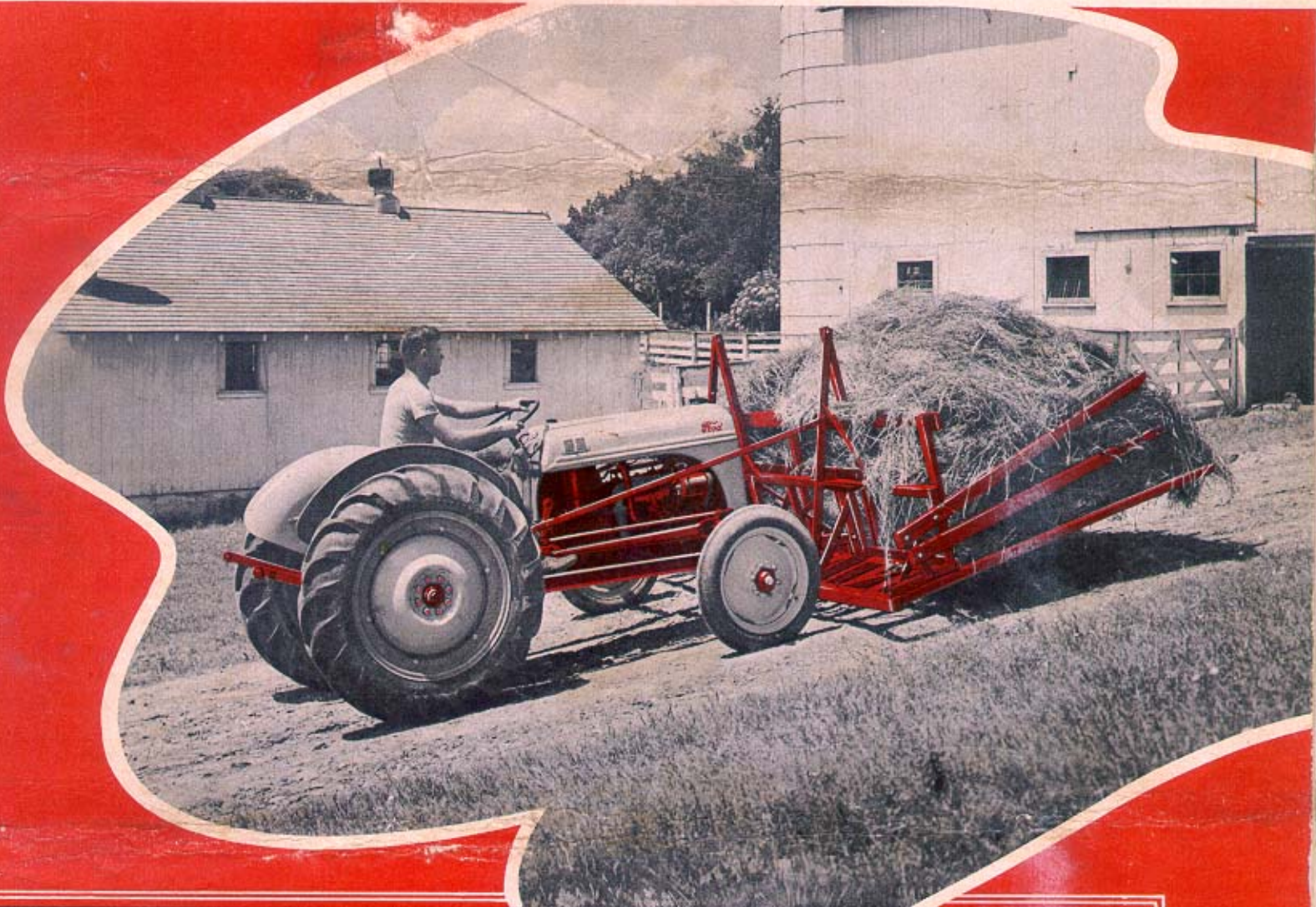




# SWEEP RAKE



## ASSEMBLY and OPERATING *Instructions*

DEARBORN MOTORS CORPORATION — DETROIT 3, MICHIGAN

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# Introduction

The Dearborn Sweep Rake is one item of the basic line of Dearborn Farm Equipment. Like all Dearborn Equipment the Sweep Rake has been designed for use with the Ford Tractor and has been built to aid you in the performance of specific agricultural operations.

The Sweep Rake provides the most practical way of moving hay short distances from the field to the stacker or baler. Powered by the Ford Tractor, the Dearborn Sweep Rake can easily and quickly handle loads of 400 to 700 pounds.

The efficient and economical operation of the Sweep Rake saves time and labor; it will move two to three times as much hay in a day as a horse drawn sweep rake.

This manual contains information about the Dearborn Sweep Rake, its assembly, preparation for use, operation and care. Follow the instructions in this manual in detail to get the best results from this implement.

Your Ford Tractor dealer will instruct you in the operation of the Dearborn Sweep Rake. He will show you how to use the Ford Hydraulic Touch Control Lever to raise and lower the Sweep Rake and how to use the automatic push-off to unload the hay.

