Tugs Towing & Offshore Newsletter

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TUGS & TOWING NEWS

SANMAR SIGNS US$33.46 MILLION SIX VESSEL CONTRACTS WITH PAKISTAN PORT AUTHORITY

Sanmar Shipyards has signed six vessel contracts together totalling US$33.46 million with the Port Qasim Authority (PQA) in Pakistan for four high-performance state-of-the-art tugboats and two pilot boats. The tugs are scheduled to be delivered in 12 months and the pilot boats in 10. The contracts were awarded following a hard-fought international tendering process during which Sanmar championed its new technologically-advanced Kocacay range of powerful and efficient escort and harbour tugs, based on the exclusive-to-Sanmar RAstar 3200SX design from Canada-based naval architects Robert Allan Ltd. The Sanmar Kocacay class tugs, designed in close co-operation with the Turkish tug builder and operator, and boast a unique sponsoned hull form, proven to provide significantly enhanced escort towing performance. Escort forces are enhanced by the effects of the sponsons as well as by the prominent foil-shaped escort skeg. Three of the 32m x 13m x 5.6m high-powered LNG compatible tugs will have an impressive 75 tonnes of bollard pull (BP) ahead and astern, while the fourth will have an even greater BP of 85 tonnes. The first two tugs in the series, called Thor of Scapa and Odin of Scapa by their new owners, were delivered to the Orkney Islands Council in the UK last year. They are being used for ship-handling, towing, escort and emergency response duties and have been purposely designed with a shallower draught than most other tugs of similar size to ensure greater operational flexibility even with the depth limitations in some of the piers within Scapa Flow. The contracts with PQA for the ultra-modern tugs and two 20m pilot boats capable of 20 knots, were signed at a ceremony at the Ministry of Maritime office in Islamabad on 29 March 2021. It was witnessed by the Federal Minister for Maritime Affairs Syed Ali Haider Zaidi and Turkish Ambassador Ihsan Mustafa Yardakul. Commercial Projects Manager Ozge Abanuz and Procurement Manager Hakan Tunc represented Sanmar. Afterwards PQA organised a celebration dinner, which was also attended by the Federal Minister for Maritime Affairs Syed Ali Haider Zaidi and his wife, along with Turkish Ambassador Ihsan Mustafa Yurdakul and Sanmar representatives. The Minister invited Sanmar to build a shipyard in Pakistan, share its expertise and technology, and benefit from the local skilled and

relatively low-cost workforce. Ali Gurun, Vice President of Sanmar, said: "Sanmar has been delivering tugs to Pakistan since year 2000. We have tugs in KPT and PQA ports. However, this tender was one of the most challenging one due to tough competition. Our designers Robert Allan Ltd and supplier Kongsberg Marine have worked closely with Sanmar engineers to deliver best performance solution for PQA. We have worked hard and we deserved it." *(Press Release)*

WORLD WIDE TUG & OSV NEWS

The new World Wide Tug & OSV news has been issued last week. Again a lot of information about tugs and offshore vessels new buildings, sales and demolitions. This very interesting Bi-monthly free news can be download HERE *(Source: Leen van der Meijden)*

RECTIFICATION

In the Tugs Towing & Offshore Newsletter's article regarding "**RT Spirit**, an unexpected visitor" there were made some small mistakes. In the text was mentioned "Kotug Europe" you have to read "Kotug International" and further in the text was written "German subsidiary Kotug Schleppreederei of Bremerhaven" that must be corrected in Kotug International and operated by Kotug Mozambique and last correction the age of the **RT Spirit** which is not 32 years but of course 22 years. Very sorry for this inconvenience.

KEEL LAYING FOR ONE ASD TUGBOAT

On Mar. 31th, 2021, one 2942kW ASD tugboat, which was built at the Jiangsu Zhenjiang Shipyard for Yangjiang Port Yechang Tugboat Co., Ltd., has been carried out keel laying. *(Source: Jiangsu Zhenjiang Shipyard)*

HOW TO DELIVER STABLE, SAFE AND SEAFARER-CENTRIC TUG DESIGNS

A panel of experts debated what is required to deliver more powerful, stable, manoeuvrable, cost-effective and safe tugs during Riviera Maritime Media's Tug vessel classification and design: safety, stability and notations webinar. This webinar was held on 30 March 2021 as part of Riviera's ITS TUGTECHNOLOGY Webinar Week, which was supported by the European Tugowners Association and UK Maritime Pilots Association. The panel consisted of Robert Allan Ltd director of design development Lawren Best, Svitzer Europe head of marine standards Scott Baker, The Workboat Association chief executive Kerrie Forster and United Kingdom

Maritime Pilots Association chairman Captain Mike Morris. They examined the latest rule requirements for tug safety and stability and the trade-offs that are made when balancing design, cost and compliance considerations. The panel also outlined technologies inspiring a new generation of future-proofed tugs, which could put the seafarer at the centre of the design. Mr Best explained what is required for escort tug stability, where engine, thruster and hydrostatic forces need to equal the towline and hydrodynamic forces on the vessel. He explained how important it was to inform tug masters of the steering and braking forces and translate these into towing-system load ratings. “Most critically, is informing the tug master of the safe operational stability limits,” said Mr Best. He said Robert Allan has devised two main methods of doing this. It has written escort safety limit placards specific to individual tugs to be displayed in wheelhouses, providing stability and safety information to masters. “We also provide electronic inclinometers to give operators feedback of the degree of heel,” said Mr Best. He also outlined IMO’s implemented Tug Stability Criteria, which was previously introduced by classification society Bureau Veritas and adopted by others, including Lloyd’s Register and ABS. “Class harmonisation of criteria through IMO is a great improvement,” said Mr Best. It has been adopted by many individual flag states and others are undergoing this process. “There has been progress,” he commented, “But a couple of flag states are holding out, with their own tug-stability criteria.” Mr Forster outlined how naval architects need to consider seafarers who will be working on these tugs over a 30-year lifetime in their designs. “Do we feel seafarers are part of the design of vessels as well as the end-users?” he asked. One positive in tug design for masters and other crew is the position of the bridge. “Wheelhouses are raised with good visibility of the working decks and for good eyesight of the stability of the vessel,” said Mr Forster. But he highlighted how interior arrangements are less well designed. “When raising wheelhouses high, what about the access stairs and companion ways?” he asked. Stairs are often steep, passageways are narrow and there are tight corners for tug crew to get around. These can be awkward to move around even when tugs are berthed. “Some tugs are poorly designed for the people on board,” said Mr Forster, adding the industry needs “seafarer-centric tugs” where layout of the living and working areas is better considered. Svitzer Europe’s Mr Baker explained how tug capabilities do not always match requirements for handling ever-larger container ships, which are more than 400-m in length and 60 m in breadth. Ships are built for a lifetime of 20-25 years, but tugs can continue operating for more than 40 years. “Tugs have lifecycles beyond commercial ships,” said Mr Baker. “And ships are built in excess of what tugs can cope with.” This is why there is continuous need for tug operators to update their fleets with more powerful and stable tugs, with higher bollard pulls. Mr Baker also highlighted how in some ports, the space for manoeuvring these larger ships is unchanged, resulting in ship-handling challenges. “In some ports there is barely enough space for tugs to assist ships,” he said. Capt Morris agreed there is limited space in ports and waterways, such as the Manchester Ship Canal in the UK. He provided a perspective on tug design from a pilot’s viewpoint. Which on many ship bridges does not include visualisation of the tugs handling them. “What pilots need from tugs is that they can do the job required,” said Capt Morris. “Some designs are better for different jobs, therefore we need the correct tug for the job.” Another important consideration is close co-operation and communication between pilot, ship captain and tug master. “On the majority of ships, pilots cannot see the tugs from the bridge and tug masters cannot see the ship bridge,” said Capt Morris. “Pilots need to be aware if there are issues. Tug masters need to tell the pilot if there are problems with the tug, or if there is a need to reduce speed.” In an interactive webinar, attendees were asked their views on various elements of tug stability. First they were asked what they thought the average commercial life expectancy of modern harbour tugs is. Just 1% of those responding said up to 10 years, and 17% voted 10-20 years. The majority (62%) thought it was 20-30 years, and 20% voted for more than 30 years. Attendees were then asked what would deliver the greatest improvement in the safety of escort tug operations. Of the responses, 20% were for crew training, 7% for electronic inclinometers, 3% for

escort tug safety placards and 70% voted for all of these together. They were also asked how owners and operators regard placing reasonable maximum angle limitations on downflooding when determining a tug design's maximum bollard pull. 35% thought it was very important, 42% said important, 16% voted for 'of middling importance', 5% said of no great importance and 2% thought of no importance. In another poll, attendees were asked how owners and operators regard having IMO-harmonised stability criteria across all classes and all flag states. 51% said it was very important, 43% thought it was important, 4% said it was of no great importance and 2% of middling importance. *(Source: Riviera by Martyn Wingrove)*

