

DEARBORN MOTORS CORPORATION - DETROIT 3, MICHIGAN

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# THE MOLDBOARD PLOW - Meets Your Plowing Needs

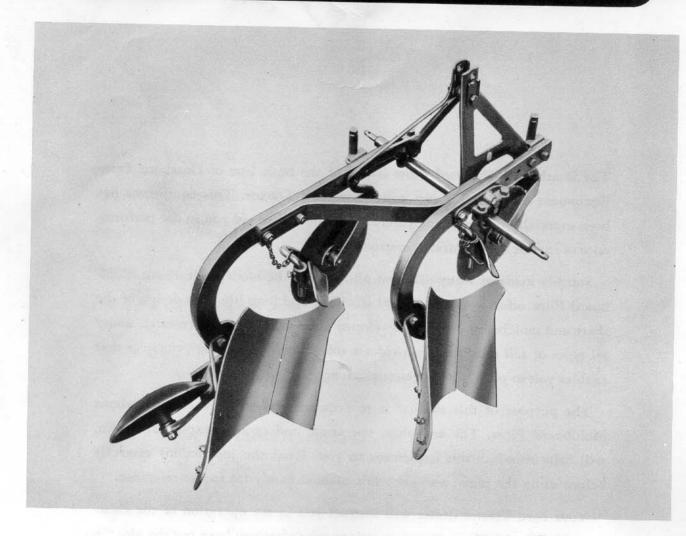


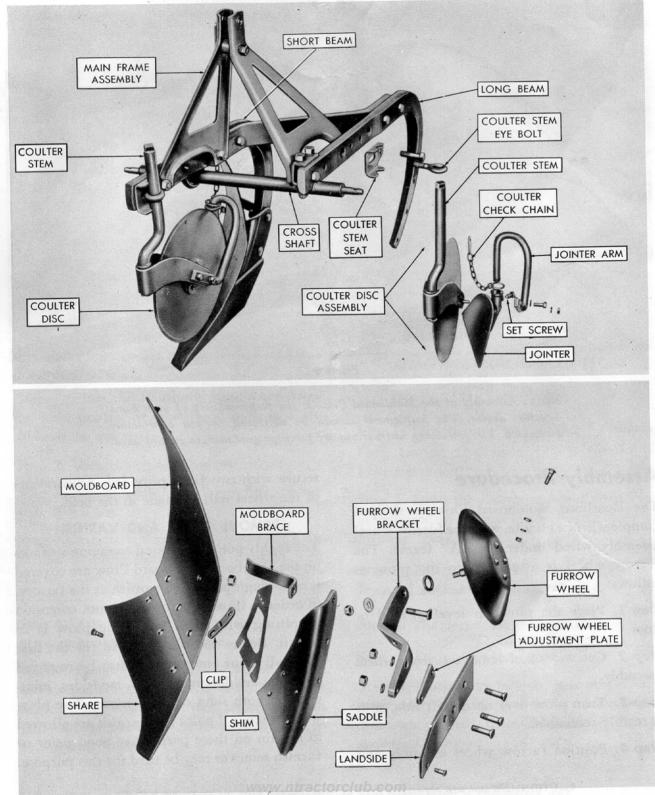
Figure 1

The Dearborn Moldboard Plow, pictured above, like all Dearborn Implements, is built to high quality standards and specifications, and is carefully inspected at the factory before it is shipped to you.

The plow consists of a rigidly constructed

frame, forged beams, heavy "A" frame, two heavy moldboard type plow bases, two adjustable coulter wheels, two jointer assemblies, and an adjustable furrow wheel. Width of cut is quickly and easily adjustable by means of the Eccentric Indicator.

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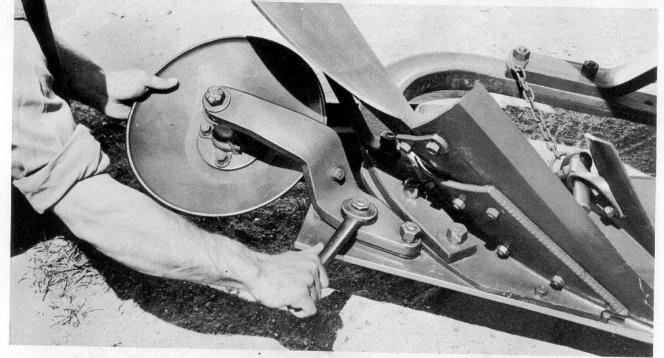


Figure 3

NOTE: Assembly of the Moldboard Plow is the responsibility of your Ford Tractor dealer. The implement should be delivered to you completely assembled. The following instructions are for your guidance, in case of need.

# **Assembly Procedure**

The Dearborn Moldboard Plow is shipped complete in one bundle, with the furrow wheel assembly wired under the "A" frame. The furrow wheel is assembled to the plow as follows:

Step 1. Place the plow on level ground or floor.

