

**SERVICE EQUIPMENT**

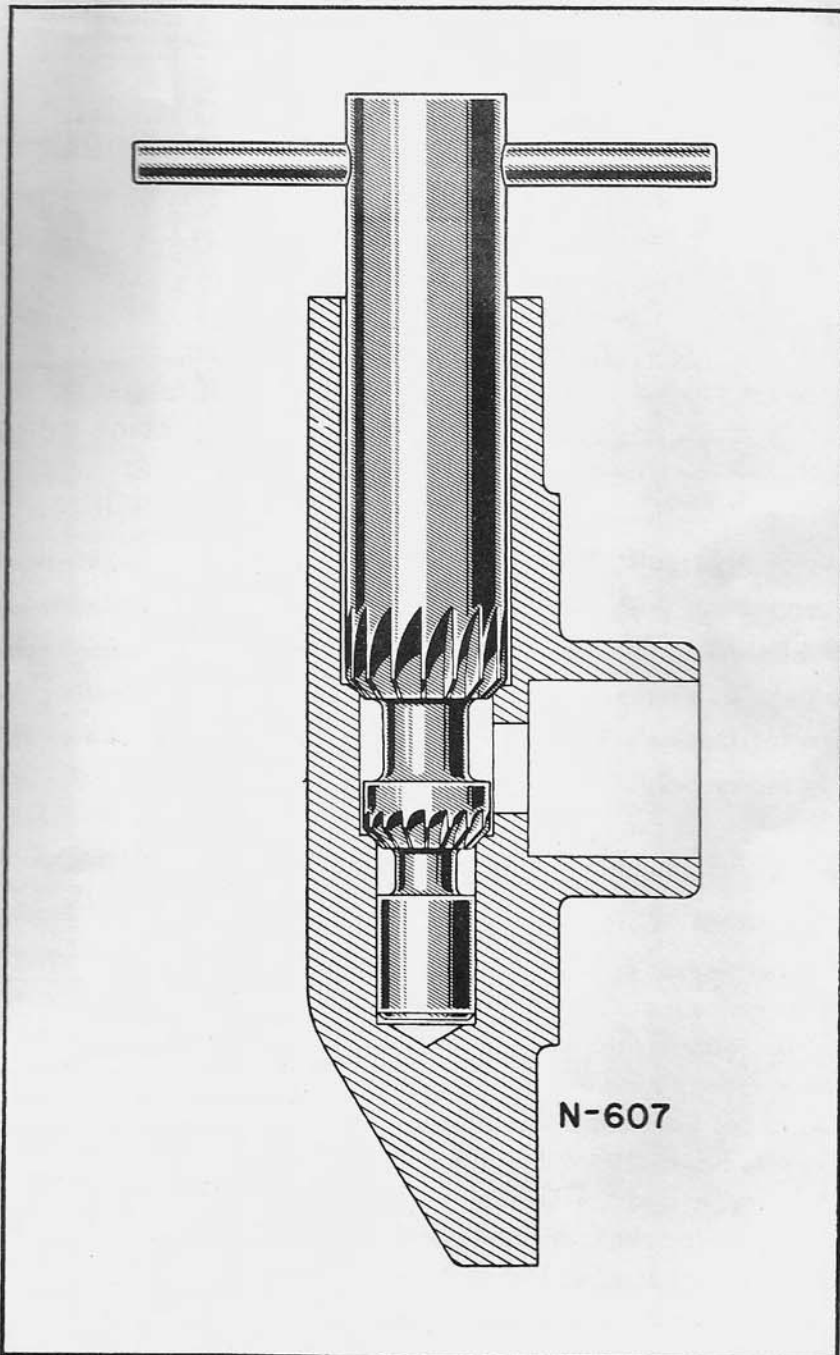
**FOR MODEL 8N**

**FORD TRACTORS**

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# SERVICE EQUIPMENT FOR FORD TRACTOR