OWNERS BENEFIT FROM SMART TUG OPERATIONS

Data flow and digitalisation have significant potential for every link in the tug industry, explained a panel of experts during Riviera Maritime Media's Smart tug operations: harnessing data and digitalisation webinar, supported by Caterpillar. This webinar, sponsored by LionRock Maritime, OptiPort and Wilson Sons, was held on 31 March 2021 as part of Riviera's ITS TUGTECHNOLOGY Webinar Week, which was supported by the European Tugowners Association and UK Maritime Pilots Association. On the panel were Caterpillar services delivery manager Jeremy Hartings, LionRock Maritime founder and managing director Rick Broersma, OptiPort general manager Patrick Everts and Wilson Sons commercial manager Eduardo Valença. These experts agreed owners and operators, ports, terminals and other stakeholders in the supply chain can gain insight into operations and make better decisions to optimise operations through data analytics. They discussed how unlocking the potential requires the ability to understand and apply data flows and digitalisation technologies. Benefits identified during this webinar included remote monitoring, improved vessel performance, voyage optimisation, resource planning, environmental and regulatory compliance and enhanced support for seafarers. Mr Valença provided a tug operator's perspective while highlighting investments made by Wilson Sons

to turn tugs into data miners. The Brazilian tug owner has started using digital twins and collecting bathymetric data in ports to optimise dredging and tug operations. Wilson Sons has acquired minority equity participation in Israel-based start-up Docktech to gain access to its digital twin technology. It intends to combine this with depth measurements from its harbour tugs to recognise patterns in seabed changes in ports, improving navigational safety and reducing the need for harbour dredging. "Our tugs are data-mining assets. We are getting real-time hydrographic and bathymetric data in ports using tug echosounders and GPS," said Mr Valença. "We believe using tugs to run data could be done to combine port data with vessel and bathymetric data to optimise operations, maintain shipping channel depths and improve port traffic," he explained. Wilson Sons has equipped 10 tugs with DockTech's onboard data collector. It plans to equip up to 40 tugs by May 2021. Mr Hartings explained how tug owners can use engineroom data to prevent vessel downtime. "It is all about turning data into actions through digital tools," he said. "By monitoring vessel equipment, operators can identify anomalies and act on them." Caterpillar provides asset intelligence and proactive monitoring of tug engines and generators. It can provide data to tug owners for their own analysis and applications, or Caterpillar can remotely monitor and apply its own advanced analytics to provide insights. The engine manufacturer can also provide a support person in owners' offices to provide advice. "Proactive monitoring, so we are not constantly fighting fires, is key," said Mr Hartings. "This helps with scheduling and dockings, lowering lifecycle costs and reducing time to react," he added. Mr Broersma explained how data from various sources, including Automatic Identification System (AIS) helps operators to make better commercial decisions and gain competitive advantage. "We use AIS data, add metadata and look at the movement of tugs and ships," he said. "We use information from ships and tugs – their dimensions and bollard pull – and operational data." LionRock uses this data to provide commercial port operations information to tug owners. "We identify tug jobs and use our knowledge about the industry to provide data-driven insights," said Mr Broersma. This can include estimating the number of tows and duration of each job, demand for tug services, fluctuations in port calls and potential for future growth. "Data is critical for commercial success," said Mr Broersma. It can be used for contract renewal negotiations, retenders and future fleet investment. Mr Everts explained how data enables optimised tug dispatch for towage and berthing work. "We can use data to realise smart tug operations," he said. "Data supports decision making, asset optimisation, remote monitoring, voyage optimisation and better tug deployment." Mr Everts identified two types of data, including static, historic data for trend analysis and live information for immediate actions. Kotug-owned OptiPort can help owners to reduce operating expenditure by up to 30% using artificial intelligence (AI)-based software and algorithms to manage tug dispatch. OptiPort can identify where inefficiencies are and provide solutions to rectify these. "There is a lot of sub-optimisation in ports," said Mr Everts. "Tugs sail much faster than they should, wasting fuel." This could occur because dispatchers are working multiple jobs with several tugs and are unable to cover all with tugs transiting at optimal speeds. "Dispatchers need to decide which tug to use when and where," Mr Everts continued. "There are trade-offs when scheduling multiple tugs. It is important to make the right decisions, supported by data." Cloud-based OptiPort provides data, insights and decision advice. "There are huge savings – we have proven 25-40% of operating expenditure savings," said Mr Everts, "by better scheduling assets and with actionable intelligence providing layers of support to decision makers." Attendees of the webinar were asked their opinion in various poll questions. In one they were asked which area of their business they expect data and digitisation to be of highest value. Half of the respondents said it was in operations, 20% said commercial and business development, another 20% said technical, 8% said finance and 2% said none of the above. They were asked to agree or disagree with several viewpoints. Firstly: In order to make the best decisions and daily manage my operations I am reliant on real-time data flows: 52% strongly agreed, 38% agreed and 10% disagreed. Secondly, they were asked to comment on: I am concerned about what my competitors can do with

data that I cannot commit to new systems: 6% strongly agreed, 40% agreed, 23% disagreed, 6% strongly disagreed and 25% neither agreed nor disagreed. Thirdly: "In managing and optimising your business, you have adequate and accurate data available to you: 16% strongly agreed, 39% agreed, 21% disagreed, no one strongly disagreed and 24% neither agreed nor disagreed. *(Source: Riviera by Martyn Wingrove)*

SANMAR SELLS POWERFUL COMPACT TUG TO UK PORT AUTHORITY

Sanmar Shipyards has sold the tug **Sirapinar XII** to Portland Harbour Authority which operates the former Royal Navy harbour at Portland, Dorset, on the UK's south coast. Formerly operating as part of Sanmar's own fleet, the 2019-built **Sirapinar XII** is a twin Z-drive, diesel powered tugboat designed for maximum efficiency when performing ship-handling duties for sea-going ships. Langham Industries took over control of Portland Harbour from the Royal Navy in 1997, since then it has developed into a thriving commercial port, that handles cruise ships, cargos, bunker vessels and also maintains a strong relationship with the Royal Navy and the Royal Fleet Auxiliary. Powered by two Caterpillar 3512C main engines, each producing 1,500kW at 1,600 rev/min, the 22.4m x 10.80m x 4.89m **Sirapinar XII** has a bollard pull of 50 tonnes and can achieve a speed ahead of 12 knots. Propulsion is provided by Schottel SRP 360 FP Z-drives and the vessel has a fuel oil capacity of 70m3. Vimal Choy, Head of Regional Sales, Europe of Sanmar, said: "The Sirapinar series is exclusive to Sanmar and has been one of our most successful in terms of popularity and achievement. A compact, yet powerful little sister to our larger Bogacay tugs, it combines the low operational and maintenance costs associated with a compact hull, with manoeuvrability and a hefty bollard pull." Mike Shipley, General Manager (Marine) at Portland, said: "We are extremely happy with the tug and that of Sanmar's professionalism and attention to detail from initial contact to final delivery of the tug here in Portland. The '**Rupert Best**' will prepare us well for future port developments." Bill

Reeves, CEO at Portland, said: “I am delighted that we have added the new Sanmar tug to our fleet. The people at Sanmar have been a pleasure to deal with and have been professional and responsive throughout.” *Press Release)*

ROSRYBOLOVSTVO PLANS TO UPDATE THE RESCUE FLEET

Prospects for renewal of the Rosrybolovstvo's emergency and rescue fleet became one of the topics of the meeting held at the Northern Expeditionary Rescue Team (Northern EO ASR). This was reported on March 26 in the joint press service of the Federal Agency for Fishery. The meeting dedicated to the prevention and reduction of accidents on ships of the fishing fleet was held under the leadership of the Deputy Head of the Federal Agency for Fishery Petr Savchuk. The meeting also discussed issues of organizing emergency rescue operations, increasing the level of material and technical support, fulfilling obligations under international treaties and agreements. As a result of the meeting, Petr Savchuk instructed the Northern EO ASR to develop and implement a basin plan for search and rescue within the framework of the rules approved by the Russian government, the Rules of interaction during search and rescue operations at sea. *(Source: Sudostroeni; Photo: Rosrybolovstvo)*

DESTINY DEMOLITION FOR MANCOR DECIMO FROM LA SPEZIA

The demolition will be the destiny of the small tug **Mancor Decimo**, of the fleet of the Sub-Mariner La Spezia. This was announced by a petition registered in recent days by the Port Authority of La Spezia, filed by the sole director of the company Laura Lorenzetti, with whom the will to proceed with the voluntary demolition of the vehicle is communicated. 18.55 meters long and almost 5 meters wide, the **Mancor Decimo** has a fixed-point shooting capacity of 53.65 kiloNewton and can perform "coastal navigation". Sub-Mariner is a La Spezia-based company specialized in the maintenance of marine and submarine pipelines, in particular in the Cinque Terre area. His activity also includes marine works under the coast and laying of dead bodies. According to

its website, after the **Mancor Decimo** is released, its fleet will still include two tugs, the **Colossus** and the **Anna Maria**. *(Source: Shipping Italy)*

A BARGE IS SAILING ALONG SHEKSNA: COMMISSIONING WORKS HAVE BEGUN AT CHEREPOVETSKY NW

The Cherepovets shipyard, located in the area of the former shipyard, which ceased to exist in the early 2000s, has started commissioning. This is reported by ANO Agency for Urban Development of Cherepovets. Director of the Urban Development Agency Oksana Andreeva commented on the implementation of the project: "The enterprise has become the main contractor for the design and construction of the head barge-tug train, consisting of a pusher and two barges. The barges will be assembled in Cherepovets. The assembly shop and slipway are already ready. " The barge sections are now in the welding shop. They will be collected on the slipway. It should be noted that the enterprise will be able to produce river vessels with a dock weight of up to 1,000 tons, and up to 10 units per year. Due to the fact that the plant is a resident of the PSEDA "Cherepovets", the enterprise has tax benefits and preferences. In addition, it will provide the city with 150 new jobs. *(Source: Sudostroeni)*

