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Service Information Bulletin

SUBJECT	DATE
Chassis Fuel System Isolation Test	October 2016

Additions, Revisions, or Updates

Publication Number / Title	Platform	Section Title	Change
DDC-SVC-MAN-0084	DD Platform - EPA07/10/ GHG14 Heavy Duty	Chassis Fuel System Isolation Test - Two- Filter Fuel System	These are new sections.
DDC-SVC-MAN-0191	DD Platform - GHG17 Heavy Duty	Chassis Fuel System Isolation Test	



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2 Chassis Fuel System Isolation Test - Two-Filter Fuel System

This test is used to determine if the cause of a hard start or no start condition is on the engine side or the chassis side.

Table 1.

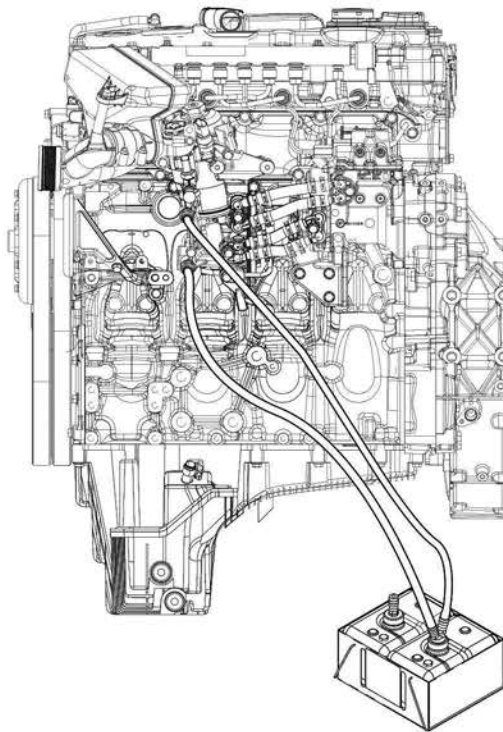
Service Tools Used in the Procedure	
Tool Number	Description
J-48708	Fuel Flow Tool
W470589039100	Fuel System Tool Update Kit w/o MCM cooler
	Detroit Approved Fuel Priming Unit
	DiagnosticLink™

Check as follows:

1. Prime the fuel system using a Detroit-approved priming unit.
Refer to section "Priming the Fuel System - KM59 GEN1 - Two-Filter System"
Refer to section "Priming the Fuel System - KM63 GEN2 - Two-Filter System"

NOTE: It is important that the road test is performed to purge the remaining air from the system after priming.

2. Disconnect the chassis-side fuel supply and return lines from the fuel filter module.
3. Using the appropriate adaptors from the W470589039100 Fuel System Tool Update Kit, install the two J-48708 Fuel Flow test lines onto the fuel filter module. Connect the other end of the test lines to the J-48708 fuel flow container. Container should be at least $\frac{3}{4}$ full of fuel to ensure there is enough fuel to run a Fuel System Integrity Check (FSIC) and still have at least two liters (2.11 qt.) of fuel remaining.



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4. Prime the fuel system using the hand-priming pump.

NOTE: Do not move or otherwise disturb the Fuel System Update kit and the lines during the next two steps to ensure the ends of the lines remain submerged in fuel.

5. Connect DiagnosticLink to the vehicle, access the Service Routines section, select the Fuel System Integrity Check (FSIC) tab and run the Automatic FSIC.


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.

6. Wait 15 minutes and then restart engine to ensure there is not a hard start/no start condition.
7. Was there a starting issue?
 - a. Yes; verify all connections are tight and ensure that end of fuel lines remain submerged in fuel. Restart from step 4.
 - b. No; Go to step 8.
8. Allow engine to sit long enough for previous hard start/no start complaint to be verified.


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WARNING: ENGINE EXHAUST

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

9. Start engine.
10. Was there a starting issue?
 - a. Yes; the cause of the hard start/no start is on the engine side. Refer to section "Hard Start/No Start - Two-Filter Fuel System (This Test Must Be Done First)" to continue the diagnostics on the engine side.

- b. No; the cause of the hard start/no start is on the chassis side. Check chassis fuel system lines per OEM procedures.

3 Chassis Fuel System Isolation Test

This test is used to determine if the cause of a hard start or no start condition is on the engine side or the chassis side.

Table 2.

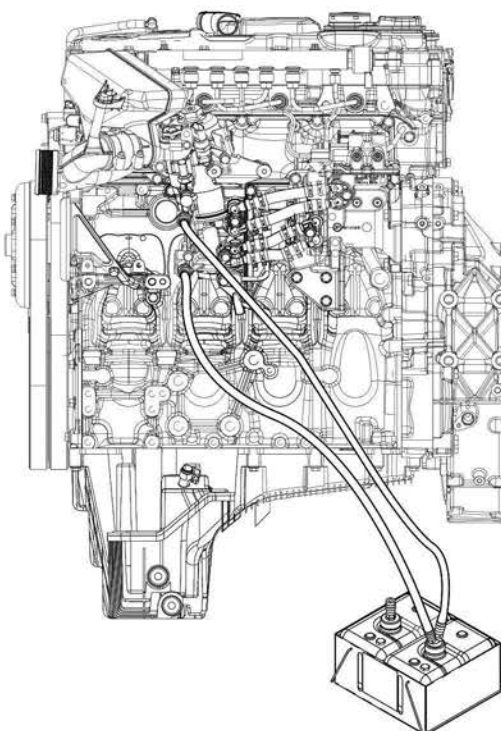
Service Tools Used in the Procedure	
Tool Number	Description
J-48708	Fuel Flow Tool
W470589039100	Fuel System Tool Update Kit w/o MCM cooler
	Detroit Approved Fuel Priming Unit
	DiagnosticLink™

Check as follows:

1. Prime the fuel system using a Detroit-approved priming unit.
Refer to section "Priming the Fuel System - KM63 GEN2 - Two-Filter System".

NOTE: It is important that the road test is performed to purge the remaining air from the system after priming.

2. Disconnect the chassis-side fuel supply and return lines from the fuel filter module.
3. Using the appropriate adaptors from the W470589039100 Fuel System Tool Update Kit, install the two J-48708 Fuel Flow test lines onto the fuel filter module. Connect the other end of the test lines to the J-48708 fuel flow container. Container should have enough fuel to run a Fuel System Integrity Check (FSIC) and still have at least two liters (2.11 qt.) of fuel remaining.



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NOTE: Do not move or otherwise disturb the Fuel System Update kit and the lines during the next two steps to ensure the ends of the lines remain submerged in fuel.

4. Prime the fuel system using the hand-priming pump.

5. Connect DiagnosticLink to the vehicle, access the Service Routines section, select the Fuel System Integrity Check (FSIC) tab and run the Automatic FSIC.



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- 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

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6. Wait 15 minutes and then restart engine to ensure there is not a hard start/no start condition.
7. Was there a starting issue?
 - a. Yes; verify all connections are tight and ensure that end of fuel lines remain submerged in fuel. Restart from step 4.
 - b. No; Go to step 8.
8. Allow engine to sit long enough for previous hard start/no start complaint to be verified.



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9. Start engine.
10. Was there a starting issue?
 - a. Yes; the cause of the hard start/no start is on the engine side. Refer to section "Hard Start/No Start - Two-Filter Fuel System (This Test Must Be Done First)" to continue the diagnostics on the engine side.

- b. No; the cause of the hard start/no start is on the chassis side. Check chassis fuel system lines per OEM procedures.