INTRODUCTION

This manual contains information on removal and installation of cutter bar components. It also covers the gear box and other areas of the base frame where, after normal use, parts may have to be replaced or adjusted.

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REMOVING THE CUTTER BAR FROM THE BASE FRAME

1. Remove the cover and guard assembly A, Figure 1. Remove the end guard B.



FIGURE 1

2. Remove the swath board assembly A, Figure 2.

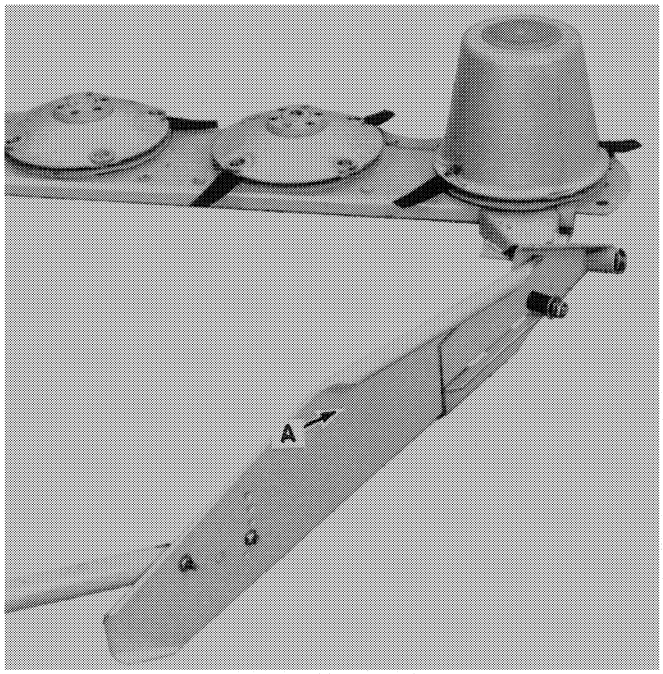


FIGURE 2

3. Remove the belt shield A, Figure 3. Remove the drive belts B from the cutter bar drive sheave.

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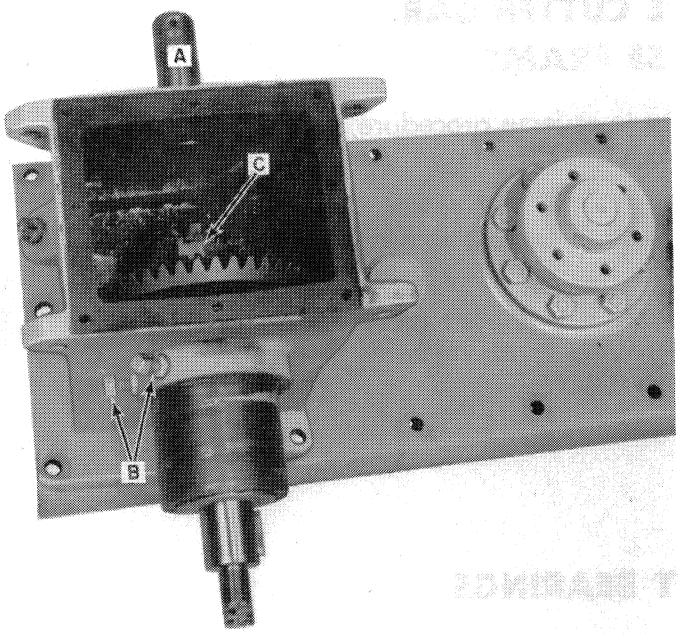


FIGURE 18

pin, cover, nut and washer inside the gear box at C. Drive the shaft and bearing assembly from the gear box. **NOTE:** A woodruff key is used to hold the bevel gear in place.

4. To remove the output shaft and gear remove the cotter pin, nut, cover and washer shown at A, Figure 19. Normally the pinion gear can be lifted from the shaft. Remove the woodruff key and then the shaft and gear can be removed.
5. If the gasket must be replaced between the gear box and the upper trough use permatex on all surfaces.
6. To **re-assemble** the gear box do the previous steps in reverse order. Make sure all bearings are packed with grease.
7. Tighten the adjustment nuts on the shafts to 50 ft. lbs. torque to properly seat the bearings and then back them off so the bearings have a 12 in. lbs. pre-load.
8. Adjust the input shaft assembly to obtain a .015 to .020 back lash between the gears. Tighten the two set screws B, Figure 18, to secure the shaft.
9. Install the bearing support G, Figure 17, and the sheave F. Install the washer and nut and tighten nut to 60 ft. lbs. torque. Install the cover and cotter pin. Install the gear box cover A.
10. Fill the gear box with EP 90 oil to the thread area of the fill plug H, Figure 17.

