

Rebuild of Thruster Gear Housing

Application:	Refurbishment of Thruster Gear Housing.
Place:	Rotterdam, NL
Date:	January 2011
Job and report done by:	CC World Wide / Repair Management, NL
Wencon products used:	Rapid, Coating white, Coating blue, Cleaner, appl. tools.



1. & 2.

Unit is blasted to SA 2 1/2 using sharp-edged blasting media, to a roughness of minimum 75 microns. Then salt is sweated out in a warm place for at least 12 hours. Blasted again to SA 2 1/2, immediately before the application. Photos show the gear housing before 1st and 2nd blasting.

Please note:

For parts containing water and salt, it may be necessary to repeat the surface preparation, until the surface remains light grey for at least 2 hours after blasting. Most companies will understand a specification like this, but it may be necessary to check the blasting prior to the application. If there are any signs of salts, parts must be blasted again.

3 & 4.

Unit blasted shortly, before commencing application, ready to clean using Wencon Cleaner.



5. & 6.

The damage is very deep and therefore brush is used. This is to ensure that Wencon Rapid is in contact with the metal, in even the deepest holes and corners.



7. & 8.

Using a spatula, the housing is rebuilt layer by layer to original shape. Wencon Rapid exhibits many of the characteristics of metals, which together with outstanding adhesion to all metallic surfaces, makes the repair compound highly suitable for repair of corroded and worn metals.



9. & 10.

To avoid similar damage in the future, it is decided to protect the unit against corrosion using Wencon Coating in a two layer system. First layer, applied with a brush.



11. & 12.

Second layer also applied with a brush.

Wencon Coating offers resistance to oil, water, saltwater and most diluted acids and alkalis as well as a range of solvents. Heat resistance ranges from 60° C (140°F) in corrosive and heavy load environments and up to 250° C (482°F) when applied as a filling compound.



13. & 14.

After curing over night, only the after works remains. The Wencon materials used at this job can be machined, drilled and worked like metal, after curing.



15. & 16.

Note the contact surface, which was heavily damaged; is now rebuild to original shape.



17.

The steel is now separated from the seawater, and will not be attacked by bimetallic corrosion for many years. It is better protected than a new unit.

A very cost-effective solution.

