



(Also applies to Mack Trucks Australia for MP8 engines)  
(Supersedes SB213055 dated 07/09/08)

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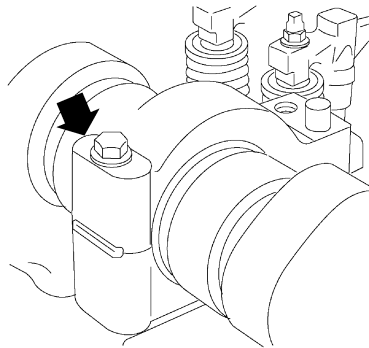
## Camshaft Bearing Housing Replacement

MP8, MP10

### SB213055, Camshaft Bearing Housing Replacement

(September 2008)

**REV** ▶ Should damaged 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:



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Figure 1 — Camshaft Bearing Housing Assembly

<b>REV</b> ▶ Kit Part No.	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 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**

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 replacement cylinder head is being installed.

**When Replacing Aftermarket Assemblies**

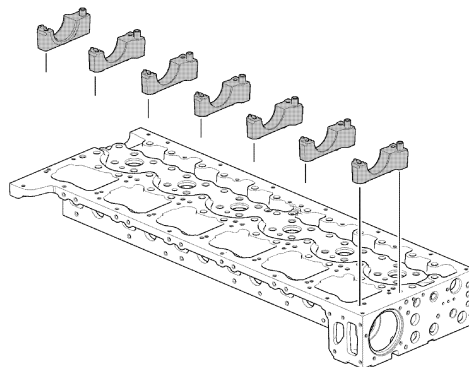
If there are already replacement assemblies on the cylinder head, and one or more assemblies are damaged, all 7 bearing housing assemblies must be replaced by using the appropriate camshaft bearing housing assembly spare part kit and following the instructions in this service bulletin. Replacement assemblies 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.

**Procedures**

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.



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**Figure 2 — Remove Lower Bearing Saddles**

2. Clean the contact surfaces.

**CAUTION**

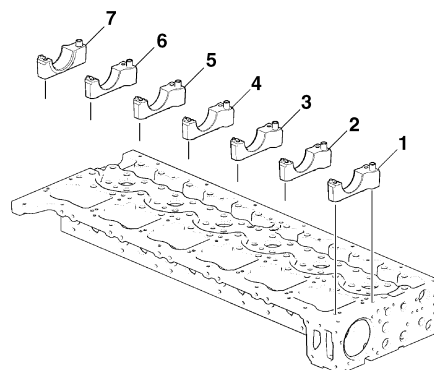
*Do not use excessive force to punch the assemblies when marking their position on the cylinder head. Damage to components can result.*

3. 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.

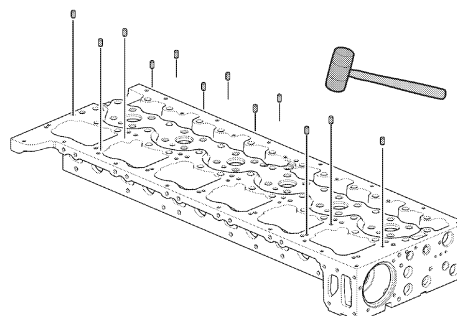
Assemblies 2 through 6 are common and do not have pre-installed locating pins on the bottom surface.



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**Figure 3 — Mark Position of Lower Saddles and Upper Caps**

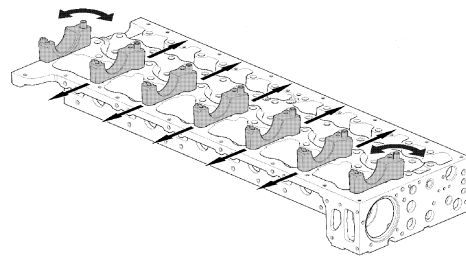
4. Install the 12 locating pins from the parts kit at the cylinder head locations shown. Use a plastic mallet so as not to damage the locating pins.



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**Figure 4 — Install Locating Pins**

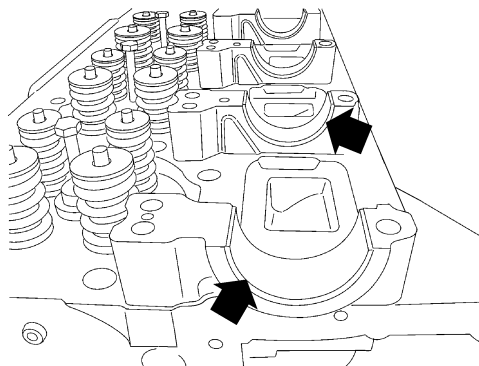
5. Install the new lower bearing saddles into the correct positions on the cylinder head.
6. Check that the lower bearing saddles can move slightly on the locating pins. The lower saddles position adjusts to allow for proper alignment during camshaft installation. Lower saddles 1 and 7 should turn slightly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



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**Figure 5 — Check Movement of Lower Saddles**

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



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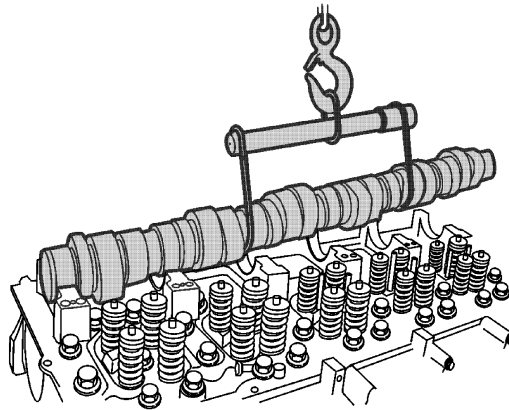
**Figure 6 — Install Camshaft Lower Bearings**

8. Thoroughly inspect the camshaft before installation.

- Using the lifting tool (tool No. 85109034), carefully lower the camshaft into place. Rotate the camshaft by hand to ensure that the camshaft is not binding in the lower bearing saddles.

**! DANGER**

*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.*



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**Figure 7 — Lower Camshaft into Place**

- Install the camshaft upper bearings into the new bearing caps and lubricate them with clean engine oil.
- Install the new bearing caps on the correct bearing saddles and use a soft-faced mallet to seat the bearing caps over the dowel pins. Final fastener tightening is done when the rocker arm shaft is installed. Complete the camshaft and rocker shaft installation procedures as outlined in the applicable MACK engine service manual.