

## Instructions for installation and adjustment of the Hydraulic Damper option BO 88.114

### Installation instructions

Hydraulic dampers are maintenance-free and ready for installation. No tools are required for installation.

#### Mode of action:

The braking force, adjustable from 30N - 10000N, acts when the piston rod is pulled and pushed, in any installation position.

#### Adjusting the braking force

Adjustment of the braking force is only possible when the piston rod is in the **completely** (retracted or) extended position.

1. place the crane arm of the lifting device in the vertical position.
2. open the spring pin as shown in figure 1, and loosen the connection.
3. with the piston rod fully extended, turn it to adjust the braking force.  
During rotation pull the piston rod slightly so that the piston engages.  
Direction of rotation right: strong damping, direction of rotation left: weak damping.  
Stop the adjustment process if there is a noticeable increase in rotational resistance!
4. refit the spring pivot bolt.
5. Check the damping setting with the crane arm and repeat steps 1 to 4 if necessary.



**Do not twist the piston rod by force, otherwise the adjustment segment may be damaged.**

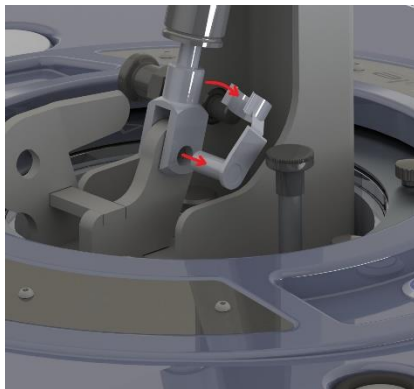


**Fluids, gases and dirt particles in the environment can attack or destroy the sealing system of the hydraulic damper and lead to functional failure of the brake cylinder. Protect the piston rod and sealing system from foreign substances in the environment. Damage to the piston rod surface can destroy the sealing system. Do not grease, oil, paint etc. the piston rod, and protect it from dirt particles. The cylinder tube may deform. Do not apply lateral or transverse forces to the hydraulic brake cylinder. Do not clamp the cylinder tube.**

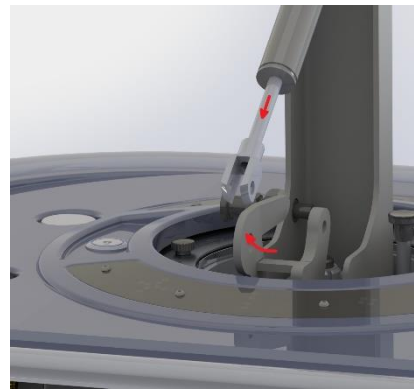


#### Expected service life

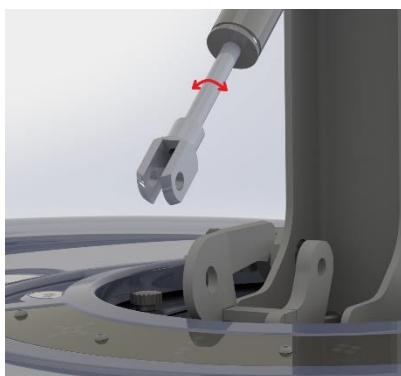
In general, hydraulic dampers are machine elements that are subject to wear. Parts subject to wear, such as seals and pistons, are excluded from the general warranty. Wear of the seals depends to a large extent on the environmental conditions and the respective application with its operating parameters. Unfavourable ambient and operating conditions can considerably reduce the expected service life.



*Fig 1. Open the spring hinge pin and loosen the connection*



*Fig 2. Swivel hydraulic damper and extend piston rod completely*



*Fig. 3 Set the desired braking force by turning.*