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A little bit of statistics...

The downturn in the offshore oil & gas sector had its effect on the intake of orders for new vessels at shipyards in Poland. One should keep in mind though, that the intake of new orders worldwide was down in 2015 compared to 2014, with China and South Korea suffering the most.

In 2015, 17 vessels were sold by Polish yards (turnkey deliveries) with a total tonnage of 19,219 GT. As many as 7 vessels had its single tonnage above 100 GT.

Remontowa Shipbuilding delivered two vessels (car passenger ferry Prinsesse Isabella and PSV Siem Pride - both LNG fueled and the most complicated ones from Poland with a tonnage of 10,799 GT and 16,420 GT in total). According to our own research, partially based on data from IHS Fairplay’s Sea-Web database, as of June 30, 2016, the Polish order book stood at 26 vessels with a total gross tonnage of 77,299, amongst which as many as 13 vessels (68,373 GT in total) were under construction at Remontowa Shipbuilding.

In the same period (1st half of 2016) shipyards in Poland delivered 7 ships (20,580 GT in total) from which Remontowa Shipbuilding built 3 vessels: Ivako Arctica ice going cargo carrier, cable layer Siem Aimery and AHTS Avalon Sea (10,100 GT in summary).

The Siem Aimery cablelay ship delivered to Siem Offshore Contractors has been hailed as an “offshore wind new star”, and attracted international attention. The ship has commenced cable installation work on the Nordsee One offshore windfarm in the German sector of the North Sea.

In turn, the Avalon Sea AHTS delivered to Secunda Canada commenced its duty with icebreakers as a guardian of the rigs which are operating on offshore fields in Newfoundland and Labrador. The last two ships are described in this issue of our publication.

Remontowa Shipbuilding, the largest Polish producer of entirely equipped ships has taken the vast majority of orders placed in Poland for innovative and technologically advanced vessels of various types with many prototypes among them. The shipyard has also the most diversified order book within the entire Polish shipbuilding industry, which is a real challenge the company must cope with. Regardless of production for civil customers, the construction of a modern mine-hunter for the Polish Navy is nearing completion. One of the most technologically advanced naval ships in its class in Europe, the ORP Kormoran, has begun a series of its sea acceptance tests aimed to verify the ship’s readiness in a variety of operational and hydrolocation-related conditions. The ship’s delivery is expected in October 2016.

Also production of three LNG powered dual-fuel car passenger ferries for BC Ferries is in full swing. In June, a double christening ceremony took place, which marked a major milestone in the construction of the three new Salish-Class vessels. The first of the ferries - Salish Orca as we went to press in August was in intensive outfitting with its delivery scheduled for October 2016.

Grzegorz Landowski
Editor-in-Chief

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Offshore wind new star

CLV Siem Aimery on the sea, departing the port of Gdynia after delivery and naming ceremony at Remontowa Shipbuilding. Photo: Remontowa Shipbuilding

The CLV Siem Aimery, the latest vessel added to the Siem Offshore fleet was christened in a modest naming ceremony on Wednesday, 27 April 2016 at the Remontowa Shipbuilding yard. After delivery the cable layer successfully entered into service.

Some 30 representatives and partners of Norwegian Owner, as well as managers, employees and suppliers of Remontowa Shipbuilding took part in the event. Thus one of the most demanding and complex newbuilding projects in Polish shipbuilding industry has been completed, with Siem Aimery being also the sea-going vessel with the largest contract value per gross tonnage or displacement unit from Polish yards so far.

Mrs Karin Nooljen Muck, wife of Mr Lars Muck, Business Area Manager of Siem Offshore Contractors said: “I am delighted to have the Siem Aimery in our fleet, with the Siem Maxie and the Siem Aimery working in tandem, we have the best of breed installation spread available. They are a unique team of vessels that will ensure that we safely deliver our projects on time for our customers. We are planning an event later this year, where we will invite customers to visit leaving the yard on the same day, the ship was about to undergo final mobilisation prior to commencing cable loading activities for its first project assignment.

Regis Rougier, Managing Director of Siem Offshore Contractors said: “I am delighted to have the Siem Aimery in our fleet, with the Siem Maxie and the Siem Aimery working in tandem, we have the best of breed installation spread available. They are a unique team of vessels that will ensure that we safely deliver our projects on time for our customers. We are planning an event later this year, where we will invite customers to visit
Lars Muck of Siem Offshore Contractors expressed his thanks for Polish shipyard workers for concluding the construction of the innovative vessel, which - as he said "will be a star on a dynamically developing offshore wind power market".

