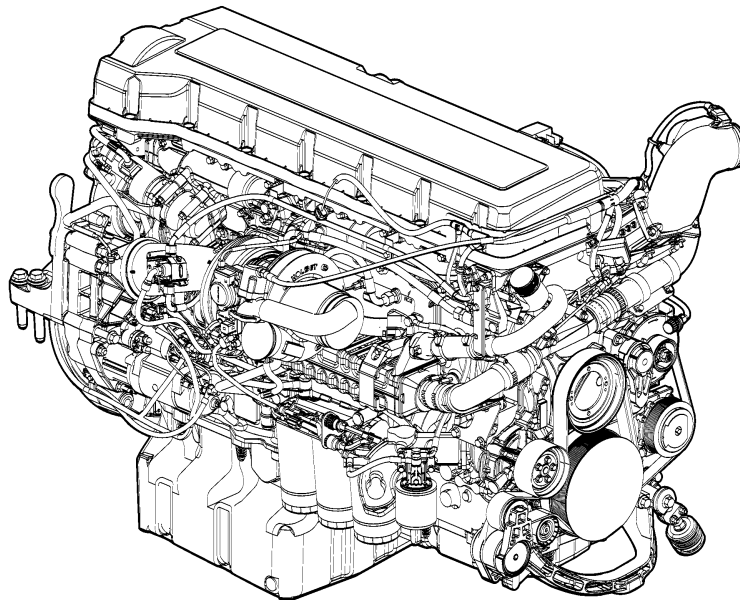


This Service Bulletin replaces SB 260-32, "Cooling System Service," dated (1.2007), publication no. PV776-20177193.

Date	Group	No.	Page
10.2007	<b>261</b>	<b>30</b>	1(12)

## Radiator Replacement D16F

### Radiator, Replacement



W2005772

This information covers the proper service procedures for the replacement of the radiator on a chassis with the Volvo D16F engine.

### Contents

- "Special Tools" page 2
- "Radiator, 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.

# Tools

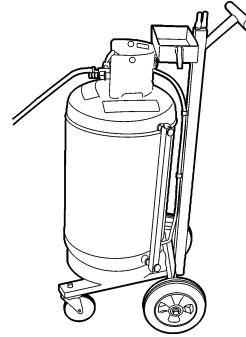
## Special Tools

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



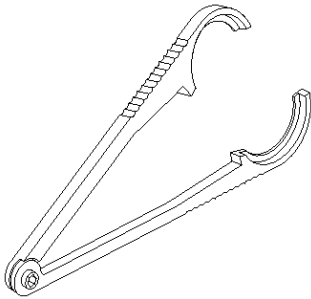
W0001795

**9996049**  
Coolant Drain Hose



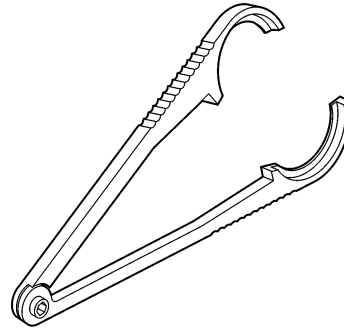
W2004191

**DBT2V700**  
Coolant Extractor



W4002806

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



W4002807

**85108827**  
Transmission Cooler Line Release Tool (18 mm)

# Service Procedures

2611-03-02-01

## Radiator, 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.

*Special tools: 9996049, DBT2V700, 85108826, 85108827*

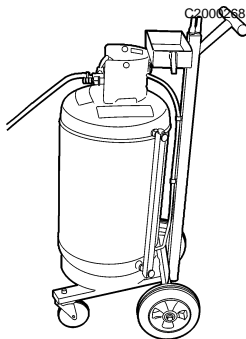
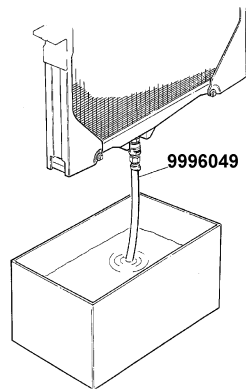
### Removal

1

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

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

2



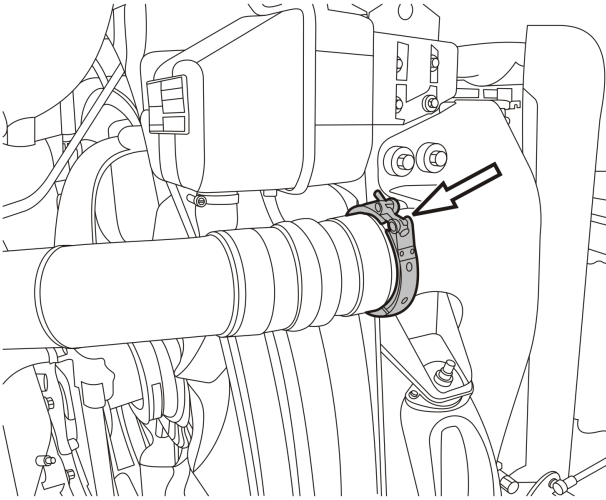
W2004191

Drain the coolant into a suitable container using the drain hose. If available, use the coolant extractor.

