

Casting a new Bearinghouse

Application:	Casting a new bearinghouse
Place:	Kalundborg, Denmark
Date:	March 2002
Job and report done by:	Wencon, Denmark
Wencon products used:	Coating, Release Agent, appl. tools



1. Bearing seat in Alfa Laval separator is worn out and new bearing has to be refitted.

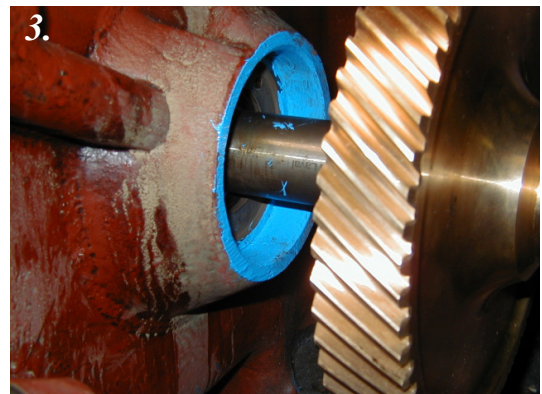


2. Bearing seat is degreased, 3 marked points are not to be grinded. Grind away 0,5 – 1 mm between the markings, and degrease again. Apply a thin layer of Wencon Release Agent on the bearing, and wipe it clean after 5 min. of drying.

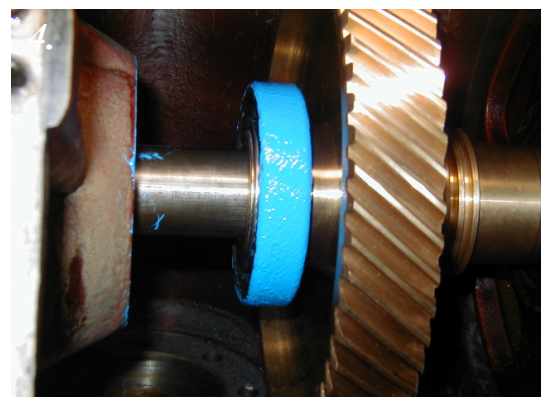


(Otherwise future removal is very difficult!!!!)

3. Mix and apply a layer of Wencon Coating, in the bearing seat and on the bearing.



4. Now refit the bearing in the seat, carefully relining it, with help from the 3 points not grinded.



Let the repair cure for at least 12 hours, before starting up again.

Choose the relevant surface preparation, according to the nature of the job. Seek advice from a Wencon Technician if needed.

Specification for surface preparation for Dry Applications

Defined as applications, where the Wencon product will be applied to a surface at a temperature minimum 3 degrees above dew point. Use the Wencon Products: Wencon Cream, Wencon Rapid, Wencon Coating, Wencon Ceramic Cream, Wencon Ceramic Coating, Wencon Hi-Temp, all requiring a dry surface.

1. Blast the machine part to SA 2 ½ 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 ½ immediately prior to the application.
4. For parts containing lots of water and salt, it may be necessary to repeat 2. and 3. until the surface remains light grey for at least 2 hours after blasting.
5. Always use Wencon Cleaner prior to application.

Specification for surface preparation for Wet/Damp Applications

Defined as applications, where the Wencon product will be applied to a surface at a temperature less than 3 degrees above dew point. Use the products Wencon UW Putty, Wencon UW Cream and Wencon UW Coating for applications on wet or damp surfaces.

1. Water jet the entire surface with water and sand to a standard equal to SA 2½, as described above.

Specification for surface preparation for Emergency/Temporary Applications

Perago Treatment

Perago is a rubber disk with hard steel spikes mounted on the periphery. Perago can be mounted in a normal drilling machine, and gives a surface close to a blasted surface - clean and rough with sharp edges. Perago dishes can be ordered at Wencon and at all Wencon Distributors.

Grinding

Wheel grinding is often an acceptable surface preparation for emergency applications, where shot blasting is not possible. When grinding use a coarse stone or flap. Use the Wencon Cleaner before and after grinding. Grinding with sandpaper or emery cloth is only advisable when, for example, carrying out shaft-repair on a lathe. Often the grinding will not hit the dents.

