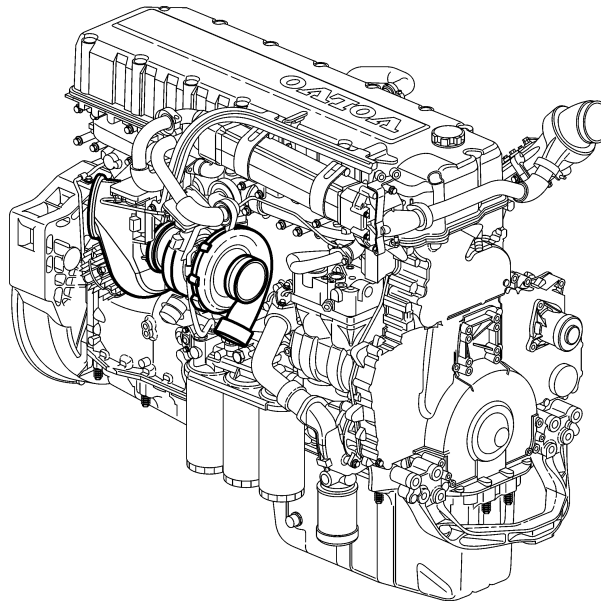


This Service Bulletin replaces SB 211–56, “Valve Cover Replacement, D12D” (11.02), publication no. PV776–TSP177415.

Date	Group	No.	Page
3.2003	211	56	1(6)

Valve Cover Replacement D12D

Valve Cover Replacement



W2003779

This information covers the proper replacement procedure for the valve cover and gasket on the VOLVO D12D engine.

Contents

- “Special Tools” page 2
- “Valve Cover, Replacement” page 3
- “Valve Cover Gasket, Replacement (Each)” page 6

NOTE: Information is subject to change without notice.

Illustrations are used for reference only, and may differ slightly from the actual engine version. However, key components addressed in this information are represented as accurately as possible.

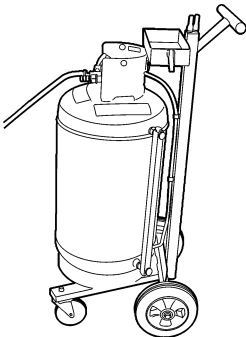
Tools

Special Tools

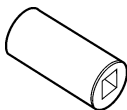
For special tools ordering information, refer to Tool Information, group 08.



9996049
Drain hose for coolant



DBT2V700
Coolant extraction tool



J41203
Valve cover stud socket

Service Procedures

2115-03-02-02

Valve Cover, Replacement

See also:

- "Valve Cover Replacement" page 1

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.

Special tools: DBT2V700, J41203

Removal

- 1**
(VHD only) Connect coolant extraction tool DBT2V700 to drain fitting at bottom of radiator. Drain enough coolant so that expansion tank can be removed.

NOTE: Coolant may also be drained into an approved container using drain hose 9996049.

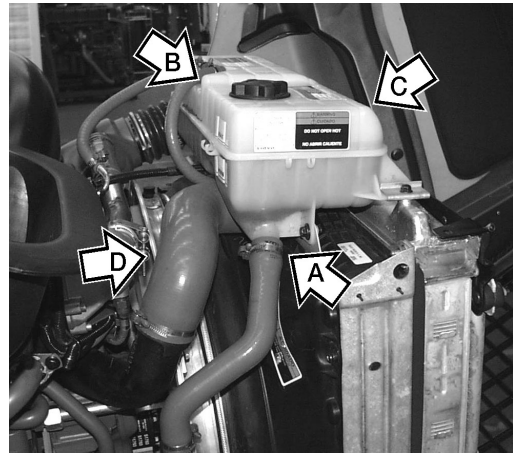
2



W2004102

(VHD only) Disconnect low coolant sensor.

