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Safety and trust

Dear Clients,

We are handing over to you the next issue of our magazine, in which we present the selected projects executed in our shipyard. We greatly appreciate the trust you have always placed in us. Your trust and confidence is important to us especially in the current circumstances: due to the difficulties and restrictions caused by the SARS Cov-2 pandemic, many shipyards around the world operate in a special mode (or even don't operate at all).

As a large, leading European shipyard that carries out the most demanding ship repair, modernization and conversion projects, Remontowa never leaves its Clients alone and always remains a reliable partner for them. Our openness and constant readiness to cooperate with shipowners at all times is part of this trust.

In Remontowa Shiprepair Yard, regardless of external circumstances, we apply and keep the highest safety standards, which are always our priority. Therefore, we work safely, performing the work commissioned to us with care for the highest quality, so that your ships and their crews are protected in the best possible way. That's the way it is now. Notwithstanding the special epidemiological and sanitary require-

ments introduced by the Polish government at the national level, we have developed and implemented our own internal procedures to ensure the highest level of work safety for our employees and partners as well as representatives of shipowners and crews.

We constantly cooperate with ex-

ternal authorities in this respect. We are monitoring the health of the people staying in the shipyard on a daily basis, as well as the way all projects are being carried out. In case of any threats, we react immediately and effectively. We are aware that some of the procedures we have introduced may be burdensome but our primary objective, especially in the current situation, is the safety of people and projects conducted in our shipyard. Therefore, we are grateful to the shipowners and all those involved in the projects for

Our shipyard is functioning smoothly and without interruptions.

their understanding and cooper-

And it will continue that way.

Grzegorz Landowski Editor-in-Chief



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Fruitful cooperation between Remontowa Holding Group and the best Polish universities in recruiting new staff

The Academy of the Remontowa Holding Group

In January 2020 at the University of Gdansk, Piotr Soyka, the co-owner and chairman of the Remontowa Holding Capital Group, and Professor Jerzy Gwizdała, the rector of the University, signed an agreement on scientific and economic cooperation.

The best students of the Faculty of Management will have an opportunity to cooperate with Remontowa Holding Capital Group, one of the largest employers in northern Poland.

The signing of the agreement has initiated the implementation of a joint project called "The Academy of Management, Economics and Finance". Selected students participate in training to prepare



them to take part in a competition. The best ones will be granted paid internships and jobs at the economic and financial departments of Remontowa Holding Group.

- Business needs a university as scientific and research input plays an increasing role in innovation process. Remontowa Holding is an innovative company: it is demonstrated by its services and products sold on the global market. I hope that our joint project will be continued and improved with each subsequent edition. For our students it is a great opportunity for professional development in one of the largest companies in the region - said Professor Jerzy Gwizdała.

- With the support of the University of Gdansk we intend to reach the best managers, select them from the market to join our ranks in the future. The cooperation with us is not easy since we provide services for the most demanding shipowners worldwide. Modern solutions are our domain, our hallmark, thanks to which we are one of the leaders on the European market and the world shipbuilding industry - emphasized Piotr Soyka.

Remontowa Holding is also actively cooperating with the Gdansk University of Technology, one of the oldest Polish universities educating engineers, designers and ship constructors. In February this year, several hundred students visited the Faculty of Ocean Engineering and Ship Technology in order to get acquainted with the offer of internships and apprenticeships in the companies of the Group.

As part of the "Breakfast with Remontowa" event, the students had a chance to meet and talk to representatives of companies such as Remontowa Shiprepair Yard, Remontowa Shipbuilding, Remontowa Marine Design & Consulting, Remontowa Electrical Solutions, Remontowa LNG Systems and Remontowa Lighting Technologies.

Offers of internships and apprenticeships, as well as jobs in companies of the largest Polish Shipyard Group attracted great interest among students. Many of them decided to start cooperation, as well as to write their engineering and master's theses on topics inspired by the companies of the Remontowa Holding Group.

Several hundred students attended a "Breakfast with Remontowa" held at the Gdansk University of Technology. **Photo: Sławomir Lewandowski**





The Marco Polo (ex Barbara Krahulik) in Remontowa was adjusted to the Baltic ports standards.

