1 06 01-18

Service Information Bulletin

SUBJECT	DATE
SPN 520371 (ACM) (GHG17)	June 2018

Additions, Revisions, or Updates

Publication Number / Title	Platform	Section Title	Change
DDC-SVC-MAN-0200	GHG17 DD8	SPN 520371/FMI 16 - GHG17	Updates to the DD8 that also transfer to the DD5.
DDC-SVC-MAN-0193	GHG17 DD5	SPN 520371/FMI 16 - GHG17	

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.

13400 Outer Drive, West, Detroit, Michigan 48239-4001
Telephone: 313-592-5000
www.demanddetroit.com

2 SPN 520371/FMI 16 - GHG17

Selective Catalyst Reduction Closed Loop Control at Maximum Limit (Multiples Sources)

Table 1.

SPN 520371/FMI 16	
Description	The Fault Indicates High DEF Delivery
Monitored Parameter	NOx Conversion Efficiency
Typical Enabling Conditions	Closed Loop DEF Dosing
Monitor Sequence	None
Execution Frequency	Always Enabled
Typical Duration	Two Seconds
Dash Lamps	None
Engine Reaction	None
Verification	Parked SCR Efficiency Test

Check as follows:

1. Connect DiagnosticLink ®.
2. Check the DEF quality by using the refractometer from the DEF Test Kit W060589001900 to measure the DEF percentage. Is DEF percentage between 31 and 34%?
    a. Yes; Go to step 3.
    b. No; clean/flush the DEF tank. Go to step 3. Refer to section "Flushing of the Diesel Exhaust Fluid System".
3. Unbolt the DEF dosing unit from the aftertreatment. Do not disconnect the DEF lines or electrical connector. Refer to section "Removal of the Diesel Exhaust Fluid Dosing Unit".
4. Perform a DEF Quantity Test service routine and record the amount of DEF dispensed. Is the dispensed DEF fluid level between 108 and 132 mL?
    a. Yes; Go to step 5.
    b. No; replace the DEF dosing unit. To verify repairs, Go to step 8.
    Refer to section "Installation of the Diesel Exhaust Fluid Dosing Unit".
5. Reinstall the DEF dosing unit to the aftertreatment, using a new gasket and bolts.

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.

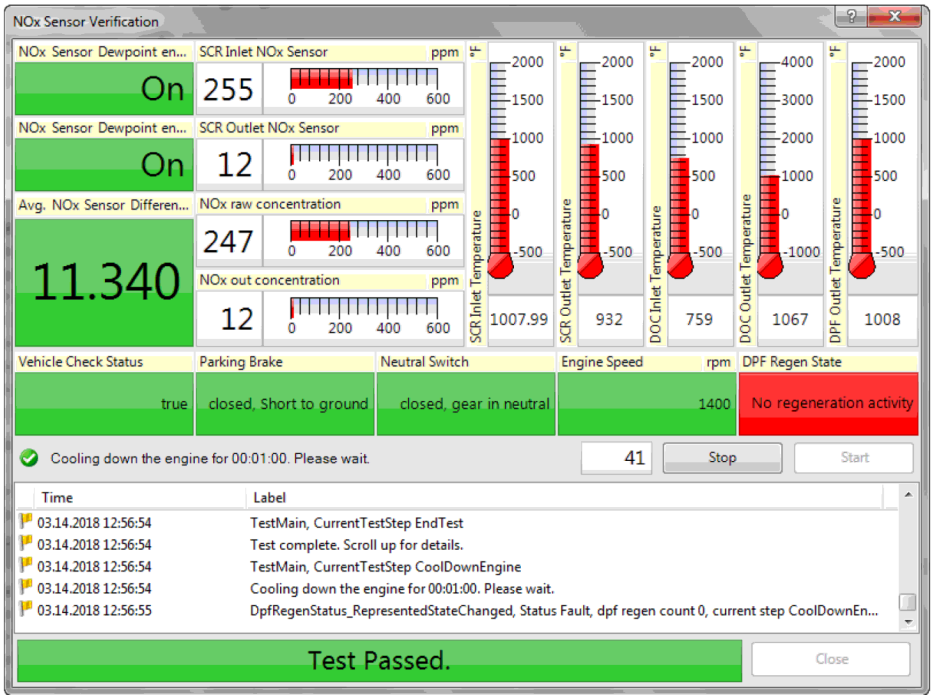
WARNING: PERSONAL INJURY

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.

6. Start the engine, using Diagnostic Link run the NOx Sensor Verification test located in the drop down menu under Actions / Aftertreatment.



d500359

7. Did the NOx Sensor Verification test pass?
   a. Yes; Go to step 8.
   b. No; replace the inlet NOx sensor. Refer to section "Removal of the Selective Catalytic Reduction Inlet NOx Sensor".
8. Turn the ignition OFF and wait for all modules to power down, then turn ignition back ON.

