

SERVICE LIFE OF DREDGING FLUSH WATER PUMP EXTENDED WITH BELZONA

CUSTOMER

Dry dock, Bremen, Germany

APPLICATION DATE

October 2008

APPLICATION SITUATION

Rubber-lined KSB flush water pump on North Sea dredger.

PROBLEM

Extensive cavitation damage near impeller and high pressure areas. Cavitation and erosion had led to the pump casing's rubber lining being partly eroded. Further erosion damage was found on the casing.

PRODUCTS

Belzona® 1311 (Ceramic R-Metal)

Belzona® 1812 (Ceramic Carbide FP)

Belzona® 2141 (ACR-Fluid Elastomer)

SUBSTRATE

Cast iron

APPLICATION METHOD

The application was carried out in accordance with modified versions of the Belzona Know-How System Leaflets CEP-3 & 5. After surface preparation, Belzona® 1812 was used to rebuild damaged areas. Belzona® 1311 was then used to smooth the surface before applying the Belzona® 2141 system to provide maximum resistance to cavitation erosion.

BELZONA FACTS

Medium pumped is seawater with high solids content (mud/sand). The pumps are working at their limit, i.e. at a flow rate of up to 40m/s leading to the cavitation risk. Service life of the pump prior to the repair was three months, after rebuilding and protection with Belzona a minimum 18 months continuous service was achieved.

PICTURES

1. Damaged rubber-lined pump
2. Close-up of one of the damaged areas
3. Damage rebuilt with Belzona® 1812
4. Completed application with Belzona® 2141 applied



For more examples of *Belzona Know-How In Action*, please visit <http://khia.belzona.com>



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Q 09335
ISO 14001:2004
EMS 509612

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