

1 9 10-14



## Service Information Bulletin

SUBJECT	DATE
High Pressure Fuel Rail Feed Lines	September 2014

### Additions, Revisions, or Updates

Publication Number / Title	Platform	Section Title	Change
DDC-SVC-MAN-0082 DDC-SVC-MAN-0182 DDC-SVC-MAN-S182	DD Platform EURO IV	Installation of the High Pressure Fuel Rail Feed Lines - Two-Filter System	Added note and graphic before step 10.
DDC-SVC-MAN-0082	DD13	Installation of the DD13 High Pressure Fuel Rail Feed Lines - Three-Filter System	Added note and graphic before step 9. Changed callout in step 9.
	DD15/16	Installation of the DD15 and DD16 High Pressure Fuel Rail Feed Lines - Three-Filter System	Added note and graphic before step 9.



13400 Outer Drive, West, Detroit, Michigan 48239-4001  
 Telephone: 313-592-5000  
[www.demanddetroit.com](http://www.demanddetroit.com)

## 2 Installation of the High Pressure Fuel Rail Feed Lines - Two-Filter System

Install as follows:

**NOTE:** KM59 GEN1 fuel filter module return lines are secured to the module with banjo bolts.

**NOTE:** KM63 GEN2 fuel filter module return lines are secured to the module with a mounting plate attached to the PLV return line.

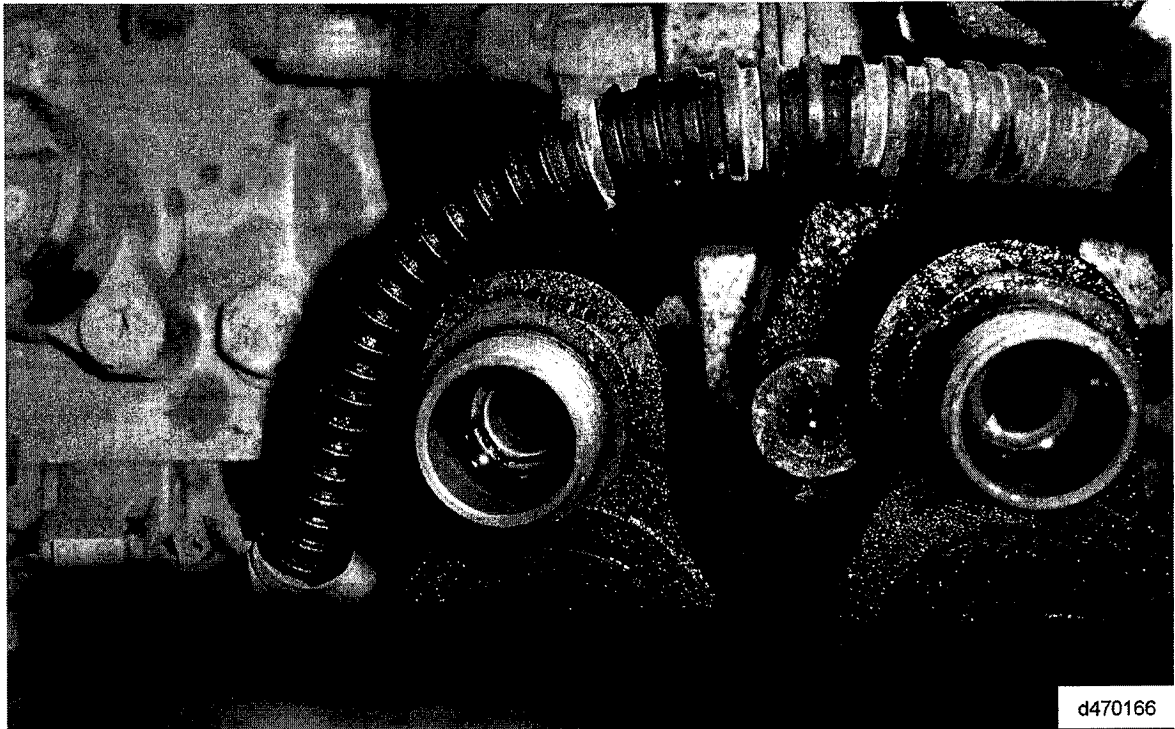
**NOTE:** DO NOT install bolts and fittings using power tools. All bolts and fittings **MUST** be installed using hand tools.



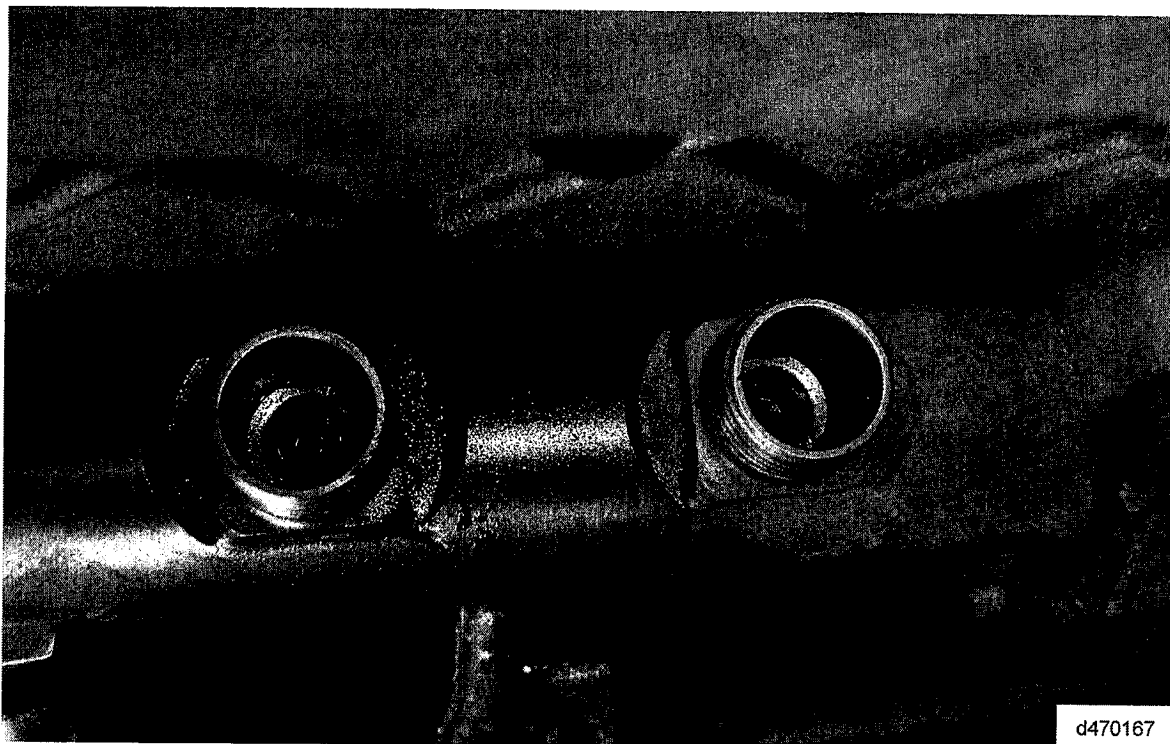
### **WARNING: PERSONAL INJURY**

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.

