



## NEWS FROM FORUM OKRĘTOWE MEMBER COMPANIES

### SHIPREPAIRS AND CONVERSIONS

#### Chemical tanker shortened for Amoretti Armatori



*Caroline A* in a dock before shortening.  
Photo: J. Uklejewski



The white arrows indicate where the hull will be cut.  
Photo: J. Uklejewski

When a ship is cut in half at a repair and conversion yard it usually means a stage in lengthening process or „jumboisation”. Shortening of the ship is a less common procedure in shiprepair business. Perhaps the most recent instance of ship shortening took place at Remontowa S.A., member of Remontowa Holding in relation to conversion of two tankers into flo-flo (submersible) heavy lift vessels *Willift Eagle* and *Willift Falcon* completed in 2007.

In case of 102 m long 5130 dwt chemical tanker *Caroline A* (delivered late 2011 from a Chinese shipyard) the shortening has been done without change of ship’s function or purpose and retaining its complex grid of cargo piping, as well as water, cargo heating thermal oil, gas, hydraulic and electric lines.

The stainless steel cargo tanks chemical tanker *Caroline A* was docked at Remontowa S.A. on May 14, 2014 and left the floating dock shorter by 6.6 m.

The operation has been carried out smoothly with use of 200 T pulling force hydraulic jacks and 300 t SWL floating crane *Maja*, that lifted the 85 ton midbody section of the ship cut in dock. Afterwards, in the aft part of the cut hull, the new bulkhead was installed, followed by joining and welding of the two ship’s halves, joining of pipelines and electric cables at midships, installation of hose crane, as well as other outfitting and isolation lining works to be concluded with water and gas tightness tests. Besides, general repairs, docking

and maintenance works has been completed on - now 95,9 m long - *Carolina A*, belonging to Italian Owners Amoretti Armatori, which had previously brought numerous ships to Remontowa for repairs.

## **The flagship of Polish Navy sub fleet at Naval Shipyard Gdynia**

On June 16, 2014, Stocznia Marynarki Wojennej S.A. (Naval Shipyard Gdynia) welcomed ORP *Orzeł* the largest submarine of Polish Navy. Repairs, with docking, include replacement of batteries, repairs and maintenance to ship's outer shell and repairs of some items of equipment and systems. The whole job, in two stages, is expected to be completed by March 13, 2015.

However Naval Shipyard Gdynia is also servicing merchant ships. On Monday, 26th May 2014 the Naval Shipyard has started dock repair of reefer ship *Green Freezer*. The scope of work included maintenance of the hull, zinc anodes renewal and sea valves repair. There was also scheduled cleaning of ballast and fuel tanks as well as fresh water tanks painting. Besides the above, the hydraulic cylinders of deck crane were repaired, rudderstock bolts were replaced by new ones and also the new echo sounder and log were installed. Additionally there were performed the windlass overhaul, air coolers overhaul, tail shaft withdraw for simplex exchange and piping exchange in fuel tanks. The repair was completed on 10th July 2014.

## **EQUIPMENT**

### **Scrubbers from Finland**

Deltamarin Ltd (having a ship design office also in Poland) and Oy Langh Ship Ab have come together to offer a cost effective and reliable solution to the sulphur requirements with the scrubber that Langh Ship has developed. The new scrubber is delivered by a joint venture company DeltaLangh Ltd, and it can also be supplied on a turnkey basis.

As the new sulphur directive in the Sulphur Emission Control Area (SECA) comes into force in 2015, shipping companies are forced to choose a method to tackle the challenge. The new scrubber solution offered by DeltaLangh, provides shipping companies with a unique environmentally friendly closed loop scrubber solution - already tested in operation on Langh

Ship's vessel *Laura* during one year. Based on the excellent experiences collected so far, Langh Ship has decided to equip their additional four vessels with the similar systems to be supplied by DeltaLangh.

