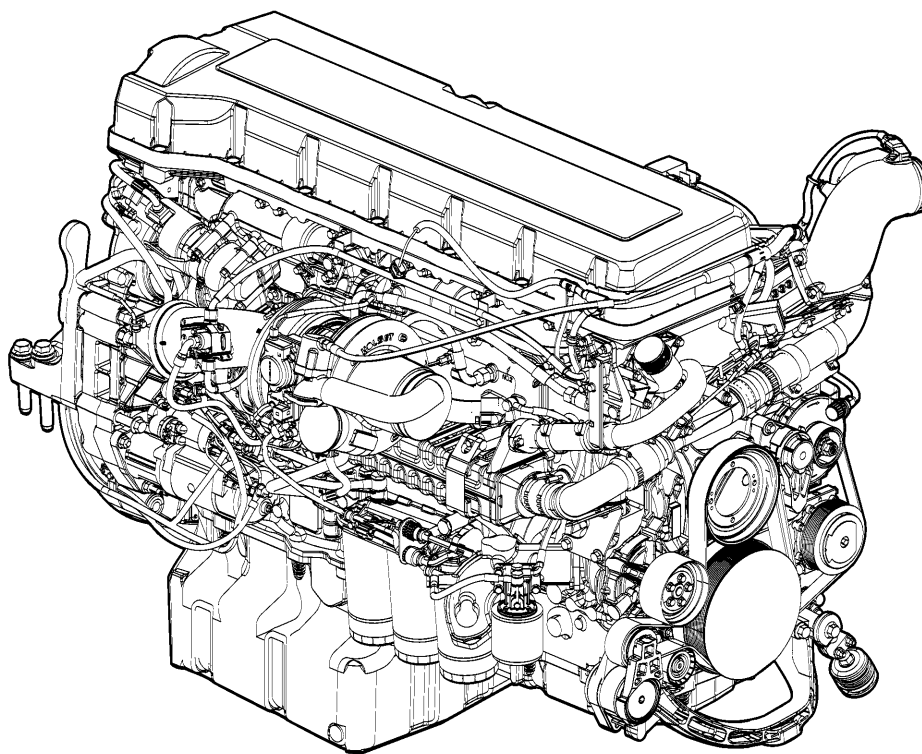


**EGR Pipe  
Replacement  
D16F****EGR Pipe, Replacement**

W2005772

This information covers replacement of the EGR valve exhaust pipe on a Volvo D16F engine.

**Contents**

- "EGR Pipes, Replacement" page 2

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

# Service Procedures

## 2547-03-02-05

### EGR Pipes, 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.

## Removal

**1**

Apply the parking brake and place the shift lever in neutral.

**2**

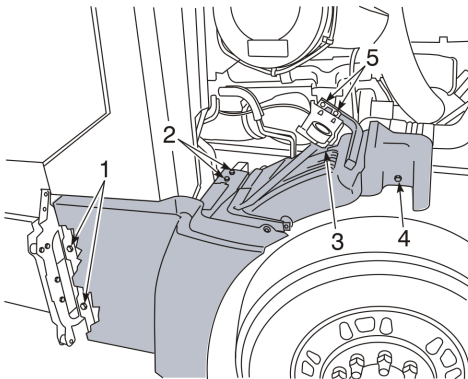
Remove all cables from ground (negative) battery terminals to prevent personal injury from electrical shock.

**3**

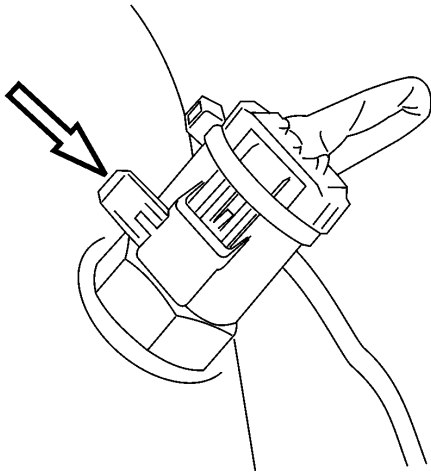
Remove inner splash guard as an assembly.

