P3784

Fault code description

Exhaust gas temperature after DPF - Data valid but too high, moderately severe (during NON regeneration)

Possible cause

1. Exhaust temperature after DPF sensor failed in-range.
2. A damaged fuel dosing module causing fuel to enter the exhaust system unintentionally.
3. A damaged engine fuel injector or engine sensor causing unburned fuel to enter the exhaust system.
4. Excessive engine oil being introduced into the exhaust system from the engine.
5. DOC inlet blocked.

Additional information

Active DPF regeneration will be disabled.

This fault may result in engine shut down.

Set condition of fault code

This diagnostic runs continuously when the key switch is in the ON position and when the engine is running.

The EAS-3 ECU detects that the exhaust temperature after DPF sensor reading is between 1224ºF (662ºC) and 1269ºF (687ºC) for 90 seconds or more and/or the DPF temperature difference is between 527ºF (275ºC) and 572ºF (300ºC) for 90 seconds or more.

Reset condition of fault code

This fault code will change to inactive immediately after the diagnostic runs and passes.

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with respect to vehicles and/or components of another series, with another chassis number, and/or of another date. (/)

P3784, Diagnostic information

Technical data

"Sensor, exhaust temperature after DPF (F840)"

Location of component(s)

"Location information, EAS-3"

Electrical diagram(s)

Refer to the OEM service manual for more information.

Description of component(s)

"Sensor, exhaust temperature after DPF (F840)"

Block diagram

"Block diagram EAS-3"

Step by step troubleshooting

Please perform the troubleshooting steps below by utilising the breakout harness if necessary to check electrical components such as sensors, electrical control units or harnesses. Back probing is not recommended as it could damage the harness. The ignition should always be in the OFF position when connecting or disconnecting electrical components to reduce the likelihood of damage to electrical components.

- Disconnecting the EAS connectors during the troubleshooting process will result in multiple errors.
- For specific electrical component information and pin out locations, always refer to the technical data.
- It is necessary to exit the fault code menu in DAVIE and run the diagnostic test again to identify a

change in errors.

- Remember that the truck's operational or mechanical issues may be the root cause of both active and inactive fault codes. Refer to the 'possible causes' section.

Step by step 1: Check fault codes

Step 1A: Check for fault codes

Troubleshooting steps

1. Turn the key switch ON.
2. Use DAVIE to check for fault codes related to the aftertreatment temperature sensors.

Are fault codes P3756, P3757, P3758, P3833 or P3834 active?

- Yes – Proceed with the appropriate fault code
- No – Proceed to step 2A

Step by step 2: Check the aftertreatment exhaust gas temperature sensors

Step 2A: Monitor the exhaust gas temperature sensors

Troubleshooting steps

1. Turn the key switch ON.
2. Engine idling greater than ten minutes.
3. Monitor the exhaust gas temperature sensors with DAVIE.
   - Idle the engine for ten minutes to stabilise the exhaust gas temperatures.
   - If any fault occurs, go to the appropriate fault code.
   - If no fault occurs, record the value of the SCR exhaust gas temperature sensors

Does the value of the sensors vary by more than 75°F (24°C)?

- Yes – Proceed to step 5A after completing the following checks.
  - Check for a short circuit from the signal pin of the relevant temperature sensor to all other pins in the harness.
  - Check for a short circuit in the SCR temperature sensor interface.
  - If no short circuit is found, replace the temperature sensor that is reading higher or lower than the other sensors.
- No – Proceed to step 3A

Step by step 3: Check the fuel dosing module

Step 3A: Inspect the fuel dosing module

Troubleshooting steps

1. Turn the key switch OFF.
2. Remove the fuel dosing module.
3. Place the fuel dosing module in a measuring container and cover the measuring container.
4. Perform the 'fuel dosing module leak test'. For more information go to 'Explanatory notes to DAVIE'.

Does the fuel dosing module meet the specifications?

- Yes – Proceed to step 4A
- No – Failed fuel dosing module. Replace the fuel dosing module - Proceed to step 5A

Step by step 4: Inspect the DOC

Step 4A: Check the DOC for soot accumulation

Troubleshooting steps

1. Remove the DOC.

2. Inspect the DOC.
3. Check the inlet side of the DOC for soot accumulation.

Are more than 50 percent of the cells on the inlet side blocked by soot?

- Yes – Clean the DOC - Proceed to step 4B
- No – Proceed to step 4B

Step 4B: Check the DOC for cracks in the cell wall

Troubleshooting steps

1. Remove the DOC.
2. Inspect the DOC.
3. Check for cracks in the DOC cell walls.

Are any cracks found in the cell walls?

- Yes – Replace the DOC - Proceed to step 5A
- No – This fault code can also be caused by an engine failure. Proceed to step 5A

Step by step 5: Clear the fault code

Step 5A: Disable the fault code

Troubleshooting steps

1. Connect all components.
2. Operate the system within the 'reset condition of the fault code' found in the fault code information.
3. Use DAVIE to verify if the fault codes are inactive.

Is fault code P3784 inactive?

- Yes – Proceed to step 4B
- No – Return to the troubleshooting steps. Proceed to step 1A

  If all the steps have been completed and checked again, contact the Engine Support Center for further instructions.

Step 6B: Clear the inactive fault codes

Troubleshooting steps

1. Connect all components
2. Turn the key switch ON.
3. Use DAVIE to clear the inactive fault codes.

Have all the fault codes been cleared?

- Yes – Repair complete
- No – Troubleshoot any remaining active fault codes

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