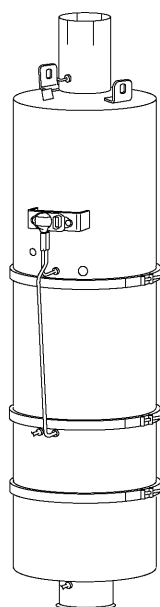


Date	Group	No.	Page
2.2008	<b>254</b>	<b>69</b>	1(14)

## Particulate Filter Insert Replacement D11F, D13F, D16F

### Particulate Filter Insert, Replacement



W2005978

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

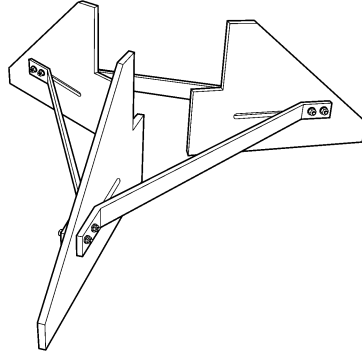
#### Contents

- "Special Tools" page 2.
- "Particulate Filter Insert, Replacement" page 3.

**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.

## Special Tools

For special tools ordering instructions, refer to Tools Information, group 08.



W0002398

**85111327**

DPF Support Stand

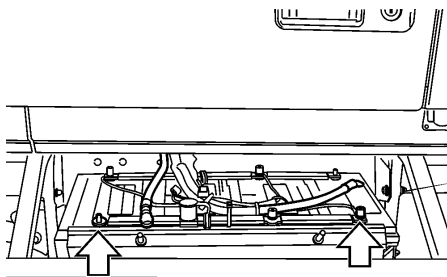
## 2545-03-02-05 Particulate Filter Insert, Replacement

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.

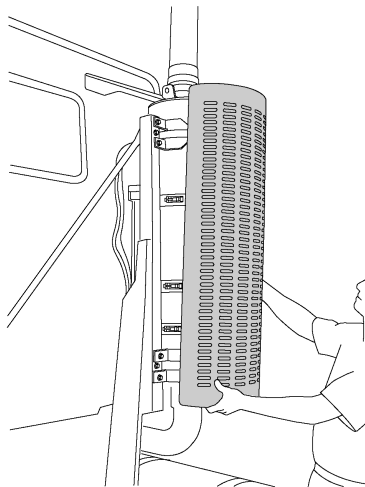
### Vertical Back of Cab

#### 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.



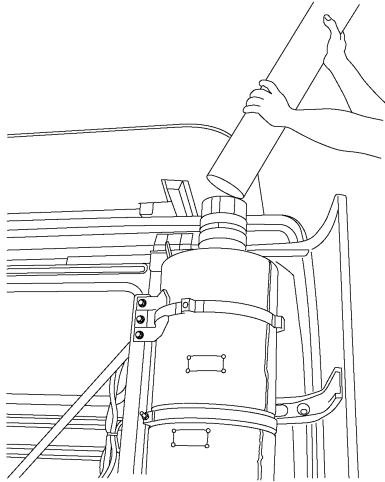
W2003815



W2005986

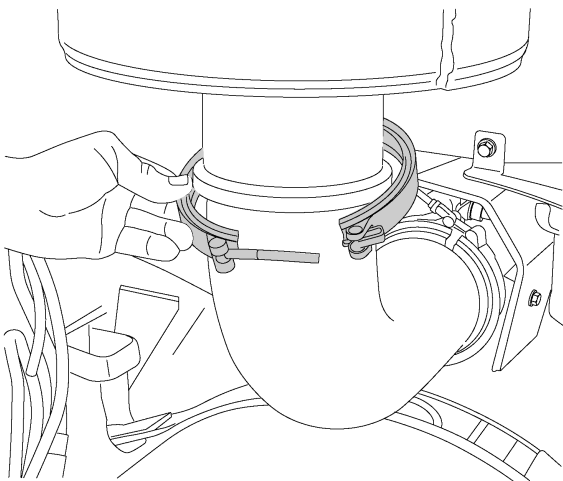
- 3**  
Remove the heat shield from the Diesel Particulate Filter (DPF) muffler.

- 4**  
Loosen the clamps and remove the exhaust stack from the DPF muffler outlet.



