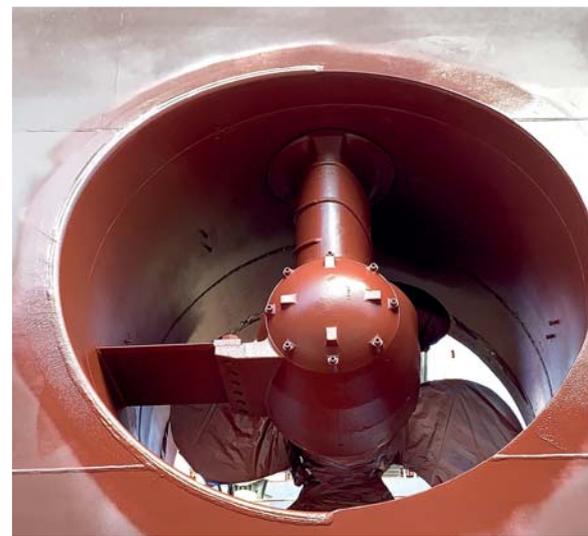


# SUBSEA

PROTECTION AND PERFORMANCE

# NEWS

LETTER



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# Subsea Industries is looking for representative agents



**T**o support our continuous growth, we are expanding our worldwide network of Subsea Industries agents. This allows us to reach a much bigger public directly than would otherwise be possible.

Subsea Industries NV was founded in 1983 to take care of the design, development and marketing of an evolving line of underwater hull

and propeller cleaning equipment as well as a line of hard hull coating systems.

The purpose of the Ecospeed range of coatings and cleaning technology is to offer a long-lasting, non-toxic protection for all ships with a system that keeps a hull ultra-smooth and free of fouling for the service life of the vessel with minimal repair and no replacement. Instead of using chemi-

cals to kill and repel marine fouling organisms, Ecospeed uses a hard, impermeable, impenetrable coating along with manual removal of fouling at an early stage.

Contact us if you are interested in joining our network and help us build a strong relationship with our prospects and customers. We look forward to hearing from you.

## **SUBSEA INDUSTRIES**

**Phone: + 32 3 213 5318**

**Fax: + 32 3 213 5321**

**agents@subind.net**

**www.subind.net**

# Editorial: Clean rivers, seas and oceans

**O**ur underwater coating systems offer a TBT-free, copper-free and biocide-free solution for the protection of ships. Our protection and performance systems are the Best Available Technology for reduction of fuel consumption, GHG and other emissions through improved hull hydrodynamics and fouling control.

Independent tests were carried out in the Netherlands to provide scientific data and to authenticate the non-toxicity of our coatings. Similar testing was conducted in Canada with the same results. This research proved that the coatings are 100% non-toxic and that there is no negative effect on the water quality or the marine environment at any point of their use. As a result of these tests, several economically important ports have made an exception to their ban on underwater cleaning and this only for our coatings.

## Getting rid of repeated environmental hazards

All our systems require only two layers forming a homogeneous protective coating. They are applied once in the life of the vessel which is a major advantage compared with other coatings. If you have to reapply three to four layers of antifouling coating every three to five years a big environmental hazard is created each time. Repeat applications mean repeated VOCs and repeated debris when the conventional coatings are removed.



## Solving the biofouling problem

The underwater cleaning of our coating systems prevents the spread of Non-Invasive Species (NIS). The cleaning interval is optimized to minimize fouling. Regular cleaning prevents macrofouling from building up and at the same time presents an opportunity to inspect so-called niche areas. Most of the fouling organisms will be destroyed during cleaning. If only microfouling or locally acquired macrofouling is cleaned off the hull and niche areas there is no risk of translocation of NIS via hull fouling.

## Fuel savings reduce ecological impact

The worse the fouling the more power will be required to keep the ship sailing at a given speed. This

means higher fuel consumption. Depending on the degree of fouling, this can be as much as 85% more. Higher fuel consumption results in more greenhouse gases and other emissions which pollute the earth's atmosphere.

On a global scale the potential for the reduction in fuel consumption and greenhouse gas emissions is enormous. If 80% of the world fleet would switch to our coating systems, this would save an estimated 28.5 million tonnes in annual fuel consumption and 90 million tonnes in annual CO<sup>2</sup> output.