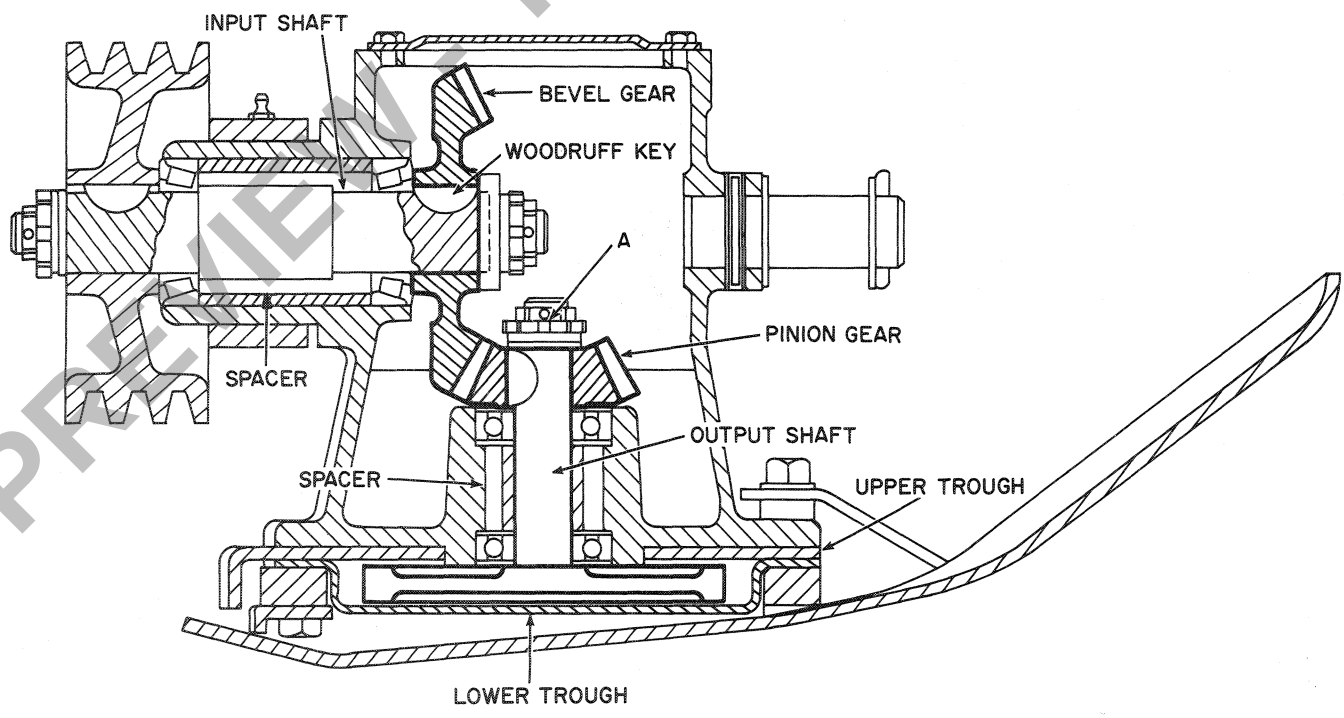


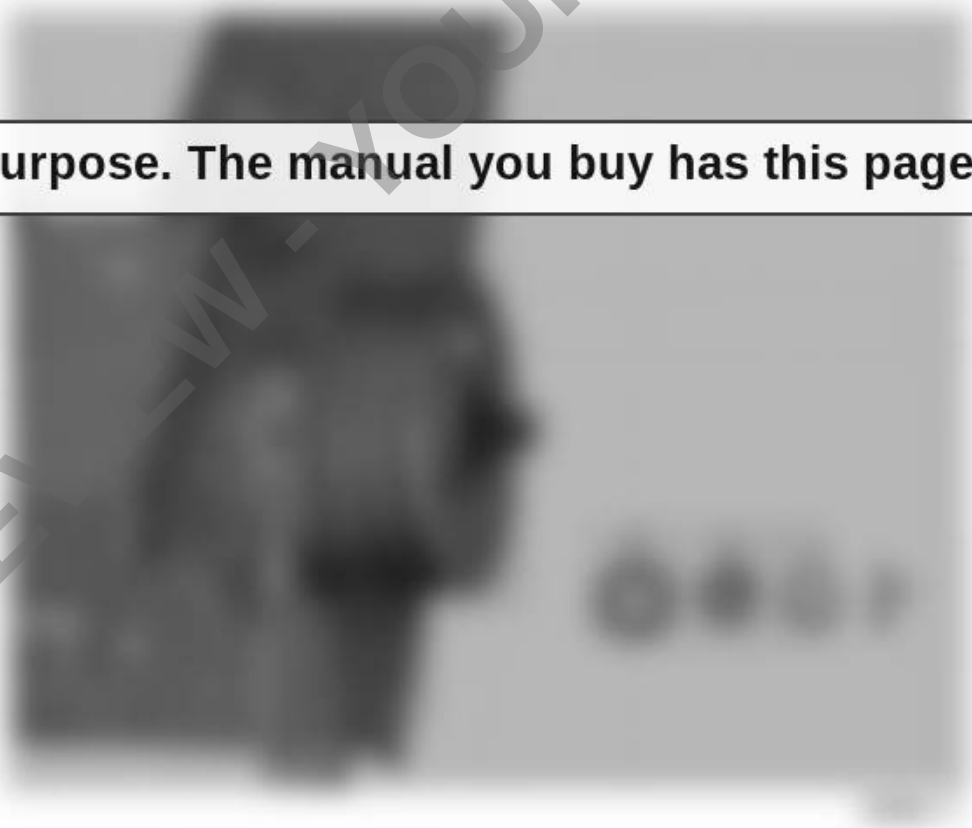
FIGURE 19

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3. Remove bolts A, Figure 8, that were installed to temporarily hold the gear box in place. **Be careful not to disturb gasket between gear box and trough.**
4. Position the tapered washers on the idlers. Apply permatex on the lower trough half. Assemble the two trough halves, **being**