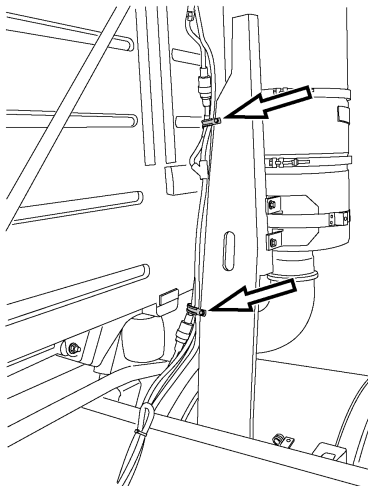
W2005987

- 5**  
Remove the lower exhaust V-band clamp at the exhaust elbow.



W2005988

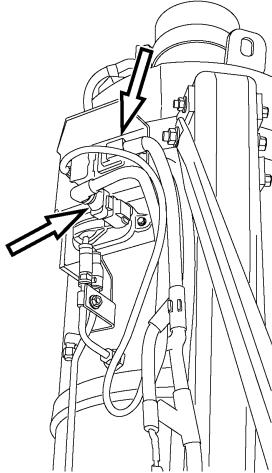
- 6**  
Remove the P-clamp fasteners that secure the DPF muffler harness to the muffler stanchion and release the harness from the stanchion.



W2005989

**7**  
Cut all tie straps securing the DPF muffler harness.

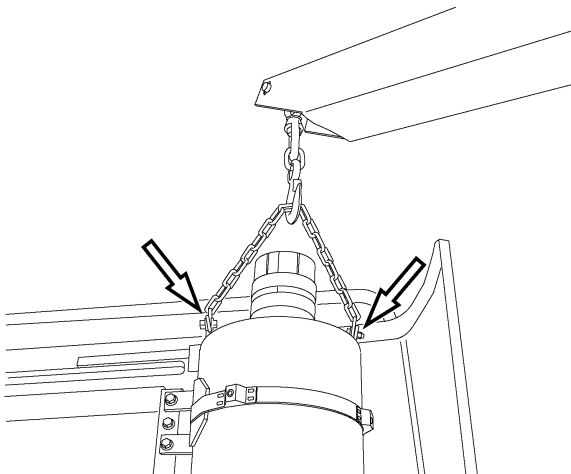
**8**  
Disconnect the harness connectors from the pressure differential and NO<sub>x</sub> sensors.



W2005990

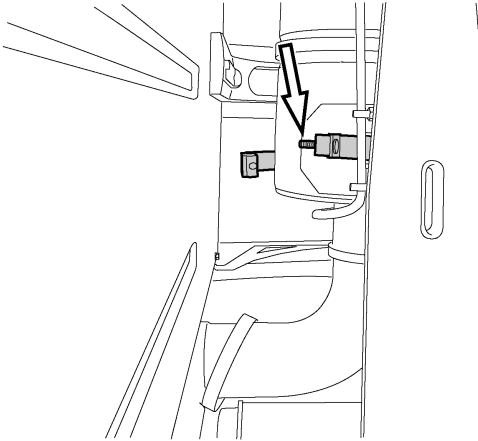
**9**  
Disconnect the harness connectors from all temperature sensors on the DPF muffler.

**10**  
Support the weight of the DPF muffler using a mobile floor crane such as OTC 16-1815 or equivalent crane capable of safely lifting the muffler. Position the crane and attach a chain using bolts, nuts and washers to the lifting eyes of the muffler.



W2005991

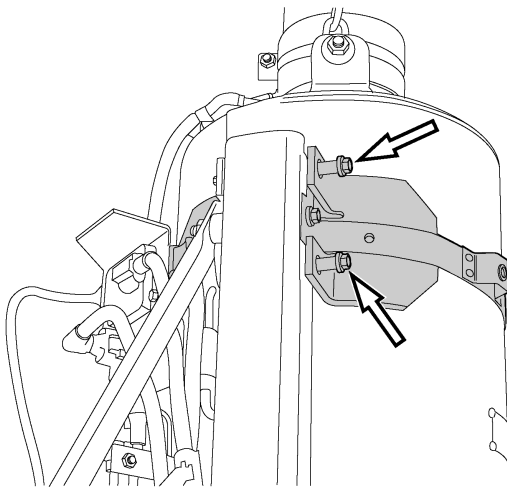
- 11**  
Remove the lower support band clamp from the DPF muffler.



