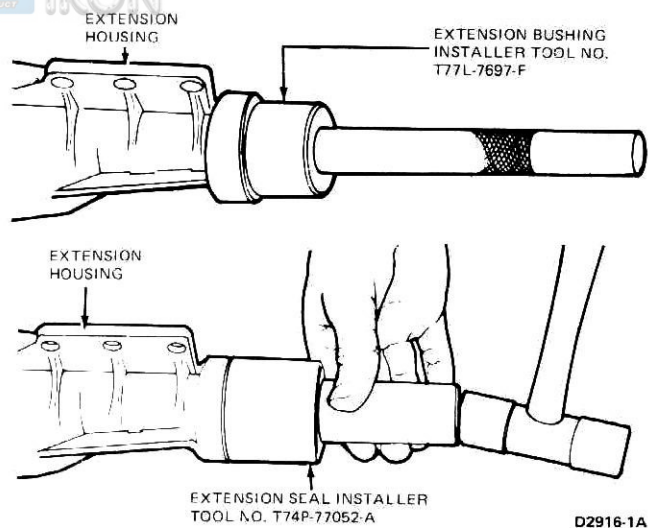
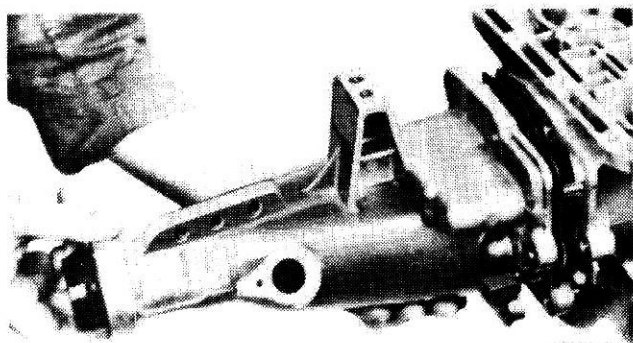




D2916-1A

FIG. 13 Extension Housing Bushing and Seal Installation



D2641-1B

FIG. 14 Extension Housing Removal

5. Refill the transmission with the proper grade and quantity of fluid.

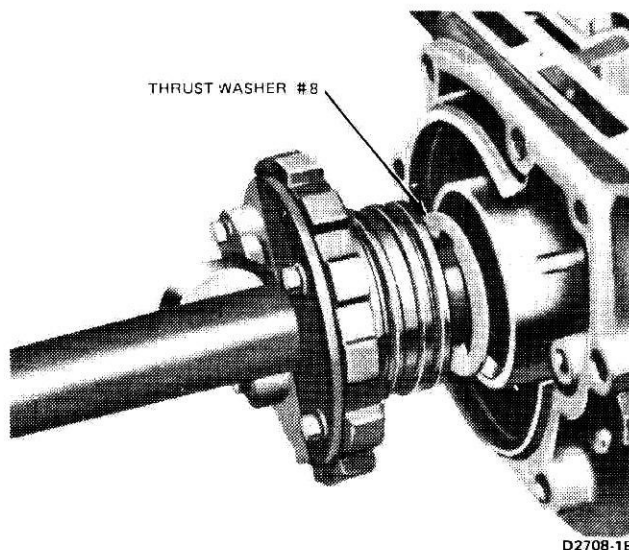
Pour in three quarts of fluid; then run the engine and add fluid as required.

6. Operate the vehicle and check for leaks.

EXTENSION HOUSING REAR SEAL

Removal and Installation

1. Raise the vehicle on a hoist.
2. Remove the drive shaft. Make scribe marks on the drive shaft end yoke and the rear axle companion flange to assure proper positioning of the drive shaft during assembly.
3. Remove the oil seal (Fig. 12) using Tool T71P-7657-A.
4. Remove the extension housing bushing (Fig. 12) using Tool T77L-7697-G.
5. Install the new extension housing bushing (Fig. 13) using Tool T77L-7697-F.
6. Before installing a new seal, inspect the sealing surface of the universal joint yoke for scores. If scoring is found, replace the yoke.
7. Inspect the counterbore of the housing for burrs. Remove any burrs with crocus cloth.
8. Install the new oil seal using Tool T74P-77052-A. Coat the inside diameter at the end of the rubber boot portion of the seal with C1AZ-19590-B or equivalent lubricant.