6. Install all cutter bar bolts, skid shoes, inner shoes, and disc shoes shown at A, B, C, and D, Figure 6.
7. Install the discs, hubs, crop divider and cap shown at A and B, Figure 5.
8. Fill the cutter bar with EP 90 oil, with the cutter bar in a vertical position, to the



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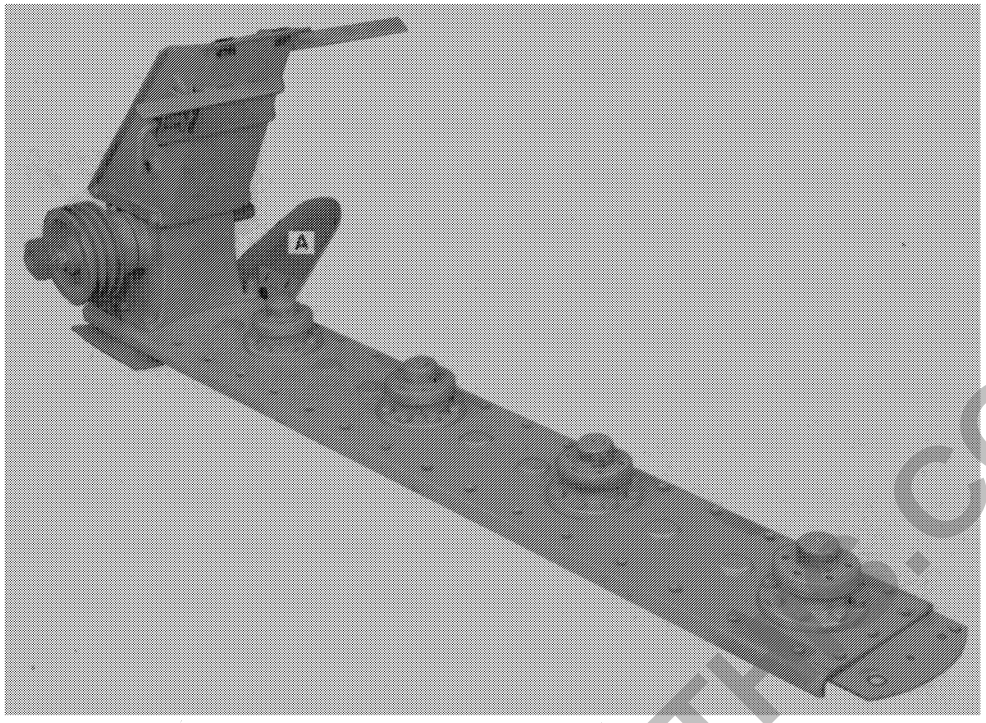


