



## GM 6L80/6L90

### PUMP ASSEMBLY INTERCHANGEABILITY

**COMPLAINT:** Front pump damage is a common failure the 6L80/90 series of transmissions which usually results in having to replace the entire assembly. Some technicians have noticed a difference in a particular oil passage in both the pump cover as well as the pump body (bellhousing) and questioned the interchangeability of the two assemblies.

**CAUSE:** There is a first and second design pump assembly.

**CORRECTION:** Both pump assemblies are totally interchangeable. The first design was in production from 2007 to 2008. The second design was put into production in 2009 and is still currently used.

The oil passage in question services hydraulic circuit 49 which is controlling the pressure from the pressure control solenoid to the pressure regulator boost valve as seen in Figure 1.

Circuit 49 in the first design pump assembly originates from the pressure control solenoid (Figure 2). It comes into the pump cover, then to the bellhousing and ends at the bolt hole. It then goes back to the pump cover and around the bolt hole then back into the bellhousing to the very end of the circuit where it goes back into the pump cover to the pressure regulator boost valve.

Circuit 49 in the second design pump assembly has a dam in the circuit (Figure 3). It appears to be there to orifice the oil from the pressure control solenoid to the pressure regulator boost valve. However, there is no information available from GM that explains exactly why the change was implemented. The pump cover for both first and second design levels can be seen in figure 4.

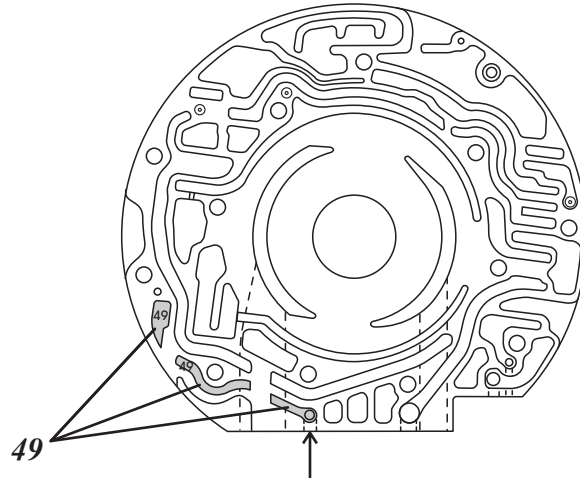
#### ***IMPORTANT NOTE TO THE REBUILD TECHNICIAN:***

New pump components are coated with anti-rust compound, be sure to clean this compound off before installation or it will get into the pressure regulator valve which will cause it to stick.

