

RUDDER PINTLE REBUILT WITH BELZONA 1111

ID: 6004

Industry: *Marine*
Application: *MPT-Mechanical Power Transmission*

Customer Location: *Portland, OR, USA*
Application Date: *November 2015*

Substrate: *Steel*
Products: ** Belzona 1111 (Super Metal) ,*

Problem

Shaft was corroded and pitted from salt water.



Photograph Descriptions

- * Shaft already machined down, some damage still visible. ,
- * Rough cut thread pattern. ,
- * Applying Belzona 1111. ,
- * Completed application, finishing with emery cloth. ,

Application Situation

Rudder pintle shaft on a 700' US Navy ship.

Application Method

All of the damaged areas were removed with a lathe. The surface was then prepared with the lathe to leave a super rough thread pattern to ensure a full mechanical bond. Again, using the lathe, Belzona 1111 was applied with a slow rotation. After a sufficient amount of material was applied, Belzona 1111 was allowed to fully cure and then machined to the required specifications. There was one low spot and a couple of air pockets visible, so those areas were once again abraded and a further layer of Belzona 1111 was applied and allowed to cure before the final machine cut was made. The final finish was made using emery cloth, leaving a perfect smooth finish.

Belzona Facts

Welding would risk warping the shaft and would have taken probably close to ten times the man-hours to complete. The actual

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time spent on this process was no more than 6 hours, not including cure time.

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