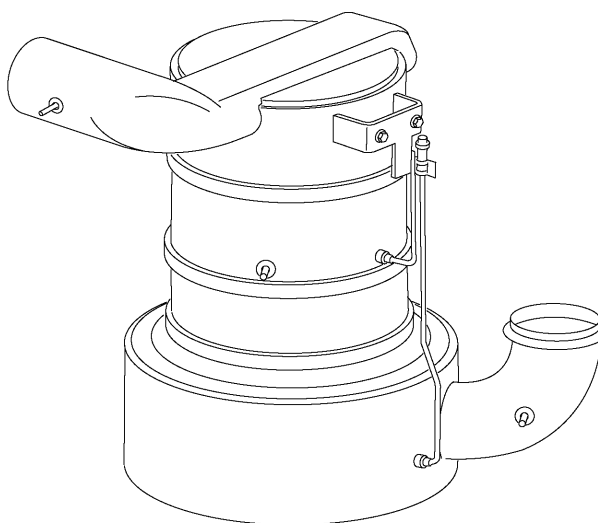


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Particulate Filter Insert  
Replacement  
D11F, D13F, D16F

## Particulate Filter Insert, Replacement



W2005916

This information covers the replacement of the Diesel Particulate Filter (DPF) Insert on a vehicle equipped with a Volvo D11F, D13F, or D16F engine.

### Contents

- "Particulate Filter Insert, Replacement" page 2.

**Note:** Information is subject to change without notice. Illustrations are used for reference only, and may differ slightly from the actual vehicle being serviced. However, key components addressed in this information are represented as accurately as possible.

## **2545-03-02-05**

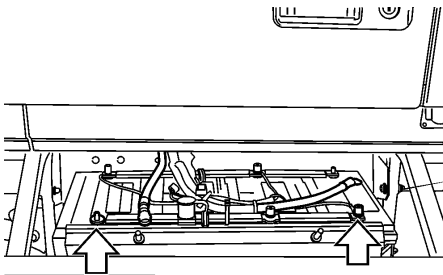
### **Particulate Filter Insert, Replacement**

You must read and understand the precautions and guidelines in Service Information, group 20, "General Safety Practices, Engine" before performing this procedure. If you are not properly trained and certified in this procedure, ask your supervisor for training before you perform it.

### **Compact DPF**

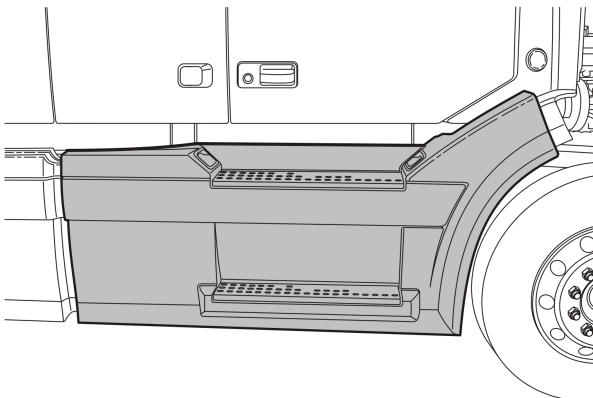
#### **DPF Filter Removal**

- 1**  
Apply the parking brake and place the shift lever in neutral.
- 2**  
Remove all cables from ground (negative) battery terminals to prevent personal injury from electrical shock.



W2003815

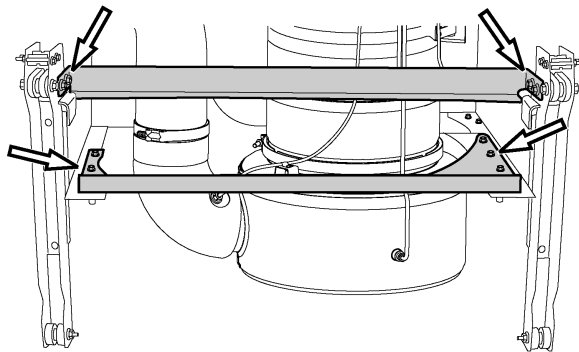
- 3**  
Remove the right side chassis fairing, if equipped.