Your Ford Tractor dealer has the answer to questions that may arise regarding the operation of your Dearborn Sweep Rake.

In addition, your Ford Tractor dealer carries a complete stock of genuine Ford Tractor and Dearborn Equipment Repair Parts. These parts are precision manufactured, assuring high quality and accurate fit. *Insist on genuine Ford Tractor and Dearborn Equipment Repair Parts.*

## DESCRIPTION OF THE SWEEP RAKE

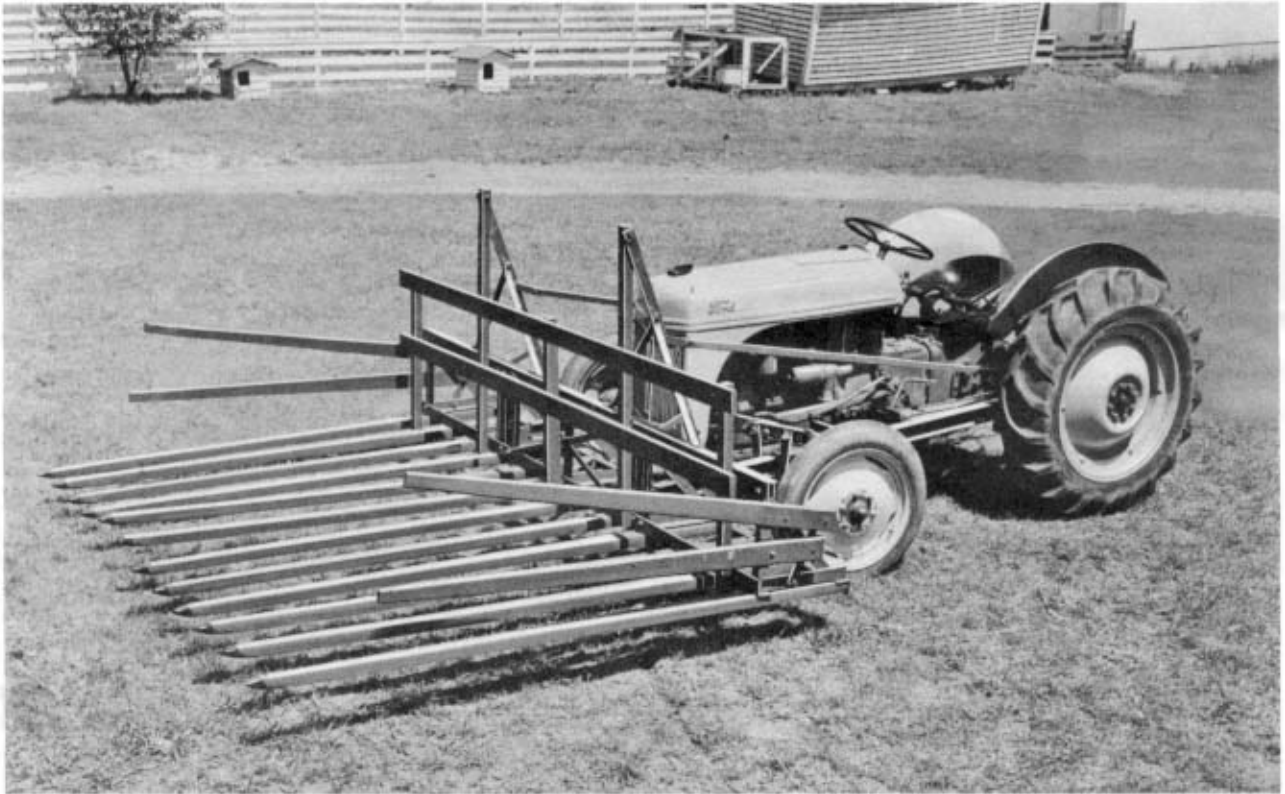


Figure 1

The Dearborn Sweep Rake, pictured above, is a sturdily constructed implement designed to give many years of satisfactory service.

The frame is made of steel. It is light in weight, yet it provides a maximum amount of strength. There are twelve 8-foot, iron-tipped ground teeth and four end teeth. The teeth and the push-off are fashioned from selected, durable wood.

The Sweep Rake has a sweeping width of 10 feet, 6 inches. Its load capacity is 400 to 700 pounds.

The Dearborn Sweep Rake is easy to attach and easy to operate. The "floating" head construction enables the teeth of the Sweep Rake to follow the contour of the ground and do an efficient job.

The two end teeth on each side of the Sweep Rake frame make it possible to load the rake without spilling hay, allowing for a greater load and insuring a cleaner job.

The automatic push-off, an exclusive feature on the Dearborn Sweep Rake, provides for an efficient unloading job. The push-off operates automatically when the rake is lowered to the ground and the tractor reversed.

