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Service Information Bulletin

SUBJECT	DATE
SPN 5443 (ACM)(GHG17) and SPN 520372 (ACM)(GHG17)	May 2016

Additions, Revisions, or Updates

Publication Number / Title	Platform	Section Title	Change
DDC-SVC-MAN-0191	DD	SPN 5443/FMI 0 - GHG17	Added ACM 7.56.6.0 software check
		SPN 5443/FMI 15 - GHG17	
		SPN 5443/FMI 16 - GHG17	
		SPN 520372/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.

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2 SPN 5443/FMI 0 – GHG17

DPF HC Absorption Very High

Table 1.

SPN 5443/FMI 0	
Description	High Hydrocarbon Absorption in the Diesel Particulate Filter (DPF)
Monitored Parameter	Diesel Oxidation Catalyst (DOC) Temperature In
Typical Enabling Conditions	High Idle Times
Monitor Sequence	Always Enabled
Execution Frequency	Continuous When Enabling Conditions Met
Typical Duration	Two Seconds
Dash Lamps	SEL
Engine Reaction	None
Verification	Parked Regeneration

Possible causes:
- Excessive engine idle time
- Low engine temperature
- Low engine load

Check as follows:

1. Connect DiagnosticLink ®.
2. Use the chart below to verify the Aftertreatment Control Module (ACM) software level is up to date. Is the current ACM software and fuel map at or greater than the chart below?
   a. Yes; Go to step 3.
   b. No; update to the latest ACM software configuration on the server. Go to step 3.
   ACM 7.56.6.0 software with fuel map ZGS Version

Table 2.

Model	ATS Configuration	Software Version	ACM Fuel Map Version
DD15, DD16,DD13	1-Box	7.56.6.0	ZGS 005
DD13	Two-Box 2HV / 2HH	7.56.6.0	ZGS 004
DD13	Two-Box 2V2	7.56.6.0	ZGS 004
DD13	1-Box FCCC, Terex Crane	7.56.6.0	ZGS 005
DD13	1-Box non-DTNA	7.56.6.0	ZGS 004
DD13	Two-Box 2V2 non-DTNA	7.56.6.0	ZGS 003
DD13	EvoBus	7.56.6.0	ZGS 005

3. Are any other faults also present?
   a. Yes; repair those faults first.
   b. No; Go to step 4.

WARNING: ENGINE EXHAUST

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

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: 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.

4. Start the engine.
5. Using DiagnosticLink, perform a parked regeneration. Refer to section "Performing a Parked Regeneration - GHG17".
6. When regeneration is complete, clear all fault codes. Verify repairs.

3 SPN 5443/FMI 15 - GHG17

DPF HC Absorption Warning

Table 3.

SPN 5443/FMI 15	
Description	High Hydrocarbon Absorption in the Diesel Particulate Filter (DPF)
Monitored Parameter	Diesel Oxidation Catalyst (DOC) Temperature In
Typical Enabling Conditions	High Idle Times
Monitor Sequence	Always Enabled
Execution Frequency	Continuous When Enabling Conditions Met
Typical Duration	Two Seconds
Dash Lamps	None
Engine Reaction	None
Verification	Parked Regeneration

Possible causes:
- Excessive engine idle time
- Low engine temperature
- Low engine load

Check as follows:

1. Connect DiagnosticLink ®.
2. Use the chart below to verify the Aftertreatment Control Module (ACM) software level is up to date. Is the current ACM software and fuel map at or greater than the chart below?
    a. Yes; Go to step 3.
    b. No; update to the latest ACM software configuration on the server. Go to step 3.
    ACM 7.56.6.0 software with fuel map ZGS Version

Table 4.

Model	ATS Configuration	Software Version	ACM Fuel Map Version
DD15, DD16,DD13	1-Box	7.56.6.0	ZGS 005
DD13	Two-Box 2HV / 2HH	7.56.6.0	ZGS 004
DD13	Two-Box 2V2	7.56.6.0	ZGS 004
DD13	1-Box FCCC, Terex Crane	7.56.6.0	ZGS 005
DD13	1-Box non-DTNA	7.56.6.0	ZGS 004
DD13	Two-Box 2V2 non-DTNA	7.56.6.0	ZGS 003
DD13	EvoBus	7.56.6.0	ZGS 005

3. Are any other faults also present?
    a. Yes; repair those faults first.
    b. No; Go to step 4.

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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: 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.

4. Start the engine.
5. Using DiagnosticLink, perform a parked regeneration. Refer to section "Performing a Parked Regeneration - GHG17".
6. Clear fault codes after completion of regeneration.