1. Clean the sealing area inside the high pressure fuel pump fittings using a clean lint free cloth.
  - a. The illustration shown below is a KM59 GEN1 High Pressure Fuel Pump Fittings; KM63 GEN2 High Pressure Fuel Pump Fittings is similar.



2. Clean the sealing area inside the high pressure fuel rail using a clean lint free cloth.
  - a. The illustration shown below is a KM59 GEN1 High Pressure Fuel Rail; KM63 GEN2 High Pressure Fuel Rail is similar.



3. Install the rear high pressure fuel line (3) to the fuel rail and the high pressure fuel pump. Hand-tighten the nuts.

**Table 1.**

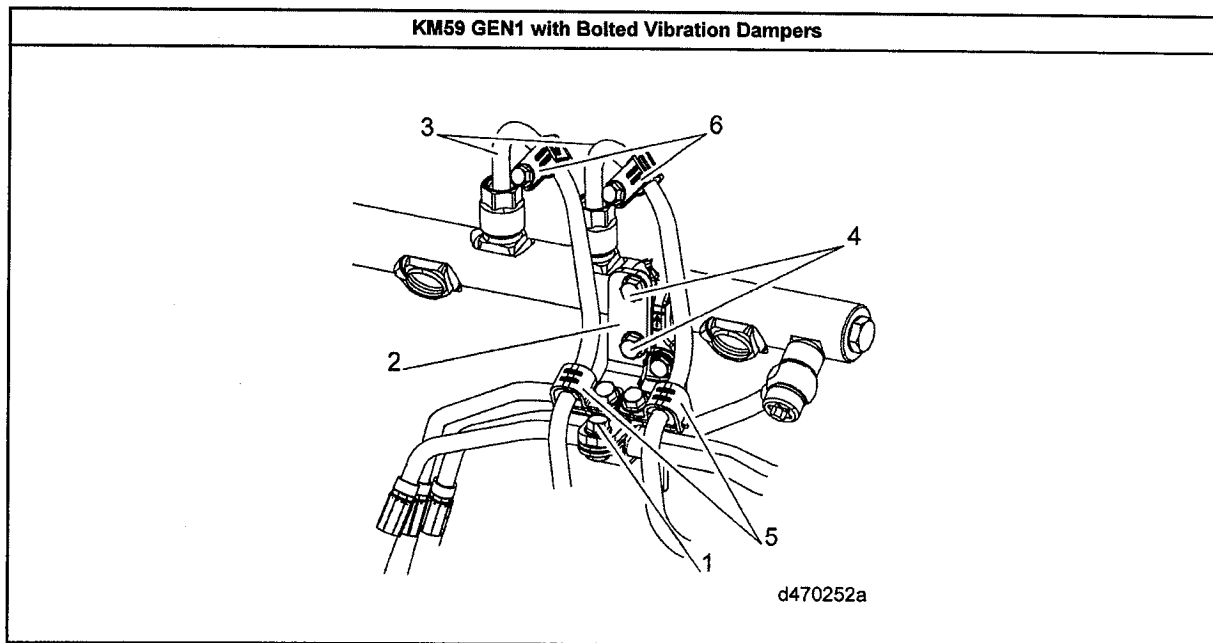


Table 2.

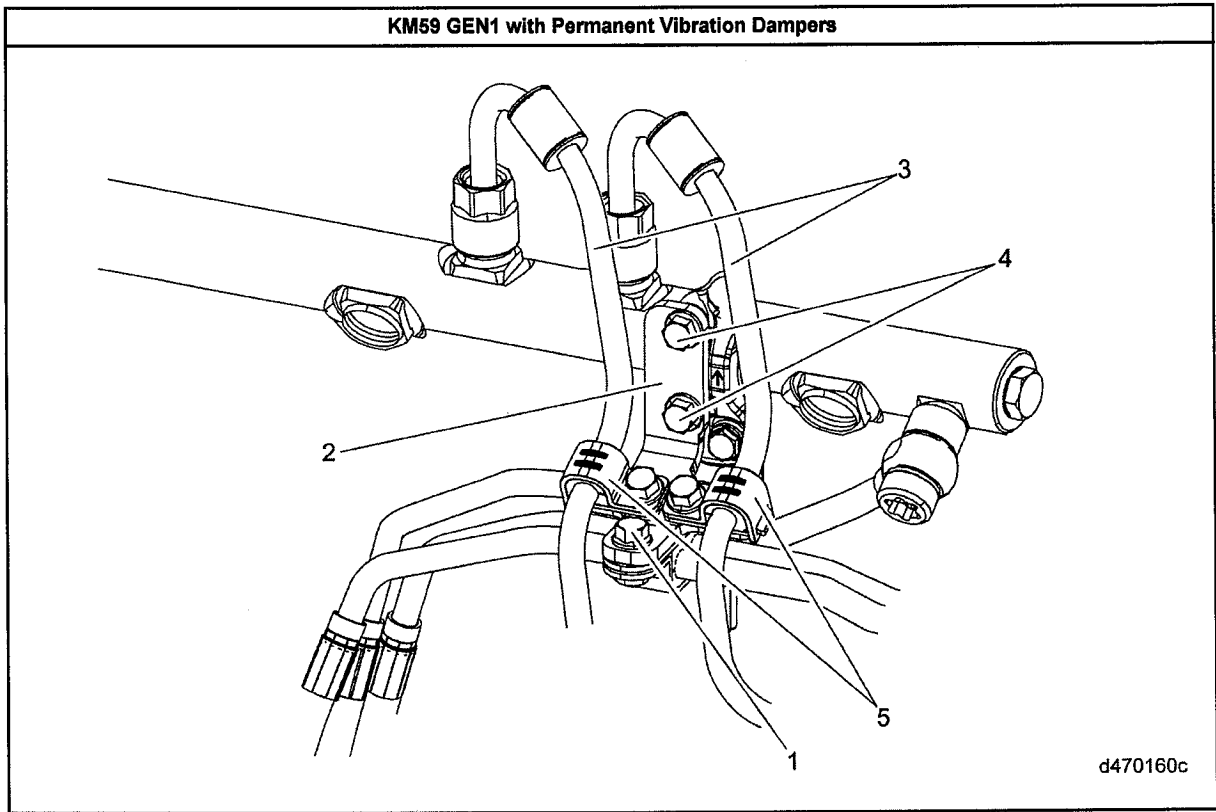
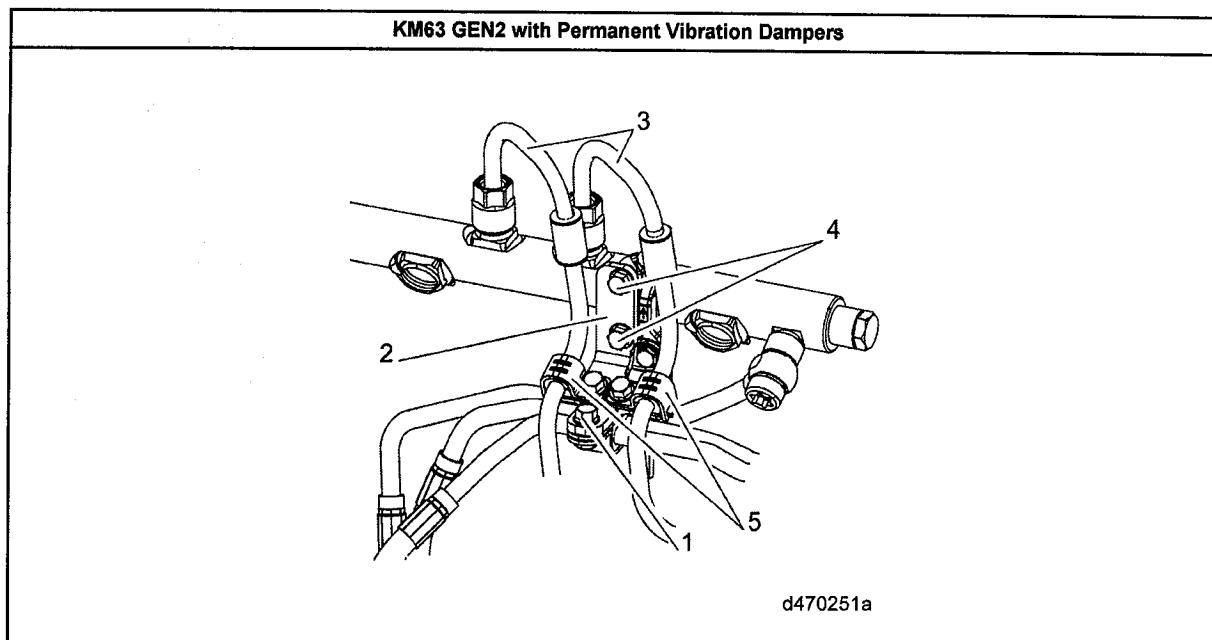


