

459.1 SPN 520372/FMI 14 - GHG17

| SPN 520372/FMI 14 | |
|-----------------------------|---|
| Description | The Fault Indicates Low Diesel Exhaust Fluid (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. Using a refractometer from the DEF Test Kit W060589001900, measure the DEF percentage. Is DEF percentage between 31 and 34%?
 - 2.a Yes; [Go to step 3.](#)
 - 2.b No; clean/flush the DEF tank. [Go to step 4. Refer to section "Flushing of the Diesel Exhaust Fluid System"](#) . Verify repair.
3. Remove the DEF dosing unit. Do not disconnect the DEF lines or electrical connector. [Refer to section "Removal of the Diesel Exhaust Fluid Dosing Unit"](#) .
4. Perform DEF Quantity Test service routine and record the amount of DEF dispensed. Is the dispensed DEF fluid level between 108 and 132 mL?
 - 4.a Yes; [Go to step 5.](#)
 - 4.b No; replace the DEF dosing unit. To verify repairs, [Refer to section "Removal of the Diesel Exhaust Fluid Dosing Unit"](#) . [Go to step 10.](#)
5. Install the DEF dosing unit. [Refer to section "Installation of the Diesel Exhaust Fluid Dosing Unit"](#) . [Go to step 6.](#)

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

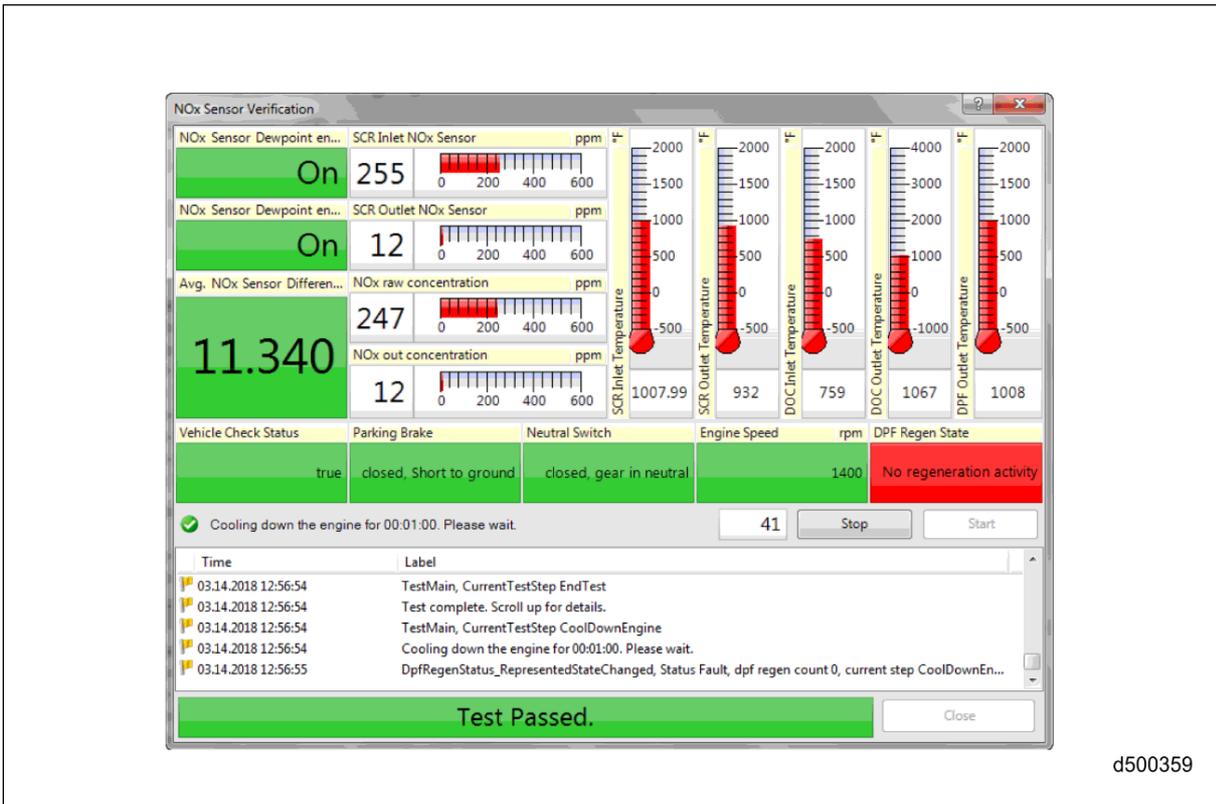
To avoid injury from inhaling engine exhaust, always operate the engine in a well-ventilated area. Engine exhaust is toxic.

WARNING

HOT EXHAUST

During parked regeneration the exhaust gases will be extremely HOT and could cause a fire if directed at combustible materials. The vehicle must be parked outside.

6. Start the engine. Using DiagnosticLink, run the NOx Sensor Verification test located in the drop-down menu under Actions / Aftertreatment. .



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7. Did the NOx Sensor Verification test pass?
 - 7.a Yes; [Go to step 10.](#)
 - 7.b No; replace the inlet NOx sensor.
 - For 1-Box™, [Refer to section "Removal of the Selective Catalytic Reduction Inlet NOx Sensor"](#) . [Go to step 8.](#)
 - For Two-Box, [Refer to section "Removal of the Selective Catalytic Reduction Inlet NOx Sensor"](#) . [Go to step 8.](#)
8. Start the engine. Run the NOx Sensor Verification panel a second time to verify both sensors are now reading correctly.
9. Did the NOx Sensor Verification test pass?
 - 9.a Yes; [Go to step 10.](#)
 - 9.b No; replace the outlet NOx sensor.
 - For 1-Box™, [Refer to section "Removal of the Selective Catalytic Reduction Outlet NOx Sensor"](#) . [Go to step 10.](#)
 - For Two-Box, [Refer to section "Removal of the Selective Catalytic Reduction Outlet NOx Sensor"](#) . [Go to step 10.](#)

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10. Turn the ignition OFF and allow for all modules to power down, then turn the ignition back ON and start the engine. [Go to step 11.](#)
11. Perform a Parked SCR Efficiency test to clear fault and verify repairs. [Refer to section "GHG17 Perform Parked SCR Efficiency Test"](#) .