## ASSEMBLY OF THE SWEEP RAKE

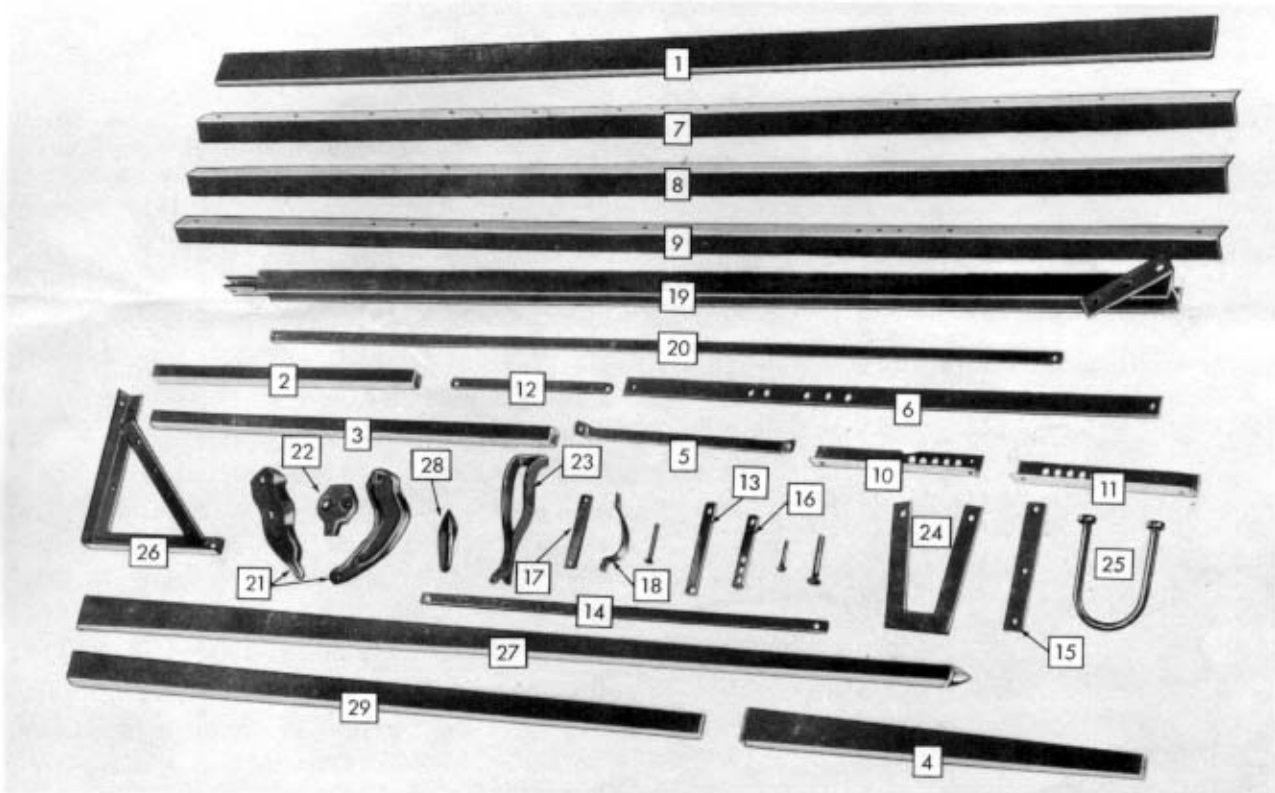


Figure 2

*NOTE: Assembly of the Dearborn Sweep Rake 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.*

The Sweep Rake is shipped in eight bundles.

Contents of the bundles are as follows:

### BUNDLE NO. 1

- Two 1" x 4" push-off boards (1)
- Two 2" x 2" short uprights for push-off (2)
- Two 2" x 2" long uprights for push-off (3)
- Center upright on push-off (4)
- Four flat steel braces for upright (5)
- Two flat steel uprights for push-off (6)

### BUNDLE NO. 2

- Three long steel angles (7, 8 & 9)
- Two short steel angles (10)
- Two short steel angles (11)
- Four short flat steel cross braces (12)
- Two short flat steel braces (13)
- Two long flat steel cross braces (14)
- Two short flat steel straps (15)
- Four flat steel lift rod extension straps (16)
- One short flat steel piece (17)
- One steel guard piece (18)

# ASSEMBLY OF THE SWEEP RAKE

## BUNDLE NO. 3

Two long steel push beams (19)

Two long flat steel lift rods (20)

## BUNDLE NO. 4

Two steel forgings (21)

Two steel forging clamps (22)

One push-off point (23)

## BUNDLE NO. 5

Two steel stirrups (24)

Two steel U-bolts (25)

Five steel triangles (26)

## BUNDLE NO. 6

Twelve wood teeth (27)

Twelve iron tooth points (28)

## BUNDLE NO. 7

One bag of bolts

## BUNDLE NO. 8

Four wood side teeth (29)

## Assembly Procedure

**CAUTION:** *Tighten nuts finger tight during assembly. In assembling wooden members, be sure to use the flat washers provided between wood and bolt heads. After assembly is complete, go over Sweep Rake and tighten nuts with wrench.*

To identify parts mentioned in assembly procedure given below, refer to Figure 2.

