

transmission, check fluid level and torque converter drain plug torque prior to removal of the transmission and torque converter.

High oil level can result in oil leakage out the vent located at the top of the front pump housing. If the fluid level is high, adjust to proper level.

Oil leakage can also occur at the torque converter drain plug. Torque the drain plug to 90 inch-pounds.

After performing these two operations, re-check for leakage. If a leak persists, perform the following operation on the vehicle to determine whether it is the converter or transmission that is leaking.

### Leakage Test Probe

- (1) Remove converter housing dust shield.
- (2) Position vehicle with front lower than back so that accumulated fluid in converter housing will drain out. Wipe bottom inside of converter housing as dry as possible. A solvent spray followed by compressed air drying is preferable.
- (3) Fabricate and fasten test probe (Fig. 4) securely to convenient dust shield bolt hole. Make certain converter is cleared by test probe. Tool must be clean and dry.
- (4) Run engine at approximately 2,500 rpm with transmission in neutral, for about 2 minutes. Transmission must be at operating temperature.
- (5) Stop engine and carefully remove tool.
- (6) If upper surface of test probe is dry, there is no converter leak. A path of fluid across probe indicates a converter leak. Oil leaking under the probe is coming from the transmission converter area (Fig. 5).
- (7) Remove transmission and torque converter assembly from vehicle for further investigation. The fluid should be drained from the transmission and converter. Re-install converter drain plug and oil pan (with new gasket) at specified torque.

Possible sources of transmission converter area fluid leakage shown in (Fig. 5) are:

- (1) Converter Hub Seal.
  - (a) Seal lip cut, check converter hub finish.
  - (b) Bushing moved and/or worn.

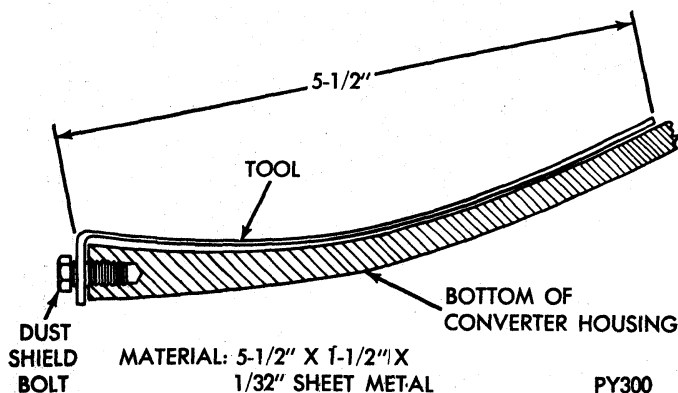


Fig. 4—Leak Locating Test Probe Tool

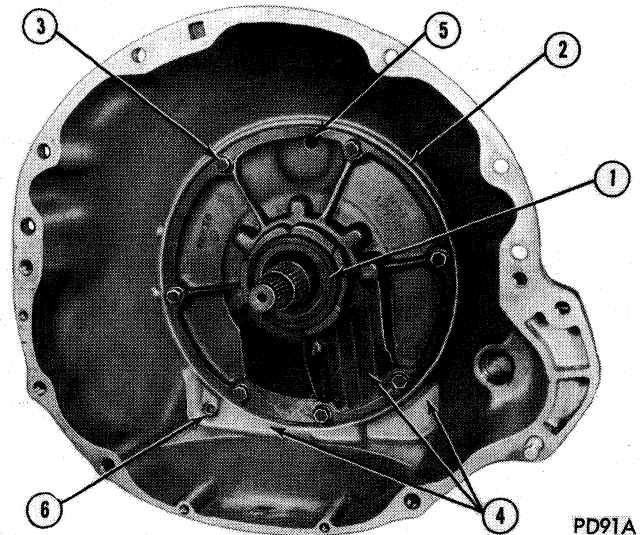


Fig. 5—Transmission Converter Area

- (c) Oil return hole in front pump housing plugged or omitted.
- (d) Seal worn out (high mileage cars).
- (2) Fluid leakage at the outside diameter from pump housing "O" ring seal.
- (3) Fluid leakage at the front pump to case bolts.
- (4) Fluid leakage due to case or front pump housing porosity.
- (5) Oil leakage out the vent.
- (6) Kickdown lever shaft access plug.

### Converter Leakage (Fig. 6)

Possible sources of converter leakage are:

- (a) Torque converter weld leaks at the outside diameter (peripheral) weld.
  - (b) Front pump hub weld.
  - (c) Crankshaft pilot weld.
  - (d) Fluid leakage from the converter drain plug.
- These leaks appear at the outside diameter of the converter on the engine side.

### Air Pressure Test of Transmission

Fabricate equipment needed for test as shown in (Figs. 7 through 11).

The transmission should be prepared for pressure

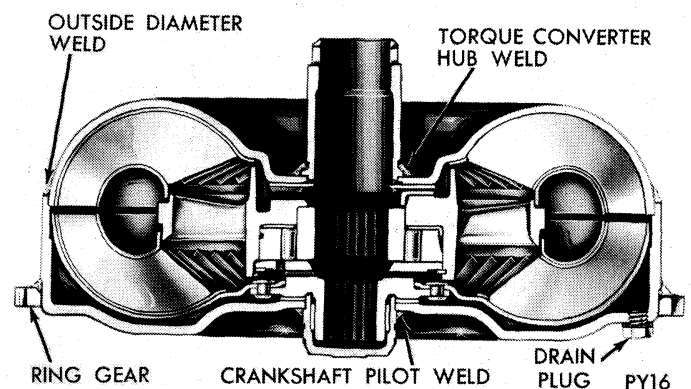


Fig. 6—Torque Converter Cross Section