- 1 Two fender extender bolts at rear bracket
- 2 Two fender extender bolts at brace
- 3 One fender extender brace bolt and nut at hood release
- 4 One splash guard bolt at frame
- 5 Two splash guard bolts at upper brace

**Note:** Some models may be equipped with fender extenders, attached to the inner splash guard. Remove these as an assembly.



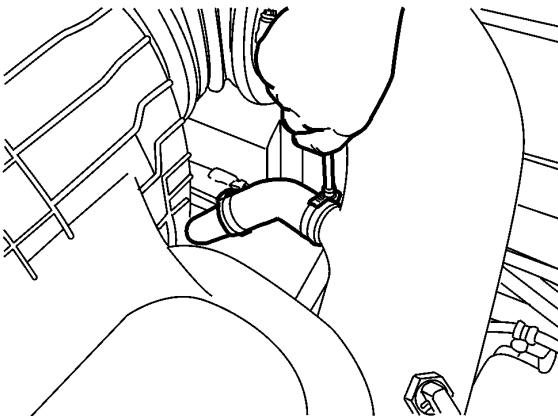
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W2004720

**4**

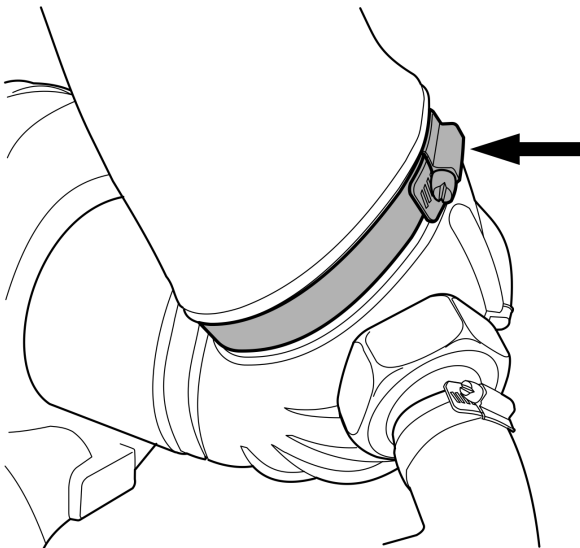
Disconnect the air temperature sensor connector from the sensor. Cut the tie strap and disengage the lock tab. Remove the bolt securing the air temperature sensor harness clamp to the main fresh air pipe.



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**5**

Loosen the clamp and remove the air compressor fresh air hose from the main fresh air pipe.



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**6**

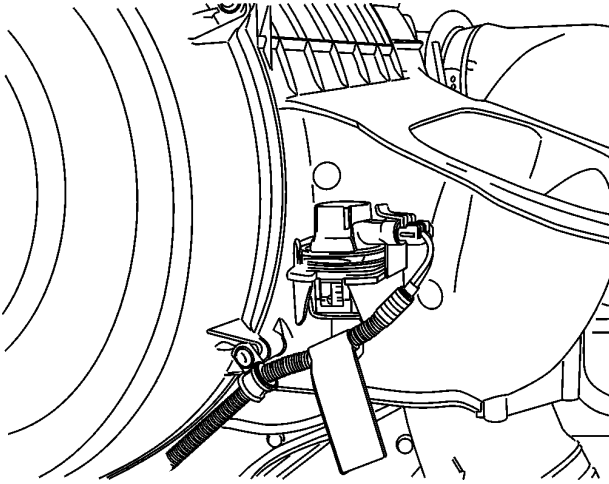
Loosen the clamp of the main fresh air pipe at the turbocharger inlet elbow. Disconnect the main fresh air pipe from the turbocharger inlet elbow.

