

# SUBSEA

PROTECTION AND PERFORMANCE

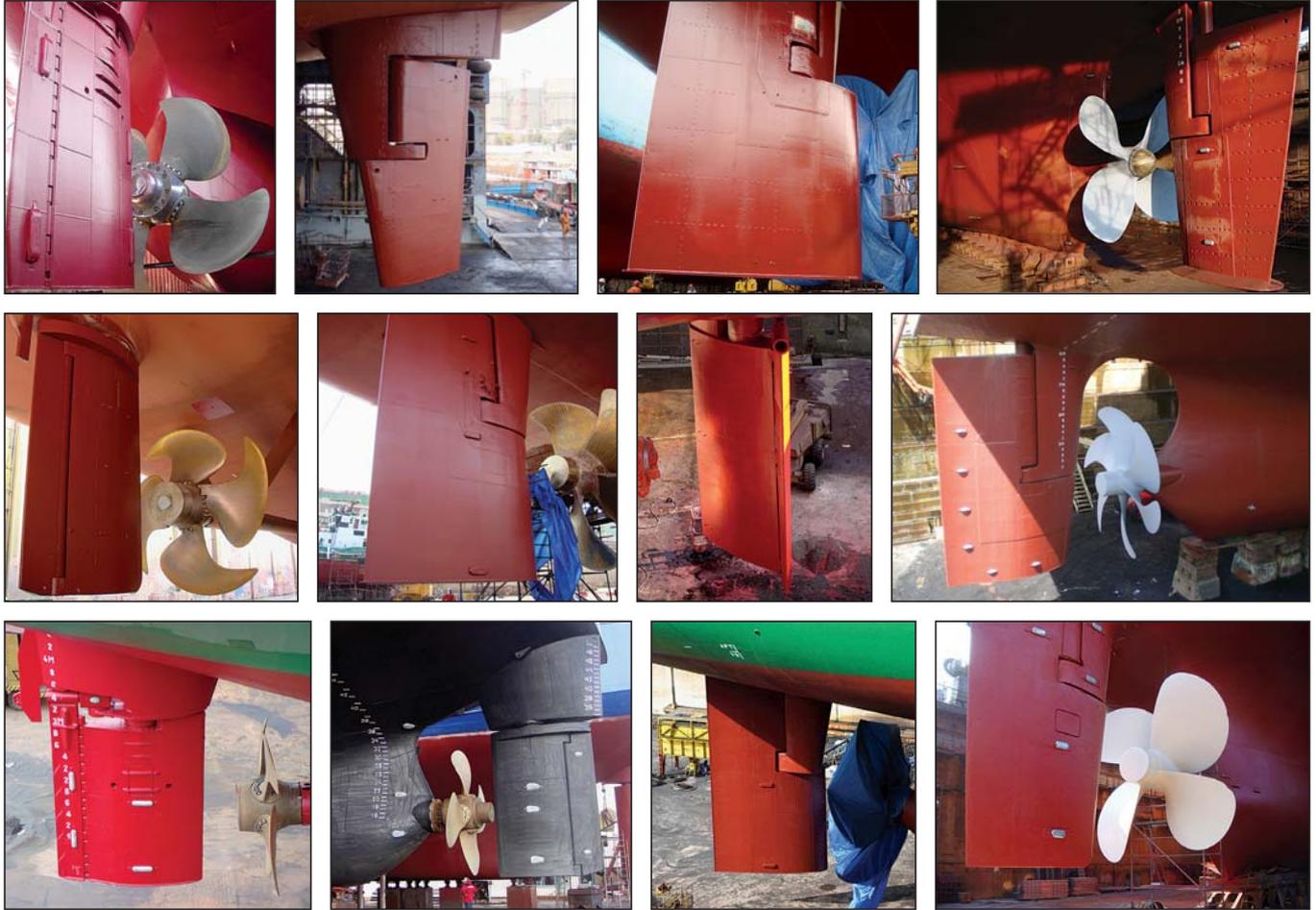
# NEWS

LETTER



**Two newbuild vessels given lifelong Ecospeed protection at shipyards in Turkey**

# The only coating that offers lasting rudder protection



**E**coshield gives a very thorough and lasting defense against cavitation and corrosion damage for a ship hull's entire service life.

The coating equally provides the rudder with an impenetrable protective layer while its flexibility enables absorption of the forces that are produced by cavitation. This prevents the damage normally caused

by this phenomenon.

