

SUBSEA

PROTECTION AND PERFORMANCE

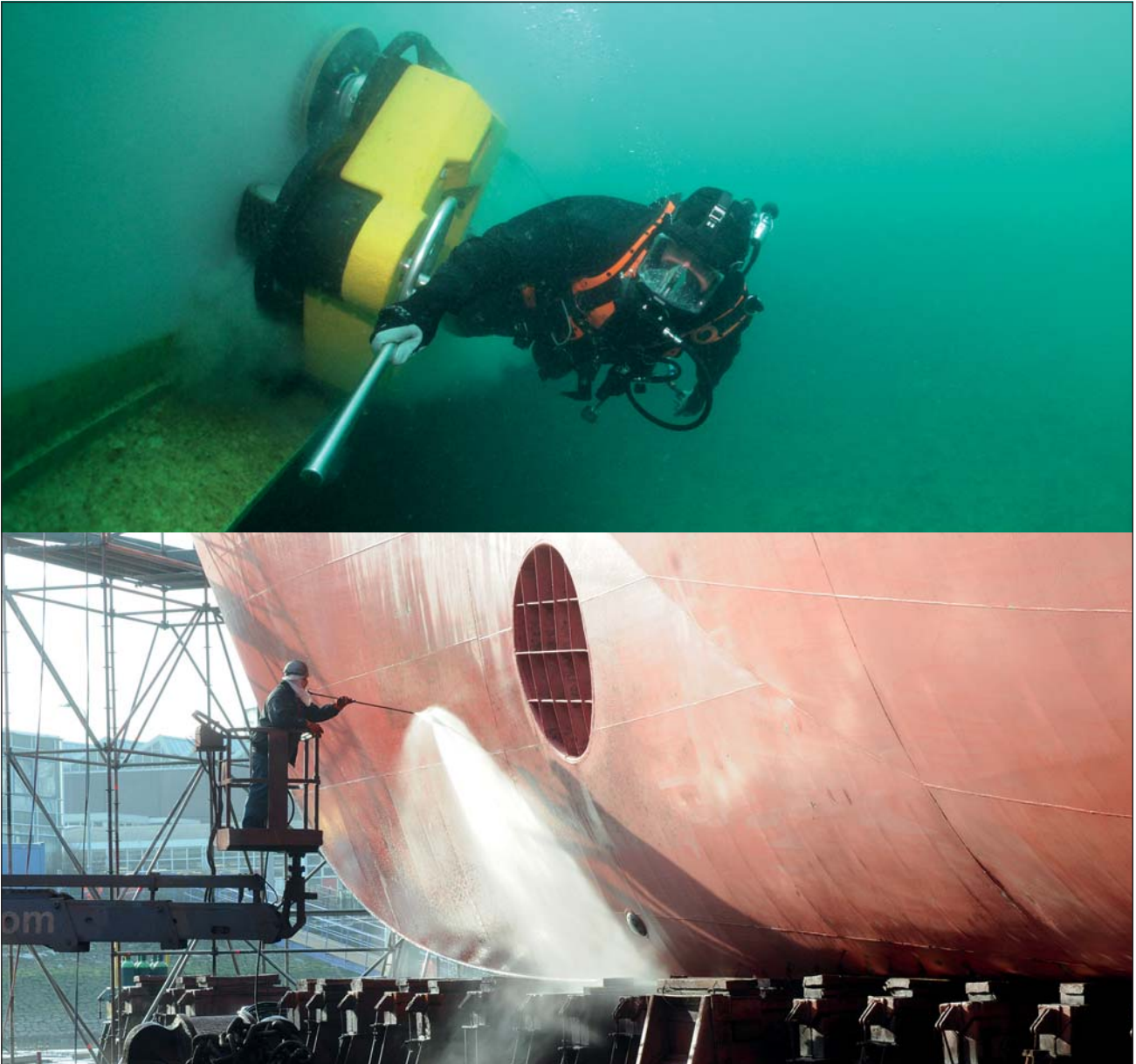
NEWS

LETTER



**Lifelong protection against
cavitation and corrosion damage**

The washable coating



Ship hulls should be protected with a system that lends itself to fast, effective cleaning without risk of damage to the coating and without posing any kind of hazard to the environment. Ecospeed is this system.

