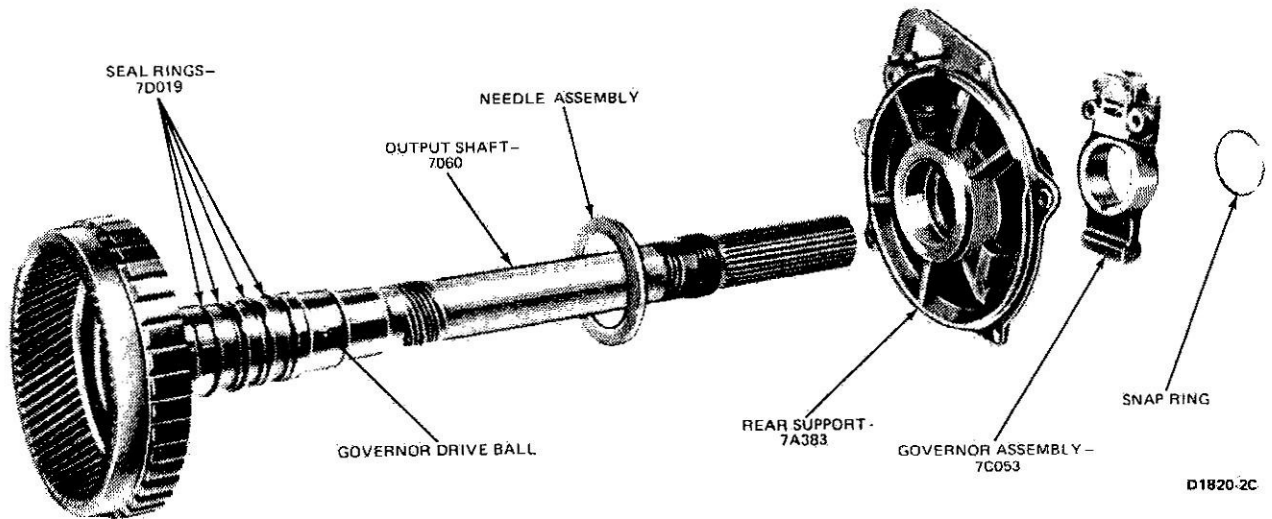
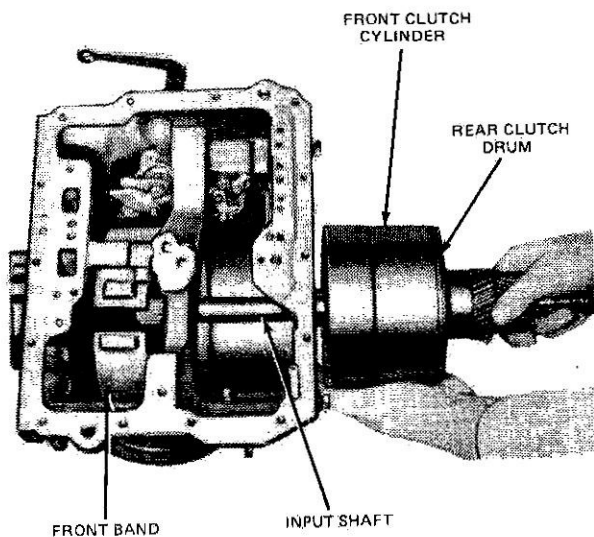




