

# SPN 3556/FMI 18 - EPA10 - GHG14

This diagnostic is typically regeneration temperature - out of range low.

1. Shut off the engine, apply the parking brake, chock the wheels, and perform any other applicable safety steps.
2. Visually inspect the Hydrocarbon (HC) doser block assembly and associated fuel lines for external leaks.
  - 2.1. If any fuel leaks are found, repair as necessary. go to [step 10](#)
  - 2.2. If no fuel leaks are found, go to [step 3](#)
3. Visually inspect the exhaust system for leaks, including Aftertreatment Device (ATD) V-band clamps.
  - 3.1. If leaks are found, repair as necessary. go to [step 10](#)
  - 3.2. If no exhaust leaks are found, go to [step 4](#)
4. Disconnect the Diesel Oxidation Catalyst (DOC) outlet temperature Sensor harness and inspect harness for bent, spread or corroded pins.
  - 4.1. If pin damage is found, repair as necessary. go to [step 10](#)
  - 4.2. If no pin damage is found, go to [step 5](#)
5. Measure the resistance across the DOC outlet temperature sensor at the pigtail connector. Is the resistance within range?

| <b>Resistance Values</b>    |                                    |                                    |                         |                         |
|-----------------------------|------------------------------------|------------------------------------|-------------------------|-------------------------|
| <b>Temp<br/>C°<br/>(F°)</b> | <b>Min.<br/>Resistance<br/>(Ω)</b> | <b>Max.<br/>Resistance<br/>(Ω)</b> | <b>Min.<br/>Voltage</b> | <b>Max.<br/>Voltage</b> |
| 0 (32)                      | 197.67                             | 207.62                             | 0.491                   | 0.520                   |
| 10<br>(50)                  | 205.33                             | 215.24                             | 0.506                   | 0.536                   |
| 25<br>(77)                  | 216.77                             | 226.64                             | 0.530                   | 0.559                   |
| 50<br>(122)                 | 235.72                             | 245.52                             | 0.567                   | 0.597                   |
| 100<br>(212)                | 273.19                             | 282.83                             | 0.638                   | 0.667                   |
| 150                         |                                    |                                    |                         |                         |

|              |        |        |       |       |
|--------------|--------|--------|-------|-------|
| (302)        | 310.07 | 319.56 | 0.704 | 0.733 |
| 200<br>(392) | 346.36 | 355.70 | 0.765 | 0.794 |
| 300<br>(572) | 416.47 | 429.09 | 0.874 | 0.909 |
| 400<br>(752) | 484.17 | 498.84 | 0.970 | 1.007 |

5.1. Yes; go to [step 6](#)

5.2. No; replace the DOC outlet temperature sensor. go to [step 10](#)

Refer to "Removal of the EPA10 Diesel Oxidation Catalyst Outlet Temperature Sensor" in [Power Service Literature](#)

6. Disconnect the DOC inlet temperature sensor harness, and inspect the harness for bent, spread or corroded pins.

6.1. If pin damage is found, repair as necessary. go to [step 10](#)

6.2. If no pin damage is found, go to [step 7](#)

7. Measure the resistance across the DOC inlet temperature sensor at the pigtail connector. Is the resistance within range?

| <b>Resistance Values</b>    |                                    |                                    |                         |                         |
|-----------------------------|------------------------------------|------------------------------------|-------------------------|-------------------------|
| <b>Temp<br/>C°<br/>(F°)</b> | <b>Min.<br/>Resistance<br/>(Ω)</b> | <b>Max.<br/>Resistance<br/>(Ω)</b> | <b>Min.<br/>Voltage</b> | <b>Max.<br/>Voltage</b> |
| 0 (32)                      | 197.67                             | 207.62                             | 0.491                   | 0.520                   |
| 10<br>(50)                  | 205.33                             | 215.24                             | 0.506                   | 0.536                   |
| 25<br>(77)                  | 216.77                             | 226.64                             | 0.530                   | 0.559                   |
| 50<br>(122)                 | 235.72                             | 245.52                             | 0.567                   | 0.597                   |
| 100<br>(212)                | 273.19                             | 282.83                             | 0.638                   | 0.667                   |
| 150<br>(302)                | 310.07                             | 319.56                             | 0.704                   | 0.733                   |
| 200                         | 346.36                             | 355.70                             | 0.765                   | 0.794                   |

|              |        |        |       |       |
|--------------|--------|--------|-------|-------|
| (392)        |        |        |       |       |
| 300<br>(572) | 416.47 | 429.09 | 0.874 | 0.909 |
| 400<br>(752) | 484.17 | 498.84 | 0.970 | 1.007 |

7.1. Yes, replace the HC doser block assembly. go to [step 8](#)  
Refer to "Removal of the Hydrocarbon Doser Block " in [Power Service Literature](#)

7.2. No, replace the DOC inlet temperature sensor. go to [step 10](#)  
Refer to "Removal of the EPA10 Diesel Oxidation Catalyst Inlet Temperature Sensor" in [Power Service Literature](#)



## WARNING:

### ENGINE EXHAUST

To avoid injury from inhaling engine exhaust, always operate the engine in a well-ventilated area. Engine exhaust is toxic.

8. Start the engine.



## WARNING:

### ENGINE EXHAUST

To avoid injury from inhaling engine exhaust, always operate the engine in a well-ventilated area. Engine exhaust is toxic.



## **WARNING:**

### **PERSONAL INJURY**

To avoid injury before starting and running the engine, ensure the vehicle is parked on a level surface, parking brake is set, and the wheels are blocked.

9. Using DDDL/DDRS 7.x or higher, perform a purge HC doser service routine.



## **WARNING:**

### **HOT EXHAUST**

During parked regeneration the exhaust gases will be extremely HOT and could cause a fire if directed at combustible materials. The vehicle must be parked outside.

### **NOTE**

It may take up to three purge attempts to completely remove air from the system. Do not exceed three attempts.

10. Perform a parked regeneration.

10.1. If any fault becomes active during regeneration, retain the log file and contact the Customer Support Center for further instruction.

10.2. If regen completes successfully, clear all fault codes and release the vehicle.