W2005915

**4**

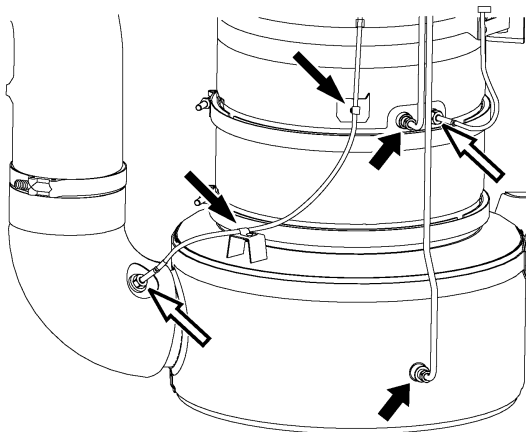
Remove the bolts and nuts securing braces and/or steps located between the angle wing brackets and remove.



W2005956

**5**

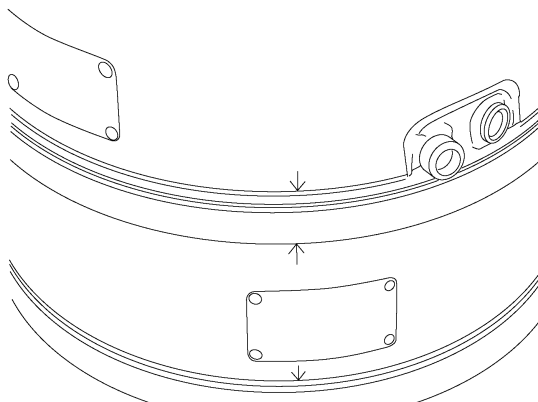
Remove outlet and mid-temperature sensors and P-clamps used to secure temperature sensor harnesses. Also, remove both pressure differential sensor tubes.



W2006027

**6**

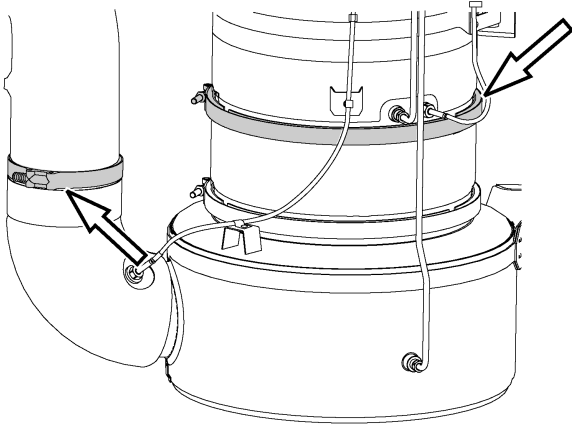
Using a marker, make alignment marks on each of the module sections, above and below each band clamp.



W2005818

**7**

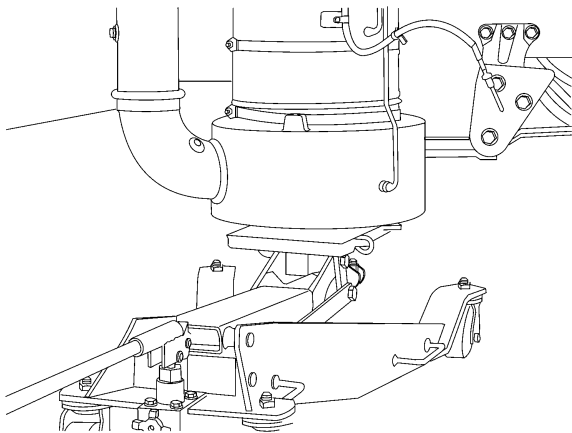
Remove the lower exhaust V-band clamp that connects the DPF outlet module to the exhaust pipe. Also, remove the V-band clamp that connects the catalyst module to the filter module.