D2708-1B

FIG. 15 Governor Removal

Coat the front universal joint spline with C1AZ-19590-B lubricant or equivalent.

9. Install the drive shaft using the scribe mark as a guide to assure correct balance.
10. Lower the vehicle and check the oil level in the transmission. Add oil if necessary.

EXTENSION HOUSING

Removal

1. Raise the vehicle on a hoist.
2. Remove the drive shaft. Make scribe marks on the drive shaft end yoke and rear axle companion flange to assure proper positioning of the drive shaft during assembly.
3. Support the transmission with a transmission jack.
4. Remove the speedometer cable from the extension housing (Fig. 5).
5. Remove the rear support-to-crossmember attaching bolts or nuts.
6. Raise the transmission slightly and remove the rear support from the extension housing.
7. Loosen the extension housing bolts and allow the transmission fluid to drain.
8. Remove the bolts and remove the extension housing (Fig. 14).

Installation

Refer to Fig. 54.

1. Clean and inspect the exterior housing as described in Part 17-01.
2. Install a new extension housing gasket on the case.
3. Position the extension housing on the case paying special attention to correctly seating the operating rod parking notch and install the retaining bolts. Torque the bolts to specification.
4. Install the rear support and lower the transmission.
5. Install the attaching bolts. Remove the transmission jack.
6. Install the speedometer cable.
7. Install the drive shaft using the scribe mark as a guide to assure correct balance.

8. Lower the vehicle and fill the transmission with fluid, adding as required while running the engine.
9. Check the extension housing area for fluid leakage.

GOVERNOR

Removal

Refer to Fig. 15.

1. Remove the extension housing as described in this Part.
2. Remove governor body to oil collector body attaching bolts.
3. Remove governor body, valve, spring and weight from collector body. **NOTE: Components are not**

retained once the governor body to oil collector body attaching bolts have been removed. It is therefore necessary to hold the governor body and components while removing or installing.

Installation

1. Assemble governor body and components.
2. Position governor body over the oil feed holes of the oil collector body.
3. Install the governor body to oil collector body attaching bolts and torque to specification.
4. Install the extension housing as described in this Part.

DISASSEMBLY AND ASSEMBLY

TRANSMISSION

Before removing any of the subassemblies, thoroughly clean the outside of the transmission to prevent dirt from entering the mechanical parts. During the repair operation, refer to Part 17-01 for Cleaning and Inspection procedures.

Ten thrust washers must be removed from between the subassemblies during the transmission disassembly. **It is important that these thrust washers be reassembled in their correct positions.** Fig. 16 shows the correct positions of the thrust washers. No. 1,

located at the front pump, is the first thrust washer. The last thrust washer, No. 11 is located at the governor.

Note that No. 6, while performing a thrust function, is actually a bearing. This adds one to the thrust washer count. Because this bearing is part of the staked portion of the planet assembly, **it is not removable.**

The general instructions that apply to all transmission units must be followed during repair of the subassemblies. These instructions are given below to avoid unnecessary repetition.

