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SB-10056845-3655



Service Information Bulletin

SUBJECT	DATE
High Pressure Fuel Injector Lines	June 2014

Additions, Revisions, or Updates

Publication Number / Title	Platform	Section Title	Change
DDC-SVC-MAN-0082	DD Platform	Removal of the High Pressure Fuel Injector Lines - Two-Filter System	Step 6 deleted.
DDC-SVC-MAN-0182	Euro IV		
DDC-SVC-MAN-0082	DD Platform	Installation of the High Pressure Fuel Injector Lines - Two-Filter System	Step 2 deleted. Step 7 added.
DDC-SVC-MAN-0182	Euro IV		Step 2 deleted. Step / added.
DDC-SVC-MAN-0082	DD Platform	Removal of the High Pressure Fuel Injector Lines - Three-Filter System	Step 7 deleted.
DDC-SVC-MAN-0082	DD Platform	Installation of the High Pressure Fuel Injector Lines - Three-Filter System	Step 2 deleted. Step 8 added.



13400 Outer Drive, West, Detroit, Michigan 48239-4001 Telephone: 313-592-5000

www.demanddetroit.com

2 Removal of the High Pressure Fuel Injector Lines - Two-Filter System

Remove as follows:

NOTICE: For DD15/16 engines: If removing the high pressure fuel line from fuel injector number one, remove the intake manifold temperature sensor. Refer to section "Removal of the Intake Manifold Air Temperature Sensor".

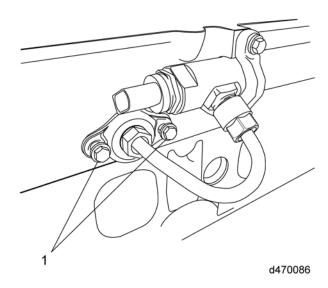
NOTICE: For DD13 engines: If removing the high pressure fuel line from fuel injector number four, remove the intake manifold temperature sensor. Refer to section "Removal of the Intake Manifold Air Temperature Sensor".

NOTICE: If removing the high pressure fuel line from fuel injector number six, remove the pressure limiting valve return line banjo bolt and the rear high pressure fuel feed line P-clip.

NOTICE: The high pressure fuel rail feed lines, P-clips, vibration dampers, mounting bracket and hardware are one-time use components and MUST be replaced any time they are **loosened or removed.**

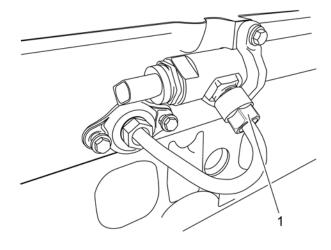
NOTICE: Service kits have been released containing all of the necessary parts to replace the high pressure fuel rail feed lines on EPA07/10 DD13, GHG14 DD13, EPA07/10 DD15/16, GHG14 DD15TC/DD16 and GHG14 DD15AT engines. Refer to TS letter 13 TS-24 (http://ddcsn-ddc.freightliner.com/cps/rde/xbcr/ddcsn/13TS24.pdf) for the high pressure fuel line kit numbers to repair these engines.

1. Remove the two fuel injector seal mounting bolts (1) securing the high pressure fuel injector line seal to the camshaft housing.



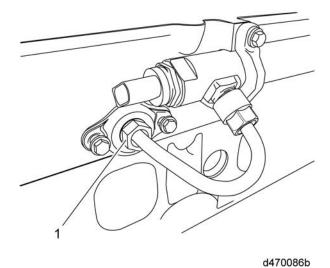
NOTE: Loosening high pressure injector lines from the rail first allows fuel to completely drain out, preventing oil contamination.

2. Loosen the high pressure fuel line nut (1) at the fuel rail.



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3. Loosen the high pressure fuel injector line nut (1) at the camshaft housing.



NOTE: The high pressure fuel injector line seal is a single-use item and cannot be reused.

