

# BELZONA REBUILDS STERN TUBE BEARING SUPPORTS IN MINIMUM TIME

ID: 129

Industry: Marine  
Application: SOS-Ships and Offshore Structures

Customer Location: U.S. Coast Guard Ice Breaker, Seattle  
Application Date: July 1995

Substrate: High strength steel alloy (HY80)  
Products: \* Belzona® 1111 (Super Metal) ,  
\* Belzona® 1321 (Ceramic S- Metal) ,

## Problem

Erosion caused the bearings to become loose. This caused the shaft alignment to be lost, which imposed damaging loads on the shafts, bearings, reduction gearing and controllable pitch propeller systems.



## Photograph Descriptions

- \* It takes a stalwart crew to mix 300kg of Belzona® 1111 in only a few hours ,
- \* Great care was taken to ensure the substrate was correctly prepared prior to the application of Belzona products ,
- \* Application of Belzona® 1111 to rebuild the bearing retaining lands ,

## Application Situation

300 ton stern casting containing the bearings supporting the 36" diameter shafts

## Application Method

Application was carried out in accordance with Belzona Know-How Leaflets SOS-9 and MPT-6. Belzona® 1111 was applied at an average thickness of ½" (12.5mm). When cured, the stern tube lands were bored to the desired step dimensions.

## Belzona Facts

Application was completed in six working days. There was no practical alternative as other methods would have required between 15-60 days and docking time was strictly limited. The estimated savings to the customer were between \$100,000 and \$450,000.

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.

[www.belzona.com](http://www.belzona.com)

  
**BELZONA®**  
Repair • Protect • Improve