The CLV Siem Aimery has been specifically designed and built for the installation and repair of medium and high voltage submarine cables. Having two carousels low in the vessel’s hull and a hangar-based cable deck, she is specifically designed to work in the adverse weather conditions. Siem Offshore Contractors has a long term charter agreement with Siem Offshore and will be responsible for the operations of the vessel.

Since June 2016 the CLV Siem Aimery and her installation partner vessel, the ISV Siem Moxie, have commenced cable installation work on the Nordsee One offshore windfarm in the German sector of the North Sea. The work is being executed as part of a turnkey supply and installation contract that Siem Offshore Contractors won in 2014.

The cable layer arrived on the site with the first batch of submarine composite cables loaded onto its turntables at the JDR Cable Systems facilities in Hartlepool in the UK. The first batch of Seaproof Solutions’ cable protection systems were also loaded onto the CLV. Prior to loading, the newly-delivered CLV underwent final outfitting: a trencher and two work-class remotely operated vehicles from LD TravOcean were mobilised on board together with
their launch and recovery systems, which are suitable for operations in significant wave heights of up to 3 m.

The 54 turbines of Nordsee One will be connected to the offshore substation by ten strings of cables with an overall length of approximately 70 kilometres. The submarine cables have a diameter of up to 160 mm. Commissioning of the 332 MW wind farm situated approximately 40 km north of the German island of Juist is anticipated in 2017.

Regis Rougier, managing director of Siem Offshore Contractors said of the project: “We are proud to have our ‘Siem Duo’ in the field. We had a vision back in 2012 for a new installation methodology, which has come to fruition and demonstrates to market players a new approach to safe and cost-efficient submarine cable installation.”

Thereafter the vessel will continue with the winter installation campaign of the inner array grid cable system of the Veja Mate Offshore Wind Farm in the German Bight.

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Avalon Sea AHTS delivered to Secunda Canada

Remontowa Shipbuilding SA, has strengthened its leading position among providers of multipurpose offshore support vessels and gained new clients with acquiring a new contract for the construction of AHTS destined for operation in harsh environment conditions. The Avalon Sea was successfully delivered to Secunda Canada LP on May 12, 2016.

Guardian of the rigs

Remontowa Shipbuilding has strengthened its leading position among providers of multipurpose offshore support vessels and gained new clients with acquiring a new contract for the construction of an AHTS destined for operation in harsh environment conditions. The Avalon Sea was successfully delivered to Secunda Canada LP on May 12, 2016.

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Bridge (forward - navigation part) bottom: TROV winch room.

Cable carousel compartment.

Engine control room.

Messroom.

Avalon Sea departing from Remontowa Shipbuilding in May 2016.

Photo: Remontowa Shipbuilding
The vessel is specially designed and equipped for Canadian waters and commenced a six year contract with an international oil company ExxonMobil Canada in June 2016. The vessel, to support the Hibernia and Hebron offshore fields in region of Newfoundland and Labrador (including servicing one of the world’s biggest offshore platforms - Hibernia), represents a significant step in the development of Secunda and the modernization of its tonnage.

It is also another interesting addition to Remontowa’s reference list. It is just another, of quite many so far, Remontowa Shipbuilding built vessels destined for North-American market, but the first one able to operate in extremely harsh, North Atlantic conditions.

The vessel is designed to satisfy the general demands of the offshore industry and to fulfill all the tasks and roles for a typical AHTS such as: crew transport and evacuation, transport of a variety of cargos, anchor handling and anchorage assist for other offshore units, emergency response tug, oil recovery and fire-fighting protection. Additionally, she is also intended for ice management including monitoring of freezing level and - if necessary - correcting course of moving icebergs to protect offshore installations against possible collision in region of Labrador and Newfoundland.

The vessel is equipped with a water monitor, which will break the pack ice around the platform and prevent formation of solid ice cover.

Seaworthiness of the ship in harsh, North Atlantic conditions, is enhanced with special bow shape - Rolls-Royce Wave Piercing hull. This hull shape improves seakeeping of the vessel especially during sailing against the rough seas. The Rolls-Royce Wave Piercing hull will cut through the waves, minimizing the green water intake and ensure a safer and more comfortable journey.

