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Service Information Bulletin

SUBJECT	DATE
SPN 3251 (ACM) (EPA10) and (GHG14)	January 2015

Additions, Revisions, or Updates

Publication Number / Title	Platform	Section Title	Change
DDC-SVC-MAN-0084	DD Platform	SPN 3251/FMI 0 - GHG14	The diagnostic procedures have been updated to check both the DOC inlet pressure sensor and the DPF outlet pressure sensor. A temperature check has been added to determine if the restriction is in the DOC or the DPF.
		SPN 3251/FMI 16 - GHG14	
		SPN 3251/FMI 0 - EPA10	
		SPN 3251/FMI 16 - EPA10	

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2 SPN 3251/FMI 0 – GHG14

Diesel Particulate Filter Pressure Out of Range Very High

Table 1.

SPN 3251/FMI 0	
Description	This Fault Code Sets when the Diesel Oxidation Catalyst (DOC) Inlet Pressure is 35 kPa (5 psi) Greater than the Diesel Particulate Filter (DPF) Outlet Pressure for More than 10 Seconds
Monitored Parameter	DOC Inlet Pressure Sensor and DPF Outlet Pressure Sensor
Typical Enabling Conditions	Always On
Monitor Sequence	None
Execution Frequency	Continuous When Enabling Conditions Met
Typical Duration	2 Seconds
Dash Lamps	MIL, CEL, SEL
Engine Reaction	Derate 25%
Verification	Run Engine Between 1200 to 1800 rpm With a Load Less Than 10%

Check as follows:

1. Connect DiagnosticLink ®.
2. Turn the ignition ON (key ON, engine OFF).
3. Check for other fault codes. Are fault codes SPN 3609/FMI 3 or FMI 4 present?
   a. Yes; diagnose the other fault codes first.
   b. No; Go to step 4.
4. Using DiagnosticLink go to Service Routines > SCR and DPF voltages.
5. Monitor the DOC inlet pressure sensor voltage, pin 87. Is the voltage between 0.44 and 0.56 volts?
   a. Yes; Go to step 6.
   b. No; replace the DOC inlet pressure sensor. Refer to section "Removal of the GHG14 Diesel Oxidation Catalyst Inlet Pressure Sensor". Verify repair.
6. Monitor the DPF outlet pressure sensor voltage, pin 72. Is the voltage between 0.44 and 0.56 volts?
   a. Yes; Go to step 7.
   b. No; replace the DPF outlet pressure sensor. Refer to section "Removal of the GHG14 Diesel Particulate Filter Outlet Pressure Sensor". Verify repair.
7. Perform the Low temperature ATD routine. Refer to section "GHG14 Perform Performance Check - Low Temperature ATD".
8. Monitor the DOC inlet temperature and the DOC outlet temperature readings. Does the DOC outlet temperature sensor reading follow the DOC inlet temperature sensor reading?
   a. Yes; replace the DPF due to a restriction. Refer to section "Removal of the GHG14 Diesel Particulate Filter". Verify repair.
   b. No; replace the DOC due to a restriction. Verify repair.

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Diesel Particulate Filter Pressure Out of Range High

Table 2.

SPN 3251/FMI 16	
Description	This Fault Code Sets When the Diesel Oxidations Catalyst (DOC) Inlet Pressure is 28 kPa (4.2 psi) Greater than the Diesel Particulate Filter (DPF) Outlet Pressure for More than 10 Seconds
Monitored Parameter	DOC Inlet Pressure Sensor and DPF Outlet Pressure Sensor
Typical Enabling Conditions	Always On
Monitor Sequence	None
Execution Frequency	Continuous When Enabling Conditions Met
Typical Duration	2 Seconds
Dash Lamps	MIL, CEL, SEL
Engine Reaction	Derate 25%
Verification	Run Engine Between 1200 to 1800 rpm With a Load Less Than 10%

Check as follows:

1. Connect DiagnosticLink ®.
2. Turn the ignition ON (key ON, Engine OFF).
3. Check for other fault codes. Are fault codes SPN 3609/FMI 3 or FMI 4 present?
    a. Yes; diagnose the other fault codes first.
    b. No; Go to step 4.
4. Using DiagnosticLink, go to Service Routines > SCR and DPF voltages.
5. Monitor the DOC inlet pressure sensor voltage, pin 87. Is the voltage between 0.44 and 0.56 volts?
    a. Yes; Go to step 6.
    b. No; replace the DOC inlet pressure sensor. Refer to section "Removal of the GHG14 Diesel Oxidation Catalyst Inlet Pressure Sensor". Verify repair.
6. Monitor the DPF outlet pressure sensor voltage, pin 72. Is the voltage between 0.44 and 0.56 volts?
    a. Yes; Go to step 7.
    b. No; replace the DPF outlet pressure sensor. Refer to section "Removal of the GHG14 Diesel Particulate Filter Outlet Pressure Sensor". Verify repair.
7. Perform the Low temperature ATD routine. Refer to section "GHG14 Perform Performance Check - Low Temperature ATD".
8. Monitor the DOC inlet temperature and the DOC outlet temperature readings. Does the DOC outlet temperature sensor reading follow the DOC inlet temperature sensor reading?
    a. Yes; replace the DPF due to a restriction. Refer to section "Removal of the GHG14 Diesel Particulate Filter". Verify repair.
    b. No; replace the DOC due to a restriction. Verify repair.

