# BELZONA BONDS SPADE RUDDER BEARING ON COASTER

ID: 4157

Industry:MarineCustomer Location: Scotland, UKApplication:SOS-Ships and Offshore StructuresApplication Date: September 2002

Substrate: Steel and Bronze

Products: \* Belzona® 1221 (super E Metal) Belzona® 1321 (Ceramic S Metal),

#### **Problem**

Significant Galvanic Corrosion - from 3 to 7mm had occured, causing the bronze bush to be unsupported. This was a spade rudder and the forces on the bearing were great.









### **Photograph Descriptions**

- \* Vessel prepared for works in drydock,
- \* Top of bearing sealed using Belzona® 1221 ,
- \* Injection of Belzona® 1321 into the space ,
- \* Completed works. The injection plugs are removed at the same time as the rudder is assembled. ,

## **Application Situation**

Spade rudder bearing on coastal ship.

# **Application Method**

Application was carried out in accordance with Belzona System Leaflet SOS-9. The top of the bearing was sealed using the Belzona® 1221, and, due to the overhang over the top of the bearing, capillaries were set in to ensure good venting during the injection process.

#### **Belzona Facts**

All works were carried out within one day and witnessed by the Lloyds Register Surveyor. 12 kg of Belzona® 1321 was required to

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

ISO 9001:2015 Belzona products are
FS 695214 manufactured under an ISO
ISO 14001:2015 9000 Registered Quality
EMS 695213 Management System.

BELZONA®
Repair • Protect • Improve

pility significantly above the 10N/mm2 required.	