**7**

Remove the main fresh air pipe.

**8**

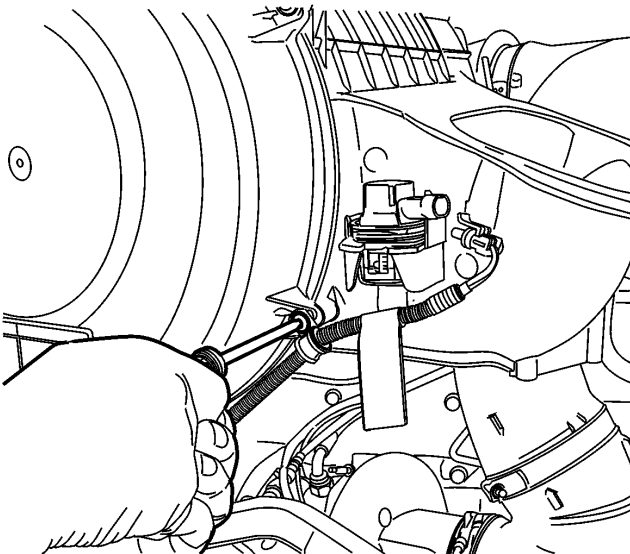
Disconnect the air restriction gauge connector at the air filter housing.



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**9**

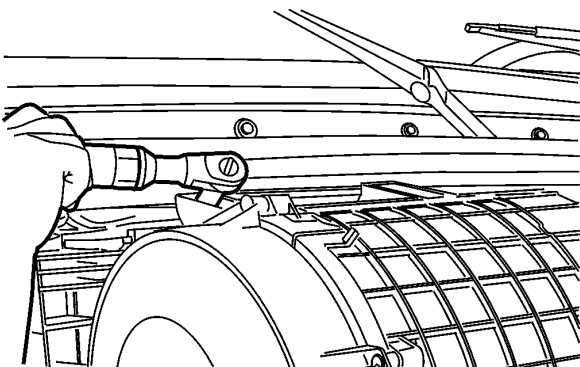
Remove the clamps securing the wiring harness to the air filter housing.



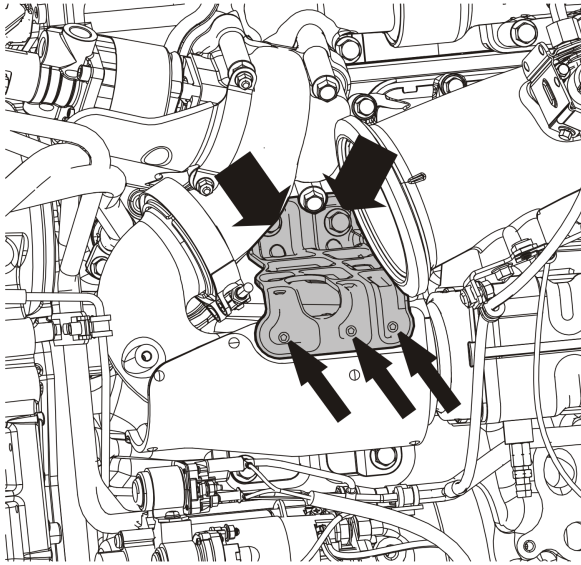
W2003861

**10**

Remove the bolts at the top of the air filter housing and remove the housing assembly.



