NEWSLETTER MARCH 2016

NEWS FROM FORUM OKRĘTOWE MEMBER COMPANIES

NEWBUILDINGS

First of the arctic service vessels for RAL delivered from Remontowa Shipbuilding

Ivalo Arctica departing from the port of Gdansk for Aalborg.
Photo: Piotr B. Stareńczak

As announced by the Greenland based owner, on March 23, 2016 Royal Arctic Line (RAL) formally took delivery of the first of five vessels on order from Remontowa Shipbuilding, member of the Remontowa Holding capital group.

The ship in question is the arctic service container / supply vessel *Ivalo Arctica* (yard's newbuilding no. B202/1, RMDC 2880 ACV 36 TEU design). In RAL's nomenclature the ship of the B202 type is also known as a *bygdeskib*, which means the ship for servicing small settlements (scattered over the Greenland coastline).

Ivalo Arctica departed from the yard and the port of Gdansk on March 29, heading to Aalborg first, for some supplies and planned crew training and ship familiarization, then for Nuuk in Greenland, where the christening ceremony was about to take place.

Ivalo Arctica is the first of the two smallest vessels from the contract covering the construction of five ice-classed container and supply ships in three various sizes and designs, destined for Greenland's Royal Arctic Line (RAL).

The two smallest ships, featuring 36 TEU capacity each and small passenger capacity, are destined to replace the old "village vessels" and will be busy in the settlements supply year round. The first of these smallest ships is *Ivalo Arctica* delivered recently. In fact all the five ships are kind of a crossover between supply ships, geared containerships and icebreakers. They will have to meet the demands of harsh climate conditions including temperatures falling to as low as minus 40 degrees C.

The new arctic supply container-ships (of RMDC 2880 ACV 36 TEU design) have been designed at Remontowa Marine Design, member of REMONTOWA Holding and are DNV GL classed.
Principal particulars of the B202 type vessels (represented by *Ivalo Arctica*): length over all 45.35 m; length b.p. 42.83 m; beam 12.80 m; depth 6.10 m; max draft 3.50 m; deadweight 650 t; container capacity 36 TEU; main engine power 1 × 1050 kW; four blade c.p. propeller 2.1 m diameter; service speed 10.0 kn; generating sets 2 × 370 kW; harbour / emergency gen set 1 × 200 kW; bow tunnel thruster 1 × 200 kW; stern tunnel thruster 1 × 200 kW; crew 8 persons; classification DNV GL; class notation +1A1 General Cargo/Container Carrier PC6 TMON E0 NAUT-AWDG-P BIS CLEAN DAT (-35°C) HULL - PC5

Fourth LNG powered PSV for Norway launched at Remontowa Shipbuilding

Renderization of an LNG LNG-fuelled PSV vessel under construction at Remontowa Shipbuilding SA.
Fig.: Wärtsilä

On Tuesday, 23rd of February, the launching of an LNG-powered specialist vessel intended for supplying oil drilling and oil mining rigs took place at Remontowa Shipbuilding. The ship is being constructed for Siem Offshore - one of the biggest Norwegian offshore fleet owners.
The recently launched dual fuel LNG powered PSV is the last one from the series of four similar vessels under construction at Remontowa Shipbuilding for Siem Offshore. The first vessel named *Siem Pride* has already been delivered to the owner.
Since the beginning of its construction the fourth PSV in the series was being assembled onboard a Remontowa owned semi-submersible heavy lift barge. On February 22, the hull had been moved from the barge onto the floating dock, which was submerged afterwards. After the launching, intensive outfitting works on the ship commenced.
These vessels are being entirely constructed in Gdańsk - starting with developing workshop documentation, going through building of the hull and ending up with complete outfitting and performing sea trials before turn-key delivery. The PSVs are to be equipped with state-of-the-art navigation systems including an advanced dynamical positioning system DP2, gas-electric propulsion, fire-fighting system Fi-Fi 2 and facilities for containing of oil spills.
The 89 meter long, 19 m wide vessels with a cargo deck area of 980 sq m will be capable of carrying up to 5400 tons and served by a 25 person crew.
These DNV GL classed vessels are of Wärtsilä's VS 4411 DF design. This new series represents the latest technology within dual-fuelled systems and hull design, to the benefit of lower fuel consumption, lower fuel cost, lower emissions and a better environment. The vessels are being built to meet the highest requirements for operations on the Norwegian Continental Shelf and are also suited for operations in other geographical areas meeting the highest standards of environmental protection and safety of navigation and receive "CLEAN DESIGN" class notation.
Its hull, machinery and equipment are being constructed in accordance with the Rules and Regulations of Det Norske Veritas for notation: +1A1, Offshore Service Vessel+, Supply, SF, DYNPOS-AUTR, E0, GAS FUELLED, BIS, CLEAN DESIGN, COAT PSPC (B), COMF-V(3) & C(3), LFL*, NAUT OSV(A), DK (10t/m^2) and HL (2.8), Oilrec, Stand-by Vessel (S), Fire Fighter II. Furthermore, the vessels will fly the most reputable Norwegian flag.