Step 2. Cut wires and remove furrow wheel assembly.

Step 3. Turn plow over on its left side, so it is readily accessible.

Step 4. Position furrow wheel assembly and

secure with two bolts provided. Adjustments of the wheel will be made in the field.

## REMOVE PAINT AND VARNISH

The highly polished ground engaging surfaces on the Dearborn Moldboard Plow are covered with a tough protective varnish at the factory, in order to insure that no rust spots, corrosion or pitting will occur while the plow is in transit. Before the plow is used for the first time, all paint and varnish must be removed from the moldboards, shares, landsides, jointers, and both sides of the coulters. The plow will not scour if paint and varnish are allowed to remain on these parts. Any good paint or varnish remover may be used for this purpose.

CAUTION: Do not use abrasives, such as sand, emery dust, or scouring powders.

# ATTACHING MOLDBOARD PLOW TO TRACTOR

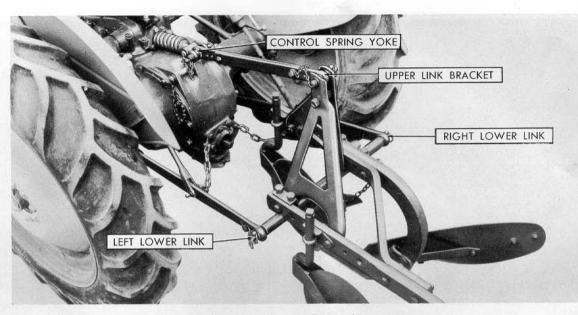


Figure 4

# Procedure

Step 1. Place the Dearborn Moldboard Plow on level ground or level floor, so it is accessible to the tractor.

Step 2. Back the tractor into position.

Step 3. Attach tractor left lower link. Secure with lynch pin.

Step 4. Attach tractor right lower link by raising or lowering to desired position with tractor drawbar leveling crank. Secure with lynch pin.

Step 5. Attach tractor top link to "A" frame of plow and secure with lynch pin.

Step 6. Fasten forward end of upper link to tractor control spring yoke, insert bolt, and secure with lynch pin. It may be necessary to move tractor backward or forward slightly to line up link bolts.

## REMOVING MOLDBOARD PLOW FROM TRACTOR

**Step 1.** Lower plow to ground by placing Ford tractor Hydraulic Touch Control in lowest position.

**Step 2.** Level the Dearborn Moldboard Plow as required by adjusting the tractor drawbar leveling crank.

**Step 3.** Disconnect forward end of upper link from tractor control spring yoke.

Step 4. Disconnect right lower link.

Step 5. Disconnect left lower link.

Step 6. Place lynch pins in their proper clips with safety ring snapped down on the tractor links to prevent them from being lost or damaged.

CAUTION: Make certain the Dearborn Moldboard Plow is completely disconnected before attempting to move the tractor.



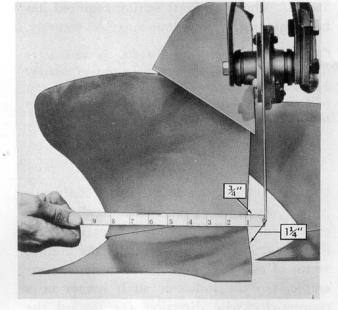
Figure 5

Operation of the Dearborn Moldboard Plow is extremely simple. The plow is handled from the Ford tractor with such effortless ease that almost anyone can operate it.

Because there is nothing complicated about the Dearborn Moldboard Plow, it is easy to understand. It has no wheels, axles, tongue, clutches, or springs and levers of any kind. There is nothing to hinder you in doing a good plowing job.

Satisfactory operation of the plow in the field is dependent upon a few simple adjustments of the coulters, jointers, and width of cut. With these properly set, you are ready to work. All you will need to make the adjustments is a wrench and a small folding rule.

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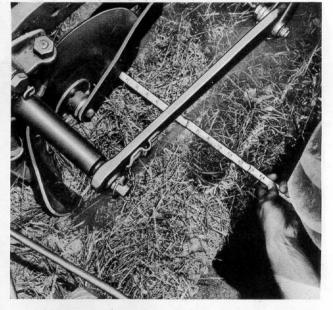


Figure 7

#### Figure 6

#### COULTER ADJUSTMENT

The purpose of the coulter is to keep the upper edges of the furrow wall sharp and vertical, prevent tearing of furrow wall and lighten the draft, by cutting ahead of the moldboards. Before starting to plow, adjust the coulter wheel assembly so that it is from  $\frac{3}{4}$  to  $1\frac{1}{2}$  inches away from the landside depending on conditions, as shown in the photograph above. The bottom edge of the coulter should be approximately  $1\frac{1}{4}$  inches above the nearest point of the share. This setting will vary, depending upon depth to be plowed and other conditions.