4 SPN 5443/FMI 16 - GHG17

DPF HC Absorption High

Table 5.

SPN 5443/FMI 16	
Description	High Hydrocarbon Absorption in the Diesel Particulate Filter
Monitored Parameter	Diesel Oxidation Catalyst (DOC) Temperature In
Typical Enabling Conditions	High Idle Times
Monitor Sequence	Always Enabled
Execution Frequency	Continuous When Enabling Conditions Met
Typical Duration	Two Seconds
Dash Lamps	CEL
Engine Reaction	None
Verification	Parked Regeneration

Possible causes:
- Excessive engine idle time
- Low engine temperature
- Low engine load

Check as follows:

1. Connect DiagnosticLink ®.
2. Use the chart below to verify the Aftertreatment Control Module (ACM) software level is up to date. Is the current ACM software and fuel map at or greater than the chart below?
   a. Yes; Go to step 3.
   b. No; update to the latest ACM software configuration on the server. Go to step 3.
   ACM 7.56.6.0 software with fuel map ZGS Version

Table 6.

Model	ATS Configuration	Software Version	ACM Fuel Map Version
DD15, DD16,DD13	1-Box	7.56.6.0	ZGS 005
DD13	Two-Box 2HV / 2HH	7.56.6.0	ZGS 004
DD13	Two-Box 2V2	7.56.6.0	ZGS 004
DD13	1-Box FCCC, Terex Crane	7.56.6.0	ZGS 005
DD13	1-Box non-DTNA	7.56.6.0	ZGS 004
DD13	Two-Box 2V2 non-DTNA	7.56.6.0	ZGS 003
DD13	EvoBus	7.56.6.0	ZGS 005

3. Are any other faults also present?
   a. Yes; repair those faults first.
   b. No; Go to step 4.

WARNING: ENGINE EXHAUST

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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: 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.

4. Start the engine.
5. Using DiagnosticLink, perform a parked regeneration. Refer to section "Performing a Parked Regeneration - GHG17".
6. When regeneration is complete, clear all fault codes.

5 SPN 520372/FMI 16 - GHG17

Selective Catalyst Reduction Closed Loop Control at Maximum Limit

Table 7.

SPN 520372/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	MIL
Engine Reaction	None
Verification	Parked SCR Efficiency Test

Check as follows:

1. Connect DiagnosticLink ® .
2. Use the chart below to verify the Aftertreatment Control Module (ACM) software level is up to date. Is the current ACM software and fuel map at or greater than the chart below?
   a. Yes; Go to step 3.
   b. No; update to the latest ACM software configuration on the server. Go to step 3.
   ACM 7.56.6.0 software with fuel map ZGS Version

Table 8.

Model	ATS Configuration	Software Version	ACM Fuel Map Version
DD15, DD16,DD13	1-Box	7.56.6.0	ZGS 005
DD13	Two-Box 2HV / 2HH	7.56.6.0	ZGS 004
DD13	Two-Box 2V2	7.56.6.0	ZGS 004
DD13	1-Box FCCC, Terex Crane	7.56.6.0	ZGS 005
DD13	1-Box non-DTNA	7.56.6.0	ZGS 004
DD13	Two-Box 2V2 non-DTNA	7.56.6.0	ZGS 003
DD13	EvoBus	7.56.6.0	ZGS 005

3. Check for multiple fault codes. Are any of the following faults present: SPN 4331/FMI 15, SPN 3216/FMI 16, SPN 520372/FMI 14 or SPN 5841/FMI 14?
   a. Yes; diagnose the other fault code first.
   b. No; Go to step 4.
4. Using a refractometer from the DEF Test Kit W060589001900, measure the DEF percentage. Is DEF percentage between 31 and 34%?
   a. Yes; Go to step 5.
   b. No; clean/flush the DEF tank. Go to step 5. Refer to section "Flushing of the Diesel Exhaust Fluid System".
5. Unbolt the DEF Dosing Unit from the aftertreatment device. Do not disconnect DEF lines or electrical connector. Refer to section "Removal of the Diesel Exhaust Fluid Dosing Unit".
6. Perform 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 7.
   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 ".

7. Install the DEF Dosing Unit. Refer to section "Installation of the Diesel Exhaust Fluid Dosing Unit ".

WARNING: PERSONAL INJURY

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WARNING: ENGINE EXHAUST

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8. Start the engine and perform a Parked SCR Efficiency test to clear fault. Refer to section "GHG17 Perform Parked SCR Efficiency Test".