W2005992

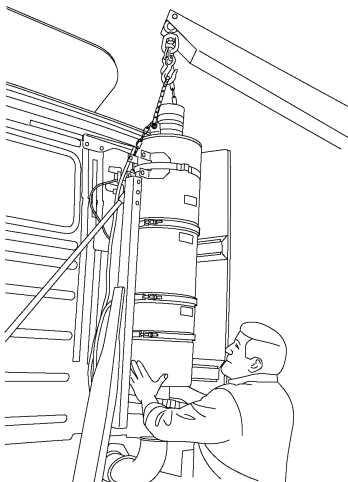
- 12**  
Remove the upper band clamp mounting bolts and remove the mounting bracket from the stanchion.

**Note:** Removing the upper band clamp mounting bracket will release the weight of the DPF. Ensure the floor crane and chain are properly positioned.

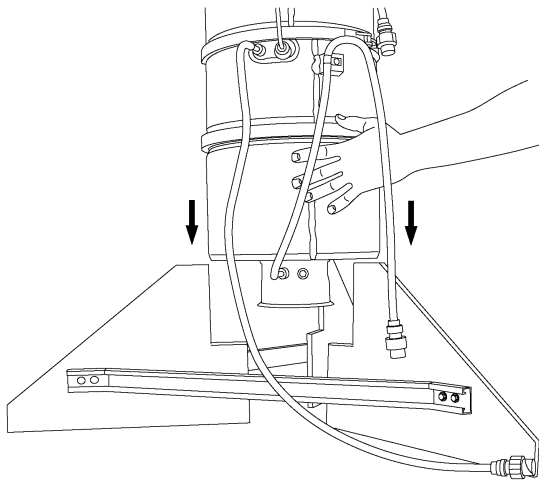


W2005993

- 13**  
With assistance, lift and remove the DPF muffler assembly from the truck



W2006002

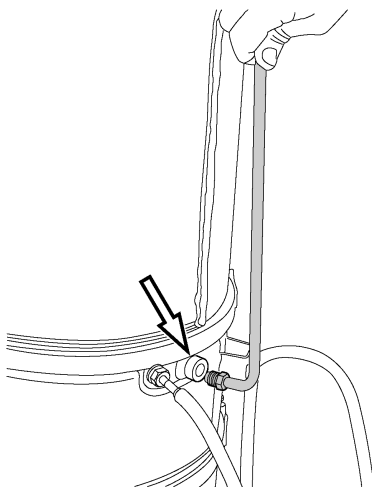


W2006001

**14**

With assistance, place the muffer assembly in muffer support stand 85111327.

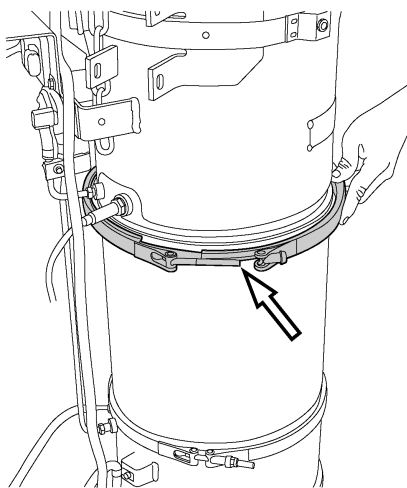
85111327



W2005995

**15**

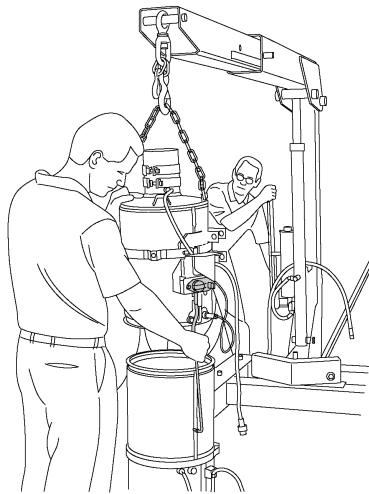
Remove the pressure differential tube from the catalyst.



W2005996

**16**

Remove the V-band clamp securing the outlet module to the filter module.