Without proper protection against cavitation and the resulting erosion and corrosion damage, the financial consequences can be severe.

By removing the existing paint layers and applying Ecoshield on the rudder we can break the never ending cycle of painting, suffering damage, having

to perform extensive repairs in drydock followed by a full repainting, again and again.

With an Ecoshield application no full repaint will be needed during drydocking. Ecoshield is guaranteed for ten years. At the most, minor touch-ups will be required.

Subsea Industries NV  
Phone: + 32 3 213 5318  
Fax: + 32 3 213 5321  
info@subind.net  
www.subind.net

**ECOSHIELD®**  
THE DIAMOND STANDARD IN STEEL PROTECTION

# Two newbuild vessels given lifelong Ecospeed protection at shipyards in Turkey

Last year our specialist hull and rudder coatings (Ecospeed and Ecoshield respectively) were applied to two newbuild projects in Turkey, with a third planned for 2018. A shallow draught anchor handling tug supply (AHTS) vessel was coated at the Atlas Shipyard in Gölcük and an oil tanker was given the same treatment at the Akdeniz Shipyard in Ceyhan.

## The best protection for ice-going vessels

The owners of the AHTS vessel selected our coatings amidst strong competition because of their proven performance in polar waters. The Ice-Class 1A, 65m tug will carry out anchor handling and oil recovery



*Oil tanker after surface preparation, ready for first Ecospeed layer.*

duties in the ecologically sensitive Arctic in compliance with the IMO Polar Code requirements.

Orkun Çomuoğlu who is the managing director at Amat Engineering, Subsea Industries' agent in Turkey

secured the contract and said: "This is a super ice-class vessel and required extensive hull protection for the operations the vessel will undertake."

Manuel Hof, Production Executive



*Application of flat bottom of oil tanker.*



*Oil tanker in Turkey after first of only two required layers.*



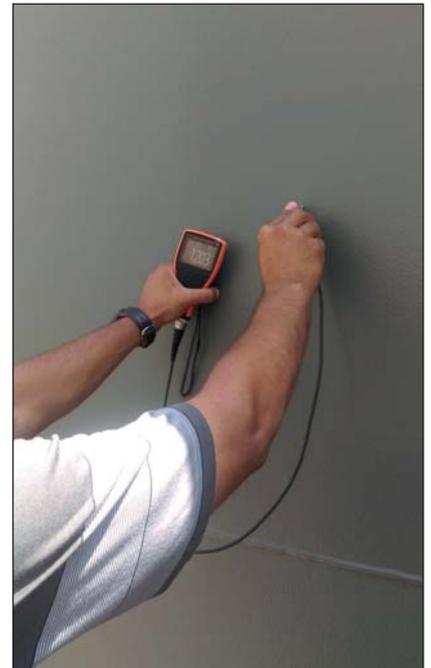
*The thruster nozzles of the anchor handling tug supply vessel were coated with Ecoshield.*

and NACE Coatings Inspector at Subsea Industries, explained that the Polar Code recommends the application of abrasion resistant, low friction coatings to vessels operating in ice-covered waters.

“There is a risk that conventional anti-fouling can degrade rapidly in polar ice, leach chemicals or leave paint fragments behind when ice impacts damage the coating. There

is no such risk with a hard-type coating. Ecospeed and Ecoshield are tough, durable and highly abrasion resistant protective coatings.” said Hof.

Ecospeed is a certified abrasion resistant coating. Owners are allowed to reduce the thickness of the steel of the ice belt if this area is coated with Ecospeed. This gives them a significant financial benefit



*An Ecospeed inspector is present with every application to give our 10 year warranty.*

during newbuild projects. Ecospeed is one of only a few coatings that have received this certificate.

*RRS Ernest Shackleton, RRS James Clark Ross and HMS Protector, all of British Antarctic Survey, have been coated with our products with great and conclusive results. Our coatings have also been selected for the newbuild research vessel RRS Sir David Attenborough, the biggest commercial shipbuilding contract in Britain for 30 years. Many other successful applications on ice going hulls have shown that our coating can withstand the impact of ice for many years on end, proving its superior strength and durability.*

### **Easy to apply on newbuild and existing vessels**

During the building process (or dry-dockings) there is a lot more going on than just the hull coating, which can easily interfere with the planning of a project. Because our coatings have quick and flexible over-coating times, application can be scheduled around other work taking



*After application of the second Ecospeed layer on oil tanker.*



*Anchor handling tug supply vessel prior to Ecospeed application.*

place. For both the shipyards in Turkey this was a big benefit as it resulted in minimal interference with their other activities.