SANMAR TO DELIVER THE 5TH ROBERT ALLAN DESIGN TUGBOAT TO ITALIAN OPERATOR

Sanmar Shipyards will deliver the second very high performance ASD RAstar 2800 tug, designed with a sponsoned hull form, to long-established Italian operator Rimorchiatori Napoletani S.R.L. in May 2021. She will be the exact sister of **BAIA** delivered back in May 2020 to Napoli by Sanmar's own delivery crew. Sanmar has previously delivered two 50 tonnes BP RAmparts 2200, one 75 tonnes BP RAmparts 2400SX and another 80 tonnes BP RAstar 2800 to Rimorchiatori Napoletani fleet. The tug Sanmar Terminal XXIX's unique hull shape, designed by Canadian naval architects Robert Allan Ltd

and proven in both model and full-scale testing and seakeeping performance, means roll motions and accelerations are less than half those of comparable sized 'standard' tug hulls. The escort forces are enhanced by the effects of the sponson as well as the foil-shaped escort skegs fitted. The 28.2m LOA x 12.6m moulded beam x 5.3m extreme draft Sanmar Terminal XXIX is a Robert Allan Ltd RAstar 2800 powered by two Caterpillar 3516 C HD main engines, each producing 2525kW at 1,800 rev/min. It has Kongsberg US255 FP thrusters and 2800mm diameter propellers, providing a speed ahead of 14 knots. She will have the Kongsberg escort forward towing winch and aft winch onboard same as **BAIA** has. The high-powered tug, which has an impressive 82 tonnes of bollard pull (BP), has been designed for escort operations in all weathers and exposed areas where a high standard of sea-keeping is required. Fire Fighting 1 class notation shall be granted by using a Caterpillar C32 dedicated diesel coupled to one (1) fire pump having a capacity of 2,700m3/hour. Although the oldest official document in the files of Rimorchiatori Napoletani is dated 18 June 1917, the company was actually established even earlier in the last decades of the 19th century to assist sail-ships during loading and unloading operations. As the steam ship traffic in the Port of Naples increased, the company expanded to carry out towage, assistance and salvage operations. Part of an ongoing fleet renewal programme, modern Terminal XXIX provides its crew with a state-of-the-art accommodation. Above deck captain and engineer cabins come with ensuite WC and shower, while the three double cabins below deck also have ensuite WCs and showers. The mess, lounge and separate galley are also above deck and special attention has been taken to reduce noise throughout the vessel. Ali Gurun, Vice President of Sanmar, said: "This is a powerful, multi purpose escort tug which incorporates experience and unique forward-thinking design. I am delighted that our good friends at Rimorchiatori Napoletani have decided to add a second Terminal class tug to their fleet which will make total 5 Sanmar built tugs in whole fleet." *(Press release)*

TWO YEARS OF UNCERTAINTY FOR TWO TUGS IN MALAGA

Uncertainty surrounds the permanence of the tugboats "**Sea Merlin**", formerly "**Lamnalco Merlin**" and "**Sea Macaw**; ex "**Afrika Macaw**", ex "**Lamnalco Macaw**", who have been moored in the port of Malaga since March 9, 2019. Since then, points out the veteran journalist Juan Carlos Cilveti in Malaga Hoy, "a cluster of vicissitudes has surrounded the stay of these two ships, surrounded by unknowns about what their future will be and when they will leave the port of Malaga", although it seems that they

are saved from the scrapyard, for now. Built in 2007 in India, these are the oil rig support tugs that have spent their operational life in Nigeria. They were being towed by another similar vessel on its way to Lakkion to proceed with its scrapping, when the tug entered Malaga in an emergency due to the waterway of one of them. They then passed through the Mario López floating dock and after being sold to another shipowner in June and July 2019, expectations for the future were truncated due to the coronavirus crisis. *(Source: Puente de Mando)*

ACCIDENTS – SALVAGE NEWS

STORM, TWO SHIPS STRANDED ON SELUMA BEACH

The storm that hit the waters of Bengkulu made two ships, namely a tugboat branded TB **Anugerah** 12 and the barge **Sentosa Jaya 2707** stranded on the beach of Pasar Seluma Village, South Seluma District, Seluma Regency, Bengkulu, Thursday. The head of Pasar Seluma Village, Hertoni, said the ship was stranded at Seluma 2 beach, Pasar Seluma Village. Currently, the entire crew and passengers of the ship and the barge as many as 11 people have been evacuated to the kades house and the condition is safe. "The ship was stranded at 04.00 WIB earlier due to a storm," said Hertoni. Currently, the people of Pasar Seluma Village are starting to crowd the location of the barge stranded. The boat is approximately 50 meters from the shore. From the information of the crew, they planned to go to Teluk Bayur Padang. *(Source: Antara Bengkulu)*

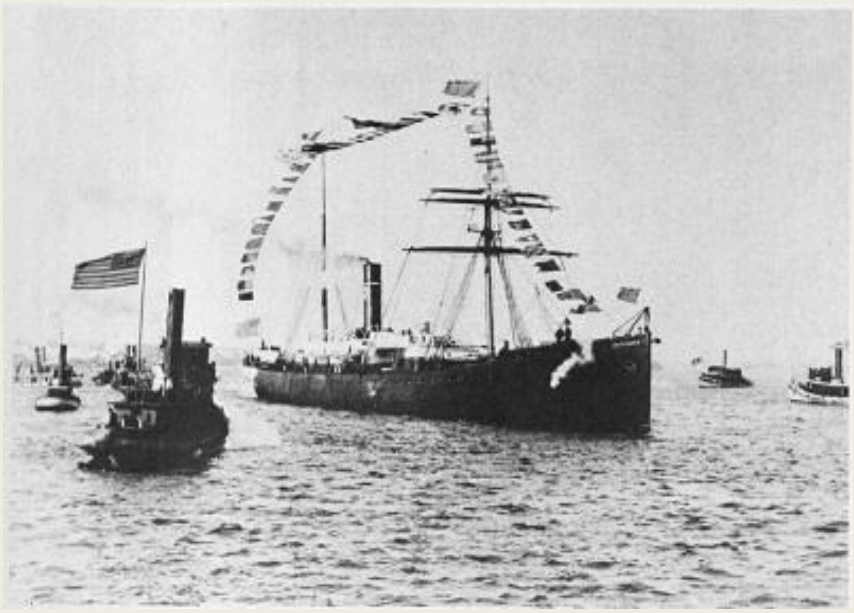
FREEZER TRAWLER CAPSIZES AND SINKS DURING CONSTRUCTION. TWO DEAD

Russian-built factory vessel, the **Skorpion**, sinks while alongside at Pella Shipyard in the Neva River.

A freezer trawler, the **Skorpion**, has capsized and sank while under construction at the Pella Shipyard on the Neva River, St. Petersberg, Russia. According to local reports, the accident happened while workers were testing the ship's ballast system. Two workers died when they were trapped below decks as the vessel settled on her starboard side and flooded. **Skorpion** was to have been received by the owner sometime in the middle of 2021. The vessel is 2380GT, IMO 9847839 and Russian-flagged. *(Source: Maritime Direct)*

REMEMBER TODAY

SS INDIANA 04TH APRIL 1909



SS **Indiana** was an iron passenger-cargo steamship built by William Cramp & Sons in 1873. The third of a series of four Pennsylvania-class vessels, **Indiana** and her three sister ships – **Pennsylvania**, **Ohio** and **Illinois** – were the largest iron ships ever built in the United States at the time of their construction, and among the first to be fitted with compound steam engines.

They were also the first ships to challenge British dominance of the transatlantic trade since the American Civil War. Though soon outclassed by newer vessels, **Indiana** was to enjoy a substantial 36-year career, a highlight of which was her transportation of United States President Ulysses S. Grant on the first leg of his celebrated 1877–78 world tour. After 24 years of transatlantic crossings, Indiana was sold for Pacific service, before being requisitioned as a troopship for service during the Spanish–American War. She was wrecked off Isla Santa Margarita, Mexico, in 1909. *Development* The four Pennsylvania class liners were constructed at a cost of $520,000 each by William Cramp & Sons on behalf of the American Steamship Company (ASC), a subsidiary of the Pennsylvania Railroad Company. The Railroad intended to utilize the vessels to bring European immigrants direct to Philadelphia, thus ensuring the company a steady stream of customers. In recognition of this purpose, the four ships—**Pennsylvania**, **Indiana**, **Illinois** and **Ohio**—were named after the four states serviced by the Railroad. Design of the ships was entrusted to Charles H. Cramp of the Cramp & Sons shipyard, and Barnabas H. Bartol, a director of the ASC.