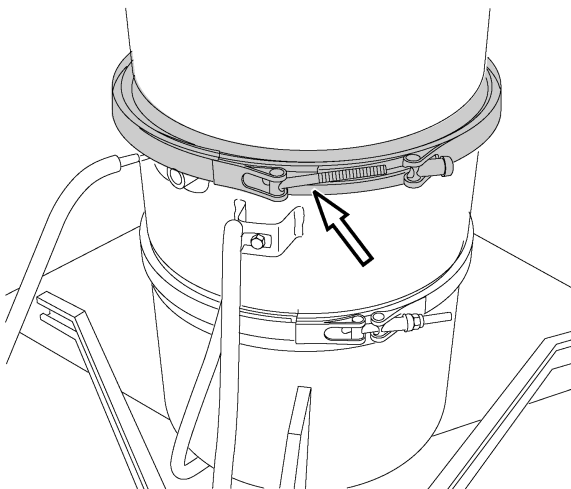
W2006000

**17**

With assistance, use a mobile floor crane to remove the outlet module from the DPF filter.

**18**

Remove the V-band clamp securing the filter module to the catalyst module.



W2005998

**19**

Remove the DPF filter module from the catalyst module.

 **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.

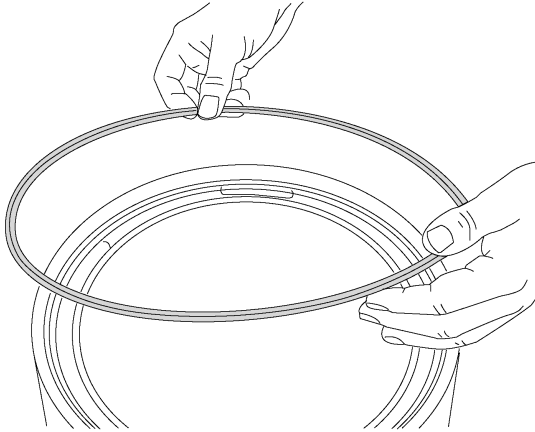
**20**

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

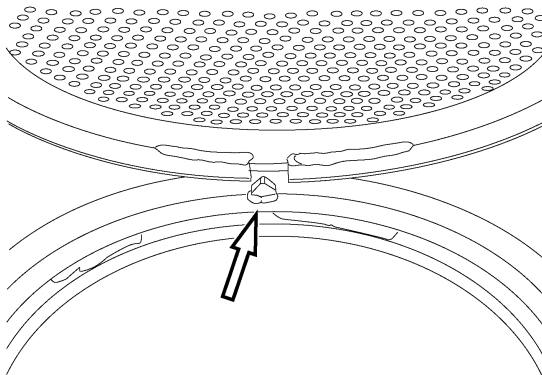


## DPF Filter Installation

- 1**  
Before installation, clean all gasket surfaces of the filter, catalyst and outlet modules.
- 2**  
Install a new gasket onto the top of the catalyst module.



W2005800

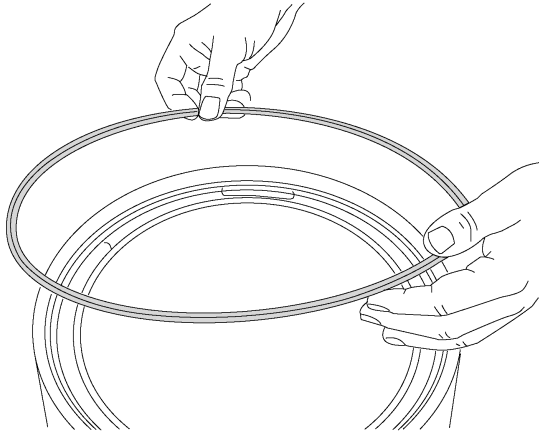


W2005801

- 3**  
Align the locator tab located on the bottom of the filter module with the slot located in the top of the catalyst module. Install the DPF filter onto the catalyst and secure the two modules together using a V-band clamp tightened securely.

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

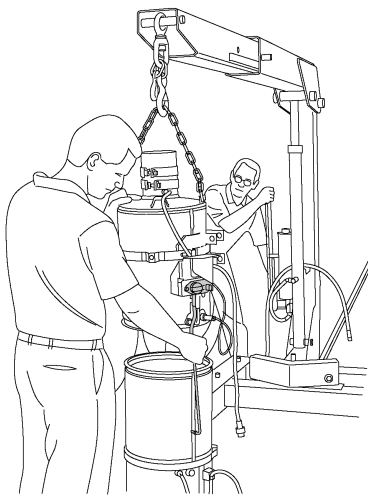
- 4**  
Install a new gasket onto the top of the filter module.



