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Service Information Bulletin

SUBJECT	DATE
SPN 2630 (MCM)(EPA10) and SPN 2630 (MCM)(GHG14)	April 2015

Additions, Revisions, or Updates

Publication Number / Title	Platform	Section Title	Change
DDC-SVC-MAN-0084	DD Platform	SPN2630 /FMI16 - EPA10	The diagnostic procedure has been updated and the EPA10 procedure has been added.
		SPN2630 /FMI16 - GHG14	



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2 SPN 2630/FMI 16 - EPA10

Charge Air Cooler Performance Monitor.

Table 1.

SPN 2630/FMI 16	
Description	This code sets when the actual Charge Air Cooler temperature is higher than the modeled Charge Air Cooler Temperature.
Monitored Parameter	Charge Air Cooler Outlet Temperature Sensor
Typical Enabling Conditions	Engine speed 1200 to 1950 rpm, engine torque greater than 1000 N·m (737 lb·ft), intake manifold temperature less than 100°C (212°F).
Monitor Sequence	None
Execution Frequency	Always enabled
Typical Duration	10 seconds
Dash Lamps	MIL, CEL
Engine Reaction	Derate, 10%
Verification	Obtain enabling conditions on a chassis dyno or by driving unloaded vehicle for more than 20 seconds.

Possible causes:

- Low vehicle speed with high engine load
- External CAC restriction (such as a plow, grill winter front or dirt)
- Internal CAC restriction



WARNING: PERSONAL INJURY

To avoid injury, never remove any engine component while the engine is running.

Check as follows:

1. Is the vehicle equipped with a plow?
 - a. Yes; Go to step 2.
 - b. No ; Go to step 3.
2. Remove the plow and road test the vehicle. Does fault code SPN 2630/FMI 16 return?
 - a. Yes; Go to step 3.
 - b. No; the fault code is set due to the plow restricting air flow across the Charge Air Cooler. Release the vehicle.
3. Is the vehicle equipped with a winter front?
 - a. Yes; Go to step 4.
 - b. No; Go to step 5.
4. Remove the winter front and road test the vehicle. Does fault code SPN 2630/FMI 16 return?
 - a. Yes; Go to step 5.
 - b. No; the fault code is caused by the winter front. Refer to [14TS-11 \(http://ddcsn-ddc.freightliner.com/cps/rde/xbc/rdcsn/14TS11.pdf\)](http://ddcsn-ddc.freightliner.com/cps/rde/xbc/rdcsn/14TS11.pdf) for information on winter front usage and effect on vehicle performance. Release the vehicle.
5. Use a flashlight to shine through the radiator and charge air cooler assembly. Can the light from the flashlight be seen through the other side of the assembly?
 - a. Yes; Go to step 6.
 - b. No; clean the charge air cooler assembly as necessary.
6. Remove and inspect the piping to the CAC. Are there signs of fluid intrusion?
 - a. Yes; diagnose and repair the cause of the fluid intrusion. Refer to OEM literature and flush the CAC. Verify repair.

- b. No; refer to OEM literature and perform the CAC restriction test. Repair as necessary. Verify repair.

3 SPN 2630/FMI 16 - GHG14

Charge Air Cooler Performance Monitor

Table 2.

SPN 2630/FMI 16	
Description	This code sets when the actual Charge Air Cooler (CAC) temperature is higher than the MCM modeled CAC temperature.
Monitored Parameter	Charge Air Cooler Outlet Temperature Sensor
Typical Enabling Conditions	Engine speed 1200 to 1950 rpm, engine torque greater than 1000 N·m (737 lb·ft), intake manifold temperature less than 100°C (212°F).
Monitor Sequence	None
Execution Frequency	Always enabled
Typical Duration	10 seconds
Dash Lamps	MIL
Engine Reaction	None
Verification	Obtain enabling conditions on a chassis dyno or by driving unloaded vehicle for more than 20 seconds.

Possible causes:

- Low vehicle speed with high engine load
- External CAC restriction (such as a plow, winter front or dirt) Refer to 14TS-11 (<http://ddcsn-ddc.freightliner.com/cps/rde/xbcr/ddcsn/14TS11.pdf>) for information on winter front usage and effect on vehicle performance
- Internal CAC restriction



WARNING: PERSONAL INJURY

To avoid injury, never remove any engine component while the engine is running.

Check as follows:

1. Is the vehicle equipped with a plow?
 - a. Yes; Go to step 2.
 - b. No; Go to step 3.
2. Remove the plow and road test the vehicle. Does fault code SPN 2630/FMI 16 return?
 - a. Yes; Go to step 3.
 - b. No; the fault code is set due to the plow restricting air flow across the Charge Air Cooler. Go to step 7.
3. Is the vehicle equipped with a winter front?
 - a. Yes; Go to step 4.
 - b. No; Go to step 5.
4. Remove the winter front and road test the vehicle. Does fault code SPN 2630/FMI 16 return?
 - a. Yes; Go to step 5.
 - b. No; Go to step 7.
5. Use a flashlight to shine through the radiator and charge air cooler assembly. Can the light from the flashlight be seen through the other side of the assembly?
 - a. Yes; Go to step 6.
 - b. No; clean the charge air cooler assembly as necessary.
6. Remove and inspect the piping to the CAC. Are there signs of fluid intrusion?
 - a. Yes; diagnose and repair the cause of the fluid intrusion. Refer to OEM literature and flush the CAC. Verify repair.

- b. No; refer to OEM literature and perform the CAC restriction test. Repair as necessary. Verify repair.
- 7. Check the MCM software level. Is the MCM software level 4.1.0.47 with fuel map ZGS 003 or higher?
 - a. Yes; release the vehicle.
 - b. No; update the MCM software level using the latest server information. The new software has an improved fan operation strategy. Release the vehicle.