**Step 1:** Cut and remove wires from all bundles.

**Step 2:** To make certain that the shipment is complete, check each item against the packing slip.

**Step 3:** Lay the 12 long wooden teeth (27) out on level ground or floor with points forward and long tongue of tooth facing down.

**Step 4:** Place bolts through rear ends of teeth with the threaded portion facing up. There are two bolts for each long tooth.

**Step 5:** Place bottom rear angle (8) on teeth with bolts protruding through holes, rear flange of angle pointing downward. Figure 3.

**Step 6:** Place bottom front angle (9) on teeth with angle flange up and facing forward. Bolts protrude through holes. Figure 3.

## ASSEMBLY OF THE SWEEP RAKE

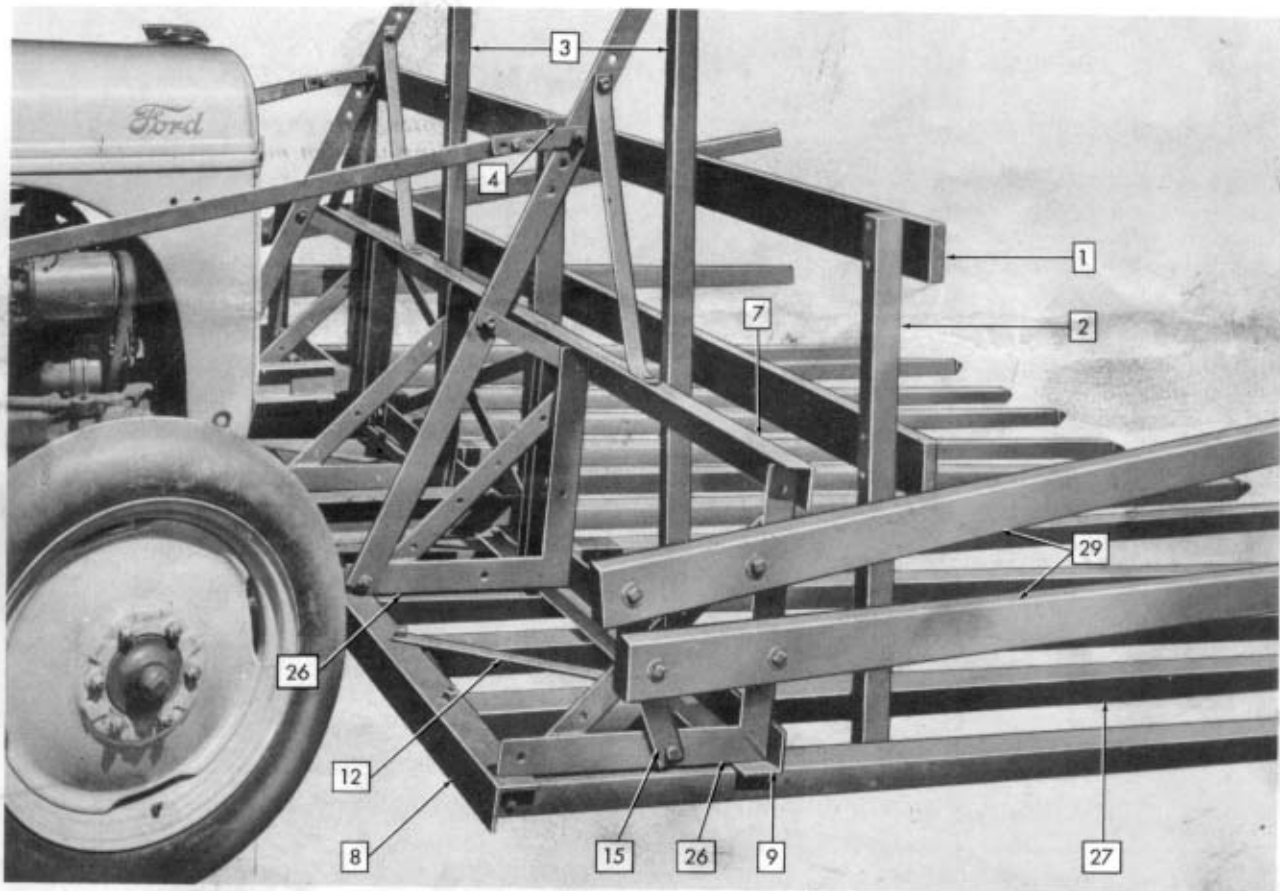


Figure 3

**Step 7:** Place the four diagonal short cross braces (12) in position between bottom cross angle (8) and bottom front cross angle (9). See Figure 3.

**Step 8:** Place the five steel triangles (26): one on each outside long tooth (27), one over each 4th tooth and one in dead center between 6th and 7th teeth. Each angle placed

in an upright position with 90° angle in bottom front cross angle (9). See Figure 3.