9996049, DBT2V700

**3**

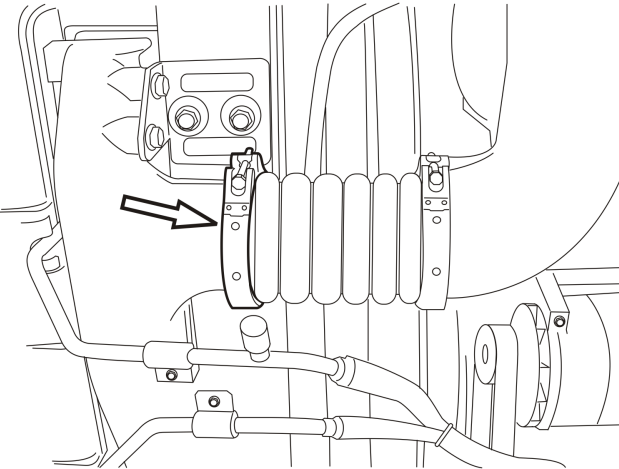
Loosen the hose clamps and remove the charge air cooler inlet pipe (turbocharger-to-charge air cooler).



W2006040

**4**

Loosen the hose clamps and remove the charge air cooler outlet pipe.

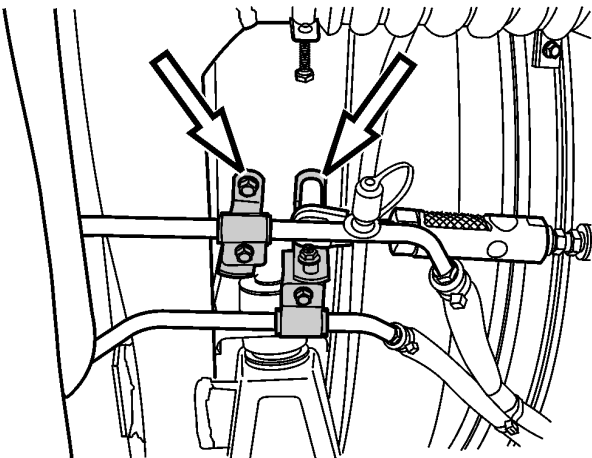


W2006039

**5**

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.



W8003666

**6**

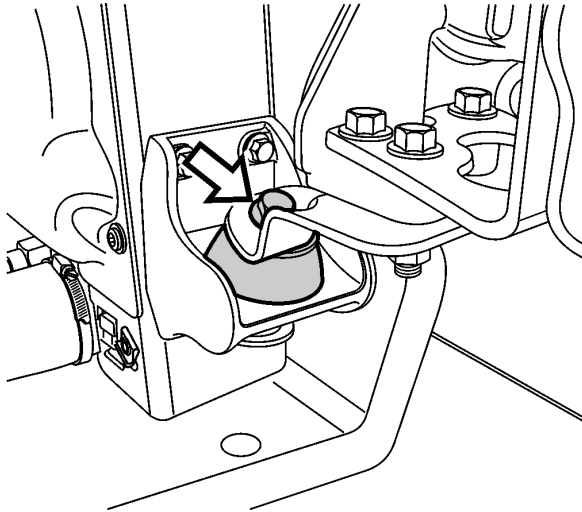
Remove the upper radiator hose from the radiator and the static fill and bypass hoses from the expansion tank.

**7**

Disconnect the low coolant sensor harness connector at the sensor on the expansion tank. Move the harness out of the way.

**8**

Remove the radiator lower rubber isolator mount bolts and lower portion of the rubber isolators from each side of the radiator.



W2005159

**9**

Remove both radiator lower mounting brackets from the radiator and the mounting brackets from the frame.

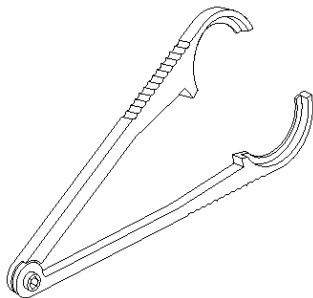
**10**

Loosen the clamps for the lower radiator hose, position the clamps out of the way and remove the lower radiator hose.

