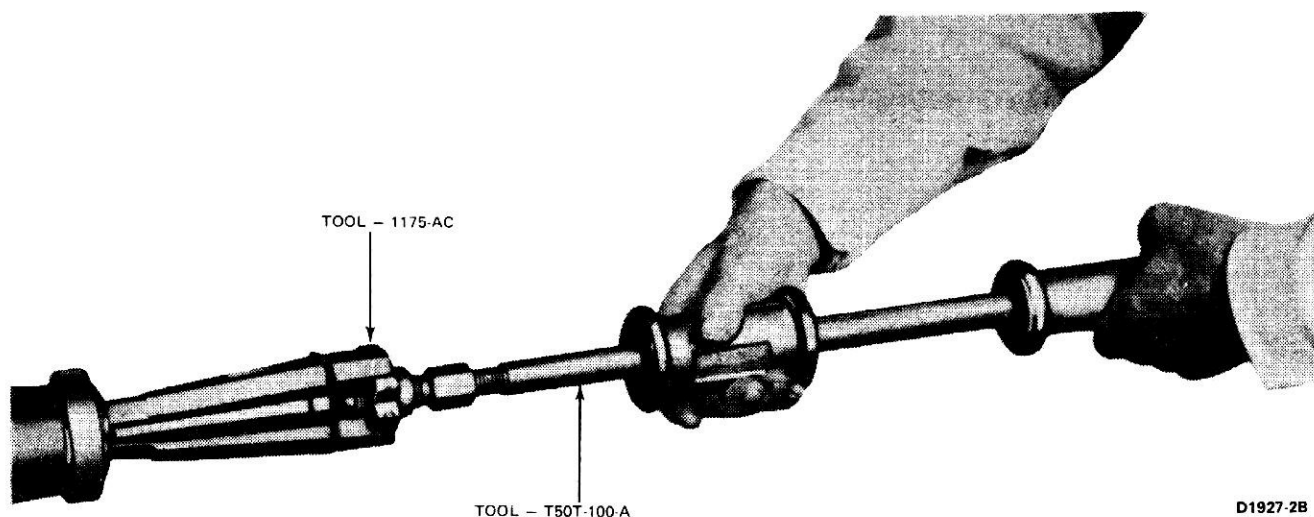




**FIG. 10 Removing Extension Housing Seal**

3. Install the attaching bolts and torque to specification as listed at the end of this Part.
4. Torque the control valve body attaching bolts to specification as listed at the end of this Part.
5. Check the clearance between the manual valve and manual lever actuating pin as given in Control Valve Body Installation.
6. Adjust the front band as outlined in this Part.
7. Install the vacuum diaphragm unit and rod.
8. Install the fluid filter and pan, and fill the transmission with fluid.
9. Adjust the downshift and manual linkage. Refer to Part 17-02.

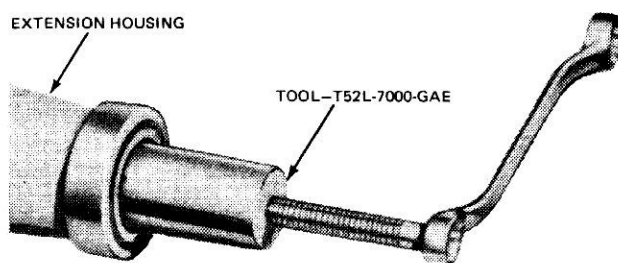
## REAR SERVO

### Removal

1. Drain the fluid from the transmission, and remove the pan and fluid screen.
2. Remove the vacuum diaphragm unit.
3. Remove the control valve body and the two front servo tubes.
4. Remove the attaching bolts from the rear servo, hold the actuating and anchor struts with the fingers, and remove the servo.

### Installation

1. To install the rear servo, position the servo anchor strut on the servo band, and rotate the band to engage the strut.
2. Hold the servo anchor strut in position with the fingers, position the actuating lever strut, and install the servo.
3. Install but do not tighten the servo attaching bolts. **The longer bolt must be installed in the inner bolt hole.**
4. Move the rear servo (with reasonable force) toward the centerline of the transmission case, against the servo attaching bolts. While holding the servo in this position, torque the attaching bolts to specification.



**FIG. 11 Removing Extension Housing Bushing**

5. Install the two front servo tubes and the control valve body.
6. Check the clearance between the manual valve and the manual lever actuating pin as given in Control Valve Body Installation.
7. Adjust the rear band as outlined in this Part.
8. Install the fluid filter and pan, and fill the transmission and fluid.