Photo: Marcin Koszałka

The *Tom Sawyer*, the *Huckleberry Finn* and the *Marco Polo*

Three TT-Line ferries

First time in Remontowa Shiprepair Yard. During winter 2018/2019, a German ferry, branded with the TT-Line logo on its sides, called for drydock at Remontowa Shiprepair Yard. The *Tom Sawyer* came for a special survey with an extensive steel replacement scope of work on car decks. A year after, we welcomed as many as three TT-Line ships at the same time!

Apart from the ferry *Tom Sawyer*, Remontowa hosted two vessels more - *Huckleberry Finn* and *Barbara Krahulik*. The latter one, during her stay in Gdansk, received a new name - *Marco Polo*.

Vast majority of works carried out on *Tom Sawyer* were related to propulsion system such as: replacement of hub's working elements (including machining), sealing of CPP and reconditioning of propeller blades. This could not be done previously due to long delivery time of spare

parts. In addition, outer look of the vessel was refreshed by repainting of exposed to rough weather hull surfaces.

A quick reminder for yard workers was the scope of work on *Huckleberry Finn*, which was similar to the one carried out on *Tom Sawyer* during winter 2018/2019.

On several car decks, over 160 tonnes of steel were replaced and coated with new zinc paint, completed in just 20 days! The area of approximately 9000 square metres was blasted and painted. Yet another job

for painting, was the complete hull, aft ramp, top of accommodation surfaces and ballast tanks. Preparation works included regular blasting, vacuum blasting and hydroblasting.

Besides regular services, yard carried out also complex overhaul of propulsion system including reconditioning of propeller blades.

The Barbara Krahulik arrived at the yard from Italy for adjustment to the Baltic ports standards. This was associated with





The Tom Sawyer in 2020 visited Remontowa the second time within a year.

Photo: Marcin Koszałka

The *Huckleberry Finn* was also docked in Remontowa in 2020. **Photo: Marcin Koszałka**

...

Ownership transition, as TT-Line became a new Owner of the ferry. During her stay in Remontowa she received a new name – *Marco Polo*.

The most important jobs consisted of: installation on the mid-ship 220 tonnes

weight accommodation block, in which 52 new cabins were built and outfitted. A similar block weighing 30 tonnes was placed on the bow, which was prepared to be a passenger lounge.

For the adjustment mentioned above, it was necessary to extend the aft ramp. Moreover, the vessel upgraded its manoeuvrability by installation of an additional bow thruster.

To bring a new life to a 26-year-old vessel, the shipyard was obliged to do a complete renovation of machinery, reconditioning of main engines, overhaul of propulsion system and the related machines.

Furthermore, as per 2020 environmental regulations, the ferry in question was equipped with two scrubbers, tens of kilometres of new cabling and several kilometres of pipelines including GRE pipes.

The entire ship was repainted and given new TT-Line logos. Additionally, the refreshment of coating was carried out inside. Over 3,000 square metres of car decks have been blasted using vacuum and painted with anti-corrosion zinc paint.



Contributing author: Cezary Cedrowski



A comprehensive modernisation of the propulsion system

The *Pont Aven* ferry with a new engine

The *Pont Aven* ferry called at the Remontowa SA shipyard last time in 2016. At that time the main task was the installation of two scrubbers, combined with the reconstruction of the ship's funnel. The repair this year involved a major modification of the ship's entire propulsion system.

During the *Pont Aven's* stay at Remontowa, the ferry's entire propulsion system was comprehensively modernized.

Photo: Marcin Koszałka

Brittany Ferries entrusted the shipyard with the replacement of one main engine with a new one, as well as a comprehensive overhaul of the remaining three engines of the ferry.

Due to the large size and weight of the new engine, amounting to 162 tonnes, our

specialists proposed an innovative technology of transport operations and installation of the engine on board. This solution was based on accurate calculations, as well as on the shipyard's experience from the earlier repair project on this ferry, which required, among others, lifting her engines.



The new engine had been partially dismantled in workshop, so that it weighed less than 90 tonnes, then transported to the ferry and assembled. This solution was presented, discussed and accepted by the shipowner and representatives of the engine manufacturer several months before the ferry's arrival in the shipyard.