- 4. Remove the high pressure fuel injector line and high pressure fuel injector line seal as an assembly from the engine.
- 5. Remove and discard the high pressure injector line seal from the high pressure fuel injector line.

3 Installation of the High Pressure Fuel Injector Lines - Two-Filter System

Install as follows:



WARNING: PERSONAL INJURY

All hardware/components must be installed in the proper locations, and MUST be fastened to the specified torque. Failure to properly torque hardware/components will result in failure of a high pressure fuel feed line, resulting in possible fire and/or personal injury.

NOTICE: For DD15/16 engines: If the high pressure fuel line from fuel injector number one was removed, reinstall the intake manifold temperature sensor. Refer to section "Installation of the Intake Manifold Air Temperature Sensor".

NOTICE: For DD13 engines: If the high pressure fuel line from fuel injector number one was removed, reinstall the intake manifold temperature sensor. Refer to section "Installation of the Intake Manifold Air Temperature Sensor".

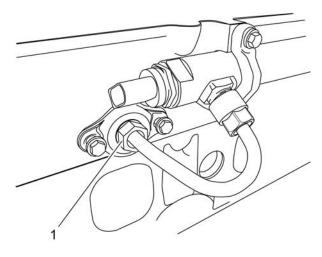
NOTICE: If the high pressure fuel line from fuel injector number six was removed, install the pressure limiting valve return line banjo bolt and a high pressure fuel feed line service kit.

NOTICE: The high pressure fuel rail feed lines, P-clips, vibration dampers, mounting bracket and hardware are one-time-use components and MUST be replaced any time they are loosened or removed

NOTICE: Service kits have been released containing all of the necessary parts to replace the high pressure fuel rail feed lines on EPA07/10 DD13, GHG14 DD13, EPA07/10 DD15/16, GHG14 DD15TC/DD16 and GHG14 DD15AT engines. Refer to TS letter 13 TS-24 (http://ddcsn-ddc.freightliner.com/cps/rde/xbcr/ddcsn/13TS24.pdf) for the high pressure fuel line kit numbers to repair these engines

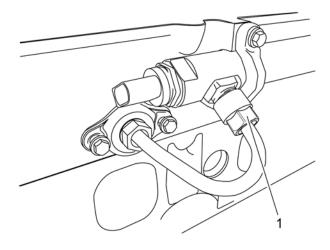
NOTE: The high pressure fuel injector line seal is a single-use item and cannot be reused.

- 1. Lubricate the new high pressure fuel injector line O-ring with a light coat of clean diesel fuel.
- 2. Install the new high pressure fuel injector line seal on to the high pressure fuel injector line.
- 3. Install the high pressure fuel injector line and the new high pressure fuel injector line seal as an assembly onto the engine. Hand-tighten the high pressure fuel injector line nut (1).



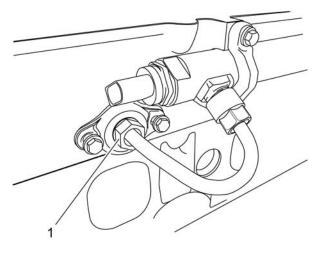
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4. Tighten the high pressure fuel injector line nut to the fuel rail. Torque to 40 N·m (30 lb·ft).



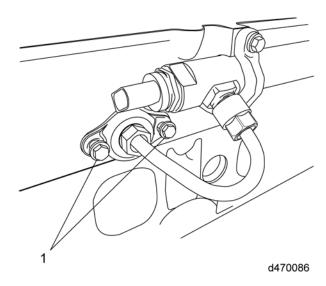
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5. Using tool J-48770, torque the high pressure fuel injector line nut (1) to 40 N·m (30 lb·ft).



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6. Install two high pressure fuel injector line seal mounting bolts (1). Torque to 15 N·m (11 lb·ft).



7. Prime the fuel system, Refer to section "Priming the Fuel System Using ESOC 350 Fuel Priming Pump - Two-Filter System".