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Diesel Particulate Filter Pressure Out of Range Very High

Table 3.

SPN 3251/FMI 0	
Description	This Fault Code Sets when the Diesel Oxidations Catalyst (DOC) Inlet Pressure is 35 kPa (5 psi) Greater Than the Diesel Particulate Filter (DPF) Outlet Pressure for more than 10 Seconds
Monitored Parameter	DOC Inlet Pressure Sensor and DPF Outlet Pressure Sensor
Typical Enabling Conditions	Always On
Monitor Sequence	None
Execution Frequency	Continuous When Enabling Conditions Met
Typical Duration	2 Seconds
Dash Lamps	MIL, CEL, SEL
Engine Reaction	Derate 25%
Verification	Run Engine Between 1200 to 1800 rpm With a Load Less Than 10%

Check as follows:

1. Connect DiagnosticLink ®.
2. Turn the ignition ON (key ON, engine OFF).
3. Check for other fault codes. Are fault codes SPN 3609/FMI 3 or FMI 4 present?
    a. Yes; diagnose the other fault codes first.
    b. No; Go to step 4.
4. Using DiagnosticLink, go to Service Routines > SCR and DPF voltages.
5. Monitor the DOC inlet pressure sensor voltage, pin 87. Is the voltage between 0.44 and 0.56 volts?
    a. Yes; Go to step 6.
    b. No; replace the DOC inlet pressure sensor. Refer to section "Removal of the EPA10 Diesel Oxidation Catalyst Inlet Pressure Sensor Tube and Elbow". Verify repair.
6. Monitor the DPF outlet pressure sensor voltage, pin 72. Is the voltage between 0.44 and 0.56 volts?
    a. Yes; Go to step 7.
    b. No; replace the DPF outlet pressure sensor. Refer to section "Removal of the EPA10 Diesel Particulate Filter Outlet Pressure Sensor". Verify repair.
7. Perform the Low temperature ATD routine. Refer to section "EPA10 Perform Performance Check - Low Temperature ATD".
8. Monitor the DOC inlet temperature, DOC outlet temperature and the DPF outlet temperature readings. Does the DOC outlet temperature sensor reading follow the DOC inlet temperature sensor reading?
    a. Yes; replace the DPF due to a restriction. Refer to section "Removal of the EPA10 Diesel Particulate Filter". Verify repair.
    b. No; replace the DOC due to a restriction. Verify repair.

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Diesel Particulate Filter Pressure Out of Range High

Table 4.

SPN 3251/FMI 16	
Description	This Fault Code Sets when the Diesel Oxidations Catalyst (DOC) Inlet Pressure is 28 kPa (4.2 psi) Greater Than the Diesel Particulate Filter (DPF) Outlet Pressure for More Than 10 Seconds
Monitored Parameter	DOC Inlet Pressure Sensor and DPF Outlet Pressure Sensor
Typical Enabling Conditions	Always On
Monitor Sequence	None
Execution Frequency	Continuous When Enabling Conditions Met
Typical Duration	2 Seconds
Dash Lamps	MIL, CEL, SEL
Engine Reaction	Derate 25%
Verification	Run Engine Between 1200 to 1800 rpm With a Load Less Than 10%

Check as follows:

1. Connect DiagnosticLink ®.
2. Turn the ignition ON (key ON, engine OFF).
3. Check for other fault codes. Are fault codes SPN 3609/FMI 3 or FMI 4 present?
    a. Yes; diagnose the other fault codes first.
    b. No; Go to step 4.
4. Using DiagnosticLink, go to Service Routines > SCR and DPF voltages.
5. Monitor the DOC inlet pressure sensor voltage, pin 87. Is the voltage between 0.44 and 0.56 volts?
    a. Yes; Go to step 6.
    b. No; replace the DOC inlet pressure sensor. Refer to section "Removal of the EPA10 Diesel Oxidation Catalyst Inlet Pressure Sensor Tube and Elbow". Verify repair.
6. Monitor the DPF outlet pressure sensor voltage, pin 72. Is the voltage between 0.44 and 0.56 volts?
    a. Yes; Go to step 7.
    b. No; replace the DPF outlet pressure sensor. Refer to section "Removal of the EPA10 Diesel Particulate Filter Outlet Pressure Sensor". Verify repair.
7. Perform the Low temperature ATD routine. Refer to section "EPA10 Perform Performance Check - Low Temperature ATD".
8. Monitor the DOC inlet temperature, DOC outlet temperature and the DPF outlet temperature readings. Does the DOC outlet temperature sensor reading follow the DOC inlet temperature sensor reading?
    a. Yes; replace the DPF due to a restriction. Refer to section "Removal of the EPA10 Diesel Particulate Filter". Verify repair.
    b. No; replace the DOC due to a restriction. Verify repair.

