

# THM 4L80-E/4L80-EHD 1997 MODEL CENTRAL LUBE DISTRIBUTION

**CHANGE:** Beginning at the start of production for all 1997 models, a new design centralized lubrication system was implemented, with changes that will affect service parts and normal disassembly procedures. Refer to Figures 1, 2, and 3. The new centralized lube distribution system is divided into three independent systems; front, center and rear.

**REASON:** Provides a more desirable distribution of lube oil flow throughout the transmission to increase reliability and durability.

#### **PARTS AFFECTED:**

(1) TRANSMISSION CASE - The return oil cooler line fitting was moved to the rear of the case, in line with the center support, and extends through the case and into the center support through a new metal clad seal in the support, as shown in Figure 3.

This now requires removing the return cooler line fitting, before removing the center support, to eliminate any damage to the related parts.

(2) CENTER SUPPORT - A new metal clad lube seal and a new lube passage were added to the center support, as shown in Figure 3. The center support bushing length has been extended and the grooves modified to connect the reaction carrier bushing lube passage to center lube supply at the outer diameter of the sun gear shaft. The intermediate clutch lube orifice was also reduced. Refer to Figure 3.

These changes now require removing the return cooler line fitting, before removing the center support, to eliminate any damage to the related parts.

- (3) FRONT PUMP COVER The front lube system is supplied oil by the regulated converter feed oil passage through modifications to the oil pump assembly. One oil pump assembly modification, is a machined .048" orifice slot in the pump cover, connecting regulated converter feed oil to the passage which provides oil to the front lube system (See Figure 1).
- (4) FRONT PUMP BODY The front pump body was also modified to accommodate the changes made in the pump cover assembly for the front lube passage, as shown in Figure 2.
- (5) VALVE BODY Recieved modifications to accommodate the new rear lube pipe, which provides lubrication to the rear case thrust washer, case bushing and extension housing bushing, as shown in Figure 4.
- (6) REAR LUBE PIPE Has been made shorter, and installed into the acuator feed oil passage at the back of the valve body, as shown in Figure 4. Rear lube is isolated from center lube and provides lube for the rear case thrust washer, case bushing and extension housing bushing.

#### **INTERCHANGEABILITY:**

None of the parts listed above will interchange with any of the previous design parts.