After starting to plow, and making adjustments, you may want to raise or lower the coulters depending upon soil conditions. Too low an adjustment will cause the plow to ride on the coulter hubs, and setting the coulters too far out or in will cause uneven furrow walls and increased draft.

To raise or lower the coulter disc assembly and position it at the correct distance from the share, or to swing it to right or left, loosen the nut on the U-bolt (which attaches the coulter stem to the plow beam) and adjust the coulter assembly to the desired position. When this is done, tighten nuts securely.

For efficient plowing, be sure to keep the coulter discs sharp. Dull coulters increase the draft, do not cut well, and tend to ride the plow out of the ground.

#### ADJUSTING FOR WIDTH OF CUT

After the land has been opened and you have determined the width of cut by measuring from the edge of the furrow wall to the front coulter, it may be necessary to adjust the plow for a wider or narrower cut. This measurement should be made on level ground.

Before making a change in the Cross Shaft adjustment, make certain the tractor's front wheel has been kept close to the furrow wall, coulters are properly adjusted, and the plowshare is properly sharpened. If the width of cut is still incorrect, proceed as follows:

# OPERATION OF THE MOLDBOARD PLOW

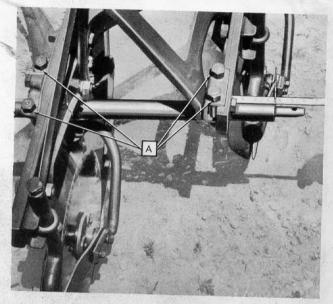


Figure 8

### SETTING THE CROSS SHAFT

Step 1. Loosen the four nuts "A" on the Cross Shaft U-Bolt Supports.

Step 2. Measure the distance from the left drag link shoulder to the main frame of the Moldboard Plow as shown above. This measurement should be three and one-half inches for the 14-inch Two Bottom Plow. Other plows are adjusted according to the following table.

#### **Table of Dimensions**

10-inch Two Bottom	
12-inch Two Bottom	
14-inch Two Bottom	
16-inch Single Bottom 87/8 inches	

In order to obtain this exact setting, Cross Shaft may be moved through the U-Bolts as required. Step 3. When the exact setting required has been obtained, tighten four nuts "A" securely.

CAUTION: In tightening U-Bolts, be certain to tighten nuts evenly. Do not make this adjustment by loosening or tightening one nut at a time as this will cause the Cross Shaft to be drawn away from the predesignated setting.

### CROSS SHAFT ADJUSTMENT

Loosen the two nuts on the Cross Shaft Adjusting Disc U-bolt, and rotate the disc right or left, in accordance with the markings on the Eccentric Indicator, to secure the desired width of cut. If the cut is too wide, for example, tap the indicator so it moves in a counter-clockwise direction (or toward the

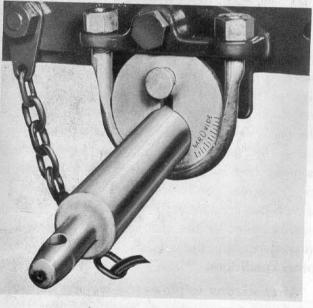


Figure 9

abbreviation "NAR") on the Eccentric Indicator dial. To increase the width of cut, move the Indicator in a clockwise direction, or toward the word "WIDE." Be sure to tighten the nuts on the U-bolt after the adjustment has been made, before starting the tractor.

# **OPERATION OF THE MOLDBOARD PLOW**

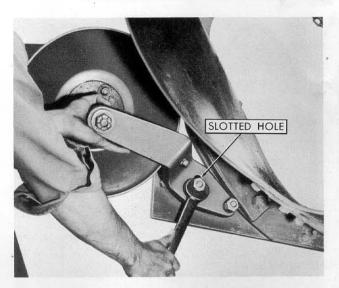


Figure 10

#### FURROW WHEEL ADJUSTMENT

The purpose of the furrow wheel is to provide a rolling landside, and thus reduce draft. The furrow wheel should ride lightly on the furrow bottom.

Adjustment is made by loosening the two nuts that hold the furrow wheel bracket to the landside of the rear base and raising or lowering the furrow wheel bracket to the desired position.



Figure 11

#### JOINTER ADJUSTMENT

The purpose of the jointer is to make a small cut at the top of the furrow slice which "assists" the moldboard by aiding in rolling weeds and trash over into the furrow. Without the jointers, improperly covered vegetation may take root at the margins of the furrows and continue to grow.