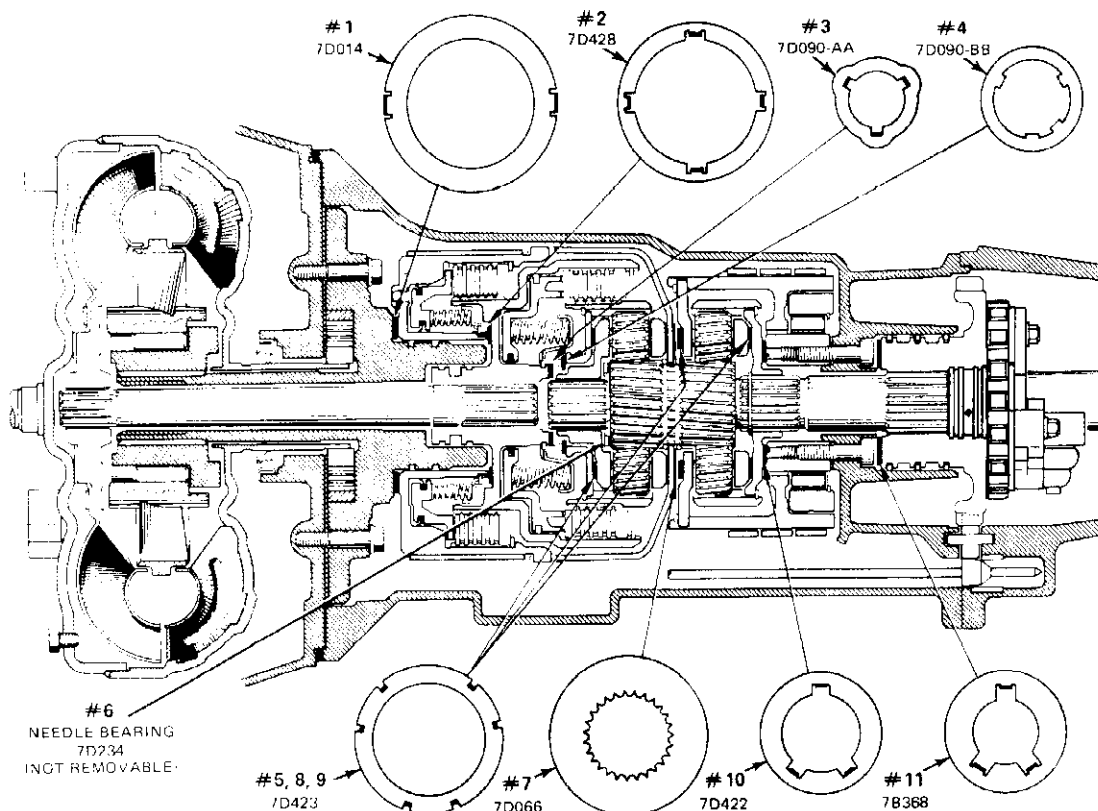


FIG. 16 Identification and Position of Thrust Washers

Handle all transmission parts carefully to avoid nicking or burring the bearing or mating surfaces.

Lubricate all internal parts of the transmission before assembly with clean automatic transmission fluid. **Do not use any other lubricants except on gaskets and thrust washers which may be coated with petroleum jelly to facilitate assembly. Always install new gaskets when assembling the transmission.**

Tighten all bolts and screws to specifications given at the end of this Part.

Disassembly

1. Refer to Fig. 17. Remove the torque converter.
2. Withdraw the input shaft.
3. Remove the oil pan.
4. Remove the oil filter screen, gasket and three spacers (if so equipped) (Fig. 9).
5. Remove the interlock spring.
6. Remove the rear servo cover and the gasket. (The force of the spring will raise the cover.) Take out the servo piston with the spring (Fig. 11).
7. Remove the bolts from the control valve body (Figs. 9 and 10). While easing the valve body out of the transmission, unlock and detach the selector lever connecting link. Remove the valve body and gasket.
8. Unbolt the converter housing and remove the housing and hydraulic pump as an assembly (Fig. 18). Remove the No. 1 thrust washer and the gasket.
9. Holding Tool T74P-77248-A with a spanner (Fig. 19), remove the hydraulic pump oil seal.
10. Remove the hydraulic pump from the converter housing and remove the steel plate (behind oil seal) with the O-ring.

TRANSMISSION END PLAY CHECK

Perform this check at this stage of transmission disassembly.

1. Fit the hydraulic pump with the existing No. 1 thrust washer into the case. Be sure the assembly is correctly engaged. The pump body must be **below** the level of the case gasket surface.
2. Mount the dial gauge block on the hydraulic pump with the plunger resting on the transmission housing (Fig. 20). Set the dial gauge on zero.
3. Swing the gauge around so the plunger contacts the hydraulic pump.
4. Check the reading on the dial. This reading is the amount of end play. Note for later reference.
5. Move the dial gauge block to the opposite side of the pump (180 degrees) and repeat Steps 2 through 4 above.
6. Find the average of the two end play readings. End play should be from 0.001 to 0.025. If the reading exceeds these limits, replace the No. 1 thrust washer. Refer to the specifications at the end of this Part for the sizes available.