Ecospeed only requires two layers

of 500  $\mu\text{m}$  each. This is a major advantage compared with other hull coatings. A classic antifouling coating systems can easily have five or more coating layers that need to be applied and some of the newer sili-

cone based hull coatings also consist of four to five layers of coating. Compared to this a two coat application is quicker, cheaper and more flexible.

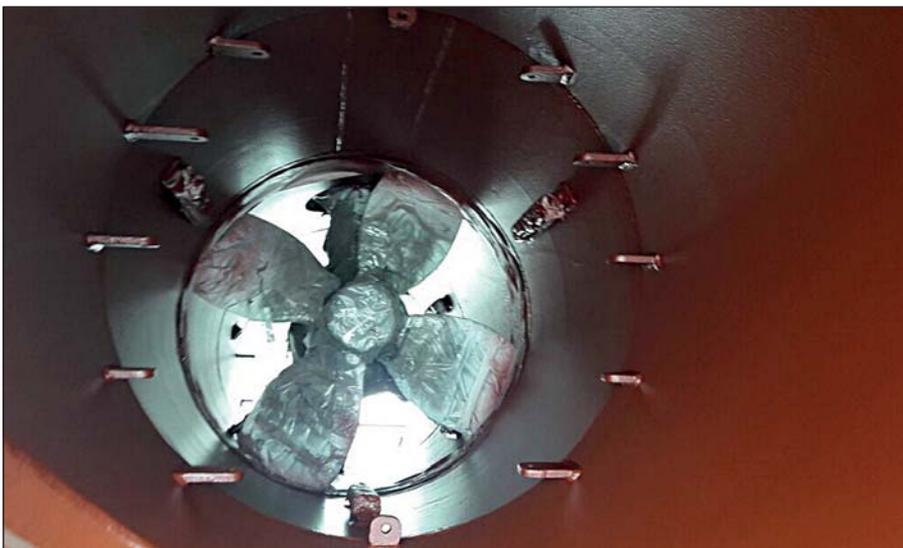
The coating schedule can be adapted to that of the yard and it does not have to be the other way around. A traditional paint application schedule is defined by surface preparation and by the weather conditions, which are difficult to predict. The application of Ecospeed is easier to adapt to the application windows that become available. You can apply the coating quite rapidly on a prepared surface and the possible overcoat time ranges from three hours to very extended periods of time. Depending on whatever suits the owner's or the shipyard's sched-



*Part of the tug's unique design are its six rudders that were all coated with Ecoshield.*



*The tug is called Antarctic and will sail in ecologically sensitive waters.*



*All running gear can be protected with our Ecoshield coating.*



*Anchor handling tug supply vessel after application of Ecospeed.*

ule the second coat can be applied within a couple of hours or after a few weeks or even months.

The durability of Ecospeed makes the planning of future drydockings far easier for the shipowner and the shipyard. Shipowners will not have to do any repainting beyond minor touch-ups. These can easily be done during a short drydock visit, which is in contrast to the full renewal of paint layers that is needed with other paint systems.

The amount of time many ships spend in drydock is directly related to (re)painting the underwater hull. When this can be taken out of the equation for the choice of location and season for drydocking, then the story becomes a lot easier for superintendents, for the shipyards, for everybody involved.