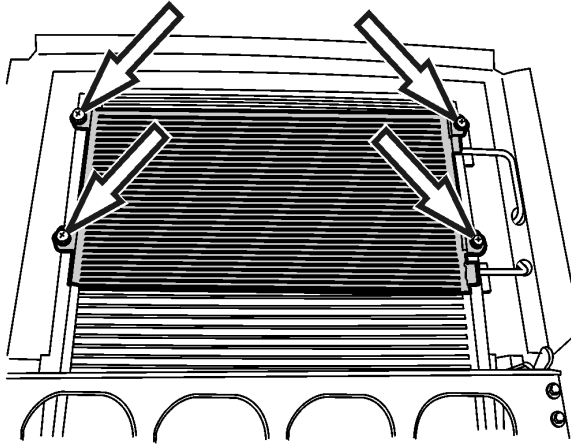
**11**

Remove the transmission cooler lines from the radiator using the appropriate fitting release tool.

85108826, 85108827



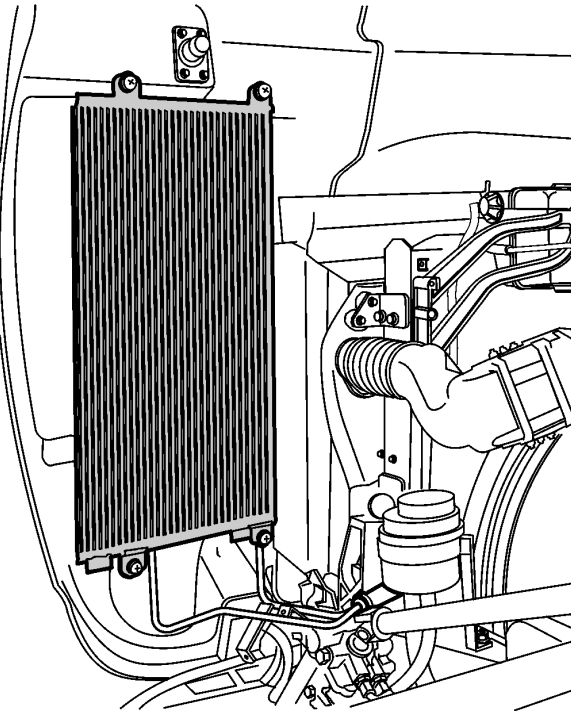
W4002806



W8003667

**12**

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



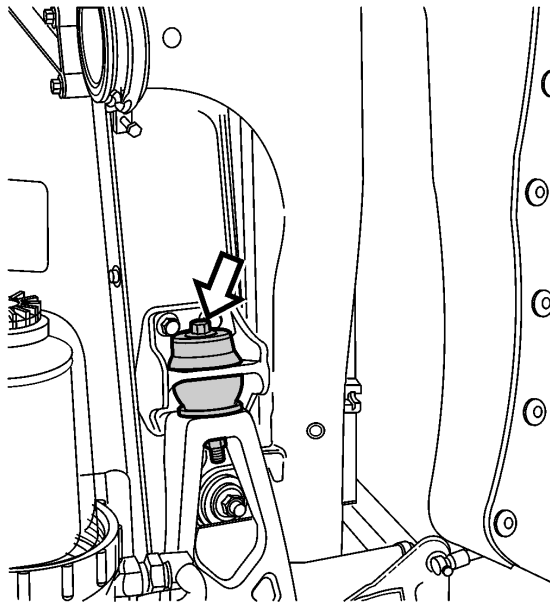
W8003668

**13**

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.

**14**

Attach a suitable lift strap or chain to the radiator assembly, position a hoist over the assembly and attach to the hoist for support.



W2004774

**15**

Remove the radiator left-upper and right-upper mounting bolts and isolators.

**16**

With an assistant helping to guide the radiator assembly, lift the assembly up out of the chassis.

## Component Removal and Transfer

**1**

Remove the hose connections between the radiator and the expansion tank. Loosen the clamps and separate.

**2**

Remove the expansion tank from the top of the radiator assembly.

**3**

Remove the fan shroud from the radiator.

**Note:** Leave the top and side shrouding attached to the charge air cooler unless replacement is necessary.

**4**

Remove the lower nut and washer on each side of the charge air cooler, the four bolts and bracket from the left side and the two upper bolts on the right side. Separate the charge air cooler from the radiator.

**Note:** Save all fasteners for use on the replacement radiator.

**5**

Remove the transmission cooler line fittings.

**6**

Remove the lower charge air cooler mounts from the radiator.