To assure proper operation, the point of the jointer blade should be positioned approximately 1/4 inch from the blade of the coulter

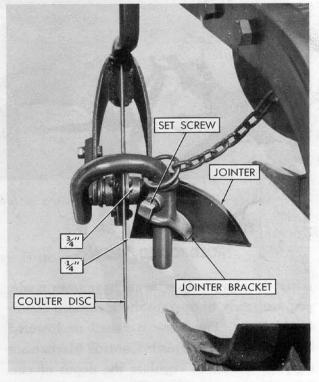


Figure 12

disc. This adjustment is made by loosening the set screw in the jointer bracket and moving the jointer to the desired position. When the point of the jointer is in this position, the heel should be approximately <sup>3</sup>/<sub>4</sub> inch away from the coulter blade. Depth of jointer cut should be about <sup>3</sup>/<sub>4</sub> inch but will be varied for different conditions.

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# OPERATION OF THE MOLDBOARD PLOW

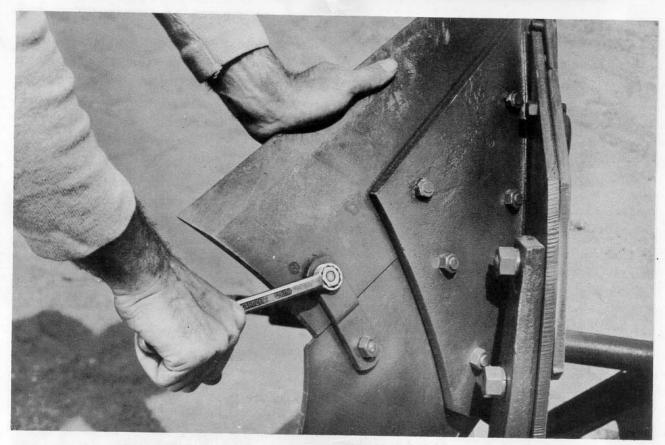


Figure 13

## FIELD OPERATION OF THE MOLDBOARD PLOW

After the above adjustments have been made, you are ready to operate the Dearborn Moldboard Plow. The plow is raised or lowered by the Hydraulic Touch Control Mechanism on your tractor to regulate the depth of cut.

### **PLOW SHARES**

Plow shares should be kept in good condition at all times because most plowing difficulties stem from the use of dull, worn, or improperly sharpened shares. Experienced plow operators keep at least one pair of spare shares on hand, ready to replace the plow shares when they become dull. This enables the plow operator to continue work while spare shares are being sharpened.

The Dearborn plow shares are easily detached from the moldboard by the removal of three bolts, as shown above. When attaching the new share, clean dirt away and position the share against the bottom edge of the moldboard and front edge of the landside. Replace bolts and tighten nuts securely.

CAUTION: The three bolts which hold the share to the moldboard are all ground to fit the curve of the moldboard, and for this reason they must be returned to the same holes from which they were removed. Be sure to mark the bolts as they are removed, or lay them out in order, so you will know which is which.

# HINTS ON MAINTENANCE

1. Keep all nuts tight.

2. Apply coating of rust preventive to earth polished surfaces when plow is not in use or when it is being prepared for storage. This will prevent ground engaging surfaces from rusting and pitting.

3. Lubricate bearings at points specified daily, and always before storage, to remove any dirt or moisture from interior of bearings.

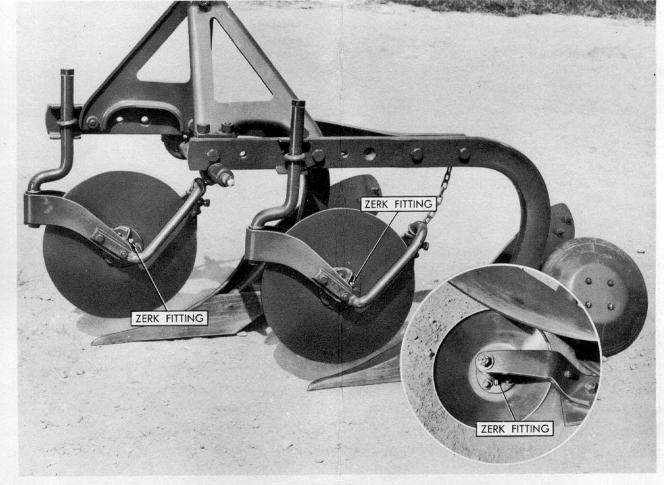


Figure 14

# Lubrication

There are three points of lubrication on the Dearborn Moldboard Plow, as shown in the above photograph. There are zerk fittings located as follows:

1. Hub of front coulter wheel.

2. Hub of rear coulter wheel.

3. Hub of furrow wheel.

Lubricate these three fittings daily with the Dearborn Grease Gun filled with a good grade of bearing lubricant.

DO NOT LUBRICATE ball socket joints, cross-shafts, or similar points, as oil will collect dirt, causing excessive wear.

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