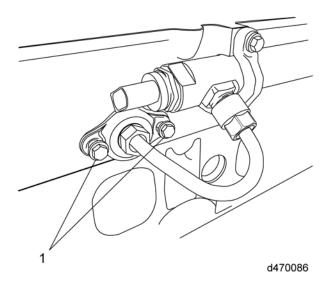
4 Removal of the High Pressure Fuel Injector Lines - Three-Filter System

Remove as follows:

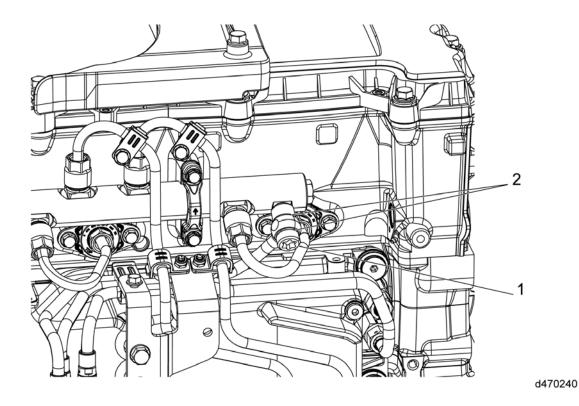
NOTICE: The high pressure fuel rail feed lines, P-clips, vibration dampers, mounting bracket and hardware are one-time-use components and MUST be replaced any time they are <u>loosened or removed</u>.

NOTICE: Engine size/model year specific service kits, containing all of the necessary parts to replace the high pressure fuel rail feed lines have been released. Refer to TS letter 13 TS-24 (http://ddcsn-ddc.freightliner.com/cps/rde/xbcr/ddcsn/13TS24.pdf) for the high pressure fuel line kit numbers to repair these engines.

1. Remove the two high pressure fuel injector line seal mounting bolts (1) securing the high pressure fuel injector line seal to the camshaft housing.

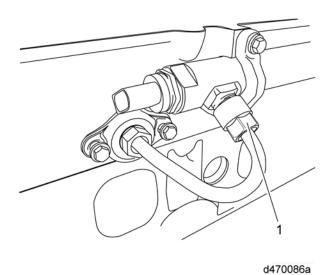


2. For the number six high pressure fuel injector line only, remove the Pressure Limiting Valve (PLV) return line banjo bolt (1) and discard the sealing washers (2).

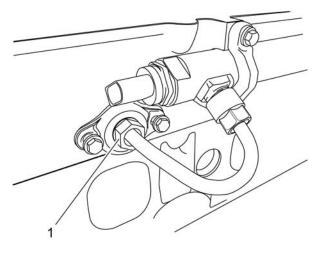


NOTE: Loosening high pressure injector lines from the rail first allows fuel to completely drain out, preventing oil contamination.

3. Using J-48770 or equivalent, loosen the high pressure fuel injector line rail fitting nut (1) at the fuel rail.



4. Using J-48770 or equivalent, loosen the high pressure fuel injector line nut (1) at the camshaft housing.



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NOTE: The high pressure fuel injector line seal is a single-use item and cannot be reused.

- 5. Remove the high pressure fuel injector line and high pressure fuel injector line seal as an assembly from the engine.
- 6. Remove and discard the high pressure fuel injector line seal from the high pressure fuel injector line.

5 Installation of the High Pressure Fuel Injector Lines - Three-Filter System

Install as follows:



WARNING: PERSONAL INJURY

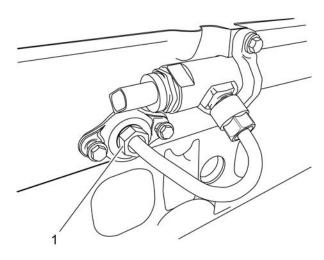
All hardware/components must be installed in the proper locations, and MUST be fastened to the specified torque. Failure to properly torque hardware/components will result in failure of a high pressure fuel feed line, resulting in possible fire and/or personal injury.