The first fish-farm barge in the Nova series delivered

Norwegian fish-farming equipment specialist Steinsvik delivered the first Nova barge to Lingalaks in Hardanger in February. The side-feeder barge from the newly developed Nova range has been built in Poland, by Gdynia based Stal Complex. The christening of the floating unit took place on 20th February 2016.
The modern barge manufactured by Stal Complex in cooperation with Fram Consulting AS and made to order of Steinsvik AS has been connected to the tug boat and left the port of Gdynia on 14th January 2016.

Side-feeder Nova barge built by Stal Complex in Gdynia for Steinsvik.
Photo: Stal Complex

According to Stal Complex official news release, this unconventional project design, which involved a lot of effort and labor engagement has been completed with a huge success. Earlier, on 11th December 2015, the barge was launched by Stal Complex in hired ship syncro-lift at Naval Shipyard Gdynia.

"We had an opportunity to participate in a break-through project in building barges for Norwegian customer. Barge breaks some visual standards in this type of projects and contains itself an effective solutions in stylistic and conceptual trends. The key is to get the ergonomic and spacious environment that ensures comfortable working conditions. The barge has the modular wheelhouse that may be set in different directions depending on operating conditions" - Stal Complex further reveals.

Most of the structure elements have been welded by means of automatic machines of submerged arc welding processes in order to achieve the best quality and visual standards. There were many qualified and experienced workers engaged in this project.

The Nova concept has been developed in cooperation with Eker Sandvik. It is all about flexibility, where standard module-based solutions cover a wide range of requirements. At the same time however, a number of benefits are provided by thoroughly prepared and well-documented solutions.

The barge has a modern ship design furnishing, 600 tonnes of storage capacity and is delivered with eight feeding lines and capacity for a total of 12 lines.

The barge is designed around the central feeding system - and not the other way around. The main function of the barge is to safely store and transport fish feed, without damaging the feed, and this aspect has been at the very core of the design work. Designers also focused on providing a good working environment for the people who will be using the barge.

Remontowa SA to convert Canadian ferries to LNG propulsion

Car and passenger ferry *Spirit of British Columbia* owned and operated by BC Ferries.
Photo: BC Ferries

BC Ferries revealed the winner of the mid-life upgrades contract for Spirit-class ferries. Vessels are to be converted to operate on liquefied natural gas (LNG).

Following the completion of a competitive bidding process, BC Ferries has awarded Remontowa Ship Repair Yard SA of Gdansk, Poland a contract totalling $ 140 million to conduct the Spirit-class mid-life upgrades (MLUs), which includes the conversion of both vessels to dual-fuel, so they can operate on LNG, beginning in 2017 and completing in 2019.

BC Ferries conducted an extensive competitive bidding process to ensure that the company secured the best bid for its customers and the taxpayers of British Columbia. One shipyard from B.C., Seaspan's Vancouver Shipyard, was among the three shipyards shortlisted and invited to participate in the RFP process, however decided to withdraw from the process. The other of the three shortlisted bidders was Fincantieri of Italy.

Remontowa Ship Repair Yard is the largest ship repair yard in Poland and ranks amongst the largest in Europe. Annually, approximately 200 ship projects are conducted there. The shipyard has a strong record for

delivering the required engineering and production capabilities for complex large scale conversion projects on schedule. The company is well experienced and proven with LNG fuelled ships. All of these elements factored heavily into the decision of contract award.

"Last fiscal year, we spent approximately $ 118 million on diesel fuel of which the two Spirit-class vessels consumed approximately 16 per cent," said Mark Wilson, BC Ferries' Vice President of Engineering. "The conversion of the two largest ships in the fleet along with the three new dual-fuel Salish-Class vessels currently under construction [at Remontowa Shipbuilding in Gdansk - PatS] will go a long way to help with fare affordability for our customers as LNG costs significantly less than marine diesel" - said Wilson. "By utilizing LNG to fuel the Spirit-class vessels, we expect to reduce CO2 emissions by 12,000 tonnes annually, which is the equivalent of taking approximately 2500 vehicles off the road per year." - he added.