**Step 9:** Place lock washers and nuts on all bolts and tighten finger tight.

**Step 10:** Mount top cross angle (7) on steel triangle frames (26). Insert bolts, place on lock washers and nuts.

## ASSEMBLY OF THE SWEEP RAKE

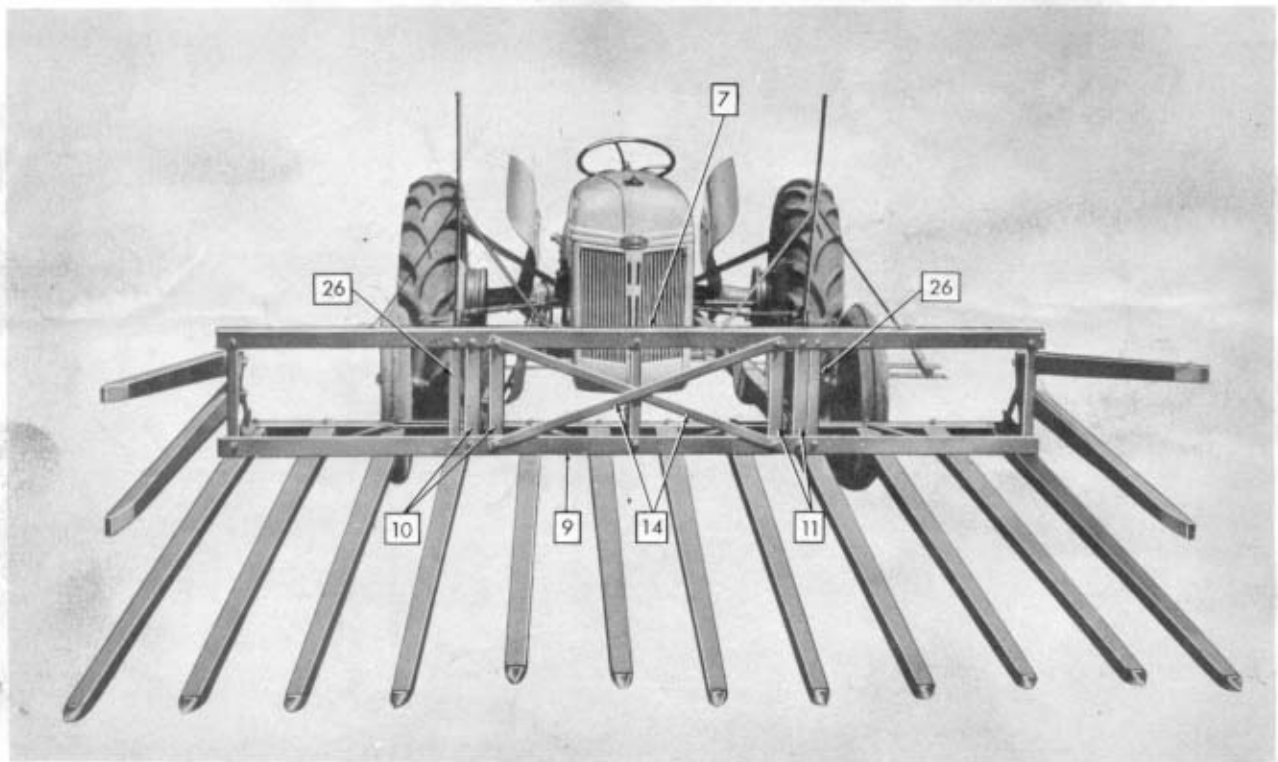


Figure 4

**Step 11:** Mount pair of right-hand (10) and pair of left-hand (11) push beam angles to top cross angle (7) and bottom front cross angle (9) inside and next to the 2nd and 4th inner steel triangles (26). See Figure 4. These push beam angles have four holes near one end. This end is placed downward with the holes facing inward and toward each other.

**Step 12:** Place long cross braces (14) in position diagonally between the two inner push beam angles (10 and 11) with the upper ends attached to the upper front cross angle (7) and the lower ends to the bottom front cross angle (9). Braces are in front of cross angle and attached by the same bolts that hold the two inner push beam angles. See Figure 4.

