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Service Information Bulletin

SUBJECT	DATE
SPN 4363 (ACM) (EPA10) and SPN 4363 (ACM) (GHG14)	August 2014

Additions, Revisions, or Updates

Publication Number / Title	Platform	Section Title	Change
DDC-SVC-MAN-0084	DD Platform	SPN 4363/ FMI 8 - EPA10	The diagnostics procedures have been updated.
		SPN 4363/ FMI 8 - GHG14	
		SPN 4363/ FMI 0 - EPA10	
		SPN 4363/ FMI 0 - GHG14	
		SPN 4363/ FMI 20 - EPA10	
		SPN 4363/ FMI 20 - GHG14	



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2 SPN 4363/FMI 8 - EPA10

SCR Outlet Temperature Signal Spike

Table 1.

SPN 4363 /FMI 8	
Description	This fault code sets when the Aftertreatment Control Module (ACM) detects a momentary abnormal Selective Catalyst Reduction (SCR) outlet temperature reading.
Monitored Parameter	Selective Catalyst Reduction Outlet Temperature sensor
Typical Enabling Conditions	Non-Regen Mode
Monitor Sequence	None
Execution Frequency	Continuous when enabling conditions met
Typical Duration	2 seconds
Dash Lamps	MIL, CEL
Engine Reaction	None
Verification	SCR efficiency test

Check as follows:

1. Connect DiagnosticLink[®].
2. Turn the ignition ON (key ON, engine OFF).
3. Check for multiple fault codes. Are fault codes SPN 4363/FMI 3 or 4 present?
 - a. Yes; diagnose the other fault codes first.
 - b. No; Go to step 4.
4. Shake the SCR outlet temperature sensor harness while watching the SCR sensor voltage using DiagnosticLink. Does the voltage fluctuate when the harness is shaken?
 - a. Yes; replace the harness. Verify repair.
 - b. No; Go to step 5.
5. Disconnect and inspect the SCR outlet temperature sensor electrical connector. Are there any spread pins, damaged pins, corrosion or signs of fretting present?
 - a. Yes; repair the harness as necessary. Verify repair.
 - b. No; replace the SCR outlet temperature sensor. Verify repair.

3 SPN 4363/FMI 8 - GHG14

SCR Outlet Temperature Signal Spike

Table 2.

SPN 4363 /FMI 8	
Description	This fault code sets when the Aftertreatment Control Module (ACM) detects a momentary abnormal Selective Catalyst Reduction (SCR) outlet temperature reading.
Monitored Parameter	Selective Catalyst Reduction Outlet Temperature sensor
Typical Enabling Conditions	Non-Regen Mode
Monitor Sequence	None
Execution Frequency	Continuous when enabling conditions met
Typical Duration	2 seconds
Dash Lamps	MIL, CEL
Engine Reaction	None
Verification	SCR efficiency test

Check as follows:

1. Connect DiagnosticLink[®].
2. Turn the ignition ON (key ON, engine OFF).
3. Check for multiple fault codes. Are fault codes SPN 4363/FMI 3 or 4 present?
 - a. Yes; diagnose the other fault codes first.
 - b. No; Go to step 4.
4. Shake the SCR outlet temperature sensor harness while watching the SCR sensor voltage using DiagnosticLink. Does the voltage fluctuate when the harness is shaken?
 - a. Yes; replace the harness. Verify repair.
 - b. No; Go to step 5.
5. Disconnect and inspect the SCR outlet temperature sensor electrical connector. Are there any spread pins, damaged pins, corrosion or signs of fretting present?
 - a. Yes; repair the harness as necessary. Verify repair.
 - b. No; replace the SCR outlet temperature sensor. Refer to section "Removal of the GHG14 Selective Catalyst Reduction Outlet Temperature Sensor" Verify repair.

4 SPN 4363/FMI 0 - EPA10

SCR Outlet Temperature High

Table 3.

SPN 4363/FMI 0	
Description	This fault code sets when the Aftertreatment Control Module (ACM) detects that the Selective Catalyst Reduction (SCR) outlet temperature sensor reading is greater than 760°C(1400°F).
Monitored Parameter	SCR Outlet Temperature
Typical Enabling Conditions	Non-Regen Mode
Monitor Sequence	None
Execution Frequency	Continuous when enabling conditions met
Typical Duration	2 Seconds
Dash Lamps	MIL, CEL
Engine Reaction	Derate 25% , 30 seconds shut down.
Verification	SCR Efficiency Test

1. Connect DiagnosticLink[®].
2. Turn the ignition ON (key ON, engine OFF).
3. Check for multiple fault codes. Are fault codes SPN 4363/FMI 3 or 4 also present?
 - a. Yes; diagnose the other fault codes first.
 - b. No; Go to step 4.
4. Are fault codes SPN 3246/FMI 0, FMI 15, SPN 3250/FMI 0 or FMI 15 also present?
 - a. Yes; diagnose the other fault codes first.
 - b. No; Go to step 5.
5. Disconnect and inspect the SCR outlet temperature sensor electrical connector, harness side. Refer to section "EPA10/GHG14 Aftertreatment Device Sensor Locations". Are there any spread pins, damaged pins, corrosion or signs of fretting present?
 - a. Yes; repair as necessary. Verify repair.
 - b. No; replace the SCR outlet temperature sensor. Verify repair.