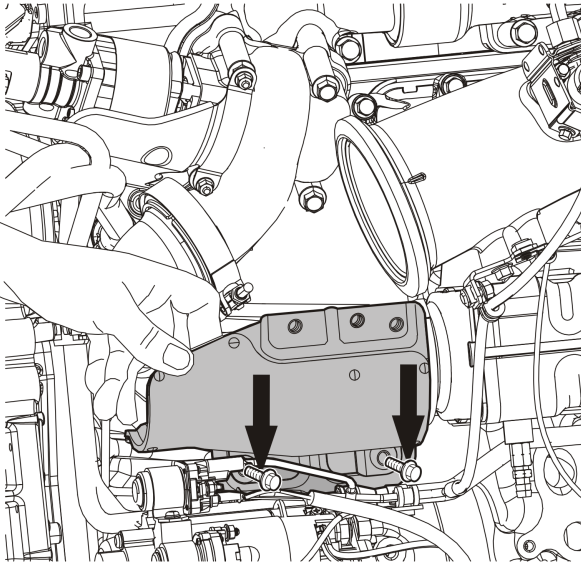
W2003858



W2005686

**11**

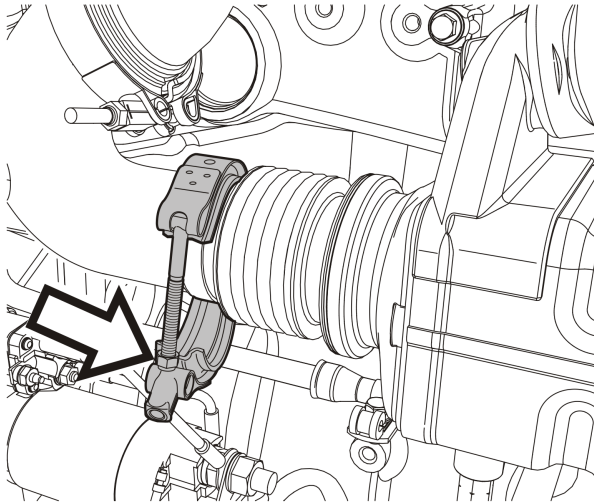
Remove the fasteners and bolts securing the upper EGR hot pipe heat shield and remove the shield.



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**12**

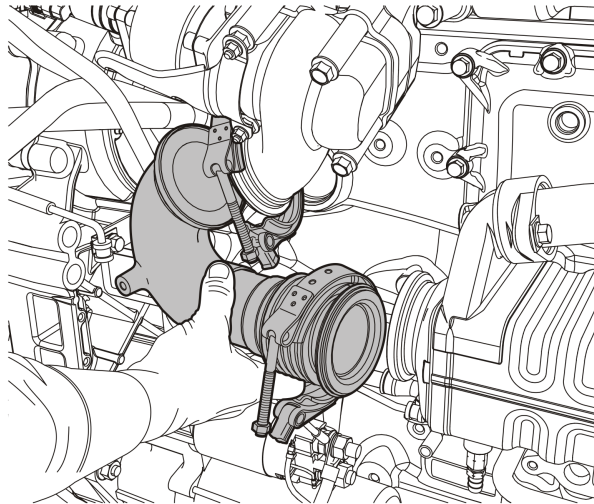
Remove the bolts securing the lower EGR hot pipe heat shield and remove the shield.



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**13**

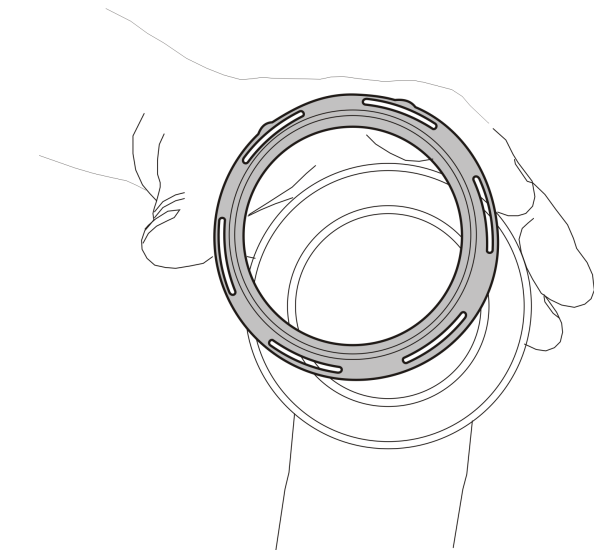
Loosen both high temperature V-clamps from the EGR hot pipe by removing the nuts from the T-bolts. Free the clamps from the EGR hot pipe flange.