Following the end play check, remove the hydraulic pump and thrust washer again. Mark the installed position of the hydraulic pump gears in relation to one another and remove them.

FRONT BRAKE AND FRONT SERVO ASSEMBLIES

Removal

1. Loosen the locknut, back out the adjustment screws and remove the struts (Fig. 21).
2. Remove the front brake and front assembly including thrust washer No. 8 (Fig. 22).

Transmission assembly washers Nos. 5, 8, and 9 are identical. Knowing this should prevent confusion when reviewing the remaining steps of disassembly and assembly of the transmission.

3. Press inward slightly on the front servo cover to permit removal of the snap ring.
4. Carefully force out the servo piston with compressed air (Fig. 23).

CASE AND EXTENSION HOUSING PARTS

Removal

1. Remove the transmission extension housing bolts and slide off the extension housing (Fig. 14). Remove the gasket.
2. Remove the return spring and the parking pawl.
3. Remove the large snap ring from the planet gear carrier (rear) and remove the planet gear carrier with thrust washer No. 5 from the transmission case. Remove the small snap ring from the output shaft (Fig. 24).
4. Remove the output shaft and the governor with thrust washer No. 11 (Fig. 15).
5. Remove the internal gear, the No. 10 thrust washer and the intermediate brake drum.
6. Remove the rear band assembly.
7. If necessary, due to wear or damage, remove the one-way clutch inner race (Fig. 25).
8. Remove the vacuum diaphragm as described in Part 17-01 of the Shop Manual.
9. Remove the neutral switch. **Use a thin-walled socket. An open-end wrench will crush the switch.**
10. To change the shift lever oil seal, press inward on the downshift lever. Remove the O-ring.
11. Remove the shift lever roll pin from the case.
12. Remove the shift lever nut (outside) and remove the parking pawl actuating rod.
13. Remove the selector lever from the outside and the downshift lever shaft from inside the case.
14. Remove the shift lever oil seal with a screwdriver.
15. Install a new seal (Fig. 26) using Tool T74P-77498-A.
16. Install the downshift lever shaft inside the case and the shift lever outside.
17. Install the nuts and the parking pawl actuating rod.
18. Install the roll pin, a new O-ring and the downshift lever.

FRONT ASSEMBLY

Disassembly

Refer to Fig. 27.

