Belzona Protects Ships Rudder From Cavitation

Industry: *Marine*

Application: *SOS-Ships and Offshore Structures*
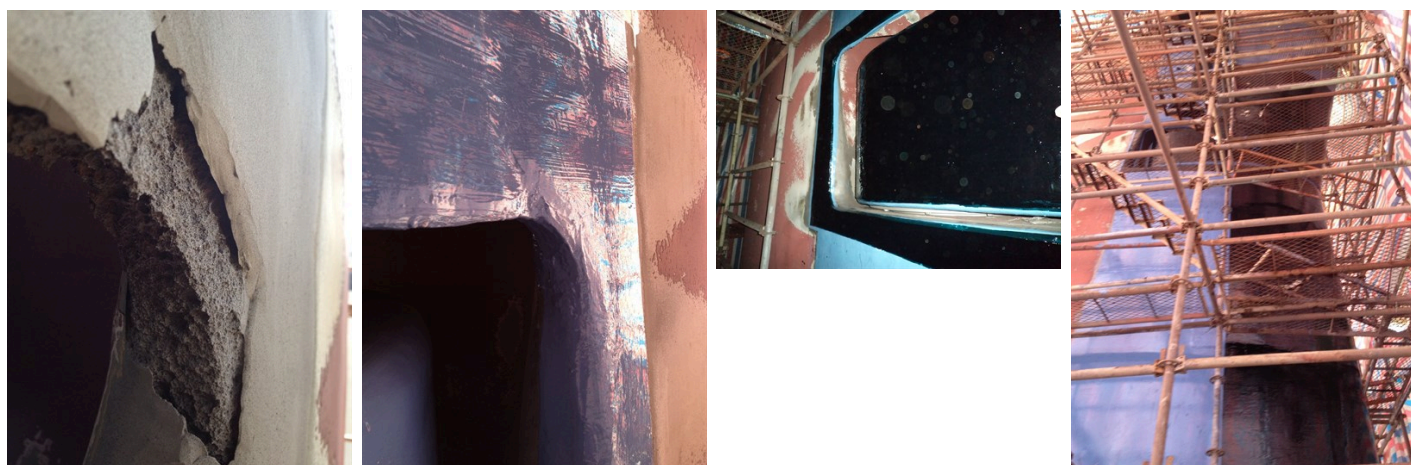
Customer Location: *Guangzhou*

Application Date: *October 2013*

Substrate: *Stainless and Mild Steel*

Products: ** Belzona 1311 for rebuilding Belzona 1341 for priming Belzona 2141 for coating ,*

Problem

Due to the nature of the shape of a rudder, coupled with disturbed water flowing from the propellor, cavitation damage was aparent on the rudder. Previous attempts to resolve the situation involved overlaying with stainless steel. This led to galvanic corrosion in places and did not stop the cavitation.

Photograph Descriptions

* Photo 1 - Overlaid stainless steel corroding and cavitating Photo 2 - Damaged area rebuilt and coated Photo 3 - Full coating system applied Photo 4 - Final View ,

Application Situation

A shipping company based in Korea have a large selection of ships operating throughout the world. When they need maintenance they dock in China. Ahead of an upcoming docking period, a Belzona representative had successfully specified a solution to fix a problem with the rudders.

Application Method

Following surface preparation, All pitting was filled and rebuilt with Belzona 1311. Belzona 1341 was then applied as a 1 coat system straight over the Belzona 1311. Once the Belzona 1341 had cured, Belzona 2941 was applied to the areas where Belzona 2141 would be applied. Belzona 2141 was then applied in a 2 coat system with the top coat as black.

Belzona Facts

Previously stainless steel had been bonded over the mild steel rudder. This led to galvanic corrosion and also did not completely stop cavitation. Belzona were able to reclaim the corroded material and protect against the cavitation effects.