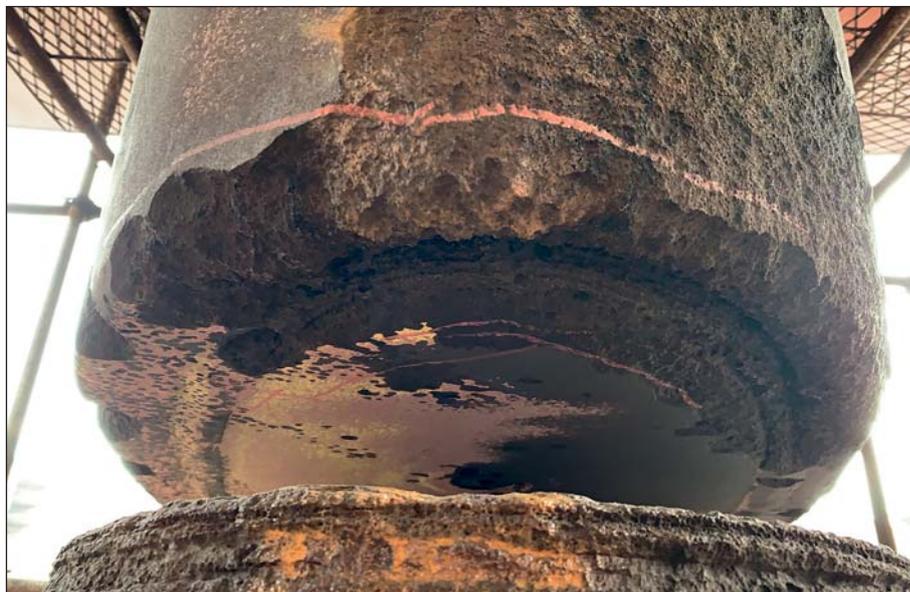
A handwritten signature in black ink, appearing to read 'BVR', with a long horizontal stroke extending to the right.

Subsea Industries NV  
Boud Van Rompay  
Founder

# No more cavitation or corrosion damage thanks to Ecoshield

**R**udders, thrusters, nozzles and other underwater running gear are exceptionally prone to corrosion and cavitation damage. Cavitation is caused by the spinning of propeller blades. If running gear is not given the proper protection against this the damage can be severe.

This leads to expensive and time-consuming repairs in drydock at the least or malfunctioning of the running gear at worst. A rudder has been found missing in its entirety on more than a few occasions, unfortu-



*Damage like this (and much worse) occurs when running gear is not properly protected.*



*All existing paint layers are removed to start from a blank slate.*

nately. This will have substantial financial consequences for a shipowner.

## **A lasting solution is available**

Ecoshield was designed to protect all running gear for the lifetime of the vessel. This coating system is applied only once. No repaint will be needed during future drydocking. Only small touch-ups to repair mechanical damage will be required.

Applying Ecoshield is a fast and easy to learn process. As a result an application is very flexible and can easily be scheduled around the planning of the yard. Only two layers are required. The minimum overcoating time between these layers is only three hours. This means that most running gear can be coated in a single day.

Newbuild ships benefit the most from Ecoshield. Applying the coating during building means a vessel's



# EUROPORT 2019

5-8 Nov | Rotterdam Ahoy

**S**ubsea Industries will be present at Europort in Rotterdam, the Netherlands from November 5 until November 8. We would like to welcome you at our booth 1009 in hall 1, Holland pavilion.

If you would like to learn more about how Subsea Industries can assist you, please visit our booth at Europort. Our team will be happy to give you the information you need. You can also contact one of our offices if you would like to make an appointment for the exhibition or if you need assistance.



*Application of the first of two Ecoshield layers on a rudder.*

Ecofix is a superior, tested and proven filler that restores the steel to its original shape with a smooth surface prior to recoating. Because it uses the same basic resin, Ecoshield can be applied just one hour after the filler.

## **From one rudder to an entire fleet's running gear**

Hundreds of successful Ecoshield applications have been carried out over the last years. Just in the last

running gear will be protected from the moment the ship leaves the shipyard until the end of its service life. A shipowner will not have to worry about repainting during any of the scheduled dockings.

