STERN TUBE ON NAVY SHIPS PROTECTED BY BELZONA 1341

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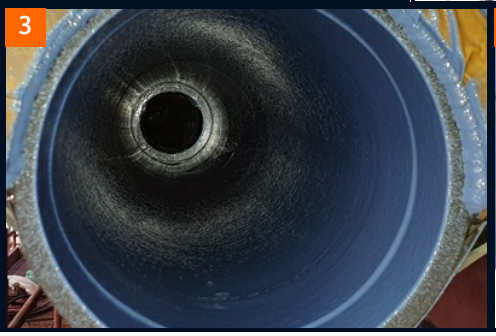

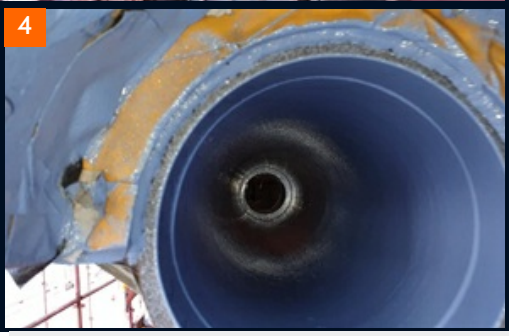

PROBLEM

A Cyclone-class naval patrol vessel operating in the Middle East was experiencing corrosion on the internal surfaces of its stern tubes, which were exposed to seawater during service. The confined geometry and limited accessibility of the tubes made surface protection particularly challenging, while continued corrosion presented a risk of further deterioration and reduced long-term reliability.

APPLICATION SITUATION

The stern tubes presented a long, confined and difficult-to-access internal surface, making conventional coating application challenging. A spin-spray technique was therefore selected to provide controlled and consistent application of the Belzona lining throughout the tubes, including areas that would otherwise be difficult to reach and inspect.

APPLICATION METHOD

To address this issue, Belzona 1341 (Supermetalglide) was specified as the internal lining system. The stern-tube surfaces were grit blasted to SSPC-SP10 to achieve the required cleanliness and surface profile. The coating was then applied using Graco XM70 plural-component equipment and a spin-spray system. Quality-control checks included surface chloride, profile and dust measurements before application, WFT monitoring during application, and DFT measurement and high-voltage holiday testing after cure.

BELZONA FACTS

Belzona 1341 (Supermetalglide) can provide erosion-corrosion resistance along with cavitation resistance which are the critical for extending the service life of stern tubes. The system contributes to the long-term durability, efficiency, and reliability of the stern tube assembly.
In addition, prompt technical assistance from the local distributor enabled faster project execution and reduced vessel downtime.

INDUSTRY

Military

LOCATION

Bahrain

APPLICATION DATE

PRODUCTS

Belzona 1341 (Supermetalglide)

SUBSTRATE

Carbon steel

PHOTOS

1. The internal surfaces were prepared by grit blasting in accordance with SSPC-SP10 standards with a minimum average anchor profile of 75 microns.
2. The first coat of Belzona 1341 (Supermetalglide) was applied by Graco XM70 equipment.
3. The second coat of Belzona 1341 (Supermetal glide) was applied.
4. Complete application