### **Volvo Trucks North America**

Greensboro, NC USA

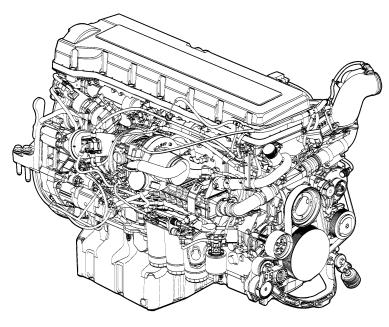
Service Bulletin Trucks

Date Group No. Page 10.2007 **265 23** 1(12)

This Service Bulletin replaces SB 260-32, "Cooling System Service," date (1.2007), publication no. PV776–20177193.

Charge Air Cooler Replacement D16F

## **Charge Air Cooler, Replacement**



W2005772

This information covers the proper service procedures for the charge air cooler on a chassis with the Volvo D16F engine.

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• "Charge Air Cooler, Replacement" page 3

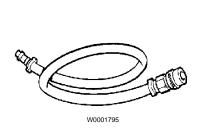
**Note:** Information is subject to change without notice. Illustrations are used for reference only and can differ slightly from the actual vehicle being serviced. However, key components addressed in this information are represented as accurately as possible.

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# **Tools**

# **Special Tools**

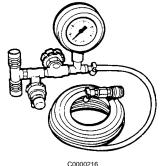
For special tool ordering instructions, see tool information in group 08.



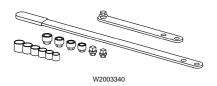
9996049 Coolant Drain Hose

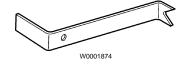


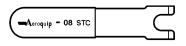
**DBT2V700**Coolant Extractor



999662 Pressure Gauge







**J-44392**Belt Tensioner Release Tool

**J-44773**Air Line Release Tool

85104846 STC Fitting Release Tool



**85108826**Transmission Cooler Line Release Tool (15 mm)



85108827 Transmission Cooler Line Release Tool (18 mm)

# **Service Procedures**

## 2651-03-02-01 Charge Air Cooler, Replacement

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

### Removal

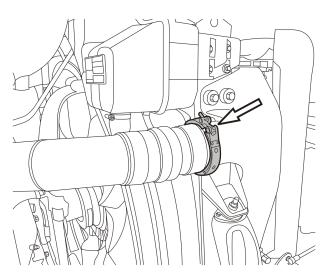
1

Remove the grille from the hood and then, raise the hood.

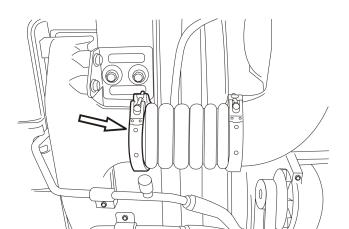
Note: Access the grille screws from the front of the hood.

2

Loosen the clamps and remove the charge air inlet pipe between the turbocharger and charge air cooler.

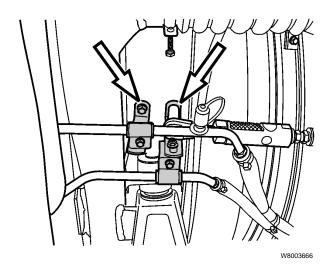


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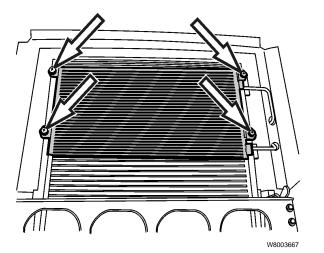
Loosen the hose clamp at the outlet of the charge air cooler. Position the clamp out of the way.



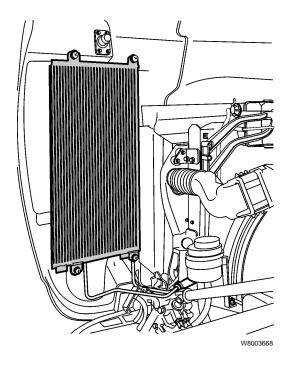


Remove the A/C condenser line bracket bolts from the left side of the radiator.

