

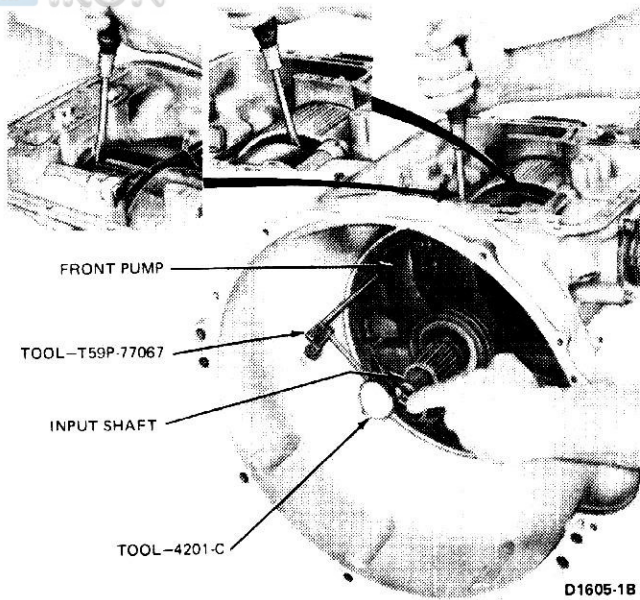


FIG. 13 Checking Gear Train End Play

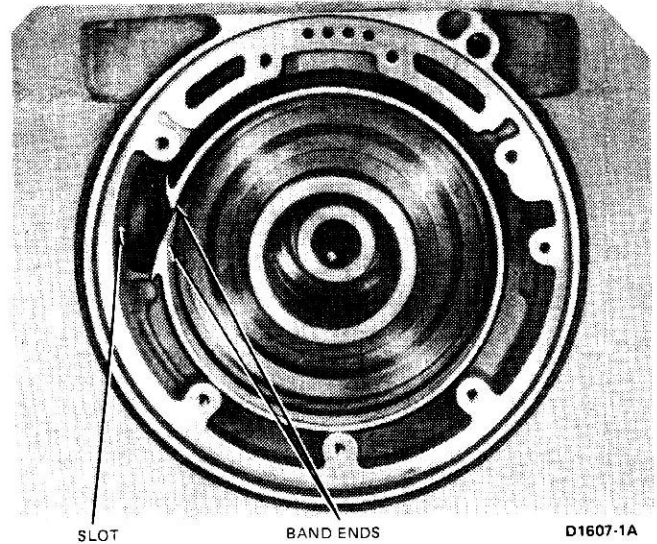


FIG. 15 Removing or Installing Band

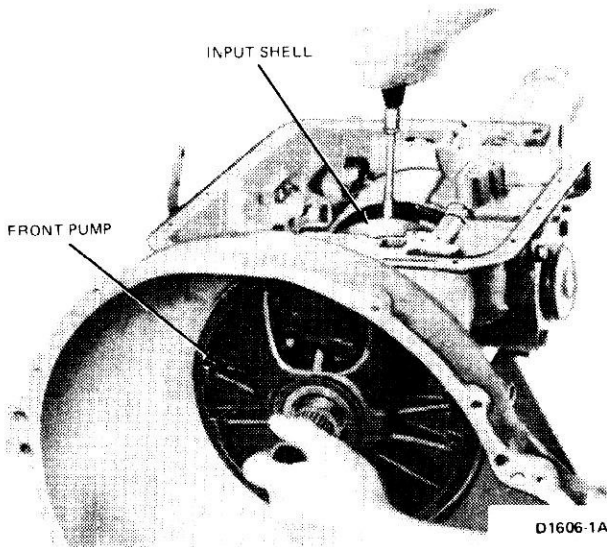


FIG. 14 Removing Front Pump

13. Remove the cover, piston, spring and gasket from the case.
14. Remove the large snap ring that secures the reverse planet carrier in the low-reverse clutch hub. Lift the planet carrier from the drum.
15. Remove the snap ring (Fig. 17) that secures the reverse ring gear and hub on the output shaft. Slide the ring gear and hub off the shaft.
16. Rotate the low-reverse clutch hub in a clockwise direction and at the same time, withdraw it from the case.
17. Remove the reverse clutch snap ring from the case, then remove the clutch discs, plates and pressure plate from the case.
18. Remove the extension housing attaching bolts and vent tube from the case. Remove the extension housing and gasket.
19. Slide the output shaft assembly from the transmission case.