FIGURE 7

3. Remove the inner shoe A, Figure 7. **Be careful not to disturb the seal between the upper half of the cutter bar and the gear box.**

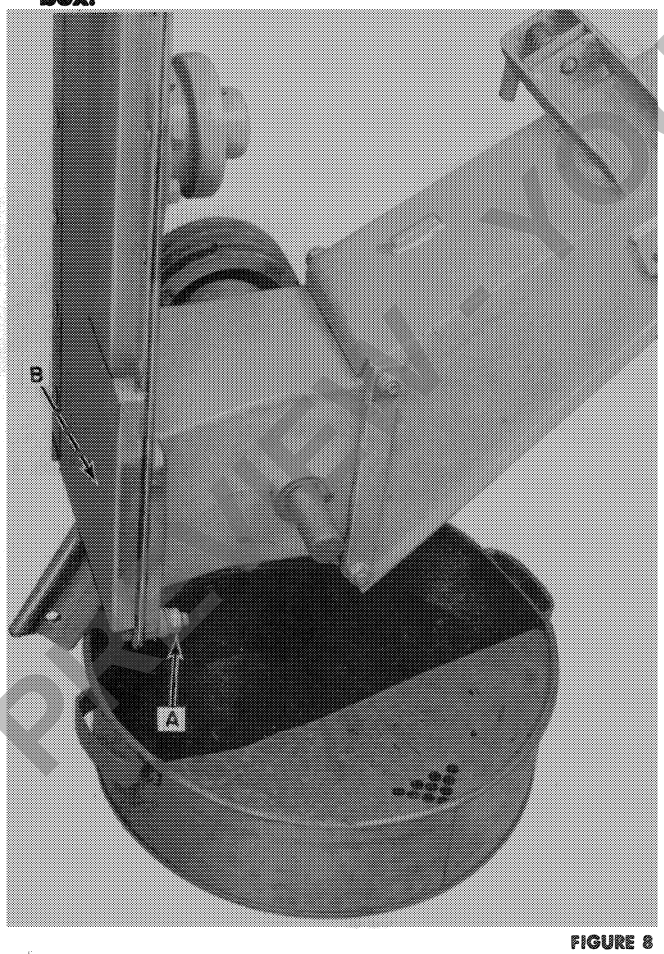


FIGURE 8

4. Install bolts shown at A, Figure 8, to temporarily hold the gear box in place. Hang the cutter bar assembly as shown and remove the drain plug at B and drain the oil.

5. Remove all the allen head stub bolts on the bottom side of cutter bar as shown at A, Figure 9.

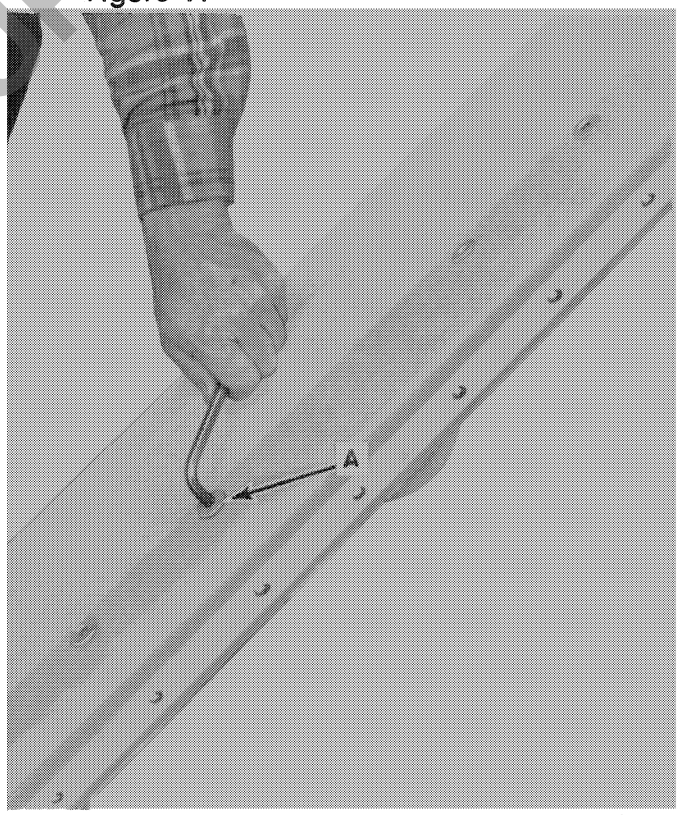


FIGURE 9

6. Place the cutter bar in an upside-down position and remove the bottom half as shown in Figure 10. Be sure to collect the tapered washers on each idler stud. The

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3. Clean shaft with emery cloth and remove upper bearing as shown in Figure 14. The lower bearing and spacer can be removed from bottom side. If housing A is replaced, use permatex between housing and trough. Pack bearings with grease in assembly.