Construction At a planned 3,000 gross tons apiece, the ships would be 1,000 tons larger than any iron ship previously constructed in the United States, and Cramp & Sons was forced to undertake a substantial upgrade of its facilities to complete them. The company established an entirely new shipyard for construction of the vessels, serviced by its own blacksmith, engine, boiler and carpentry shops, as well as providing it with a 700-foot outfitting wharf. Cost of the real estate alone was in excess of $265,000, and Cramp & Sons was obliged to incorporate as the William Cramp & Sons Engine and Ship Building Company in order to limit the financial risk involved. Fortuitously, Cramp & Sons had only recently built its first compound marine steam engine, and consequently the shipyard was able to install the vessels with the latest in engine technology. The original contract called for **Pennsylvania** to be completed by December 1, 1872, but the schedule proved optimistic. A short-lived shipbuilding boom in the early 1870s made it difficult for the Cramp shipyard to obtain iron plates and other materials, and the yard was also affected by shortages of skilled labor. As a consequence, the ship would not be ready for delivery until almost ten months later. *Service history-1870s* **Indiana** was launched on March 25, 1873, and made her maiden voyage on October 27. Like her sister ships, **Indiana's** initial route was Philadelphia-Queenstown-Liverpool, a route she would maintain for the entirety of her 24-year transatlantic service, with the apparent exception of only a handful of voyages. After the wooden bridge of **Indiana's** sister ship **Pennsylvania** was torn from the vessel in a February 1874 hurricane, a new iron bridge was subsequently installed on all four of the Pennsylvania class vessels.

Later that year, on June 18, **Indiana** was selected to host a celebratory event for the American Steamship Company's board of directors. After a tour of the ship, followed by dinner and toasts, the directors left well satisfied with what they had seen. The following year, a decision was made to increase the first class complement of all Pennsylvania class vessels from 75 to 100.On February 29, 1876, Indiana became grounded upon the Bulkhead Bar in the Delaware River, but she was freed the next morning without damage. *Participation in Grant's world tour* A highlight of **Indiana's** career occurred when the vessel was selected to convey U.S. President Ulysses S. Grant on the initial leg of his world tour. The tour was destined to be highly successful, with Civil War hero Grant greeted with great enthusiasm and ceremony at every port of call. The tour departure date was set for May 17, 1877, and Grant spent the morning at a champagne breakfast hosted by Pennsylvania Governor John F. Hartranft. Arrangements had been made for Grant and his party to join Indiana downstream, away from the crowds that had gathered to watch the departure. Boarding the steamer Twilight, Grant and his entourage sailed to rendezvous with Indiana in midstream near New Castle, Delaware, accompanied by a huge flotilla of decorated yachts and tugs and a chorus of ships' horns and whistles. The voyage to Liverpool encountered unusually rough weather, and many of the passengers suffered from seasickness, but Grant later reported that neither he nor his wife were afflicted. Arriving at Liverpool on May 28, Grant was surprised to find the harbor filled with gaily decorated welcoming vessels, and the streets packed with cheering crowds, prompting him to remark that his reception was "as hearty and as enthusiastic as in Philadelphia on our departure". He subsequently decided to extend

his stay in the city by a day before travelling on to London. Grant and his wife eventually returned triumphantly to the United States on board the Pacific Mail steamship **City of Tokio** on September 20, 1879. *1880s–1897* In 1882, the wooden pilothouse in the bow of all four Pennsylvania class ships was replaced with an iron one for safety reasons. In 1883–84, inspections revealed that all four Pennsylvania class ships required immediate maintenance to their hulls, which needed strengthening. The repairs were carried out at a cost of $25,000 per vessel, but the additional costs probably contributed to the Pennsylvania Railroad's decision to wind up the American Steamship Company, which because of the after effects of the 1873 panic had always struggled to make a profit. With the demise of the ASC, **Indiana** and her three sister ships were transferred to management of the PRR's other shipping line, the Red Star Line, but **Indiana** continued to service her familiar Liverpool–Philadelphia route. In March 1889, Indiana made a single Antwerp to New York voyage under charter to the Red Star Line, one of apparently only a handful of transatlantic crossings by the vessel that were not made on the Liverpool-Philadelphia route.

Indiana had a major refit with the installation of a triple-expansion steam engine to replace her original compound steam engine in 1891. The new engine, built and installed by James Howell of Glasgow,[10] was smaller, allowing for more cargo space, and was more economical to run. At the same time, she was refitted to accommodate only intermediate and third class passengers. In 1892, Indiana made a voyage to Czarist Russia with a cargo of grain destined for famine relief. The relief voyage was a result of the sympathetic relationship that had built up between Russia and Philadelphia via warship contracts awarded by the Russian Navy to the shipyard of William Cramp & Sons, which had kept the Philadelphian waterfront busy during an economic downturn. **Indiana** thereafter continued servicing her familiar Liverpool-Philadelphia route until 1897. She made her last transatlantic crossing commencing December 1, 1897. *Spanish–American War* Following the discovery of gold in Alaska in 1896, great demand was created for American-flagged ships to transport gold prospectors to Alaska during the resulting gold rush. Clement Acton Griscom, the executive head of the Inman Line, took advantage of this demand to sell the by now outdated Pennsylvania class vessels at a premium. On March 28, 1898, **Indiana** sailed from Philadelphia to Seattle on the Pacific Coast. There, the vessel was sold to the Empire Line for service on the Seattle–Nome route. However, in April 1898 the Spanish–American War broke out, and **Indiana** was requisitioned by the U.S. Navy as a troopship. Later in the war, she served as a hospital ship, returning wounded troops from Manila, Philippines via Honolulu to San Francisco. Nine of the wounded died during the voyage. *Final years* After the war, **Indiana** was acquired by the Pacific Mail Steamship Company, which utilized her from New York to South America as well as in the Northwest. On April 4, 1909, **Indiana** was grounded off Cape Tosco, Isla Santa Margarita, Mexico. The accident tore out the ship's bottom, flooding her three holds and engine compartment to a depth of about sixteen feet. Fortunately, passengers, cargo and crew were safely removed. The vessel's wreckage was subsequently sold for $5,000 salvage, bringing to an end a long and varied 36-year career. *(Source: Wikipedia)*

OFFSHORE NEWS

MILLENNIUM 3

The DP 2 Multi Purpose workbarge **Millennium 3** under management of Mubarak Marine LLC Dubai UAE which was mobilized for the B-80 SPM CALM Buoy installation project for Hindustan Oil Exploration Company Ltd in Chennai India. The project will commence on April 10, 2021 and is located 61 miles north west of Mumbai. *(Source & Photo: © Gerard Maijntz)*

AKER BP OBTAINS SAFETY CONSENTS FOR VESSEL OPERATIONS IN NORWAY

Norwegian oil and gas company Aker BP has received two consents related to vessels operations from the country's offshore safety regulator, the Petroleum Safety Authority (PSA). The first consent is for the use of two mobile drilling vessels, the Island Constructor and **Island Wellserver**, for light well intervention on three offshore fields, Alvheim, Skarv, and Ærfugl. The consent applies to several field/production licences until 31 December 2025. The Alvheim field is located in the North Sea while Skarv and Ærfugl fields are located in the Norwegian Sea. The Alvheim field has been developed with subsea templates tied to a production ship (FPSO). Production started in 2008. The development concept for the Skarv field is an FPSO vessel with five subsea templates with fifteen wells. The first production started in 2013. The Ærfugl field is also tied to the Skarv FPSO. *Aker BP changing ERRV vessel on Ula* Furthermore, Aker BP has been given consent from the PSA for a change of use of the emergency response and rescue vessel on the Ula field. The **Stril Mariner** vessel currently operates as an emergency response and rescue vessel for Ula and Tambar fields, undertaking

both emergency response and operational tasks. The vessel was awarded a new contract for ERRV services by Aker BP in November 2020. It has been in service for Aker BP and its predecessor BP Norge for 11 years. However, as explained by the safety regulator, Aker BP is working to streamline the vessel logistics on the southern field and consequently wishes to remove **Stril Mariner** from Ula. Compensatory measures will be taken to ensure that emergency response is maintained and that the operational tasks are covered by other solutions. Ula is a field located in the southern part of the Norwegian sector in the North Sea. The water depth in the area is 70 metres. The development consists of three facilities for production, drilling and accommodation, which are connected by bridges. The first production started in 1986. *(Source: Offshore Energy)*

AHTS BECOMES NEWEST 'BIOSAFE SHIP' IN VROON FLEET

Vroon Offshore's anchor-handling tug supply (AHTS) vessel **VOS Tethys** has achieved a 'Biosafe Ship' notation, the eighth vessel in the owner's Genoa fleet to receive voluntary safety certification. The Biosafe Ship notation signifies the implementation of various systems and procedures to mitigate the risk of the spread of infectious diseases. Such specialised safety notations have emerged during the Covid-19 pandemic. RINA awarded the notation to the AHTS vessel during an intermediate drydocking at Palumbo Shipyard in Malta, Vroon stated in a social media post. Biosafe Ship is a new goal-based notation, based on many different systems, components and operative procedures to control and prevent a possible onboard infection outbreak. VOS Tethys is one of eight vessels in Vroon's Genoa fleet to have obtained the notation. "Thanks to the shipyard and our VOS colleagues who ensured that, although conducted at very short notice and under strict Covid-19 restrictions, the docking was completed efficiently and in line with the planning," said Vroon. The voluntary notation is based on a biosafe index that takes into account different systems, components and operative procedures to control and prevent possible onboard infection outbreak. This covers ship arrangements, systems and components, procedures and training. Ship's design solutions, for example, can be used to prevent and control an infection on

board, such as access and routes for people and goods, public space and working spaces. RINA says health screening, distancing monitoring, sanitation and measures to prevent the permanence of the virus on the surfaces, together with novel technologies, play an important role in preventing the risk of infections. Training on health issues in normal and emergency conditions is vital for the seafarers on board, in particular for those who play important role on the monitoring, control and management of the health conditions on board. *(Source: Riviera by John Snyder)*