W2006026

**8**

Position a flat surface jack with a very stable support (such as a transmission jack) under the base of the DPF.

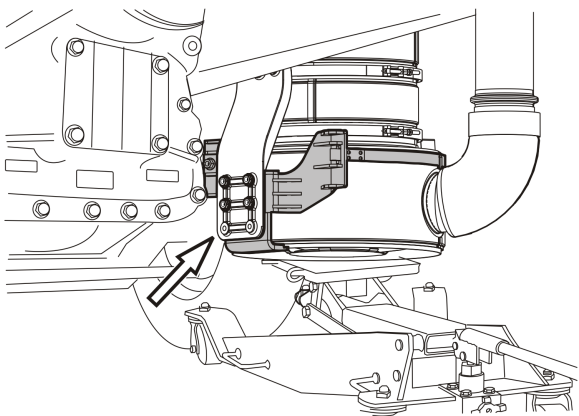


W2005912

**9**

Remove the fasteners which secure the DPF lower supporting bracket to the chassis frame bracket. This will release the weight of the DPF lower portion onto the transmission jack.

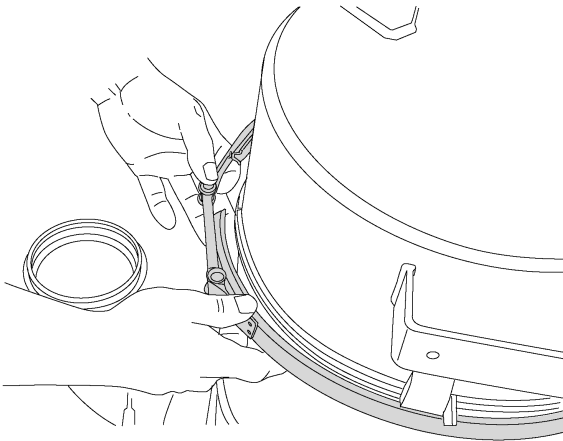
**Note:** Removing the lower bracket will release the weight. Ensure the transmission jack is properly positioned and level.



W2005908

**10**

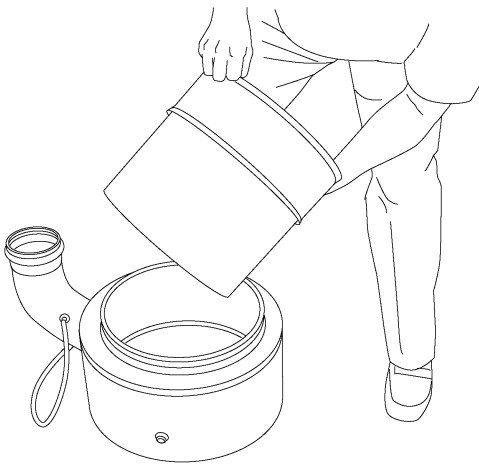
Lower and roll the transmission jack out from the right side of the chassis to remove the lower portion of DPF.



W2005798

**11**

Loosen the nut securing the large V-band clamp between the exhaust outlet module and the filter module.



W2005810

**12**

Lift to remove the diesel particulate filter module from the outlet module. Remove and discard the high temperature gasket.



**CAUTION**

The following precautions should be considered before handling the Diesel Particulate Filter (DPF) muffler components:

- A. Wear suitable eye protection.
- B. Wear suitable overalls or apron and heavy-duty gloves to avoid skin contact.
- C. Wear suitable respirator to avoid inhalation.
- D. Ensure adequate ventilation.

