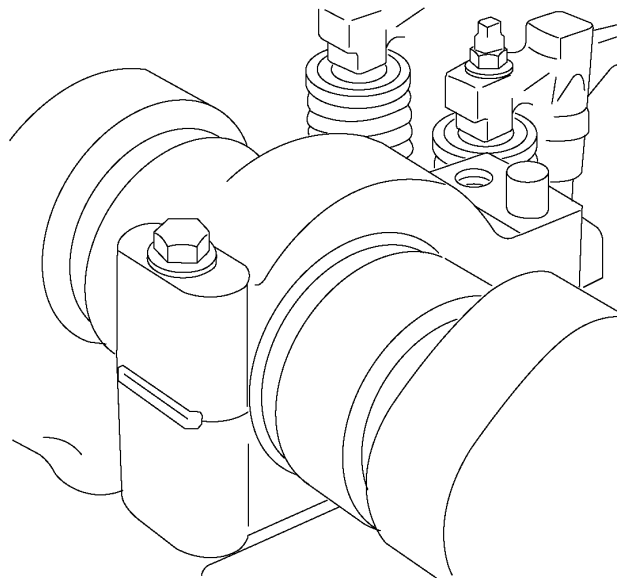


This Service Bulletin replaces bulletin 215-77, "Camshaft Bearing Brackets, Replacement" dated 2.2007.

Date	Group	No.	Page
8.2008	211	324	1(6)

Camshaft Bearing Housing Assembly, Replacement 16L Engines

Camshaft Bearing Housing Assembly, Replacement



W2005852

This information contains the proper procedure to replace factory or aftermarket camshaft housing assemblies on Volvo 16L engines using spare part kit 21235155.

Contents

- "Camshaft Bearing Housing Assembly, Replacement" page 2

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.

Service Procedures

2119-03-03-02

Camshaft Bearing Housing Assembly, Replacement

Camshaft removed

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

When Replacing Factory-Installed Assemblies

DO NOT MIX a replacement assembly with the original factory-installed assemblies. The original assemblies were machined together with the cylinder head when the engine was manufactured and can not be replaced individually or installed on another cylinder head. **All 7 bearing housing assemblies must be replaced by using the appropriate camshaft bearing housing assembly spare part kit and following the instructions in this service bulletin.**

Note: When installing a new cylinder head, do not mix the new assemblies with original assemblies from the old cylinder head. Use only new assemblies on a new cylinder head.

When Replacing Aftermarket Assemblies

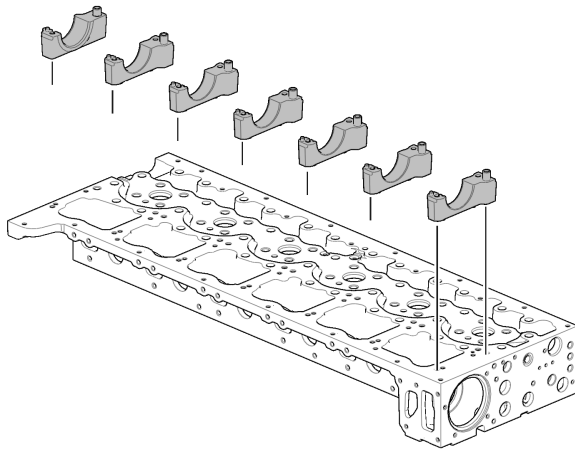
If there are already replacement assemblies on the cylinder head, and one or more assemblies are damaged, all 7 bearing housing assemblies must be replaced by using the appropriate camshaft bearing housing assembly spare part kit and following the instructions in this service bulletin. Replacement assemblies can be identified by the oval-shaped holes for the locating pins. For assemblies in the 2 through 6 positions, both locating pin holes are oval in the side-to-side direction. For assemblies in the 1 and 7 positions, one locating pin hole is oval in the front-to-rear direction; the other pin hole is round and has a locating pin pre-assembled in it.

Replacement

1

Remove the lower bearing saddles using a pry bar. Remove the No. 7 rearmost saddle using a soft-faced mallet by tapping side to side.

Note: Pins should come off the cylinder head with the saddles. If they do not, remove them.



T2026160

2

Clean the contact surfaces.

3



CAUTION

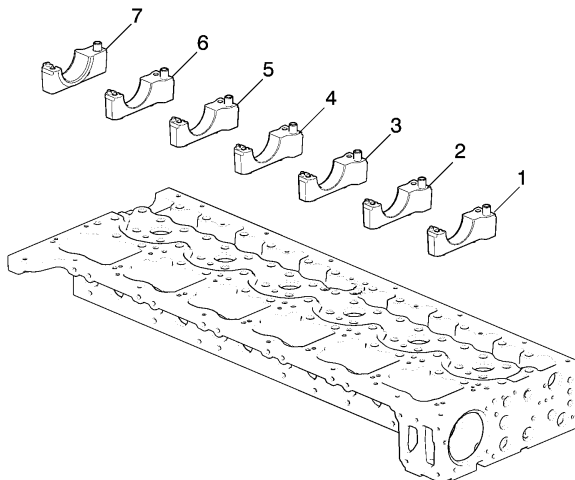
Do not use excessive force to punch the assemblies when marking their position on the cylinder head. Damage to components can result.