In addition to the LNG conversion, safety systems will be renewed or upgraded including the marine evacuation systems, rescue boats, fire detection system, public address system and installation of a local water mist fire protection system. The passenger areas will receive an interior design refresh including new carpeting, renewed washroom interiors, an additional washroom on Deck 5, expanded gift shop and new coffee bar on Deck 6. Upgrades to the passenger elevators include renewal of mechanical and electrical drive components, emergency communication system as well as upgrades to the electrical and control systems. Planned renewal of navigation equipment, propulsion equipment components including rudders, steering system, bow thrusters and propeller blades will also occur during the MLUs. Installation of LED lighting and more efficient air conditioning equipment will reduce energy consumption.

BC Ferries is planning for the Spirit of British Columbia to be the first ship through the MLU and LNG conversion process and commence actual conversion from the fall of 2017 through the spring of 2018, and the Spirit of Vancouver Island's to follow the following year from the fall of 2018 through the spring of 2019. This schedule will allow for these two vessels, the largest in the fleet, to be in operation during the summer months when traffic is at its peak.

Current principal characteristics of the Spirit-class ferries (prior to conversion and upgrade): length over all 167.50 m; length b.p. 155.999 m; breadth moulded 26.599 m; depth 8.001 m; max. displacement 11 642 t (Columbia) / 11 681 t (Vancouver); deadweight 2868 t; gross tonnage 18 747; car capacity 410 units (up to 470 according to other sources); crew and passengers 2100 persons; main engines 4 × MAN-B&W 6L 40/54; total main propulsion power 20 912 HP (21 394 HP according to other sources); max. speed 19.5 knots (36.1 km/h); passenger amenities: Seawest Lounge, Pacific Buffet, Coastal Café cafeteria, Coast Café Express snack bar, Passages Gift Shop, Video Zone video arcade, Kidz Zone play area, work/study stations, telephones, elevators, wheelchair-friendly decks and washrooms, and travel brochures class ABS.

MARINE EQUIPMENT

Activ on the royal cruise-ferry

Kong Harald of the Hurtigruten coastal ferry service.
Photo: Hurtigruten

The cruise ferry ship *Kong Harald*, which name was given by the current king of Norway and an experienced sailor, will undergo a total metamorphosis at Norwegian shipyard Fosen Yard during 2016.

Polish company Activ is to play a significant role in implementing this transformation.

The scope of Activ's outfitting works is to include:
- replacement of furniture and carpets in cabins;
- replacement of equipment in sanitary cabins (216 cabins total + 2 Lux);
- renovation of walls;
- renovation of frames;
- renovation of corridors (rails, walls and ceilings).

The ship belongs to the famous Norwegian "coastal express" ferry service Hurtigruten, once a crucial communication and transport service, which, over time, because of great scenery and tourism advantages has gained on "cruise" features.

Kong Harald was built in former East German yard Volkswerft Stralsund in 1993. It features 622 pax capacity (including 469 berths in cabins), 12 car units capacity, gross tonnage of 11 204, overall length of 121.8 m, 19.2 m beam and 15 knot service speed.

New president of the board of H.Cegielski-Poznań SA

Effective from 17th March 2016, H.Cegielski - Poznań SA has a new president of the board - Mr. Wojciech Więcławek.