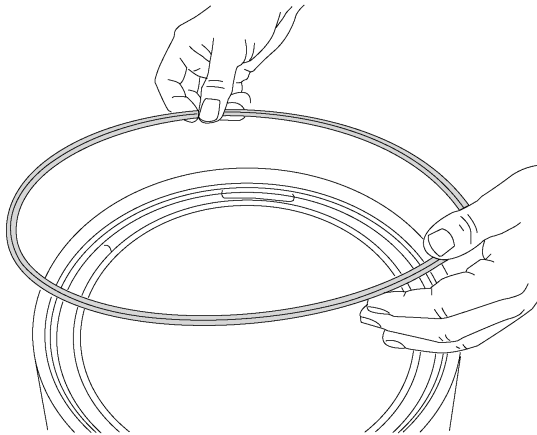
**13**

Inspect the two band clamps for galled threads, cracks or heat-damaged areas. Replace any clamp found to contain any irregularity.

## DPF Filter Installation

**1**

Before installation, clean all gasket sealing surfaces of the filter, catalyst and outlet modules. Place a new high temperature gasket on the clean outlet module sealing surface.

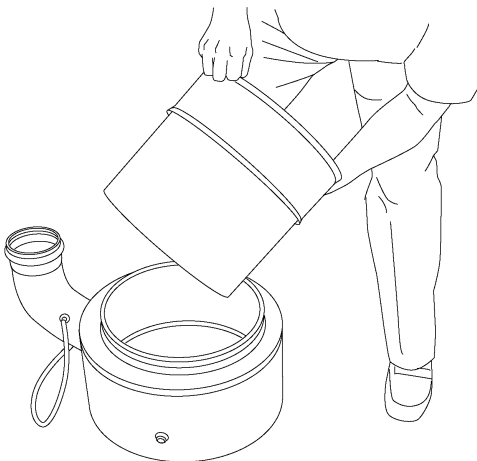


W2005800

**2**

Align the marks made at disassembly and carefully lower the filter module (with new gasket) into the outlet module opening.

**Note:** Make sure the high temperature gasket remains in place and has not become dislodged.



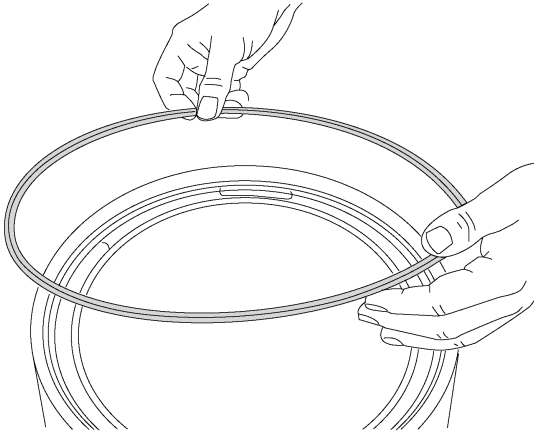
W2005810

**3**

Install the large V-band clamp over the filter module and position the clamp to allow the tightening nut to align with the exhaust outlet port. Allow the V-band clamp to remain loose at this time.

**4**

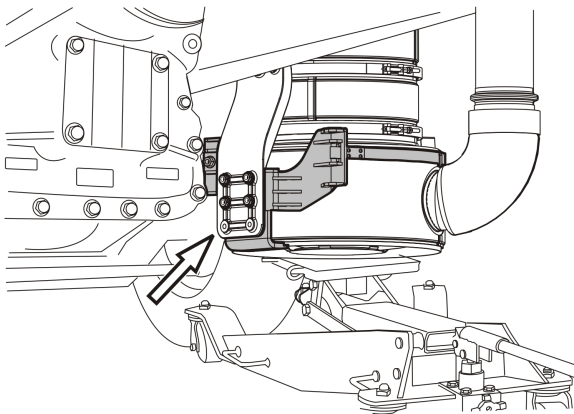
Place a new high temperature gasket on top of the filter module.



W2005800

**5**

Using the transmission jack, lift the lower section of the DPF muffler into position next to the chassis frame bracket.



