

## Leakage between HFO tank and cargo hold

<b>Application:</b>	Leakage between HFO tank and cargo reefer hold
<b>Place:</b>	Klaipeda
<b>Date:</b>	November 2014
<b>Job and report done by:</b>	NAVISERV Sp. z.o.o.
<b>Wencon products used:</b>	Putty, Ceramic Cream, Ceramic Coating, Cleaner, Perago disc, appl. tools



1. Corroded bulk head between HFO and cargo hold - 3cm x 12cm high. Initially it has been heated, cleaned by water with detergent, and then with Cleaner.



2. Hole was found, and place around cleaned with Perago Disc Duo.



3. Surface prepared with Perago Disc Duo



4. Wencon Putty applied on the hole.



5. Wencon Ceramic Cream applied and five reinforcement steel plates have been installed. Doubler plates glued on leakages acc. to Wencon's instruction for use.



6. On top, Wencon Ceramic Coating brown has been applied, to protect against corrosion. After ended application, area painted with original colour of the vessel.



**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.

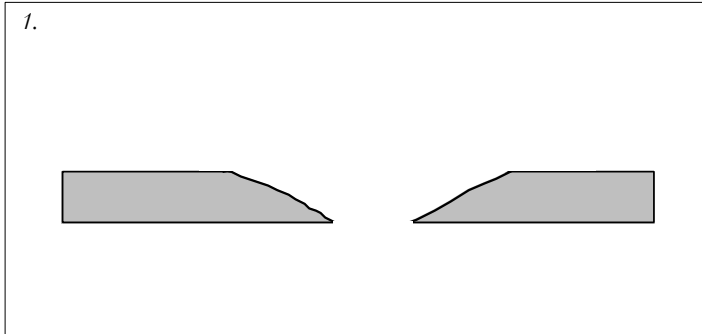
### **Needle Gunning**

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 leaking tanks

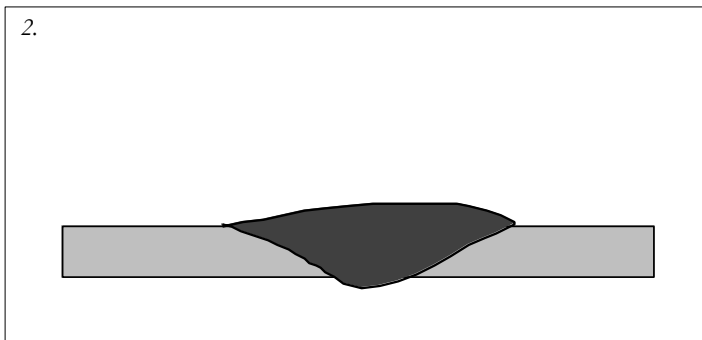


There are many way of repairing leaking tanks.

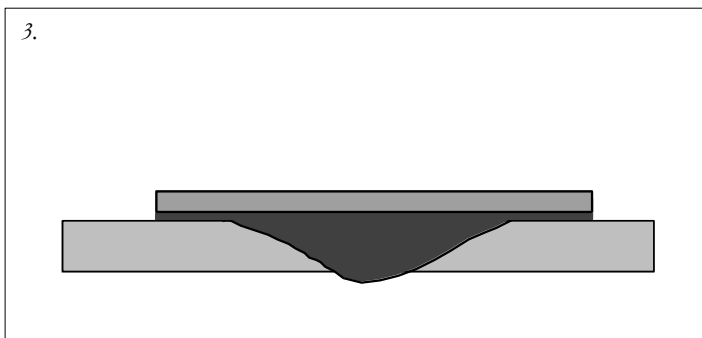
Basically, the best result is obtained by repairing on the pressure side.

Often, when a tank is leaking, it is corroded not only where the leak is, but also in the surrounding area.

By repairing only the small area that leaks, often leads to further repairs in the near future.



1. Surface preparation. Grit blasting to SA 2 1/2 or thorough grinding to bare metal. Degrease the surface using Wencon Cleaner. Prepare an area larger than the damaged area. If the substrate is impregnated with oil or salt water or the like, heat the area with hot air gun or gas torch, and repeat blasting or grinding. Degrease again.



2. Mix and apply a suitable amount of Wencon Rapid. Make sure to get a good contact between the Wencon and the substrate. Avoid air entrapment.

3. For extra security, it is advisable to reinforce the application by the means of a steel plate, grit blasted or ground on one side, and fixed into the Wencon before curing. If the surface of the substrate is shaped, give the plate the approximate same shape before bedding it into the repair. Make sure, that the plate will get in good contact with the Wencon material.

4. To protect against further bimetallic corrosion, treat the entire surface with Wencon Coating, white and blue.