Torque Converter Diagnosis

Prior to installing a new torque converter, all diagnostic procedures must be followed. This is to prevent the unnecessary installation of good torque converters. Only after a complete diagnostic evaluation can the decision be made to install a new or remanufactured torque converter.

Begin with the normal diagnostic procedures as follows:

1. Preliminary Inspection.

2. Know and Understand the Customer Concern.

3. Verify the Concern — Carry out the Torque Converter Operation Test; refer to Torque Converter Operation Test in this section.

4. Carry out Diagnostic Procedures.

- Perform On-Board Diagnostic (OBD) test. Refer to Diagnostics in this section.
  - Repair all non-transmission related DTCs first.
  - Repair all transmission DTCs.
- Carry out the Line Pressure Test. Refer to Special Testing Procedures in this section.
- Carry out the Stall Speed Test. Refer to Special Testing Procedures in this section.
- Carry out the Diagnosis by Symptom Index. Refer to Diagnosis By Symptom in this section.
  - Use the index to locate the appropriate routine that best describes the symptom(s). The routine will list all possible components that may cause or contribute to the symptom. Check each component listed, diagnose and service as necessary before servicing the torque converter.

Torque Converter Operation Test

NOTE: Always drive the vehicle in a safe manner according to driving conditions and obey all traffic laws, do not exceed posted limits.

This test verifies that the Torque Converter Clutch (TCC) control system and the torque converter are operating correctly.

1. Check for DTCs. Refer to the Diagnostic Trouble Code (DTC) Charts in this section.

2. Bring the engine to normal operating temperature by driving the vehicle at highway speeds for approximately 15 minutes in the (D) position.

3. After normal operating temperature is reached, maintain a constant vehicle speed of about 80 km/h (50 mph) and tap the brake pedal with the left foot.

4. The engine rpm should increase when the brake pedal is tapped, and decrease about 5 seconds after the pedal is released. If this does not occur, refer to Torque Converter Operation Concerns in Diagnosis By Symptom in this section.

5. If the engine stalls in the (D) or manual 2 at idle with the vehicle stopped, move the transmission selector lever to the manual 1 position. If the engine stalls, refer to Diagnosis By Symptom , Torque Converter Operation Concerns in this section. Repair as necessary. If the engine does not stall in (D), refer to Diagnosis By Symptom in this section.