Dear Sirs

It has recently come to our knowledge that tightening of the chain tightener shaft on L/S70ME-C engines has caused some difficulties.

On MAN B&W L/S70ME-C type engines, the chain tightener shaft must be tightened by means of the main bearing hydraulic jacks. However, in some cases the hydraulic jacks for the exhaust valve have mistakenly been used for this task.

Tightening of the chain tightener shaft is NOT to be carried out by means of the hydraulic jacks for the exhaust valve, as the tightening force of these jacks is only approx. 2/3 of the force necessary.

This service letter specifies the correct procedure for use of the chain tightener tool on L/S70ME-C engines.

Yours faithfully

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Vice President, Engineering

Niels B Clausen
Senior Manager, Engine and System Application

Encl:
Procedure M90602
Data D10602

Action code: WHEN CONVENIENT

Tightening of chain
L/S70ME-C

SL09-514/NJC
August 2009

Concerns
MAN B&W two-stroke low speed marine diesel engines.
Type: L/S70ME-C

Summary
Use of hydraulic jacks for chain tightening.

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German Reg.No.: HRB 22056
Amtsgericht Augsburg

MAN Diesel – a member of the MAN Group
To be able to tighten the chain tightener shaft correctly, using the hydraulic jacks for main bearings, it is very important to ensure a distance of 155 mm (+2/−0 mm) from the chain tightener stud ends to the aftmost surface of the frame box, see Fig. 1.

If the distance exceeds 157 mm, adjust the distance to 155 mm by turning the nuts in the opposite end of the chain tightener studs.

However, if the distance from the ends of the chain tightener studs and the aftmost end of the frame box is 162-165 mm or more, it is likely that the hydraulic jacks for the exhaust valve were used for tightening of the chain tightener shaft. In such a case, these jacks must also be used for loosening the chain tightener shaft again.

Using the main bearing hydraulic jacks when the distance measures 162-165 mm or more involves a risk of the conical part of the extension stud interfering with the lower part of the hydraulic jack housing/cylinder block, see Fig. 2.

Before re-tightening the chain tightener shaft by means of the main bearing hydraulic jacks, re-adjust the distance from the chain tightener stud ends to the aftmost end of the frame box to 155 mm (+2/−0 mm), see Fig. 3.

For your information we enclose MAN B&W procedure M90602, Ed. 0253, Chain Tightener, Adjustment.

For further advice or clarification, you are welcome to contact our Maintenance, Tools and Procedures department (e-mail: lee3@mandiesel.com).
1. Turn the engine in the AHEAD direction.
   Remove the chain tightener cover.

   Assemble and fit the tightening tool studs B in the threaded holes in the tightener wheel shaft. This is done through the opening C. Fit the chain tightener tool hydraulic jacks on the studs as shown in D. This is to keep the chain tightener in place.

2. Install the hydraulic jack on the chain tightener using a tackle and three eyebolts screwed into the threaded holes in the hydraulic jack parts.

3. Check measurement D06-68. If necessary, adjust according to the value stated in the data sheet.
4. Loosen the hydraulic nuts A on the fore side of the chain tightener wheel. 
*For operation of the hydraulic tools, see Procedure 913-1.*

Tighten the hydraulic jacks D simultaneously to the value stated in Data D13-01.

Use the hand operated hydraulic pump for this operation.

Tighten the hydraulic nuts A to the value stated in Data D13-01. Use the hydraulic pump for this operation.

Loosen the hydraulic chain tightener tools and remove the tools from the engine.
SAFETY PRECAUTIONS  For detailed sketch, see 900-2

X  Stopped engine
X  Shut off starting air supply  –  At starting air receiver
X  Block the main starting valve
X  Shut off starting air distributor/distributing system supply
X  Shut off safety air supply  –  Not ME engines
X  Shut off control air supply
   Shut off air supply to exhaust valve  –  Only with stopped lubricating oil pumps
X  Engage turning gear
   Shut off cooling water
   Shut off fuel oil
X  Stop lubricating oil supply
   Lock the turbocharger rotors

Data

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<thead>
<tr>
<th>Ref.</th>
<th>Description</th>
<th>Value</th>
<th>Unit</th>
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<tbody>
<tr>
<td>D13-01</td>
<td>Hydraulic pressure, mounting</td>
<td>1500</td>
<td>bar</td>
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<tr>
<td>D13-02</td>
<td>Hydraulic pressure, dismantling</td>
<td>1400-1650</td>
<td>bar</td>
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<tr>
<td>D06-68</td>
<td>Max. distance measurement</td>
<td>155-157</td>
<td>mm</td>
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The task-specific tools used in this procedure are shown on the plates at the end of this chapter or in the chapters indicated by the first three digits in the plate number, e.g. \textbf{P90951} refers to chapter 909.

<table>
<thead>
<tr>
<th>Plate</th>
<th>Item No.</th>
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<tbody>
<tr>
<td>P90561</td>
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<td>Main bearing - hydraulic tools</td>
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<tr>
<td>P90671</td>
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<td>Hydraulic tools - chain tightener</td>
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<tr>
<td>P91351</td>
<td>010</td>
<td>Hydraulic pump, pneumatically operated</td>
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<tr>
<td>P91351</td>
<td>022</td>
<td>Hydraulic pump, hand operated</td>
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<td>P91351</td>
<td>046</td>
<td>Hose with unions (1500 mm), complete</td>
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<tr>
<td>P91351</td>
<td>058</td>
<td>Hose with unions (3000 mm), complete</td>
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<td>3-way distributor block, complete</td>
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<td>P91351</td>
<td>117</td>
<td>5-way distributor block, complete</td>
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