Use a metal stamp or electric etching to mark the position, 1 through 7, at which the assembly will be installed on the cylinder head. Mark both the lower saddle and cap of each new replacement assembly. Location markings will indicate the correct installation position of the assemblies if they are ever removed from the cylinder head.

Assemblies 1 and 7 have a pre-installed locating pin on the bottom surface.

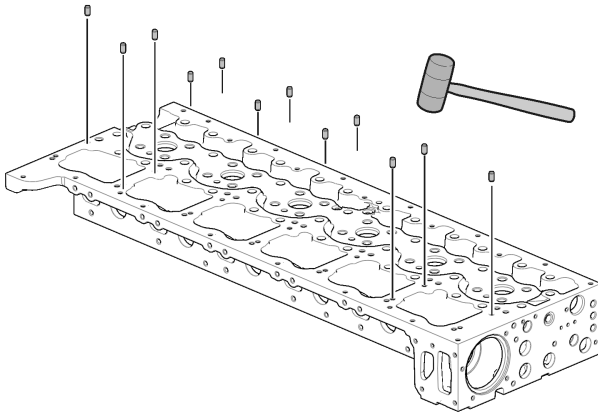
The number 7 assembly has a special counterbore machining around the camshaft bore to accommodate the special thrust bearing used only in the number 7 assembly.

Assemblies 2 through 6 are common and do not have pre-installed locating pins on the bottom surface.



W2006619

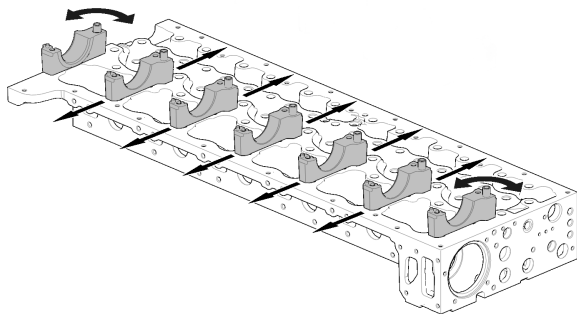
- 4**
Install the 12 locating pins from the parts kit at the cylinder head locations shown. Use a plastic mallet so as not to damage the locating pins.



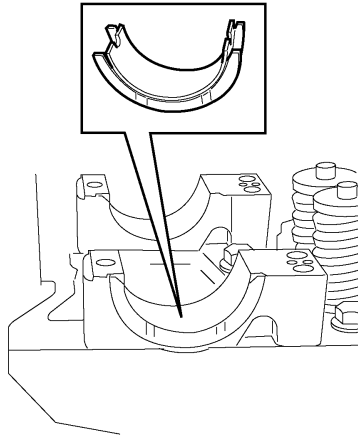
T2026333

- 5**
Install the new lower bearing saddles into the correct positions on the cylinder head.

- 6**
Check that the lower bearing saddles can move slightly on the locating pins. The lower saddles position adjusts to allow for proper alignment during camshaft installation. Lower saddles 1 and 7 should turn slightly forward and back at one locating pin location. Lower saddles 2 through 6 should move slightly side to side.



T2026334



W2005853

7

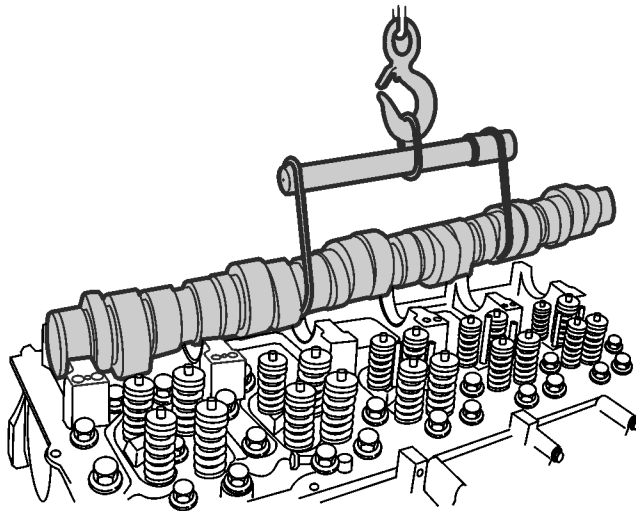
Insert the camshaft lower bearings into the lower saddles and lubricate them with clean engine oil.

8

Thoroughly inspect the camshaft before installing it on the cylinder head. Refer to the service information in Group 21.

9

Lower the camshaft carefully into place and remove the lifting tool. Rotate the camshaft by hand to ensure that the camshaft is not binding in the lower bearing saddles.



W2005134



CAUTION

The camshaft is heavy. Do not attempt to install the camshaft without the help of an assistant or the use of a suitable lifting device. Failure to heed this caution may result in severe personal injury and component damage.

85109034

10

Install the camshaft upper bearings into the new bearing caps and lubricate them with clean engine oil.

11

Install the new bearing caps on the correct bearing saddles. Final tightening is done later when the rocker arm shaft is installed. Use a soft-faced mallet to seat the bearing caps over the dowel pins.

Note: Verify that the camshaft has free rotation after the fastener tightening has been completed.

12

Complete the camshaft installation using the service information in Group 21.