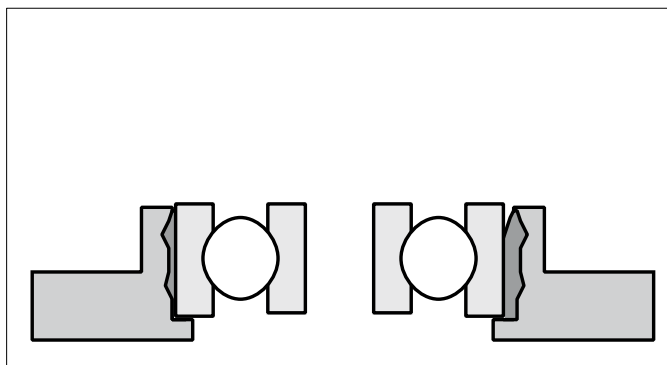
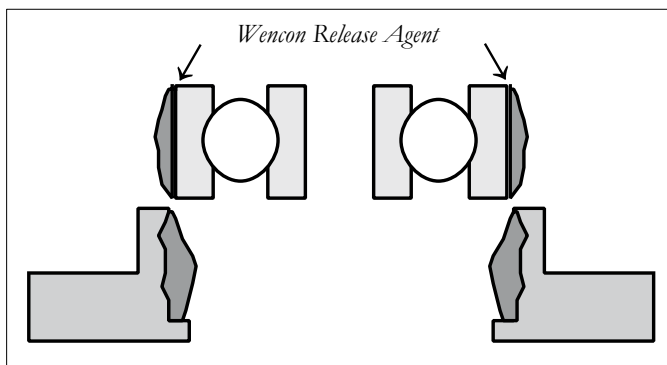
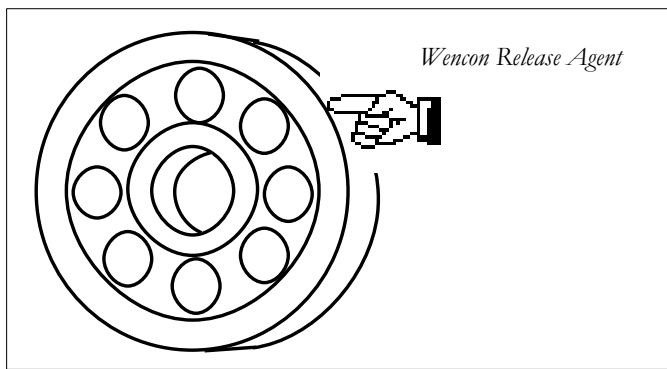
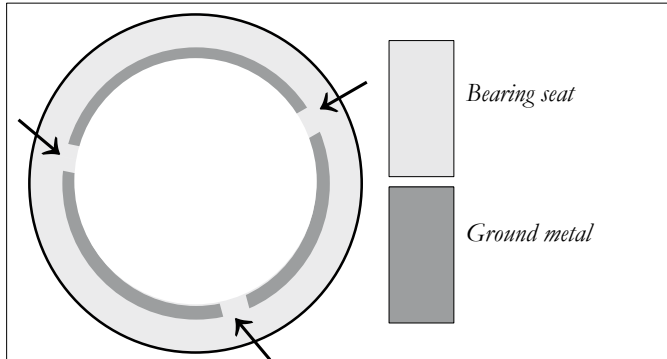
Needle Gunning

Needle gunning is a method that has almost been forgotten in recent years. Or should we say is mostly used for very rough cleaning or removal of rust. It is possible to do a very nice job using a needle gun, but it takes time and should be closely supervised. It is essential that the marks from the sharp needles cover the whole surface so that none of the original surface remains. It is recommendable to steam clean the surface before needle gunning.

Wire Brushing

Wire brushing can be a good way of removing scales, rust and old paint. However, you will need to grind the surfaces after the wirebrushing to make the surface as rough as possible.

Repair of over-sized bearing seat



1. Remove the old bearing. Degrease the bearing seat with Wencon Cleaner. Mark out three locations (note the arrows) which must not be grinded. The purpose of these marks is to ensure good centering. Grind between these locations approx. 0.5-1,0 mm (0,02-0,04 inch) into the metal. Clean again thoroughly with Cleaner.
2. Apply a thin layer of Wencon Release Agent to the new bearing. Allow to dry for approx. five minutes, then wipe clean until only a film is left.
3. Mix and apply an adequate layer of Wencon Cream or Rapid to both the bearing seat and the bearing itself.
4. Position the bearing correctly in the seat and allow curing. Please refer also to directions for use.

The repaired bearing seat has a compressive strength 7-12 times higher than normally required.

Variations:

Seats for bushings are repaired in the same way.

This type of work can also be carried out in a turning lathe. All Wencon products are fully machinable after curing.

In some cases it may be an advantage to use a purpose-made mandrel to cast from.