## HYDRAULIC PUMP SIDE PLATE VALVE RESEATING TOOL

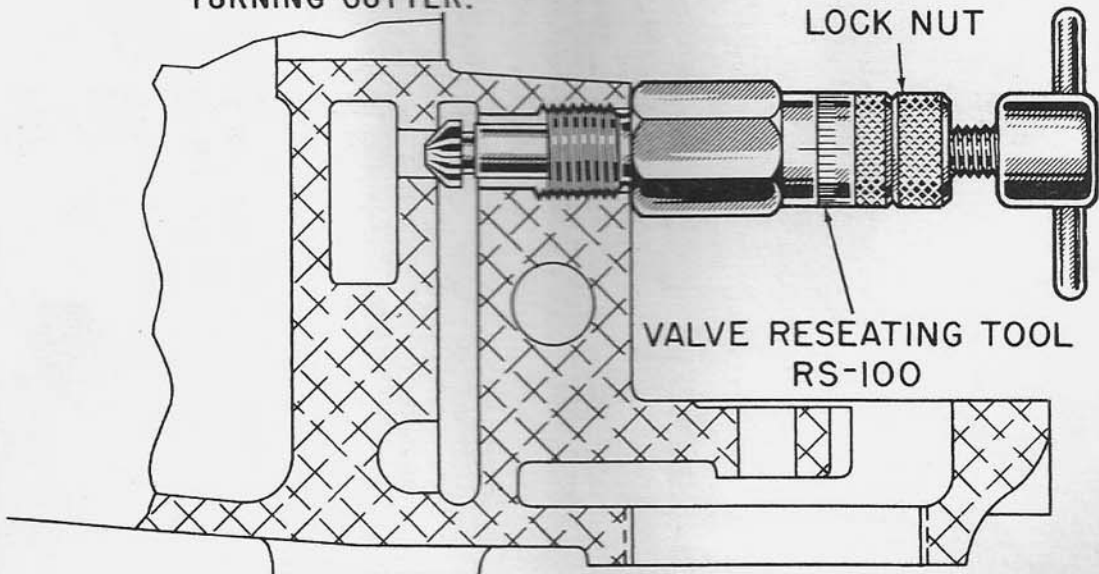


This is a precision tool. It should be a welcomed addition to every Ford Tractor Service Mechanic's tool kit.

Without it, the operation of reseating the hydraulic poppet valve seats cannot be correctly performed. Care should be exercised in using it to avoid removing more metal than necessary to clean up both seats.

## MICROMATIC RE-SEATING TOOL FOR HYDRAULIC PUMP CHECK VALVE

INSTALL THE VALVE RESEATING TOOL IN PLACE AS SHOWN, THEN ADJUST GRADUATED NUT UNTIL THE CUTTER FACE JUST TOUCHES THE VALVE SEAT. TIGHTEN THE LOCK NUT AND REVOLVE THE CUTTER BY TURNING THE HANDLE. IF ADDITIONAL DEPTH OF SEAT IS REQUIRED, TURN THE GRADUATED NUT COUNTER-CLOCKWISE ONE GRADUATION FOR EACH ONE THOUSAND OF AN INCH REQUIRED IN ALL CASES RELOCK GRADUATION NUT WITH LOCK NUT BEFORE TURNING CUTTER.



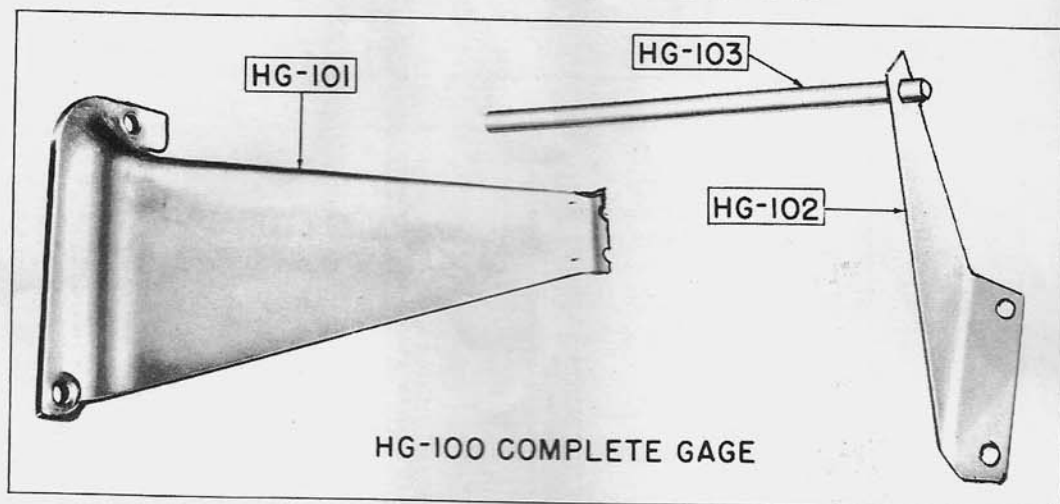
### CAUTION

THOROUGHLY CLEAN ALL CHIPS FROM PUMP CAVITIES AFTER USING THIS RESEATING TOOL. ANY CHIPS LEFT IN PUMP MAY CIRCULATE WITH OIL AND SERIOUSLY EFFECT THE PUMP VALVES.

