



Technical Service Information

THM 4L60 (700-R4)

PREMATURE OR REPEAT PLANETARY FAILURE

COMPLAINT: Repeated failure of the rear planetary carrier and related' parts.

CAUSE: Lack of lube oil to planetary carrier and related parts. Lube oil enters the turbine shaft as shown in Figure 1, and exits the turbine shaft as shown in Figure 1. Obviously this passage must be open to allow lube oil into the output shaft passage. Check this passage with compressed air.

CORRECTION: Lube oil enters the front of the output shaft, flows through the center of the shaft and feeds lube into the bushings, bearings, and gear sets located on the output shaft. The arrows in the cross section, in Figure 2, indicate the lube flow direction. As you can see the output shaft passages must also All be open. Check with compressed air to verify that All lube passages are open. The Input Housing/Output Shaft Seal keeps lube .oil from escaping, where the output shaft meets the input housing, and must always be in place (See Figure 1).

into the pinion roller bearings by using an oil deflector pressed onto the carrier (See Figure 3). Oil trapped by the oil deflector is then forced through the lube passage in each of the pinion pins, thereby providing more lube oil to the pinion needle rollers. A steel ball is installed on the back side of each pinion pin to prevent any possible loss of lube (See Figure 3). It is advisable to pry off the oil deflector and air check the passages in the pinion pins. Be sure to re-install the oil deflector.

The reaction ring gear support was also modified to accommodate the added oil deflector, and must be used if the reaction carrier with the oil deflector is used. This update is recommended by ATSG. After you have transmission assembled, and before you install the extension housing, you can air check the lube circuit by blowing air into the cooler return line fitting (See Figure 4). The air will exit between the case bushing and the output shaft, by the governor, if the lube circuit is not blocked. However, 5 of the cross drilled holes in the output shaft could still have debris and pass this test, so check "All" holes in the output shaft while it is out.

SERVICE INFORMATION:

Reaction Carrier (With Oil Deflector).....	8654200
Ring Gear Support (For Oil Deflector).....	8654197

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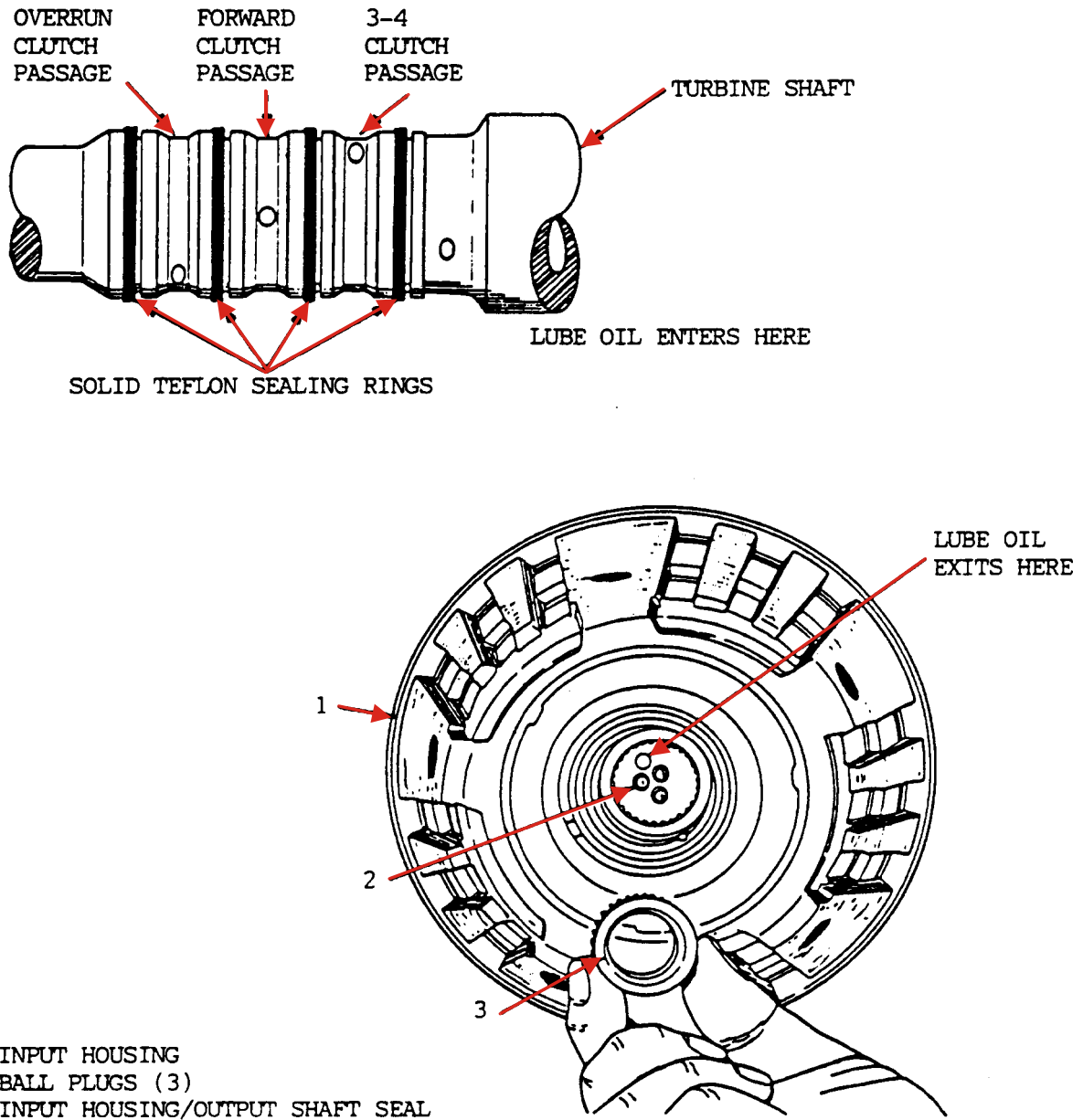


