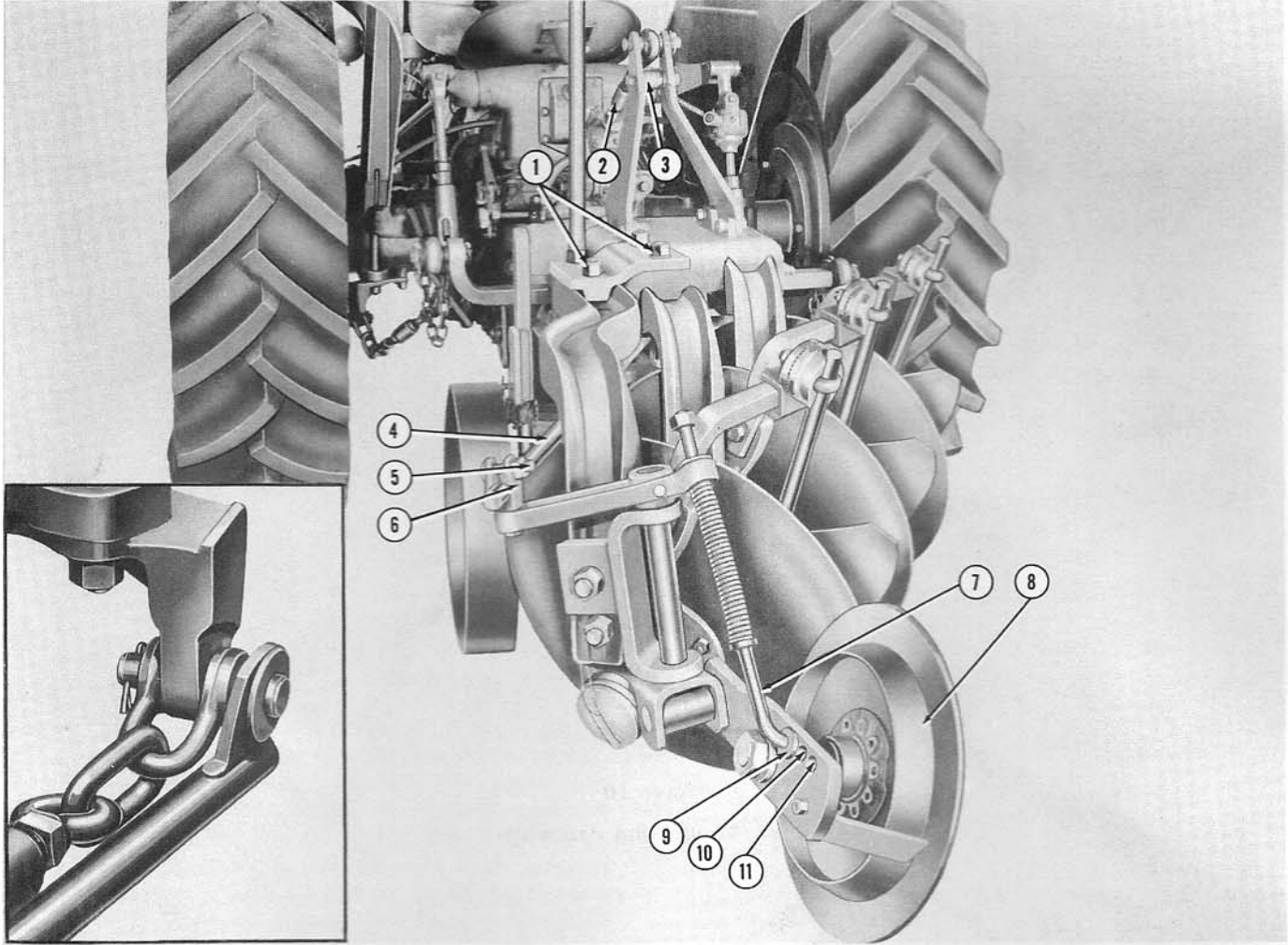


Figure 13

F.M.D. Three Disc Plow Attached

## DEARBORN F.M.D. THREE DISC PLOW

The Dearborn F.M.D. Three Disc Plow, Model 10-244 or 10-245, is shipped basically the same as the Model 10-246 or 10-247, mentioned on page 2 of this manual, with the exception of the addition of beams, beam brackets, scraper discs and one gauge wheel. Check the shipment against the following list to make sure all parts are received.

