

pins. Insert the clevis pins and cotter pins and secure the fork to the shaft. Refer to Figure 45 or 46. Check to see that the release hub moves freely when the cross shaft arm is moved up.

8. Install the input shaft into the release hub. Refer to Figure 45 or 46. Make sure the splines on the shaft mesh with the internal splines of the mainshaft.

NOTE: For splash lubricated transmissions, the re-

tainer ring must be installed on the input shaft prior to installing the shaft into the release hub.

9. Connect the transmission to the engine as described in Part 8, "SEPARATING THE TRACTOR."
10. Install the drain plug and fill the transmission with the specified oil, page 62, until the oil flows from the oil level plug hole. Install the oil level plug.

7. COMPLETE OVERHAUL

A. Removal and Disassembly

1. Drain the oil from the transmission.

NOTE: Pressure lubricated transmissions have an oil reservoir common with the rear axle center housing. Remove the square head drain plug from the bottom of the rear axle center housing to drain the oil from both the rear axle center housing and the transmission case. Be prepared to drain approximately 17 U.S. Gallons.

2. Remove the transmission as described in Part 8, "SEPARATING THE TRACTOR."
3. Remove the transmission parking brake detent and other assemblies described in "PARKING BRAKE DETENT, ROD AND LINKAGE ADJUSTMENT," page 3.
4. Remove the fork shaft cam and other assemblies described in "FORK SHIFT CAM, COVER AND INDEX ARM," page 6.
5. Remove the secondary countershaft bearing retainer and other assemblies described in "REAR END OVERHAUL", page 8.
6. Remove the assemblies described in "FRONT END OVERHAUL," page 23.
7. Bend down the locking tab, Figure 53, and remove the idler shaft bolt and the tab. Hold the idler gear, and push the shaft to the rear of the transmission to remove the shaft. Remove the idler gear by rolling it out of the case on the mating teeth of the mainshaft.

8. **Pressure Lubricated Transmissions:** Remove the thrust washer on each side of the idler gear.
9. Pull the mainshaft forward to remove it from the case. (The main countershaft bearing retainer must be off to permit removal of the mainshaft.)

NOTE: Some Ford 8000 splash lubricated transmissions have a spacer ring installed on the mainshaft between the face of the mainshaft bearing and the splines for the sliding gear coupling. All Ford 8000 and 9000 pressure lubricated transmissions have a spacer ring installed on the secondary countershaft between the splines for the sliding gear

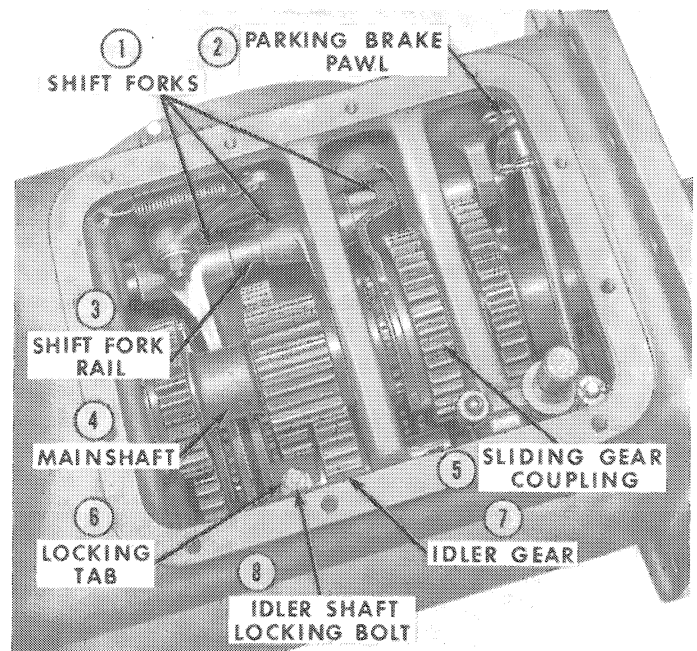


Figure 53
Top of Transmission

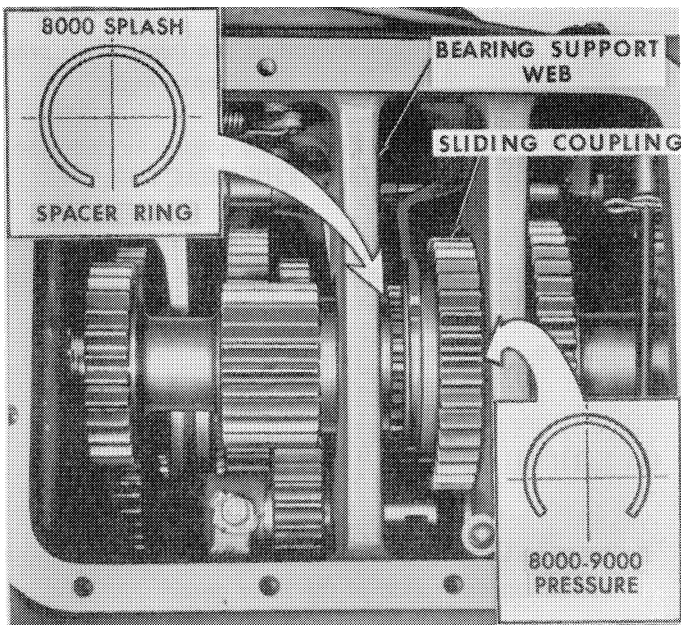


Figure 54
Spacer Ring Location

coupling and the face of the secondary countershaft bearing. It is not necessary to remove the spacer ring to remove the components from the transmission case. Refer to Figure 54.