In the SECA area which includes the Baltic Sea, the North Sea, the English Channel, North American coastal area and the US Caribbean Sea areas, all ships must use fuel with a sulphur content of less than 0.1% starting from January 1, 2015 (current limit 1%). To switch over to light distillates with lower sulphur content is quite expensive and leads to increase in transport costs. A more economical solution is to use an exhaust gas cleaning system (scrubber), which reduces the sulphur content of the exhaust gases accordingly.

Langh Ship's five vessels all traffic in the SECA area and so the company had to react to the new regulations. After reviewing the alternative scrubbers available at that time, Langh Ship's Managing Director Hans Langh decided to reach for even better performance and cost efficiency. Based on the 40 year long experience of water treatment systems that Mr Langh had from another family company, Industrial and Ship Cleaning Services Hans Langh, he set up a large product development project aiming to engineer a reliable closed loop scrubber. The result of this vast work is now to be seen: a fully functional scrubber with a water treatment unit that cleans the scrubber's washing water very efficiently. Performance of the water treatment is also unique as the water content of residual sludge is minimal.

The first full scale scrubber installation has now been in operation for one year onboard m.v. *Laura*, a 6500 dwt general cargo vessel equipped with a 6 MW main engine. Without interruptions or down times, the system has been in operation and fully functional year round, even through Baltic winter and ice conditions.

„The scrubber has proved to be very easy to operate, stable and does not add much extra workload for the crew”, says Langh Ship's Senior Technical Adviser Mr Reino Verosaari, who has been strongly involved in the project. The equipment is classified by DNV GL.

Deltamarin has over 20 years' experience in ship design and in project management. As the market is changing radically and the need for major retrofits to meet the rules has become evident, Deltamarin has decided to expand into hardware deliveries. „When we heard about the new innovative solution that Langh Ship had come up with, we knew that this was the product Deltamarin wants to be involved in” - says Mr Mika Laurilehto, Managing Director at Deltamarin.

The new joint venture DeltaLangh will utilise the long experience of both companies to offer the best solution in the market. „The scrubber has been such a success that we are sure it will benefit other ship owners as well” - says the pleased Mrs Laura Langh-Lagerlöf, Commercial Manager at Langh Ship.

DeltaLangh is a joint venture company owned by Deltamarin Ltd and Oy Langh Tech Ab, a sister company to Langh Ship. DeltaLangh will design and produce scrubbers and water treatment units for merchant ships. The installation supervision, crew training and after-sales is also handled by DeltaLangh.

Deltamarin Group provides services for shipping, shipbuilding, naval, marine and offshore industry worldwide. The services cover the entire field of engineering from feasibility studies through concept development, FEED and basic design up to complete engineering and contracting packages, including site supervision. Deltamarin employs around 400 designers in its own and associated companies. Offices are located in Western Europe, Brazil, China, Singapore and Malaysia. Deltamarin is a subsidiary to AVIC International Maritime Holdings Limited.

Langh Ship is a Finnish family-owned company whose goal is to stay at the forefront of technological development in order to serve customers as effectively as possible. For us, high technology helps us bear our share of responsibility for the environment. Langh Ship's fleet comprises five multipurpose cargo vessels and the company has about 1000 units of special containers mainly for steel carriage.

## MISCELLANEOUS

### **PWP project - „Partnership to promote professional development in the Pomeranian province”**

On June 2-5 representatives of Forum Okrętowe and Solidarność Trade Unions (Gdansk region) paid a study visit to Denmark. Thanks to an excellent organisation by our Danish Partner we had a very unique opportunity to meet representatives of key institutions for Lifelong Learning programme in Denmark, namely: The Danish Ministry of Higher Education and Science, The Danish Metalworkers' Union, The Ministry of Education, Danish Engineers Association, Confederation of Danish Industry. Arranged meeting allowed to acquire lots of information concerning implementation and operation of Danish system. This will be useful at the stage of drawing conclusions for what can and shall be done in Poland.

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