This is an essential tool for every Ford Tractor mechanic's service kit. With it the seat of the check valve in hydraulic pump can be reconditioned quickly and accurately.

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## HYDRAULIC MECHANISM ADJUSTING GAGE



The Ford Tractor Hydraulic Mechanism is designed and manufactured to perform specific functions in connection with operating a wide variety of implements and equipment designed for use with the Ford Tractor. To function as intended, the hydraulic mechanism must be properly adjusted. The gage as discussed below, will aid in properly adjusting the hydraulic mechanism. Every Ford Tractor Dealer's Service Department should have one of these gages. It will save time in solving many adjustment problems.

### PROCEDURE FOR ADJUSTING THE FORD TRACTOR HYDRAULIC MECHANISM WITH THE HYDRAULIC LIFT ADJUSTMENT BRACKETS

Figure 1 shows the upper adjustment bracket, HG-102, bolted in place on the lift cover assembly and the alignment bar in position. Figure 2 shows the lower bracket, HG-101, bolted in place. The two brackets and the bar remain in this position until the adjustments are completed. The function of the upper bracket HG-102 and the alignment bar is to hold the lift arms in their full-up position. The lower bracket has two slots in the lip on the free end, (A), Figure 2. These slots represent the full intake and exhaust position of the valve in the hydraulic pump. The lower bracket is used in adjusting the constant draft and implement position control springs to their proper length.

### ADJUSTMENT PROCEDURE

1. Support the lift cover assembly firmly in a vise, as shown in Figure 1.

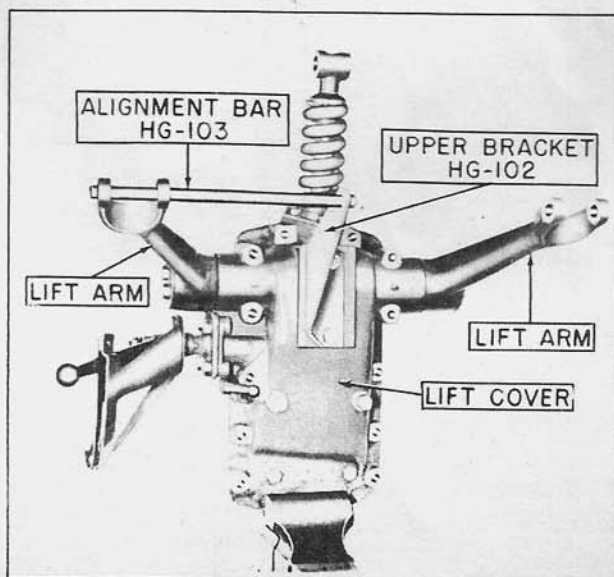


Figure 1

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2. Bolt the upper bracket in position as shown in Figure 1. Use studs and nuts which secure the seat to the lift cover.

3. Place the alignment bar, HG-103, in position as shown in Figure 1. Be sure the bar extends through both holes in the lift arm and

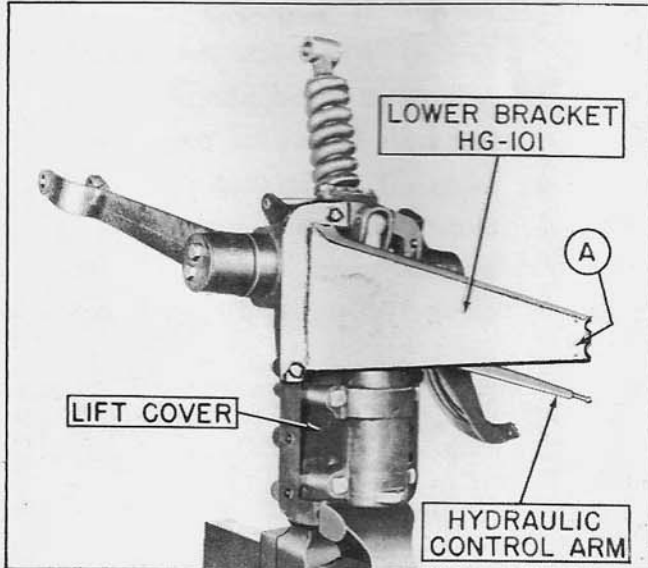


Figure 2

through the hole in the upright part of the bracket.

