Before you begin

⚠️ **Warning!**
Öhlins Racing AB can not be held responsible for any damage to the Steering Damper, vehicle, other property or injury to persons, if the instructions for installing and maintenance are not followed exactly. Similarly, the warranty will become null and void if the instructions are not followed.

⚠️ **Warning!**
Please study and make sure that you fully understand the workshop manual before handling this steering damper. If you have any questions regarding proper service procedures, contact an Öhlins Service Centre.

şa **Note!**
Make sure that you have all necessary tools before you begin working with the Öhlins Steering Damper.

ода **Warning!**
Öhlins products are subject to continuous improvement and development, therefore, although these instructions include the most up-to-date information available at the time of printing, minor updates may occur. To find the latest information contact your Öhlins distributor.

### Safety Symbols

In this manual, mounting instructions and other technical documents, important information concerning safety is distinguished by the following symbols:

⚠️ **The Safety Alert Symbol means:** Warning! Your safety is involved.

⚠️ **Warning!**
The Warning Symbol means: Failure to follow warning instructions can result in severe or fatal injury to anyone working with, inspecting or using the steering damper, or to bystanders.

️ **Caution!**
The Caution Symbol means: Special precautions must be taken to avoid damage to the steering damper.

️ **Note!**
The Note Symbol indicates information that is important regarding procedures.

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Safety Precautions

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1.1
Remove the centre lid (if any), use tool 00720-02, or insert a M6 screw and pull it out with a pair of pliers.

**Note!**
*Do not attempt to remove the lid with a screwdriver, it may break.*

1.2
Turn the damper upside-down, unscrew the 6 torx screws.

1.3
Remove the bracket and the upper steering stem nut.

1.4
Put the damper in tool 04971-02 and loosen the lock nut with tool 04970-02 to remove the lever and lock nut. Use a 30 mm wrench.
2.1
Remove the small pins holding the adjuster knobs with a small punch (and a hammer).

2.2
Remove the adjuster knobs from the smaller hole side (the pinholes are bigger in the other end to keep the pin in place). Be careful not to lose the small spring and steel ball for the click position (note the position and make sure to keep the knobs apart).

**Note!**
*Note the pressing direction to remove the pins.*

2.3
Remove the two adjusters and valves. Note the positions and make sure to keep them apart.

Use tool 00797-07 on the DL and RTC valve housing, and a 5 mm wrench on the adjuster screws.
3 - Disassemble Expansion Chamber Piston and Check Valves

3.1
Unscrew all 12 torx screws, use a torx wrench. Remove the top lid gently. Use a rag or equivalent for protection as fluid may run out.

3.2
Drain the damper housing from fluid and remove the vane.

☞ Note!
Note the orientation of the vane - see assembly drawing.

3.3
Remove the little black plug with a knife. Unscrew the end cover between the adjuster valves, use an Allen key.

3.4
Remove the spring and expansion chamber piston, use tool 00722-01 to lift up the piston.

4 - Disassemble Check Valves

4.1
Remove the rubber plugs and unscrew the 4 check valves from the top lid. Note the positions of the check valve nozzle surfaces. Make sure to keep them apart!

4.2
Clean all parts carefully, use compressed air. Check for wear or damage and replace parts if necessary.
5.1
Install the vane and seal into the housing.

5.2
Install the top lid with the big o-ring and seal on to the housing and tighten all 12 torx screws, by tightening them cross over.

Tightening torque (12 torx screws) 4 Nm

5.3
Install the lever and lock nut and place the damper in tool 04971-02. Install the lock nut with tool 04970-02 and a 30 mm wrench.

Tightening torque (lock nut) 45 Nm
Loctite 222

5.4
Install the upper and lower check valves at each side of the top-lid, use an Allen key. Install them in the same position as before disassembling.

5.5
Install the bracket with the 6 torx screws to the damper.

Tightening torque (6 torx screws) 4 Nm

**Note!**
Handtighten only.

5.6
Install the expansion chamber piston, use Öhlins grease CaH 92 on the o-ring and push it to the bottom. Use piston holder tool 00722-01.

5.7
Install the spring and end cover. Use an allen key for the cover, tighten it gently.

Tightening torque (end cover) 2,5 Nm
**Note!**
We recommend using a vacuum filling machine. Use recommended Öhlins fluid only, contact an Öhlins dealer for advise.

### 6.1
Install the DL valve first; valve housing with o-ring, valve spring, high speed valve, o-ring and DL adjuster screw. Use tool 00797-07 on the DL and RTC valve housing, and a 5 mm wrench on the adjuster screws. Turn the valve clockwise to closed position.

**Note!**
Make sure that the DL high speed valve is correctly positioned - see figure.

### 6.2
Install the RTC valve housing with o-ring.

| Tightening torque (DL/RTC valve) | 3 Nm |

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**DL valve**

**RTC valve**

Knob
Pin (x2)
O-ring
RTC adjuster screw
O-ring
RTC valve housing
O-ring

Spring
Steel ball

Valve tool 00797-07
Note!
Assemble the damper unit completely (without filling the damper with fluid) without the RTC adjuster knob, RTC valve adjuster screw or the little plug for the expansion chamber. See previous pages for assembling the steering damper.

7.1
Install the filling adapter tool 01820-28 into the RTC body and connect the filling hose from the vacuum filling machine.

7.2
Release the air approx 1 minute and fill up the damper with appropriate fluid, check and set the expand chamber piston height after turning of the machine and back-up pressure. The correct measure is given automatically with tool 00722-01 when spacer key is inserted (it should be 2-3 mm from bottom position).

7.3
Remove the adapter tool 01820-28 and install the o-ring and RTC valve adjuster screw gently. Turn it clockwise to bottom position.

7.4
Remove tool 00722-01 and install the little plug for the expansion chamber.

7.5
Install the DL and RTC adjuster knobs with the small pins. Install the pins from the bigger hole side; the pinholes are smaller in the other end to keep the pin in place.

Note!
Note the direction of the pins.

7.6
Check and set both adjusters to recommended position according to Owner's Manual. Ensure that you have a minimum of 12 clicks available on both DL and RTC.