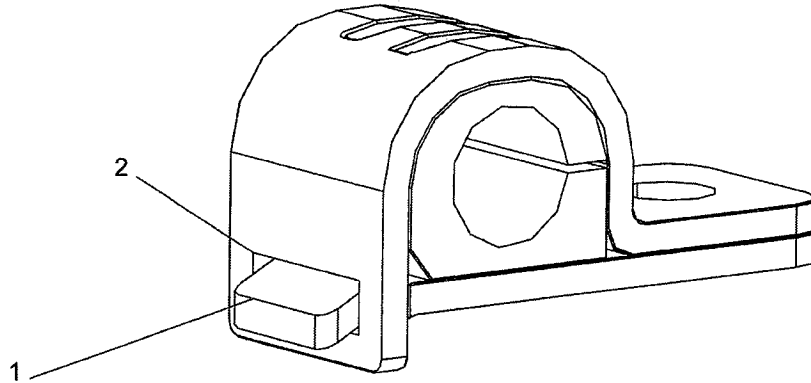
Table 3.



4. Using tool J-48770, torque the rear high pressure fuel line nuts to 40 N·m (30 lb·ft).
5. Install the front high pressure fuel line (3) (see illustrations above) to the fuel rail and the high pressure fuel pump. Hand-tighten the nuts.
6. Using tool J-48770, torque the front high pressure fuel line nuts to 40 N·m (30 lb·ft).
7. Install the new mounting bracket (2) and two new mounting bracket bolts (4) to the fuel rail clamp. Torque to 15 N·m (132 lb·in.). See illustrations above.

**NOTICE:** New P-clip **MUST** be installed on to the high pressure fuel rail feed lines with the lower P-clip plate inserted in to the P-clip window.

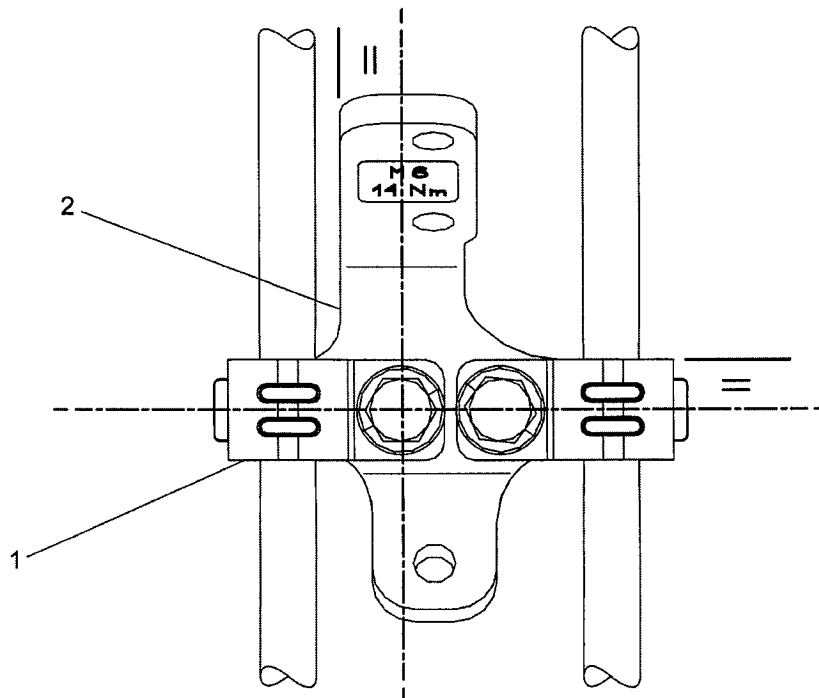
8. Install new P-clips on to the high pressure fuel rail feed lines with the lower P-clip plate (1) inserted in to the P-clip window (2).
  - a. The illustration shown below is a P-clip.



d470247

**NOTE:** New P-clips (1) MUST be installed perpendicular to the bracket (2) and parallel with each other. Hold P-clips in place during tightening to avoid rotation of the P-Clips.

b. The illustration shown below is a cross section of the P-clips and bracket.



d470318

9. Install two new P-clips (5) and two new bolts to the high pressure fuel rail feed lines (3) and the mounting bracket (2). Torque to 15 N·m (132 lb·in.).

Table 4.