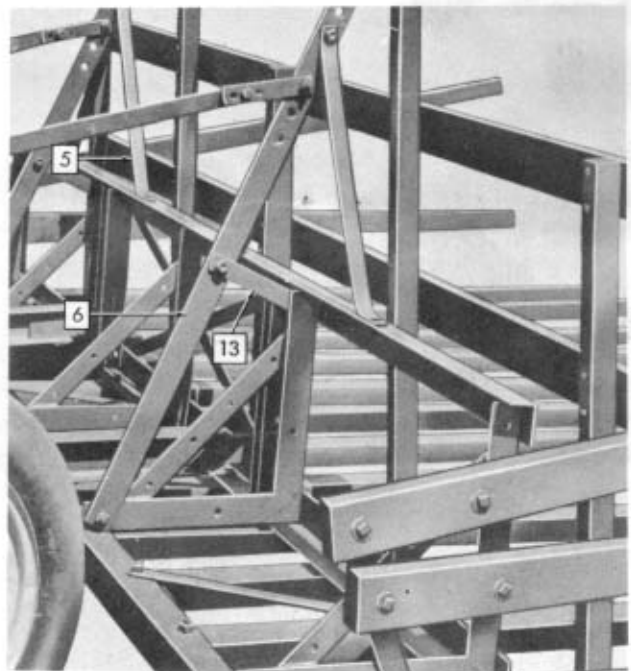


Figure 5



## ASSEMBLY OF THE SWEEP RAKE

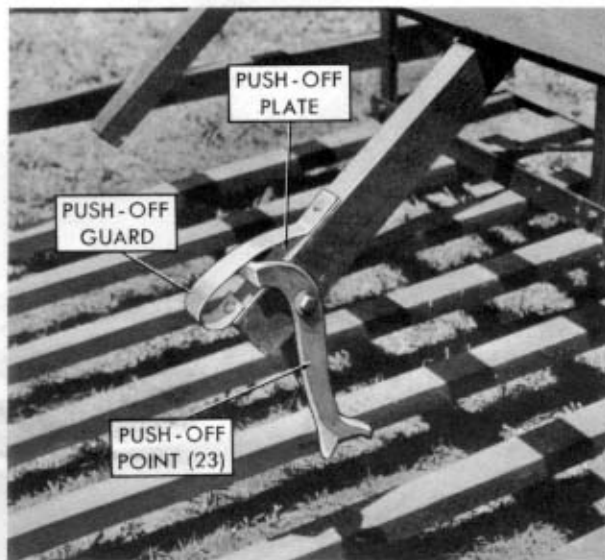


Figure 6

**Step 13:** Attach short push-off braces (13) to outer edge of 2nd and 4th steel triangles and under flange of the top cross head angle. (Attach brace with hole closest to end to allow proper fitting.) See Figure 5.

**Step 14:** Attach push-off steel uprights (6) to 2nd and 4th steel triangles just above bottom rear cross angle (8). See Figure 5.

**Step 15:** Attach outer end of short push-off brace (13) to steel push-off uprights (6). Figure 5.

**Step 16:** Mount the four steel upright side braces (5) in position from top cross head angle (7) to steel push-off uprights (6). Figures 4 and 5.

**Step 17:** Fasten lower end of steel straps (15) for the short teeth to exterior of outside steel triangles. Figure 3.

**Step 18:** Fasten the four short wooden teeth (29) in position on the outside of the steel triangles. Bolts on end of these teeth go through the steel strap braces (15). Figure 3.

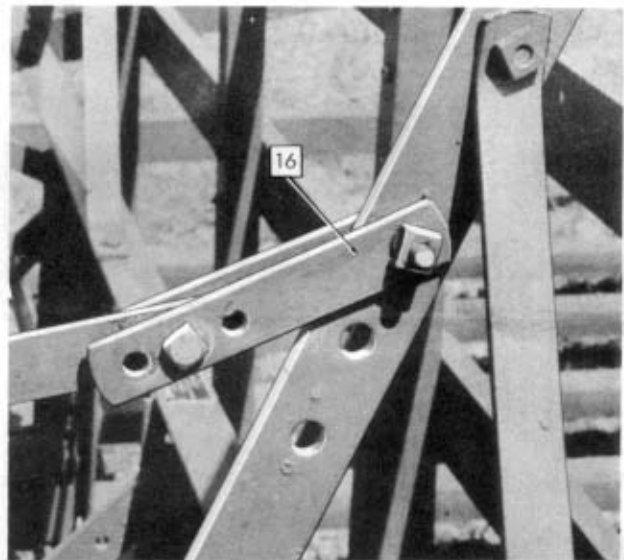


Figure 7

**Step 19:** Assemble push-off by:

a. Attach short push-off uprights (2) to ends of 1 x 4 foot push-off boards (1).

b. Attach center upright (4) to push-off boards (1). Figure 3.

c. Attach long push-off uprights (3) between center upright and short push-off uprights.

**Step 20:** Fasten upper ends of long wooden push-off uprights (3) to top ends of push-off steel uprights (6). Figure 3.

**Step 21:** Attach push-off point and guard assemble (23) to bottom end of center push-off upright. See Figure 6.

**Step 22:** Attach lift rod extension straps (16) (single hole end) to top of the series of three holes in steel push-off upright. Figure 7.

The Sweep Rake is now assembled and ready for attaching to your Ford Tractor. For this purpose you use the stirrups, U-bolts and push beams you have on hand.