Three new scrubbers delivered from Vistal

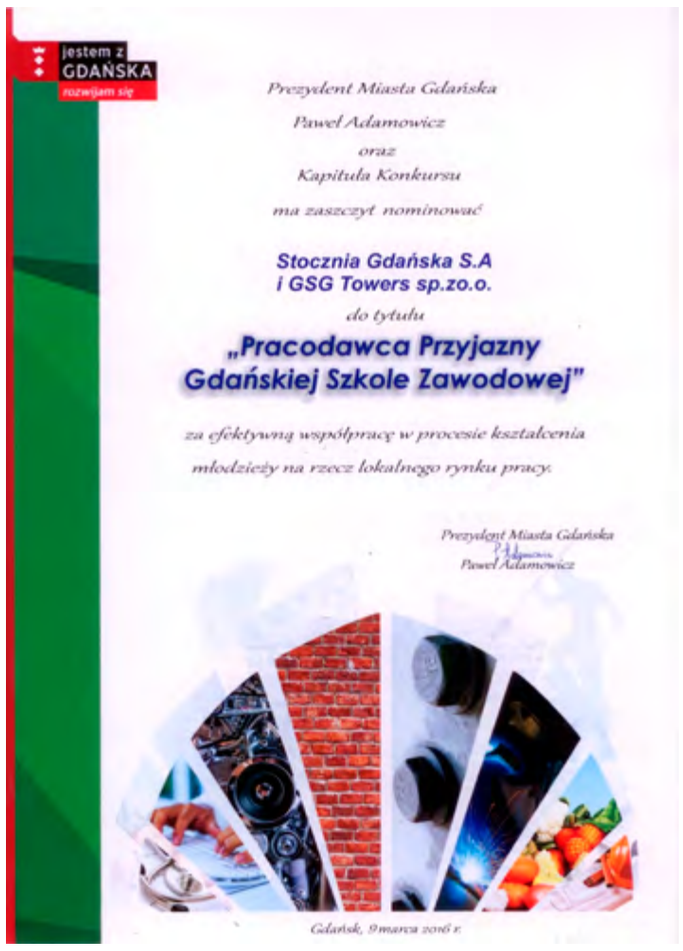
Vistal has built and delivered another three scrubbers which are an environmentally friendly solution for tackling all existing and future SOx emission regulations. Scrubbers will be installed on large cruise ships currently under construction! This system solution removes sulfur dioxide (SO_2) from the exhaust gases, which is obligatory for vessels trading in SECA areas.
Vistal has not revealed the designer / make of the scrubbers, for which Polish company delivered the devices as a subcontractor and the ships, on which these will be installed, however, judging from the tracking of the ship that loaded the three new scrubbers structures in the port of Władysławowo, the recent shipment's destinations were STX France yard in St. Nazaire and Fincantieri yard in Monfalcone.

MISCELLANEOUS

Satisfactory results of Vistal Gdynia in 2015

Grupa Vistal sales in 2015 amounted to PLN 410.3 m, up 27 % from 2014. EBIT and EBITDA increased 3% (up to PLN 28.0 m from PLN 27.1 m) and 6% (up to 42.1 m from PLN 39.6 m) respectively. Net profit for 2015 was nearly 16% higher comparing to the previous year and amounted for PLN 14.2 m (with PLN 12.3 m in 2014).
Backlog of the group has achieved the level of PLN 374.3 m, up by 52 % from the year before. The group is currently in talks regarding new contracts with total value of PLN 350.1 m.
Marine & offshore sector, despite low oil prices induced market depression, is still second largest market for Vistal with sales rising by 43.9 % (or PLN 40 m) from the previous year.

Stocznia Gdańsk SA and GSG Towers Sp. z o.o. are employers friendly to Gdańsk-based vocational schools



Gdańsk Shipyard Group companies have been nominated for the „Friendly Employer to Gdańsk-based Vocational Schools" Award. Winners garnered statuettes and diplomas on 9 March during the ceremony staged at the Maritime School in Gdańsk. Mr Paweł Adamowicz, the mayor of the City of Gdańsk, has presented a diploma to the president of GSG Development Academy, Maciej Mierzwiński.
„The competition strives to promote vocational education, reinforce cooperation between employers and vocational schools, set the focus of vocational education on innovative technical solutions and technologies, as well as to ensure the match between competencies of graduates and employers' expectations," said Piotr Kowalczyk, deputy president of the City of Gdańsk for Social Policy.
33 companies have been nominated for this year's edition of the competition. Nominations in the „Friendly Employer to Gdańsk-based Vocational School" contest were entered in categories that match the business profile of competing organisations: administration and services; construction; electrical and electronic systems; mechanics; mining and

smelting; agriculture and forestry, including environmental protection, tourism and hospitality; medical and social; and arts.
„We are greatly honoured by our presence in this elite group. It is also a notable sign that our efforts are meaningful and, most importantly, deliver measurable results. Supporting the development of competencies of vocational school students has always been and will remain a central element of our business. I am confident that today's investments in young people will bring measurable benefits for long-term development of Gdańsk Shipyard Group," - commented on the nomination Jarosław Łasiński, the president of the board at Stocznia Gdańsk SA and GŚG Towers Sp. z o.o.