NOTICE: The high pressure fuel rail feed lines, P-clips, vibration dampers, mounting bracket and hardware are one-time use components and MUST be replaced any time they are **loosened or removed**.

NOTICE: Service kits have been released containing all of the necessary parts to replace the high pressure fuel rail feed lines on EPA07/10 DD13, GHG14 DD13, EPA07/10 DD15/16, GHG14 DD15TC/DD16 and GHG14 DD15AT engines. Refer to TS letter 13 TS-24 (http://ddcsn-ddc.freightliner.com/cps/rde/xbcr/ddcsn/13TS24.pdf) for the high pressure fuel line kit numbers to repair these engines.

NOTE: The high pressure fuel injector line seal is a single-use item and cannot be reused.

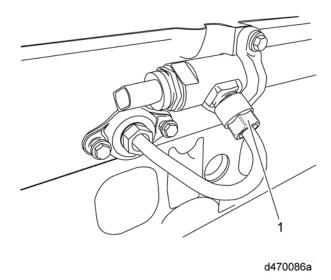
- 1. Lubricate the new high pressure fuel injector line O-ring with a light coat of clean diesel fuel.
- 2. Install the new high pressure fuel injector line seal on to the high pressure fuel injector line.
- 3. Install the high pressure fuel injector line and the new high pressure fuel injector line seal as an assembly onto the engine. Tighten high pressure fuel injector line nut (1) hand-tight.



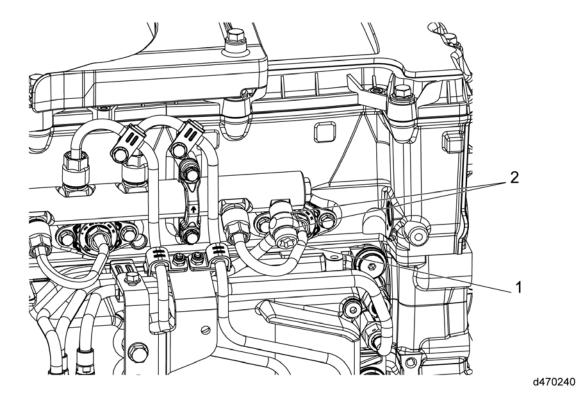
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NOTICE: During tightening of the number six high pressure fuel injector line at the fuel rail, make sure the tool does not bind against the Pressure Limiting Valve (PLV) banjo fitting. If the tool pushes against the banjo fitting, reposition the tool on the high pressure fuel injector line rail fitting nut so that the specified tightening torque can be accomplished without the tool binding against the PLV banjo fitting

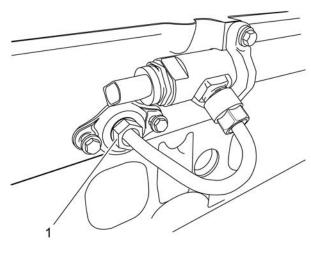
4. Using J-48770 or equivalent, tighten the high pressure fuel injector line rail fitting nut to the fuel rail. Torque to 40 N·m (30 lb·ft).



5. For the number six high pressure fuel injector line only, install the PLV sealing washers (2) and PLV return line banjo bolt (1). Torque to 30-32 N·m (22-24 lb·ft).

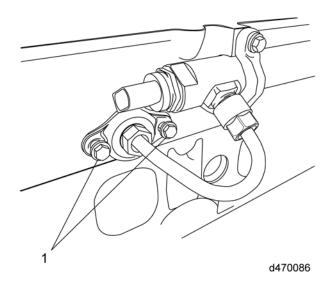


6. Using tool J-48770 or equivalent, torque the high pressure fuel injector line nut (1) to 40 N·m (30 lb·ft).



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7. Install two high pressure fuel injector line seal mounting bolts (1). Torque to 15 N·m (11 lb·ft).



8. Prime the fuel system, Refer to section "Priming the Fuel System Using ESOC 350 Fuel Priming Pump - Three-Filter System".