

Service manual of Jefa Rudder products

Rudder Shaft:

The rudder shaft should be inspected yearly for signs of electrolysis. One can recognize these signs by circular patterns of corrosion on the shaft surface. When the rudder blade has a tight fit to the hull, try to use a lamp to have a close look at the gap. Normally it is not necessary to drop the rudder for further inspection unless the rudder system has developed backlash or if the shaft rotates irregularly.

Bottom bearing:

The bottom bearing should get a good hose down when the ship is taken out of the water. The main reason for this hose down is to remove the salt water out of the bearing housing so it can't crystallize.

EVERY THIRD YEAR the bearing shall get a full cleaning. This shall be done with the rudder is removed as it requires access to the bearing. For the different kinds of bearing the cleaning is as following:

Bearing balls (figure 1), 5BT, 6T, 6BB.

Bearing balls are removed easily by twisting the bearing ball 90° to have a clear passage through the tracks on the bearing house. Pull the bearing ball out.

Clean the bearing house and bearing ball with dish soap water and a dish brush.

Remove soap with water.

Put some synthetic grease on the outside bearing ball (DO NOT PUT ANY GREASE BETWEEN THE ROLLERS!).

Push the bearing ball trough the tracks and twist it 90° to its original position.

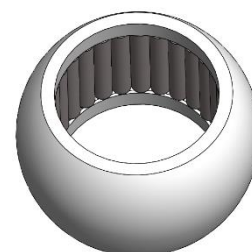


Figure 1 - Bearing ball

Standard bearings (figure 2), 41, 61, 61BB.

Clean the rollers with dish soap water and a dish brush.

remove soap with clean water.

Self-aligning bearings (figure 3), 4S, 43.

Clean the rollers with dish soap water and a dish brush.

remove soap with clean water.



Figure 3 - Standard bearing example



Figure 2 - Self-aligning bearing example

Lip seals:

Jefa PUR lip seals have no steel components inside anymore and

will last much longer. It is advisable to spray a small film with Teflon spray on the lip surface for a better run on the shaft. It is important to visibly check the proper functioning of the lip seals at least once per year, preferably under high pressure conditions like motoring full throttle.

Every third year, when the rudder is removed from the boat the lip seals should be visibly checked for any wear or damages. Feel with a finger that the seal doesn't have an interrupted surface (cuts or deformations).

Gaiter:

Gaiters should be inspected yearly for mechanical damage. Carefully inspect the complete gaiter surface if any cracks are present, especially around the jubilee clamps. If you don't trust the sealing capabilities of the gaiter anymore, replace it with a new one. Gaiters can be supplied in unglued state, so the rudder shaft does not have to be dropped. Bend the new gaiter around the rudder stock, apply the specially supplied neoprene glue on the indicated area. Carefully press the surfaces together and let it dry for a while. Mount the jubilee clips again.