IMDIS 2016 International Conference on Marine Data and Information Systems

Maritime Institute in Gdańsk informs on IMDIS 2016 - International Conference on Marine Data and Information Systems, that will be held in Gdansk (Poland) - October 11-13, 2016.
The Conference is organized by: IOPAN, Institute of Oceanology - Polish Academy of Sciences, Poland; IMGW, Institute of Meteorology and Water Management, Poland jointly with IFREMER, BODC, CSIC, MARIS and OGS, as part of the SeaDataNet consortium.
The IMDIS cycle of conferences has the aim of providing an overview of the existing information systems to serve different users in ocean science. It also shows the progresses on development of efficient: infrastructures for managing large and diverse data sets, standards, interoperable information systems, services and tools for education.
The Conference will present different systems for on-line access to data, meta-data and products, communication standards and adapted technology to ensure platforms interoperability. Sessions will focus on infrastructures, technologies and services for different users: environmental authorities, research, schools, universities, etc.
For more information please visit the conference website: http://imdis2016.seadatanet.org

PRS communicates on Annex VI to MARPOL Convention - additional certification requirements of NOx Technical Code and amendments to IAPP Form

The International Maritime Organization (IMO) introduced a number of corrections to Annex VI to MARPOL - Prevention of Air Pollution from Ships.
The amendments consist in the introduction of:
1. Definitions:
Marine diesel engine - means any reciprocating internal combustion engine operating on liquid or dual fuel, to which regulation 13 of Annex VI applies, including booster/compound systems if applied. In addition, a gas fuelled engine installed onboard a ship constructed on or after 2016-03 01 or a gas fuelled additional or non-identical replacement engine installed on or after that date is also considered as a marine diesel engine (MEPC.67(20))
Fuel oil - means any fuel delivered to the ship and intended for combustion purposes for propulsion or operation on board a ship, including gas, distillate and residual fuels (corrections to MARPOL Annex VI
2. Requirements:
Statutory requirements for shipboard incinerators
Incinerator which is installed on board a ship before 2000-01-01, shall fulfill the requirements specified in resolution MEPC.59(33) resolution, as amended by resolution MEPC.92(45) and in MEPC.59(33) resolution , as amended by resolution MEPC.93(45).
Technical requirements in the Scope of Prevention of NOX Emission
IAPP Certificate issued for ship engine, as stated in MARPOL, Annex VI, Regulation 13/7.3, Chapter 3, shall indicate one of the below elements:
an approved method has been applied pursuant to paragraph 7.1.1 of this regulation;
the engine has been certified pursuant to paragraph 7.1.2 of this regulation;
an approved method is not yet commercially available as described in paragraph 7.2 of this regulation; or an approved method is not applicable.
The above amendments entered into force on 1 March 2016. They apply to Shipowners and Shipoperators.
The amendments have been introduced to PRS Rules for Statutory Survey of Sea-Going Ships, Part IX - Environmental Protection - 2016.

Supplement to IAPP Certificate (Form D) has also been updated and guidance on how to fill it are given in Circular MEPC.1/Circ.849.
We will not always convey the announcements in regulations amendments from PRS in the future and we encourage to use the classification society's website.

Presentation of the Korab-RINA Award nominees 2016

All finalists Korab-RINA Award.
Photo: PG

On March 16, 2016 r., a public presentation of the master degree theses (defended in 2015) nominated for the Korab-RINA 2016 Awards was held. This was the 11th edition of the competition.
The commission consisting of the representatives of TOP Korab and RINA as well as Shipbuilding and Ocean Engineering Faculty at the Gdansk University of Technology, decided on M.Sc. Piotr Matusz (with the sponsor being prof. dr Czesław Dymarski) to be the one receiving "The 2016 RINA-Korab Student Naval Architect Award for his thesis "Passive heave compensation system for the offshore riser".
The finalist of the Korab-RINA 2016 students' competition were chosen as follows: M.Sc. Marta Nowacka for "Assesment of FEM models accuracy, using the MAC criterion" (sponsor: dr eng. Maciej Kahsin); M.Sc. Jacek Jastrzębski for "Design of revolving crane for semi-submersible platform with 1000 kN SWL at 60 m outreach" (sponsor: prof. dr Czesław Dymarski); M.Sc. Leszek Samson for "Modal analysis application in structural failures detection with an example of support structure of the offshore wind turbine tower" (sponsor: dr eng Maciej Kahsin).
All finalists received one year membership in TOP Korab and The Royal Institution of Naval Architects (RINA), while the winner was additionally awarded with financial prize.

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