Ice standard of the vessel complies with ice class 1C enabling navigation in ice with thickness of 0.4 m.

The robust quasi-hybrid propulsion system increases the vessel’s operational flexibility and redundancy and minimizes impact on the environment owing to low fuel consumption.

The vessel was equipped with the most modern technology and systems.
remontowa
shipbuilding
data
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To ensure the highest standards of safety and vessel's operations. This includes integrated monitoring and control systems including applications for propulsion, power generation, automation, deck machinery and cargo handling.

The AHTS was built according to Rolls-Royce Marine design.
Remontowa Shipbuilding has a vast experience in building offshore support vessels, both in-house designed and built to renowned external designs. During the recent period of slightly over 10 years the yard has delivered 40 offshore support vessels enjoying an excellent reputation and customer recognition.

It is worth to remind, that Gdansk Ship Repair Yard Remontowa SA contributed to the Hibernia project back in the late 1990s. The Yard built two barges for transporting the platform topsides in place of her destination and mating topsides with gravity base structure. In this way, the shipyard belonging to Remontowa Holding - Gdansk Ship Repair Yard Remontowa SA - contributing to construction of fixed offshore platform in widely publicised, high profile offshore project - has earned its position in the offshore market. Now Remontowa Shipbuilding delivers the ship for supporting and protecting Hibernia platform.

According to Siem, the Avalon Sea, that is the 11th AHTS vessel in Siem’s fleet is the most advanced vessel in the Canadian market.

Hybrid shaft generator - innovative solution providing advantages such as reduction in fuel consumption and resulting NOx and CO2 emissions.

Pump room, the area of cargo lines transit, pumps and tanks compartment (for fuel, ballast, drilling fluid, etc).

ORP Kormoran on the sea

On July 13, 2016, the new minehunter ORP Kormoran departed from the port of Gdansk for sea trials in open waters of the Gdansk Bay for the first time. Commencing a series of sea acceptance tests marked another important milestone in the well advancing construction of the ship at Remontowa Shipbuilding.

Let us recall that the Polish Navy new generation mine countermeasure vessel (MCMV) ORP Kormoran (first of the”Kormoran II” class), one of the most technologically advanced naval ships in its class in Europe, was launched at Remontowa Shipbuilding on September 4, 2015.

The first model laboratory tests of the ship began a few weeks after the contract had been concluded, in September 2013. In April 2014, a ceremony of cutting the first sheets of steel for the ship took place (the hull is created out of non-magnetic steel). On 15th of September 2014, almost on the
anniversary of signing the contract, the keel-laying ceremony took place. The hull of the ship left the assembly hall on May 3rd 2015 and was prepared for launching.

This is going to be the first ship for the Polish Navy since nearly 30 years, that was constructed entirely by the Polish industry. However, Remontowa Shipbuilding, formerly known as Northern Shipyard, enjoys rich track record in the military production, since the company, in its history, has built over 400 military ships with majority delivered to the Polish Navy.

The “Kormoran II” class minehunter is dedicated to mine hunting tasks in Polish EEZ (Exclusive Economic Zone), as well as in tactical task forces in the Baltic and the North Sea and other auxiliary tasks defined by Polish Ministry of Defence. The ship once introduced into use, would also be probably expected to be involved in the operations carried out by the Standing NATO Mine Countermeasures Groups.

The vessel is designed to achieve low signature and high maneuverability, owing to use of cycloid propellers driven by diesel engines.

The contract is being executed in line with the schedule and without any interruptions. Sea Acceptance Tests which began in July confirm that the ship is going to be handed over on the expected date, in October 2016.

The sea tests are aimed to verify the ship’s readiness in a variety of operational and hydrolocation-related conditions. The program has been divided into two separate stages - preliminary tests and qualification tests. The first set includes HAT (Harbour Acceptance Tests) and “typical” sea trials in which the ship’s seaworthiness, maneuverability and functioning of all general and marine systems, appliances and plants are checked.

There were as many as 132 HATs scheduled for the minehunter of which as of mid August more than 100 were accomplished and 30 per cent of sea trials were performed.

During the first sea trials which lasted three days of July, radars, communications and navigational equipment were checked as well as Voith-Schneider cycloid propellers and silent electrical propulsion, dedicated to combat operations to be carried out by the ship.