Note: Do not disconnect the refrigerant lines from the A/C condenser.

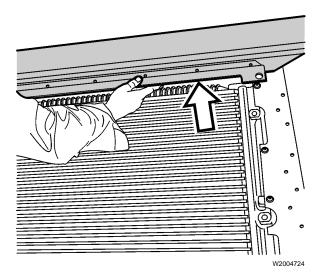


Remove the bolts securing the A/C condenser to the charge air cooler.



6

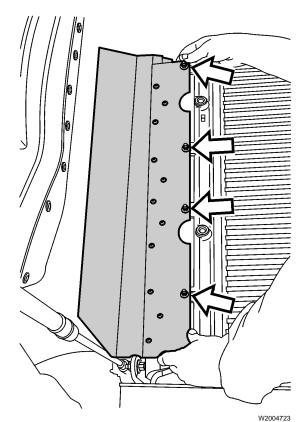
Lift and move the A/C condenser (with lines attached) over the charge air cooler and radiator to the left fender area. Secure out of the way to prevent damage.

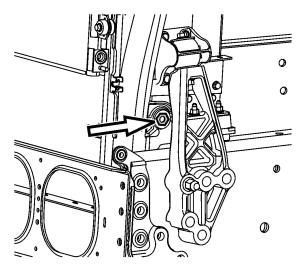


Remove the top circulation shield from the top of the charge air cooler.

No.

23





8

Loosen the nuts on the left side and right side circulation shields. Slide the side shields off of the charge air cooler along with the fasteners.

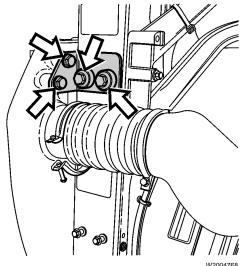
**Note:** The nuts do not need to be separated from the bolts trapped in the slots of the charge air cooler.

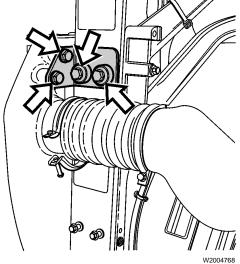
9

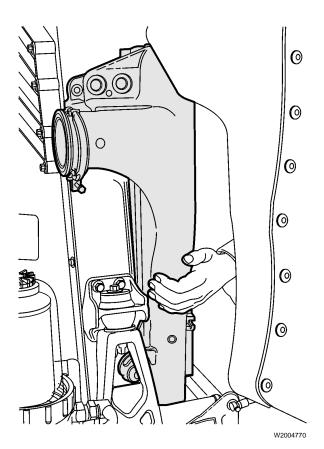
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Loosen the lower nut on each side of the charge air cooler.

**Note:** It is not necessary to remove the lower charge air cooler nuts or washers. Simply loosen them so that the charge air cooler can be tilted and removed.







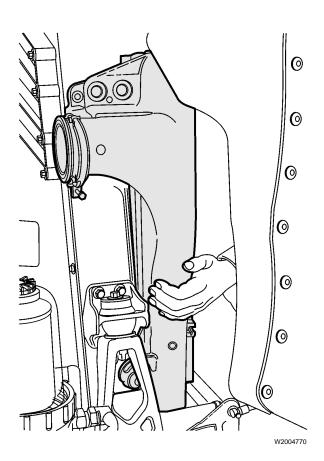
On the left side of the charge air cooler, remove the bolts securing the bracket to the radiator and to the charge air cooler. On the right side of the charge air cooler, remove the upper bolts.

#### 11

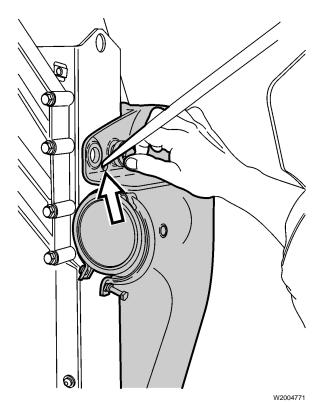
Tilt the charge air cooler out at the top and lift the assembly from between the frame rails.

