

SERVICE LIFE OF DREDGING FLUSH WATER PUMP EXTENDED WITH BELZONA

ID: 4287

Industry: Marine
Application: CEP-Centrifugal Pumps
Substrate: Cast iron
Products: * Belzona® 1311 (Ceramic R-Metal) ,
* Belzona® 1812 (Ceramic Carbide FP) ,
* Belzona® 2141 (ACR-Fluid Elastomer) ,

Customer Location: Drydock, Bremen, Germany
Application Date: October 2008

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.



Photograph Descriptions

- * Damaged rubber-lined pump ,
- * Close-up of one of the damaged areas ,
- * Damage rebuilt with Belzona® 1812 ,
- * Completed application with Belzona® 2141 Elastomer applied ,

Application Situation

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

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 Elastomer system. to give maximum resistance to cavitation erosion.

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

ISO 9001:2015
FS 695214
ISO 14001:2015
EMS 695213

Belzona products are
manufactured under an ISO
9000 Registered Quality
Management System.

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Repair • Protect • Improve

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.

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