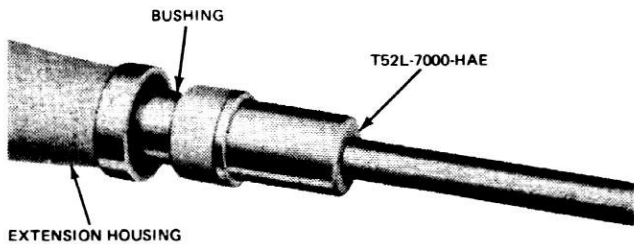
## EXTENSION HOUSING BUSHING AND REAR SEAL

### Removal

1. Raise the vehicle and disconnect the drive shaft.
2. Carefully remove the seal with the tools shown in Fig. 10.
3. Remove the bushing as shown in Fig. 11. **Use the bush remover carefully so that the spline seal is not damaged.**

### Installation

1. When installing a new bushing, use the special tool shown in Fig. 12.



D1026-1C

**FIG. 12 Installing Extension Housing Bushing**

2. Before installing a new seal, inspect the sealing surface of the universal joint yoke for scores. If scores are found, replace the yoke.
3. Inspect the counterbore of the housing for burrs. Polish off all burrs with crocus cloth.
4. Install the seal into the housing with the tool shown in Fig. 13. The seal should be firmly seated in the bore.

## EXTENSION HOUSING

### Removal

1. Raise the vehicle so that the transmission extension housing is accessible.
2. Drain the fluid from the transmission.
3. Disconnect the drive shaft.
4. Disconnect the speedometer cable from the extension housing.
5. Remove the two nuts that secure the engine rear support to the crossmember.
6. Position a transmission jack under the transmission and raise it just enough to remove the weight from the crossmember. Remove the crossmember to frame side rail bolts and nuts and position the crossmember out of the way.

7. Remove the two engine rear support-to-extension housing attaching bolts and remove the support.
8. Remove the extension housing attaching bolts. Slide the housing off the output shaft and remove the gasket. **When removing the extension housing, hold the output shaft and rear support from moving rearward to prevent the needle bearing and race from dropping out of location.**

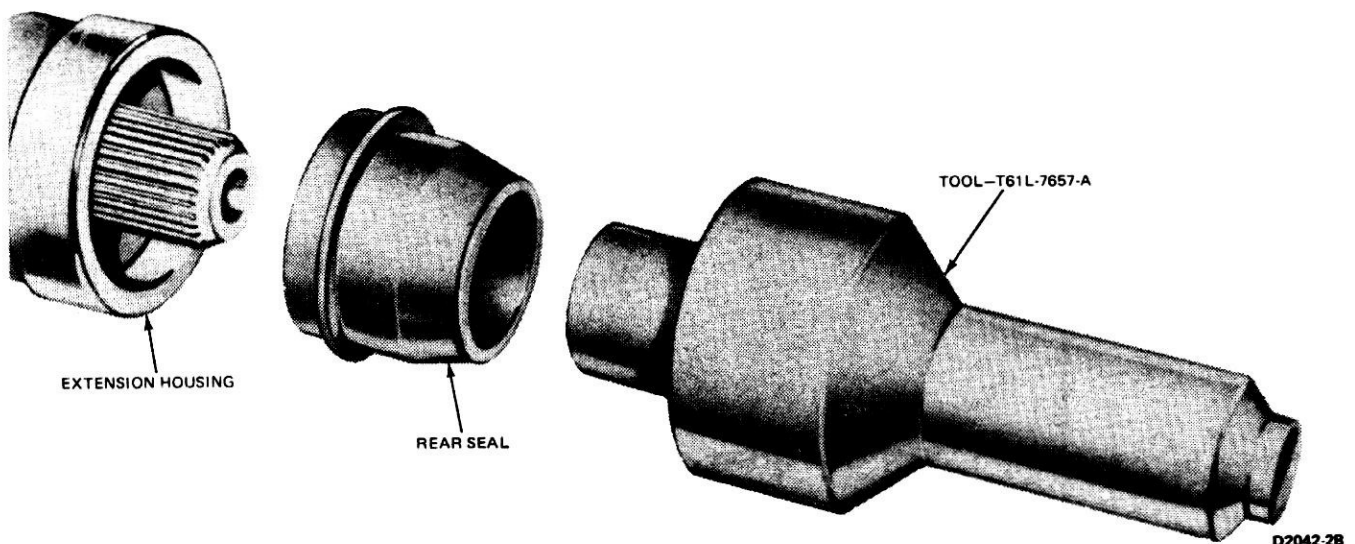
### Installation

1. Position a new extension housing gasket on the rear of the transmission case.
2. Slide the extension housing into place and secure it to the transmission case with the attaching bolts. Torque the bolts to specification. **With the extension housing installed, rotate the output shaft. The shaft must rotate freely by hand. If the shaft is tight or bound up, it is likely that the needle bearing and race have dropped out of location. To correct, the transmission must be partially disassembled and the bearing and race repositioned.**
3. Connect the speedometer cable to the extension housing.
4. Position the crossmember to the frame side supports, install the attaching bolts and nuts, and torque to specification.
5. Remove the transmission jack from under the vehicle. Install the rear support-to-crossmember nuts and torque to specification.
6. Install the drive shaft.
7. Fill the transmission to the correct level with the specified fluid.

