TO DO BEFORE FIRST START

ATTENTION

TO GET THE BEST PERFORMANCE FROM THE PUMP, THE FILTER WILL BE ENCLOSED SEPARATELY DURING TRANSPORT. BEFORE YOU START USING THE PUMP, YOU WILL HAVE TO INSTALL THE FILTER AS YOU CAN SEE IN THE PROCEDURE.

Remove the side panel on the right side by removing the screws around the edges (1).

Remove the plug from the pump filter seat (2).

IMPORTANT: Save the plug for future use (3).

Insert the filter and the seal properly (4) and tighten (5).

IMPORTANT: Avoid tilting the machine after the filter has been mounted. If you tilt the machine you will immerse the filter with oil and you will have to replace or clean the filter.

Reposition the side panel to its position and refit the screws.

We advise you to inspect the air filter for water residue regularly. Unscrew the grey tap at the bottom of the filter and push it.
Congratulations on choosing the Öhlins Vacuum Oil Filling Machine. The new vacuum oil filling machine lets you charge and discharge most of the shock absorbers, steering dampers and front forks on the market. This machine is software controlled and you control the process on the screen on the front of the machine.

⚠ Warning!
Make sure that you understand all information in this manual before you start to use it.

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1 The Öhlins vacuum oil filling machine

1.1 Adapters

<table>
<thead>
<tr>
<th>Adapter model</th>
<th>Thread</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kayaba MX</td>
<td>M28</td>
</tr>
<tr>
<td>Kayaba MX</td>
<td>M6</td>
</tr>
<tr>
<td>Kayaba R/T</td>
<td>M24</td>
</tr>
<tr>
<td>Kayaba R/T</td>
<td>M22</td>
</tr>
<tr>
<td>SD WP</td>
<td>M19</td>
</tr>
<tr>
<td>Showa MX</td>
<td>M27</td>
</tr>
<tr>
<td>Showa R/T</td>
<td>M18</td>
</tr>
<tr>
<td>Showa R/T reverse</td>
<td>M18</td>
</tr>
<tr>
<td>Showa Suzuki RMZ 450 2008</td>
<td>M34</td>
</tr>
<tr>
<td>WP Shock absorber</td>
<td>M9.4</td>
</tr>
<tr>
<td>Öhlins hydraulic preload adj SD 4XX</td>
<td>M4</td>
</tr>
<tr>
<td>Öhlins Rotary Steering damper SD 2.0, SD 2.1</td>
<td>M8</td>
</tr>
<tr>
<td>Öhlins Shock absorber</td>
<td>M5</td>
</tr>
<tr>
<td>Öhlins Steering damper R/T</td>
<td>M11</td>
</tr>
</tbody>
</table>

1.2 Power supply

The international code for the electric connection is IEC 320.

⚠ Warning!
Do not use any power adapter. If the cable provided does not fit your wall socket, make sure to get a cable approved for your socket with an IEC 320 connector.

Make sure to use the appropriate Vacuum fill machine for the voltage used in your country:

<table>
<thead>
<tr>
<th>Available versions</th>
<th>Voltage</th>
</tr>
</thead>
<tbody>
<tr>
<td>01840-04</td>
<td>220 V</td>
</tr>
<tr>
<td>01840-05</td>
<td>110 V</td>
</tr>
</tbody>
</table>
1.3 Select language

1.3.1
Set the switch on the rear side of the machine to ON.

1.3.2
When you see the first screen view, press START and ENTER at the same time.

Press STOP to scroll through the available languages:
ITALIAN
ENGLISH
GERMAN

Press START and ENTER to select a language and to go to the main menu.
1.4 Fill the Öhlins vacuum oil filling machine with oil

**Note!**
At delivery the machine is empty. Before you use the machine for the first time you must fill the machine with oil.

**Note!**
Use Öhlins high performance fluid 01309-01/01304-01.

1.4.1
Connect the machine to a power supply.
Select language.

1.4.2
Connect the machine to the compressed air tube on the rear side of the machine. The machine will automatically set the correct pressure.

1.4.3
Attach the blue coloured entrance and exit tube to the tank unit you want to fill, TANK 1 or TANK 2, on the front of the machine.

1.4.4
Use the largest adaptor and connect it to the blue tube. Insert the adapter completely into an oil bottle. Make sure that no air can enter into the adapter and hose.

1.4.5
Press MENU.
Select OIL RECHARGE.
Press ENTER.

1.4.6
Press MENU to select TANK 1 LH side or TANK 2 RH side.
Press ENTER.

1.4.7
The display shows CONNECT CONNECTION TO THE TUBE PUT THE IMMERGE TUBE INTO THE OIL. Examine the hose and the connections and then press START.

1.4.8
The oil fill procedure starts.
When you hear a signal the tank is filled to the correct oil level and the machine will stop.
1.5 Change oil in the Öhlins vacuum oil filling machine

1.5.1
Press MENU.
Select OIL DISCHARGE.
Press ENTER.

1.5.2
Select TANK1 LH side or TANK 2 RH side.
Press ENTER.

1.5.3
Connect the blue coloured entrance and exit tube to the machine and put the other end of the tube in an empty oil retainer.
Press START.