**7**

Transfer the lift strap or chain to the replacement radiator and then, lift the radiator.

**8**

Install the lower charge air cooler mounts to the replacement radiator.

**9**

Install the transmission cooler line fittings.

**10**

Attach the charge air cooler to the replacement radiator. Tighten all fasteners to secure.

**11**

Attach the fan shroud to the radiator.

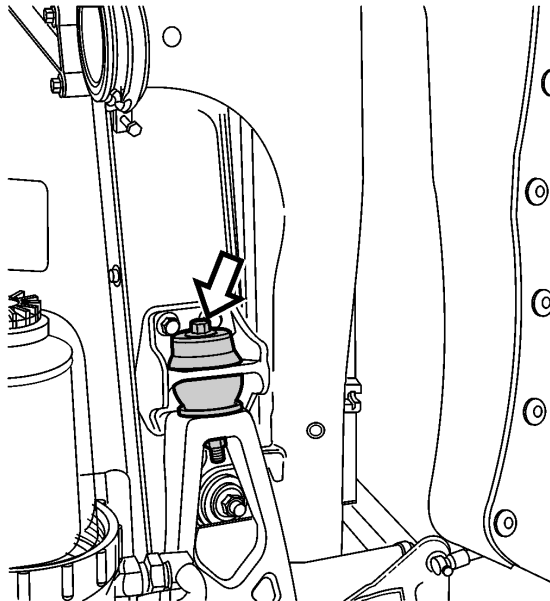
**12**

Attach the expansion tank to the radiator assembly and tighten the fasteners to secure. Reconnect the hoses to the radiator, position the clamps and tighten to secure.



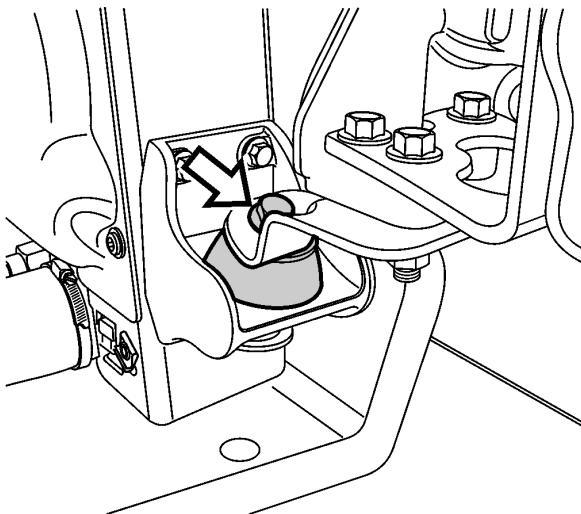
## Installation

**1**  
Using the hoist, have an assistant help with lifting the radiator assembly into position between the frame rails.



W2004774

**2**  
With assistance, install and tighten the radiator left-upper and right-upper mounting bolts and isolators. Remove the lifting strap or chain and move the hoist out of the way.



W2005159

**3**  
Install the radiator lower mounting brackets, lower portion of rubber isolators and mounting bolts.

**4**  
Connect the transmission cooler lines to the radiator.

**5**  
Install the lower radiator hose, position the clamps and tighten to secure.

**6**

Connect the upper radiator hose to the radiator and the static fill and bypass hoses to the expansion tank. Position the clamps and tighten to secure.

**7**

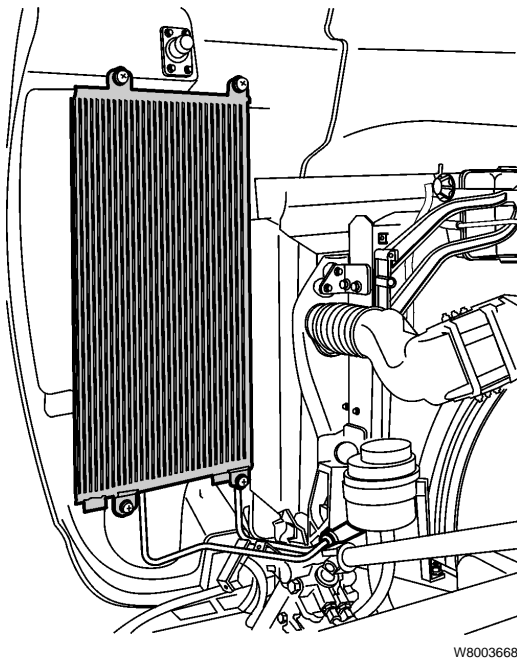
Attach the upper and lower radiator hoses. Position the hose clamps and tighten securely.

