

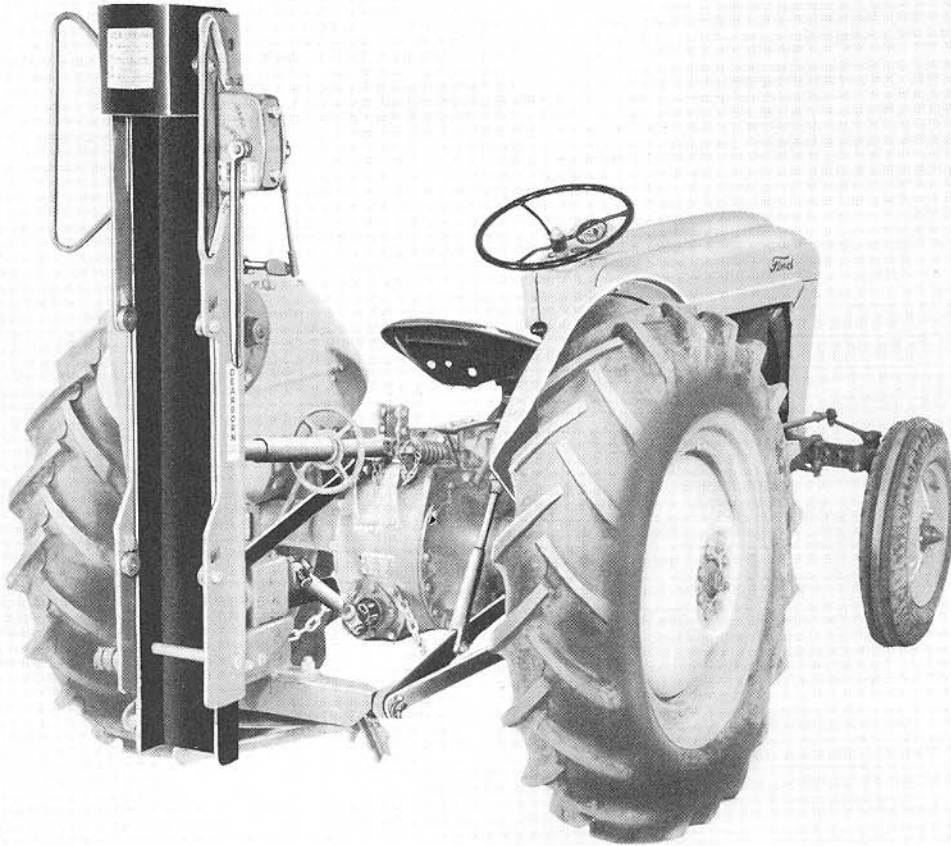


# DANUSER DRIVER AND BREAKER

MODEL 22-54



## ASSEMBLY AND OPERATING INSTRUCTIONS



The Danuser Driver and Breaker, Model 22-54, is designed for setting wood posts for fences, highway guard rails and stakes for vegetable gardens, and vineyards. A Model 22-55, Post Cap, for use with steel posts, is sold separately as extra equipment.

An excellent implement for breaking concrete can be obtained by reversing the drive weight in the guide channels and installing a Model 22-56, Breaker Cap, sold separately as extra equipment. With the breaker cap removed, the implement can be used for tamping dirt.

The design of the driver and breaker incorporates heavy plate steel and tubular members. These features plus special facings on the brakes and friction drive

wheel, contribute to long, dependable operation. A free falling 200 pound weight, with a broad striking surface, can be operated between 53 and 100 inches above ground in post driving operations. The weight has a striking range up to 48 inches, when the machine is converted for breaking concrete.

The implement is equipped with tripod type legs which hold the driver and breaker upright for fast, easy hitching. When the implement is attached to the tractor, the legs fold under the hitch bar.

This manual contains information on the assembly, lubrication and operation of your Danuser Driver and Breaker. Read it carefully, study the illustrations, and keep it available for ready reference.

TRACTOR AND IMPLEMENT DIVISION

*Ford Motor Company*

BIRMINGHAM, MICHIGAN

# DRIVER AND BREAKER

## SHIPPING INFORMATION

The Danuser Driver and Breaker, Model 22-54, is shipped in two bundles. One consists of the basic driver, Bundle No. 220200, and the other consists of a carton of parts, Bundle No. 220201.

The contents of Bundle No. 220201, are listed as follows:

Description	Quantity
Pitch Control .....	1
Hitch Bar Assembly .....	1
Support Legs .....	3
Upper Stabilizer Bar, L.H. ....	1
Stabilizer Bar Pin .....	1
Universal Drive Tube Assembly .....	1
Universal Drive Shaft Assembly .....	1
Guard Assembly .....	2
Bag of small miscellaneous parts .....	1

The Post Cap, Model 22-55, and Breaker Head, Model 22-56, are extra equipment (see insert, Figure 2). When purchased, they each comprise an additional bundle.