Pont Aven called at Remontowa SA in January. The first stage of the project was to remove the soon to be replaced engine from the ship's engine room. The preparation work consisted of cutting transport holes through the decks and side shell of the ship. Special steel constructions were installed on the ship, including end trucks and chains to pull out the old engine. The operation went smoothly and without interruption.

The new engine was delivered to the shipyard by sea on board of the *Lifana* general cargo vessel. Within a few hours it was moved to the engine room of the ferry in few parts. The next step was to re-assemble them together and prepare for being operational. In addition, the auxiliary engine and other equipment such as pumps, plate coolers, heaters and condensers were overhauled.

After the assembly, carried out by the shipyard mechanics and the manufactur-

er's service, the tightness was checked, the systems were flushed and all the engines were started. After the idling tests, the engines were load-tested with shaft generators. Once these tests were completed, the commissioning tests were carried out and the ship was ready to go out for sea trials.

Apart from the replacement of one engine, as part of the modernisation of the entire propulsion system, piston pins in three other main engines were replaced.

In total, 430 tonnes of different elements were renewed and installed on all engines.

Other important repair items included work on pipelines of various systems, e.g. scrubber, ballast and fuel, tank maintenance, car deck and superstructure maintenance, electrical and fitting work, overhauls of pumps, electric motors and shaft generators as well as installation of new steering gears.

The *Pont Aven* is owned by the French company Brittany Ferries, which has been cooperating with Remontowa SA since 2004. A few other ferries of this shipowner are expected to enter the yard this year.

A family picture of the ferry's crew and Remontowa's staff in front of *Pont Aven*. **Photo: Sławomir Lewandowski**





Captain Carsten Watsack on the bridge of the ferry *Mecklenburg-Vorpommern*. **Photo: Piotr B. Stareńczak**

Ferries in focus

An interview with Carsten Watsack, the master of the ferry *Mecklenburg-Vorpommern*, and... the author of a popular ferry channel on youtube.

Captain Carsten Watsack is a ferry lover and photographer. Author of films showing ferries on a popular social media video channel. We talked to him onboard a large, Stena Line operated ferry, running daily between Rostock in Germany and Trelleborg in Sweden, while the vessel underwent repairs and refurbishment at Remontowa Shiprepair Yard SA.

- We are on board the large combined passenger, rail and car ferry Mecklenburg-Vorpom-

mern. How many times have you been on this ship in Gdansk?

- This is my third time. But this ship itself has been at Remontowa SA more than three times. [before it's recent visit, at the turn of 2019 and 2020, it was six times editor]
- Is there a wide range of work specified this time?
- Yes, quite large one. We have a lot of work in the restaurant area to do the

new interior design and outfit of the cafeteria. This project was carried out here by Scanmarine. We wouldn't come here for this work alone. It was fitting due to the timing of the ferry's planned docking downtime. Yet, a lot of painting work was commissioned to the shipyard. We have also had the fire system repaired. The yard has carried out a lot of work on the railway deck and in the engine room. Also, a lot of pipework... I think over 200 m of pipes have been replaced [during some of



the ferry's earlier visits to the Gdansk shipyard, the scope of work was much more extensive - editor].

This ship, similarly to the others in the Stena Line, often returns to this shipyard quite often. One might suppose you're quite satisfied with the yard's services and expertise...

- Yes, of course, we are satisfied. Because it is a large, versatile shipyard - it can react and solve problems that may arise. The yard is flexible and there are good relations, cooperation between the shipyard, including project managers and us.

- How do you find your way through the internal port in Gdansk? It is quite a long, not too wide channel...

- Yes, it's quite lengthy. You could say it's a challenge. But if you've got a good pilot, and most of the time I've had a good pilot here, there's no problem. I remember, there was a situation - I think three years ago - when there was a contact with a jetty near miss. I think it was because the pilot, by force of habit, acted as if he was on a cargo ship, with a bridge aft and 200 metres of the ship ahead. Meanwhile, it's a ferry, here it's the other way around - the wheelhouse is on the bow, and 200 metres of the ship behind it. One must remember that. But this time, during our current visit, everything went perfectly well. The pilot was very good.

- You are a very special captain because not everyone is so passionate about ships. Of course, many seafarers love their job and can't imagine themselves in another, but there is something more about you - quite an original hobby for a merchant navy officer...

