P0218 Transmission Fluid Over temperature

Diagnostic Instructions

- Perform the Diagnostic System Check – Vehicle on page 6-60 prior to using this diagnostic procedure.
- Review Strategy Based Diagnosis on page 6-57 for an overview of the diagnostic approach.
- Diagnostic Procedure Instructions on page 6-58 provides an overview of each diagnostic category.

DTC Descriptor

DTC P0218: Transmission Fluid Over temperature

Circuit/System Description

The primary source of heat in the transmission is the torque converter. Hot oil exits the torque converter through the torque converter clutch (TCC) control valve and flows to the transmission cooler supply line. The supply line connects to the cooler, which is in the radiator. From the cooler, the oil returns through the oil cooler return line and enters the lubrication circuits. After lubricating the internal components, the oil returns to the oil pan. The transmission fluid temperature (TFT) sensor is located in the control solenoid (w/body and TCM) valve assembly.

Conditions for Running the DTC

- The ignition voltage is between 8.6 volts and 19.0 volts.
- The TFT is −39 to +149°C (−38 to +300°F) for 5 seconds.

Conditions for Setting the DTC

The TFT is 140°C (284°F) or greater for 1 minute.

Action Taken When the DTC Sets

- DTC P0218 is a Type C DTC.
- The TCM freezes transmission adaptive functions.

Conditions for Clearing the DTC

DTC P0218 is a Type C DTC.

Diagnostic Aids

The driver information center (DIC), if equipped, will display 'TRANSMISSION HOT- Idle Engine' when the TFT reaches 132°C (270°F). The TFT on the scan tool should rise steadily to a normal operating temperature, and then stabilize. Ask about the customer's driving habits, trailer towing, etc. Trailer towing should occur in D4. Ensure the engine cooling system is functioning normally.

Reference Information

Description and Operation
Transmission General Description on page 17-278

DTC Type Reference
Powertrain Diagnostic Trouble Code (DTC) Type Definitions on page 6-61

Scan Tool Reference
Control Module References on page 6-1 for scan tool information

Circuit/System Verification

1). Review the Failure Records when the DTC set. Verify the engine coolant temperature is less than 125°C (257°F).

If greater than the specified range, refer to Engine Overheating

2). Inspect the transmission cooling system for restrictions or damage.
3). Perform the Transmission Fluid Check on page 17-102 to verify correct fluid level and condition.
4). Perform the Transmission Fluid Cooler Flushing and Flow Test (Acadia, Enclave) on page 17-113 or Transmission Fluid Cooler Flushing and Flow

Test

5). (Outlook) on page 17-118 to verify proper transmission oil cooler flow.
6). Perform the Line Pressure Check on page 17-103 to verify proper transmission line pressure.
7). Operate the vehicle within the Conditions for Running the DTC to verify the DTC does not reset. You may also operate the vehicle within the conditions that you observed from the Freeze Frame/Failure Records data.

Repair Instructions

Important: Perform the Service Fast Learn Adapts on page 17-102 any time a transmission related component is serviced.

Perform the Diagnostic Repair Verification on page 6-86 after completing the diagnostic procedure.