Dear Sirs,

We have received a few reports of wear at "Y" on the enclosed drwg. 1391444-2 between shaft for tightening bolt and hub in bedplate aft end. If this wear becomes too large, this may cause the tightening bolt to break.

Furthermore, we can inform you that wear in the fore end of the shaft has been negligible.

This means that the supply of oil at the shaft suspension at "Y" has not been large enough to prevent wear. On the other hand, the shaft suspension in the fore end is supplied with additional splash oil from the cylinder side, which explains why there is no wear in this place.

We recommend that you carry out the following check:

Dismantle cover "X" in the aft end, and measure the clearance "Y" with feeler blades. Check the shaft end for the presence of oil.

Plants with clearances below 0.4 mm at "Y" are acceptable. However, in order to improve lubrication, we recommend the mounting of a pipe with spray nozzle, see drwg. 1391444-2, and thereafter, at suitable intervals, to check whether the clearance has changed.

If the clearance "Y" exceeds 0.4 mm, it is necessary to repair at the earliest opportunity. In order to avoid delaying the ship, it is possible to make a temporary repair until such time as the suggested final repair can be carried out.
Temporary repair

The spray nozzle, drwg. 1392783-7, is to be mounted by drilling a 1/2" pipe thread hole in the web plate of the bedplate. The nozzle is connected to the lub. oil pipe to supply splash oil to the shaft. The clearance at "Y" is to be filled with 10-15 mm wide shims, without gap. The shims are to be cut from steel plate. The thickest shim is to be inserted at the largest clearance so that centering of the shaft is ensured, see drwg. 1391444-2.

Final repair

The final repair should be made as shown on drwg. 1397295-2. The worn shaft has to be dismantled and turned off at the worn end. A flange bearing in which the shaft is embedded is introduced. This is tightened to the existing threaded holes in the hub. Furthermore, two guide pins for fixing of the flange bearing are adopted. The correct axial location of the shaft is secured by a distance piece. In the web plate of the bedplate, a 1/2" pipe thread is to be drilled and a spray nozzle for supply of oil to the shaft is fitted.

To have the final repair carried out, please contact MAN B&W or one of our service centres or licensees.

Yours faithfully,
MAN B&W Diesel A/S

Encl.
**P** = distance from end of thread to the wall.

<table>
<thead>
<tr>
<th>Material</th>
<th>P</th>
<th>Q</th>
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<tr>
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</tr>
<tr>
<td>L60MC</td>
<td>20</td>
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<td>L80MC</td>
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</table>

Note: These values are approximate and should be verified by consulting the manufacturer's specifications.
1/2" Pipe thread

| Surface roughness and tolerances see MAN B&W Diesel A/S BB Standards Book, EN103 and EN107 medium |

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<th>Description</th>
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<tbody>
<tr>
<td>A</td>
<td>Spray nozzle</td>
<td></td>
<td>1392783-7</td>
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</table>
When the shaft and tightening bolt is aligned correctly, the distance piece pos. 4 is adopted on this surface. Screws pos. 2 is tightened and secured, and holes for the guide pins is reamed.

Connection to thread boss on a lub oil pipe.

453 Tightening-up torque 230Nm
425 To be secured by centre punch mark

Sheet Drawing No.: 007 0283 XXX XX-YY
Revision: A
Model: L70MC
Material: 125
Date/Rev: 007 0283 XXX XX-YY
Sheet: A
Scale: 1:1

ISO 228/1-3 1/2
A-A
307 Marking scratch
Direction of oil flow

Existing shaft to be machined

Repair

Connection to thread boss on a lub oil pipe.

Original execution.