

## BELZONA BONDS SPADE RUDDER BEARING ON COASTER

### CUSTOMER

Scotland, UK

### APPLICATION DATE

September 2002

### APPLICATION SITUATION

Spade rudder bearing on coastal ship.

### PROBLEM

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

### PRODUCTS

Belzona® 1221 (super E Metal)

Belzona® 1321 (Ceramic S Metal)

### SUBSTRATE

Steel and Bronze

### APPLICATION METHOD

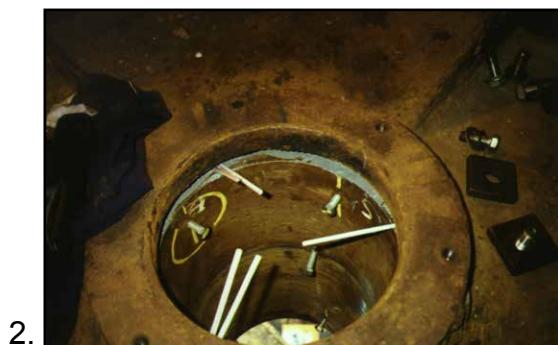
Application was carried out in accordance with Belzona System Leaflet SOS-9. The top of the bearing was sealed using the Belzona® 1221, and, due to the overhang over the top of the bearing, capillaries were set in to ensure good venting during the injection process.

### 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 secure the bearing into position, providing a 100% contact between the bearing and the housing, and compressive load bearing capability significantly above the 10N/mm<sup>2</sup> required.

### PICTURES

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



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