

marine propulsion

& auxiliary machinery

MAN Alpha

Controllable pitch propellers



Diesel-Mechanical Systems Diesel-Electric Systems Propellers Gearboxes Propulsion Management Systems

MAN Diesel & Turbo's Alpha propeller programme has been extended with two new larger hub sizes (VBS 2060 and VBS 2150) – offering power transmission of up to and beyond 40,000 kW. Today's high-efficient CP Propellers are created on the basis of state-of-the-art design tools and the accumulated experience from more than 7,000 units. Full pitch ahead! Find out more at www.mandieselturbo.com and www.manalpha.com

Engineering the Future – since 1758.

MAN Diesel & Turbo



"As a cylinder oil supplier, our expectation is that gas engines will take a growing share of the two-stroke market."

Jan Toschka, general manager, Shell Marine Products



» leakages from the seal. Once full, this tank automatically drains into the ship's waste oil tank.

It also has a failsafe back-up in the event that the automatic system fails. In that case, the drain tank would continue collecting any seepage and indicate to crew when it needed emptying. "Our research shows that the market demands zero pollution and we are delighted to introduce a sustainable solution that meets this requirement," said Lagersmit's commercial manager at the time of its launch.

Last July, that seal was verified by DNV GL as eliminating any oil-to-water interface, confirming that it complies with the VGP's requirements. It was one of two seals in Lagersmit's range of three thruster seals to receive that confirmation, taking its place alongside

Old name, new focus, for Lagersmit

Lagersmit is now the name for IHC Sealing Solutions, formerly part of Royal IHC of The Netherlands. It became independent in mid 2014 and changed its name at the end of November.

It is not a new name, however. The company was founded in 1856 and bore that name for most of the 159 years that have passed since then. Because of that heritage, it has adopted a strapline: "The

Origin of Sealing Solutions."

It is a description that also reflects its decision to focus exclusively on sealing solutions. Speaking at the time of the name change, Lagersmit's chief executive Willem Steenge said: "Our R&D pipeline is well filled and we are working together with various customer groups to launch new products for the markets that we serve."

the Supreme Ventus thruster option, which is aimed at deeper draught vessels. This, too, incorporates a drain system to divert any fluids that enter the seal into the engineroom drain tank.

The stern tube version of the Supreme

Ventus seal was also verified as reaching the standard. It incorporates a compressed air arrangement that matches the air pressure in the seal with the water pressure outside, which is said not only to avoid leakage but also to reduce wear.

Class change has been good news

A change introduced during 2013 by two class societies that affected their rules on seawater lubricated propeller shaft system bearings has been "good news for shipowners and the marine environment," said Craig Carter, director of marketing and customer service at

Thordon Bearings.

Lloyd's Register updated its Screwshaft Condition Monitoring (SCM) notation and Bureau Veritas extended its MON-SHAFT notation to cover ships fitted with water lubricated propeller shaft bearings, both allowing the shaft to remain in place for 18 years from the date of build, if certain

monitoring conditions are met.

This matches the requirement for oil lubricated prop shaft bearings and removed a major obstacle that shipowners faced with water-based propeller shaft bearing systems, Mr Carter said. "Things are starting to heat up with seawater lubricated propeller shaft bearing systems," he added.

In-situ seal repairs save time and money

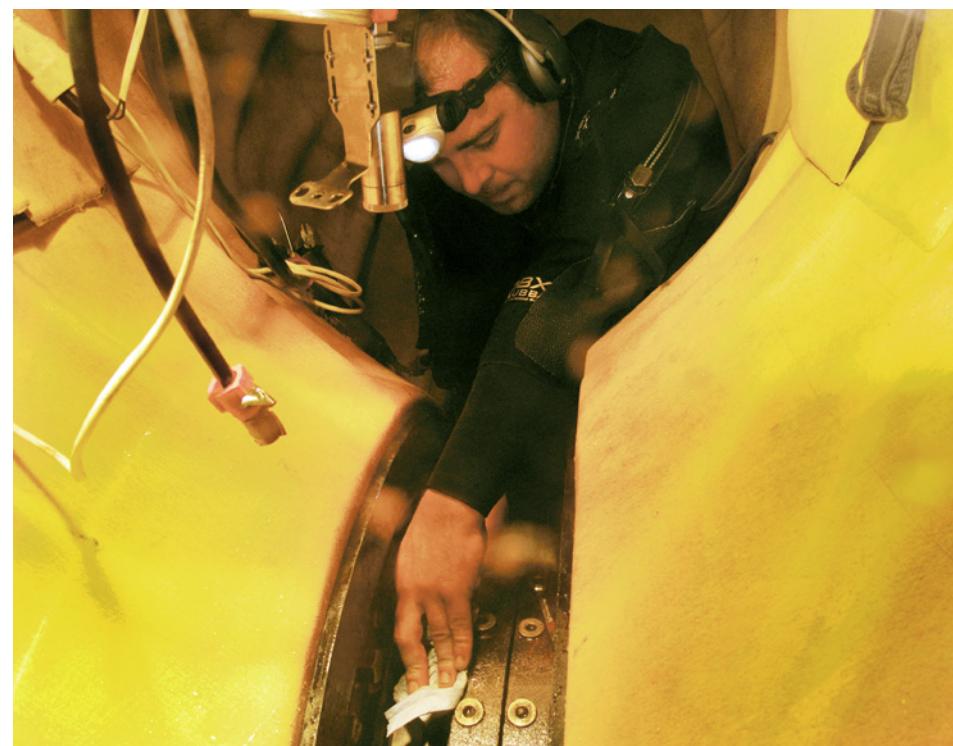
In-situ repairs to sterntube seals and bearings can save considerable costs, time and sometimes a drydocking, compared with removing the shaft.

During 2014, for example, the underwater engineering specialist Hydrex replaced three leaking bow thruster shaft seals on a six-month-old 400m container ship in Gdansk, Poland, without causing any delay to the ship, according to a report of the operation.

It used two of its mobdock, one at each end of the thruster tunnel, to create a dry working space so that the seals could be removed and replaced. All three seals had cuts on their undersides, through which oil had leaked.

The work was monitored by both the seal manufacturer and the bow thruster supplier and the task was finished before the ship had completed its cargo operations.

Similar benefits are claimed by the shipping services company Goltens, which has published a case study centred on a contract it received from Boston Ship Repair to inspect and conduct in-situ machining of two propeller shaft seal liners on the USNS *Soderman*. It had previously carried out similar repairs on the shaft seal liners on the USNS *Sisler* and the USNS *Watson* and the work was carried out in the



Hydrex can carry out in-situ repairs to seals and bearings (credit: Hydrex)

dock, without pulling the shafts.

All three ships had experienced the same damage: the shaft seals had worn channels in the 850mm diameter shaft seal liner surfaces and the journal surface needed to be machined and polished in-place and within the maker's tolerances.

It achieved this while removing only 0.73mm from the starboard seal liner and 0.48mm from the port liner, prompting the yard's project manager to say that the in-situ work had saved weeks of downtime and hundreds of thousands of dollars in additional repair costs. **MP**