

Fuel System - MIL ON/DTC P0456 Stored

TSB 07-3-9

02/19/07

[MIL](#) ON - DTC P0456

FORD:

2005-2006 Mustang

ISSUE

Some 2005-2006 Mustang vehicles may have a malfunction indicator lamp (MIL) on with diagnostic trouble code (DTC) P0456. This concern can be caused by an oversized orifice in the [fuel pump](#). Suspect fuel pumps are in vehicles built before January 1, 2006.

ACTION

Follow the Service Procedure steps to correct the condition.

SERVICE PROCEDURE

Install the scan tool on the vehicle and monitor various inputs at different conditions to see if the vehicle needs to have the [fuel pump](#) replaced based on the calculation.

Mustang Vapor Generation Test

NOTE VEHICLE MUST MEET THE FOLLOWING CONDITIONS FOR THIS TEST:
FLI% BETWEEN 15%-50% (INDICATES RIGHT SIDE [FUEL TANK](#) IS EMPTY)
AND FUEL/VEHICLE TEMPS BETWEEN 70-80 °F (21-27 °C).

1. Install IDS and perform Data logger function.
2. Select the following PIDs: FLI% (fuel level), FRP ([fuel rail](#) pressure), VMV # (Vapor Management Valve current), FTP voltage (Fuel tank pressure transducer output voltage), CVV # (Canister vent valve duty cycle).
3. Start engine - run for 5 minutes - turn off engine.
4. Access Jet Pump Module Connector 434 and verify sender resistance is at empty (16 ohms +/- 1 ohm).
5. Start engine, let idle for 30 seconds.
6. Check FRP to ensure [fuel pressure](#) is at 40 PSI +/- 2 PSI.
7. Close VMV to ensure a purge cycle does not take place during testing.
8. Record FTP voltage (should be at atmosphere - 2.61 volts).
9. Close CVV and monitor the elapse time.
10. Record FTP voltage after 30 seconds.
11. Open CVV and turn off engine.
12. Record FTP voltage (should be the same - 2.61 volts).
13. Close CVV and monitor the elapse time.

14. Record FTP voltage after 30 seconds - open CVV.

Calculate Dynamic vs. static FTP rise

15. Take reading from Step 10 (should be near 2.61) and subtract by the value in Step 8.

16. Take reading from Step 14 and subtract it by the reading in Step 12.

17. Take number from Step 16 and divide it by the number in Step 15. If the calculation is greater than a factor 3, replace the [fuel pump](#). If the calculation is less than 3, continue with Workshop Manual diagnostics.

18. If the results from the dynamic test (KOER) are 3 times larger as the results of the static test (KOEO), the [fuel pump](#) is generating excess vapor.

PART NUMBER	PART NAME
7R3Z-9H307-C	Sender Asy - Fuel Tank

Parts Block

WARRANTY STATUS: Eligible Under Provisions Of New Vehicle Limited Warranty Coverage And Emissions Warranty Coverage

IMPORTANT :Warranty coverage limits/policies are not altered by a TSB. Warranty coverage limits are determined by the identified causal part.

OPERATION	DESCRIPTION	TIME
MT070309	Use SLIS Operations If Available; Claim Additional Diagnosis Or Labor Performed As Actual Time	Actual Time

DEALER CODING

BASIC PART NO.	CONDITION CODE
9A299	16

NOTE: The information in Technical Service Bulletins is intended for use by trained, professional technicians with the knowledge, tools, and equipment to do the job properly and safely. It informs these technicians of conditions that may occur on some vehicles, or provides information that could assist in proper vehicle service. The procedures should not be performed by "do-it-yourselfers". Do not assume that a condition described affects your car or truck. Contact a Ford, Lincoln, or Mercury dealership to determine whether the Bulletin applies to your vehicle.