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Offshore industry

THE GAME-CHANGING EFFECT

DISRUPTION TO HEAVY LIFTING

SEABED INTERVENTION

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HOW DOES IT WORK?

PROTECTING HULL AND PROPELLER

The Paint Inspector AT WORK

SUBSEA INDUSTRIES WAS FOUNDED IN 1983 TO TAKE CARE OF THE DESIGN, DEVELOPMENT AND MARKETING OF A LINE OF UNDERWATER-HULL AND PROPELLER-CLEANING EQUIPMENT AND HARD HULL-COATING SYSTEMS.
The company's specialties are high-efficiency long-life hull coatings, cavitation-proof rudder coatings, high-resistance coatings for ice-going vessels, and underwater steel protection for offshore units. Subsea Industries works with a team of paint (or coating) inspectors who monitor applications and have to give their approval for the warranty that comes with the company's coating systems.

One of the paint inspectors is Raul Yu. Mr Yu works for Subsea Industries' agent in China, Carich Marine Engineering (HK), and has supervised numerous applications for the company. Mr Yu talks about his experience with the company's line of coating systems.

What exactly does a coating inspector do?

Mr Yu: The main task of an inspector is to ensure that a coating project meets the required quality standards and that the application is done as specified by Subsea Industries. Before a project begins, I make myself familiar with the surrounding. I check the spray equipment to see if it is in good operating condition. A meeting with the owner's representative and a quality check of the shipyard is part of the daily routine to make sure that the quality remains the same throughout the entire project.
Before the actual application starts I check to see if the weather conditions meet the specifications and I make sure that the coating is in good condition. During the application I see to it that the subcontractor prepares the material thoroughly and that the spraying equipment is maintained correctly. After the coating is cured I check its dry-film thickness (DFT). This is crucial for a lasting protection for the vessel. A final report is then written for the shipyard and the owner's representative.
I also visit ships that come into drydock after sailing with one of the coating systems on their hull or rudder for several years. Then I conduct a full inspection of the condition of the coating system and write a detailed inspection for Subsea Industries. If any small touch-ups need to be done I supervise these too. These normally do not involve more than 1% of the coated surface and are usually a result of mechanical damage due to the anchor chain or the ship scraping against the quay wall.

Is it hard to learn to apply these coating systems?

Mr Yu: In general, our products Ecospeed, Ecoshield and Ecolock can be applied like any other paint or coating system. Most applicators are quite familiar with hard solid paints and they know the tricks of the trade. If the applicators have not worked with us before, I give them the necessary instructions. If the coating contractor follows the specifications, the application goes very well and smoothly.

What are the most important benefits of an Ecospeed/Ecoshield/Ecolock application?

Mr Yu: After surface preparation only two identical coats, each with a DFT of 500 µm,

Photo courtesy of Subsea Industries

need to be applied. For a yard this is important because it allows a job to be scheduled around other work that's going on on the vessel, resulting in minimal interference between various activities. You can apply the coatings quite rapidly on a prepared surface and the possible overcoat time goes from three hours to very extended periods of time. Depending on what the shipyard likes to see, we can just adapt the schedule. >>

– RAUL YU, COATING INSPECTOR –

Compared to traditional coating systems with multi-layers, these coating systems save the applicators much time.

Mr Yu doing an inspection for Exmar.

Coating inspector Raul Yu

Photo courtesy of Subsea Industries

Photo courtesy of Subsea Industries

You carried out two projects for Exmar, an internationally active energy supply chain provider based in Antwerp, Belgium. How have you experienced a large-scale operation like that?

Mr Yu: The barges in question are built in blocks and these blocks are coated individually before assembly, leaving only the weld seams and the areas inaccessible due to the support blocks to be painted after the barge is assembled. As usual with anything new, there was some initial reluctance to change from the traditional coating systems which the yard and applicators were familiar with.

As the applicators had not worked with Ecolock before, I gave them the necessary instructions and had them apply Ecolock on a small test patch. This gives them a practical feeling of an Ecolock application. While spraying of the first block, they found that the application is actually quite easy. Compared to traditional coating systems with multi-layers, these coating systems save the applicators much time, as after surface preparation only two similar coats each of 500µm need to be applied. Because of the short interval required in between, a block can be fully coated with two coats in the same day.

Why it is so important to have an inspector present during an application?

Mr Yu: Subsea Industries insists that a paint engineer is present and available for the applicators on every job. This is not only to check the conditions during the painting process, but also to work closely with them and to make sure that there is a very easy and smooth application. This is quite different from usual practices. Because we are closely involved with the application, we know exactly what has happened during the painting process. Subsea Industries offers an extensive guarantee, so it is essential that they make sure that their standards are met.

i. **www.subint.net**

The Three Protectors

Ecospeed is an environment-friendly underwater hull-coating system that combines the advantages of an easy-to-apply superior coating, a surface treatment for hydrodynamic optimization and a long-term underwater maintenance service system. The coating protects the hull of the ship without need for recoating or major repair.

Ecoshield, a specifically reinforced version of Ecospeed, is meant for the permanent protection against cavitation damage for rudders. It is also suitable for bulbous bow, stabilizer fins, thruster nozzles and other underwater ship gear that needs special protection from corrosion.

Ecolock is an extremely tough and durable coating designed to remain in excellent condition for up to 20 years without dry-docking, repair or replacement. It can be cleaned underwater as often as needed to meet the UWILD and weight requirements of FPSOs, drill ships and other offshore vessels.