



# Technical Service Information

## GM 6L80/6L90

### WRONG GEAR START & DELAY IN REVERSE

**COMPLAINT:** A vehicle may come into the shop with P0751 set for Shift Solenoid 1 Performance accompanied by complaints of wrong gear starts and a delay into reverse. This can happen under hot or cold vehicle conditions.

**CAUSE:** A severe cross leak has developed between the stator support shaft and the pump cover at hydraulic circuits 14 for the 3-5-Reverse Clutch and 26 for the 1-2-3-4 Clutch (See Figure 1). When air checking the 3-5-Reverse Clutch feed hole in the pump cover, a large volume of air would exit the 1-2-3-4 Clutch feed hole in the pump cover, See Figure 2.

**CORRECTION:** It is difficult to flat sand the pump cover due to high casting areas surrounding the mating surface. The stator support shaft would have to have the alignment pin removed. Although the stator support shaft and pump cover come with a gasket, the cross leak may still develop. If the problem is not rectified with a new gasket which comes in most rebuild kits, a thin layer of anaerobic sealer may be required to save the pump assembly. Follow the pump to bell housing tightening sequence shown in Figure 3. **Notice** in Figure 4 that the pump assembly tightening torque specifications have been revised from 97 in. lbs. to 110 in. lbs.

*Many thanks to Bill at Bill's Best Choice Transmission, Philadelphia, PA.*

## GM 6L80/90 WRONG GEAR START & DELAY IN REVERSE

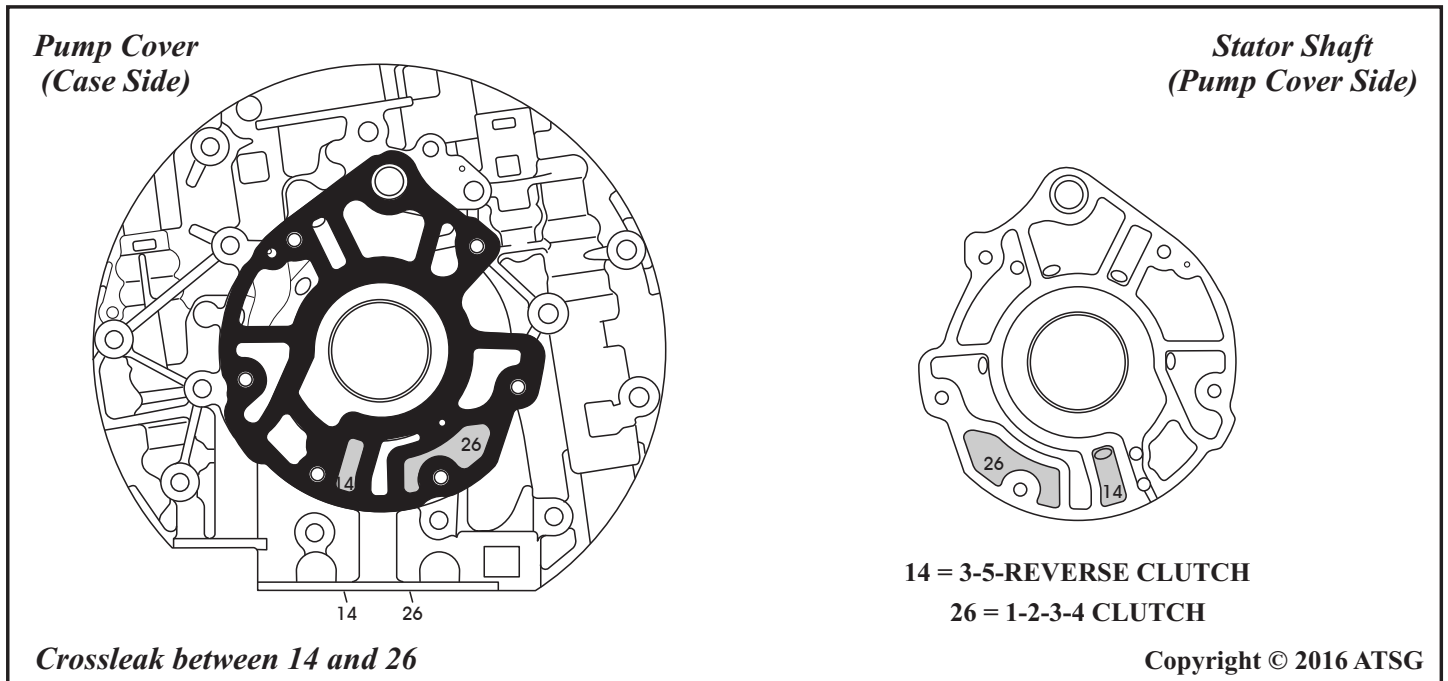


Figure 1

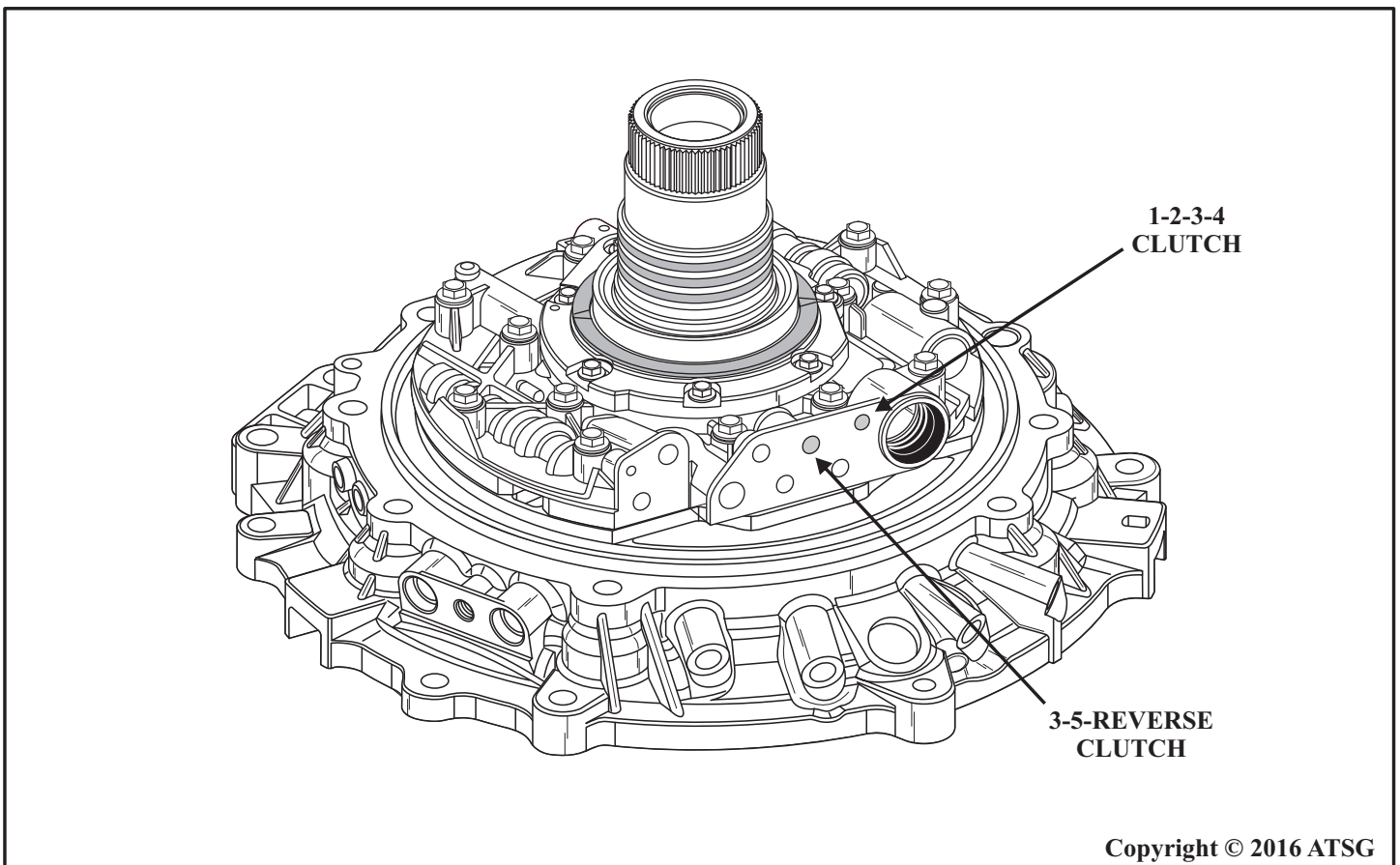
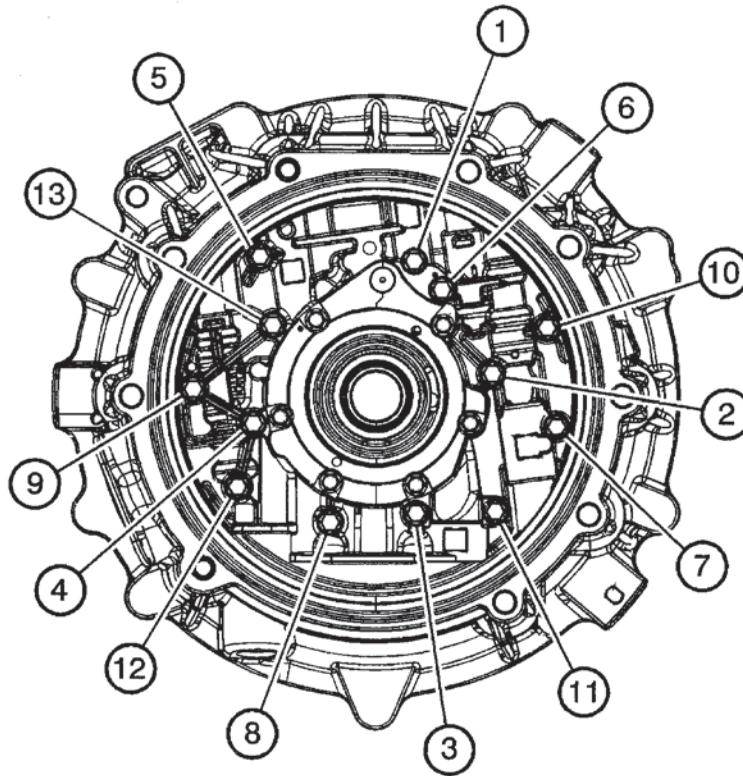