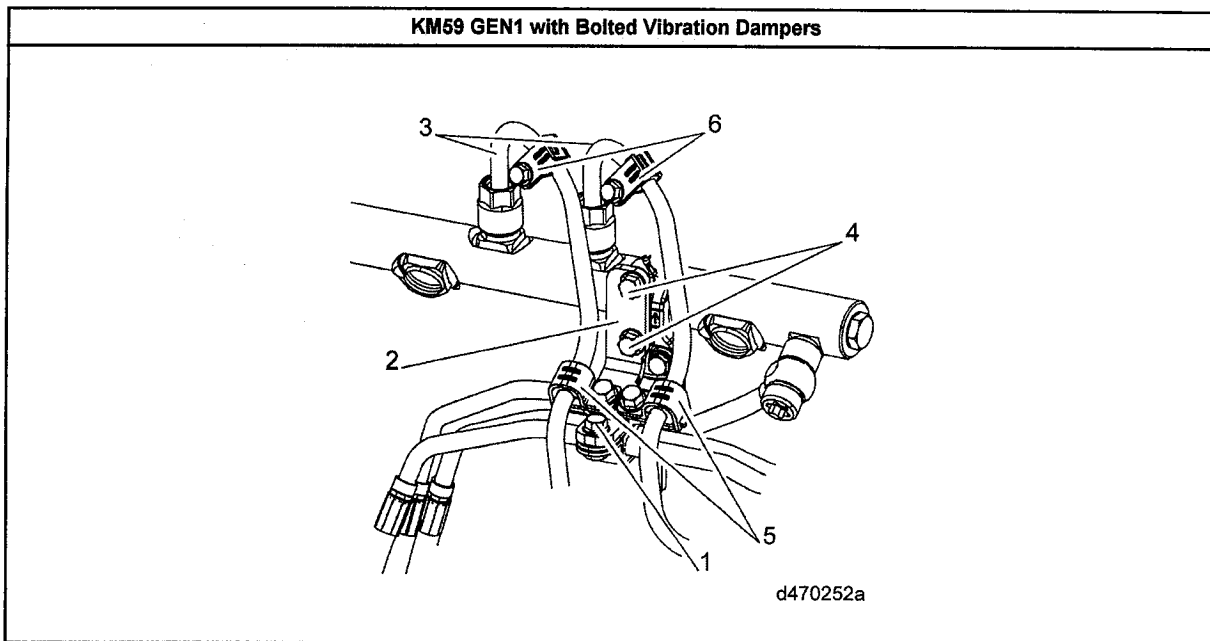


Table 5.

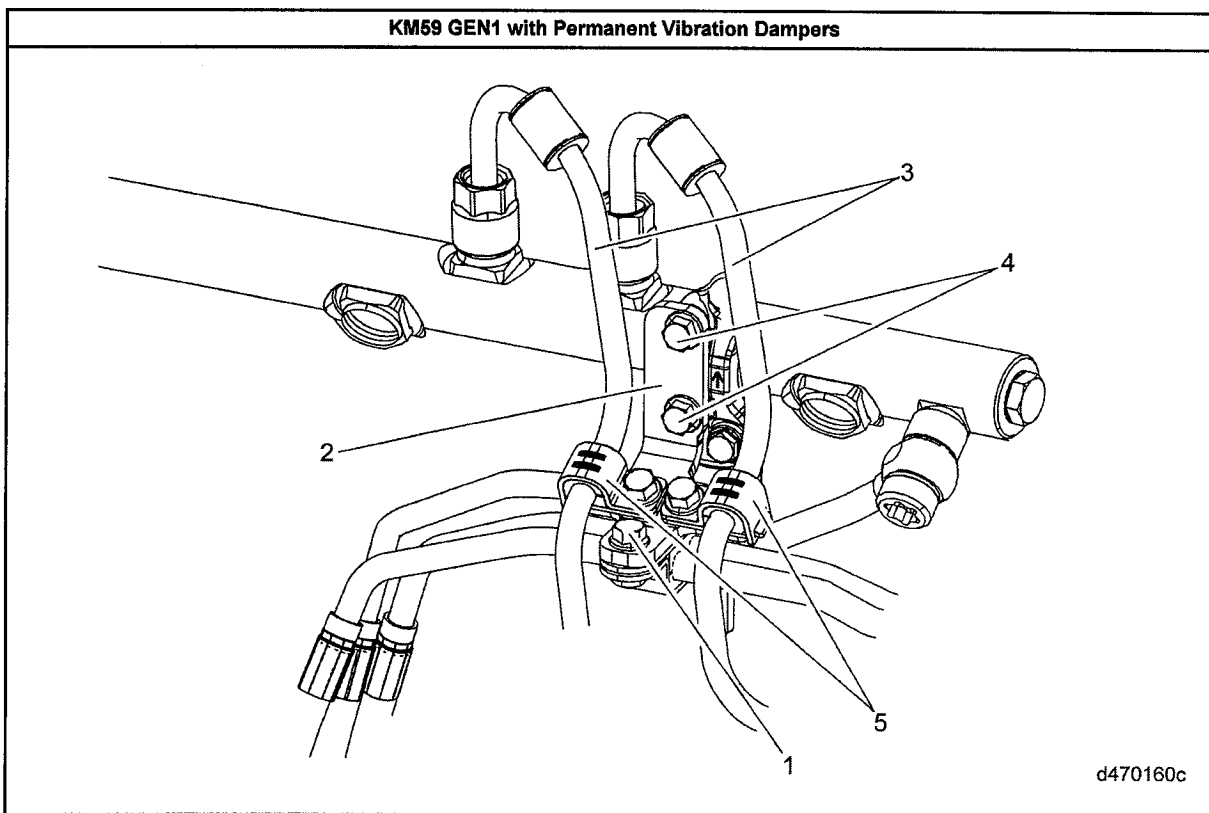
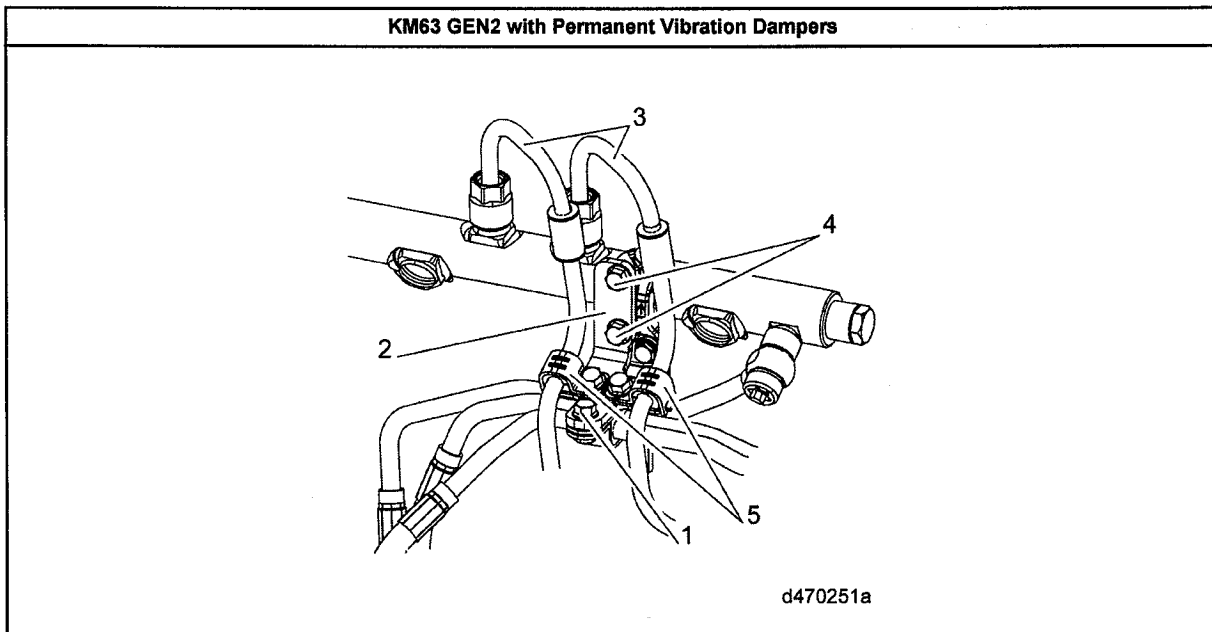


Table 6.