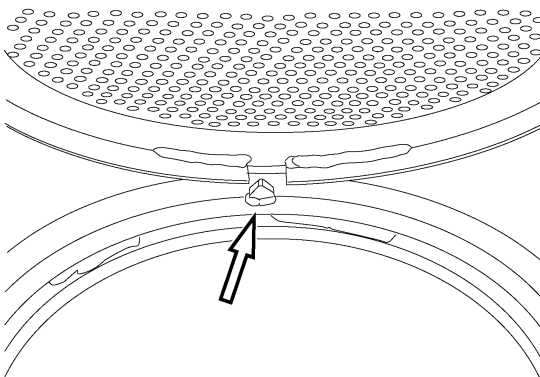
W2005908

**6**

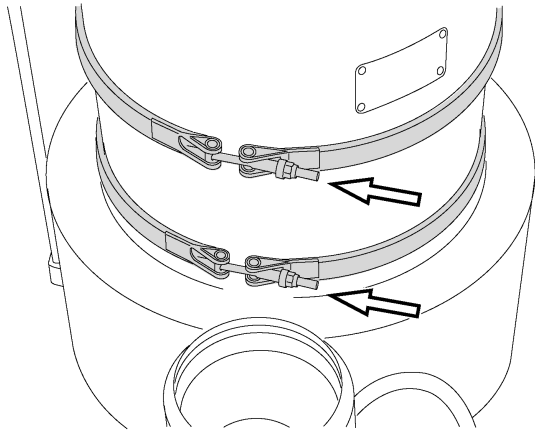
Perform the following steps to align and lift the filter and outlet module assembly into position:

- Align the outlet module flange to the exhaust pipe.
- Align the locator tab at the top of the filter module with the slot located in the bottom of the catalyst module.
- Start all fasteners that connect the lower supporting bracket to the chassis frame bracket.

**Note:** Make sure the high temperature gasket remains in place and has not become dislodged.



W2005801



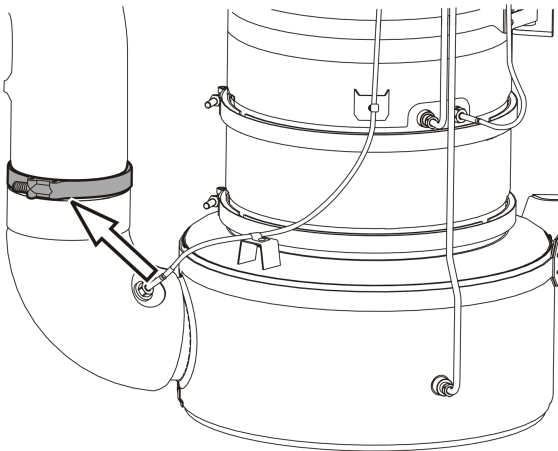
W2005797

**7**

Install the large V-band clamp onto the catalyst module and secure the catalyst module to the filter module. Position the clamp to allow the tightening nut to align with the exhaust outlet port. Both clamps should now align. Torque-tighten the clamp fastener to 20 Nm (177 in-lb).

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20 Nm  
(177 in-lb)



W2005911

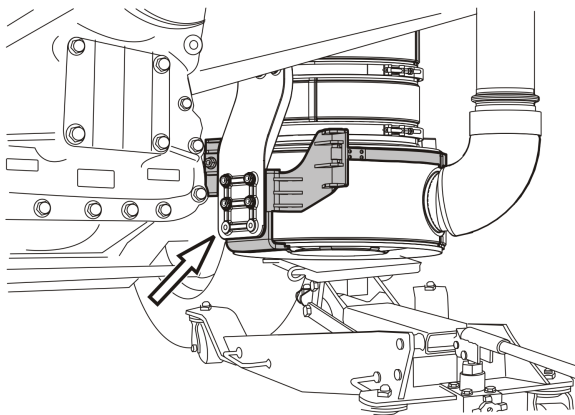
**8**

Install the lower exhaust V-band clamp that connects the outlet module to the exhaust pipe. Torque-tighten the clamp fastener to  $7 \pm 2$  Nm ( $62 \pm 18$  in-lb).

