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Service Information Bulletin

SUBJECT	DATE
SPN 100 (MCM)(GHG17)	August 2016

Additions, Revisions, or Updates

Publication Number / Title	Platform	Section Title	Change
DDC-SVC-MAN-0191	DD Platform	SPN 100/FMI 3, 4 - GHG17	Updated GHG17 HD diagnostic procedures

DiagnosticLink users: Please update the troubleshooting guides in DiagnosticLink with this newest version. To update the tool troubleshooting guide, open DiagnosticLink and from the Help – Troubleshooting Guides menu, select the appropriate troubleshooting manual, then click Update.

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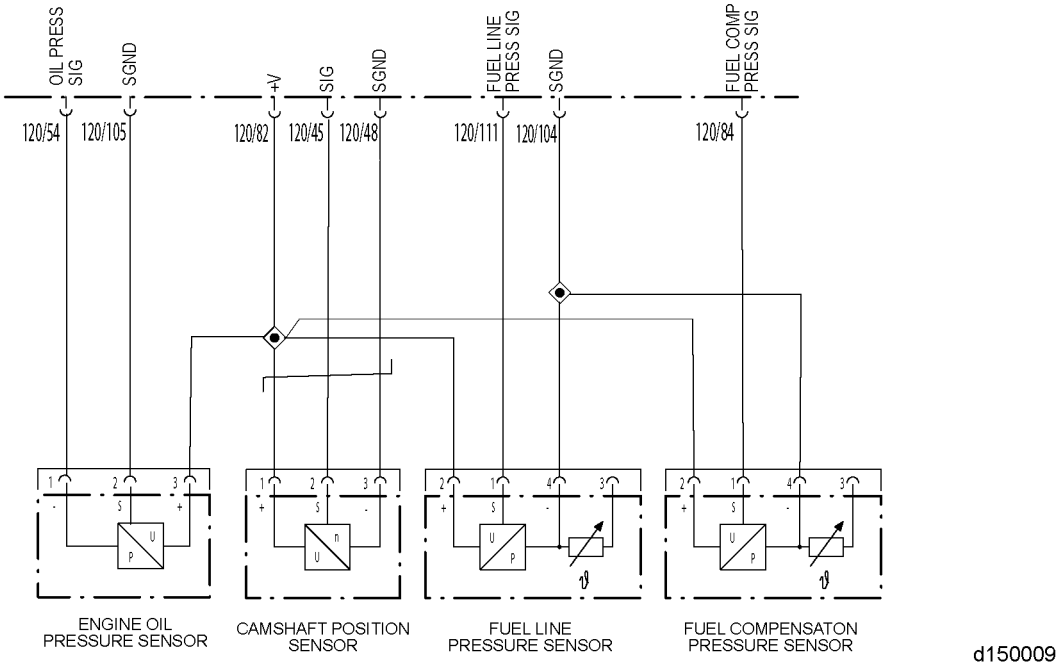
2 SPN 100/FMI 3 - GHG17

Engine Oil Pressure Sensor Circuit Failed High

Table 1.

SPN 100/FMI 3	
Description	This Fault Sets When Either Short to Voltage or Open circuit on Engine Oil Pressure (EOP) Sensor Circuit Are Present.
Monitored Parameter	Engine Oil Pressure
Typical Enabling Conditions	Always On
Monitor Sequence	Key ON Engine Running
Execution Frequency	Continuous When Enabling Conditions Are Met
Typical Duration	Two Seconds
Dash Lamps	CEL
Engine Reaction	None
Verification	Check at Engine Operating Temperature



Check as follows:

1. Turn the ignition ON (key ON, engine OFF).
2. Check for multiple codes. Is SPN 3510/FMI 3 also present?
   a. Yes; diagnose 3510/FMI 3 fault first.
   b. No; Go to step 3.
3. Disconnect the Engine Oil Pressure (EOP) sensor and inspect the electrical connector for damage, corrosion or spread pins. Is damage, corrosion or spread pins present?
   a. Yes; repair as necessary.
   b. No; Go to step 4.
4. Measure the resistance between pin 2 of the EOP sensor harness connector and ground. Is the resistance greater than five ohms?

a. Yes; repair open between pin 2 of the EOP sensor and pin 105 of the MCM 120-pin connector.
b. No; Go to step 5.