10. Reinstall the return lines P-clip (1). Torque to 15 N·m (132 lb·in.) See illustrations above.

**NOTE:** DO NOT use high pressure fuel lines without new vibration dampers and new bolts installed.



**CAUTION: ELECTRICAL SHOCK**

To avoid injury from electrical shock, use care when connecting battery cables. The magnetic switch studs are at battery voltage.

11. Connect the batteries.
12. Prime the fuel system. Refer to section "Priming the Fuel System Using ESOC 350 Fuel Priming Pump - Two-Filter System".
13. Perform the Rail Pressure Bleed-Off test to verify that there are no leaks. Refer to section "Rail Pressure Bleed Off Test Using DiagnosticLink® - Two-Filter Fuel System". Refer to section "FIS Low Pressure Leak Test-Two-Filter Fuel System".
14. If there are leaks, find the leak and repair, as necessary.

### 3 Installation of the DD13 High Pressure Fuel Rail Feed Lines - Three-Filter System

Install as follows:

**NOTICE:** Failure to follow these instructions will result in catastrophic damage to the engine and will not be covered under warranty.

**NOTE:** DO NOT install bolts and fittings using power tools. All bolts and fittings MUST be installed using hand tools.



**WARNING: PERSONAL INJURY**

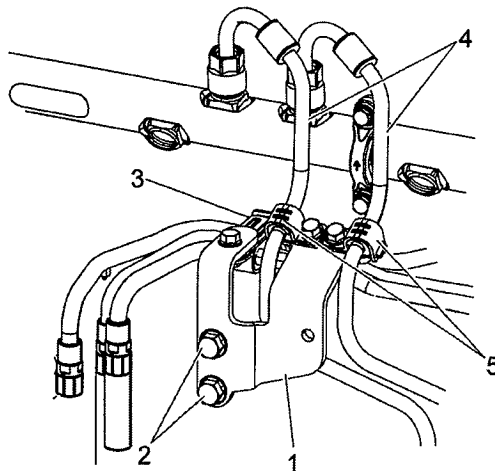
All hardware/components must be installed in the proper locations, and MUST be fastened to the specified torque. Failure to properly torque hardware/components will result in failure of a high pressure fuel feed line, resulting in possible fire and/or personal injury.



**WARNING: PERSONAL INJURY**

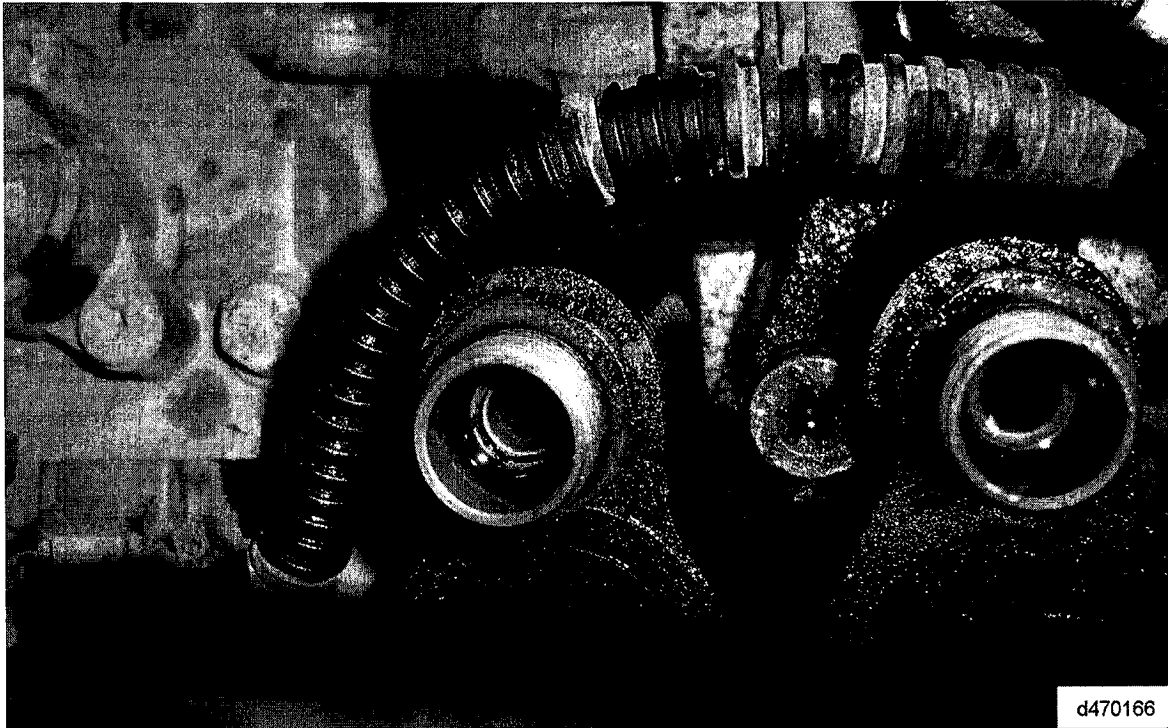
All parts provided within this kit are single-use items and cannot be re-used. Re-use of hardware/component items may result in the failure of a high pressure fuel line, resulting in possible fire and/or personal injury.