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**14**

Remove the EGR hot pipe from between the EGR valve and the EGR cooler.



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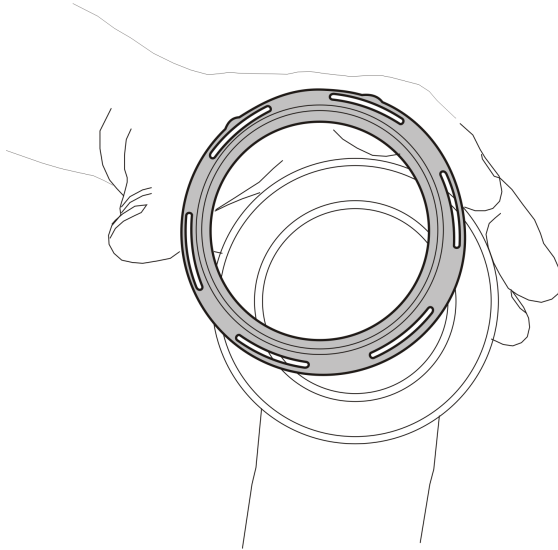
**15**

Remove the high temperature gaskets from the EGR valve end of the hot pipe and from the EGR cooler. Discard the gaskets.

## Installation

**1**

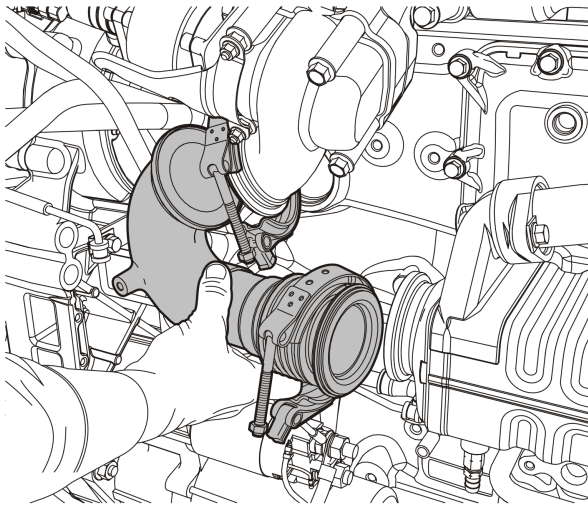
Install new high temperature gaskets into the EGR valve end of the hot pipe and the inlet of the EGR cooler. Make sure the gaskets lay flat against the flange surfaces.



W2005688

**2**

Inspect and lubricate the V-clamps. Hook the upper V-clamp over the EGR valve flange. Place the lower V-clamp over the bellows on the hot pipe.



W2005641

**3**

Position the EGR hot pipe between the EGR valve and the EGR cooler. Make sure the flange engages properly. While holding the hot pipe in position, slide the upper V-clamp over the flange and tighten until snug. Slide the lower V-clamp over the flange of the EGR cooler and tighten the clamp until snug.

**4**

Visually inspect the floating flange through the gap in the V-band clamp to ensure it is properly seated in the EGR cooler flange. The floating flange must be concentric with the EGR cooler flange.

**Note:** If the floating flange is not properly seated in the EGR cooler flange, the gasket will not be compressed and the seal will leak.



