



## SPROCKET DRIVE

1. Install a new "O" ring seal on the pivot shaft next to the main frame (Illust. 26), if the carrier plate or the drive housing was removed from the main frame.

**Regular Tread and TD-150-501 to 1788 (Regular Tread)**

2. If the pinion shaft was removed, insert the pinion shaft into position through the steering clutch compartment and install the steering clutch and brake as outlined in Section 7. Use a jack through the bottom opening in the main frame to support the weight of the clutch, also to help center the pinion shaft in the bore of main frame when installing the pinion inner bearing and carrier plate to the main frame.

3. Install a new oil soaked seal (4) in the bearing retainer (2), so that the lip side of the seal faces outward toward the bearing. Reassemble the parts of the pinion inner bearing (Illust. 17, parts 2 through 6) in the reverse order of their disassembly, and install the assembly to the carrier plate.

4. Install the carrier plate to the main frame. See that the bearing retainer (2) fits evenly around the shoulder of the pinion shaft to prevent damage to the oil seal (4). Tap the carrier plate against the main frame and secure with cap screws.

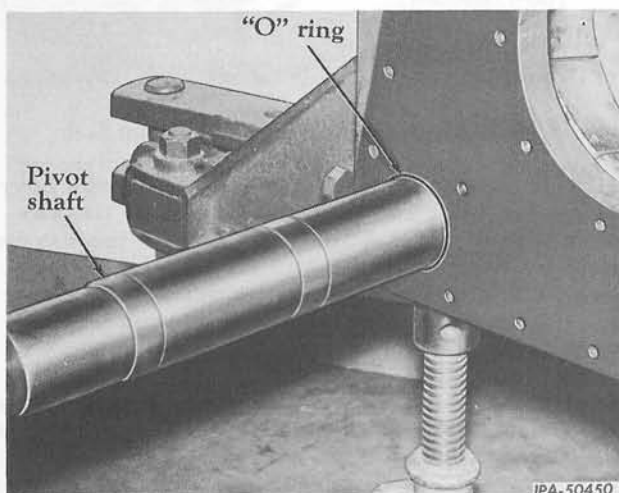
NOTE: The remainder of reassembly for the "Regular Tread" is similar to that of the "Wide Tread" beginning with step 5.

**Wide Tread and TD-150 - 1789 and Up  
TD- 151 - 4001 up (Regular Tread)**

2. If the pinion shaft (34, Illust. 17 or 1A, Illust. 18) was removed, install a new oil-soaked seal (4) in the bearing retainer so that the lip side of the seal faces outward toward the bearing. Then reassemble the steering clutch support bearing parts to the pinion shaft in the reverse order of their disassembly. Tighten bearing retaining nut (38) to torque shown in "SPECIFICATIONS" par. 2, and secure with lock bolts (39). Bearing retaining nut (5, Illust. 18) should be tightened to standard torque. The use of a new nut lock is recommended.

3. Install the sprocket drive pinion inner bearing in the sprocket drive carrier (Illust. 20). Position the sprocket drive carrier on the pivot shaft and align the locating dowel pins into the main frame. Install the attaching bolts and nuts, tightening them evenly. Be sure to install the cap screws between the webs on the inside of the carrier.

## 8. ASSEMBLY AND INSTALLATION



Illust. 26 - Pivot Shaft "O" Ring.

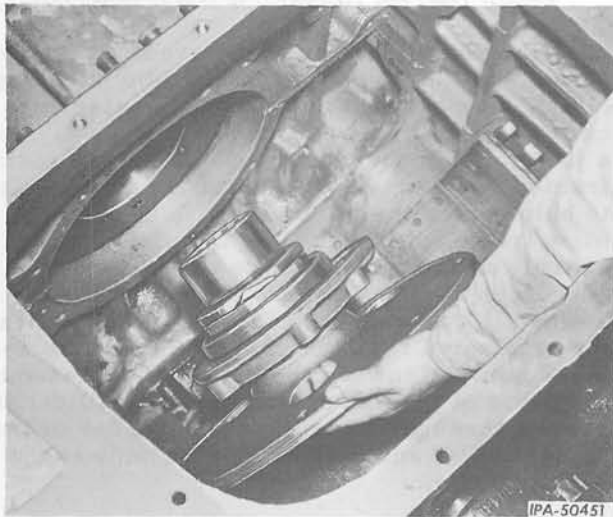
continued on next page



SPROCKET DRIVE

8. ASSEMBLY AND INSTALLATION - Continued

Wide Tread and TD-150 - 1789 and Up and TD - 151 - 4001 up  
(Regular Tread) - Continued