FUGRO SELLS SEABED GEOSOLUTIONS TO PETER ZICKERMAN'S PXGEO

Dutch subsea and seismic specialist Fugro has sealed an agreement with PXGEO Seismic Services (PXGEO), a firm founded by Polarcus founder Peter Zickerman, to sell certain assets and the related business of subsidiary Seabed Geosolutions. The unit was sold for around $16m, and the transaction is scheduled for completion mid-2021. The sale includes Seabed's ocean bottom node (OBN) inventory, handling equipment, related technology and order backlog. A significant number of personnel will also transition to PXGEO, however Fugro will retain the **Hugin Explorer** vessel which is involved in ongoing litigation. Mark Heine, CEO of Fugro, commented: "I am pleased to announce this divestment, which is a key priority on our 2021 management agenda. It represents the final step in our exit from deep seismic data collection, which does not fit our path to profitable growth strategy. Our strategy is centered around providing insights from geo-data to support our clients in managing their project risks during design, construction and operation of their assets. The divestment proceeds are fair considering today's challenging circumstances in the seismic market, and we believe that PXGEO is a better owner of these assets and well positioned to take this business forward." Polarcus is currently in provisional liquidation after lenders withdrew support for the company last month. *(Source:Splash24/7)*

PIPELAYER SEVEN OCEANS MAKES A CAPE TOWN CALL

The oil and gas industry provides the most diverse range, class and appearance of vessels in the

maritime sector. These vessels are literally the good, the bad and the ugly, from the humble platform guard vessel to the giant semi-submersible crane ship. One of the specialised vessels of this industry is the pipelayer, designed to lay the network of subsea pipelines and flowlines that connect the seabed oil and gas field infrastructure to the mother platforms and the shore terminals. Cape Town saw the arrival of one such pipelayer, the **Seven Oceans** (Imo 9358826), arriving on March 30th at 1000 after a long voyage from Willemstad, on the island of Curacao, in the Caribbean,

'Seven Oceans' berthed at the Eastern Mole to take on 2,900 tons of bunkers. Built in 2007 at the Merwede Shipyard at Giessendam in Holland, Seven Oceans is 157 metres in length and had a deadweight of 12,430 tons. Owned by Subsea 7 of London, and managed by Subsea 7 International Contracting of Sutton of Surrey, located south of London. Her design gives her great maneuverability and she if fitted with six thruster, with three Azimuth Thrusters aft, two Azimuth Thrusters forward and with a Tunnel Thruster forward. This manoeuvrability meant that on arrival in Cape Town Seven Oceans had no need for tug assistance and berthed by herself at her bunker berth. A specialised pipelayer, Seven Oceans is designed for the installation of all known types of both flexible pipes and rigid pipes up to a diameter of 16" on the ocean floor, in deepwater and in depths of up to 3000 metres using the pipereel 'J-Lay' method. This method of pipe lay is the fastest method for installing oil pipelines on the seabed as the lengths of pipeline have already been welded together on shore and loaded onto the pipereel. This allows Seven Oceans to continue underway whilst the pipelaying is in progress. With an installing speed of 35 metres per minute, a theoretical 100 kilometres of pipes can be installed on the seabed in just two days. Up to 3,600 tons of pipe can be loaded onto the main reel and Seven Oceans is able to deploy two remote operated vehicles (ROVs), which can monitor the pipelaying activities as they occur. Besides pure pipelaying, the ship can also be used for offshore construction using her 400 ton capacity crane, for ROV support and seabed survey activities. Prior to her arrival in Cape Town, Seven Oceans had laid the subsea pipeline network for the BP Mad Dog 2 project, located in the Gulf of Mexico, 200 miles south of New Orleans. It is expected that when she sails she is headed for Northern Mozambique and the Rovuma Basin, where she will be involved in the pipeline installation project for ENI's Coral Sur gas field. *(Source: Ports & Ships by Jay Gates)*

DEEPOCEAN CHARTERS VOLSTAD'S VOLANTIS VESSEL

Norwegian vessel owner and operator Volstad Maritime has secured a contract with subsea services provider DeepOcean for the **Volantis** vessel. Under the contract, the subsea construction vessel Volantis will continue the work in the U.S. Gulf of Mexico region throughout 2021, with options for 2022 attached. Tor Erik Andersen, Commercial Director at Volstat, said: "We're very pleased to continue the relationship with DeepOcean and delighted to support them further with an extension to the Volantis contract. Volantis combined with the DeepOcean equipment makes for a highly

workable and competitive package, and we wish them all the best with the remainder of 2021". The Volantis is a dynamically positioned multi-role subsea construction vessel, which incorporates a 150te Active Heave Compensated subsea crane. The vessel is permanently mobilised with an Installer Work Class ROV and Seaeye Panther XT III A Work Class ROV, which can be launched and recovered in high sea states. *(Source: Offshore Energy)*

MAGAZINE E-MARITIME MARCH 2021 JUST RELEASED

The magazine e-maritime March 2021 just released https://e-maritime.cz/new-coastal-road-in-reunion-bidston-lighthouse/

It brings information on design and construction of New Coastal Road in Réunion, the spreader beam which was designed for placing the anti-scour protection of the piers, and about Bidston Lighthouse, located on the Wirral, across the River Mersey from Liverpool in England.

June Issue will be released on 30 June, and will focus on Shipyards, Maritime Industry and Construction in Malta.

The magazine e-maritime is an international, interactive, peer-reviewed magazine about vessels, ports, docks and maritime equipment, their design, construction, operation and maintenance, published at www.e-maritime.cz.
It is published three times a year: 30 March, 30 June and 30 November. Subscribe (free of charge): https://e-maritime.cz/subscribe/

September Issue is shared with the magazine e-mosty: BIM / Vessels and Equipment used for Bridge Construction, www.e-mosty.cz

Both magazines can be read free of charge (open access) with possibility to subscribe.
The magazines stay available on-line on our websites as pdf.

NOC EXTENDS 36-YEAR CLIMATE CHANGE STUDY IN NORTHEAST ATLANTIC OCEAN

The National Oceanography Centre's (NOC) RRS Discovery has set sail for an expedition to the Porcupine Abyssal Plain Sustained Observatory (PAP-SO), aimed at understanding the long-term changes in the oceans. Led by Sue Hartman, the expedition will extend a 36-year long observation at the PAP-SO that dates back to 1985. The observation is critical to understanding long-term changes in the oceans, according to NOC. The science and technical teams onboard will carry out a range of water column and seafloor sampling data collection operations. Additionally, they will continue the long-term measurements of sedimentation events and water currents within the Whittard Canyon, a major subsea canyon system within a geological feature that hosts England's only deep-sea marine protected area. The team will service a UK Met Office buoy that monitors Atlantic weather for wind speed and direction, relative humidity, air and sea temperatures, atmospheric pressure, sunlight, atmospheric CO2, wave height and period. This five-kilometre-deep ocean mooring is also equipped with NOC oceanographic sensors that test for salinity, temperature, CO2, O2, ocean acidity, phytoplankton pigments, nutrients, and sunlight. These measurements will be used to study natural variability in the ocean. A second PAP-SO mooring carries a series of sediment traps that monitor seasonal variations in the sinking particles that carry carbon from the surface ocean to the deep-sea floor. The oceanic uptake of CO2 reduces atmospheric levels of this greenhouse gas. Following this carbon, from the surface to ocean depths, will show how much carbon is locked away under the sea. In addition to extensive water column and seafloor sediment sampling, the team will use a marine autonomous robotic vehicle to video and photograph the seafloor, NOC said.The vehicle will document the presence of the particulate organic matter and larger wildlife that it feeds, such as sea cucumbers and sea anemones. Sue Hartman said: "This is an exciting expedition that extends a unique observation which the National Oceanography Centre has run for 36-years. The new observations and samples that we collect are needed to study the changing Atlantic Ocean and

climate regulation and ocean services. The research will assess how the ocean and deep-sea ecosystems will evolve as a result of climate change and intensified human exploitation". *(Source: Offshore Energy)*

MUSEUM NEWS

EEN STUKJE BIJZONDERE DIENSTVERLENING DOOR HET SLEEPVAARTMUSEUM BELICHT

Musea behouden, interpreteren en bevorderen het natuurlijk en cultureel erfgoed van de mensheid. Musea die collecties bewaren, beheren deze voor het welzijn van de samenleving en haar ontwikkeling. Musea bewaren primaire bronnen waarmee kennis opgebouwd en bevorderd kan worden. Musea bieden mogelijkheden voor waardering, begrip en bevordering van het natuurlijk en cultureel erfgoed. Museale faciliteiten bieden mogelijkheden voor andere vormen van dienstverlening en publieksvoorzieningen. Musea werken nauw samen met die gemeenschappen waar de collecties vandaan komen alsmede de gemeenschappen ten dienste waarvan zij werken. Musea werken binnen een wettelijk kader. Musea werken op een professionele wijze. In lijn hiermee is de concrete doelstelling van het Nationaal Sleepvaart Museum (NSM) Maassluis: De Stichting Nationaal Sleepvaart Museum Maassluis heeft ten doel het in stand houden van een museum in Maassluis, waarvan het verzamelgebied zich uitstrekt over alle aspecten van de Nederlandse zee- en binnensleepvaart, zowel in het verleden als contemporain. Het NSM levert op deze wijze een belangrijke en unieke bijdrage aan het bewaren en uitdragen van (de kennis van) cultureel/industrieel erfgoed. De geschiedenis van een destijds (en bij vlagen nog steeds) wereldberoemde typisch Nederlandse bedrijfstak, ook wel "Hollands Glorie" genaamd, blijft op deze wijze voor het nageslacht bewaard. *De doelstelling wordt bereikt door:* - het verzamelen en tentoonstellen van modellen, maritieme kunstuitingen en andere voorwerpen; - het verzamelen,

