International Tug & OSV
INCORPORATING SALVAGE NEWS
July/August 2012

ITS 2012 Review

A-Z Guide to Tug & OSV Builders

Arnout Damen: "You cannot chop and change: you need a long-term vision."

New rudder coating helps to break the ice

The Port of Kemi in the Bothnian Bay, Finland, is a busy import and export harbour for the industry of the Barents Region. The harbour represents the fastest route to the northern areas of Finland, Sweden, Norway, and the Murmansk area in Russia, with nearly 750 vessels visiting Kemi each year.

The Bothnian Bay usually begins to freeze in October-November and the last of the ice melts away by the beginning of June at the latest. Since the channel is narrow, shallow and winding, large ice-breakers are unable to open it. Navigation in the Bothnian Bay during the icy season is made possible due to the ice-breaker tug ***Jääsalo***. The vessel is responsible for keeping the Veitsiluoto fairway open in the port of Kemi.

In May this year, its rudder and ice belt of ***Jääsalo*** were coated with Ecospeed in Naantali, Finland. The decision to use Ecospeed on the rudder of the vessel was made by the ship owner after cavitation damage had appeared. Ecospeed will prevent similar damage from occurring again and ensures lasting protection for the remainder of the vessel's service life.

Ecospeed gives a very thorough and lasting defence against cavitation and corrosion damage for a ship hull's entire service life. The coating also provides the rudder (and the entire underwater hull) with an impenetrable protective layer, while its flexibility enables absorption of the forces that are produced by cavitation.

Tests conducted in a flow channel have confirmed that Ecospeed performs extremely well under severe cavitation. These tests were divided into six separate stages during which the coating was exposed to an increasing pressure drop, creating a growing cavitation force. Even after the last stage, no erosion was present on the test patch which was coated with Ecospeed.

Ice-breakers and ships that trade in icy waters have their own specific problems when it comes to protecting their underwater hull. Not only is the ice highly abrasive, there is the additional factor that the steel of the hull flexes under the impact. When the metal sheets that form the hull flex and bend under the impact, the paint that is supposed to protect them does one of two things. It is either flexible and adheres so well to the metal that it is virtually part of the steel itself and thus survives (as Ecospeed does), or it is less flexible than the hull and cannot flex with the steel, in which case the paint gradually, or not so gradually, is forced away from the hull and rubbed away under the impact.

Together with the rudder, the ice belt of ***Jääsalo*** was coated with Ecospeed, which is the area on the underwater hull most prone to mechanical damage from sailing through and breaking ice. On the bow, the ice belt can extend to about 1m above the waterline. The owners of ***Jääsalo*** also coated the stern area with Ecospeed and are planning to have the remainder of the underwater hull of the ice-breaker tug coated later this year, to give the entire underwater part of the vessel the same lasting protection against ice.

ROV specially designed to work in strong tidal areas

Subsea Vision has taken delivery of a Saab Seaeye Cougar XT Compact, a low profile powerful ROV specially designed for working in high current areas and where access is restricted.

Subsea Vision's immediate target market for the Cougar XT Compact is the North Sea oil & gas industry. Further applications for the leaner Cougar are within the wind and tidal renewable markets where strong shallow water currents are a particular problem.

This means that Subsea Vision, the specialist ROV supplier, can now offer an enhanced service to floating production, storage and offloading vessels (FPSOs). Utilising their ROV systems from the client's vessel or platform saves clients from contracting expensive ROVSVs and holdback tugs.

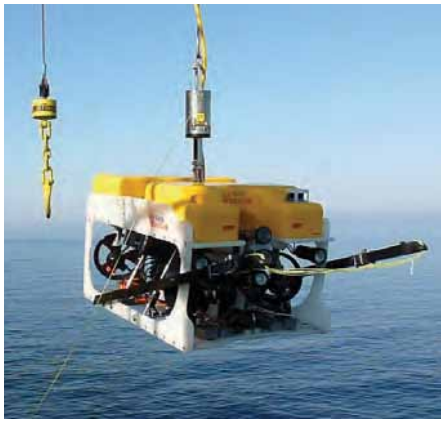
With the Cougar's exceptional power it can free-swim with ease to reach the furthest points on an FPSO or clients' subsea assets from a single launch point. Complete with a combined HP water jetting and hydraulic skid, Subsea Vision can offer a diverse range of subsea services.

This follows industry projections that the demand for FPSOs is set to double by 2015 as companies seek new areas for exploration and production.

Chris Bryant, managing director, Subsea Vision, said: "The Cougar XT Compact will be able to work for longer periods in strong tidal areas and Subsea Vision will be able to offer larger tooling packages, such as pipe tracking systems and manipulator/hydraulic skids for light work class operations."

The unrivalled power and manoeuvrability of the Cougar XT Compact comes from its six thrusters: four vectored horizontal and two vertical, each with velocity feedback for precise control in all directions, and interfaced to a fast-acting control system and solidstate gyro for enhanced azimuth stability.

▼ *Saab Seaeye Cougar ROV.*



Venturing back into shipbuilding

Dunston Ship Repairs from Hull, UK, has established Dunston Ship Builders after receiving a £5.1m order for three workboats from Hull-based company Rix Shipping.

The boats, which will be built under licence from Great Yarmouth-based Alicat Workboats, a subsidiary of the Gardline Group, will be used to service wind turbines in the North Sea as part of the UK's drive to create energy from renewable sources.

The move marks a return to shipbuilding for the Dunston group, which can trace its history in the industry back to 1858. The company ceased building vessels in 1994 to concentrate on ship repairs at its base on William Wright Dock.

Richard Bourne, joint owner and managing director of Dunston Ship Repairs, said he was very proud to be spearheading a revival of shipbuilding on the Humber after years of absence.

He said that the order could well be the "start of things to come" as the renewables industry creates demand for a range of different vessels of both modern and traditional design.

Bourne added: "I'm extremely excited to be bringing the name of Dunston Ship Builders back to its rightful position on the Humber. Establishing the new company will secure jobs in the region and as the offshore wind farms are developed will generate a lot of investment and create employment."

Dunston Ship Builders will lease the JR Rix & Sons-owned Hepworths yard in Paull, East Yorkshire to build the vessels.

James Doyle, director at Rix Shipping, said that when complete, the boats would be used to transport technicians and equipment to offshore wind farms to service and maintain the turbines.