Illust. 27 - Installing the Pinion Shaft.

4. With a new gasket (3) in position, install the pinion shaft assembly in the main frame (Illust. 27). Install and tighten the retainer cap screws through the access holes in the pinion shaft flange (Illust. 19).

5. Install the steering clutch as outlined in Section 7.

6. Press the bearing inner races on both ends of the drive pinion. Install the pinion to engage the pinion shaft splines.

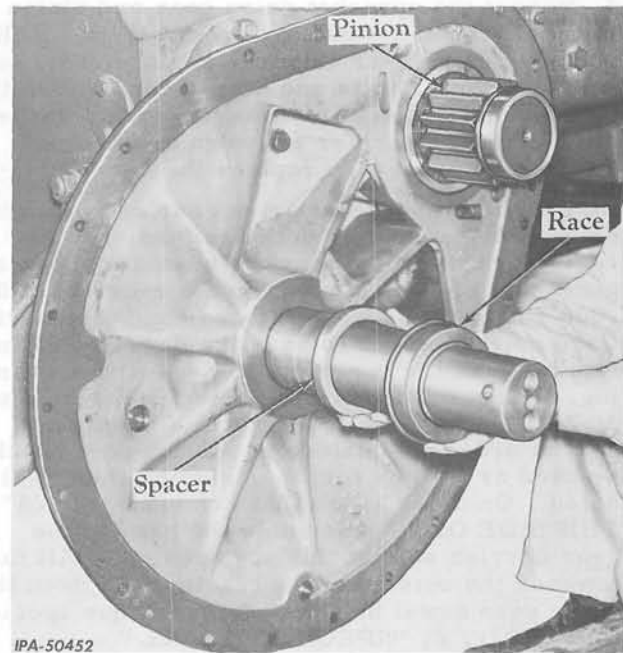
7. Slide the spacer and inner race of the drive gear inner bearing onto the pivot shaft and seat them against the carrier (Illust. 28). The bearing race can be heated in oil to 275 degrees for easier installation.

8. If it was removed, install the sprocket drive gear inner bearing in the hub of the drive gear carrier. Hoist the drive gear and carrier into position on the pivot shaft, meshing it with the pinion (Illust. 14). Slide the bearing spacer on the pivot shaft so that it contacts the inner bearing race.

9. Install the sprocket drive oil seal pressure plate in the seal guard and dirt deflector. Secure the leather diaphragm to the pressure plate with retainer and cap screws (Illust. 29). Make sure the springs and anchor pins are in position and bolt the seal assembly to the gear cover.

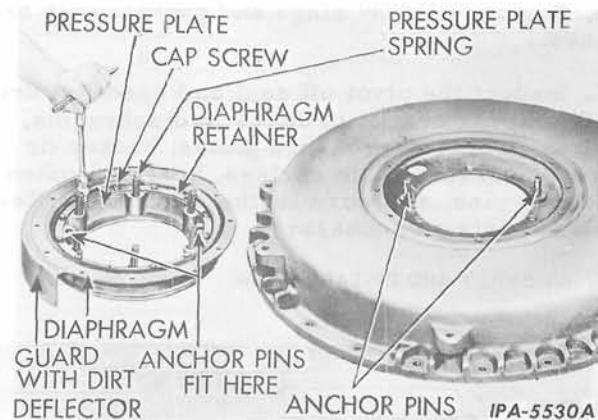
NOTE: On tractors that have diaphragm retainers (21) with two notches, be sure to align these notches with the bosses on the pressure plate (24) (Illust. 18). If equipped, be sure to

ISS-1033Y. 8-61.



