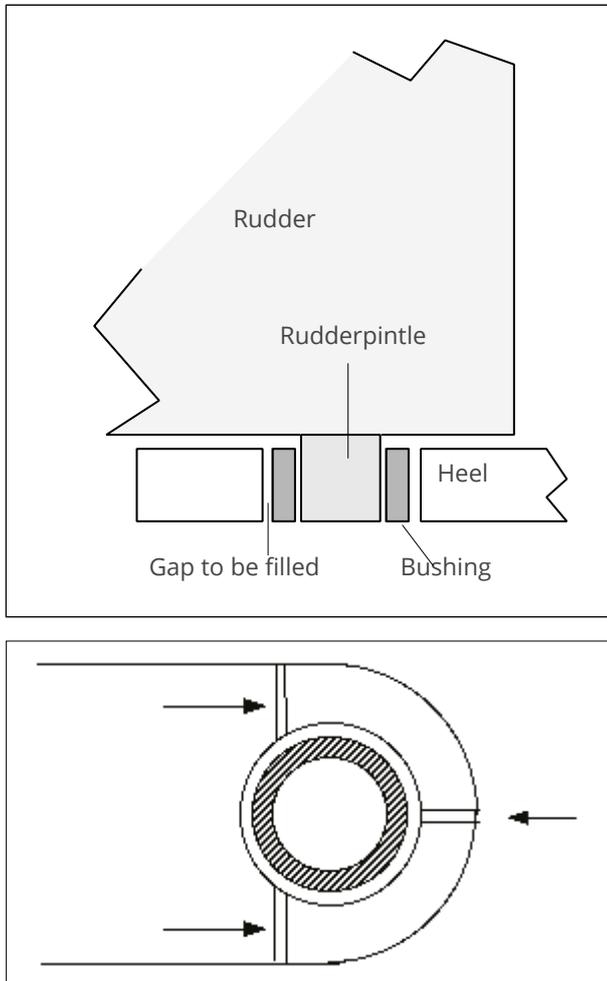


## Rudder heel bushing - casting of seat

APPLICATION DATA SHEET No. 122



Oversized bearing houses for the rudder pintle bearing is a common problem. The deterioration of the seat is caused by bimetallic corrosion.

Before making the application, consult the local Wencon supplier and the classification society.

1. Grit blast the bearing housing to SA 2,5 and clean surface acc. to Wencon surface preparation, next page. During winter time, apply heat.
2. Machine the bearing leaving min. 3 millimetre (0,12 inch) space to be filled.
3. Drill 2 or 4 injection holes in the heel.
4. Mount the bearing and secure it either using the rudder pintle or by stick welding it to the heel.
5. Make sure, that the gap is filled in the bottom to prevent injected material to get out. Use Wencon Rapid.
6. The appropriate amount of Wencon Cream or Coating is mixed and injected using compressed air cartridges in a sealant gun. Mount self cutting screws in the holes when not using them anymore.
7. Curing. If the temperature is low, apply heat to the heel 30-40°C (70-93°F). Do not apply heat to the bearing. After approx. 8 hours at min. 20°C (68°F) the work can proceed.

The same repair technique can be used for creating a fit between the rudder pintle and its seat.

## Wencon surface preparation

Choose the relevant surface preparation, depending on the nature of the job.

Surface preparation using dry blasting methods:

Application with Wencon products on a dry surface, at minimum 3°C above dew point.

1. Blast the machine part to SA 2,5 using sharp-edged blasting media, to a roughness of min. 75 microns.
2. Leave the part for sweating out salts in a warm place for at least 12 hours or heat it up to 30 - 40°C (86-104 °F) using gas torches.
3. Blast again to SA 2,5, prior to the application.
4. For parts containing a lot of water and salt, it may be necessary to repeat point 2 and 3, until the surface remains light grey, for at least 2 hours after blasting.
5. For optimal adhesion of Wencon products, always use Wencon Bio Cleaner or Wencon Cleaner prior to application. Follow one of below two methods:
  - 5.1 **Wencon Bio Cleaner**  
**Wet surface:** Apply Wencon Bio Cleaner and let it work for 5-10 min. If necessary use a brush, to make sure the surface is clean. Rinse off with clean water and wipe off with an absorbing cloth.  
  
**Dry surface:** Apply Wencon Bio Cleaner and let it work for 5-10 min. If necessary use a brush, to make sure the surface is clean. Rinse off with clean water and dry with an absorbing cloth or with compressed air for a completely dry surface. Hereafter any Wencon products can be applied.
  - 5.2 **Wencon Cleaner**  
After surface preparation, apply Wencon Cleaner with a brush and allow the product to evaporate before applying other Wencon products. Wencon Cleaner is non-flammable. Use only in large or well ventilated rooms.

Surface preparation using wet/damp methods:

Water jet the entire surface with water and sand to a standard equal, to SA 2,5 as described above.

If the surface is left wet after surface preparation, is it important to dry out the surface or alternatively use a Wencon UW product.

Surface preparation for emergency/temporary applications:

If above surface preparation methods are not possible, it may be necessary to use one of below methods:

- Blasting
- Grinding
- Needle Gunning

In emergency / temporary applications it may be difficult to prepare the surface according to above methods. In any case, it is important to clean the surface to SA 2,5 and 75 microns roughness. If possible dry the surface before applying. If not possible, use Wencon UW products.

For further information on Wencon surface preparation, please contact our Area Sales Managers.