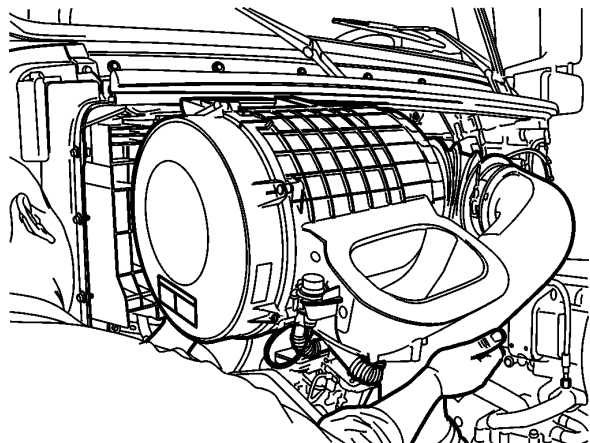
3



W2004101

(VHD only) Disconnect the static fill hose (A) and small coolant line (B) from the surge tank (C). Remove surge tank.

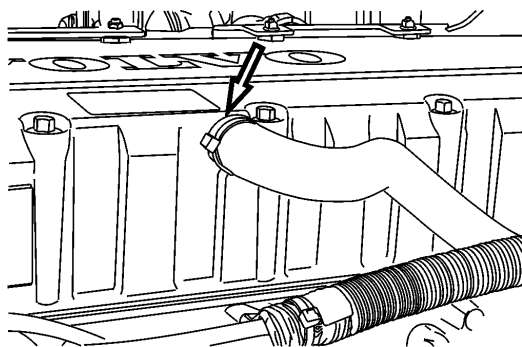
4



W2003859

Remove air filter housing from cab and main fresh air pipe to turbocharger; refer to Service Information, group 25.

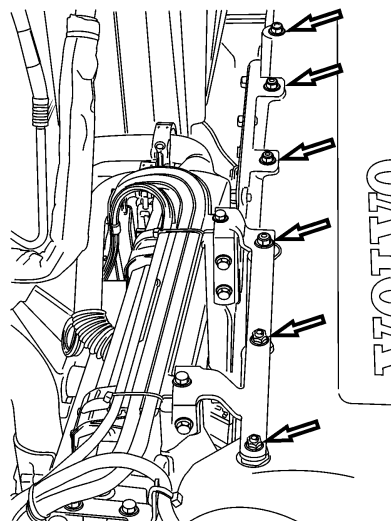
5



W2004182

Disconnect the breather tube from the side of the valve cover.

6



W2004230

Remove the EGR cooler support brackets from the top of the valve cover.

7

Remove the EGR heat shield bracket from the valve cover.

8

Remove the 6 EGR studs and rubber bushings from the valve cover.

9

Remove the valve cover nuts and rubber bushings.

NOTE: Do not use air tools. Excess force may loosen studs from cylinder head.

10

Lift and remove the valve cover.

Installation

NOTE: Before installing the valve cover, install a new seal; see "Valve Cover Gasket, Replacement (Each)" page 6.

1

Clean the valve cover contact surface on cylinder head.

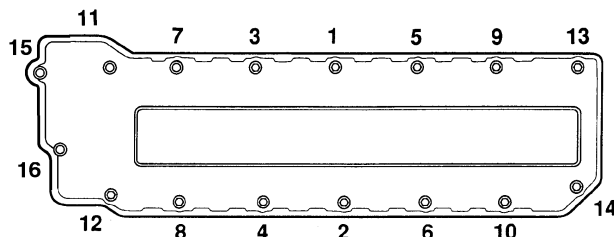
2

Using socket J41203, torque-tighten valve cover studs to 40 ± 3 Nm (29 ± 2 ft-lb)

3

Carefully position the valve cover against the cylinder head, making sure that the seal remains properly seated. Install valve cover nuts and rubber bushings.

4

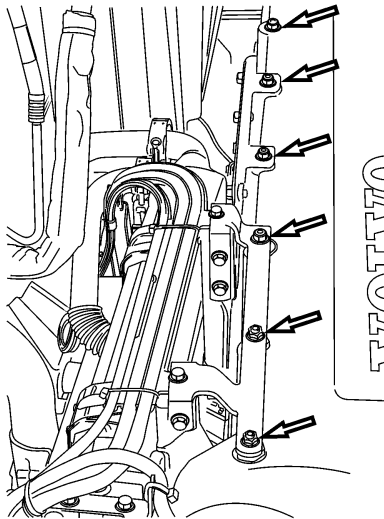


T2012845

Using the proper tightening sequence, torque-tighten valve cover nuts and EGR studs as follows:

Valve cover nuts	20 ± 2 Nm (15 ± 1.5 ft-lb)
Stud, valve cover	40 ± 3 Nm (29 ± 2 ft-lb)

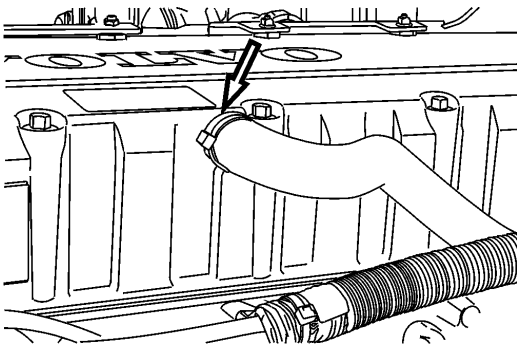
5



W2004230

Install the EGR cooler support brackets to the top of the valve cover. Tighten bolts and nuts.

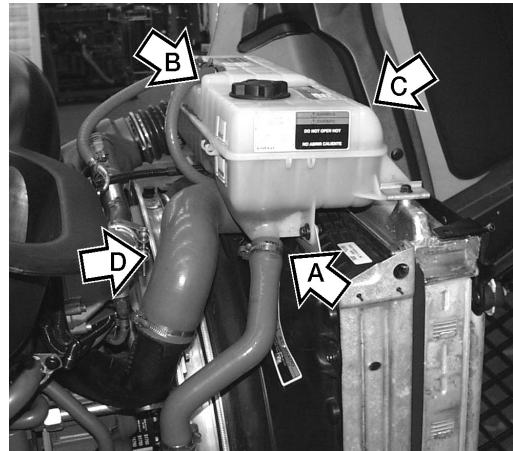
6



W2004182

Connect the breather tube to the side of the valve cover.

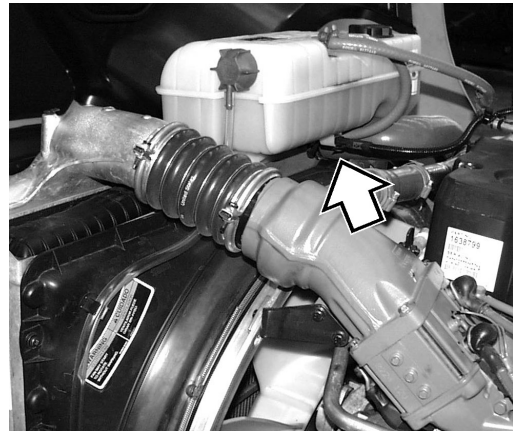
7



W2004101

(VHD only) Install surge tank (C). Connect the static fill hose (A) and small coolant line (B).

8



W2004102

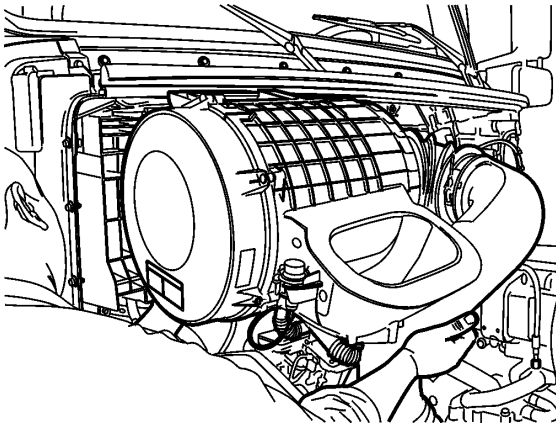
(VHD only) Connect low coolant sensor.

9

(VHD only) Using coolant extraction tool DBT2V700, fill system with coolant to specified level.

DBT2V700

10



Install air filter housing against cab and main fresh air pipe to turbocharger; refer to Service Information, group 25.

11

Start engine and check for leaks around the valve cover.

12

If a new valve cover is installed, print a new Engine Certification Label and attach it to the new valve cover.

2116-03-03-03

Valve Cover Gasket, Replacement (Each)

See also:

- "Valve Cover Replacement" page 1

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.

1

Clean the channel for the gasket. The channel should be free of any dirt or debris.

2

Carefully place the new gasket into the channel, making sure that it is properly seated and follows the contour of the channel.