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 GHG		SPN 520371/FMI 16 - GHG17	Lindates to the DD9 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.



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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[®].
- 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.

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

NOx Sensor Verification													E	? ×
NOx Sensor Dewpoint en	SCR Inlet NO	x Sensor		ppm	÷	2000	÷	2000	÷	2000	÷	-4000	÷	2000
On	255	0 200	400	600		1500		1500		1500		-3000		1500
NOx Sensor Dewpoint en On	SCR Outlet N	Ox Sensor 0 200	400	ppm 600		1000		1000		-1000		2000		1000
Avg. NOx Sensor Differen	NOx raw cor 247	ocentration 0 200	400	ppm 600 ppm	Temperature	-500	et Temperature	0	t Temperature	0 -500	let Temperature	-1000	et Temperature	0 -500
11.540	12	0 200	400	600	SCR Inlet	1007.99	SCR Out	932	DOC Inle	759	DOC Out	1067	DPF Out	1008
Vehicle Check Status	Parking Brak	e	Neutra	al Switch	n -		Eng	Engine Speed rpm DPF Regen State						
true	closed, Short to ground closed, gear in neutral 1400 No regeneration act								on activity					
Cooling down the engin	ne for 00:01:0	0. Please wait.						41		Stop	•		S	tart
Time	Lab	el												*
P 03.14.2018 12:56:54	Test	Main, CurrentTo	estStep E	ndTest										
12:56:54	Test	complete. Scro	ll up for	details.										
P 03.14.2018 12:56:54 TestMain, CurrentTestStep CoolDownEngine														
12:56:54	O3.14.2018 12:56:54 Cooling down the engine for 00:01:00. Please wait.													
12:56:55	Dpf	RegenStatus_Re	presente	dStateC	har	nged, Status	; Fau	ult, dpf reg	en c	ount 0, cur	rent	step CoolE)owr	nEn 👻
		Test F	Passe	ed.								C	lose	

- 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.



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

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Avg. NOx Sensor Differen	NOx raw cor 247	centration 0 200	400	ppm 600 ppm	Temperature	-500	et Temperature	0	t Temperature	0 -500	let Temperature	-1000	et Temperature	0 -500
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Vehicle Check Status	Parking Brak	e	Neutra	al Switch	n -		Eng	Engine Speed rpm DPF Regen State						
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Cooling down the engin	ne for 00:01:0	0. Please wait.						41		Stop	•		S	tart
Time	Lab	el												*
P 03.14.2018 12:56:54	Test	Main, CurrentTo	estStep E	ndTest										
12:56:54	1 03.14.2018 12:56:54 Test complete. Scroll up for details.													
P 03.14.2018 12:56:54 TestMain, CurrentTestStep CoolDownEngine														
12:56:54	O3.14.2018 12:56:54 Cooling down the engine for 00:01:00. Please wait.													
12:56:55	Dpf	RegenStatus_Re	presente	dStateC	har	nged, Status	; Fau	ult, dpf reg	en c	ount 0, cur	rent	step CoolE)owr	nEn 👻
		Test F	Passe	ed.								C	lose	

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