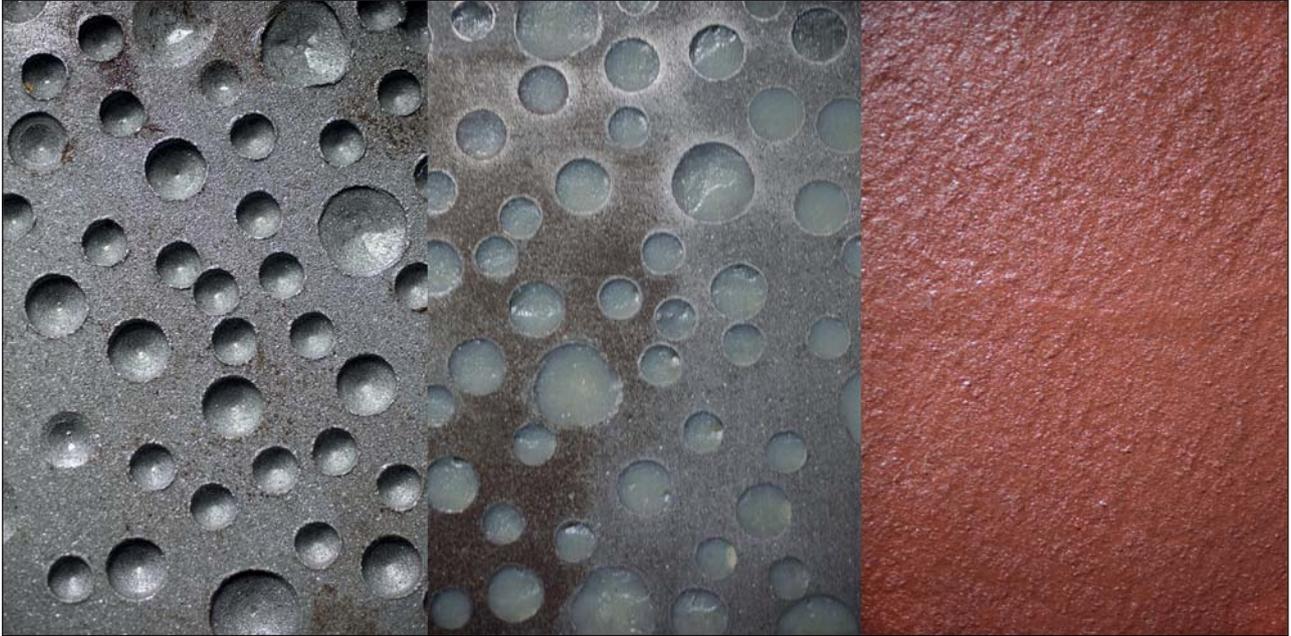
## **Conclusion**

The purpose of Ecospeed is to offer a long-lasting, non-toxic protection to all types of ships. This is done by providing a system that keeps the hull very smooth and free of fouling for the service life of the vessel with minimal repair and no replacement.

Many other case studies can be found on our website: [www.subind.net](http://www.subind.net). Some vessels have been sailing for more than ten years with Ecospeed without requiring repainting. ■

**ECOSPEED**<sup>®</sup>  
SHIP HULL PERFORMANCE TECHNOLOGY

# Corrosion damage repair made easy



*Test plate showing the benefit of an Ecofix and Ecoshield combination.*

**S**ubsea Industries has launched a new product for filling and building up a corroded and pitted steel surface to its original form prior to recoating with Ecoshield. Ecofix is as tough as the steel itself, machinable, and can be used to repair most pitting or corrosion damage on rudders, stabilizer fins, thrusters and other underwater gear.

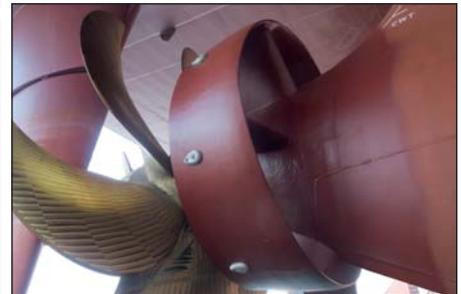
Ecofix is used in combination with Ecoshield, the ultimate rudder protection coating. When a rudder or other piece of underwater ship gear has not been properly protected, the surface will become corroded. Cavitation damage can cause severe pitting. The steel needs to be restored to its original shape with a smooth surface prior to recoating.

This is where Ecofix comes in. It is a superior, tested and proven filler. Because it uses the same basic resin as Ecoshield, the coating can be applied just one hour after the filler. The bonding and hardness are extraordinary. This is the effective alternative to metal facing or very expensive alternative fillers. And because it is part of the Eco-speed/Ecoshield family, it is fully compatible with the coating. ■

## **ECOFIX<sup>®</sup>** **CORROSION REPAIR**

Subsea Industries NV  
Phone: + 32 3 213 5318  
Fax: + 32 3 213 5321  
info@subind.net  
www.subind.net

# SUBSEA INDUSTRIES



**S**ubsea Industries NV, was founded in 1983 specifically to take care of the design, development and marketing of what has become an evolving line of underwater hull and propeller

cleaning equipment as well as the line of hard hull coating systems.

All products produced by Subsea Industries have the same goal in

mind: To keep the underwater part of your vessel in the best possible condition for its entire lifetime at the best possible performance.

**[www.subind.net](http://www.subind.net)**

Subsea Industries NV

Phone: + 32 3 213 5318

Fax: + 32 3 213 5321

[info@subind.net](mailto:info@subind.net)