1 8 02-14

Service Information Bulletin

SUBJECT	DATE
SPN 4334 (ACM) (GHG14)	August 2014

Additions, Revisions, or Updates

Publication Number / Title	Platform	Section Title	Change
DDC-SVC-MAN-0084	GHG14 DD Platform	SPN 4334/FMI 3 - GHG14	Updated section for chassis harness checks.
		SPN 4334/FMI 4 - GHG14	

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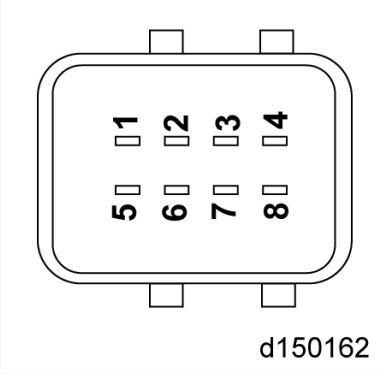
2 SPN 4334/FMI 3 - GHG14

Diesel Exhaust Fluid Pressure Sensor Circuit Failed High

Table 1.

SPN 4334/FMI 3	
Description	Diesel Exhaust Fluid (DEF) Pressure Sensor Circuit Voltage Above Normal, or Shorted to High Source
Monitored Parameter	Diesel Exhaust Fluid (DEF) Pressure Sensor
Typical Enabling Conditions	Always Enabled
Monitor Sequence	None
Execution Frequency	Always Enabled
Typical Duration	2 Seconds
Dash Lamps	MIL, CEL
Engine Reaction	Derate 25%
Verification	Engine Idle (1 minute)

Table 2.

8-Pin	Circuit	ACM-Pin	Connector
1	Metering Valve Low Side	28	
2	Metering Valve High Side	33	
3	Heating Low Side	22	
4	Heating Supply	3	
5	Sensor Supply 5V	84	
6	Not Used	Not Used	
7	Sensor Ground	99	
8	DEF Pressure Signal	100	

Check as follows:

1. Check for multiple codes.
   a. If SPN 4334/FMI 3 and SPN 3510/FMI 3 are present, repair short to voltage (greater than 5.0V) between pin 8 of the DEF pressure sensor and pin 100 of the Aftertreatment Control Module (ACM) 120-pin connector.
   b. If only SPN 4334/FMI 3 is present, Go to step 2.
2. Turn the ignition OFF.
3. Disconnect the DEF dosing unit harness connector.
4. Inspect the dosing unit connector and the dosing unit harness connector for signs of damage, bent, spread, broken, pushed out (unseated) or corroded pins or wire damage near the connector. Is any damage found?
   a. Yes; repair as needed. Verify repairs.
   b. No; Go to step 5.
5. Turn the ignition ON (key ON, engine OFF).
6. Using DiagnosticLink ®, does the SPN 4334/FMI 3 change to SPN 3361/FMI 5 with the DEF dosing unit disconnected?
   a. Yes; replace the DEF dosing unit. Refer to section "Removal of the GHG14 Dosing System Doser". Verify repairs.
   b. No; Go to step 7.

7. Measure the voltage between pin 8 of the DEF dosing unit connector harness side and ground. Is the voltage greater than 0.5V?
    a. Yes; repair short to supply voltage between pin 8 of the DEF dosing unit and pin 100 of the ACM.
    b. No; Go to step 8.
8. Turn the ignition OFF.
9. Disconnect the ACM 120-pin connector.
10. Inspect the ACM 120-pin connector and 120-pin harness connector for signs of damage, bent, spread, broken, pushed out (unseated) or corroded pins or wire damage near the connector. Is any damage found?
    a. Yes; repair as needed. Verify repairs.
    b. No; Go to step 11.
11. Measure the resistance between pin 7 of the DEF dosing unit connector, harness side and pin 99 of the ACM 120-pin connector, harness side. Is the resistance less than 5 ohms?
    a. Yes; replace ACM. Refer to section "Removal of the Aftertreatment Control Module". Verify repairs.
    b. No; repair the open wire between pin 7 of the DEF dosing unit and pin 99 of the ACM 120-pin connector. Inspect all intermediate connections in chassis wiring. Refer to OEM wiring diagrams for exact routing.