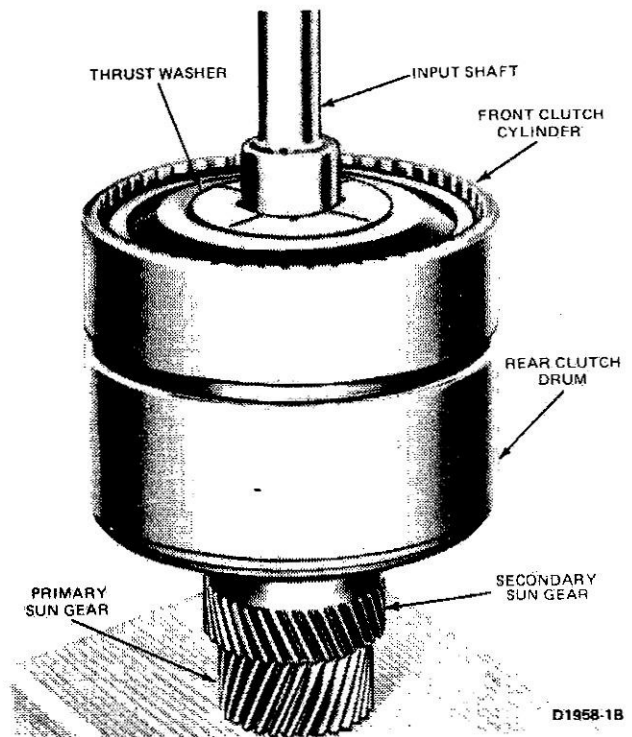
D1820-2C

FIG. 17 Output Shaft Disassembled



D1957-1C

FIG. 18 Removing or Installing Input Shaft and Clutch



D1958-1B

FIG. 19 Input Shaft and Clutch

10. Remove the two center support outer bolts (one each side) from the transmission case.
11. Exert enough pressure on the end of the input shaft to hold the clutch units together. Then remove the center support and the front and rear clutch assemblies as a unit (Fig. 18).
12. Remove the thrust washer from the front of the input shaft.
13. To remove the front band, position the band ends between the case webbing and tilt the bottom of the band rearward. Then, squeeze the ends of the band together and remove from the rear of the case.
14. Lift the front clutch assembly from the primary sun gear shaft.
15. Remove the bronze and the steel thrust washers from the rear clutch assembly. Wire the thrust washers together to assure correct installation.
16. Remove the front clutch seal rings from the primary sun gear shaft. Lift the rear clutch assembly from the primary sun gear shaft. Remove the rear clutch seal rings from the primary sun gear shaft. **Do not break the seal rings.** Remove the primary sun gear front thrust washer.
17. If the transmission case bushing is to be replaced, press the bushing out of the case with the tools shown in Fig. 20.
18. Install a new transmission case bushing with tool shown in Fig. 20.

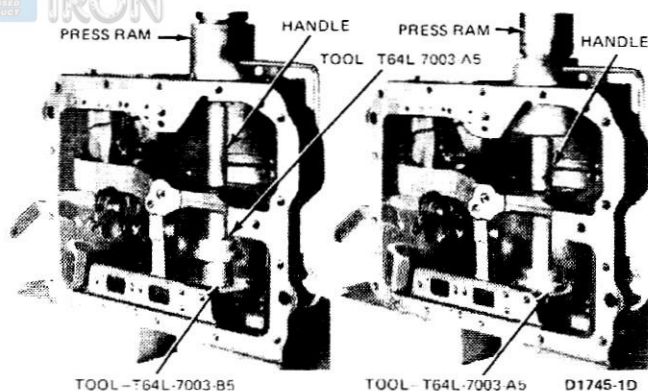


FIG. 20 Replacing Transmission Case Bushing

19. If the rear brake drum support bushing is to be replaced, press the bushing from the support as shown in Fig. 21. Press a new bushing into the brake drum support with the tool shown in Fig. 21.
20. Remove the output shaft bushing if it is worn or damaged. Use the cape chisel and cut along the bushing seam until the chisel breaks through the bushing wall. Pry the loose ends of the bushing up with an awl and remove the bushing.
21. Insert a new bushing into the installation tool and position the tool and bushing over the output shaft hub. Then, press the bushing on the output shaft hub as shown in Fig. 22.

Assembly

Do not use force to assemble mating parts. If the parts do not assemble freely, examine them for the cause of the difficulty. Always use new gaskets and seals during the assembly operations.