## ATTACHING SWEEP RAKE TO TRACTOR

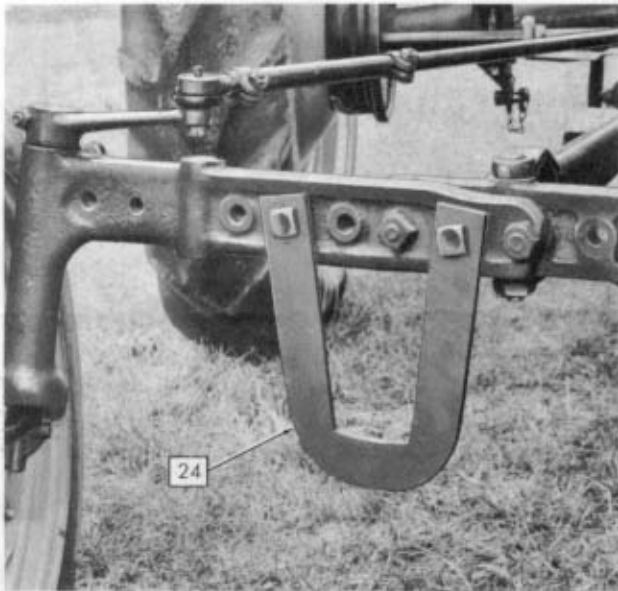


Figure 8

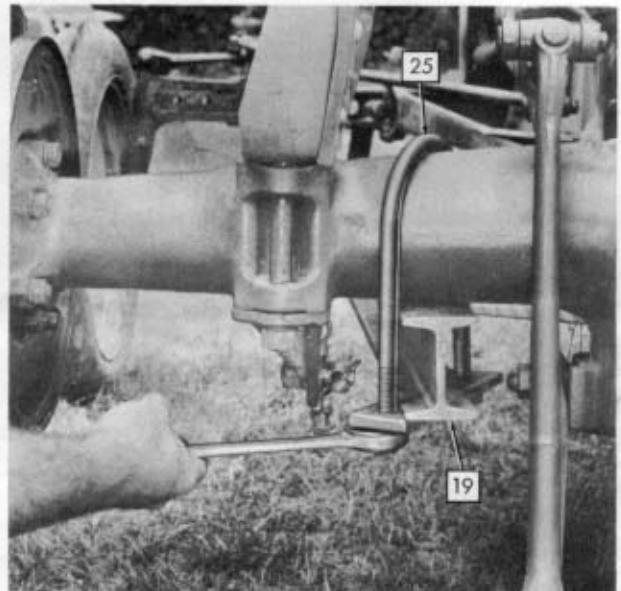


Figure 9

Once the Sweep Rake is assembled, the following procedure should be followed in attaching and detaching the Sweep Rake from the tractor.

**Step 1:** Spread the front wheels of the tractor to the widest setting.

**Step 2:** Attach stirrups (24) to the front axle as shown in Figure 8.

**Step 3:** Slide the right-hand and left-hand push beams (19) through the stirrups and connect them to the rear axle housing by means of the large U-bolts (25) as shown in Figure 9. Note that each push beam has a cross plate welded on it which helps determine which side it goes on the tractor and ties diagonally to the U-bolts.