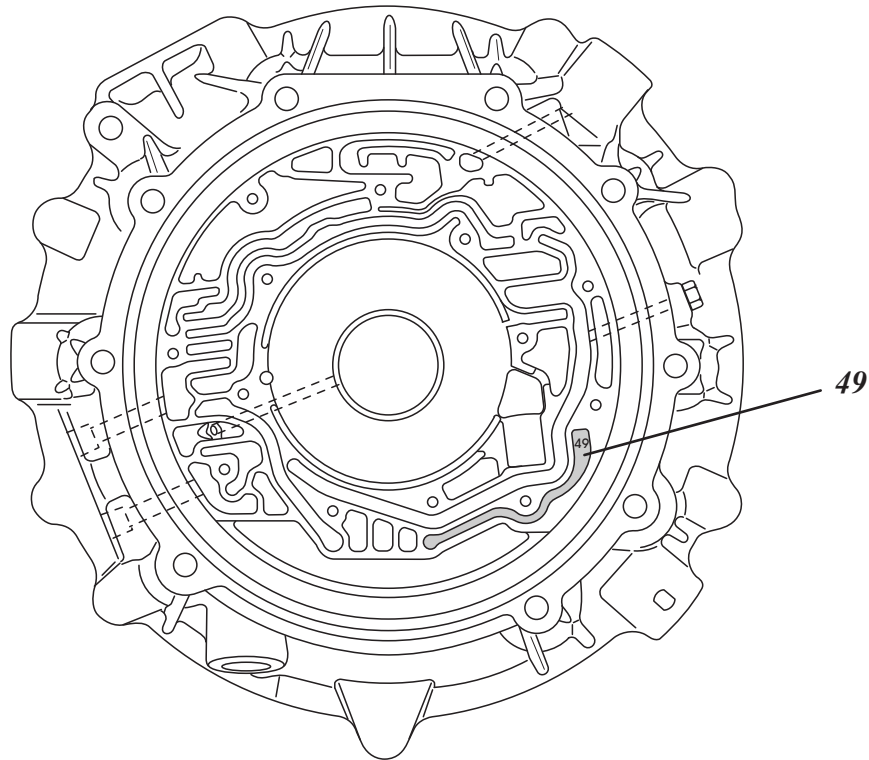
## GM 6L80/90 PUMP ASSEMBLY INTERCHANGEABILITY

### PUMP BODY AND PUMP COVER

*Pump Cover  
(Bell Housing Side)*



*Pump Body/Bell Housing  
(Pump Cover Side)*