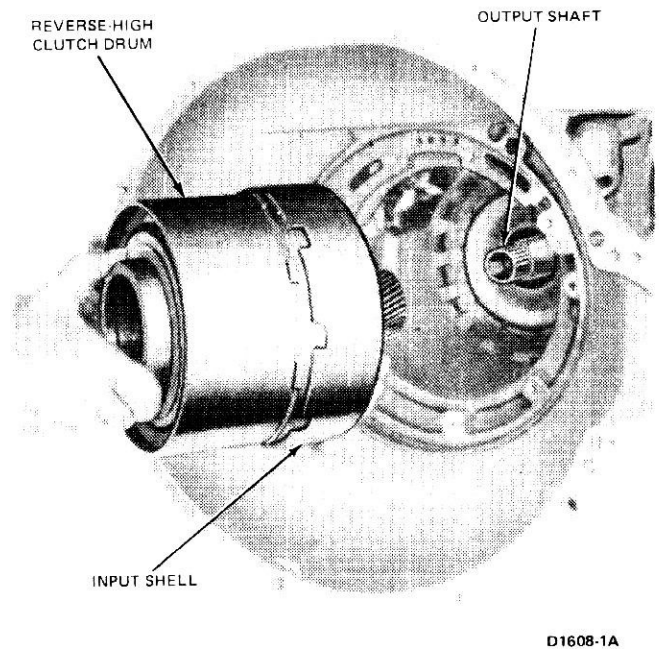


FIG. 16 Removing or Installing Forward Part of Gear Train

20. Remove the distributor sleeve attaching bolts and remove the sleeve, parking pawl gear and the thrust washer. If the thrust washer is staked in place, use a sharp chisel and cut off the metal from behind the thrust washer. Be sure to clean the rear of the case with air pressure or a suitable solvent to remove any metal particles.
21. Compress the reverse clutch piston release spring with Tool T65L-77515-A (Fig. 18). Remove the snap ring. Remove the tool and the springs and retainer assembly.
22. Remove the one-way clutch inner race attaching bolts from the rear of the case. Remove the inner race from inside of the case.
23. Remove the reverse clutch piston from the case as shown in Fig. 19.