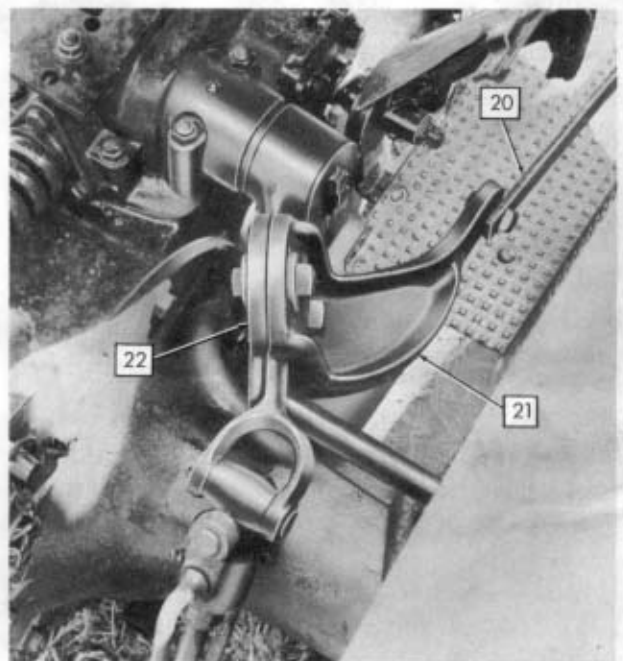


Figure 10

## DETACHING SWEEP RAKE FROM TRACTOR

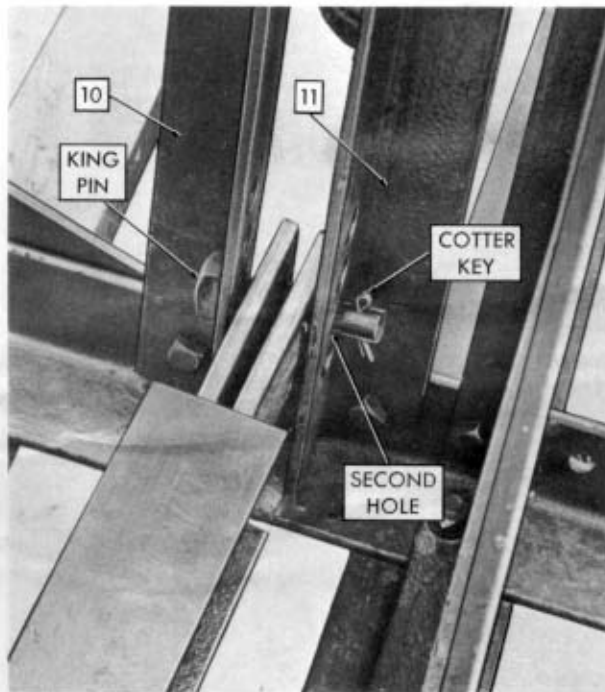


Figure 11

**Step 4:** Drive the tractor into position behind the Sweep Rake.

**Step 5:** Attach the two lifting rod clamps (22) and forgings (21) to the right and left hydraulic lifting arms of the tractor as shown in Figure 10.

**Step 6:** Attach the lift rods (20) to the lift forgings (21), using the short pipe bushings found in Bundle 7. Figure 10.

**Step 7:** Attach the two lift rod extension straps (16), Figure 7, to the front end of the two lift rods, using pipe bushings.

**Step 8:** Attach right and left push beams (19) to the Sweep Rake between a pair of short push beam angles (10 and 11) with a large king pin and cotter key. Put the pin through the second hole from the bottom end of the push beam angle. Figure 11.

After the complete assembly of the Sweep Rake and attaching to the tractor, be sure to tighten all nuts securely.

### DETACHING SWEEP RAKE FROM TRACTOR

**Step 1:** Lower Sweep Rake to the ground by means of the Ford Hydraulic Touch Control Lever.

**Step 2:** Disconnect lift clamps (22) and lift forgings (21) from right and left hydraulic lifting arms of tractor.

**Step 3:** Disconnect push beams (19) from short push beam angles (10 and 11) by removing king pin.

**Step 4:** Free push beams (19) from U-bolts (25) on rear axle housing.

**Step 5:** Remove push beams (19) from stirrups by pulling rearward.

**Step 6:** Detach stirrups (24) from front axles.

**CAUTION:** Be sure that the Dearborn Sweep Rake is completely disconnected before attempting to move tractor.

## OPERATION OF THE SWEEP RAKE



Figure 12

The Dearborn Sweep Rake is easily raised and lowered from the seat of your Ford Tractor by means of the Ford Hydraulic Touch Control Lever. Steered by the tractor, it can easily be directed into corners of fields assuring a clean pickup of hay.

To operate the Sweep Rake, lower the implement with the Ford Hydraulic Touch Con-

trol Lever and drive the tractor forward slowly. When the rake is loaded, raise the implement to carrying position with the Ford Hydraulic Touch Control Lever.

The exclusive push-off feature on the Dearborn Sweep Rake is a great time saver. When ready to unload, lower the implement to the ground and back the tractor slowly. The point

of the push-off contacts the ground, holding firm, and pushes the hay off the teeth.

### **ADJUSTMENTS**

The extra holes in the angles which connect the push beams to the main frame may be used to adjust the ground pressure at the end of the teeth.

The higher you attach the push beams, the greater ground pressure you obtain; the lower you attach them, the less ground pres-

sure you have at the end of the teeth.

If the hay has a tendency to go under the end of the teeth, raise the push beams. If, on the other hand, the teeth have a tendency to run into the ground, lower the push beams.

Adjustments for raising and lowering the head of the Sweep Rake can be made at the front end of the lifting rods where they attach to the lift rod extension steps. There are also different holes in the steel uprights holding push-off for adjusting the lift.

## LUBRICATION

The Dearborn Sweep Rake requires no lubrication.

## MAINTENANCE

1. Store Sweep Rake in a clean, dry place — on wood or cement floor, if possible. Make sure that the teeth lie flat on floor to avoid warping.
2. Use touch-up paint as necessary to prevent rust and maintain appearance of implement.
3. Replace worn parts promptly, using genuine Dearborn Equipment Repair Parts.
4. Keep all nuts tight.

## **SAFETY PRECAUTIONS**

Most farm equipment accidents can be avoided by following these safety precautions:

1. Do not permit anyone but the operator to ride the tractor at any time.
2. Do not allow anyone to ride on the Sweep Rake.
3. Always lower Sweep Rake to the ground with the Ford Hydraulic Touch Control when leaving the tractor. This will prevent injury should anyone tamper with the controls.
4. Never get off the tractor while it is in motion.
5. Never attempt to make adjustments on tractor or implement when tractor is in motion.
6. Always shut off engine when leaving tractor.

# DEARBORN MOTORS CORPORATION

## EQUIPMENT WARRANTY

DEARBORN MOTORS CORPORATION warrants all parts (other than tires) of equipment bearing the trade mark "Dearborn Equipment" 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 Equipment" 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 Equipment" and/or accessories therefor, without thereby becoming liable to make similar changes in equipment bearing the trade mark "Dearborn Equipment" and/or accessories therefor, previously manufactured.

DEARBORN MOTORS CORPORATION

DETROIT 3, MICHIGAN

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