There is currently no hull coating available which will not foul. The only way to remove this fouling is to clean it off. The Ecospeed coating has a glassy surface that was designed to be washed without being damaged. This enables

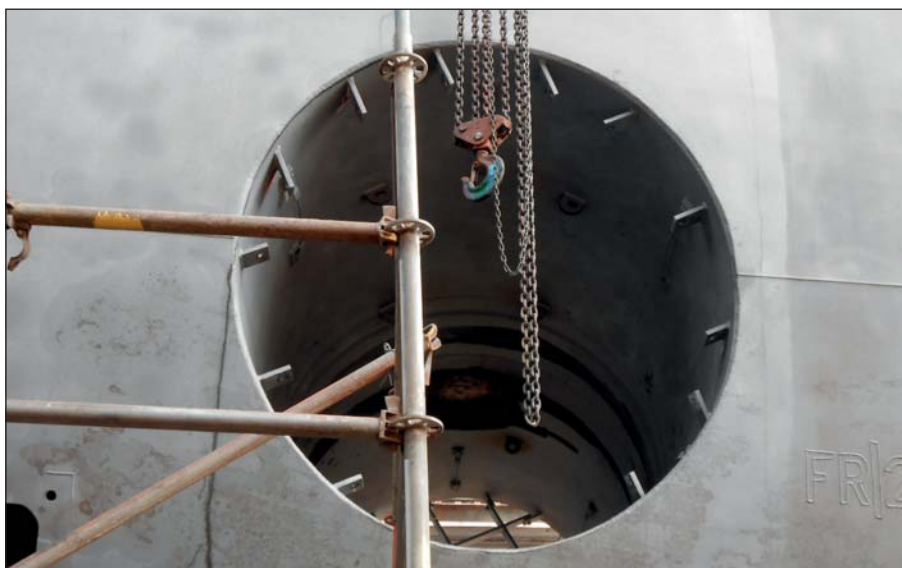
fast and efficient fouling control throughout a ship's entire service life, either by fast and easy underwater maintenance or high-pressure cleaning in drydock.

ECOSPEED®
SHIP HULL PERFORMANCE TECHNOLOGY

Lifelong protection against cavitation and corrosion damage

Over the last few months the rudders and running gear of different types of vessels were given an Ecoshield protective coating at yards in the USA, Mexico, Canada, Turkey, Poland, Malta, Romania, China and Singapore. These ships include tankers, tug boats, a newbuild ferry, a roro ship and several container vessels.

Most of the ships treated belonged to different owners. Some of them were new customers, others returning ones. The returning cus-



Thruster tunnel after grit blasting.



Application of first of only two Ecoshield layers.

tomers had seen firsthand that Ecoshield solved the problem on their other rudders and wanted the same protection for the rest of their fleet. The new ones saw the excellent result obtained by other owners and chose Ecoshield to prevent corrosion and cavitation damage from reoccurring.

In the last couple of years sister company Hydrex has noted a substantial increase in the number of enquiries for underwater rudder repairs. This clearly shows the need for a cost saving and lasting solution. A great deal of effort goes into the design and manufacture of rudders because they are such an important part of a vessel. If a rudder is not given the proper protection against cavitation and the resulting erosion and corrosion damage, the financial consequences can be substantial for the owner.

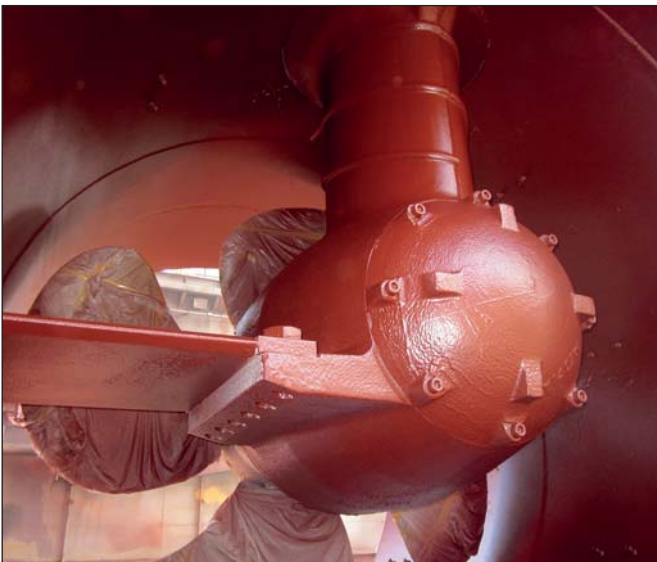
Before Ecoshield was launched the problem of cavitation damage to