**Note:** Inspect clamps for galled threads or deformed clamping surfaces. Replace clamps as required.

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$7 \pm 2$  Nm  
( $62 \pm 18$  in-lb)



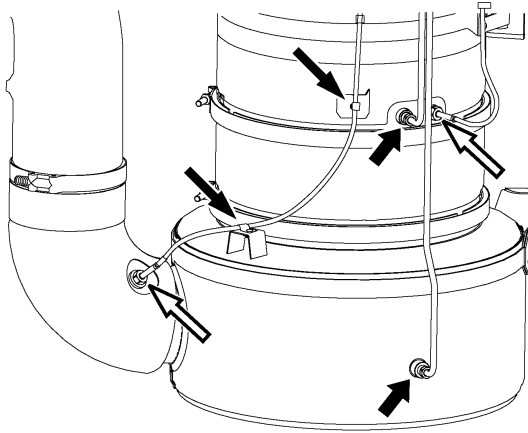
W2005908

**9**

Secure the DPF bracket to the chassis frame bracket. Torque-tighten the fasteners to  $48 \pm 8$  Nm ( $35 \pm 6$  ft-lb). Remove the transmission jack.

---

$48 \pm 8$  Nm  
( $35 \pm 6$  ft-lb)

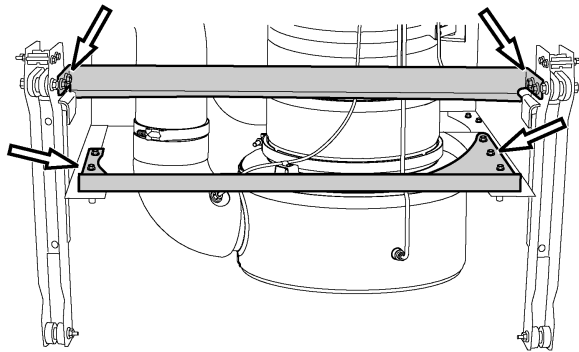


W2006027

**10**

Install outlet and mid-temperature sensors and P-clamps used to secure temperature sensor harnesses. Also, install both pressure differential sensor tubes. Torque-tighten to specifications.

**Note:** A high temperature anti-seizing compound should always be applied to the threads of sensors, plugs or fittings in the exhaust system to avoid component seizure or corrosion.



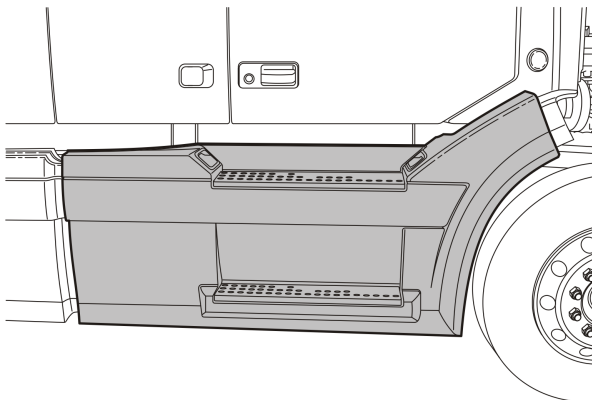
W2005956

**11**

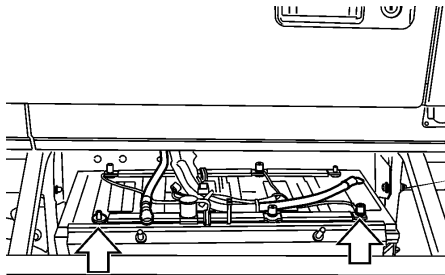
Position the connector braces and/or steps located between the angle wing brackets and secure using bolts and nuts. Torque-tighten to specification.

**12**

Reinstall the right side chassis fairing, if equipped.



W2005915



W2003815

**13**

Install all previously removed cables to the ground (negative) battery terminals.

**14**

Start the engine, check for exhaust leaks and proper operation.

**15**

Use VCADS/Tech Tool to reset soot and ash ratio. Clear fault codes if necessary.