Bundle No.	Description	Quantity	
		(10-244)	(10-245)
103230	Main Plow Frame Assembly with "A" frame, three beams, third beam brackets, and gauge wheel bracket attached.	1	1
105909	Steering Rod Assembly.....	1	1
103233	Three 26" Disc Blades.....	1	1
105915	Tail Wheel and Bracket Assembly .....	1	1

103231	Plow Stand and Cross Shaft wired together .....	1	1
103235	Three Standard Hoe Type Scraper Assemblies .....	1	
103236	Three Adjustable Moldboard Scraper Assemblies .....		1
103234	Gauge Wheel Assembly .....	1	1

## ASSEMBLY PROCEDURE

NOTE: It is the responsibility of the Ford Tractor and Implement Dealer to deliver this plow completely assembled. The following instructions are provided in case of need.

1. Follow steps 1, 2 and 4 on pages 2 and 3 of this manual.
2. Follow steps 5a, b, c, d, e, and f on page 2.



# DEARBORN DISC PLOW

3. Attach the steering arm to the check chain anchor as shown in the insert of Figure 13, and secure with the headed pin and cotter pin provided.
4. Attach the gauge wheel assembly as follows:
  - a. Insert the gauge wheel slide bar (4), Figure 14, through the bottom of the gauge wheel bracket (6).
  - b. Secure with the pin (7), Figure 14, and cotter pin (8) provided (see ADJUSTMENTS).

## TRACTOR WHEEL SETTING

It will be necessary to move the right front wheel of the F.M.D. Tractor 30 inches from the center before using the disc plow. The rear wheel should be set at 58 inches.

## ADJUSTMENTS

**Leveling the Plow:** The plow should be leveled after making the first cut in a new plowing operation to allow for the fact that the tractor and plow are tilted because the tractor right wheels travel in the furrow. This adjustment is made by turning the tractor leveling crank (3), Figure 13, until the plow is level when the right tractor wheels are in the furrow.

**Top Link:** Under normal, heavy soil conditions, the Fordson Major Diesel Tractor top link (2), Figure 13, should be adjusted to a 26" length. Under certain soil conditions, however, it may be necessary to increase the pressure on the furrow wheel (8), over that obtained by the depth adjusting rod and spring (7), so the plow will follow the tractor in the proper operating position. (See Furrow Wheel Adjustment) When these conditions are encountered, the tractor top link (2) should be lengthened, and the leveling crank should be adjusted, until the desired results are obtained.

**Beam Adjustment:** Under excessively trashy conditions, the second and third beam may be moved rearward to increase the distance between the blades. This adjustment is accomplished by removing the bolts (1), Figure 13, holding the beams. Move the second beam 2" to the rear and move the third beam 4" rearward. Replace the bolts (1), lockwashers and nuts and tighten securely.

**NOTE:** When this adjustment is made, it may be necessary to change the cross shaft adjustment as described below.

**Cross Shaft Adjustment:** The cross shaft can be adjusted by changing the position of the bolt which holds it to the left side of the main frame. With the bolt in the forward hole (1), Figure 14, the width of cut between the front and second blade is 9". When the center hole (2) is used, the width of cut between the front, second and rear disc is 10". The width of cut between the front and second disc is 11" when the rear hole (3) is used.