## GOVERNOR

### Removal

1. Remove the extension housing as outlined in this Part of the manual.
2. Remove the governor to counterweight attaching screws. Lift the governor from the counterweight



D2042-2B

**FIG. 13 Installing Extension Housing Seal**

(Fig. 14). When removing the governor, hold the output shaft and rear support from moving rearward to prevent the needle bearing and race from dropping out of location.

#### Installation

1. Lubricate the governor valve parts with clean transmission fluid. Make certain that the valve moves freely in the valve body bore.
2. Position the governor valve body on the counterweight with the cover facing toward the front of the vehicle. Install the two attaching screws, and torque to specification.
3. Reinstall the extension housing as outlined in this Part of the manual.

### PRESSURE REGULATOR

#### Removal

1. Drain the fluid from the transmission, and remove the pan and fluid filter.
2. Remove the small compensator pressure tube from the control valve body and the pressure regulator (Fig. 9).
3. Remove the main pressure oil tube first, by gently prying up the end that connects to the main control valve assembly, then, remove the other end of the tube from the pressure regulator (Fig. 9). **Be sure to remove the tube in this manner. Failure to do so, could kink or bend the tube causing excessive transmission internal leakage.**
4. Remove the pressure regulator spring retainer, springs, and spacer. **Maintain pressure on the retainer to prevent the springs from flying out.**
5. Remove the pressure regulator attaching bolts and washers, and remove the regulator.

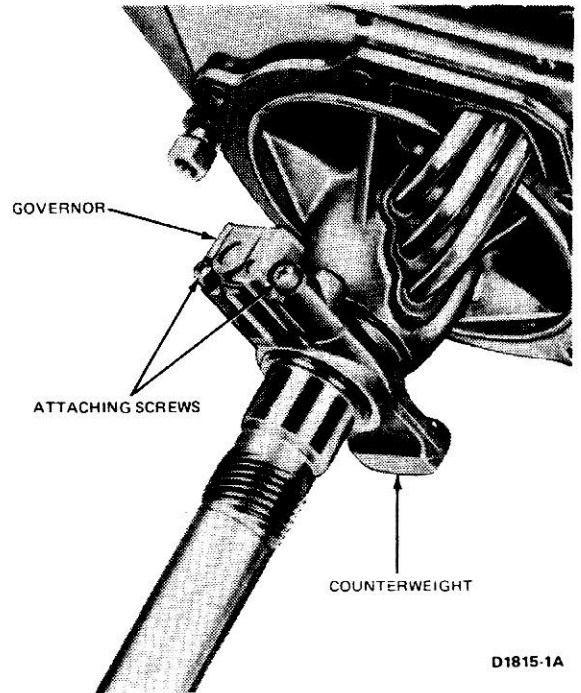
#### Installation

1. Position the replacement regulator body on the transmission case and install the two attaching bolts. Torque the bolts to specification as listed at the end of this Part.
2. Check the converter pressure and control pressure valves to be sure the valves operate freely in the bores.
3. Install the valve springs, spacer, and retainer.
4. Install the main pressure oil tube. **Be sure to install the end of the tube that connects to the pressure regulator assembly first. Then, install the other end of the tube into the main control assembly by tapping it gently with a soft hammer.**
5. Install the small compensator pressure tube.
6. Install the fluid filter and the pan, and fill the transmission to the correct level with the specified fluid. Refer to Part 17-01.

### PARKING PAWL

#### Removal

1. Raise the vehicle and drain the fluid from the transmission.
2. Remove the drive shaft.



D1815-1A

FIG. 14 Governor Installed

3. Remove the two nuts that secure the engine rear support to the crossmember.
4. Position a transmission jack under the transmission and raise it just enough to remove the weight from the crossmember. Remove the crossmember-to-frame side rail bolts and nuts and position the crossmember out of the way.
5. Remove the two engine rear support-to-extension housing attaching bolts and remove the support.
6. Disconnect the speedometer cable from the extension housing.
7. Remove the transmission pan and fluid screen.
8. Loosen the rear band adjusting screw lock nut and tighten the adjusting screw to 24 in-lb torque. **This will tighten the rear band around the planet carrier and will hold the planet carrier and clutch assemblies in position during the parking pawl repair operation.**
9. Remove the small compensator pressure tube from the pressure regulator and control valve body.
10. Remove the main pressure oil tube first, by gently prying up the end that connects to the main control valve assembly, then, remove the other end of the tube from the pressure regulator. **Be sure to remove the tube in this manner. Failure to do so, could kink or bend the tube causing excessive transmission internal leakage.**
11. Disconnect the vacuum hoses from the vacuum diaphragm and remove vacuum diaphragm and control rod.
12. Loosen the front servo attaching bolts.
13. Remove the three control valve body attaching bolts and lower the valve body while pulling it off the front servo tubes. **Be careful not to damage the valve body or the tubes.**
14. Remove the rear servo attaching bolts and remove the rear servo and struts.