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Service Information Bulletin

SUBJECT	DATE
SPN 3563 (MCM) (GHG17)	March 2017

Additions, Revisions, or Updates

Publication Number / Title	Platform	Section Title	Change
DDC-SVC-MAN-0193	GHG17 Medium Duty	SPN 3563/FMI 21 - GHG17	This is a new section.

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 3563/FMI 21 - GHG17

Ambient and Inlet Manifold Pressure Difference (High Box)

Table 1.

SPN 3563/FMI 21	
Description	This Fault Code Sets When the Motor Control Module (MCM) Ambient Pressure and Intake Manifold Pressure Exceed a Threshold When the Engine is Above 1350 rpm
Monitored Parameter	Intake Manifold Pressure
Typical Enabling Conditions	Engine Coolant Temperature Greater than 65°C (149°F) Engine Speed Greater than 1350 rpm Barometric Pressure Greater than 755 mbar (10.9 psi) Vehicle Speed Greater than 88.5 kph (55 mph)
Monitor Sequence	None
Execution Frequency	Always when Typical Enabling Conditions Are Met
Typical Duration	15 Seconds
Dash Lamps	MIL, CEL
Engine Reaction	25% Derate
Verification	Once the Engine Coolant Temperature is Above 65°C (149°F), Road Test the Vehicle Above 88.5 kph (55 mph), rpm Greater than 1350 rpm for Five Minutes

Check as follows:

1. Connect DiagnosticLink ®.
2. Turn the ignition ON (key ON, engine OFF).
3. Check for multiple fault codes. Are there also fault codes present for the turbocharger actuator, turbocharger performance, EGR valve, intake manifold pressure sensor, barometric pressure sensor or aftertreatment pressure faults?
    a. Yes; diagnose the other fault codes first.
    b. No; Go to step 4.
4. Compare the barometric pressure reading in the MCM to the local barometric pressure reading for your area. Are the readings within 69 mbar (1 psi) of each other?
    a. Yes; Go to step 5.
    b. No; replace the MCM. Verify repair.
5. Compare the intake manifold pressure reading to the barometric pressure readings. Are the readings within 103 mbar (1.5 psi) of each other?
    a. Yes; Go to step 6.
    b. No; replace the intake manifold pressure sensor. Verify repair.
6. Visually inspect the exhaust system for leaks or damage, including the exhaust manifold, Exhaust Gas Recirculation (EGR) valve, and Aftertreatment Device (ATD). Are any leaks found?
    a. Yes; repair the leaks. Verify repair.
    b. No; Go to step 7.

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: 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.

WARNING: ENGINE EXHAUST

To avoid injury from inhaling engine exhaust, always operate the engine in a well-ventilated area. Engine exhaust is toxic.

7. Start and run the engine until the coolant temperature is greater than 65°C (149°F).
8. Using DiagnosticLink, monitor DOC inlet pressure while performing a parked regeneration. Does the DOC inlet pressure start out high and stay high?
    a. Yes; the DOC is plugged. Perform the DOC Face Cleaning procedure to clear the restriction.
    b. No; Go to step 9.
9. Did the DOC inlet pressure start out high and then decrease as the parked regeneration proceeded?
    a. Yes; the DOC was restricted and the parked regeneration cleared the restriction. Clear the fault codes. Verify the repair.
    b. No; replace the turbocharger. Verify repair.