W2005800

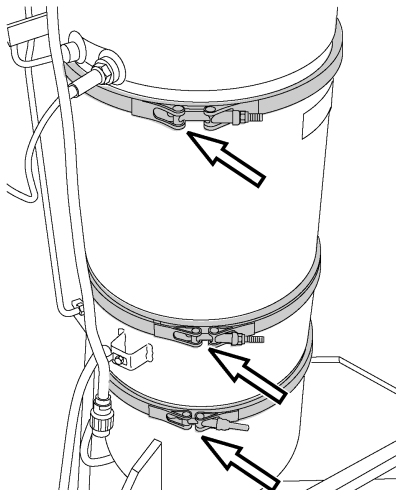
- 5**  
With assistance, use a mobile floor crane to install the outlet module onto the DPF filter. Ensure that the differential pressure tube does not become damaged during outlet module installation.

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

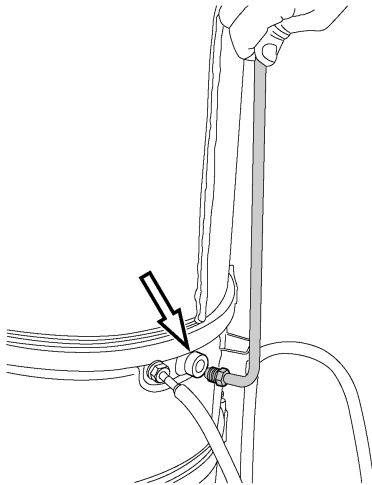


W2006000

- 6**  
Install the V-band clamp securing the outlet module to the filter module and tighten clamp fasteners securely. All clamps should now be aligned and tightened.



W2005997

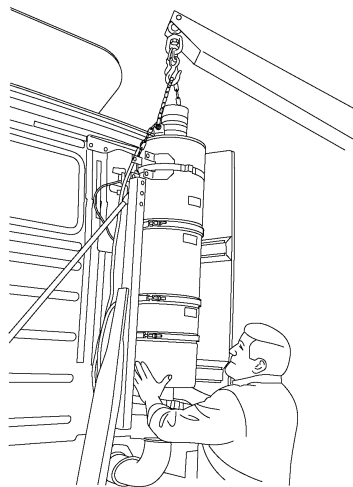


W2005995

**7**

Install the pressure differential tube to the catalyst port and tighten the fitting securely.

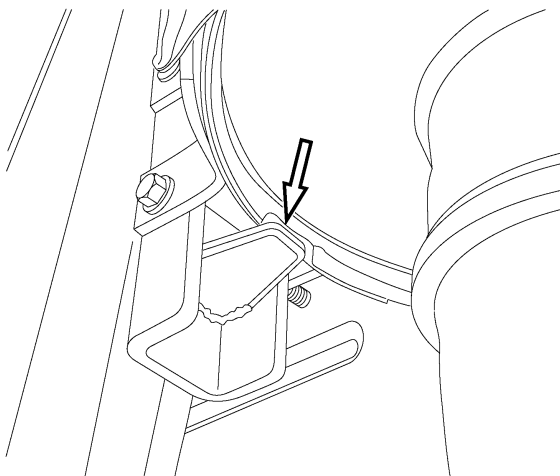
**Note:** A high temperature anti-seizing compound should always be applied to the threads of sensors, plugs or fittings in the exhaust system to avoid component seizure or corrosion.



W2006002

**8**

Lift the weight of the DPF muffler using a mobile floor crane and with assistance, position the muffler next to the frame-mounted stanchion, at the back of the cab.



W2006003

**9**

Align the slot in the muffler bottom with the tab on the stanchion.

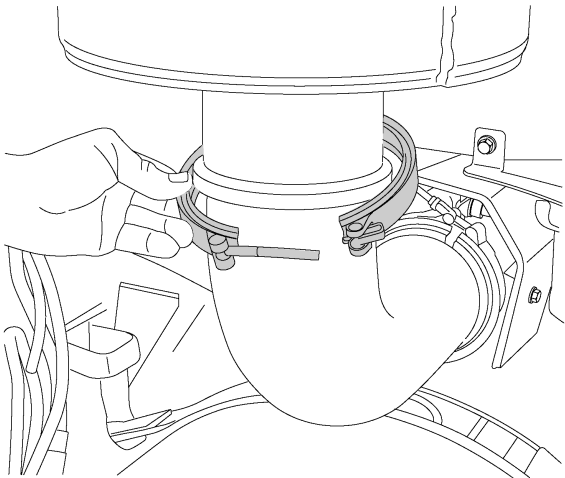
**10**

Perform the following steps to align the DPF muffler into final position on the muffler stanchion:

- Align the muffler inlet with the exhaust elbow.
- Align the muffler upper supporting bracket to the stanchion and install bolts loose.
- Loosely install the upper supporting band clamp with attached bracket and install bracket bolts into the stanchion.
- Loosely install the lower supporting band clamp.