Figure 2

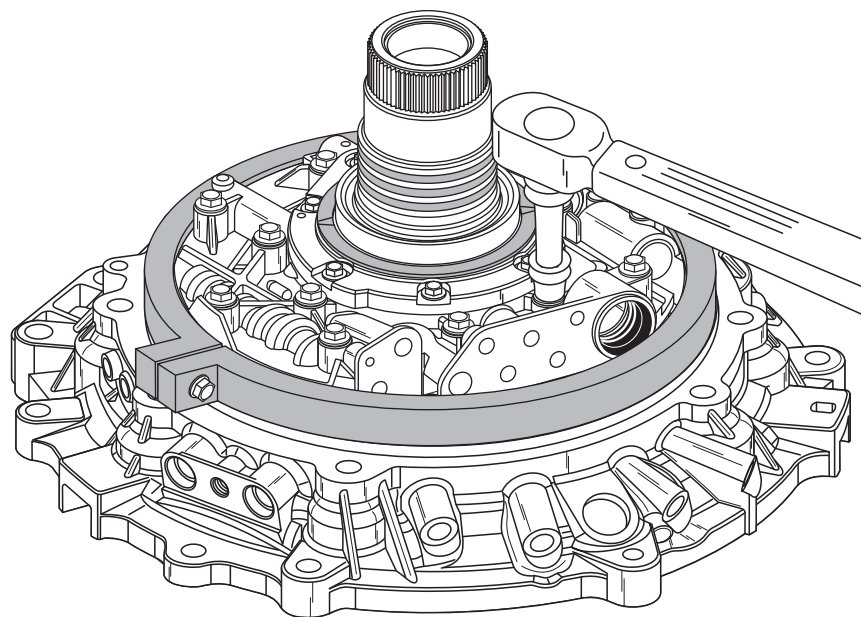
## GM 6L80/90 WRONG GEAR START & DELAY IN REVERSE

### PUMP COVER & STATOR SUPPORT SHAFT TO BELL HOUSING TIGHTENING SEQUENCE



Copyright © 2016 ATSG

Figure 3



Copyright © 2016 ATSG

***TORQUE SPECIFICATIONS HAVE BEEN REVISED TO 110 IN. LBS.***

Figure 4