4. Bolt the lower bracket, HG-101, in position as shown in Figure 2. Use cap screws taken from same holes in the lift cover assembly as shown. Secure with  $\frac{7}{16}$ —# 14 nuts on other side of cover.

5. Set tension on tractor main control spring by turning yoke in or out slightly until the spring has no end play and can be turned with the thumb and two fingers, as shown in Figure 3.

6. Tighten nut (A), Figure 4, sufficiently to require approximately a four to five pound pull to move the touch control lever.

7. Raise the touch control lever to the full-up position as shown in Figure 4.

8. Adjust the constant draft spring, see Figure 4, to its proper length— $3\frac{9}{16}$  inches. If the adjusting nut is a locknut tighten until the

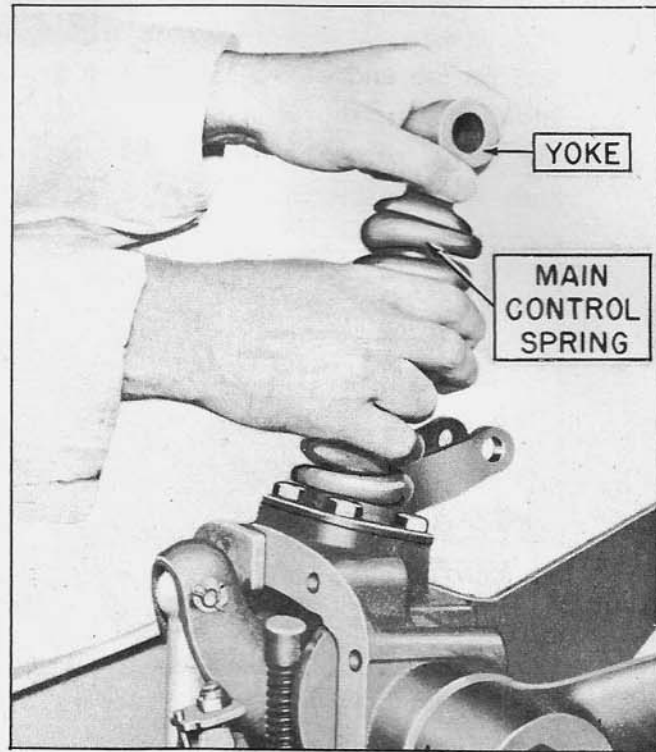


Figure 3

washer bears against the shoulder. If it is a standard castle nut with cotter pin adjust the spring 3.58 inches (slightly over  $3\frac{3}{16}$  inches is satisfactory).

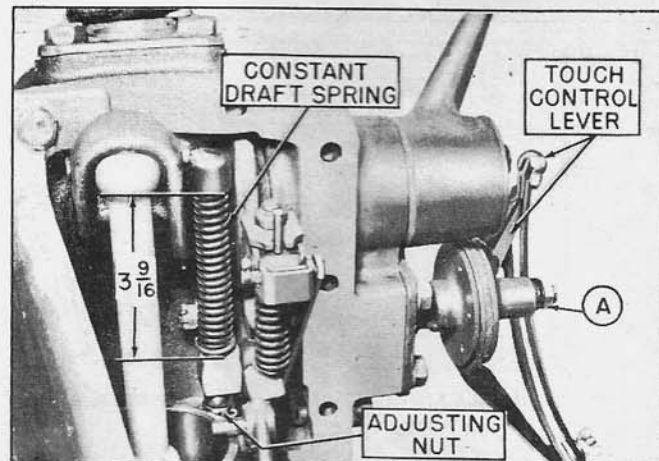


Figure 4

9. Loosen the four cap screws, see Figure 5, which hold the quadrant assembly.

10. Place the touch control lever in its full-up position as shown in Figure 5. Grasp the control arm as shown in the illustration exerting a pull of about four pounds, and strike the quadrant support plate with a soft face ham-

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mer upward or downward as shown until the ball on the end of the control arm fits into the intake slot as shown in the insert. Be sure the top edge of the quadrant support plate is flush with the matching face on the lift cover.