10. Remove the sliding gear coupling, Figure 53, from the case. Remove the oil seal from within the mainshaft.

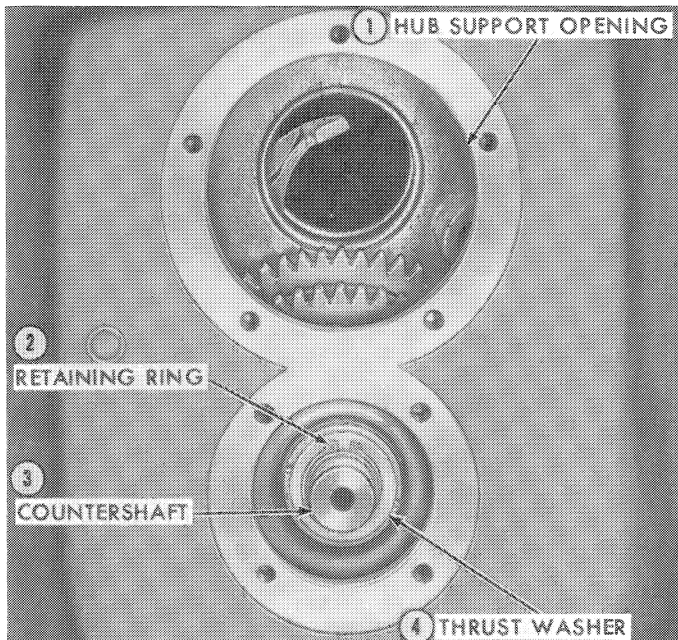


Figure 55
Countershaft Retaining Ring

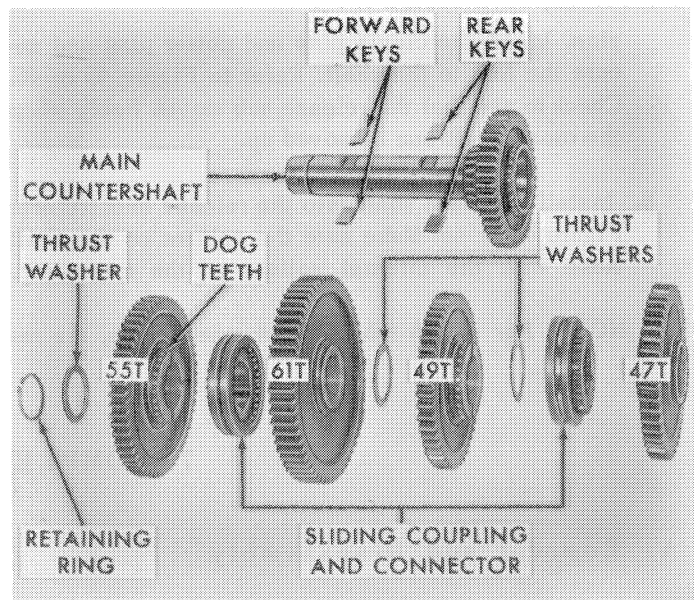


Figure 56
Main Countershaft and Associated Components –
Ford 9000 Transmissions

11. **Pressure Lubricated Transmissions:** Remove the O-ring and the oil seal from within the mainshaft.
12. Remove the retaining ring and the thrust washer from the front end of the main countershaft, Figure 55.
13. **Ford 8000 Transmissions:** Remove the countershaft from the case by pulling it through the gears.
14. **Ford 9000 Transmissions:** Move the 55 tooth gear, Figure 56, as far forward as possible on the countershaft. Move the sliding gear coupling forward to engage the dog teeth of the 55 tooth gear. Using a long screwdriver, gently and evenly move the connector forward to gain access to the forward keys on the countershaft. Remove the keys. Move the remaining gears forward on the countershaft. Move the rear sliding gear coupling to engage the dog teeth on the 49 tooth gear, Figure 56. Gently and evenly move the connector forward on the countershaft to free the rear keys. Remove the keys from the countershaft. Move the countershaft to the rear of the transmission through the gears and remove the countershaft from the case.
15. Remove the countershaft components from the transmission case, starting from the front gear and working to the rear, and place them in sequence. Refer to Figure 56 or 57. (There is a thrust washer on each side of the 49 tooth gear. Do not forget to put these in the sequence.)