## ASSEMBLY PROCEDURE

**NOTE:** *It is the responsibility of the Ford Tractor and Implement Dealer to assemble this implement and instruct the owner in its care, operation and maintenance. The following instructions are provided in case of need.*

1. Cut the metal straps, open the carton and lay out all parts.
2. Attach the two safety guards (3), Figure 1, to the channel guide assembly with four cap screws (1) provided.
3. Position the implement on a level surface, with the back side down.

**NOTE:** *If the implement is to be used for concrete breaking, refer to Step 7 in the section on CONVERSION.*

4. Attach the pitch control assembly (7), Figure 1, to the basic driver with the two clevises, clevis pins, and cotter pins provided.
5. Attach the hitch bar assembly (12), Figure 1, to the bottom of the driver with two  $\frac{3}{4}$ " x  $2\frac{1}{2}$ " bolts (13), lockwashers and nuts provided.
6. Attach the universal drive tube assembly (14),

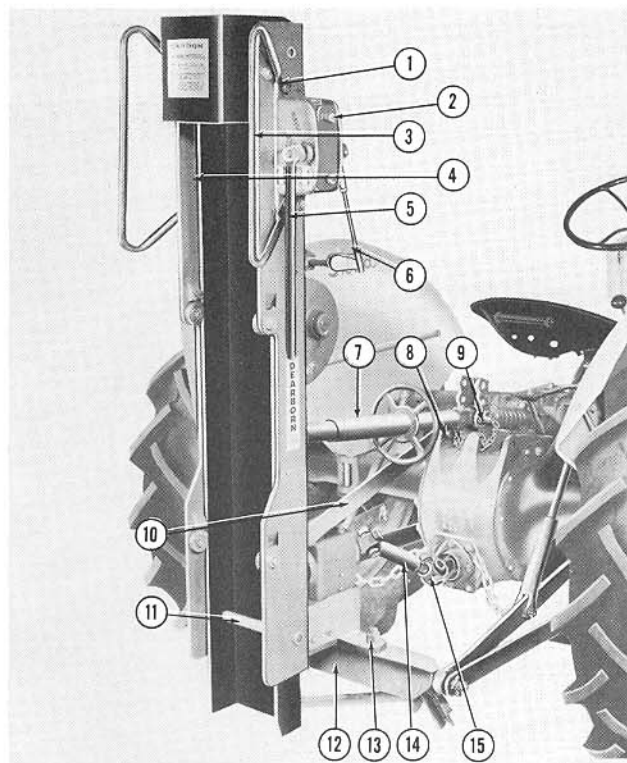


Figure 1

Driver Attached to Tractor

Figure 1, to the drive assembly with the Woodruff key,  $\frac{1}{4}$ " x 2" square head bolt and nut.

7. Attach the upper L.H. stabilizer bar (10), Figure 1, to the left side of the hitch bar assembly. The end with the smaller hole is attached to the hitch bar.
8. Back the tractor into position and attach the right and left lower tractor links.

**NOTE:** *It will be necessary to attach the Stabilizer Kit, Model 22-41, when attaching the Danuser Driver and Breaker to the Ford Tractor.*

9. With a suitable hoist, raise the driver assembly to an upright position.
10. Attach the pitch control assembly (7), Figure 1, to the lower hole of the tractor rocker assembly, shown at (9).
11. Position the universal drive shaft assembly (15), Figure 1, in the universal drive tube assembly (14). Attach the universal shaft (15) to the tractor P.T.O. shaft and secure with a  $\frac{1}{4}$ " x 2" square head bolt and nut.

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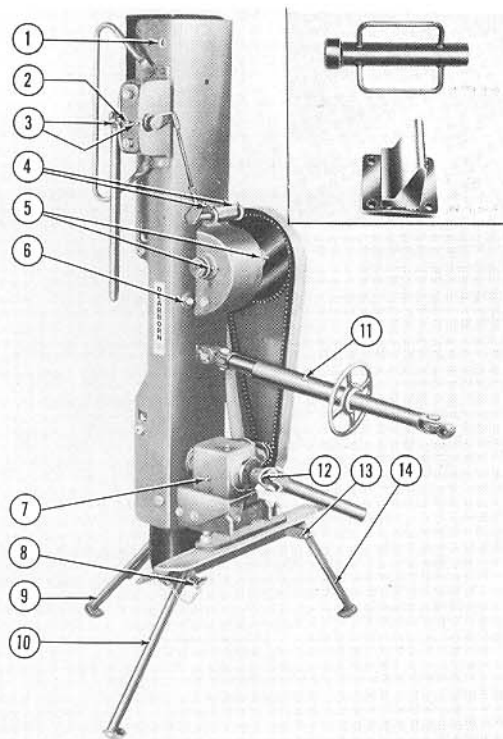


Figure 2

Support Legs Attached

12. Attach the right and left legs (10) and (14), Figure 2, to the welded pins (8) and (13) provided on the hitch bar. Secure the left leg (14) with the cotter pin provided.
13. Attach the rear leg (9), Figure 2, to the hitch bar at the pin (8) provided for the right leg (10). Raise the driver slightly until the legs can be folded into place. Secure with the linch pin provided.
14. Lower the driver and attach the upper L.H. stabilizer bar (10), Figure 1, to the left flange on the tractor differential housing and secure with the stabilizer bar pin (8) and cotter pin provided.