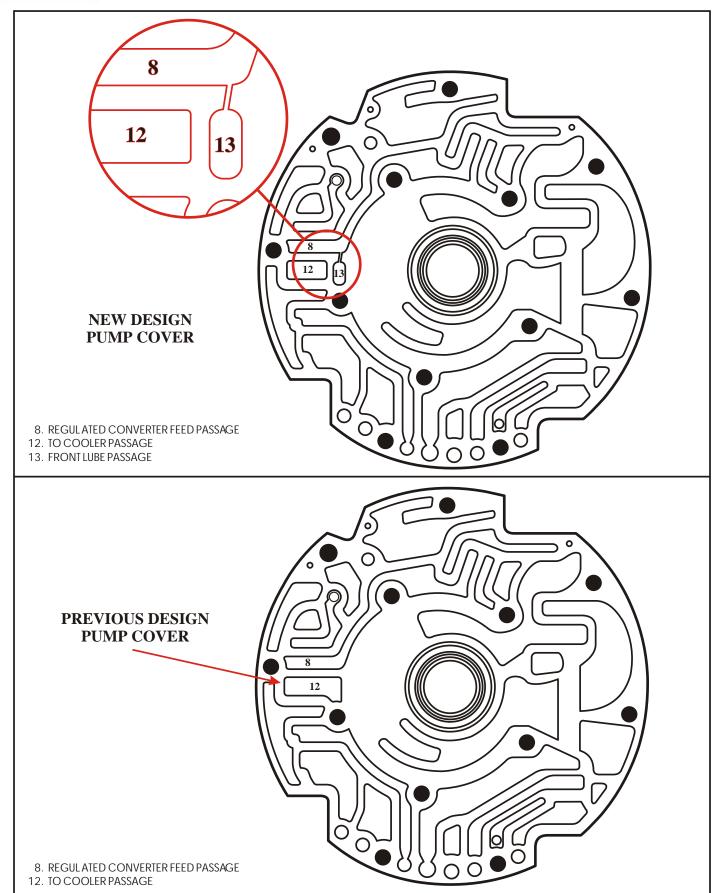


Figure 1



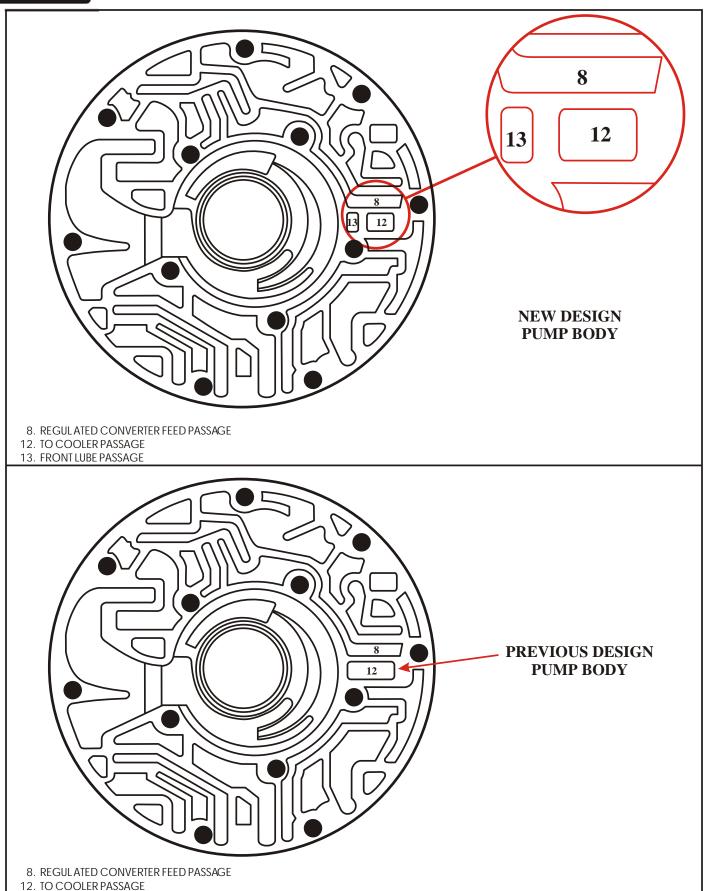
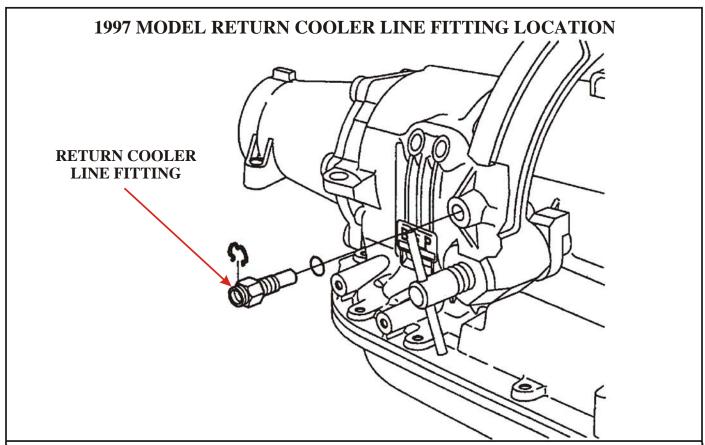
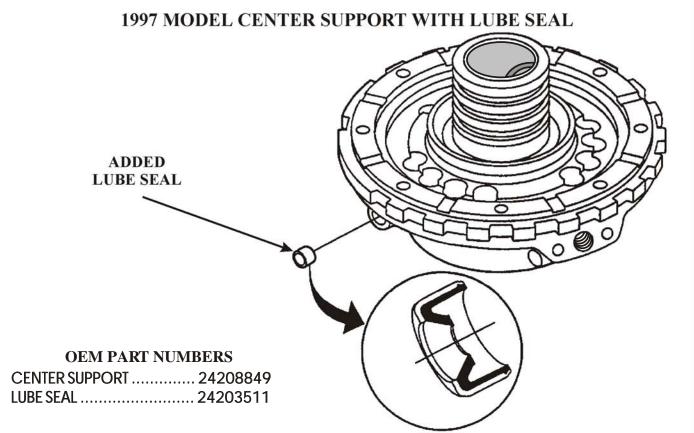


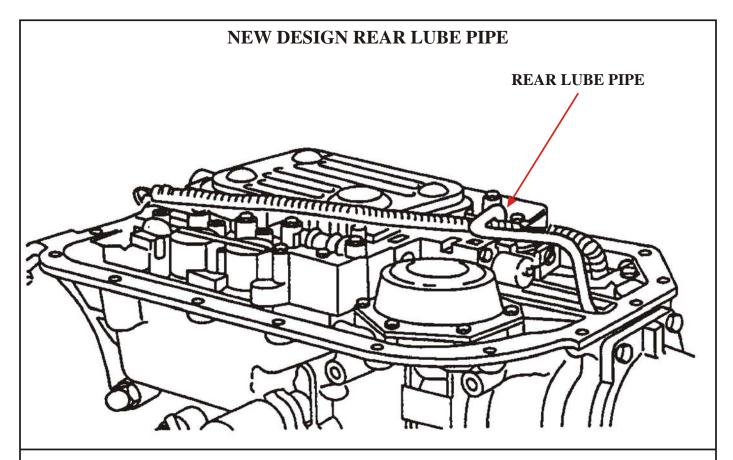
Figure 2











#### PREVIOUS DESIGN REAR LUBE PIPE

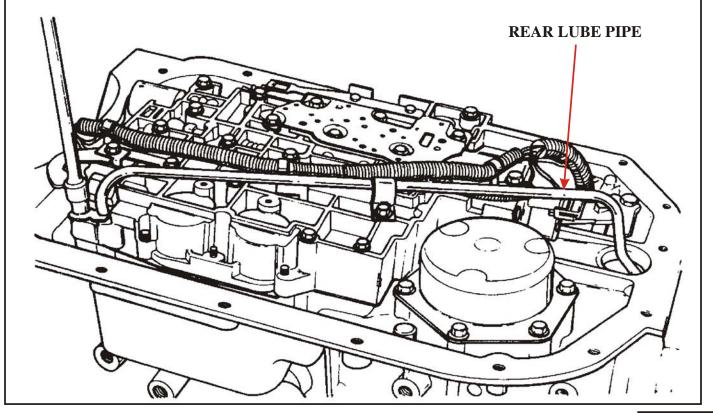


Figure 4