bijhouden en ter inzage geven van documentatie; - het organiseren van educatie, rondleidingen,

lezingen, dia- en filmvoorstellingen, alles de sleepvaart in ruime zin betreffende; - het publiceren van een website met actuele informatie. *Extra dienstverlening: speciale onderzoeken* Daarnaast is uit de museumfunctie "het ter inzage geven" een ander niet onbelangrijk fenomeen ontstaan, nl. het op aanvraag actief rechtstreeks aan geïnteresseerden verstrekken van hoogwaardige specialistische en/of gedetailleerde informatie over sleepboten, nautische situaties, gebeurtenissen en achtergronden, bemanningen/opvarenden en wat dies meer zij. Een "pool" van deskundigen binnen het museum houdt zich hiermee bezig. Het adequaat kunnen beantwoorden van deze vragen - wat wij overigens met veel plezier doen - vereist van deze vrijwilligers uitgebreide kennis van het aandachtsgebied en bovendien het besteden van veel tijd aan de hiermee gepaard gaande onderzoeken. Deze service is in principe gratis. Wat niet wegneemt dat het overwegen van een bezoek, schenking of (een- of meerjarig) donateurschap vanzelfsprekend door ons wordt toegejuicht. *(Press Release)*

WINDFARM NEWS - RENEWABLES

DEME TO INSTALL VINEYARD WIND 1 TURBINES OFFSHORE MASSACHUSETTS

Vineyard Wind has chosen DEME Offshore US for the transport and installation of offshore wind turbines at the Vineyard Wind 1 project site, located some 24 kilometres off Martha's Vineyard in Massachusetts. For the project, DEME Offshore US will team up with FOSS Maritime Company, a U.S. maritime service contractor, which will provide skilled personnel and Jones Act compliant feeder vessels for the GE Haliade-X wind turbines to be transported from the port of New Bedford to DEME's installation jack-up vessel. "The offshore wind industry has tremendous potential to create good paying jobs and investment opportunities while also reducing carbon pollution. By working with companies like DEME Offshore US LLC and FOSS Maritime, we can ensure that US labor is gaining from the experience of well-established operators, so that the

industry can take proper root and grow a fully American workforce", said Vineyard Wind CEO, Lars T. Pedersen. The DEME Offshore US office in Massachusetts will be the base of operations for activities for the Vineyard Wind 1 project. "Our method is Jones Act compliant, driven by high-tech engineering, patented solutions and special adaptions to both companies' vessels for this project. The deployment of the US feeder concept by the DEME Offshore US/FOSS Maritime Team will create a great opportunity for US mariners to get familiar with the offshore wind industry", said Jan Klaassen, Director DEME Offshore US. Vineyard Wind, a joint venture between Avangrid Renewables and Copenhagen Infrastructure Partners (CIP), plans to reach financial close for the project in the second half of this year. At the beginning of March, the U.S. Bureau of Ocean Energy Management's (BOEM) released the Final Environmental Impact Statement (FEIS) for the offshore wind farm, shortly after resuming the process which had been halted following the developer's decision to switch from MHI Vestas to GE Haliade-X wind turbines and to carry out a technical review of the plan with the new turbine model. The 800 MW offshore wind farm, slated to become the first large-scale offshore wind farm in the U.S., is expected to be operational in 2023, from when it will be providing clean electricity to more than 400,000 homes. *(Source: Offshore Wind)*

GREAT POTENTIAL FOR ESVAGT IN US WIND

JOINT VENTURE: As the European market leader in offshore wind, ESVAGT has closely followed the development of the rapidly growing American offshore wind market. Now, ESVAGT is establishing an American joint venture in Florida. The Eastern Seaboard in North America is home to one of the fastest growing global markets for offshore wind. More than 25 GW of offshore wind has already been projected and much more is on the horizon; the Americans' ambition to produce 86 GW of green offshore wind energy by 2050. That is four times the level currently produced offshore in Europe. This growing market has led several Danish park operators and wind turbine manufacturers to establish themselves in the US and to encourage their European suppliers to follow suit and help establish the logistics, infrastructure, and supply chain of competent partners necessary to fulfill the ambitions. ESVAGT, European market leader in offshore

wind, has thoroughly prepared for this call, and now, the Danish company is establishing itself in the United States, setting up a joint venture operation with the American Crowley group based in Jacksonville, Florida. 'The US has ambitions to develop offshore wind to a level that matches the current level in Europe. If you consider yourself a key player in the green transition, and at ESVAGT we do just that, you want to take part in fulfilling those ambitions', says ESVAGT's CEO Peter Lytzen: 'Offshore wind has evolved from a European project to a global industry. Naturally, we look at how we can expand and join our customers on new markets with potential, and the United States certainly falls into that category', he says. *The Jones Act is demanding* Most likely, the many GW of offshore wind energy planned in the US will be commissioned by experienced European companies with the right knowledge and track record. 'This combination makes the Eastern Seaboard an obvious choice for us,' says ESVAGT's Chief Commercial Officer, Søren Karas: 'There is a critical mass and a green ambition one can only admire. In addition, the American market is characterized by players we have worked with for many years in Europe. We know that they value a safe, efficient and competent partner in building a new, green industry and we are confident our SOV concept (Service Operation Vessels for servicing offshore wind farms), experience and competencies can make a positive difference in the US', says Søren Karas. However, establishing a US operation is far from easy. The American Jones Act law dictates that all vessels operating domestically in the United States must be built in the United States, fly the American flag, have a U.S. crew, and be majority owned by a U.S. citizen. With ESVAGT carrying Danish flag, a primarily Scandinavian crew and a fleet of vessels built in Norway, Singapore, Spain and Turkey, compliance with the Jones Act is no easy feat, Søren Karas emphasizes: 'It is cumbersome and a hassle, and that is just the way it is. We have gotten to know our legal team a lot better. However, the many in-depth, detailed discussions have also helped to clarify for all of us how we want to work as a joint venture,' says Søren Karas. Peter Lytzen, who has experienced the joint venture process before, agrees: 'Much of what we have done in order to operate under compliance with the Jones Act is also relevant to the partnership itself. A joint venture is a marriage and spending a lot of time solving a difficult structural task together is not a bad thing for the further process,' says Peter Lytzen. *Partners in values* ESVAGT has collaborated with the Danish embassy to find the right partner for a joint venture. The list of formal requirements, wishes and thoughts about what the ideal partner should look like has been long: 'At the beginning of such a process, it is facts and checklists: We are looking for a match on our desires for infrastructure, access to competencies and a strong local network for example. That part is relatively simple,' says Peter Lytzen: 'It is more difficult to formulate how the ideal partner should act and condone itself. ESVAGT is a company based on a strong set of value principles, and it was probably implicit that our partner should be, too. We have sought a partner where we can recognize our set of values in theirs,' he says. That part has been challenged by the restrictions that the corona pandemic has brought with it. 'Spending time together – not least informal time – is the best way to establish that bond; to get a sense of the ethics and values of a potential partner. It is difficult to get that through a set of Teams Meetings,' says Søren Karas: 'We have found, however, that Crowley and ESVAGT have many common points of reference. We especially share the core values of safety and quality,' says Søren Karas. *(Press Release)*

VAN OORD CLINCHES SOFIA EPCI CONTRACT

RWE has awarded Van Oord with a contract to carry out the engineering, procurement, construction, and installation (EPCI) of the monopile foundations and the inter-array cables for the 1.4 GW Sofia offshore wind farm. Sofia is sited on Dogger Bank in the central North Sea, 195 kilometres from the North East coast of the UK. Through its UK branch MPI Offshore, Van Oord

will create a logistics hub to deliver the scope of work. Offshore installation vessel Aeolus will be deployed to install the 100 extended monopile foundations without transition pieces. The 350 kilometres of array cables will be installed by cable-laying vessel Nexus. Van Oord will sub-contract the fabrication of the foundations and array cables. ”RWE and Van Oord know each other well having worked together on four UK projects prior to the signing of this most recent EPCI contract for foundations and array cables,” Sven Utermöhlen, Chief Operating Officer Wind Offshore Global of RWE Renewables. ”At 1.4GW, Sofia is our largest and most ambitious offshore wind development to date. We look forward to leveraging our vast experience and learnings as we progress into the construction of this flagship project, and to realising its potential in terms of contributing to the UK’s net zero energy ambitions.” The project will be executed by Van Oord Offshore Wind UK from their MPI Offshore office in Stokesley Teesside. With the onshore converter station located near the village of Lackenby in Teesside and the recent announcement by the UK government of Freeport status for the Tees Valley, the area is expected to receive a boost. This will deliver opportunities for the local supply chain and create new jobs. ”Our project team is busy preparing for this great offshore wind project. Now that the contract is signed, the design phase will be started and the project team will commence its activities from our Stokesley office,” Arnoud Kuis, Managing Director Van Oord Offshore Wind. ”The recent announcement of Freeport status for the Tees Valley will further stimulate the regional development of the offshore wind sector in this area. In the coming period, we will be actively marketing our supply chain opportunities and vacancies with a focus on sourcing well-trained staff.” RWE reached the final investment decision for the GBP 3 billion Sofia project last week. The wind farm will feature 100 SG 14-222 DD wind turbines scheduled to be fully commissioned in 2026. Offshore construction is expected to start in 2023. *(Source: Offshore Wind)*