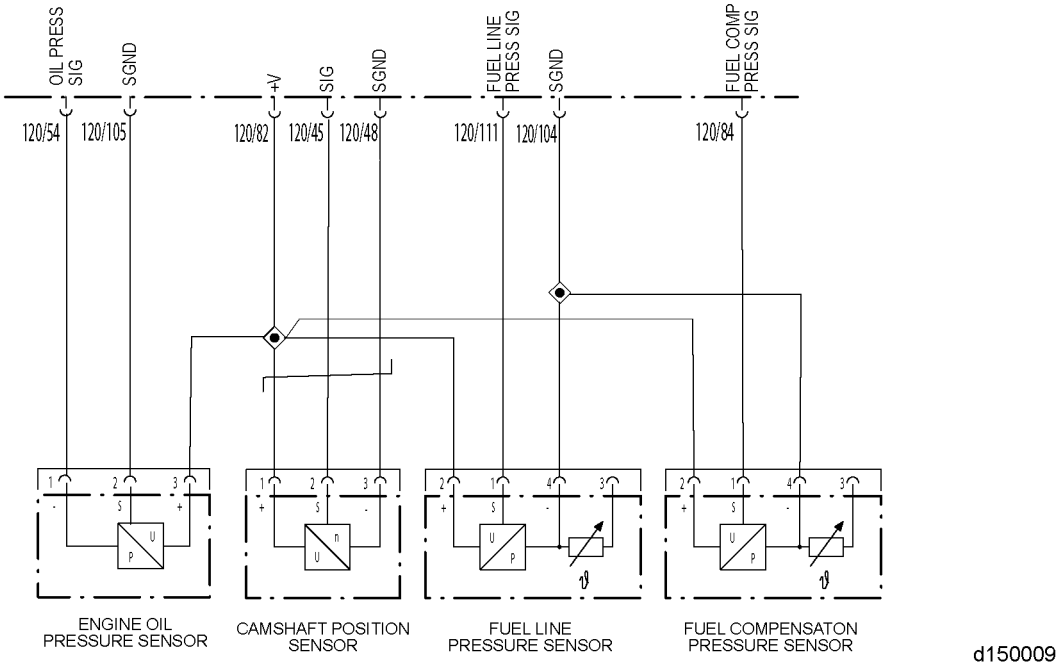
5. Measure the voltage between pin 3 of the EOP sensor harness connector and ground. Is voltage present?
   a. Yes; Go to step 6.
   b. No; repair open between pin 3 of the EOP sensor and pin 82 of the MCM 120-pin connector.
6. Is the voltage from previous step greater than five volts?
   a. Yes; repair short to battery power between pin 3 of the EOP sensor and pin 82 of the MCM 120-pin connector.
   b. No; Go to step 7.
7. Measure the voltage between pin 2 of the EOP sensor harness connector and ground. Is voltage present?
   a. Yes; repair the short to power between pin 2 of the EOP sensor and pin 105 of the MCM 120-pin connector.
   b. No; Go to step 8.
8. Measure the voltage between pin 1 of the EOP sensor harness connector and ground. Is voltage present?
   a. Yes; repair the short to power between pin 1 of the EOP sensor and pin 54 of the MCM 120-pin connector.
   b. No; Go to step 9.
9. Measure the resistance between pin 1 of the EOP sensor harness connector and pin 54 of the MCM 120-pin connector. Is the resistance greater than five ohms?
   a. Yes; repair an open between pin 1 of the EOP sensor harness connector and pin 54 of the MCM 120-pin connector.
   b. No; replace the EOP sensor. Refer to section "Removal of the Engine Oil Pressure Sensor".

3 SPN 100/FMI 4 - GHG17

Engine Oil Pressure Sensor Circuit Failed Low

Table 2.

SPN 100/FMI 4	
Description	This Code Sets When a Short to Ground on Engine Oil Pressure (EOP) Sensor Circuit is Present.
Monitored Parameter	Engine Oil Pressure
Typical Enabling Conditions	Always On
Monitor Sequence	Key ON Engine Running
Execution Frequency	Continuous When Enabling Conditions Are Met
Typical Duration	Two Seconds
Dash Lamps	CEL
Engine Reaction	None
Verification	Check At Engine Operating Temperature



Check as follows:

1. Connect DiagnosticLink ®.
2. Turn the ignition ON (key ON, engine OFF).
3. Check for multiple codes. Are there additional circuit failed low codes (FMI 4) for the Camshaft Position (CMP) sensor, fuel line pressure sensor and fuel compensation pressure present?
    a. Yes, Go to step 8.
    b. No, Go to step 4.
4. Turn the ignition OFF.
5. Disconnect the EOP sensor harness connector.
6. Inspect the EOP connector and EOP harness connector for damage, bent, spread or unseated (pushed out) pins, corrosion or wire damage. Is damage present?

a. Yes, repair as necessary.
b. No, Go to step 7.

7. Measure the resistance between pin 1 of the EOP sensor and ground. Is the resistance greater than 10k ohms?
   a. Yes; Go to step 8.
   b. No; repair the short to ground between pin 1 of the EOP sensor and ground.
8. Measure the resistance between pin 3 of the EOP sensor and ground. Is the resistance greater than 10k ohms?
   a. Yes; replace the EOP sensor. Refer to section "Removal of the Engine Oil Pressure Sensor".
   b. No; repair the short to ground between pin 3 of the EOP sensor and ground.
      NOTE: This could include a short to ground on pin 3 of the EOP sensor, pin 1 of the Camshaft Position sensor, pin 2 of the Fuel Line Pressure Sensor, and pin 2 of the Fuel Compensation Pressure sensor.

