Oct 14th 2021 | Issue 1884

SRN
SHIP REPAIR NEWSLETTER

Fednav's ***Umiak I*** operating in Canadian ice (See Paints & Coatings)

WWW.SHIPREPAIRNEWSLETTER.COM

Also publishers of: SORJ (Ship and Offshore Repair Journal) and PEM (Port Engineering Management)

A&A THORPE
MARINE EDITORIAL CONSULTANTS

performing anti-fouling technology - Selektope, crosslinked zinc acrylate polymer in 2015. Currently 65 newbuilding ships have been coated with the product and it has been applied to 196 existing ships under repair, including test applications, during drydocking until August 2021. The product is available for all types of ocean-going vessels. CMP's premium anti-fouling systems can contribute to improve the requirements of EEXI and CII as well as reducing CO_2 emissions world-wide.

SUBSEA INDUSTRIES:

In April 2021 the 31,992 dwt icebreaking bulk carrier ***Umiak I*** was coated with Ecospeed. Application was carried out at Poland's Remontowa, Gdansk. The ship is owned by Fednav and managed by Canship Ugland Ltd.

"Taking to the water for the first time over 75 years ago, Fednav has been innovating ever since. Known primarily for successful navigation of the Canadian Arctic, the company forged complex routes through unknown waters, always staying true to their purpose of doing things the right way for their clients. They have grown to become Canada's largest oceangoing bulk shipping company, mastering a multitude of complex routes on both the Great Lakes and the Arctic with an arsenal of close to 65 owned vessels."

"Canship Ugland is a Canadian ship management company located in St. John's, Newfoundland. The company started its operations in 1997 when the first oil produced on the Grand Banks was transported ashore. Besides ***Umiak I*** the company also manages a diverse fleet of vessels - two shuttle tankers in Europe, two local fire-fighting escort tugs, three pilot boats, an oil/chemical tanker on the East Coast of Canada and a passenger cargo vessel."

"The ***Umiak I*** was built in 2006 and is one of the most powerful of its kind. The vessel operates year round on the Labrador Coast, delivering supplies to the remote mine and hauling nickel concentrate to southern facilities. The hull is reinforced to navigate unassisted through ice that is 1.5 m thick. On its regular run down the Labrador coast, ***Umiak I*** contends with some of the world's most rugged ice conditions, including icebergs, from November to July each year.

While the open-water speed in a laden condition is some 13.5 knots, the bulk carrier is capable of making over three knots in level first year ice of 1.5 m thickness. Capability for effective ice ramming goes hand-in-hand with the ICE-15 classification. The ramming procedure entails sailing at a specified speed through the ice until the vessel is brought to a stop by the resistance of the ice. The vessel is then put astern to come free of the packed ice, and is then sailed full ahead, to break through the ice until brought up again by the force of resistance. The procedure is used for thick ice and ice ridges."

It is not difficult to see that a special hull coating is required to withstand this kind of impact and tremendous power. During the 2016 drydocking, it was decided to apply two test patches of Ecospeed coating to areas most prone to damage. Over the next five winter seasons the condition of the Ecospeed test patches was examined and found to hold up to the very difficult conditions despite the continuous impact with ice. The decision was made to replace the entire underwater hull coating with Ecospeed at the next drydocking.

The application was completed during her scheduled main survey and BWM system installation at Remontowa. Another advantage of

The ***Umiak I*** in Remontowa

Ecospeed to both shipowner and shipyard is ease and flexibility of application. The entire system is applied in only two homogeneous coats and the overcoating time can be as short as three or four hours, all the way up to weeks or even months if needed. Therefore, an Ecospeed application can easily be adapted to a shipyard's schedule or to unpredictable weather conditions.

The ship's rudder and nozzle were also protected with Subsea Industries' coating systems. First corrosion damage on the nozzle was repaired with Ecofix. This restored the surface back to its original shape with a smooth surface prior to recoating with Ecoshield.

Experience has shown that Ecospeed stays on the hull longer and resists the ice far better than the most generally used specialised ice coatings. The coating remains bonded to the ship's plates even as they flex and bend under ice pressure and impact.

Ecospeed has been recognised by Lloyd's Register as an abrasion resistant ice coating for ships. Its correct use on the ice belt specifically permits a reduction of the ice belt's steel plating by up to 1mm.

Due to its unique composition, Ecospeed is not only the best protection available for underwater hulls of icebreakers and ice going vessels, the coating also provides the best hull performance and is the easiest ice going paint to apply and maintain.

UNDERWATER REPAIRS

HYDREX:

Hydrex diver/technicians replaced the seals of both stern tube assemblies of a pipe-laying vessel berthed in Rotterdam. Using a Hydrex flexible mobdock the team was able to carry out the entire operation on-site and underwater, saving the owner an expensive and time-consuming trip to drydock.

The team travelled to the vessel's location on one of company's workboats. These workboats are fully equipped as dive support stations with hydraulic