Illust. 28 - Installing Drive Gear Inner Bearing Race.

install the stiffener between the drive cover (18) and the retainer (22) (Illust. 17).



Illust. 29 - Assembling Sprocket Drive Oil Seal.

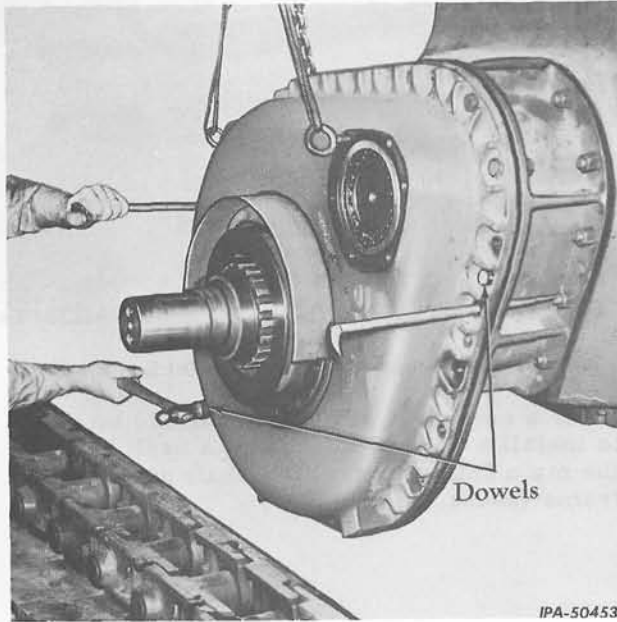
10. Tap the pinion outer bearing into the cover. Hoist the gear cover into position on the carrier (Illust. 30). Align the cover to the carrier with drifts so that the two positioning dowels can be driven in. Install the drive housing shield and secure the cover to the carrier with bolts and nuts.

11. Install the drive pinion bearing cap with a new cork seal. Position the leather packing on the face of the oil seal pressure plate. Slide the sprocket carrier on the splines of the gear hub. Tap the carrier with a soft hammer to seat it properly. Install the nut lock and the

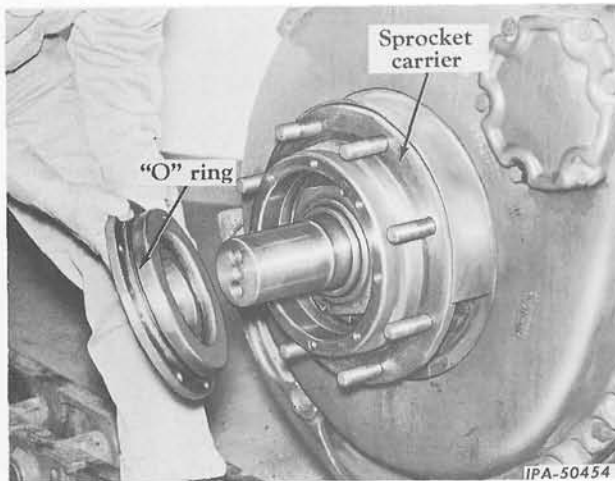


SPROCKET DRIVE

sprocket drive gear carrier nut, tightening the nut to the torque in "SPECIFICATIONS", paragraph 2. Use wrench SE-1184-2 to tighten the nut. (See Illust. 11.) Bend a tab of the nut lock against the nut.



Illust. 30 - Installing the Drive Gear Cover.



Illust. 31 - Installing Outer Bearing and Cage.

12. If the drive gear outer bearing was removed, heat the bearing cage to a maximum of 300° F and place the bearing into the cage. If the bearing is equipped with loading grooves, be sure to assemble the bearing with the grooves toward the outside of the bearing cage (Illust. 32).

