



Diving & Underwater Services

Safety, Survival & Training

Marine Renewables Extra



Neptune Shipyards

IN NOVEMBER AND December last year Ecospeed, from Belgian company Hydrex, was applied on the hull of the multi-purpose research vessel *Imor* in Gdansk, Poland.

The 32.5 metre catamaran is owned by the Maritime Institute in Gdansk and was designed to perform a range of tasks such as oceanographic measurements, hydrographic or geophysical operations and bottom inspection.

Due to the nature of these tasks, Hydrex claims that the ecological benefits Ecospeed offers were very important in deciding on the coating. The Maritime Institute in Gdansk is a research and development unit which has been supervised by the Ministry of Maritime Economy for over fifty years. The Institute conducts research work, scientific and implementation projects, studies and assessments. The mission of the Maritime Institute is to take care and preserve the values of the sea and sustainable development of the Polish maritime economy.

The *RV Imor* was built in 2005 as a multi-purpose shallow water survey and ROV support vessel. She can be easily re-configured according to the requirements. The small size, small draught, high relative power and great flexibility of possible applications makes her ideal for work in shallow waters.

She is mainly used for operations in the Baltic and North Sea area. The current activities of the vessel include the creation of an inventory of marine mineral resources and investigations concerning the impact of economy on marine environment and ecosystem.

According to Hydrex, Ecospeed ties in perfectly with the ecological ideas of the Maritime Institute. The coating offers a TBT-free, copper-free, biocide-free and silicone oil free solution for the protection of the underwater hull. The Ecospeed hull protection and performance system is today's Best Available Technology for reduction of fuel consumption, GHG and other emissions through hull hydrodynamics and fouling control.

In 2008, stringent tests were carried out within the framework of an EU LIFE demonstration project to provide scientific data and to authenticate the non-toxicity of the Ecospeed hull performance technology. Hydrex says that his research proved that the coating is 100% free of toxic substances and that there is no negative effect on the water quality or the marine environment at any point of its application or use. Moreover, the massive amounts of VOC and zinc

Ecospeed for Polish research vessel



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anode emission associated with conventional hull coating systems are reduced to almost zero.

Over the last several years there have been concerns that non-indigenous species (NIS) are transported by fouled hulls just as much or even more than in ballast water. Once a hull becomes heavily fouled, a situation occurs where there

is an increased risk of transporting NIS that needs to be remedied by defouling activities, either by out-of-water removal or by underwater cleaning. In this respect, underwater cleaning has come under some scrutiny out of fear that viable NIS are released and spread, rather than contained and disposed of by the operation. Several ports and countries

have banned underwater cleaning out of concerns about pulse release of biocides and/or an increased risk of transferring NIS. Taking into account the delicate ecological research *RV Imor* is used for, this is an especially important issue for the researchers.

The underwater cleaning of Ecospeed, Hydrex claims, can be regarded as a safe measure that prevents, rather than remedies, the spread of NIS. Firstly, Ecospeed can be cleaned on a regular basis without damaging the coating's surface. The cleaning interval is optimized to minimize fouling and the associated increase in fuel consumption. In other words, regular cleaning prevents macrofouling from building up and at the same time presents an opportunity to inspect so-called niche areas. Secondly, Ecospeed is claimed to be a very durable coating that withstands abrasive cleaning for which very effective specialized tools have been developed. As a result, many of the fouling organisms will be destroyed during cleaning. As long as only microfouling or locally acquired macrofouling is cleaned off the hull and niche areas, the risk of translocation of NIS via hull fouling is minimal. Hydrex therefore states that standard use of Ecospeed is the key to resolving the hull-borne NIS issue.

By JAKE FRITH

DAMEN SHIPREPAIR AMSTERDAM

(DSAm), part of Damen Shiprepair & Conversion, is currently undertaking a substantial modification and maintenance contract for six inland cruise vessels owned by Viking River Cruises. With this winter service complete, all six vessels - known as longships - will be ready for the coming river cruise season.

DSAm will carry out the contract one vessel at a time. The *Viking Idi* was the first of the six to arrive at the yard in late December 2015. Sister ships *Viking Idun*, *Viking Kvasir*, *Viking Kara*, *Viking Hlin* and *Viking Gullveig* will follow consecutively. With each vessel spending an average of 10-11 days at the yard, the entire contract will be completed by early March.

The primary scope of work for all six longships comprises stern frame modifications necessary to prevent propeller damage during turning manoeuvres in canals and other narrow waterways. The solution is to install an additional steel

Viking's longship modifications



All the Longships require stern frame modifications

construction reaching from the seawater inlet chest all the way to the stern. To reduce the time spent at the yard, Damen is prefabricating the steel components in advance.

The DSAm team will also carry out any necessary maintenance on the

vessels whilst they have them in drydock. For example, the *Viking Idi* needed a replacement port propeller. Furthermore, the vertical sides of her hull and the seawater inlet chest box coolers were high-pressure washed and cleaned.

By JAKE FRITH