WINDEA SIX EXTENDS NORDSEE ONE SERVICE FOR FIVE YEARS

Northland Power Europe has extended the charter contract for the wind farm service vessel WINDEA Six with Ems Maritime Offshore (EMO) for a further five years. Northland Power

chartered WINDEA Six in 2018 to transport service technicians and freight to the Nordsee One offshore wind farm, located 40 kilometres north of the Island of Juist in the German sector of the North Sea. Prior to that, the operator of the Northland Deutsche Bucht and Nordsee One offshore wind farms had already chartered WINDEA Four. Both vessels have now been commissioned by Northland Power Europe until 2026 for services from Norddeich, as the contract for WINDEA Four was extended in 2018. The WINDEA Six catamaran is 27.5 metres long and equipped with a hydrojet propulsion system. The vessel can reach a speed of up to 32 knots and is capable of transporting 24 technicians and 30 tonnes of freight. The 332 MW Nordsee One offshore wind farm, which comprises 54 Senvion 6.2M126 turbines, started commercial operation on 21 December 2017. *(Source: Offshore Wind)*

FIRST TURBINE STANDS AT ZHANJIANG XUWEN OFFSHORE WIND FARM

The first MySE6.45-180 wind turbine has been installed at the Zhanjiang Xuwen wind farm offshore Guangdong Province, China, MingYang Smart Energy said. In total, 47 of these Hybrid-Drive wind turbines will be installed at the site some 20 kilometers east of Xuwen County this year. The wind farm is being developed by State Power Investment Corporation. The project will have a total installed capacity of 600 MW. The 47 MingYang turbines comprise Phase 1 of the project with a capacity of 303 MW. *(Source: Offshore Wind)*

DREDGING NEWS

HID DREDGERS PROVES SUCCESS IN EGYPT

The HID 20-inch cutter suction dredger (CSD) with discharge pipeline 550mm, delivered to Egypt recently, is currently performing the dredging operations on a lake cleanup scheme. “As a start project to our Egypt market, HID company offers the top-level design and manufacture technique,

components adopted world class brand, like Cummins engine, Vickers hydraulic systems which guarantee the dredger high efficiency and stability, PLC siemens operation system etc," said Ms. Bella Wang, Global Director of Sales and Management for HID Dredging. "The beautiful performance and reliable quality earn praise of our Egypt client," she added. During the working time, the daily dredging capacity has reached 10,000 cubic meters, that helps the investor achieve profitability in a short time. Earlier in 2021, their client from Egypt ordered three sets HID-CSD-5522 model dredger to join their other dredging projects. Now, the production is nearly completed in HID factories, and the delivery will take place in the following days. "Our extensive experience in dredge building – combined with our knowledge of the Egyptian market – proves we can be a full-service partner and support our customers in every step of the way," concluded Ms. Bella Wang. *(Source: Dredging Today)*

SHALLOWBAG BAY DREDGING WORK WRAPS UP

A 90-day dredging project to deepen and widen the channels within Shallowbag Bay and Roanoke Sound in Manteo has been completed, Dare County reports. The main goal of this program is to open up the waterways for many vessels that had previously been unable to navigate the shallow waters due to shoaling – including the Elizabeth II sailing ship docked

at Roanoke Island Festival Park. The Dare County Board of Commissioners on Nov. 16, 2020, unanimously approved a contract and grant application for the dredging project, which consisted of maintenance dredging within Ranges 1-5 of the Manteo Federal Navigation Project – approximately 2.2 miles within Shallowbag Bay and Roanoke Sound. In addition, a connector channel that extends approximately 290 feet from the northern terminus of Range 1 to the berth of the **Elizabeth II** was also dredged. The purpose of the dredging project was to deepen the channel from its previous depths of 1-5 feet and 6-7 feet to the 9-foot depth that is required in order to allow larger vessels to safely navigate the waterway. The channel was also widened to 50 feet. In addition to deepening and widening the channel to allow for the safe passage of vessels, another primary aim of the project was to make it possible for the **Elizabeth II** to finally leave its port at Roanoke Island Festival Park and head to Wanchese, where it would undergo much-needed maintenance. The dredging project – performed by Salmons Dredging Inc. – began at the end of November 2020 and was completed at the end of February 2021. Funding for the dredging project was provided primarily by the state of North Carolina, with the North Carolina General Assembly having allotted $1.9 million to pay for the project. An additional $170,000 was provided by the state's Shallow Draft Navigation Channel Dredging and Aquatic Weed Fund and the Town of Manteo. *(Source: Dredging Today)*

ROYAL IHC ON THE PATH TOWARDS ZERO-EMISSION TSHDS

Classification society Bureau Veritas has issued an 'approval in principle' (AiP) for Royal IHC's hydrogen-fuelled trailing suction hopper dredger (TSHD). In an innovation partnership with the Dutch Rijkswaterstaat, Royal IHC is exploring a new type of vessel referred to as the 'LEAF' (low energy adaptive fuel) hopper. The AiP from Bureau Veritas means that the proposed design of the vessel, encompassing its features and specifications, has been deemed acceptable in this early stage and that the hydrogen system has been safely integrated, reported IHC. The exploration phase began at the beginning of 2019 with the aim of developing a vessel that can be operational in 2024. Rijkswaterstaat has the ambition to become CO2 neutral by 2030, and needed to come up with cost-effective solutions for its coastal protection projects that could significantly reduce CO2 from 2024. With this in mind, Royal IHC has been developing a hydrogen-powered TSHD that is designed to be used to maintain the Dutch coastline. The LEAF hopper will contribute to the reduction of greenhouse gas emissions as well as harmful exhaust gas emissions in close proximity to the coast and coastal cities. When operating on hydrogen the vessel emits only water vapour. A minimal amount of CO2, SOx, NOx and particulate matter is released only during the construction of the vessel and in producing green hydrogen. In addition, many design features on the LEAF hopper contribute to low energy consumption, including an electric drive train and energy recovery systems. The reception of the AiP gives Royal IHC and Rijkswaterstaat the confidence to continue on the path towards zero emissions and further develop the LEAF hopper as a solution for CO2 neutral coastal protection works. *(Source: Dredging Today)*

YARD NEWS

DAMEN EXPANDS HOPPER DREDGER PORTFOLIO

Damen is known in the Dredging market for its array of vessels for different dredging projects. These vessels include a range of cutter suction dredgers, workboats and small to mid-size trailing suction hopper dredgers, or TSHDs. Recently the TSHD range has been renewed and expanded; the full range now covering hopper volumes from 650 m3 to 5,000 m3. The updated portfolio includes both hopper dredgers for port maintenance and multi-purpose dredgers. All designs have a number of core values in common. The starting point for the designs were that the dredger be both practical in operation and in maintenance, and have a sustainable future-proof design. Moreover, each TSHD-type can be customised easily. "Practical maintenance is of vital importance on a TSHD. Due to the continuous wear of the sand/water mixture all piping and main components need frequent checks," Olivier Marcus, Damen product director Dredging, explains. "In the design this has resulted in an efficient pipe routing, the use of high grade materials and ample space around the equipment for inspection and repairs." Moreover, the new series has been designed with sustainability in mind. For instance, no ballast water is needed throughout the operations, including sea voyages. And the designs do not have any fuel tanks in contact with the hull to avoid any future problems. The fully optimised, hence minimal amount of diesel, engines are fitted out with an SCR system, prepared for IMO Tier III, as can be expected from a responsible shipyard. "Dredge operators always have a clear idea on the various tasks their hopper dredger is to perform, whether, for instance, channel maintenance for a Port Authority or efficient sand winning, transport and discharge for a commercial operator." Olivier explains, "This specific operation requires specific gear; the new TSHD range accommodates this. As hopper volumes range from as small as 650 m3 to a serious 5,000 m3 they fit a multitude of jobs." This standard range can be seen as a platform which can be fully customised by adding various options to ensure the dredger is 100% fit for its job." The recently unveiled complete TSHD range is

the result of an industry-wide consultation. Ever increasing global trade requires revitalising ports and waterways, of which accessibility can only be guaranteed by timely and adequate dredging activities. "We fully understand that dredging is so much more than just a dredge – we therefore also offer our clients consultancy on how to tackle a dredging job, and training on the job once the dredger has arrived." By renewing and expanding the Hopper Dredger range Damen confirms its commitment to being a full service port support partner. *(Press Release)*

THE FINAL ARMAMENT OF THE SHIP "TARAJOQ" WILL CONCLUDE IN PASAJES

This afternoon, March 30, the hull of the ship "**Tarajoq**", hired by the Greenland Government for the Institute of Natural Resources of that region, left the Balenciaga Shipyard factory in Zumaia, reports Julián de Lucas . Since its launch on September 18, 2020, work has been carried out on its afloat armament in the dock attached to the Zumaiarra factory and will conclude in Pasajes, where it has been towed by the tugs "**Facal XI**" and "**Trheintaytres**". The ST-336 project corresponds to the Norwegian company Skipsteknisk AS has a budget of 235 million Danish crowns (31.6 million euros). This is the largest investment made so far in a vessel dedicated to fisheries research in that territory and will be equipped with the most modern equipment in its specialty. It displaces 2,841 tons, measures 61 m long and 16 m wide and will be powered by a MAN 8L 27/38 engine, 2,920 kW on one axle, which will allow it to maintain a speed of 14 knots. It will have accommodation for 32 people, including 20 technicians and scientists. *(Source: Puente de Mando)*

