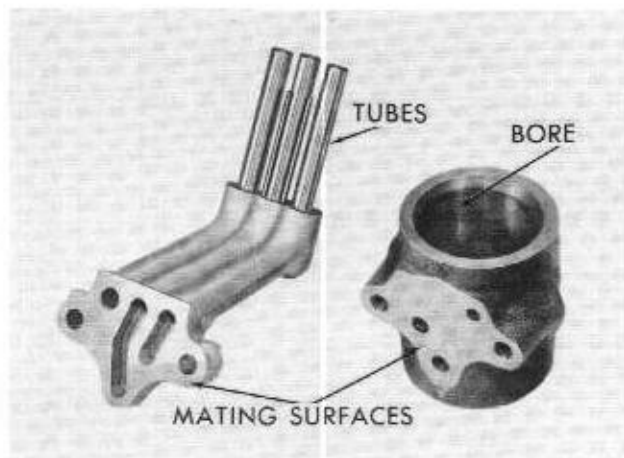


## SECTION FOUR—INSPECTION OF DISTRIBUTOR AND SLEEVE, PINION CARRIER, PRIMARY SUN GEAR SHAFT, AND REAR EXTENSION HOUSING

### A. Inspection of Fluid Distributor and Distributor Sleeve



1. Inspect sleeve bore for scores or excessive ring wear.
2. Check distributor and sleeve passages for obstruction.
3. Inspect distributor and sleeve mating surfaces for burrs and flatness.
4. Check the fit of tubes in the distributor.

**NOTE** Make sure the spacer is on the center tube.

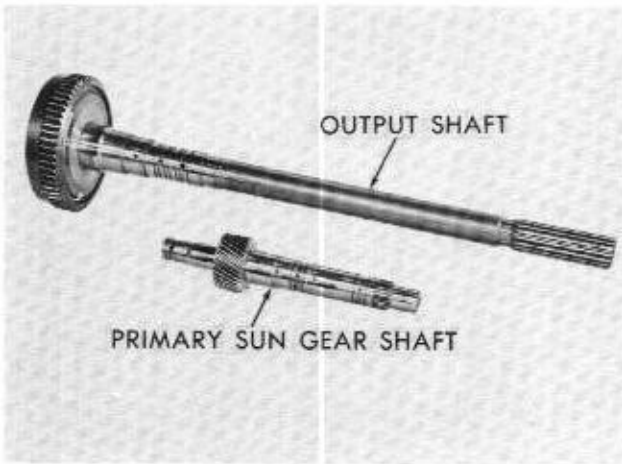
### B. Inspection of Pinion Carrier



1. Inspect band surface, thrust surfaces, and inner bushing for scores.
2. Inspect pinions for broken or worn teeth.
3. Inspect pinion pins for tight fit in carrier.
4. Check free movement of pinions, and check their end play — which should be .010 to .020 inches.
5. Check all fluid passages.
6. On later models check journal bushing for scores.

**NOTE** The planet carrier is serviced as an assembly.

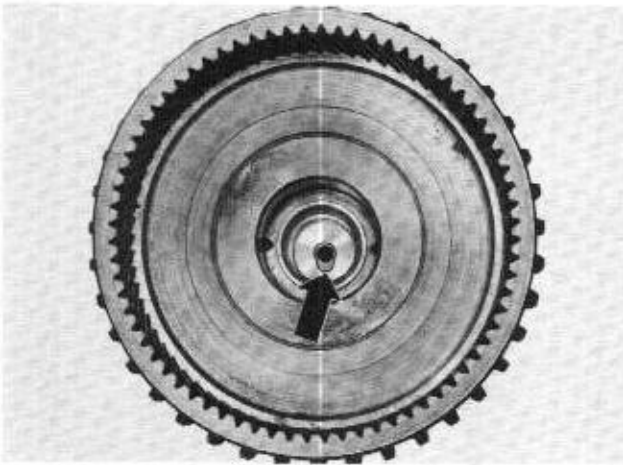
### C. Inspection of Primary Sun Gear Shaft



1. Inspect sun gear for broken teeth.
2. Inspect thrust surfaces and journals for scores.
3. Inspect ring grooves and splines for burrs and wear.
4. Using air pressure, check fluid passages for obstruction and leakage.
5. On some models, check free movement of check valve.

### D. Inspection of Output Shaft

1. Inspect thrust surfaces and journals for scores.
2. Inspect splines and ring grooves for burrs and wear.
3. Inspect internal gear, external parking gear, and speedometer drive gear for burrs and broken or worn teeth.

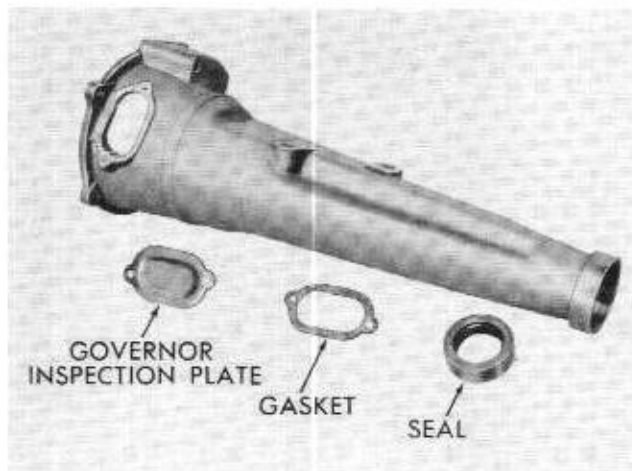


4. Inspect the aluminum sleeve for scores, leakage, and alignment. If the sleeve is misaligned or if the shaft is worn or scored, replace the entire output shaft. The narrow, tear-shaped part of the sleeve should be 180 degrees from the governor drive ball seat on the shaft. If it isn't, sleeve misalignment is indicated.

5. Inspect the keyway and drive ball socket for wear.
6. On 1951-54 models, inspect the inner bushing for scores.

**NOTE** On later models, the bushing is on the pinion carrier journal.

### E. Inspection and Repair of Rear Extension Housing



1. Inspect housing for cracks.
2. Inspect seal and bushing and replace.
3. Inspect the gasket surface for burrs.
4. Remove the governor inspection cover and gasket. Install with new gasket.
5. Inspect the fluid baffle for tight fit in the housing.