

Rust busters

Trustper AS' CEO Per Schaanning outlines the development of the new work method concept, highlighting the achievements obtained, and benefits of the products the company offers

AT the end of a trial period, the treatment results proved to be satisfactory with regards to the pre-cleaning, removal of multiple scale and rust layers followed by temporary protection on top of cleaned sound, but oxidised, steel on several vessels.

The achievements in removing rust and scale (step one) and the temporary protection of sound steel (step two) in seawater ballast tanks had been successful, with this reflected in the survey reports. The general spray rate of low pressure application within a ballast tank providing free access (with an adjustable multi nozzle) is estimated to be 600 m²/hour, and consumes 90 litres of product.

Concept

The third step (hard paint and epoxy surface preparation), however, required the help of an independent party. The main purpose for such a trial was to achieve results equal to the ISO 8501 - 1 C Sa 2 standard, or better. During 2006, risk management company Det Norske Veritas (DNV) put together a product and test report, which proved that the product had achieved pre-cleaning degree seen equal to ISO 8501 - 1 C Sa 2. As such, this enabled the new work method to compete with other pre-cleaning methods cost effectively.

These results show that it is possible to apply a 'surface tolerant' epoxy (hard paint coating), onto a 'rusty' pre-treated surface and transform it into a clean spec-surface suitable for long-term paint protection, once completing the rinsing work procedure with a water based, alkaline, high-foam chemical cleaning application, (used in order to remove the remaining oxide together with the integrated CoatscaleRemover (CSR) coating).

Next steps

Prior to dry docking, there is the opportunity to implement step one as the ultimate pre-cleaning programme in order to loosen up



CSR supply Bright Victory Kaohsiung Taiwan

and remove multiple scale layers and rust from the surface, saving hours, or even days, worth of work.

It is important, however to emphasize that CoatscaleRemover (CSR) is Soya-based and CoatscaleRemover II (CSR II) is Linseed oil-based (both are green products in compliance with materials safety data sheets (MSDS)) and, in addition, provide good steel surface preservation properties lasting between 18 and 36 months depending on the CSR/CSR II product applied.

When CSR II is applied over a hard paint/epoxy system, or partly disintegrated paint system, the lifespan will be extended past 36 months before a necessary renewal or upgrade. This renewal will be carried out in the same manner as the original treatment, three years prior. Indeed, CSR II's properties and results, particularly related to heat resistance, opens up treatment onto steam pipes and other similar equipment.

Reduced cost over time is a key factor for ensuring repeat orders from clients who have learned how to play the 'preservation game' when it comes to exposed ballast tanks and void space.



Step test for rust and scale removal (left) Cured treatment on existing paint

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