



Camshaft Bearing Housing Replacement on Mack MP 8 & 10 Diesel Engines

The AERA Technical Committee offers the following information on camshaft bearing housing replacement on 2000-2008 Mack MP 8 & 10 diesel engines. This information should be considered anytime the upper engine is being serviced.

Should damage to the camshaft bearing housings be encountered on a Mack MP8 or MP10 engine, bearing housing assembly kits are available through the Mack parts system. These kits allow the bearing housings to be replaced without having to replace the entire cylinder head. Part numbers for the assembly kits are as follows:

Kit Part#	Description
20825387	Camshaft bearing housing assembly kit, MP8 engines
21235155	Camshaft bearing housing assembly kit, MP10 engines

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 cannot 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: On service replacement cylinder heads, the camshaft bearing housing assemblies are line-bored and pinned. The assembly procedures outlined in this service bulletin do not apply when a Mack replacement cylinder head is being installed.

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.

Follow the steps below to install the seven new camshaft housing bores.

- 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 again. 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.

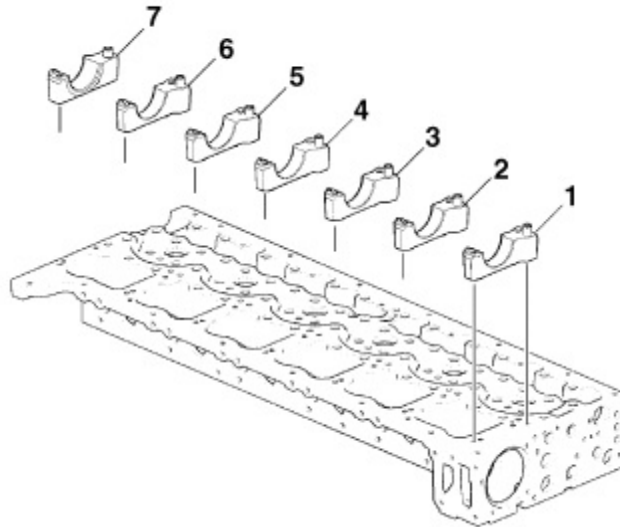


Figure 1. Mark Lower & Upper Housings for Location

- Install the 12 locating pins from the parts kit at the cylinder head locations shown in Figure 2. Use a plastic mallet so as not to damage the locating pins.

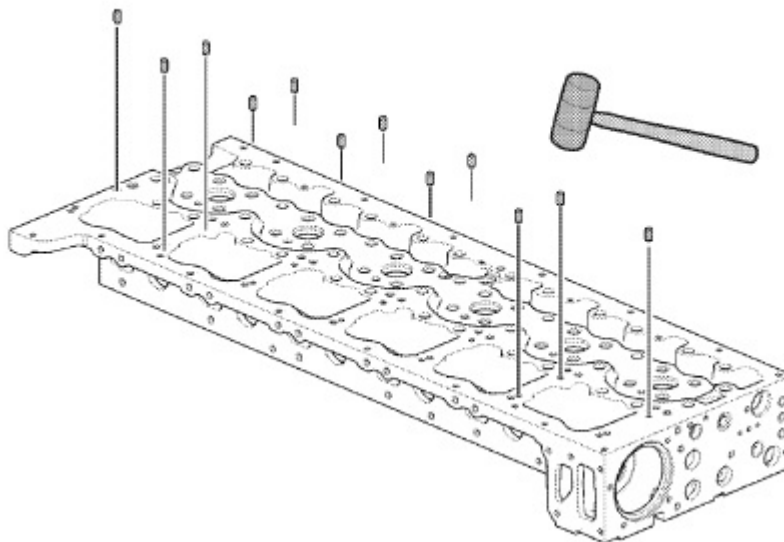


Figure 2. Install Locating Dowel Pins

- Install the new lower bearing saddles into the correct positions on the cylinder head.
- 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 as shown in Figure 3.

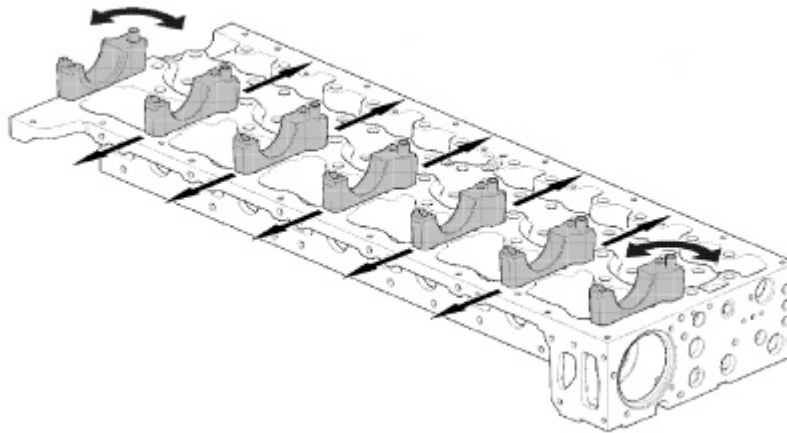


Figure 3. Check for Free Movement

- Insert the camshaft lower bearings into the lower saddles and lubricate them with clean engine oil immediately before camshaft installation.