Diagnostic Trouble Codes (DTC) P208064, P208464, P242B64 and P246F64 Lighting The Malfunction Indicator Lamp (MIL) - US17+OBD19 And Newer Emissions, Model Years 2020 and Newer

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⌄ Internal Content

Following is an example of temperature noise during regeneration or steady engine operation which is considered un-acceptable.
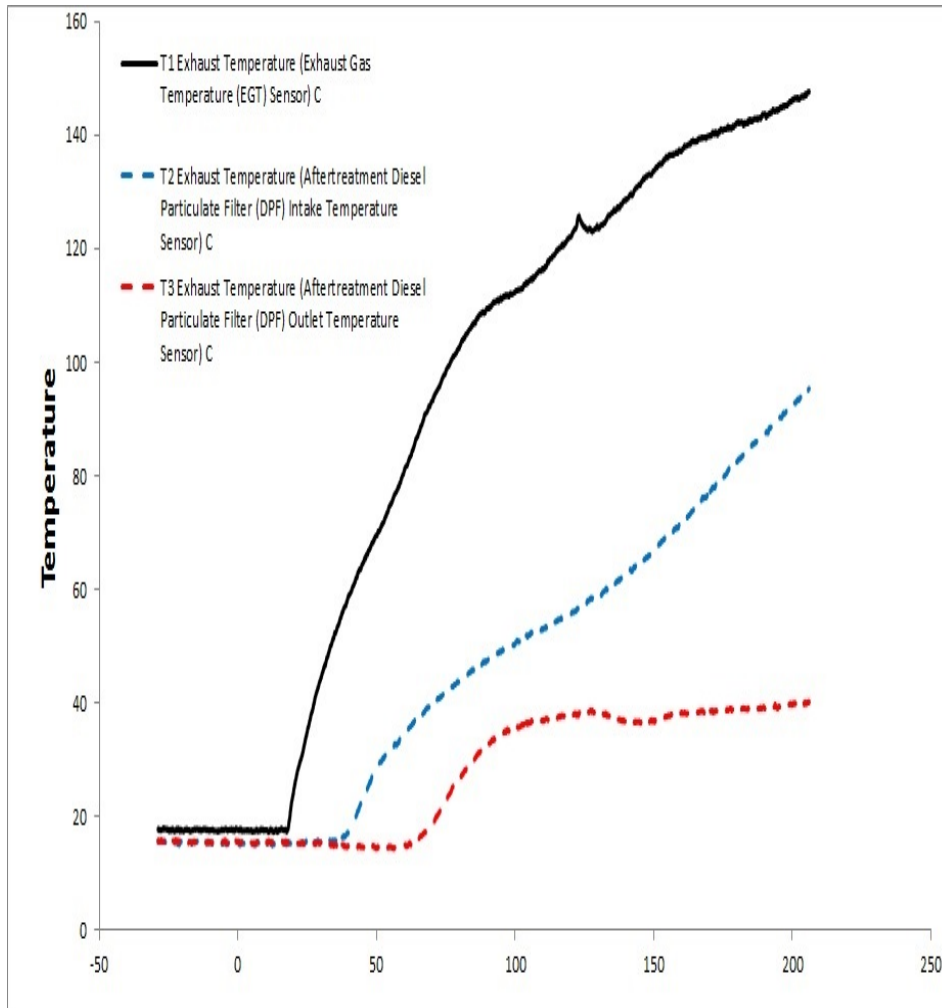
This example shows T3 having noise in temperature reading while T1, T2 are steady. Typically T1 is expected to have most noise in exhaust temperature, followed by T2, followed by T3 as there is thermal inertia between T1, T2 and T3. Only during AHI injection (Egs: Regeneration), T2 and T3 can increase faster than T1. All other times T1 always leads, T2, T3, T4.

Even for T1 sudden increase of temperature of ~50F and sudden drop of ~50F within seconds is unrealistic. In this example T3 increasing and dropping +-100F is a clear sign of sensor/harness/ACM issue.