- Indeed, there is something unusual about it (*Carsten Watsack smiles*).

- What came first in your relationship with the sea? A passion for ships, a shiplover hobby or a profession? How did it all start?

- The profession followed passion. And it all started when I was a child - when we were leaving, together with my parents and brother, for holidays in Denmark using ferries. That's when it all started.

- None of your family worked at sea?

- No, I didn't have a seafarer in my family. Only my father was in the Navy for a year and a half, but generally, in my family, I may be considered a "black sheep". During my Danish holidays, I started collecting postcards with ships. Initially, with Puttgarden-Rodby ferries, all ferries of the Danish State Railways. That was the beginning...

One day, when I was probably eight years old, I had asked my father to take a camera and photographed some ships. At home, I still have this first picture of my ship, the *Theodor Heuss*. Of course, it was followed by more and more and more and more...

- What came next? It didn't end with the shooting, did it?

- I also started looking for and gathering information about the ferries. I collected everything I could get. Ship specifications, plans, shipowners' material... My father was so kind that he made a big surprise for me - without telling me about it, he wrote a letter to the HDW shipyard in Kiel, where a ship of interest to me - the ferry *Karl Carstens* - was being built. One day a postman came with a big package. It contained, among others, shipyard plans of the ship. I was very excited about it. It was 1985

- When did a serious decision come up, the decision to go to sea professionally?

- Very early. When I was 13 years old. I thought about other directions too, but in the end, I decided: it must be a job at sea, I must be a sailor.

So, you can say that you have a dream job... Have you been involved with ferries throughout your entire professional life, from the beginning or did you start with ships of another kind?

- There was a short period of work on a container ship. But for the vast majority of my working life, I was active in the ferry industry. I started in TT-Line. Then there was the Olau Line [having almost cult status among shiplovers, the ferry line - editor] and then again, the TT-Line and - for a short time - Superfast Ferries. Then there was AG Ems, a company with small ferries to the island of Borkum and Scandlines. And finally, until now, Stena Line.

- So, altogether, how long have you been at sea?

- I started in 1992, so it's almost 28 years now...

- What is special about the work of a captain of a large ferry on the Baltic or the North Sea?

- I would mention two main factors. First, it deals with both passengers and cargo at the same time. The passenger exchange is very special and specific as well. It's about speed and frequency. Every day we have three passenger exchanges on this ferry. If you compare it with a hotel, you normally

have at most one exchange per day. And on a ferry like this, you change all passengers three times a day. This is really a very special situation with its specific consequences.

The time spent in the port on a ferry like this is also extremely short. It's like stopping at a Formula One pit stop. Entering a port, unloading and reloading, leaving a port - all in 90 minutes with this big ferry. It's very special.

With my current ship, the trains add to uniqueness - rail cargo, this is a rail ferry. I am also a bit interested in railways, so the ship and the trains are a good combination for me.

- Is train traffic on the ferry line increasing or decreasing now?

- Lately, unfortunately, it's rather declining. We've tried to attract more freight railway cars, but it's a difficult business these days. We have some hopes for growth in passenger trains. Especially because the Swedes don't want to fly as much as they used to, due to CO2 emissions. For us, for ferry shipping, that's good.

- You seem to be ready to travel very far to take nice shots of ships - photographic or video, from a drone. Where did you go for ship photography, for shipspotting the farthest? Is the family happy with your holiday choices?

- I was in Alaska last year. It was probably the furthest away. Before that, I was also in Japan, visiting Canada as well.

- Especially for ferries?

- Let's just say it was a combination of vacationing with family and photographing ships. There was also a car trip. I call it a "maritime car trip." Sometimes I travel to photograph with my family, sometimes without. The family does not share my interest in ships.

My son is not interested, either. I tried to show him some shipspotting, but when we are on a family vacation, he is more busy with the Internet, smartphone, etc. Last year we took the ferry between Minorca and Majorca. He was bored and complained about the noise and vibration on the ship.

He is now 13 years old. The same age as myself, when I decided to work at sea. My son will not go to sea. But that's okay. One sailor in the family is enough.

- Back to the shiplover's trips...