An existing ship can also be protected with Ecoshield. If for instance a rudder has already suffered corrosion damage, the coating can prevent any further damage from occurring. In such case Ecoshield can be used in combination with another product in the Subsea Industries family: Ecofix.



*All running gear can be protected against cavitation and corrosion damage with Ecoshield.*



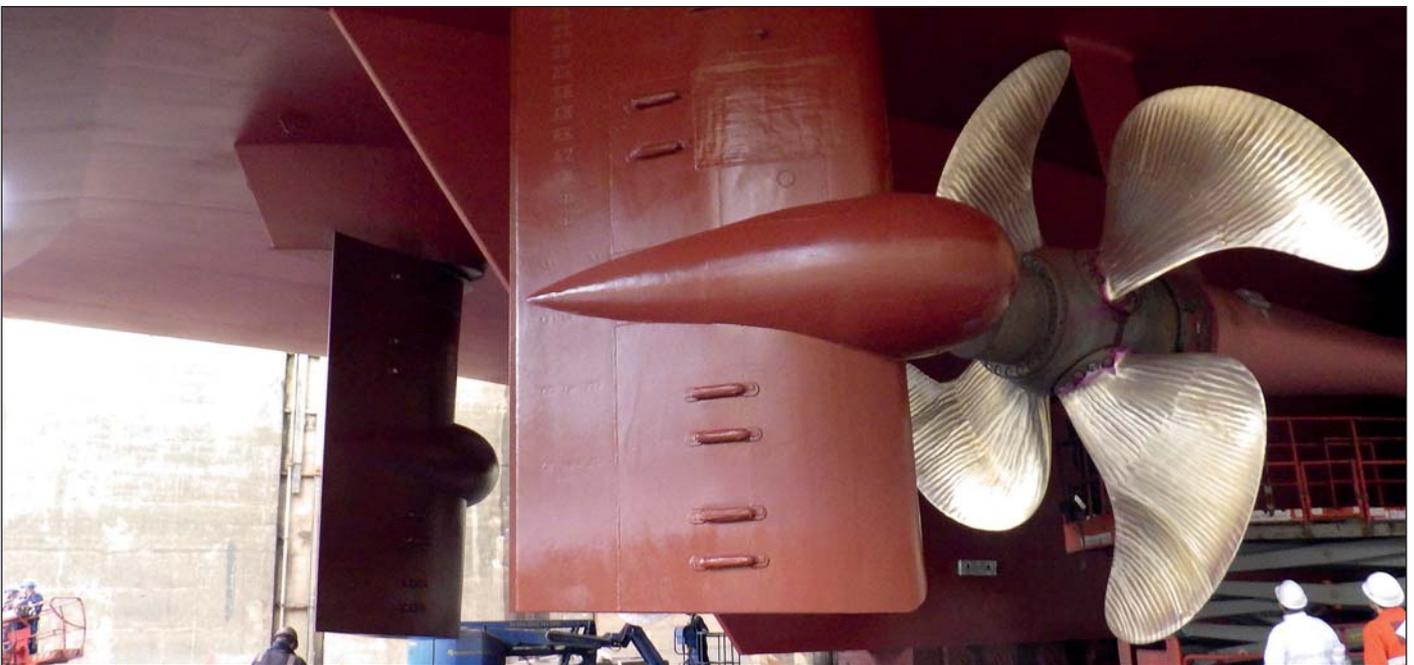
*Only three hours overcoating time between layers make an application very fast.*



*Applying Ecoshield is easy to learn.*



*This rudder will not have to be repainted during future dockings.*



*Both rudders of this vessel are now protected against corrosion and cavitation damage.*



*Despite the proximity to the propeller, cavitation cannot damage this rudder.*

few weeks several rudders, thruster tunnels and nozzles were coated with Ecoshield. These applications were performed on different types of vessels in shipyards across the globe.

Shipowners that started with a single rudder as a test have since then ordered the same protection for the running gear of their entire fleet. Several have included the coating in the newbuild specs to make sure cavitation and corrosion can not touch the steel of their ship's

running gear. Even after years of service these owners are experiencing zero cavitation damage and failure. ■

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

# Corrosion damage repair made easy



**S**ubsea Industries has a 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 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 very expensive fillers. And because it is part of the Ecospeed/ Ecoshield family, it is fully compatible with our coatings.

## **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)