Circuit #49 is Pressure Control Solenoid to Pressure Regulator Valve

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Figure 1

## GM 6L80/90 PUMP ASSEMBLY INTERCHANGEABILITY

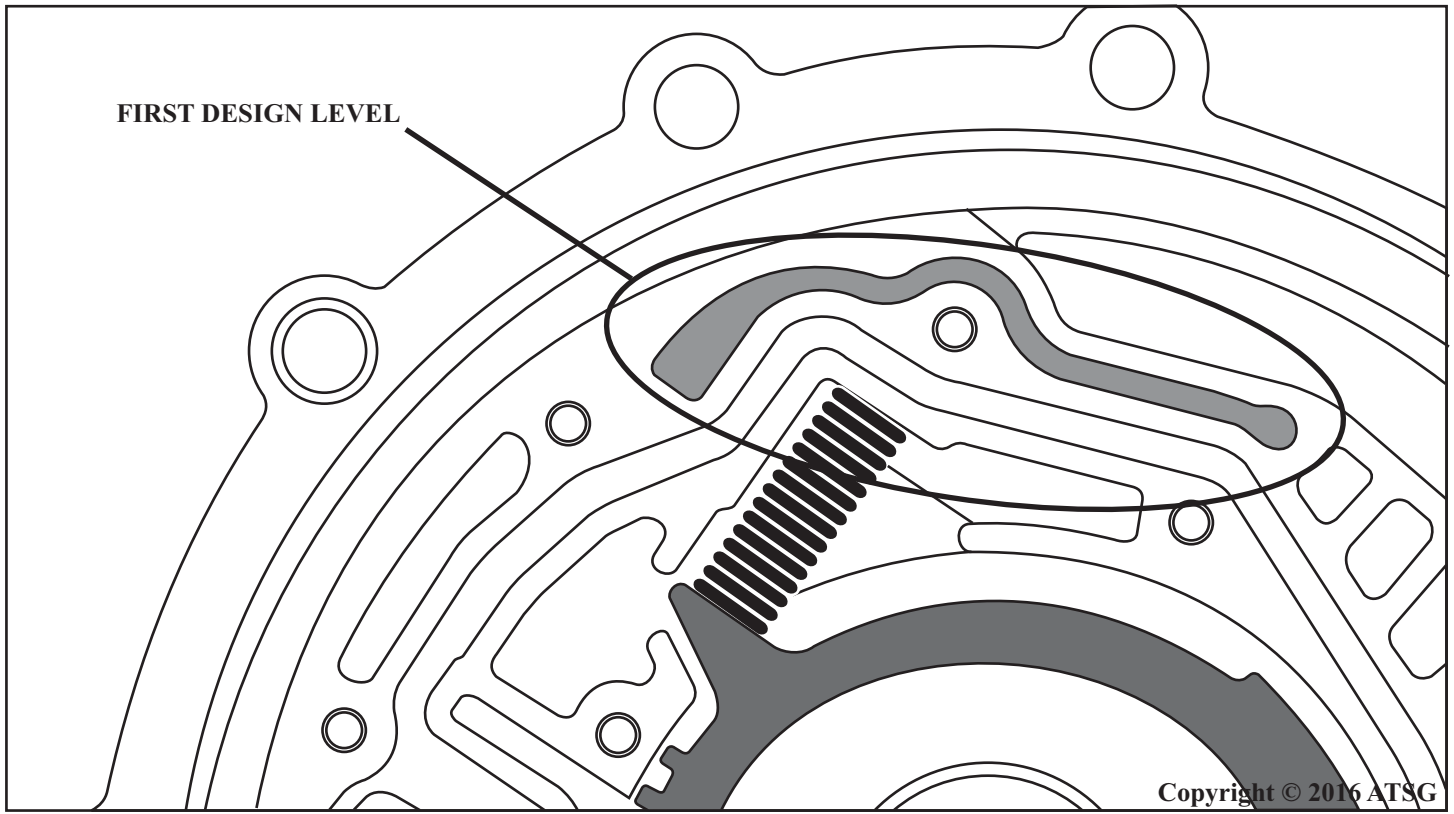