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.

9. Start the engine and perform a Parked SCR Efficiency test to clear the fault. Refer to section "Perform Parked SCR Efficiency Test".

3 SPN 520371/FMI 16 - GHG17

Selective Catalyst Reduction Closed Loop Control at Maximum Limit (Multiples Sources)

Table 2.

SPN 520371/FMI 16	
Description	The Fault Indicates High DEF Delivery
Monitored Parameter	NOx Conversion Efficiency
Typical Enabling Conditions	Closed Loop DEF Dosing
Monitor Sequence	None
Execution Frequency	Always Enabled
Typical Duration	Two Seconds
Dash Lamps	None
Engine Reaction	None
Verification	Parked SCR Efficiency Test

Check as follows:

1. Connect DiagnosticLink ®.
2. Check the DEF quality by using the refractometer from the DEF Test Kit W060589001900 to measure the DEF percentage. Is DEF percentage between 31 and 34%?
    a. Yes; Go to step 3.
    b. No; clean/flush the DEF tank. Go to step 3. Refer to section "Flushing of the Diesel Exhaust Fluid System".
3. Unbolt the DEF dosing unit from the aftertreatment. Do not disconnect the DEF lines or electrical connector. Refer to section "Removal of the Diesel Exhaust Fluid Dosing Unit".
4. Perform a DEF Quantity Test service routine and record the amount of DEF dispensed. Is the dispensed DEF fluid level between 108 and 132 mL?
    a. Yes; Go to step 5.
    b. No; replace the DEF dosing unit. To verify repairs, Go to step 8.
    Refer to section "Installation of the Diesel Exhaust Fluid Dosing Unit".
5. Reinstall the DEF dosing unit to the aftertreatment, using a new gasket and bolts.

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.

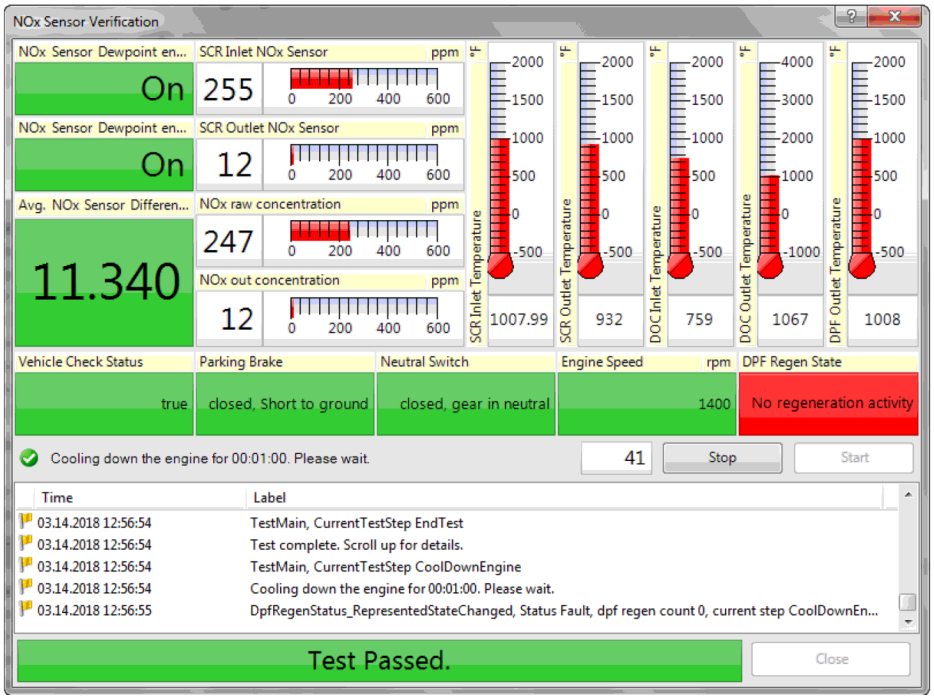
WARNING: PERSONAL INJURY

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.

6. Start the engine, using Diagnostic Link run the NOx Sensor Verification test located in the drop down menu under Actions / Aftertreatment.



d500359

7. Did the NOx Sensor Verification test pass?
   a. Yes; Go to step 8.
   b. No; replace the inlet NOx sensor. Refer to section "Removal of the Selective Catalytic Reduction Inlet NOx Sensor".
8. Turn the ignition OFF and wait for all modules to power down, then turn ignition back ON.

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.

9. Start the engine and perform a Parked SCR Efficiency test to clear the fault. Refer to section "Perform Parked SCR Efficiency Test".