1. Remove the input shell and sun gear.

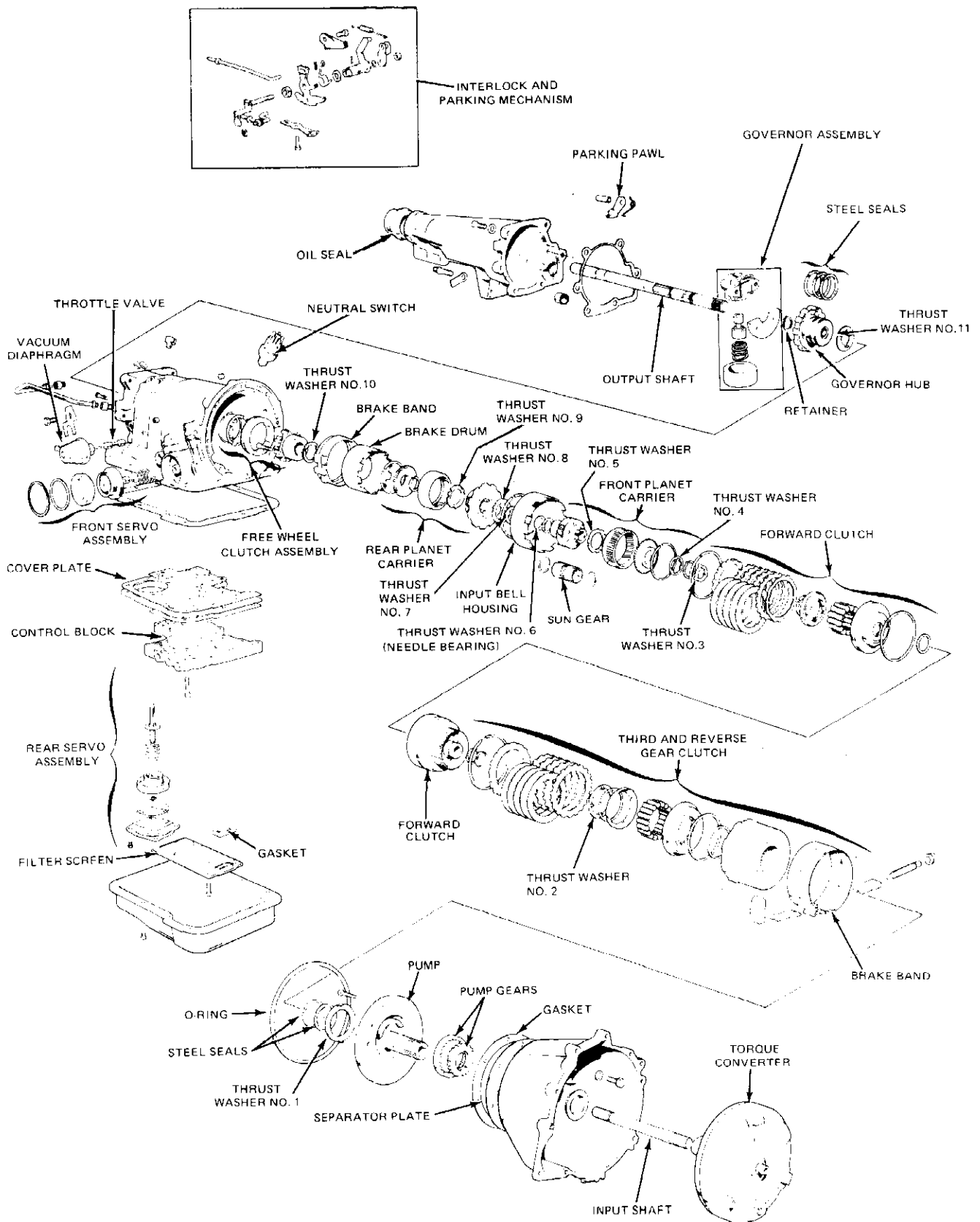
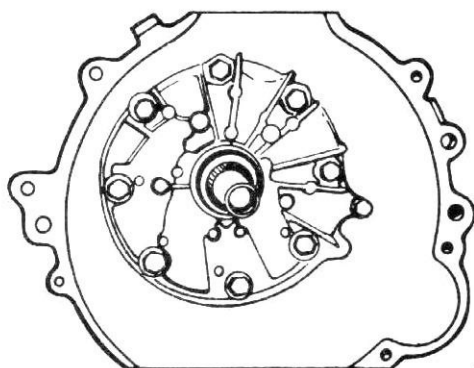
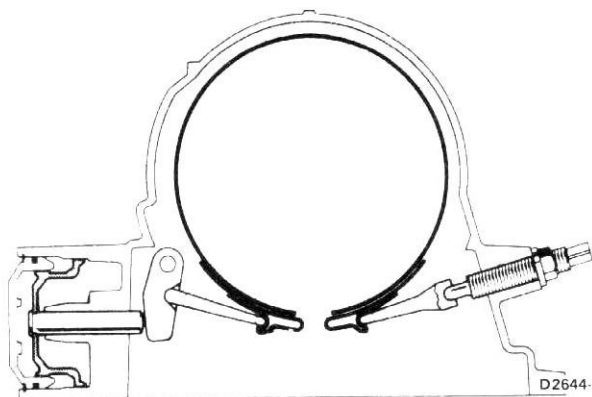


