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Service Information Bulletin

SUBJECT	DATE
SPN 3250/FMI 31 (ACM2.1) GHG14	January 2013

Additions, Revisions, or Updates

Publication Number / Title	Platform	Section Title	Change
DDC-SVC-MAN-0084	GHG14 DD Platform	SPN 3250/FMI 31 - GHG14	Chart added.



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2 SPN 3250/FMI 31 - GHG14

This diagnostic is typically Abnormal Diesel Oxidation Catalyst (DOC) Temperature Rise.

Table 1.

SPN 3250/FMI 31	
Description	Abnormal DOC Temperature Rise
Monitored Parameter	DOC Temperature
Typical Enabling Conditions	Always on
Monitor Sequence	None
Execution Frequency	Continuous when enabling conditions met
Typical Duration	2 Seconds
Dash Lamps	MIL, CEL
Engine Reaction	25% Derate
Verification	Parked Regen

NOTE: This fault indicates the ACM2.1 has detected a sudden temperature shift on the Diesel Particulate Filter (DPF) outlet temperature sensor. The most likely cause is an intermittent wiring concern (poor terminal fit, corrosion, chaffing, etc.).

1. Connect DDDL/DDRS 7.08 SP2 or newer.
2. Turn the ignition ON (key ON, engine OFF).
3. Check for multiple fault codes.
 - a. If codes other than SPN 3250/FMI 31 are active, troubleshoot those first.
 - b. If only SPN 3250/FMI 31 and related codes are present, Go to step 4.
4. Using the Selective Catalyst Reduction (SCR) and DPF voltages service routine tab, monitor parameter DOC outlet temp (pin 27).
5. While wiggle-testing the harness, look for abnormal voltage spikes on the DOC outlet temperature signal. Once a spike is detected, isolate that section of harness and inspect for wire chaffing, corrosion, improper connections or physical damage and repair as necessary. If no voltage spikes are detected, Go to step 6.
6. Perform a DOC Outlet Temperature Sensor Test. Disconnect the DOC outlet temperature sensor and measure the resistance between pins 1 and 2 of the DOC outlet temperature sensor connector (refer to chart for resistance values).

Table 2.

Temp °C (°F)	Min Resistance (Ω)	Max Resistance (Ω)	Min Voltage	Max Voltage
0 (32)	197.67	207.62	0.491	0.520
10 (50)	205.33	215.24	0.506	0.536
25 (77)	216.77	226.64	0.530	0.559
50 (122)	235.72	245.52	0.567	0.597
100 (212)	273.19	282.83	0.638	0.667
150 (302)	310.07	319.56	0.704	0.733
200 (392)	346.36	355.70	0.765	0.794
300 (572)	416.47	429.09	0.874	0.909
400 (752)	484.17	489.84	0.970	1.007

- a. If the resistances are out of range, replace the DOC outlet temperature sensor.
 - b. If the resistances are in range, Go to step 7.
7. Using appropriate test probes from J-48476 connector test kit and terminal repair kit J-47410, drag test and inspect all harness connector terminals between the DPF outlet temperature sensor and the ACM2.1 including the chassis extension harness and ATD sensor box. Repair as necessary.