1. Install the front band in the transmission case with the anchor end aligned with the anchor in the case.
2. Make sure the thrust washer is in place on the input shaft. Lift the clutch assemblies out of the holding block. **Do not allow the clutches to separate.**
3. Install the clutch subassemblies in the transmission case while positioning the servo band on the drum. Hold the units together while installing them (Fig. 18).

Installation—Center Support

- a. Install the center support and the rear band in the case.
- b. Install the one-piece inner bearing and race assembly in the planet carrier, being sure that the black oxide-coated race is up (or toward the front of the transmission).
- c. Lubricate the bearing surface on the center support, the rollers of the planetary clutch, and the cam race in the carrier with petroleum jelly (Fig. 23).
- d. Install the planetary clutch in the carrier (Fig. 24).
- e. Carefully position the planet carrier on the center support. Move the carrier forward until the clutch rollers are felt to contact the bearing surface of the center support.
- f. While applying forward pressure on the planet carrier, rotate it counterclockwise, as viewed from

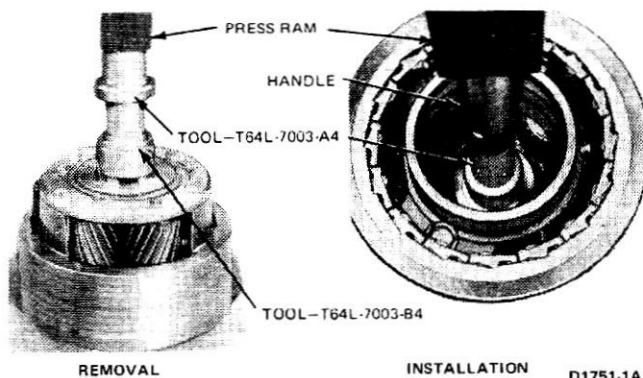


FIG. 21 Replacing Rear Brake Drum Support Bushing

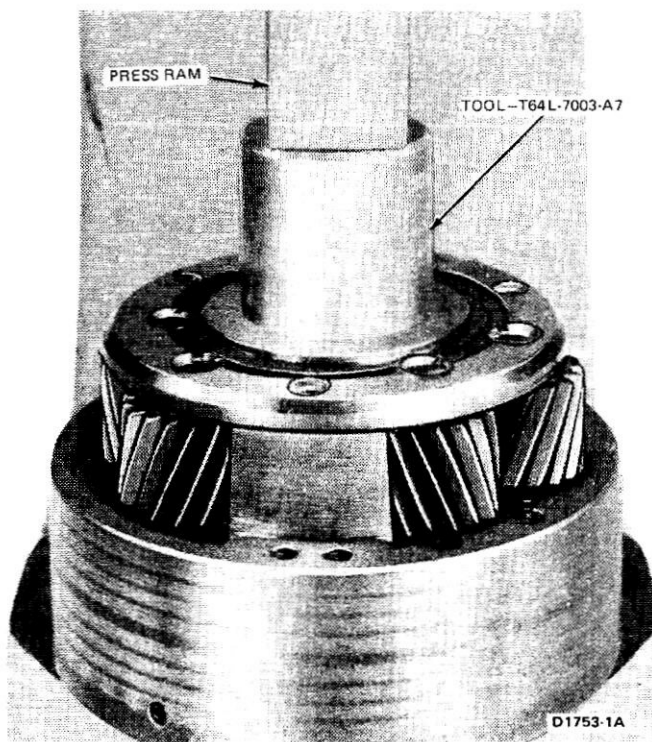


FIG. 22 Installing Output Shaft Bushing

the rear (Fig. 24). The clutch rollers will roll toward the large opening end of the cams in the race, compressing the spring slightly, and the rollers will ride up the chamfer on the planetary support and onto the inner race.

- g. Push the planet carrier all the way forward.
- h. Check the operation of the planetary clutch by rotating the carrier counterclockwise. It should rotate counterclockwise (viewed from the rear) with a slight drag, and should lock up when attempting to rotate in a clockwise direction.