1. Install the new return lines P-clip (3) on to the return lines.

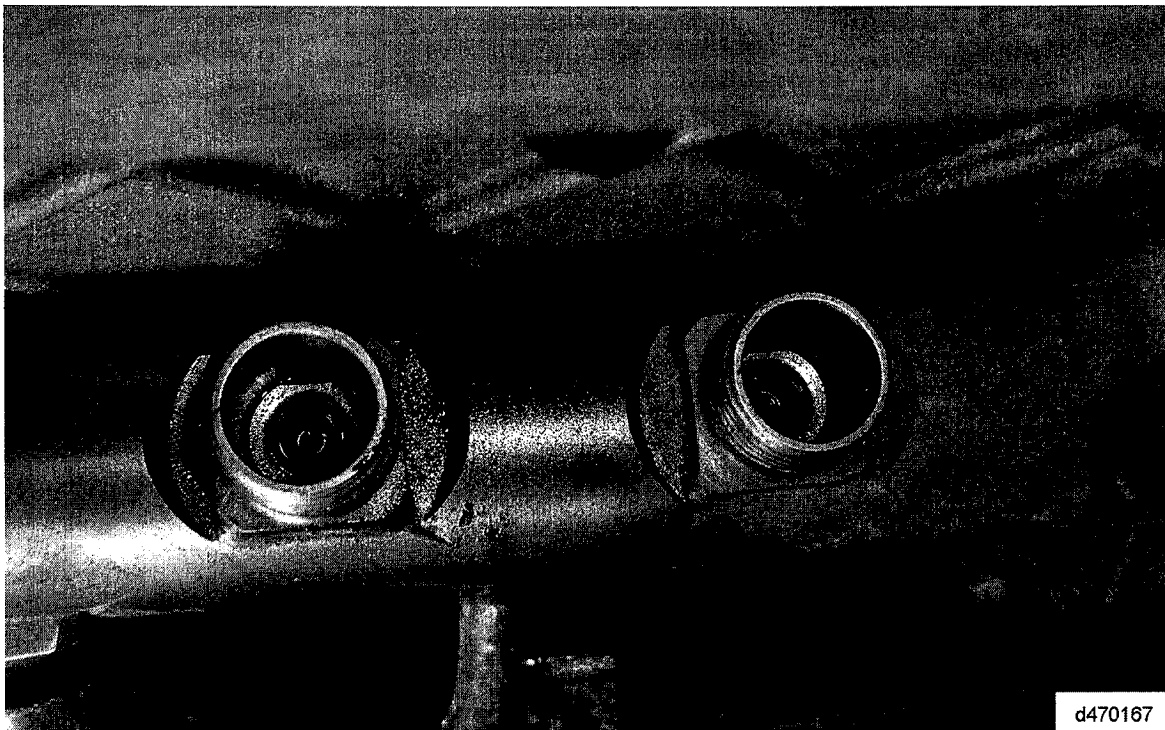


d470099b

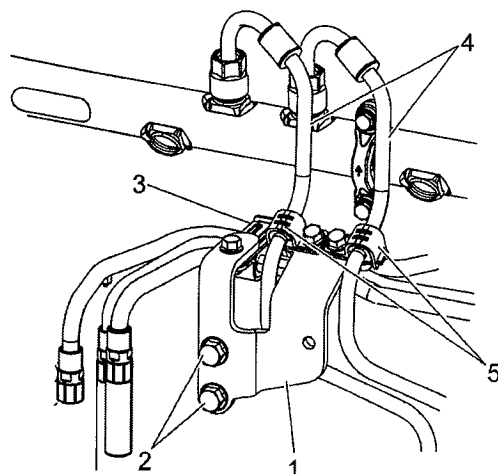
2. Clean the sealing area inside the high pressure fuel pump fittings using a clean lint-free cloth.



3. Clean the sealing area inside the high pressure fuel rail using a clean lint-free cloth.



4. Install the rear high pressure fuel line (4) to the fuel rail and the high pressure fuel pump. Hand tighten the nuts.

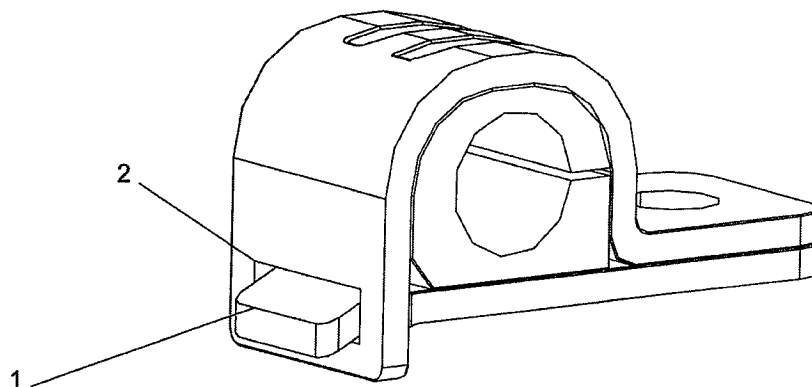


d470099b

5. Using tool J-48770, torque the rear high pressure fuel line nuts to 40 N·m (30 lb·ft).
6. Install the front high pressure fuel line (4) to the fuel rail and the high pressure fuel pump. Hand tighten the nuts. See illustration above.
7. Using tool J-48770, torque the front high pressure fuel line nuts to 40 N·m (30 lb·ft).
8. Install the new mounting bracket (1) and two new mounting bracket bolts (2) to the intake manifold. Torque to 30 N·m (22 lb·ft). See illustration above.

**NOTICE:** New P-clip/vibration dampers **MUST** be installed on to the high pressure fuel rail feed lines with the Lower P-clip Plate (1) inserted in to the P-clip/vibration damper Window (2).

- a. The illustration shown below is a P-clip.

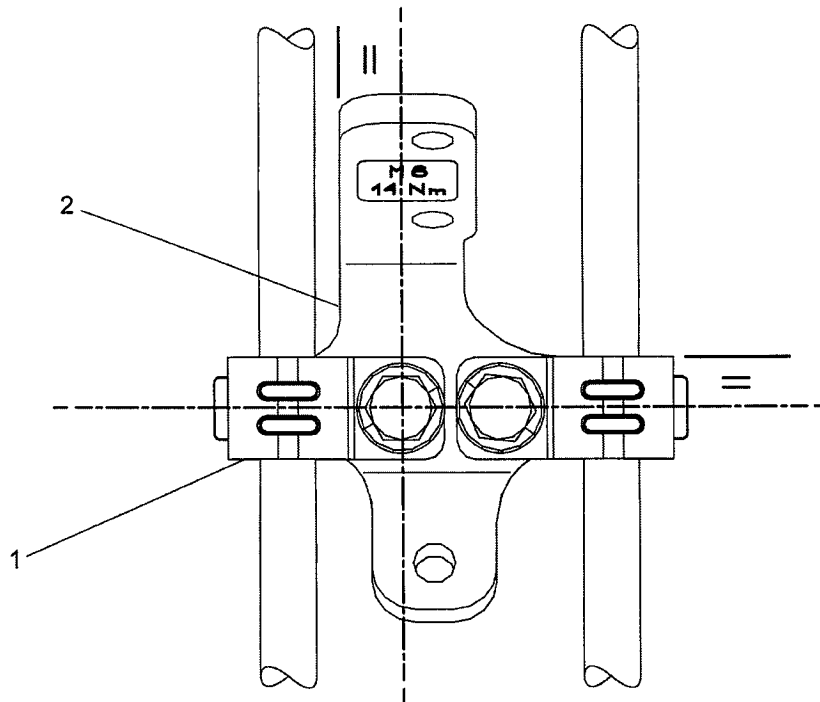


d470247

**NOTE:**

New P-clips (1) **MUST** be installed perpendicular to the bracket (2) and parallel with each other. Hold P-clips in place during tightening to avoid rotation of the P-Clips.

- b. The illustration shown below is a cross section of the P-clips and bracket.



d470318

9. Install two new P-clips and two new bolts on to the high pressure fuel rail feed lines. Torque to 15 N·m (132 lb·in.).
10. Install a new bolt on to the return lines P-clip. Torque to 15 N·m (132 lb·in.).



**CAUTION: ELECTRICAL SHOCK**

To avoid injury from electrical shock, use care when connecting battery cables. The magnetic switch studs are at battery voltage.



**WARNING: PERSONAL INJURY**

The high-pressure fuel rail feed lines, P-clips, vibration dampers, mounting bracket and hardware are single-use components that **MUST** be replaced if loosened or removed. Re-use of hardware/component items may result in the failure of a high pressure fuel line, resulting in possible fire and/or personal injury.