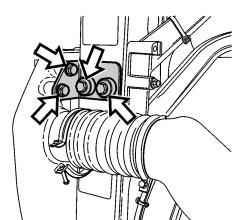
## Installation

Lift the charge air cooler into position between the frame rails. Make sure the lower mounts of the charge air cooler are resting on the studs with the nuts and washers on the outside of the bracket.



Using an alignment tool on the right side of the charge air cooler, lift the cooler to align the holes and install the upper bolts.







On the left side of the charge air cooler, install the bolts to secure the bracket to the radiator and to the charge air cooler.



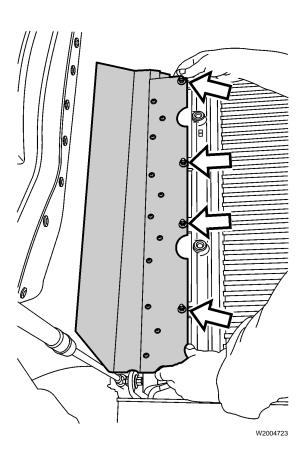
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Tighten all upper and lower fasteners to secure the charge air cooler.

#### 5

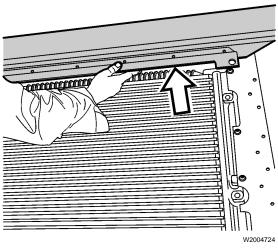
Slide the left and right side shields into position on the charge air cooler and tighten the fasteners to secure.

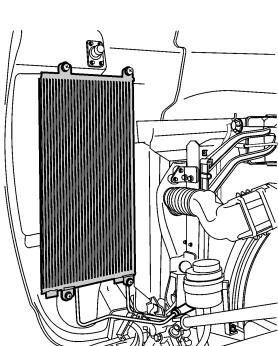
**Note:** Make sure the bolts are trapped properly in the slots of the charge air cooler.



No.

**23** 





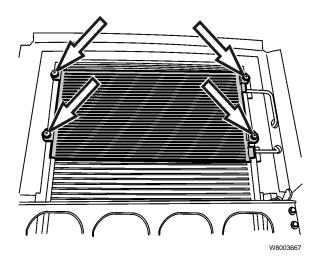
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Install the top circulation shield to the top of the charge air cooler.

7 Lift and move the A/C condenser over the charge air cooler and radiator into position on the charge air cooler.

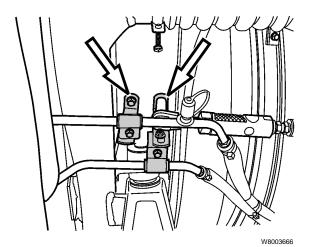


Install the bolts and tighten to secure the A/C condenser to the charge air cooler.

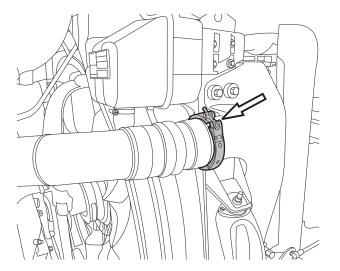


9

Install the A/C condenser line bracket bolts on the left side of the radiator and tighten to secure.



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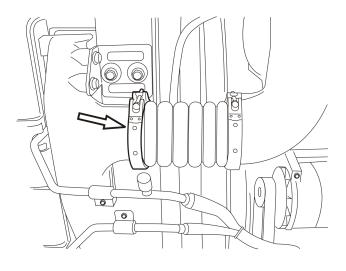


10

Install the charge air inlet pipe along with new clamps. Position the new clamps and tighten them to secure the pipe.

No.

23



#### 11

Install the outlet pipe to the charge air cooler with a new clamp. Position the new clamp and tighten it to secure the pipe.

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#### 12

Check all connections and fittings.

#### 13

Start the engine, check for leaks and proper operation.

### 14

Lower the hood.

#### 15

Place the grill into position on the hood, install the screws and tighten to secure.