Figure 2

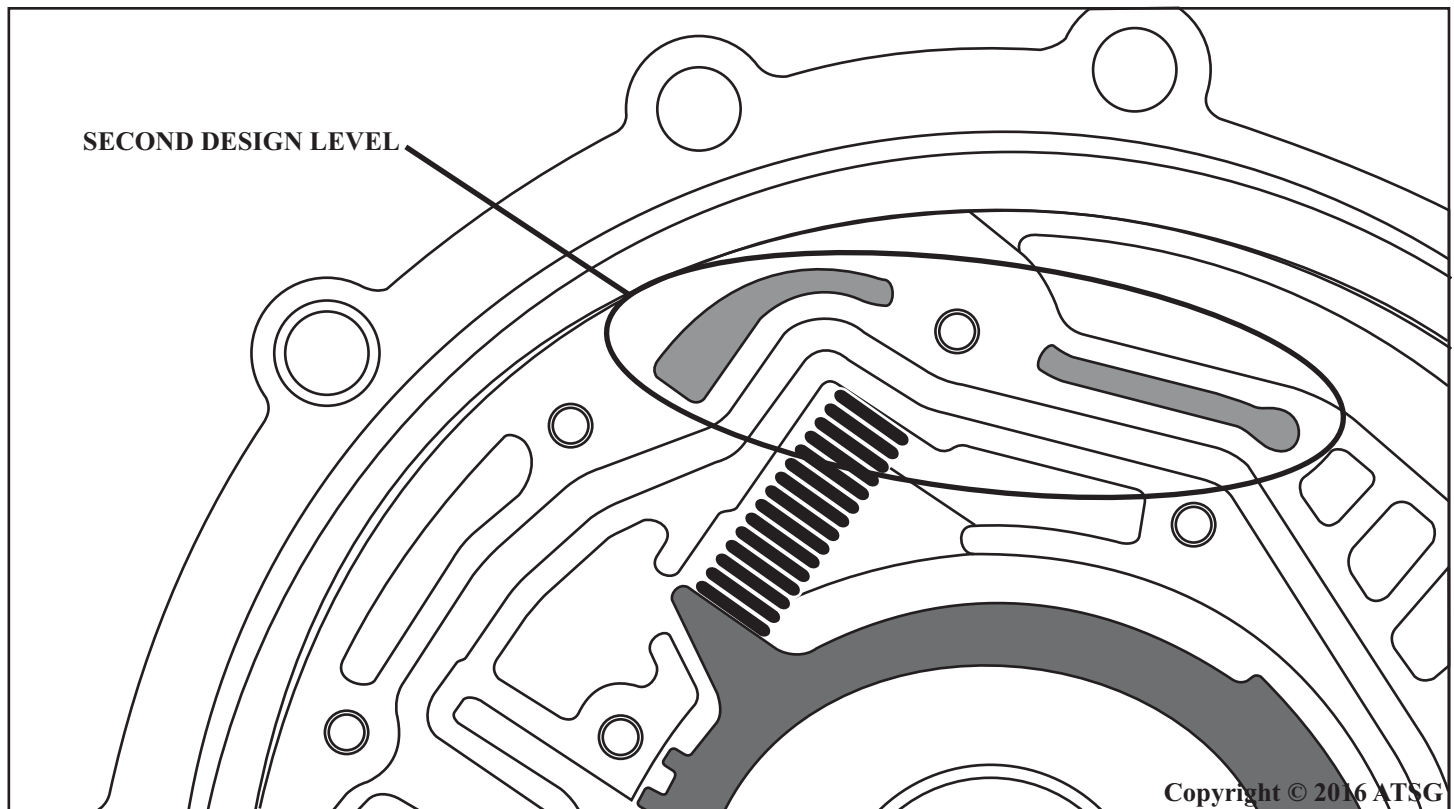


Figure 3

## GM 6L80/90 PUMP ASSEMBLY INTERCHANGEABILITY

### FIRST & SECOND DESIGN LEVEL PUMP COVER

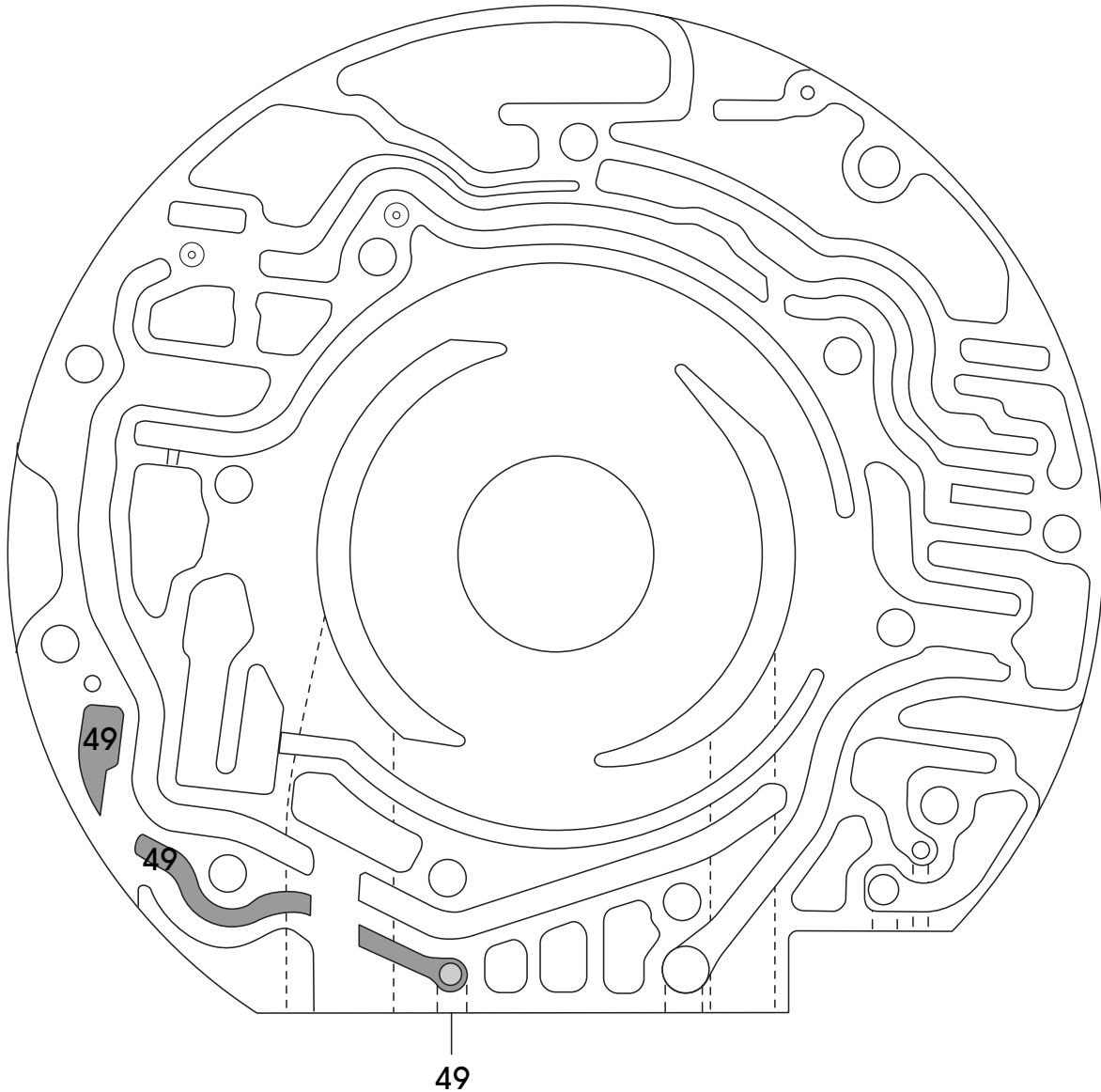


Figure 4