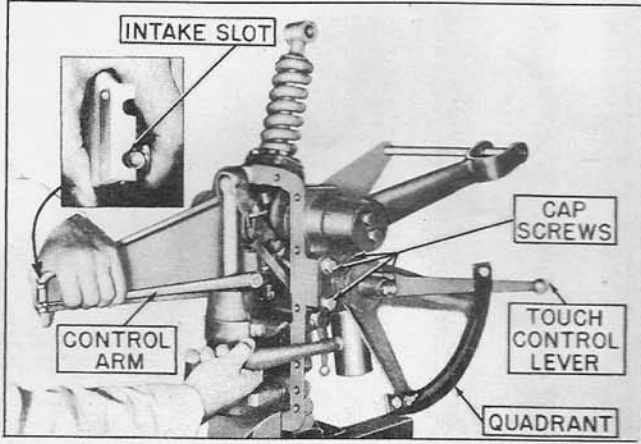


Figure 5

With the control arm in this position, tighten the four cap screws securely.

**11.** Adjust the length of the implement position control spring as follows:

- a. Move the touch control lever downward on the quadrant as shown by arrow (B),

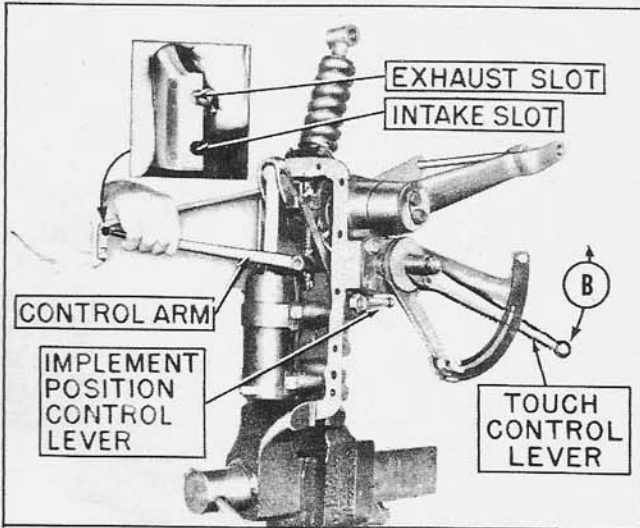


Figure 6

Figure 6, until the ball on the end of the control arm moves from the intake slot in the lower bracket to the exhaust slot as shown in insert, Figure 6 with approximately a four pound pull exerted on it.

- b. Move the implement position control lever to its full-up position as shown in Figure 6. This will engage the implement position control linkage.

- c. When the implement position control linkage is engaged the pin (C), (see Figure 7) contacts the cam (D) and the lower end of adjusting bolt (B) touches the flat boss (E) on the control arm when the swivel (F) is in contact with the constant draft spring. The spring will be set to its proper length when these three points of contact—D, E, and F, the pin touching the

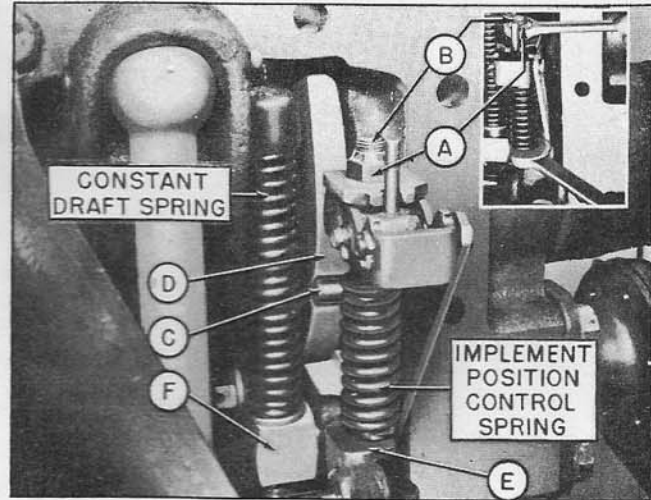


Figure 7

cam, the swivel touching the collar on the constant draft spring and the lower end of the implement position control spring resting on the flat boss on the control arm—are made when the control arm is resting in the exhaust slot of the lower bracket. See Figure 6. Should it be necessary to adjust the length of the implement position control spring, loosen the locknut (A) and turn the adjusting bolt (B) as shown in the insert, (see Figure 7.)

- 12.** Remove brackets and aligning bar and mount lift cover assembly in place on the tractor.