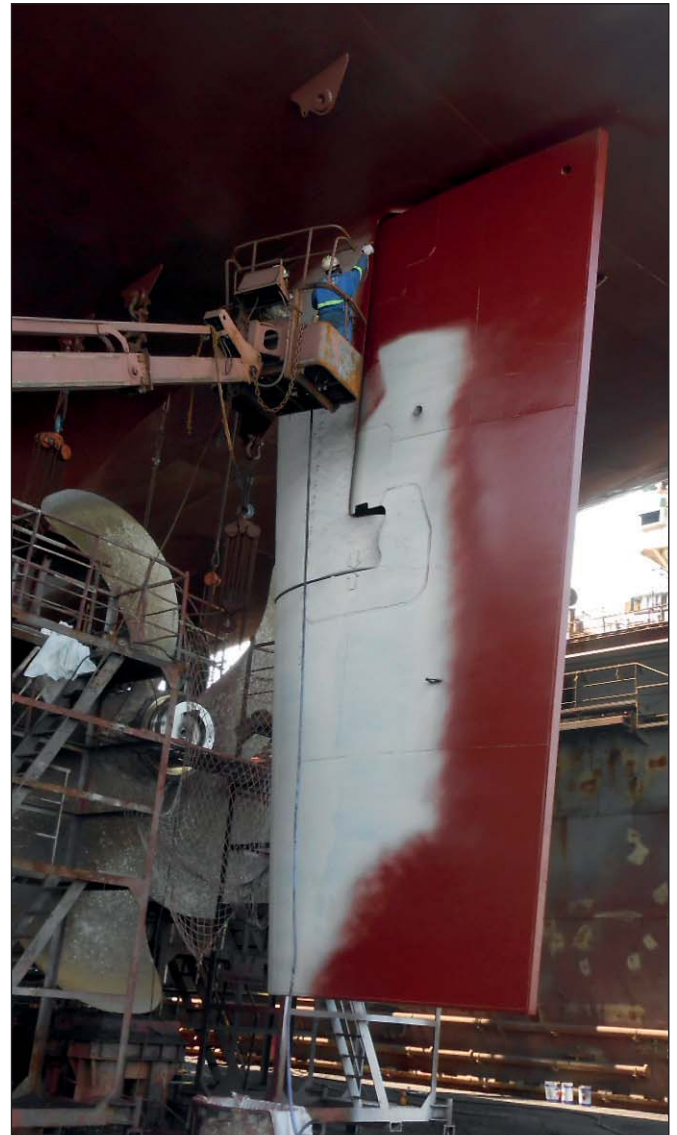
All types of nozzles can be safeguarded from cavitation and corrosion damage.

rudders remained unsolved. Cavitation caused erosion, pitting and sometimes complete failure, necessitating very expensive repairs or replacement. The need for repair to rudders, involving welding and resurfacing in drydock has been almost universal. Despite efforts to solve this problem, it has persisted.

Ecoshield puts an end to this. By removing the existing paint layers and applying the coating system on running gear 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. Ecoshield gives a very thorough and



Thrusters and thruster tunnels are protected for their entire life when coated with Ecoshield.



Application of Ecoshield can easily be adapted to a yard's schedule.