Figure 1

LUBE FLOW

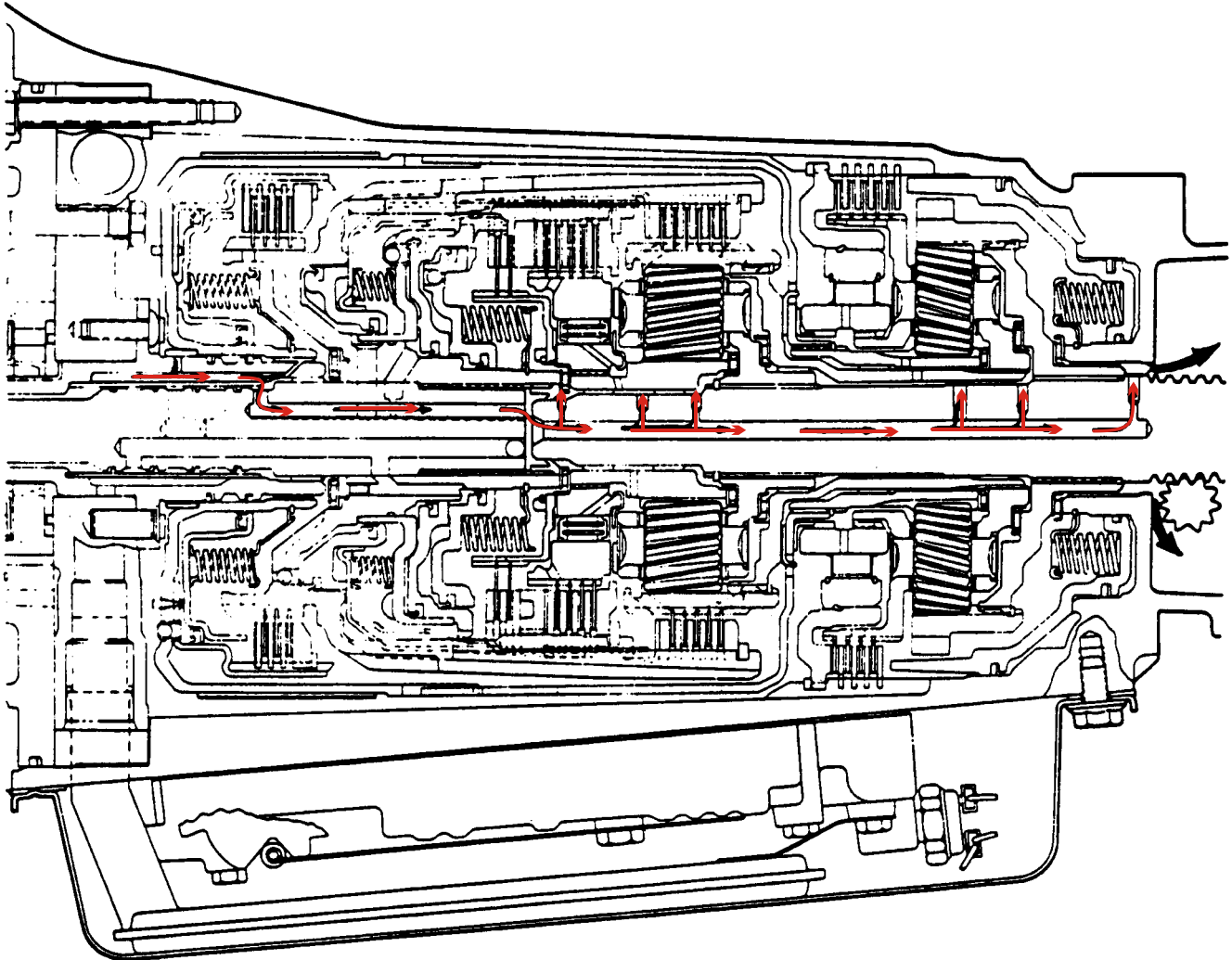


Figure 2