1.5.4
When the machine is finished it will start to blow air and oil.
Immediately press STOP.
To fill the machine with new oil, go to chapter 1.5.
2  Bleed and fill oil

2.1 Shock absorber with separating piston

⚠ Warning!
When you work with TTX shock absorbers, fixate the shaft so that it does not go into the shock absorber body during the fill procedure. Put the shock absorber in a vise and use a shaft clamp to fixate the shaft.

❗ Caution!
To prevent the filling tube from being clogged make sure to hold the shock absorber below the inlet holes during vacuum mode.

2.1.1
Fill the Öhlins vacuum oil filling machine with oil according to chapter 1.5.
Press MENU.

2.1.2
Select SHOCK BLEEDING.
Press ENTER.

2.1.3
Select TANK 1 LH side or TANK 2 RH side.
Press ENTER.

2.1.4
Select SHOCK WITH SEPARATOR.

2.1.5
Open all external adjusters on the shock absorber.
Push the separator (free piston) to the bottom.
Use the correct adaptor and connect the shock absorber to the tube.
Press START.

2.1.6
The machine will start the bleed procedure. After approximately 5 minutes of the bleed procedure the machine will start to fill oil. It is important to run this procedure 2 times, When the display shows operation finished repeat the procedure a second time.

2.1.7
When the procedure is finished the display shows OPERATION FINISHED-POSITION SEPARATOR.

❗ Caution!
Repeat the fill procedure to get the most correct oil fill result. Do not drain the shock absorber from oil before you start the second fill procedure, only repeat the fill procedure.

2.1.8
Place the separator piston in the correct position, 7-10mm from bottom.
Remove the hose from the shock absorber.
Press ENTER.
Fill up the fill hole on the shock absorber with oil. Install the fill screw and pressurize the shock absorber.
2.2 Shock absorber with bladder

⚠ Warning!
When you work with TTX shock absorbers, fixate the shaft so that it does not go into the shock absorber body during the fill procedure. Put the shock absorber in a vise and use a shaft clamp to fixate the shaft.

💡 Caution!
To prevent the filling tube from being clogged make sure to hold the shock absorber below the inlet holes during vacuum mode.

2.2.1 Fill the Öhlins vacuum oil filling machine with oil according to chapter 1.5.
Press MENU.

2.2.2 Select SHOCK BLEEDING.
Press ENTER.

2.2.3 Select TANK 1 LH side, or TANK 2 RH side.
Press ENTER.

2.2.4 Select SHOCK WITH BLADDER.

2.2.5 Place the reservoir tube in a vise with soft jaws.
Open all external adjusters on the shock absorber.
Use the correct adaptor and connect the shock absorber to the tube.
Press START.

2.2.6 The machine will start the bleed procedure. After approximately 5 minutes of the bleed procedure the machine will start to fill oil. It is important to run this procedure 2 times, When the display shows operation finished repeat the procedure a second time.

2.2.7 When the procedure is finished the display shows OPERATION FINISHED-DISCONNECT SHOCK.

💡 Caution!
Repeat the fill procedure to get the most correct oil fill result. Do not drain the shock absorber from oil before you start the second fill procedure, only repeat the fill procedure.

2.2.8 Remove the hose from the shock absorber.
Press ENTER.
Fill up the fill hole on the shock absorber with oil. Install the fill screw and pressurize the shock absorber.
2.3 Steering damper

Caution!
To prevent the filling tube from being clogged make sure to hold the shock absorber below the inlet holes during vacuum mode.

2.3.1
Fill the Öhlins vacuum oil filling machine with oil according to chapter 1.5.
Press MENU.

2.3.2
Select SHOCK BLEEDING.
Press ENTER.

2.3.3
Select TANK 1 LH side, or TANK 2 RH side.
Press ENTER.

2.3.4
Select SHOCK WITH SEPARATOR.

2.3.5
Remove the valve and the rubber reservoir, or the dividing piston. Open all external adjusters on the steering damper. Use the correct adaptor and connect the steering damper to the tube.
Press START.

2.3.6
The machine will start the bleed procedure. After approximately 5 minutes of the bleed procedure the machine will start to fill oil. It is important to run this procedure 2 times. When the display shows operation finished repeat the procedure a second time.

2.3.7
When the procedure is finished the display shows OPERATION FINISHED-POSITION SEPARATOR-POSITION SEPARATOR.
Caution!
Repeat the fill procedure to get the most correct oil fill result. Do not drain the shock absorber from oil before you start the second fill procedure, only repeat the fill procedure.

2.3.8
Remove the hose from the steering damper.
Press ENTER.
Fill up the fill hole on the steering damper with oil. Install the valve and the rubber reservoir. Install the end cap screw.
3.6 Service and maintenance

Oil change interval
It is important to regularly change the oil in the SP3 Vacuum pump.

<table>
<thead>
<tr>
<th>Machine usage</th>
<th>Change oil</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-10 times a day</td>
<td>1 time/ year</td>
</tr>
<tr>
<td>10 times a day or more</td>
<td>Every 6 months</td>
</tr>
</tbody>
</table>

3.6.1
Remove the RH side panel.

1.6.2
When you change the oil, fill up to the middle of the oil level window located behind the RH side panel, approximately 1.25 litre.

<table>
<thead>
<tr>
<th>Oil recommendation</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>SHELL</td>
<td>Tellus T32</td>
</tr>
<tr>
<td>Q8</td>
<td>Haendel 32</td>
</tr>
<tr>
<td>ESSO</td>
<td>Invarol EP46</td>
</tr>
</tbody>
</table>