Service Manual

Steering

Priority Valve OLS 160
### Revision History

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<tr>
<th>Date</th>
<th>Changed</th>
<th>Rev</th>
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<tr>
<td>Mar 2014</td>
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<tr>
<td>Sep 2010</td>
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<td>Jan 2010</td>
<td>Japan location</td>
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Service Manual  Steering, Priority Valve OLS 160

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Tools

Tools for OLS 160

Open-end spanner 27 mm
Multigrip pliers
Nylon pin

Hexagon socket spanners 5, 8 and 10 mm

The tools are not available from Danfoss
Dismantling

Dismantling the OLS 160

Screw out the PP plug using the open-end spanner. Remove the O-ring.

Screw out the LS plug using the open-end spanner. Remove the O-ring.

Take out the spring.
Dismantling

Press out the spool using the nylon pin.

Screw out the pressure relief valve plug (8 mm hexagon spanner).

Screw out the pressure relief valve plug (10 mm hexagon spanner).
Dismantling

Hold the pressure relief valve firmly with the multigrip pliers and screw out the setting screw (5 mm hexagon socket spanner).

The pressure relief valve consists of valve housing, cone, spring and setting screw.
Modification

The control spring pressure can be altered by replacing the spring (see table below). Replace name plate so that code no. and control spring pressure match each other again.

<table>
<thead>
<tr>
<th>Control spring pressure bar [psi]</th>
<th>d [mm] [in]</th>
<th>D [mm] [in]</th>
<th>L [mm] [in]</th>
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<td>4 [58]</td>
<td>2.5 [0.10]</td>
<td>12.5 [0.50]</td>
<td>50 [1.97]</td>
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<td>7 [102]</td>
<td>3.0 [0.12]</td>
<td>12.5 [0.50]</td>
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<td>10 [145]</td>
<td>3.2 [0.13]</td>
<td>12.5 [0.50]</td>
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Cleaning

Clean all parts carefully in low aromatic kerosene.

Inspection and replacement

Check all parts carefully and make any replacements necessary.

All O-rings must be replaced.

Lubrication

Before assembly, lubricate all parts with hydraulic oil.
Assembling

Assembling the OLS 160

The illustration shows the internal PP spool and internal PP-plug. The internal PP-plug can only be used with the internal PP-spool.

The illustration shows the external PP spool and external PP-plug. The external PP-plug can only be used with the internal PP-spool.

Guide the spool into the bore.
Use the nylon pin to centre the spool in the bore.
Assembling

Guide the spring and LS-plug into the bore. Remember O-ring

Screw in the PP-plug (with O-ring) and LS-plug (27 mm open-end spanner).

Fit the cone, spring and setting screw in the valve housing (if dismantled). Fit the seal washer (if removed) and the pressure relief valve (10 mm hexagon socket spanner).

Tightening torque: 30 N.m [265.5 lbf.in]

Make the pressure setting on a panel or on the vehicle. Pressure setting shall be done at pump flow 80 l/min [21.13 US gal/min]
Assembling

Fit the seal ring (if removed) and the plug for the pressure relief valve

(8 mm hexagon socket spanner).

Tightening torque: 50 N.m (442.5 lbf.in)

The OLS 160 is now reassembled
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