**5**

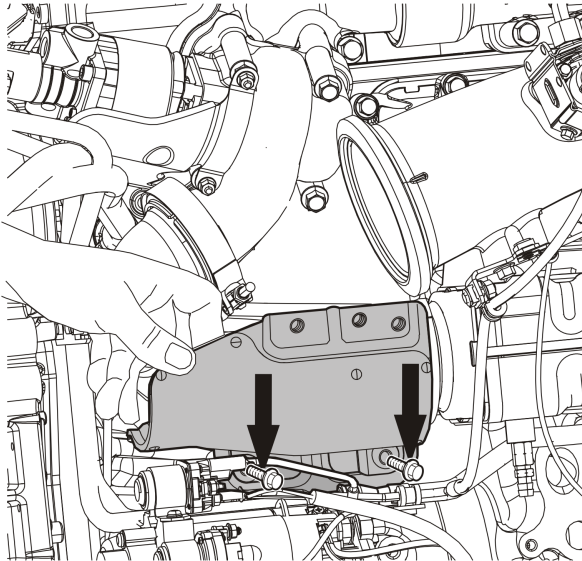
Position the V-clamps so that the T-bolts clear both heat shields. Apply anti-seize to the threads of the T-bolts. Torque-tighten to  $20 \pm 3$  Nm ( $15 \pm 2$  ft-lb).

**Note:** After reaching the specified torque, inspect the V-clamps to ensure that no portion of the clamp has "bottomed out."

$20 \pm 3$  Nm ( $15 \pm 2$  ft-lb)

**6**

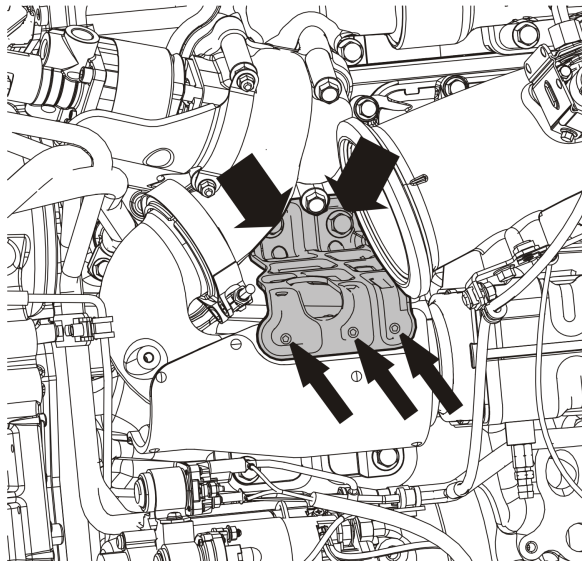
Position the lower EGR hot pipe heat shield over the pipe and secure with bolts. Do not tighten at this time.



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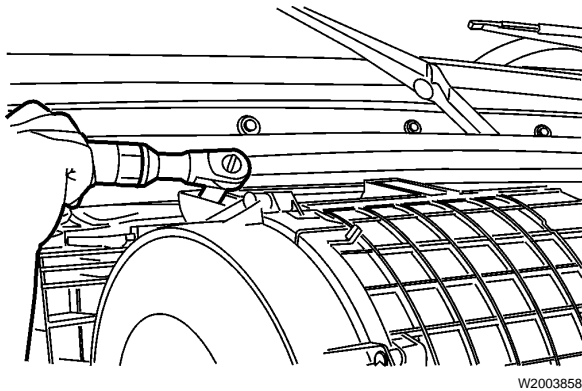
**7**

Position the upper EGR hot pipe heat shield and install the fasteners and bolts to secure the shield. Tighten the fasteners to specification.