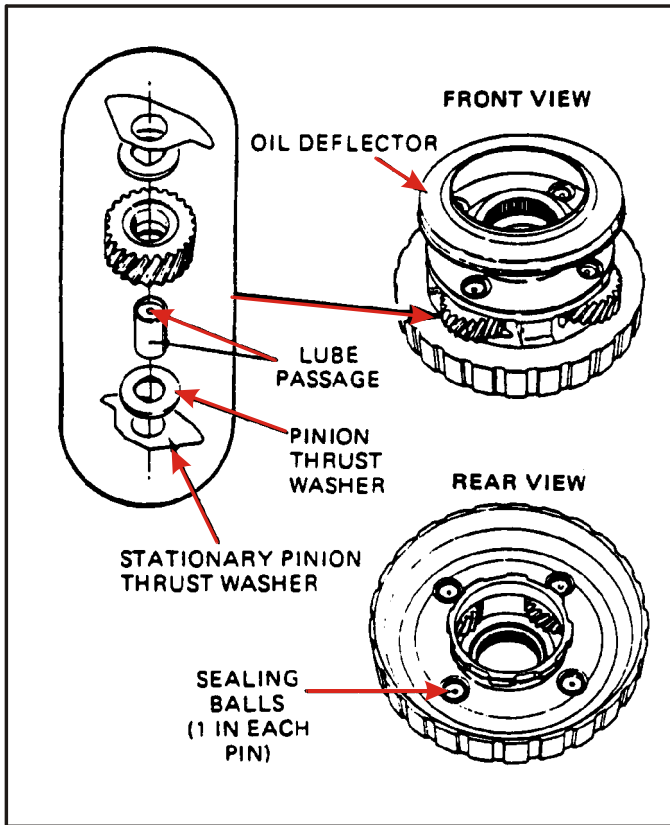


Figure 3

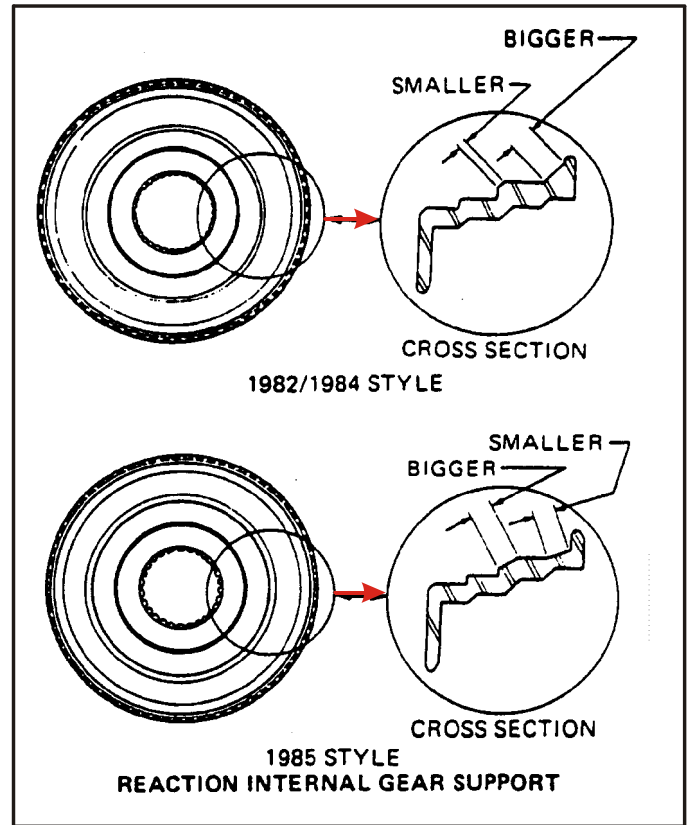


