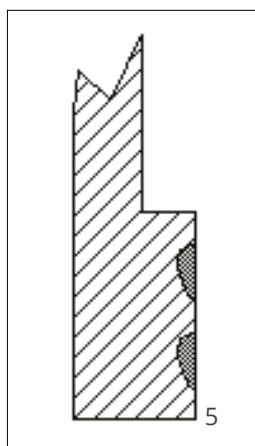
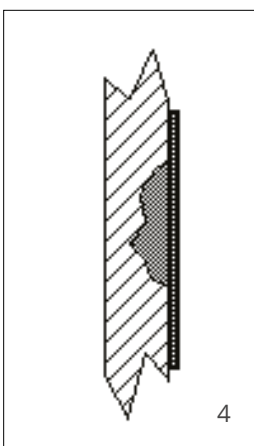
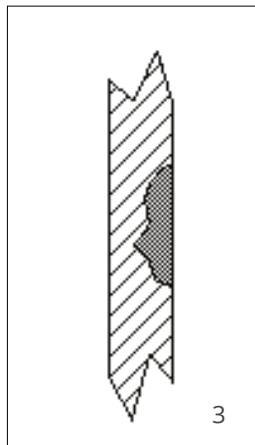
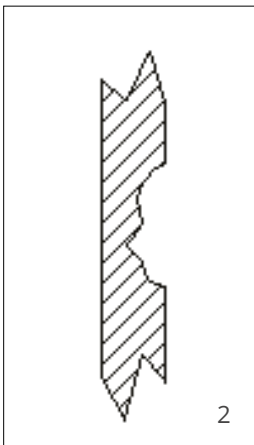
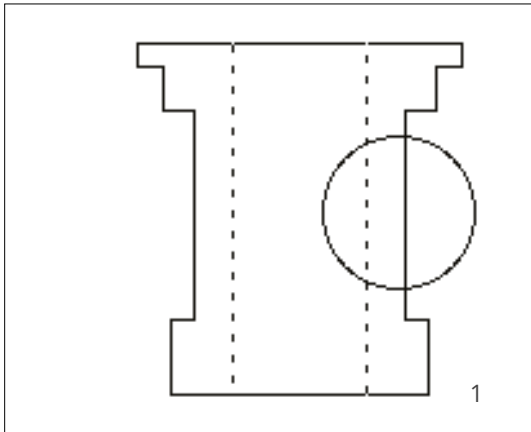


Engines, wet liners - corrosion

APPLICATION DATA SHEET No. 134



Usually, the sealing of the cooling water in an engine, is created by the means of O-rings. The O-ring seats will be positioned in either the liner or in the engine block. Both the O-ring seats and the sealing surface on the other part can corrode. Either bi-metallic or from the continuous rubbing of the O-ring.

In both cases the damage can be repaired with Wencon products.

1. Remove the liners from the engine, and protect the machined areas on the liner with tape.
2. Grit blast the affected areas acc. to Wencon surface preparation, next page.
3. Rebuild the affected areas to original dimensions using Wencon Ceramic products.
4. Coat the external surface of the liner, but avoid coating the machined surfaces in the engine block that are in direct contact with each other.

The coating with Wencon products will prevent the bi-metallic corrosion from arising again.

5. Use the same procedure as above, but machine the surface after the curing has taken place. The machining can be done in either a lathe or by carefully grinding with a wheel grinder. If the damage is on the block, the initial surface preparation cannot be done by grit blasting, but by grinding and degreasing with Wencon Cleaner.

Follow the instructions carefully and ask your supplier if you are in doubt.

Experience has shown that the treatment has no effect on the temperature of the cooling water.

Wencon provides solutions for:
Repairs in the engine wet liners.
Corrosion on the outside of the liner, and deterioration of the metal surface of the O-ring seats in either the top or the bottom.

Alternative products: Wencon Hi-Temp

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.