RHENUS PROJECT LOGISTICS ORGANISES SHIPMENT OF TRANSFORMERS TO FRANCE VIA INLAND WATERWAYS

The heavy-duty lighter, "**Fortitudo**", transported three transformers from the port of Duisburg to Saint-Leu d'Esserent in France via several European inland waterways at the end of March. The transport operation took the cargo along rivers and canals in Germany, the Netherlands, Belgium and France. The ordering party is Rhenus Project Logistics, which specialises in shipping project loads and heavy goods. The route started in the Ruhr region and continued through the Netherlands and along the French/Belgian river Sambre as far as the Oise region to the north of Paris. The heavy-duty lighter, "**Fortitudo**", which Rhenus has chartered on a longterm basis, is specially designed to transport heavy goods along narrow canals. The vessel is 39.15 metres long and 5.05 metres wide. Its cargo hold measures 25 by 4.60 metres and it can transport cargo weighing up to 300 tonnes with a draught of 1.90 metres. The lighter has been operating on French canals and cross-border routes since January 2019. Thanks to having its own engine, the "**Fortitudo**" can pass through locks without

any assistance, but it can also be powered by a push boat. The water-borne shipment was coordinated by the Rhenus Logistics Alsace team in Strasbourg. The three 36 MVA transformers each weigh 40 tonnes and are more than 5.50 metres long. They will be used in the energy sector in future. "This project load that we organised most recently on board the "Fortitudo", which we'll be using in the long term, confirms the importance of inland waterways for transporting large and heavy plant components. After the heavy-duty lighter was primarily used in France at the beginning, we're delighted that we can now extend its operational area to other European waterways," says Anthony Bégrand, Head of Projects and Industrial Solutions France, who organised the shipment. *(Press Release)*

EASTERN SHIPBUILDING GROUP, INC. LAUNCHES THE THIRD OF THREE STATEN ISLAND FERRIES

Eastern Shipbuilding Group, Inc. is pleased to announce that on Friday, March 26, 2021, the Dorothy Day (Hull 221) was launched at Eastern Shipbuilding Group's Allanton facility in Panama City, Florida. The Dorothy Day is the third of three new Staten Island "Ollis Class" Ferries for the City of New York Department of Transportation (NYCDOT) Staten Island Ferry Division.

Congresswoman Nicole Malliotakis, representing New York's 11th congressional district, served as the ship's sponsor and broke the ceremonial bottle of champagne over the bow. "For more than 200 years, the Staten Island Ferry has been a symbol of New York City's harbor and an integral part of our city's transportation system," said Congresswoman Malliotakis. "As the only member representing New York City on Transportation and Infrastructure and the Subcommittee on Coast Guard and Maritime Transportation, it was very insightful to see the shipbuilding company that has built the latest class of Staten Island Ferries and FDNY boats that have made their way in and around my district, along with the new class of U.S. Coast Guard cutters that will modernize our Coast Guard's fleet." Malliotakis added: "Staff Sgt. Michael Ollis is our hometown hero who bravely gave his life for our nation. His name is one that all Staten Islanders can be proud of as they view the best sites New York City has to offer." "It's a distinct privilege for Eastern to have Congresswoman Malliotakis sponsor the third Staten Island Ferry," said Joey D'Isernia, President of Eastern Shipbuilding Group. "Her presence here today illustrates the critical nature of this maritime infrastructure project and both her and Eastern's absolute commitment to the residents of New York City. We are honored that Congresswoman Malliotakis made such an effort during these challenging times." The new Staten Island Ollis Class Ferries series are named after fallen soldier of the US Army 10th Mountain Division at Fort Drum, 'Climb to Glory', Army Staff Sgt. Michael H. Ollis, a Staten Island native killed in Afghanistan on August 28, 2013 serving during Operation Enduring Freedom. The first of the series, Hull 219, is named in his honor. Staff Sgt. Michael H. Ollis, of the 2nd Battalion, 22nd Infantry Regiment, 1st Brigade Combat Team, 10th Mountain Division (Light), stepped into the path of a Polish officer, blocking him from the suicide vest of an insurgent who had raided Forward Operating Base Ghazni. Ollis has received several honors posthumously including: Distinguished Service Cross, Purple Heart, Bronze Star, Silver Star, The Audie Murphy Medallion, Polish Gold Star Medal of Honor, and the Afghanistan Star from Poland for his valor. He was 24 years old. In October 2018 Eastern's shipbuilding facilities were heavily damaged by Hurricane Michael, a category 5 hurricane that was the strongest hurricane ever to hit the Florida panhandle and the third strongest hurricane ever to hit the United States. Within days Eastern began rebuilding and within weeks the shipyard restarted production on its existing contracts, most notable of which being the Staten Island Ollis Class Ferries and the USCG Offshore Patrol Cutter. Eastern's established commercial and government business partners assisted in the recovery and within a short time much of the ESG capabilities were up and running again; the Florida panhandle economy and the economies of 33 other states depended on it. While not complete, the shipyard's rapid recovery to date is a testament to Eastern's commitment to the Staten Island Ferry program, the USCG OPC program, and its other valued customers. A little more than two years later, Eastern Shipbuilding Group and the rest of the community continues to recover and is committed to building superb ships competitively for both its government and commercial customers. *(Press Release)*

THE GOVERNMENT ALLOCATED FUNDS FOR THE CONSTRUCTION OF THE LEAD HYDROGRAPHIC VESSEL OF THE ARC7 CLASS

Prime Minister Mikhail Mishustin signed a decree on the implementation of budgetary investments in the construction of the lead hydrographic pilot ship of the ice class Arc7. This was reported in the press service of the Cabinet of Ministers on April 2. As follows from the text of the document, the cost of building an 8 MW vessel will amount to 7,067,180,000 rubles. The ship should be commissioned in 2024. The state customer is the state corporation "Rosatom", the developer is the Federal State Unitary Enterprise "Hydrographic Enterprise". The vessel will be equipped with modern navigation and hydrographic equipment, which will allow performing various works

necessary to ensure safe navigation in the water area of the Northern Sea Route. Earlier, during the conference "Russian shipbuilding 2021", a representative of the Federal State Unitary Enterprise "Hydrographic Enterprise" announced the signing of a decree and plans to conclude a contract for the construction of a lead ship of the Arc7 class by the end of 2021. As follows from the presentation of the enterprise, the start of construction of the vessel is scheduled for 2022. *(Source: Sudostroeni)*

NEW BUILDING

- Harbour Tug Delivery: 06-2021; Flag: Indonesia; Builder: PT Cahaya Samudra Indonesia; Owner: Indonesian. Name: **LAUTAN BERLIAN 717**. Yard number: 17. Imo: 9934280. GRT: 213. Length (OA): 26. Depth: 3.85. Beadth: 7.8. Engine: 2 x Yanmar 6AYM-WET RPM: 1900 HP: 829 KW: 618 Speed: Builder: Yanmar.
- Harbour Tug Delivery: 07-2021; Flag: Indonesia; Builder: PT Cahaya Samudra Indonesia; Owner: Indonesian. Name: **LAUTAN BERLIAN 818**. Yard number: 18. Imo: 9934292. GRT: 213. Length (OA): 26. Depth: 3.85. Beadth: 7.8. Engine: 2 x Yanmar 6AYM-WET RPM: 1900 HP: 829 KW: 618 Speed: Builder: Yanmar.
- Harbour Tug Delivery: 08-2021; Flag: Indonesia; Builder: PT Cahaya Samudra Indonesia; Owner: Indonesian. Name: **LAUTAN BERLIAN 919**. Yard number: 18. Imo: 9934307. GRT: 213. Length (OA): 26. Depth: 3.85. Beadth: 7.8. Engine: 2 x Yanmar 6AYM-WET RPM: 1900 HP: 829 KW: 618 Speed: Builder: Yanmar.
- Harbour Tug; Delivery: 09-2021; Flag: Undisclosed; Builder: Damen Song Cam Vietnam; Owner: South Port New Zealand. Damen Azimiuth Tractor Design (ATD) 412. Construction already begun under Damen's successful policy of constructing tug designs in advance of orders. 65t bollard pull.

WEBSITE NEWS

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Last week there have been new updates posted:

1. Several updates on the News page posted last week:

   - *Sanmar sells powerful compact tug to UK port authority*
   - *Svitzer to deploy two new Ice-Class tugs in Scandinavia region*
   - *Third and final new tug, Svitzer Wilu, welcomed to Geraldton*
   - *Sanmar delivers latest in popular compact tug series*
   - *Damen signs with South Port New Zealand for ATD 2412*

2. Several updates on the Broker Sales page posted last week

   (New page on the website. If you are interested pls contact jvds@towingline.com)

   - *70tBP Tractor Tugs for sale*
   - *4000HP Ocean Tug from 2011*
   - *High Ice Class ASD Tug for Sale in Ukraine*
   - *DP2 PSV for sale in West Africa*
   - *CrewCat for 70 pax for sale*

Be informed that the mobile telephone number of Towingline is: +31 6 3861 3662

mailto: *jvds@towingline.com*

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