**11**

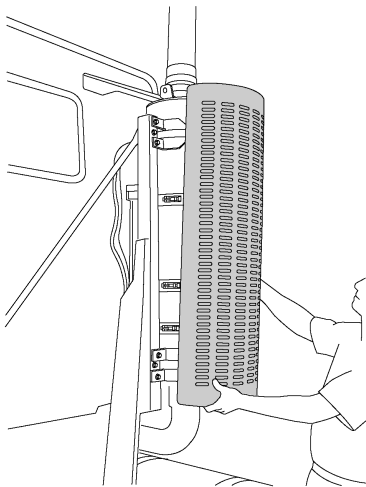
With all components aligned, install and secure the lower V-band clamp at the inlet side of the muffler.



W2005988

**12**

Install the muffler heat shield onto the DPF muffler.



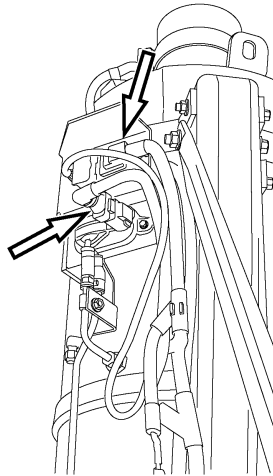
W2005986

**13**

Secure all fasteners and clamps that connect the DPF muffler to the stanchion. Torque-tighten all clamps and muffler fasteners to specifications.

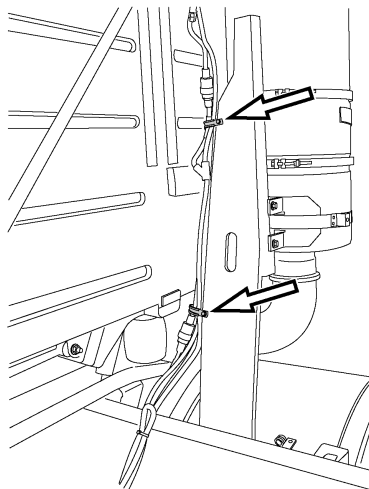
**14**

Disconnect crane and remove lifting chain from muffler.



W2005990

**15**  
Reconnect the harness connectors for the pressure differential and NO<sub>x</sub> sensors.

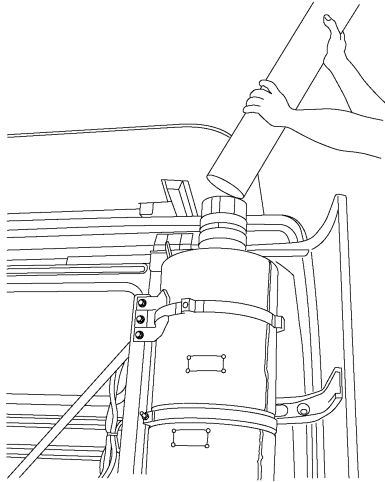


W2005989

**16**  
Reconnect the harness connectors for all temperature sensors on the DPF muffler.

**17**  
Install the P-clamp fasteners that secure the DPF muffler harness to the muffler stanchion.

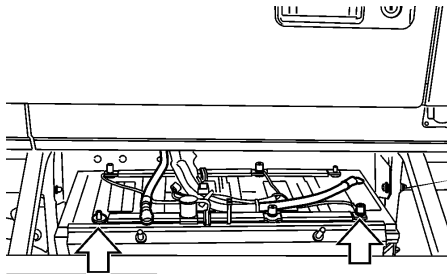
**18**  
Secure the harness using tie straps.



W2005987

**19**

Install the exhaust stack onto the DPF muffler and secure using two clamps. Tighten-tighten clamps to specification.



W2003815

**20**

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

**21**

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

**22**

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