FIG. 17 Exploded View of Transmission



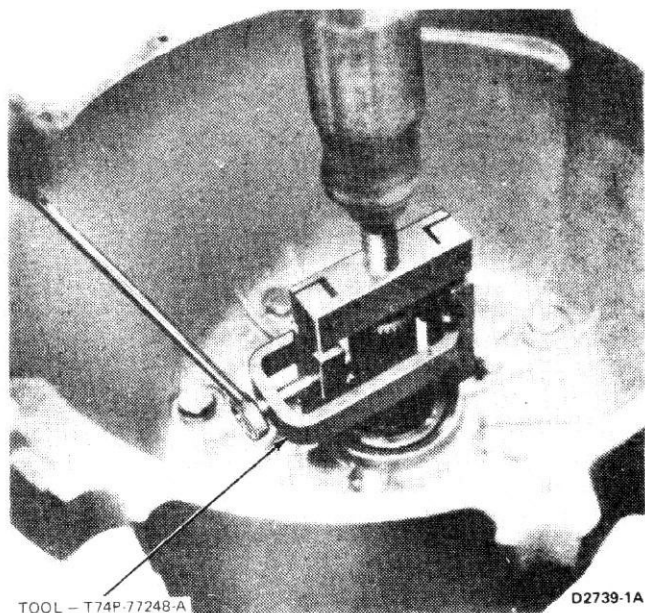
D2713-1A

FIG. 18 Converter Housing



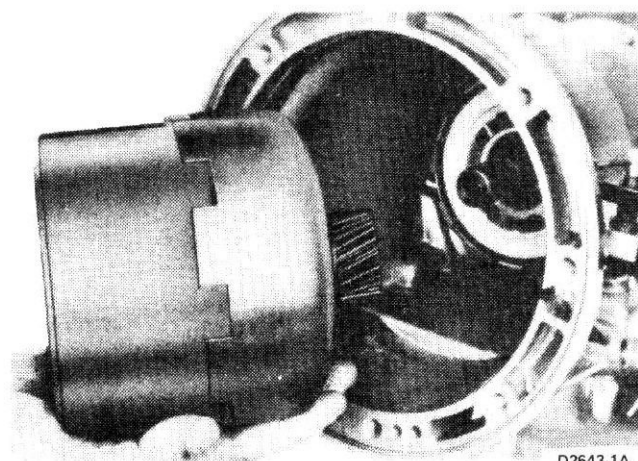
D2644-1B

FIG. 21 Brake Band and Servo Piston



D2739-1A

FIG. 19 Pump Oil Seal Removal



D2643 1A

FIG. 22 Front Brake and Front Assembly Removal

2. Remove the planet gear carrier with the internal gear and thrust washer No. 5.
3. If necessary, remove the sun gear from the input shell after removing the retainer. Replace thrust washer No. 7 if it is damaged.
4. Remove the forward drive clutch and thrust washer No. 2.

REVERSE AND DIRECT DRIVE CLUTCH

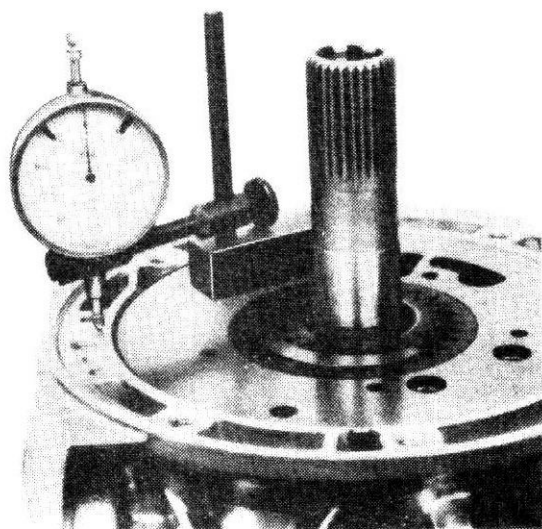
Disassembly

Refer to Fig. 28.

1. Remove the pressure plate retainer ring and remove the plate pack.
2. Compress the compression springs using Tool T65L-77515-A, remove the retainer and carefully release the pressure on the springs.
3. Remove the compression springs and the compression spring retainer.
4. Turn the clutch body over and, using compressed air, carefully direct pressure into the ports as shown in Fig. 29 to force out the piston.
5. Remove the hydraulic pump and remove the O-rings from the piston and clutch body.

Assembly

1. Inspect the steel clutch plates and clutch lining plates (Fig. 30) for wear, damage or effects of



D2715-1A

FIG. 20 End Play Check