

# PROPELLER CAVITATION DAMAGE REPAIRED WITH BELZONA

ID: 1424



## PROBLEM

The cavitation damage close to the edges of the bronze propeller caused lower hydrodynamic efficiency and propulsion capabilities of the vessel.

## APPLICATION SITUATION

Bronze propeller of bulk carrier.

## APPLICATION METHOD

Application was carried out in accordance with Belzona Know-How System Leaflets SOS-1 and SOS-2.

## BELZONA FACTS

The rebuild of cavitation damages by conventional welding and remachining were considered as too time consuming and required special skills to restore significant metal losses. The Belzona repair, in spite of being sacrificial, was chosen as more cost effective and time saving. After 1 year minor damage, mainly mechanical was found and locally repaired with further Belzona using an MBX Bristle Blaster for surface preparation.

## INDUSTRY

Marine

## LOCATION

Ship Dockyard, Bulgaria

## APPLICATION DATE

June, 2008

## PRODUCTS

Belzona 1311 (Ceramic R-Metal)  
Belzona 1321 (Ceramic S-Metal)

## SUBSTRATE

Bronze

## PHOTOS

1. The general view of cavitation damages after grit blasting
2. After rebuild with Belzona 1311 two coats of Belzona 1321 were applied
3. Inspection one year after the repair found some small mostly mechanical damage that were prepared by Bristle blasting
4. The damaged areas were corrected with Belzona 1321

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