Catalytic Converter Performance Test

Meets NATEF Task: (A8-E-9) Inspect and test catalytic converter efficiency. (P-2)

Name _____ **Date** _____ **Time on Task** _____

Make/Model/Year _____ **VIN** _____ **Evaluation: 4 3 2 1**

(Temperature Difference)

A catalytic converter uses a catalyst to start a chemical reaction, but does not enter into the chemical reaction. Because a chemical reaction causes heat, the temperature of the catalytic converter should be at least 10% hotter at the outlet as compared to the temperature of the inlet.

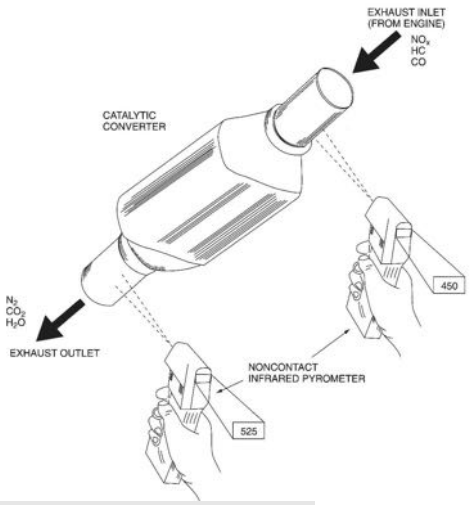
_____ **1.** Start the engine and run at a fast idle (2500 RPM) for at least 2 minutes to fully warm up the oxygen sensor, the engine coolant and catalytic converter.

_____ **2.** Using a pyrometer (infrared or contact type), measure the front (inlet) and outlet of the catalytic converter.

Inlet temperature = _____°

Outlet temperature = _____°

Difference = _____°



_____ **3.** Results: If the outlet temperature is 50°F (10°C) (or 10%) higher than the inlet temperature, the catalytic converter is functioning correctly. **OK** ___ **NOT OK** ___

NOTE: Some engines are operating so cleanly that the catalytic converter has limited emissions to convert and therefore, the temperature of the converter may not show an increase in temperature. To check if the catalytic converter is functioning on a vehicle with very low exhaust emissions, simply use a vacuum hose connected to a spark plug wire and temporarily ground out one cylinder by using a tester light or jumper wire attached to ground. Measure the inlet and outlet temperatures of the converter while one cylinder is grounded out. To avoid damage to the catalytic converter, do not ground out a cylinder for longer than 10 seconds.

_____ **4.** Based on the test results, what is the necessary action? _____

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