**NOTE:** After the L.H. stabilizer bar (10), Figure 1, is attached, the Hydraulic Touch Control Lever should be positioned and locked in the lowest position on the quadrant.

## LUBRICATION

There are ten lubrication fittings on the Danuser Driver and Breaker. Lubricate these fittings with a good grade of grease after assembly and daily thereafter, or more often if required. The fittings are located as follows:

Fitting No.	Location	Key No.	Figure No.
1	Pitch Control Arm	11	2
2	Universal Drive Shaft	15	1
3	Universal Drive Tube	12	2
4	Friction Wheel Shaft, R.H.	5	2
5	Friction Wheel Shaft, L.H.	5	2
6	Cam Cradle, R.H.	4	2
7	Cam Cradle, L.H.	4	2
8	Brake Housing Assembly, L.H.	3	2
9	Brake Housing Assembly R.H.	3	2
10	Brake Housing Pressure Plate	2	2

The gear box assembly is filled at the factory. Before operation, the level of oil should be checked by removing the level plug (7), Figure 2, located on the right side. It should be drained and refilled twice yearly with approximately one pint S.A.E. (E.P.) 140 oil. Fill until the oil reaches the level plug (7), Figure 2.

## OPERATION

Start the tractor engine, engage the P.T.O. and place a heavy timber under the driver for testing. Remove the transport pin (11), Figure 1, and install it in the bracket provided on the left side of the guide channel assembly. Secure with the linch pin provided.

**CAUTION:** Avoid any bodily contact with the driver after the transport pin is removed. A slight amount of pressure either upward or downward on the handle will cause the drive channel to fall.

Operate the driver a few strokes to become familiar with the control. It will be found that after driving a few posts, a certain operating rhythm may be developed which will permit the operator to catch the drive channel on the rebound and release it for free fall without setting the brakes.

## ADJUSTMENTS

**Driver Pitch:** The pitch of the driver is adjusted by means of the wheel on the pitch control assembly (7), Figure 1.

**Leveling or Tilting:** The driver may be leveled or tilted by using the leveling crank on the tractor lift linkage.

**Friction Wheel and Cam Bracket:** Friction wheel wear is compensated for by means of shims (6), Figure 2, provided at the friction wheel and cam brackets. These shims may be removed if slippage is noted when the driver is raised.

**Friction Brake:** The friction brake can be adjusted by removing shims provided under the stationary brake

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block (4), Figure 1. When removing these shims, be sure that the cap screws being replaced *do not* extend through the guide channel. The movable brake block, located on the right side of the driver, can be adjusted by loosening the locknuts (2), Figure 1, on the control housing. Both the stationary brake block plate (4) and the removable brake block plate should extend approximately  $\frac{3}{64}$ " inside each guide channel.

**Ball Joint Rod:** If shims (6), Figure 2, are removed from the friction wheel bracket, it may be necessary to adjust the ball joint rod (6), Figure 1, slightly so that the driver can maintain the same time cycle.

## CONVERSION

Convert the implement for breaking concrete, as follows:

1. Support the driver with a suitable hoist.
2. Disconnect the upper L.H. stabilizer bar (10), Figure 1, and pitch control assembly (7).
3. Lower the implement to a level surface with a suitable hoist.
4. Attach the Breaker Head, Model 22-56 (see insert Figure 2), to the driver head with four  $\frac{5}{8}$ " x  $2\frac{1}{2}$ " cap screws and lockwashers provided.
5. Remove the transport pin (11), Figure 1, from the drive channel and position the control lever

- (5), Figure 1, in the LOWER position.
6. Raise the bottom of the driver slightly with the hydraulic control and slide the driver channel assembly from the guide channel.
7. Reverse the driver channel assembly and reinstall it in the guide channel.
8. Install the transport pin (11), Figure 1, in the upper holes (1), Figure 2, in the channel guide assembly.

## DETACHING

1. Select a firm, level location, insert the transport pin (11), Figure 1, disconnect the universal drive-shaft (15), and upper L.H. stabilizer bar (10).
2. Remove the rear support leg from the hitch bar assembly (12), Figure 1, and position the side support legs (10) and (14), Figure 2, out from base of the driver, as shown.
3. Lower the implement with the hydraulic control system until the cross angle on the rear support leg rests under the driver transport pin (11), Figure 1.
4. Detach the pitch control assembly, lower tractor links and stabilizer bars from the driver. Caution should be exercised when the implement is attached to or detached from 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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