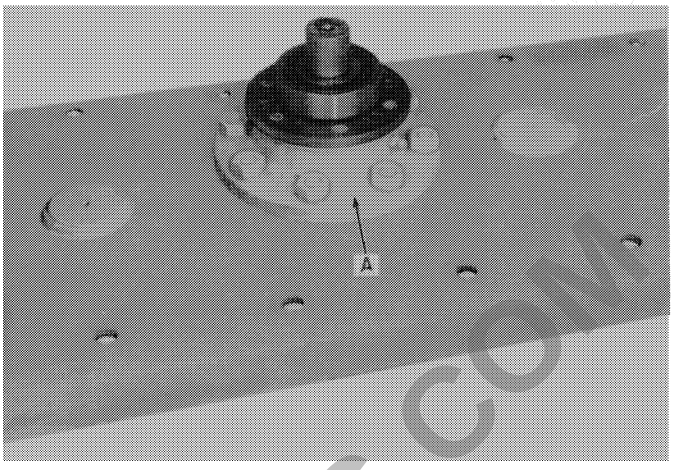


FIGURE 14

IDLER GEAR BEARINGS

1. Idler gear bearings, A, Figure 15, should be replaced if there is any horizontal movement in bearing assembly. The bearing is retained in the gear with an internal snap ring. The bearing must be removed with a hydraulic press.
2. To remove the bearing a special tool should be made as shown in Figure 15B.
3. Install the shaft part of the special tool down through the flush side of the bearing and gear. **NOTE:** Figure 15 shows the recessed side of the bearing and gear at B, or the bottom side when inserting the special tool.

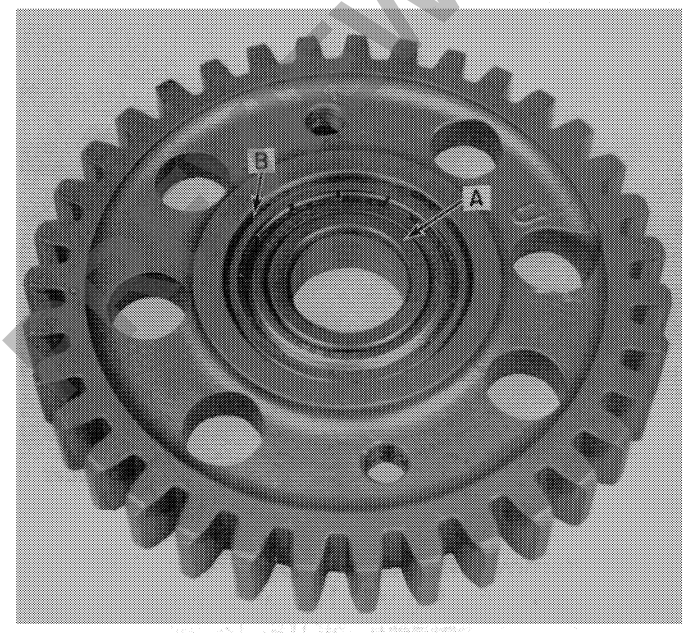


FIGURE 15

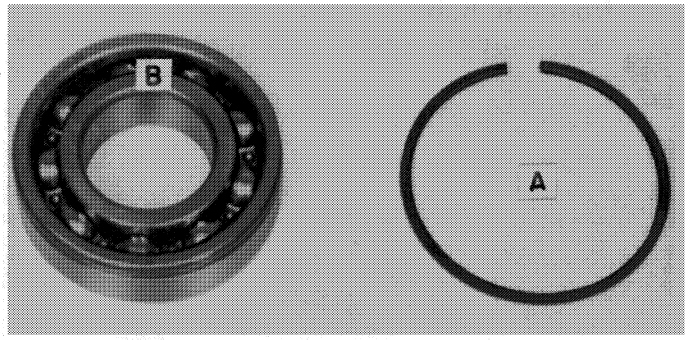


FIGURE 15 A

4. Support the bottom of the gear hub with a heavy spacer and press against the special tool until the snap ring shears. It will require approximately 20 tons pressure.
5. Remove the sheared part of the snap ring inside the gear ring groove with a pointed object or small screw driver. Install the new snap ring.

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