SISTER SOLUTION: K03573329

CREATED BY: UT5061H
~~~~~~:   Aug 20, 2019, 06:54PM
LAST CHANGED BY: RU4469V

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LAST CHANGED BT.   RU4469V

LAST CHANGED: Oct 04, 2019, 02:24PM

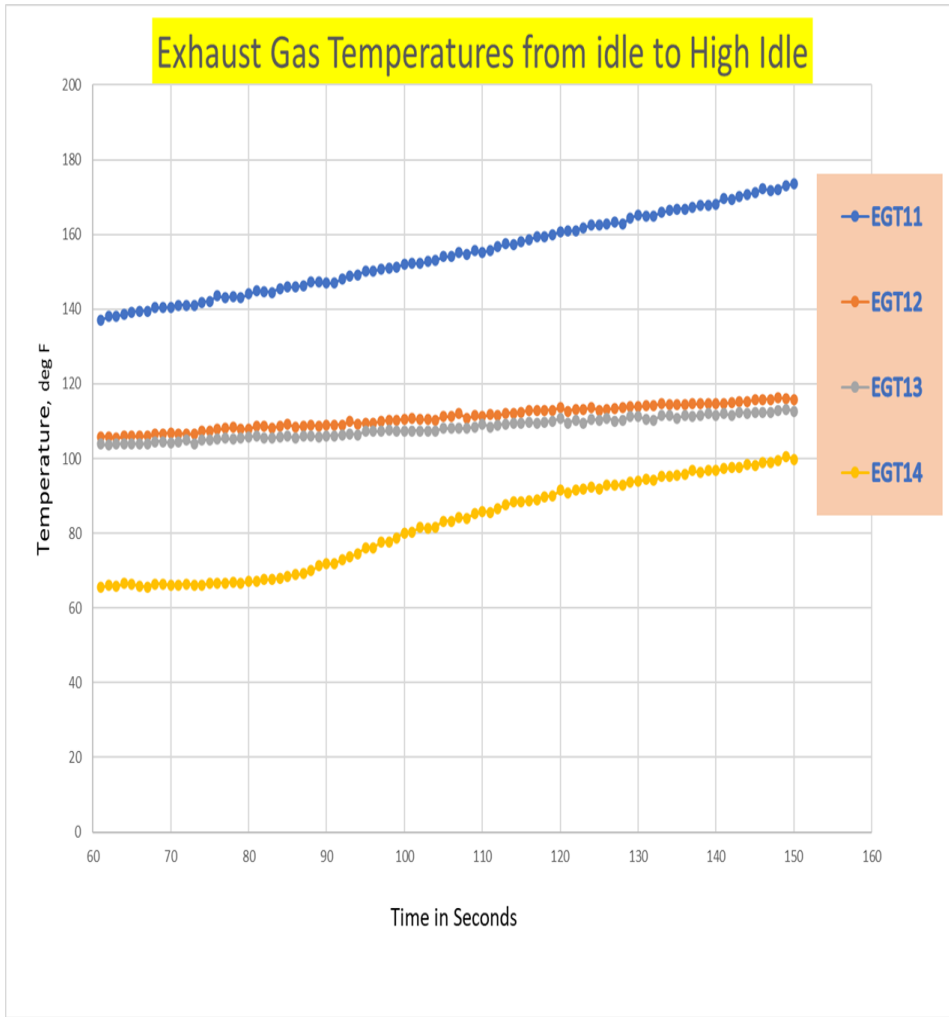| ⚠ WARNING |
|---|
| **No parts should be replaced for these fault codes unless a definite sensor failure is found.** |

Fault Tracing Procedure:

☐ Live UI v the vehicle to sit until the engine and exhaust have reached ambient (air) temperature.

2. Turn the ignition to ON, engine OFF.

2. Using Premium Tech Tool (PTT), run either of the operations below:

    • 2545-08-03-02 Exhaust Aftertreatment Diagnostics, option A

      - This will provide a numerical view of exhaust temperatures.

    • 2589-08-03-02 Exhaust Aftertreatment System, Service Regeneration

      - This will provide a graphical view of exhaust temperatures.

3. Ensure that the sensor readings are within 10 °C (18 °F) of one another before starting the engine.

4. Start the engine.

5. Monitor exhaust temperatures on PTT:

    • The sensor temperatures should rise in the order of 1, 2, 3, 4 as shown below after starting the engine.

6. Evaluate results:

    • **If the sensor readings are equal at ambient temperature and rise in the correct order when the engine is running:** No further fault tracing should be performed. Clear the DTCs and return the vehicle to service.

    • **If one or more sensors are displaying a different reading from the others or are spiking instead of smoothly increasing with the engine running:** The sensor(s) should be suspected to be faulty.

    • **If the temperature sensor values rise out of order:** The sensors should be checked to ensure they are installed in the correct positions.

An example of proper temperature sensor function when engine is cold (shutdown overnight). All 4 temperature sensors are expected read within 10F of each other and ambient temperature.

Once engine is warmed (idle for few minutes), taking vehicle to high idle (>1000rpm) typically should show temperatures similar to picture below. T1 > T2 > T3 > T4.

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Exhaust Gas Temperatures from idle to High Idle

NOTE: T4 is only valid for OBD19 and Newer Vehicles.

This CBR will be updated when new information is available.

🏷️ Tags

k47838695   p2080-64   p2084-64   p242b-64

p208064   p208464   p242b64   p246f-64

p246f64   mack   volvo

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