The first tests showed that the ship performs better than expected. The preliminary tests are followed by the qualification tests which include checks related to the command and weapons control system installed on-board the ship. At the end of September, sea acceptance tests are expected to be finalised in order to commence final commissioning of the ship.

The ship’s highly specialized equipment have to be carefully checked, including ROV’s. Its mine countermeasure tasks are supported by the Morświn multi-mission ROV, developed by PG CMTM (eng. Centre for Marine Military Technology at the Gdańsk University of Technology, in short - GUT). The Morświn is capable of performing missions including mine disposal, underwater survey, identification and detection of underwater objects.

The “Kormoran II” class minehunter is also equipped with HUGIN 1000 MR autonomous underwater vehicle (AUV) delivered by Kongsberg Maritime and SAAB Double Eagle mk. III, self-propelled sonar (SPVDS).

At the second stage of sea trials, scheduled for August, complex ship’s
maneuverability tests were planned as well as checks of a hull mounted MCM sonar.

The main task for the ORP Kormoran is to detect and act against naval mines, lead vessels through the mine-infested areas, carry out reconnaissance within the sea routes and remotely controlling a variety of anti-mine warfare. The vessel has also been tailored to act as a mine-layer.

The standard operational scenario involves the initial detection, which is executed with the use of an autonomous underwater vehicle, such as Hugin 1000, which is lowered from the stern section of the vessel. Mine-like objects, which are detected by the AUV, are later classified by the keel sonar or by a remotely controlled vehicle.

The classification stage is completed, the object is being identified, e.g. with a remotely controlled disposable "single shot" mine hunting system Głuptak also delivered by PG CMTM or multiple-use vehicles. After the identification is successfully carried out, mine destruction process starts, however, the method which is to be used here is to be selected by the ship's commander.

Along with the communications, navigational and observation equipment the ship is also equipped with the key systems, essential for the combat operations to be effectively carried out. Among them are i.a.: a combat management system (SCOT-M), a ship signatures monitoring system and a triple frequency wideband, high resolution hull mounted MCM sonar.

The SCOT-M integrates the following systems: countering air, surface and underwater targets, combating asymmetric threats, technical observation, radars, communication and services provided by the integrated navigation system regarding ensuring the safety of navigation, monitoring the current geographical position and ship motion parameters.

A triple frequency wideband, high resolution hull mounted MCM sonar is designed for detection and classification of bottom and anchor mines, including those difficult to detect. The sonar is equipped with modern hydro-acoustic transducers manufactured by French company Thales.

All the above-mentioned solutions are developed by the Polish engineers and delivered by indigenous OBR Centrum Techniki Morskiej SA (eng. Maritime Technology Centre Research and Development Facility, in short - CTM), which as a member of the consortium acts as an integrator and supplier of the command and control systems installed on-board the ship.

The vessel sponsor for the Salish Eagle is Michelle Letourneau, currently a Master on the routes serving the Southern Gulf Islands. The sponsor for the Salish Raven is Jodi Gaudet, Chief Engineer on the MV Quinsam, which operates on the Nanaimo - Gabriola Island route. Both women have worked diligently over the past 20 years to advance their careers in the marine industry and are thrilled at being selected as sponsors of these newest BC Ferries vessels.

They smashed champagne bottles against the hulls of Salish Eagle and Salish Raven as the vessels.
This ceremony marks a major milestone in the construction of our three new Salish-Class vessels as they each take another step closer to entering our fleet - said Mike Corrigan, BC Ferries’ President and CEO. - These vessels, named after the Coast Salish people and the Salish Sea, represent British Columbia’s rich coastal culture and heritage, and will serve coastal communities for many years to come - he added.

It’s worth recalling that the ceremony for the first Salish-Class vessel at the Remontowa Shipbuilding yard was held on November 24, 2015. The Salish Orca is in an advanced stage of outfitting.

- They are new intermediate class of ferries, which we plan to build more than just three of these - Mike Corrigan emphasizes. - They are going to be dual fuel which is important because it reduces our environmental footprint by over 50 percent and also potentially the cost of fuel for over fifty percent which has a huge impact on keeping fares down as well as making sure we have a clean environment as possible - he admits.

The use of LNG will result in the reduction of an estimated 9,000 metric tonnes of carbon dioxide equivalent per year, the same as taking 1,900 passenger vehicles off the road annually, because natural gas is cleaner burning than traditional marine diesel fuel.