Figure 4

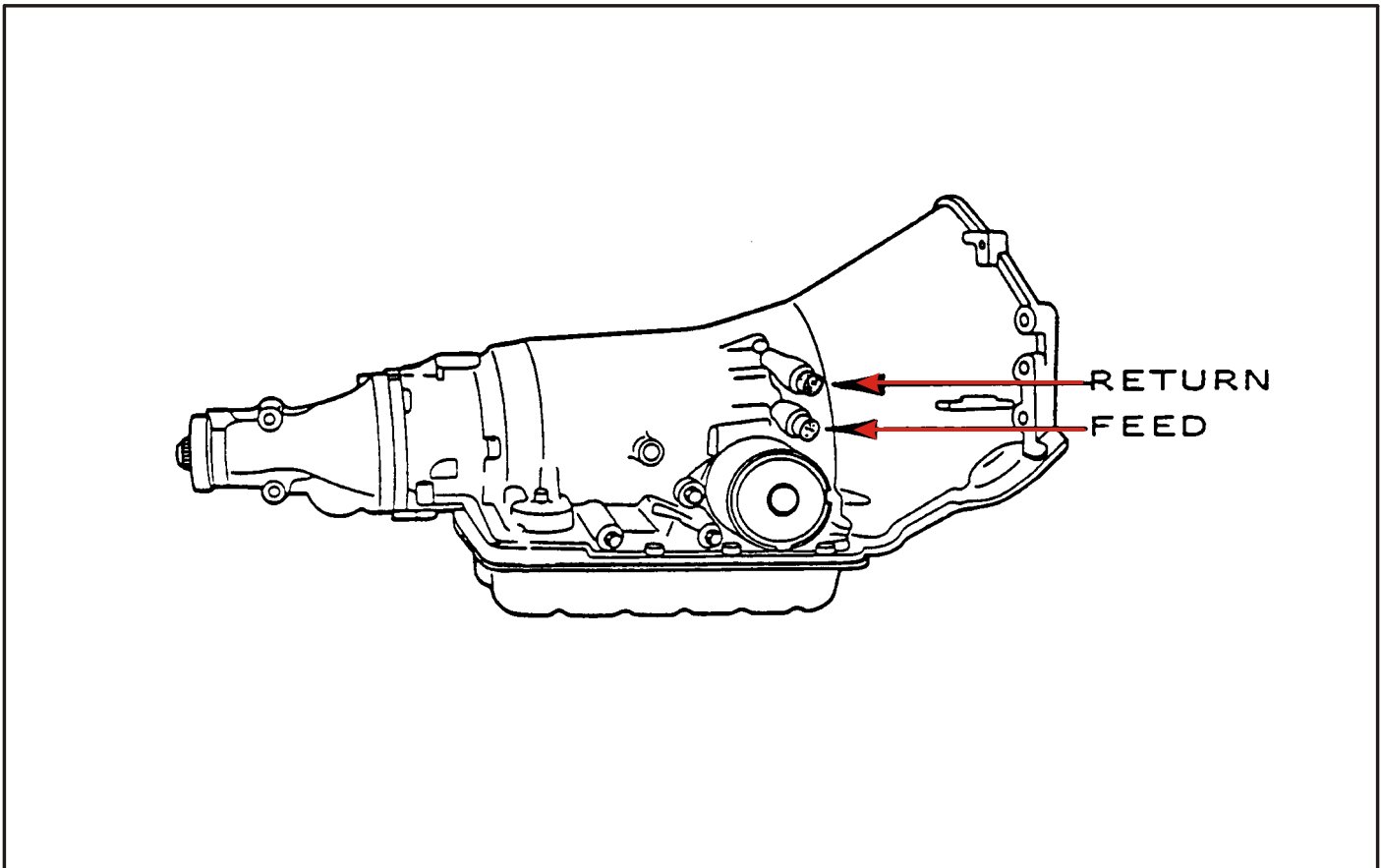


Figure 5