11. Connect the batteries.
12. Prime the fuel system. Refer to section "Priming the Fuel System Using ESOC 350 Fuel Priming Pump - Three-Filter System".
13. Perform the Rail Pressure Bleed-Off test to verify that there are no leaks. Refer to section "Rail Pressure Bleed Off Test Using DiagnosticLink® Standard (EPA07 and EPA10) - Three-Filter Fuel System". Refer to section "FIS Leak Detection-Three-Filter Fuel System".
14. If there are leaks, find the leak and repair, as necessary.

## 4 Installation of the DD15 and DD16 High Pressure Fuel Rail Feed Lines - Three-Filter System

Install as follow:

**NOTE:** DO NOT install bolts and fittings using power tools. All bolts and fittings MUST be installed using hand tools.



### 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.



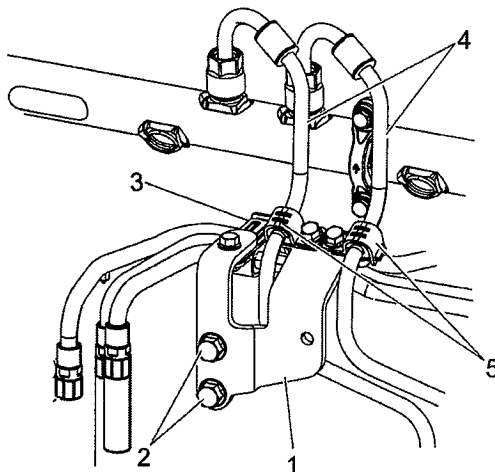
### WARNING: PERSONAL INJURY

All parts provided within this kit are single-use items and cannot be re-used. Re-use of hardware/component items may result in the failure of a high pressure fuel line, resulting in possible fire and/or personal injury.

**NOTE:** The new return line P-clip is installed on the return lines so the mounting bracket is under the return line P-clip.

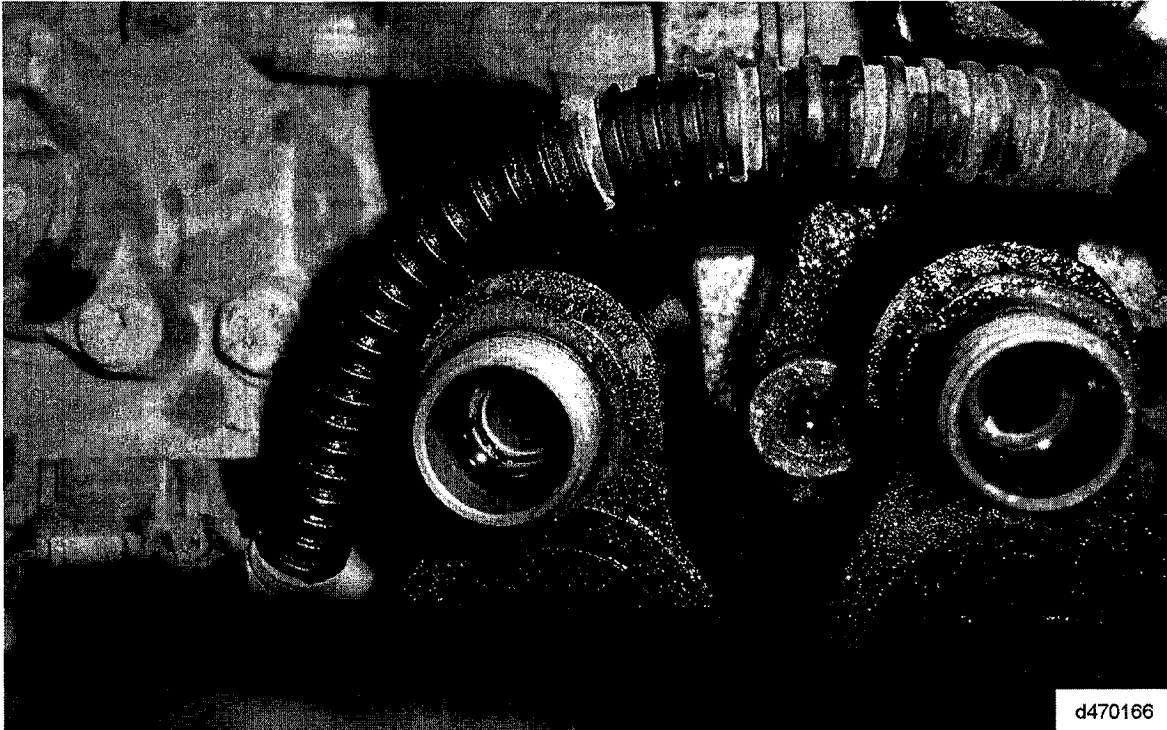
**NOTICE:** Failure to follow these instructions will result in catastrophic damage to the engine and will not be covered under warranty.