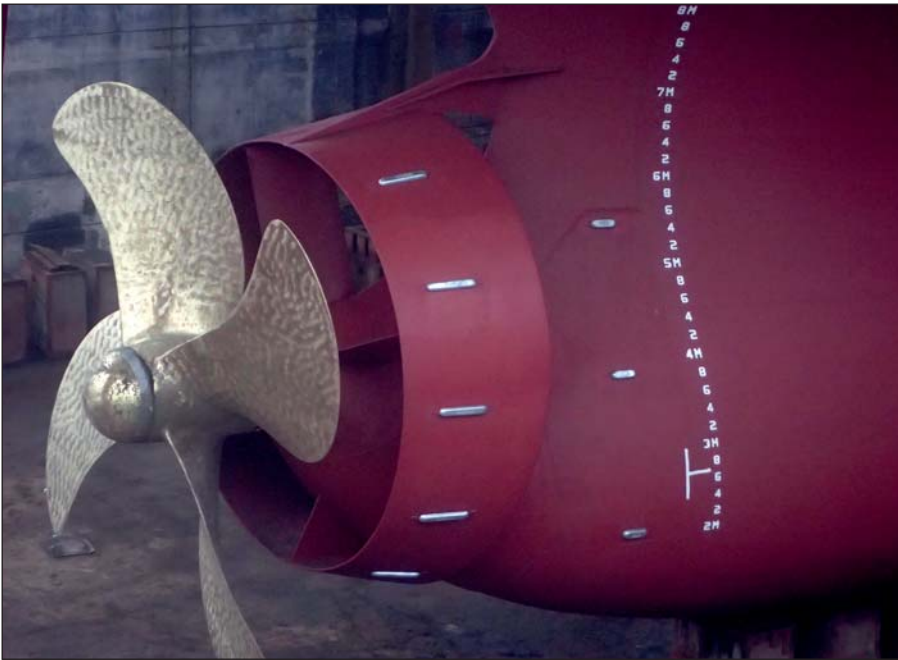
No repaint will be needed on any type of running gear coated with Ecoshield.



Ecoshield protects a rudder against cavitation and corrosion damage.



The rudders of this newbuild ferry will be protected from day one.



All running gear, like this mewis duct, can be protected with Ecoshield.



Only very small touch ups were needed on this rudder five years after application.

lasting defense for a ship's entire service life. No repaint will be required during drydocking. At most minor touch-ups will be needed.

With time at a premium in drydock, the speed of application of Eco-shield is a further advantage. With the right planning grit blasting and application of the two required layers can be performed in just one day.

Our coating prevents all cavitation or corrosion damage. As a result there is no need for a stainless steel belt to be installed in a nozzle or thruster tunnel when Ecoshield is applied. This saves precious money during the building process.

Conclusion

Over 500 rudders, nozzles, thruster tunnels, bulbous bows and mewis ducts have now been coated with Ecoshield with 100% success. The number increases quickly as more and more shipowners and operators find that there is a final answer to cavitation damage. In all cases where Ecoshield has been standardly applied the running gear suffered no cavitation damage. No repaint was required, even more than ten years after application.

You can give the rudders and running gear of your vessels the same lifelong protection. Contact one of our offices for more information. ■

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ECOLOCK® ultra long-lasting protection for offshore hulls



Ecolock is designed to protect offshore vessels for decades without the need for drydocking. Increasingly, offshore units such as FPSOs, FSOs, FLRSUs and others used for offshore oil and gas exploration, drilling, storage and transport need to stay out of drydock for 15, 25 even 40 years.

The challenge has been to protect

the underwater hull from corrosion and to provide a cleanable surface so that the biofouling that accumulates can be removed successfully and safely for UWILD and to reduce weight. Ecolock is the answer to that challenge.

Ecolock is an extremely tough and durable coating designed to remain in excellent condition for 15 - 25

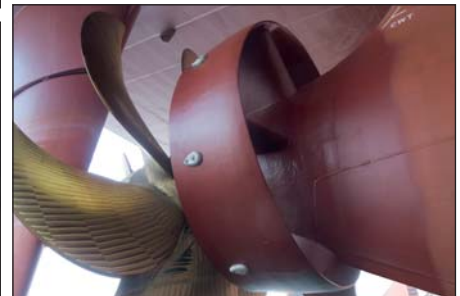
years without drydocking, repair or replacement. Ecolock can be cleaned underwater as often as needed to meet the UWILD and weight requirements of FPSOs, drill ships and other offshore vessels. Ecolock is the result of continual R&D on offshore hull coatings since the 1990s.

ECOLOCK®

LIFETIME CORROSION PROTECTION
FOR OFFSHORE UNITS

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SUBSEA INDUSTRIES



Subsea 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.

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