5 SPN 4363/FMI 0 - GHG14

SCR Outlet Temperature High

Table 4.

SPN 4363/FMI 0	
Description	This fault code sets when the Aftertreatment Control Module (ACM) detects that the Selective Catalyst Reduction (SCR) outlet temperature sensor reading is greater than 760°C (1400°F).
Monitored Parameter	SCR Outlet Temperature
Typical Enabling Conditions	Non-Regen Mode
Monitor Sequence	None
Execution Frequency	Continuous when enabling conditions met
Typical Duration	2 Seconds
Dash Lamps	MIL, CEL
Engine Reaction	Derate 25% , 30 seconds shut down.
Verification	SCR Efficiency Test

Check as follows:

1. Connect DiagnosticLink[®].
2. Turn the ignition ON (key ON, engine OFF).
3. Check for multiple fault codes. Are fault codes SPN 4363/FMI 3 or 4 also present?
 - a. Yes; diagnose the other fault codes first.
 - b. No; Go to step 4.
4. Are fault codes SPN 3246/FMI 0, FMI 15, SPN 3250/FMI 0 or FMI 15 also present?
 - a. Yes; diagnose the other fault codes first.
 - b. No; Go to step 5.
5. Disconnect and inspect the SCR outlet temperature sensor electrical connector, harness side. Refer to section "EPA10/GHG14 Aftertreatment Device Sensor Locations". Are there any spread pins, damaged pins, corrosion or signs of fretting present?
 - a. Yes; repair as necessary. Verify repair.
 - b. No; replace the SCR outlet temperature sensor. Refer to section "Removal of the GHG14 Selective Catalyst Reduction Outlet Temperature Sensor". Verify repair.

6 SPN 4363/FMI 20 - EPA10

SCR Temperature Drift - Inlet Low/Outlet High

Table 5.

SPN 4363/FMI 20	
Description	This fault code sets when the Aftertreatment Control Module (ACM) detects that the Selective Catalyst Reduction (SCR) outlet temperature sensor reading and SCR outlet model temperature is greater than 70°C (158°F).
Monitored Parameter	SCR Outlet Temperature
Typical Enabling Conditions	Exhaust flow greater than 600 Kg/hr, coolant temperature greater than 60°C (140°F). Non-regen mode.
Monitor Sequence	None
Execution Frequency	Continuous when enabling conditions met
Typical Duration	2 Seconds
Dash Lamps	MIL
Engine Reaction	Derate 25%
Verification	SCR Efficiency Test

Check as follows:

1. Connect DiagnosticLink[®].
2. Turn the ignition ON (key ON, engine OFF).
3. Check for multiple fault codes. Are fault codes SPN 4363/FMI 3 or 4 also present?
 - a. Yes; diagnose the other fault codes first.
 - b. No; Go to step 4.
4. Disconnect and inspect the SCR outlet temperature sensor electrical connector, harness side. Refer to section "EPA10/GHG14 Aftertreatment Device Sensor Locations". Are there any spread pins, damaged pins, corrosion or signs of fretting present?
 - a. Yes; repair as necessary. Verify repair.
 - b. No; replace the SCR outlet temperature sensor. Verify repair.

7 SPN 4363/FMI 20 - GHG14

SCR Temperature Drift - Inlet Low/Outlet High

Table 6.

SPN 4363/FMI 20	
Description	This fault code sets when the Aftertreatment Control Module (ACM) detects that the Selective Catalyst Reduction (SCR) outlet temperature sensor reading and SCR outlet model temperature is greater than 70°C (158°F).
Monitored Parameter	SCR Outlet Temperature
Typical Enabling Conditions	Exhaust flow greater than 600 Kg/hr, coolant temperature greater than 60°C (140°F). Non-regen mode.
Monitor Sequence	None
Execution Frequency	Continuous when enabling conditions met
Typical Duration	2 Seconds
Dash Lamps	MIL
Engine Reaction	Derate 25%
Verification	SCR Efficiency Test

Check as follows:

1. Connect DiagnosticLink[®].
2. Turn the ignition ON(key ON, engine OFF).
3. Check for multiple fault codes. Are fault codes SPN 4363/FMI 3 or 4 also present?
 - a. Yes; diagnose the other fault codes first.
 - b. No; Go to step 4.
4. Disconnect and inspect the SCR outlet temperature sensor electrical connector, harness side. Refer to section "EPA10/ GHG14 Aftertreatment Device Sensor Locations". Are there any spread pins, damaged pins, corrosion or signs of fretting present?
 - a. Yes; repair as necessary. Verify repair.
 - b. No; replace the SCR outlet temperature sensor. Refer to section "Removal of the GHG14 Selective Catalyst Reduction Outlet Temperature Sensor". Verify repair.