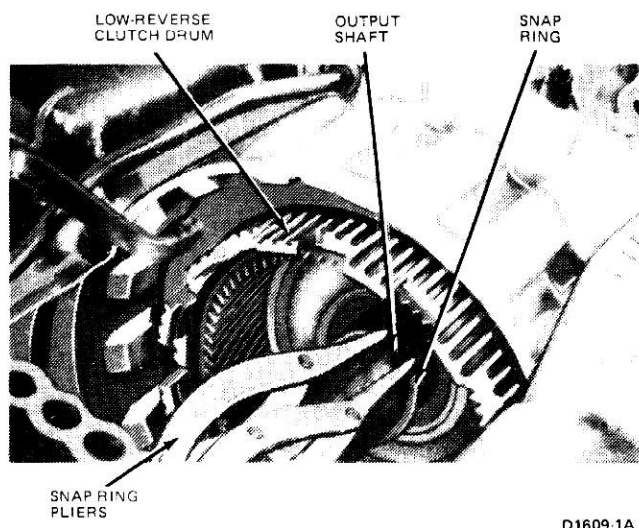


FIG. 17 Removing and Installing Reverse Ring Gear Hub Snap Ring

Assembly

1. Place the transmission case in a holding fixture.
2. Tap the piston into place in the case with a clean rubber hammer.
3. Hold the one-way clutch inner race in position and install the attaching bolts. Torque bolts to limits as given in the specification.
4. Install the low-reverse clutch return spring and retainer assembly in the clutch piston.
5. Position the retainer snap ring in place on the one-way clutch inner race.
6. Install the compressing tool shown in Fig. 18 and compress the springs just enough to install the low-reverse clutch piston retainer snap ring.
7. Install the snap ring, then remove the compressing tool.
8. Place the transmission case on the bench with the front end facing downward.
9. Position the parking gear thrust washer and the gear on the case (Fig. 28). **Do not restake the thrust washer.**
10. Position the oil distributor and tubes in place on the rear of the case. Install attaching bolts and torque to specification.
11. Install the output shaft and governor as an assembly.
12. Place a new gasket on the rear of the transmission case. Position the extension housing on the case and install the attaching bolts. Torque the attaching bolts to specification.
13. Place the transmission case in the holding fixture.
14. Coat two new gaskets with petroleum jelly and position them on the servo cover.
15. Position the servo spring on the piston rod.
16. Insert the servo piston rod in the case. Install the attaching bolts, making sure that the identification tag is in place. Torque the attaching bolts to specification.
17. Align the low-reverse clutch hub and one-way clutch with the inner race at the rear of the case. Rotate

the low-reverse clutch hub clockwise while applying pressure to seat it on the inner race.

18. Install the low-reverse clutch plates, starting with the wave plate next to the piston and following with steel and friction plates alternately. Retain them with petroleum jelly. Five (5) steel and five (5) friction plates are required for all models. If new composition plates are being used, soak them in clean transmission fluid (Spec. M2C138CJ) for fifteen minutes before installation. Install the pressure plate and the snap ring. Test the operation of the low-reverse clutch by applying air pressure at the clutch pressure apply hole in the case.
19. Install the reverse planet ring gear thrust washer and the ring gear and hub assembly. Insert the snap ring in the groove in the output shaft.
20. Assemble the front and rear thrust washers onto the reverse planet assembly; retain with vaseline. Insert the assembly into the ring gear and install the snap ring.
21. Set the reverse-high clutch on the bench, with the front end facing down. Install the thrust washer on the rear end of the reverse-high clutch assembly. Retain the thrust washer with petroleum jelly and insert the splined end of forward clutch into the open end of the reverse-high clutch with splines engaging the direct clutch friction plates (Fig. 35).
22. Install the thrust washer and retain it with petroleum jelly, on the front end of the forward planet ring gear and hub. Insert the ring gear into the forward clutch.
23. Install the thrust washer on the front end of the forward planet assembly. Retain the washer with petroleum jelly and insert the assembly into the ring gear. Install the input shell and sun gear assembly.
24. Install the reverse-high clutch, forward clutch, forward planet assembly and drive input shell, and sun gear as an assembly into the transmission case.
25. Insert the intermediate band into the case around the direct clutch cylinder. Install the struts and tighten the band adjusting screw sufficiently to retain the band.
26. Place a selective thickness bronze thrust washer on the rear shoulder of the stator support and retain it with petroleum jelly. If the end play was not within specification when checked prior to disassembly, replace the washer with one of proper thickness. Refer to Specifications for selective thrust washer thicknesses. Using two 5/16-inch bolts three inches long, make two alignment studs. Cut the heads from the bolts and grind a taper on the cut end. Temporarily install the two studs opposite each other in the mounting holes of the case. Slide a new gasket onto the studs. Position pump on case, being careful not to damage the large seal on the OD of the pump housing (Removing the aligning studs). Install six of the seven mounting bolts and torque to specification as listed at the end of this Part.
27. Adjust the intermediate band as detailed under Adjustments, and install the input shaft with the long splined end inserted into the forward clutch assembly.