- The new ships will run on LNG as much as possible, almost completely eliminating SOx (Sulphur Oxides), reducing NOx (Nitrogen Oxides) to a fraction of what we see from diesel fuel and nearly eliminating particulate matter.

The ferries will operate every day, 365 days a year, serving the area between Victoria and Vancouver through the southern Gulf Islands providing essential service for the people living on those Islands.

- They measure approximately 107 metres and can carry 145 vehicles and up to 600 passengers and crew. The vessels will be constructed for a service life of approximately 40 years. All three are to have three eight-cylinder Wärtsilä 20DF engines, as well as LNGPac fuel systems from Wärtsilä.

The vessels, which will be the first in BC Ferries’ fleet to run on natural gas. The first vessel, the Salish Orca, is planned to arrive in BC by the end of this year. The Salish Eagle is expected to arrive early in 2017 and the Salish Raven is expected to arrive shortly thereafter in the spring of 2017.

All three vessels are planned to be in operation in the summer of 2017. The Salish Orca will sail on the Comox - Powell River route. The Salish Eagle and Salish Raven will provide service to the Southern Gulf Islands. All the three BC Ferries’ gas-fuelled ‘Intermediate Class’ newbuildings are classed by Lloyd’s Register.

- This project is the culmination of a great deal of hard work - said earlier Bud Streeter, President of LR Canada. - The outlook is good for LNG in Canada - there is availability of Canadian gas at highly competitive prices, so commercially this is looking like a smart decision for BC Ferries. Our job was, and will be, to help ensure safety and reliability in the design, build and the bunkering and operation of these ships. Passengers are the most valuable cargo so we will endeavour to contribute to the safe operation of these ships. LNG can provide significant environmental benefits and, as BC Ferries is well aware, safety comes first. We are pleased to provide BC Ferries with our assistance and expertise.
Has BC Ferries’ business operation been affected by the new sulphur requirements and, if so, in what way?
- BC Ferries has not been affected by the new requirements because we have been using ultra low sulphur fuel for several years now. We have been meeting or exceeding these new environmental requirements for several years so we do not see it impacting our business.

Various issues have been raised with respect to the new regulations’ knock-on effect beyond the shipping industry, resulting in road congestion and greater pollution. What is your position on this?
- BC Ferries is unique in the sense that the majority of our routes do not have parallel road infrastructure. For all but 3 of our 24 routes, ferries are the only means to transport vehicles to those locations.

What is the most cost-efficient option for ferry companies to meet the new requirements? Alternative fuels, retrofits, scrubbers or maybe a combination of various solutions?
- In our case it is a mix of options. We continue to burn ultra low sulphur diesel, convert some of the existing fleet to LNG where there is a business case, and finally introduce LNG in our newbuild program.

What are the greatest challenges at the moment when switching to more ecological solutions regarding ship design and performance of vessels?
- Yes, the switch was done to reduce fuel costs and to reduce our environmental impact. Last year, we spent CAD 126m on diesel to fuel the fleet. In our fleet of 35 ships, these three new dual-fuel intermediate class vessels operating on LNG alone will have the potential to save approximately CAD 3m per year, so the use of LNG will greatly reduce upward pressure on ferry fares for our customers.

Over the next 12 years, BC Ferries plans to invest over CAD 3 billion in fleet renewal, IT systems and marine structures. Are there any concrete plans so far on potential new orders?
- We have at least 10 ships to renew over the next 10 - 12 years and LNG will most likely play a role in several of those vessels.

What course do you see the ferry industry taking in the next decade?
- We have seen a considerable uptake in LNG-fuelled ferries over the last 10 years and believe that trend will continue for both economic and environmental reasons. In North America we are starting to see other operators making the switch to LNG.

What kind of technological developments can we expect?
- We have some smaller vessels as well as some shuttle ferries to build in the future, so addition to LNG, we will be working with industry and other ferry operators to explore possibilities in hybrid, electric and fuel-cell technologies. We will look to new technologies and efficiency in order to continue to deliver a safe, reliable and cost-effective service, while reducing our environmental impact.

Source: World Maritime News

Mark Wilson: **We do it for both economic and environmental reasons.**

**BC Ferries switches to LNG!**

World Maritime News has conducted an interview with Mark Wilson, President of Engineering at BC Ferries. We are presenting some excerpts.
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