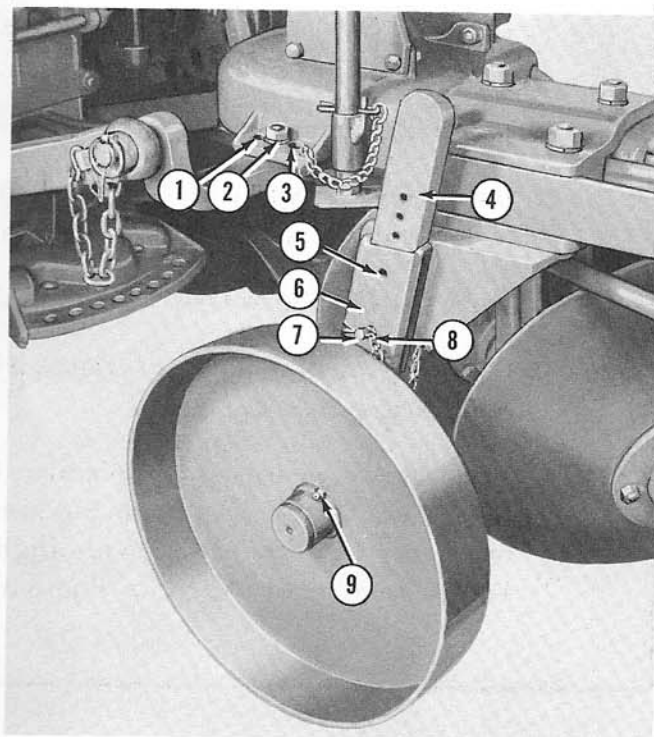


Figure 14  
Gauge Wheel Attached

**Furrow Wheel Adjustment:** To decrease the width of cut on the front disc, loosen the  $\frac{5}{8}$ " nut (5), Figure 13, on the steering arm clamp (6) and slide the clamp (6) forward in the steering arm (4). Reverse this procedure to increase the width of cut. The depth adjusting rod (7) is provided to vary the pressure on the furrow wheel (8). The depth rod (7) should be placed in the center hole (10) for a normal setting. With the rod in the forward hole (9), pressure is increased on the furrow wheel. Conversely, pressure is decreased in the rear hole (11).

**Depth Adjustment:** The depth should be adjusted after making the first cut in a new plowing operation by setting the gauge wheel. To increase the penetration, move the gauge wheel and slide bar (4), Figure 14, upward and secure it in the hole that provides the desired depth. When transporting the disc plow, use the hole (5) provided on the gauge wheel bracket (6).

Refer to pages 5 and 6 for information concerning leveling of the plow and adjustments of scrapers and bearings.

## LUBRICATION

The lubrication fittings on the Dearborn F.M.D. Three Disc Plow are the same as those listed on page 5, with the addition of a fitting (similar to (2), Figure 6) on the third disc hub and one on the gauge wheel hub (9), Figure 14. Lubricate all fittings daily with a good grade of grease.

## MAINTENANCE

1. Keep all bearings well lubricated.
2. Use Dearborn Sprayon Touch-up Enamel where necessary, on painted surfaces, to prevent rust and maintain the appearance of the implement.
3. Store the Dearborn Disc Plow in a dry place when not in use.
4. Coat all ground engaging surfaces with a good grade of rust preventive, between operating seasons.
5. Your Ford Tractor and Implement Dealer carries a complete stock of genuine Ford Tractor and Dearborn Equipment repair parts. These parts are manufactured and inspected to provide 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 anyone but the operator to ride on the tractor at any time.
2. Do not permit anyone to ride on the implement.
3. Do not leave the tractor while it is in motion.
4. Do not make tractor or implement adjustments when the tractor is in motion.
5. Shut off the engine before leaving the tractor.
6. Keep the tractor keys where they are not available to children when the tractor is in the farmyard.
7. Always lower the implement to the ground, with the Ford Tractor Hydraulic Touch Control, before leaving the tractor.

# EQUIPMENT WARRANTY

FORD MOTOR COMPANY warrants all parts (other than pneumatic tires, inner tubes and batteries) of equipment bearing the trade-mark "Dearborn" to the original purchaser from Company, 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 Company under this warranty shall be limited to shipment, without charge, to the original purchaser from Company, of the part or parts of such Dearborn equipment intended to replace the part or parts acknowledged by Company 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 Company, 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 Company. Company 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.

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