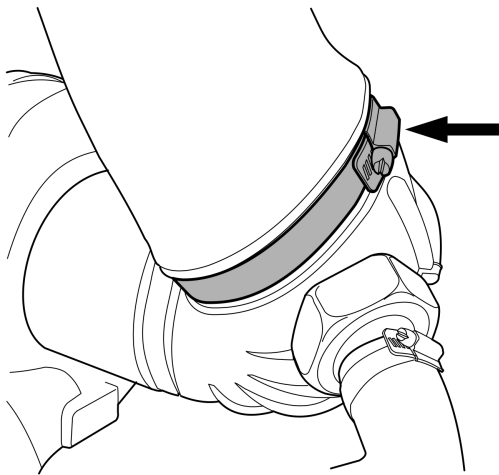
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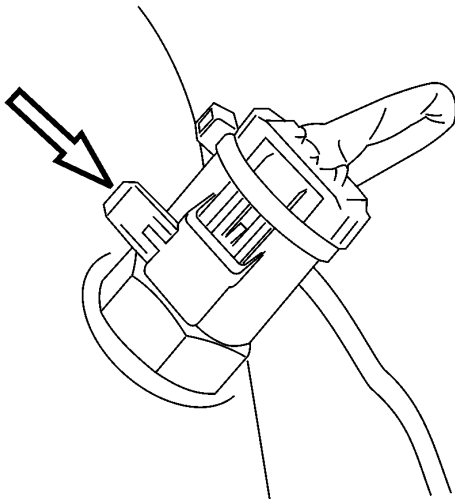
**8**

Position the air filter housing with main fresh air pipe against the cab. Install the bolts at the top of the air filter housing.



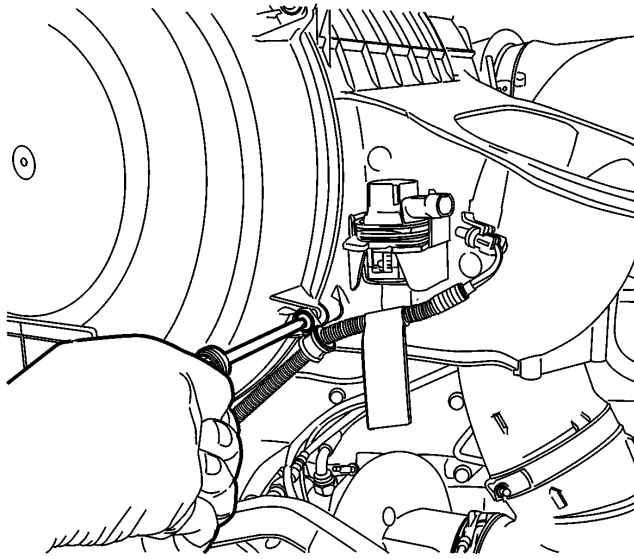
**9**

Install the main fresh air pipe to the turbocharger inlet elbow. Tighten the clamp to secure the pipe. Connect the air compressor hose to the pipe.



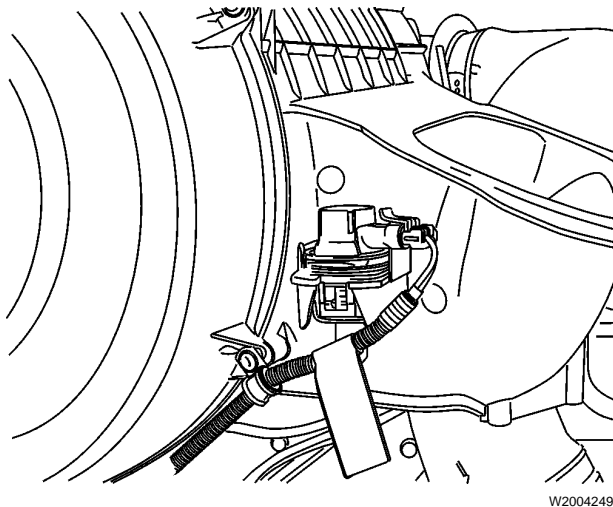
**10**

Install the air temperature sensor connector to the sensor. Insert the connector lock tab, push in place and secure with a tie strap. Install the bolt and clamp to secure the harness to the pipe.



**11**

Install the filter restriction gauge wiring harness to the air filter housing and tighten the clamps.



**12**

Connect the air restriction gauge electrical harness connector.

**13**

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

**14**

Install the inner splash guard assembly.

**15**

Start the engine, check for leaks and proper operation. After shutdown, replenish fluids as necessary.