1. Install the new return lines P-clip (3) on to the return lines.

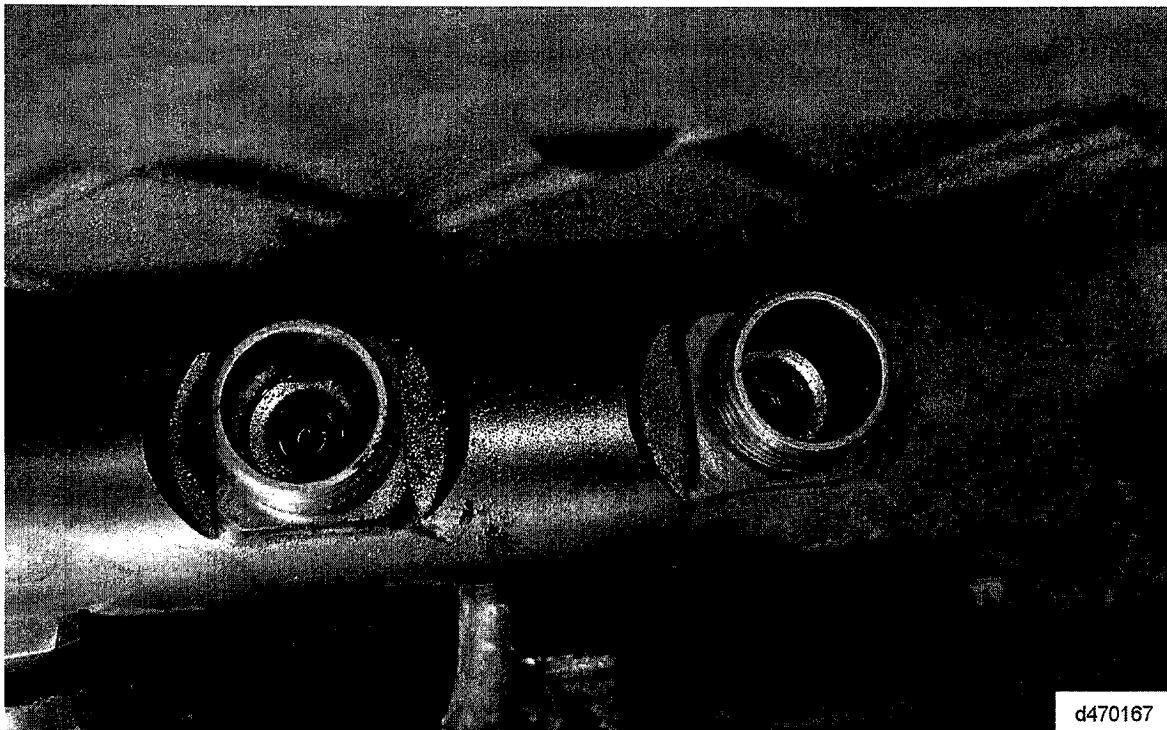


d470099b

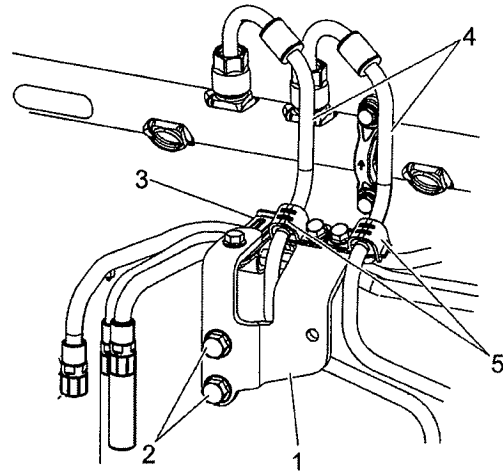
2. Clean the sealing area inside the high pressure fuel pump fittings using a clean lint-free cloth.



3. Clean the sealing area inside the high pressure fuel rail using a clean lint-free cloth.



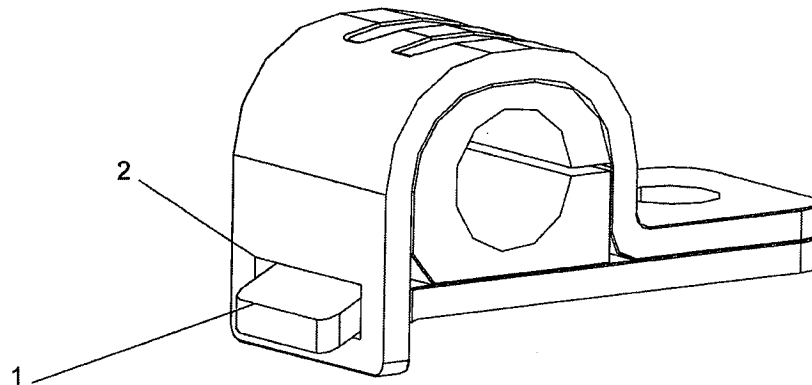
4. Install the rear high pressure fuel line (4) to the fuel rail and the high pressure fuel pump. Hand-tighten the nuts.
5. Using tool J-48770, torque the rear high pressure fuel line nuts to 40 N·m (30 lb·ft).
6. Install the front high pressure fuel line (4) to the fuel rail and the high pressure fuel pump. Hand-tighten the nuts.
7. Using tool J-48770, torque the front high pressure fuel line nuts to 40 N·m (30 lb·ft).
8. Install the new mounting bracket (1) and two new mounting bracket bolts (2) to the intake manifold. Torque to 30 N·m (22 lb·ft).



d470099b

**NOTICE:** New P-clip/vibration dampers **MUST** be installed on to the high pressure fuel rail feed lines with the Lower P-clip Plate (1) inserted in to the P-clip/vibration damper Window (2).

- a. The illustration shown below is a P-clip.

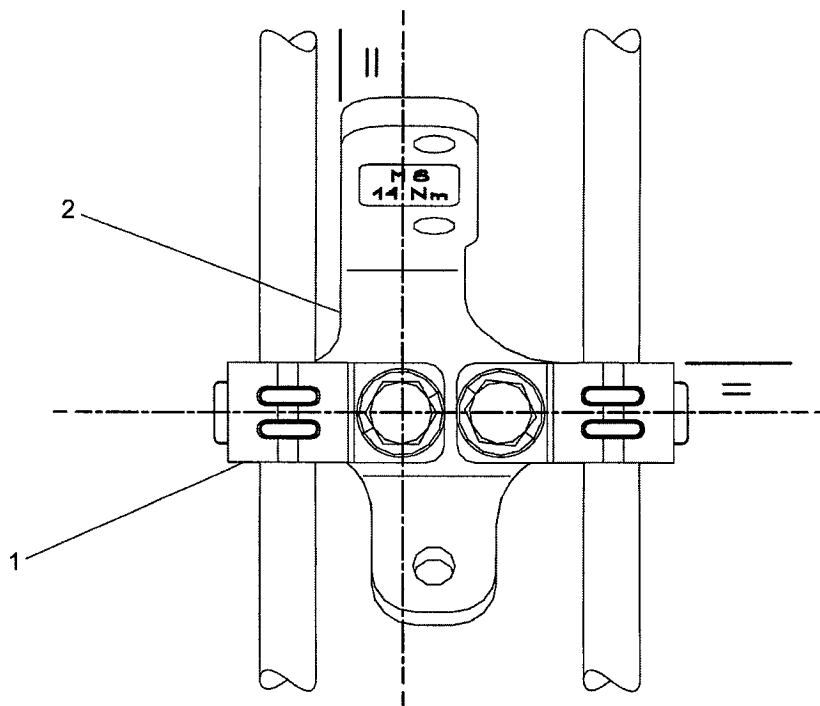


d470247

**NOTE:**

New P-clips (1) **MUST** be installed perpendicular to the bracket (2) and parallel with each other. Hold P-clips in place during tightening to avoid rotation of the P-Clips .

- b. The illustration shown below is a cross section of the P-clips and bracket.



d470318

9. Install two new P-clips and two new bolts on to the high pressure fuel rail feed lines. Torque to 15 N·m (132 lb·in.).
10. Install a new bolt on to the return lines P-clip. Torque to 15 N·m (132 lb·in.).



**CAUTION: ELECTRICAL SHOCK**

To avoid injury from electrical shock, use care when connecting battery cables. The magnetic switch studs are at battery voltage.



**WARNING: PERSONAL INJURY**

The high-pressure fuel rail feed lines, P-clips, vibration dampers, mounting bracket and hardware are single-use components that **MUST** be replaced if loosened or removed. Re-use of hardware/component items may result in the failure of a high pressure fuel line, resulting in possible fire and/or personal injury.

11. Connect the batteries.
12. Prime the fuel system. Refer to section "Priming the Fuel System Using ESOC 350 Fuel Priming Pump - Three-Filter System".
13. Perform the Rail Pressure Bleed-Off test to verify that there are no leaks.  
Refer to section "Rail Pressure Bleed Off Test Using DiagnosticLink® Standard (EPA07 and EPA10) - Three-Filter Fuel System".  
Refer to section "FIS Leak Detection-Three-Filter Fuel System".
14. If there are leaks, find the leak and repair, as necessary.