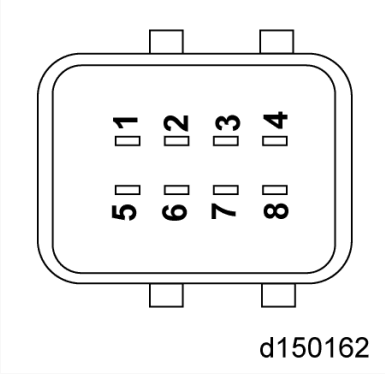
3 SPN 4334/FMI 4 - GHG14

Diesel Exhaust Fluid Pressure Sensor Circuit Failed Low

Table 3.

SPN 4334/FMI 4	
Description	Diesel Exhaust Fluid (DEF) Pressure Sensor Circuit Voltage Below Normal, or Shorted to Low Source
Monitored Parameter	Diesel Exhaust Fluid (DEF) Pressure Sensor
Typical Enabling Conditions	Always Enabled
Monitor Sequence	None
Execution Frequency	Always Enabled
Typical Duration	2 Seconds
Dash Lamps	MIL, CEL
Engine Reaction	Derate 25%
Verification	Engine Idle (1 minute)

Table 4.

8-Pin	Circuit	ACM-Pin	Connector
1	Metering Valve Low Side	28	
2	Metering Valve High Side	33	
3	Heating Low Side	22	
4	Heating Supply	3	
5	Sensor Supply 5V	84	
6	Not Used	Not Used	
7	Sensor Ground	99	
8	DEF Pressure Signal	100	

Check as follows:

1. Check for multiple codes.
   a. If SPN 4334/FMI 4, and SPN 3510/FMI 4 are present, repair short to ground between pin 5 of the DEF dosing unit and pin 84 of the Aftertreatment Control Module (ACM).
   b. If only SPN 4334/FMI 4 is present, Go to step 2.
2. Turn the ignition OFF.
3. Disconnect the DEF dosing unit harness connector.
4. Inspect the DEF dosing unit connector and the DEF dosing unit harness side connector for signs of damage, bent, spread, broken, pushed out (unseated) or corroded pins or wire damage near the connector. Is any damage found?
   a. Yes; repair as needed. Verify repairs.
   b. No; Go to step 5.
5. Turn the ignition ON (key ON, engine OFF).
6. Using DiagnosticLink ®, does the SPN 4334/FMI 4 change to SPN 3361/FMI 5 with the DEF dosing unit disconnected?
   a. Yes; replace the DEF dosing unit. Refer to section "Removal of the GHG14 Dosing System Doser". Verify repairs.
   b. No; Go to step 7.

7. Turn the ignition OFF.
8. Disconnect the ACM 120-pin connector.
9. Inspect the ACM 120-pin connector and 120-pin harness connector for signs of damage, bent, spread, broken, pushed out (unseated) or corroded pins or wire damage near the connector. Is any damage found?
    a. Yes; repair as needed. Verify repairs.
    b. No; Go to step 10.
10. Measure the resistance between pin 7 and pin 8 on the DEF dosing unit connector, harness side. Is the resistance greater than 10K ohms?
    a. Yes; Go to step 11.
    b. No; repair the short in the wire harness between pin 7 and pin 8 of the DEF dosing unit. Check intermediate connections in chassis wiring; refer to OEM wiring diagrams for exact routing. Verify repairs.
11. Measure the resistance between the DEF dosing unit connector pin 8, harness side and the ACM 120-pin connector pin 100, harness side. Is the resistance less than 5 ohms?
    a. Yes; Go to step 12.
    b. No; repair the open wire between pin 8 of the DEF dosing unit connector and pin 100 of the ACM 120-pin connector. Check intermediate connections in chassis wiring; refer to OEM wiring diagrams for exact routing. Verify repairs.
12. Measure the resistance between the DEF dosing unit connector pin 5, harness side and the ACM 120-pin connector pin 84, harness side. Is the resistance less than 5 ohms?
    a. Yes; Go to step 13.
    b. No; repair the open wire between pin 5 of the DEF dosing unit connector and pin 84 of the ACM 12-pin connector. Check intermediate connections in chassis wiring; refer to OEM wiring diagrams for exact routing. Verify repairs.
13. Turn the ignition ON (key ON, engine OFF).
14. Measure the voltage between the ACM 120-pin connector pin 84, component side and ground. Is the voltage between 4.5 and 5.5 volts?
    a. Yes; replace the DEF dosing unit. Refer to section "Removal of the GHG14 Dosing System Doser". Verify repairs.
    b. No; replace ACM. Refer to section "Removal of the Aftertreatment Control Module". Verify repairs.