**8**

Reconnect the harness connector to the low coolant sensor on the expansion tank.

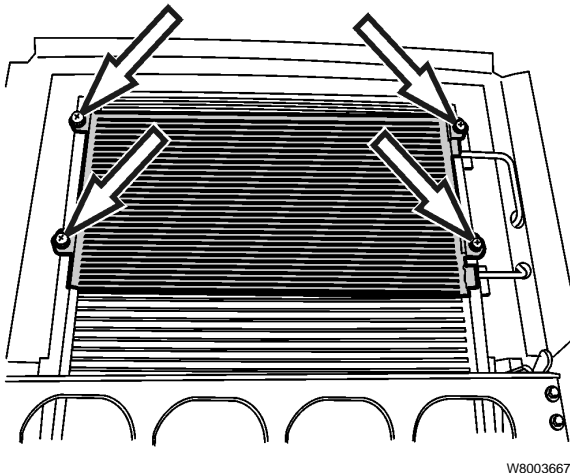
**9**

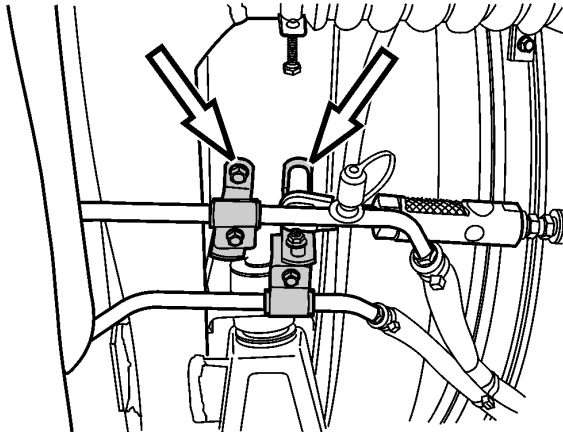
Lift and move the A/C condenser (with lines attached) over the radiator assembly and into position at the front of the charge air cooler.



**10**

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

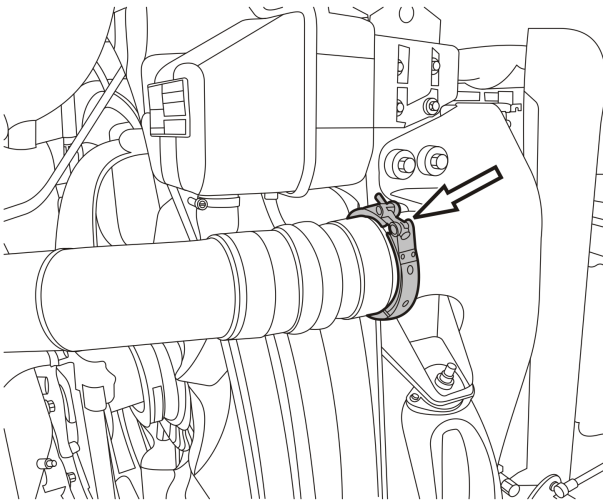




W8003666

**11**

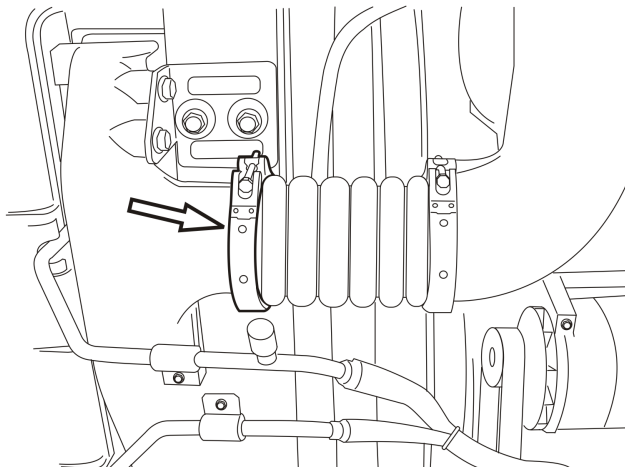
Reinstall the A/C condenser line bracket bolts to the left side of the radiator.



W2006040

**12**

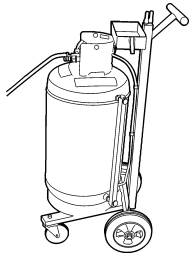
Install the charge air inlet pipe along with new clamps. Position the new clamps and tighten them to secure the pipe.



W2006039

**13**

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



W2004191

**14**

Fill the cooling system with the recommended coolant using the coolant extractor.

DBT2V700

**15**

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

**16**

Close the hood and secure.

**17**

Position the grille into the hood opening, install the screws and tighten to secure.