BELZONA REPAIRS BALLAST TANK PERFORATIONS AT PORT SERVICE FACILITY

ID: 9292

PROBLEM

The ballast tanks at this port service facility were suffering from corrosion due to exposure to seawater. Previously, metal pads had been welded to repair perforations in the tank. However, this triggered bimetallic corrosion, apart from the original problem of saltwater corrosion. As a result, the corrosion continued and extended around the weld bead and under the welded pads, resulting in through-wall defects.

APPLICATION SITUATION

The outer surface of the ballast tanks was covered with asbestos paint, so the port wanted a solution that would not damage the paint and would not involve hot work. The repaired area had rivets and irregular surfaces, so a solution was required that could be easily applied to such a complex layout.

APPLICATION METHOD

After surface preparation by blasting, Belzona 5811 and 5831LT were applied to the prepared surfaces; Belzona 5811 was applied to the dry areas and Belzona 5831LT to the damp areas. Belzona 1818 was then applied to fill voids and low spots over the applied coating. As a final finishing touch to the repair, a resin rich mix of Belzona 4151 and silica aggregate was poured over the repaired areas to reinforce and level out the bottom.

BELZONA FACTS

The client had previously used welded metal pads to repair the holes in the tank, but this method did not address the root cause of the problem and instead exacerbated the situation. Belzona therefore emerged as an excellent alternative, eliminating the problems of hot working and bimetallic issue. Furthermore, the chosen products were easily applied to uneven, irregular surfaces and complex structures, solving the problems and protecting the assets from future corrosion.

INDUSTRY

Marine

LOCATION

France

APPLICATION DATE

August 2023

PRODUCTS

Belzona 1818
Belzona 4111 (Magma-Quartz)
Belzona 4151 (Magma-Quartz Resin)
Belzona 5811 (Immersion Grade)
Belzona 5831LT

SUBSTRATE

Other

PHOTOS

1. Extensive damage revealed at the tank bottom after blasting
2. First coated throughout with Belzona 5831LT and pit filled with Belzona 1818
3. Belzona 4151-silica mixture was poured over Belzona 5831LT and 1818
4. Complete application