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Service Information Bulletin

SUBJECT	DATE
SPN 3563 FMI 21 - GHG14	January 2013

Additions, Revisions, or Updates

Publication Number / Title	Platform	Section Title	Change
DDC-SVC-MAN-0084	GHG14 DD Platform	SPN 3563 FMI 21 - GHG14	New MCM2.1 diagnostics.



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This diagnostic is typically Ambient and Intake Manifold Pressure Difference (High Box).

Table 1.

SPN 3563/FMI 21			
Description	Ambient and Intake Manifold Pressure Difference (High Box)		
Monitored Parameter	Intake Manifold Pressure and Barometric Pressure		
Typical Enabling Conditions	Engine Parameter	Min	Max
	Engine Speed (rpm)	1350	1800
	Engine Torque (Nm)	1400	3000
	Intake Air Throttle Position (%)		5
	Engine Coolant Outlet Temperature (°C)	65	
Monitor Sequence	None		
Execution Frequency	Continuous when enabling conditions met		
Typical Duration	40 s		
Dash Lamps	SEL, CEL, MIL		
Engine Reaction	25% Derate + Engine Shutdown		
Verification	Once engine is at standard operating temperature, drive at highway speed with loaded trailer between 1350-1800 rpm continuously for five minutes.		

1. Turn the ignition ON (key ON, engine OFF).
2. Compare intake manifold air pressure to barometric pressure.
3. Is the intake manifold air pressure within 0.5 psi of barometric pressure?
 - a. Yes; Go to step 4.
 - b. No; replace the intake manifold pressure/temperature sensor. Refer to section "Removal of the Intake Pressure/ Temperature Sensor".



WARNING: PERSONAL INJURY

Diesel engine exhaust and some of its constituents are known to the State of California to cause cancer, birth defects, and other reproductive harm.

- Always start and operate an engine in a well ventilated area.
- If operating an engine in an enclosed area, vent the exhaust to the outside.
- Do not modify or tamper with the exhaust system or emission control system.



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.

4. Start the engine.
5. At idle, compare intake manifold air pressure to barometric pressure.
6. Is the intake manifold air pressure within 0.5 psi of barometric pressure?

- a. Yes; Go to step 7.
 - b. No; replace the intake manifold pressure/temperature sensor. Refer to section "Installation of the Intake Pressure/Temperature Sensor".
7. Perform a Charge Air Cooler (CAC) inspection and leak test the system. Refer to Original Equipment Manufacturer (OEM) literature for procedure.
 - a. If the CAC inspection and/or the leak test fails, repair as necessary. Verify repairs.
 - b. If the CAC inspection passes, obtain the DDDL log file of the failure and contact the Customer Support Center at (800) 445-1980 for further diagnostic assistance.