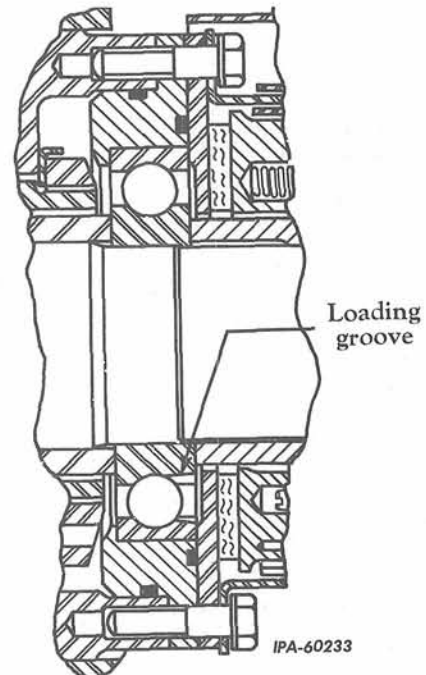
NOTE: The use of hammers to install the bearing is likely to result in premature bearing failure.

13. Install the drive gear outer bearing and cage against the sprocket carrier (Illust. 31). Be sure the "O" ring is in place and that the bearing is flush against the long spacer. Install the drive gear outer bearing retainer and pivot oil seal dirt deflector over the bearing cage (Illust. 10) and secure all three to the sprocket carrier with eight cap screws and lock washers.

14. Assemble the pivot oil seal and bracket. This seal is assembled exactly the same as the sprocket drive oil seal. Refer to Step 8 of this paragraph.

15. Install the sprocket as described in Par. 5.

16. Refill the sprocket drive with the recommended grade and quantity of lubricant.



Illust. 32 - Drive Gear Outer Bearing Installed in Bearing Cage.

9. PIVOT SHAFT REPLACEMENT

The pivot shaft is pressed through the rear of the main frame and extends from both sides to support the sprocket drive gears and the rear end of the track frames.

continued on next page

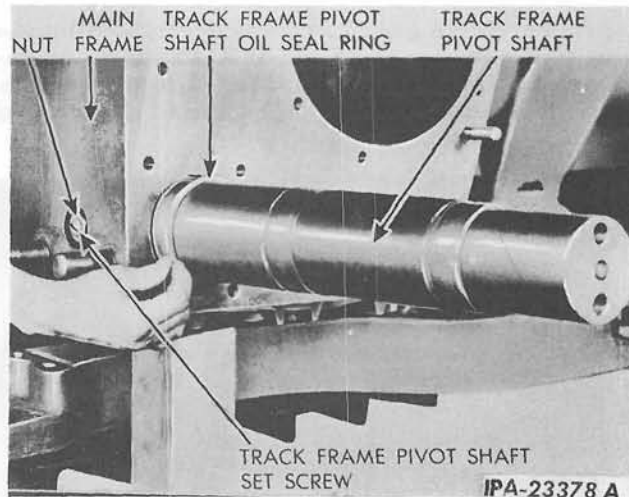


## SPROCKET DRIVE

## 9. PIVOT SHAFT REPLACEMENT - Continued

If necessary to replace, the shaft is positioned and held from turning by the two lower studs holding each drawbar guide bracket to the rear of main frame. Set screws and lock nuts at the rear of the main frame (Illust. 33) are used for this purpose on older 14A and 18A series tractors. In either case, the drawbar guide brackets must be removed in order to remove the four lower bracket studs or to gain access to the set screws and lock nuts, located behind the brackets, for their removal. Also the track frame diagonal brace bearings clamped around the pivot shaft must be removed.

The shaft must be pulled out of the main frame. This requires a COMPLETE disassembly of both sprocket drives. The pivot shaft can be removed or installed most easily with pivot shaft removing and installing set, No. Y-3100-E for the 14 and 15 series or No. Y-3100-F for the 18 and 20 series. Refer to "Service Tools Manual," ISS-1002.



Illust. 33 - Installing Pivot Shaft Oil Seal Ring.

After a new pivot shaft is installed, be sure to install a new oil seal ring in each side of the main frame to seal the shaft and main frame (Illust. 33).