- I'm a big fan of Canada. I like Canadian ferries and Canadian waters. I used to take the ferries there.



- Did you also meet there those Polish built ferries, from the sister shipyard to the one, where your ship is currently in?

- Yes. They are very nice. [the ships in question are the double-ended, LNG fuelled "Salish" class ferries, three units of which were built in the Shipbuilding Remontowa shipyard, and the construction of the fourth, recently commissioned separately, has just started - editor]

I also like being in the Mediterranean. Corsica and Sardinia are very good places for shipspotting. And Greece too, of course.

I like the old ferries. You can meet them at Washington State Ferries in the USA. There are a lot of "old" ferries in Canada too. For example, in eastern Canada - in the Magdalen Islands, where you can meet a lovely, old-fashioned ferry that I used to like to sail in the colours of Irish Ferries.

- Considering both professional knowledge and passion, it can be expected that you are good at recognizing ships by their silhouettes.

- Yes, I usually manage to recognize ships from a distance, mainly ferries and cruise ships, of course. Sometimes you just need the silhouette of a funnel, another time you need the whole silhouette so that I can recognize what particular ship it is.

When I am to stay in my cabin, I always remind the watch officer to call me to the bridge not only when the presence of the captain is necessary for business reasons, e.g. navigation, but also when a ferry or a cruise ship is approaching. So, my crew knows about my hobby too.

On this occasion, I must highlight a certain distinction. Many people say to me, "It's good for you, the job you do is your hobby." But I have to say it's a big difference. The difference between a hobby and a job. It's not the same.

As captain, onboard a ship, I have a different feeling. There's a lot of pressure, which is normal in this job. When I'm in the Mediterranean or Alaska to take pictures of ferries, it's completely different than on duty onboard.

As a captain, at work, I have, above all, time constraints when it comes to pursuing my passion. It is not, of course, possible to pay attention to... or to record or photograph anything that would potentially interest me. I can't do it the way as if I was a passenger. Unfortunately... (*Captain Carsten laughs*). Maybe next time I'll hire myself at Stena Line not as a captain, but as a cameraman.

- And which ferry is the best for taking pictures, most photogenic in your opinion?



Carsten Watsack, the captain who's doing great even with a drone...

- That's a tough question. I'd say one of my favourites is *Theofilos* from Greece. I've also filmed it from a drone many times. I also like the Alaska Marine Highway ferry. It's also rather old ferries, like *Columbia*. And others, from the 1960s. Very nice ships. I spent a dozen days on some of them, sailing from Seattle as far north as Alaska.

As I said before, I also like the many ferries from the Mediterranean. In fact, I can't say that I have some special ship that I particularly like. But, usually, if the ferry is old, it's a good one. Definitely.

What's most suitable for collecting in a shiplover's passion? In your case, these are probably mainly your photographs. What else? You mentioned postcards...

- For example, models [not only in Germany, but probably especially there, small waterline models are popular, which can be bought ready made, but you can also assemble, build such ship models yourself - editor]. I am also a modeler myself. I started with models as a child. Until now I've built 1:1200 scale models, also the ferry ones. And I started to glue together cardboard models as well, which - as I know - are quite popular in Poland, too. What is more, I also developed an original model for a German publisher of cardboard models. It was also a ferry. So, for example, the models are something very suitable to collect for a shiplover.

However, I have to admit that I am not a very committed collector, so I do not collect "everything" that is related to ferries. Also because of the lack of space at home. But I have a large archive. Especially with pictures and other materials about the Puttgarten-Rodby ferry line. I think I can have the biggest archive of material on this line,

mainly photographs. I've been collecting practically everything I could find on this subject for over 30 years. But I've stopped enriching that collection. One day I'll probably donate it to some museum...

- One may envy readers in Germany for the rather rich marine publishing market, also in the "shiplovers sector". Have you seen any books about ships?

- Yes, I have seven many books but not just about ships. Some of them cover ferries, of course. Again, mostly about the Puttgarten-Rodby line. But there are also books about an industrial railway line, connected with a steelworks that no longer exist, from my home town, where my father also worked.

When a young person starts thinking about a shiplover's hobby - a passion for ships, ship-spotting or ship-photography - what advice would you give him or her "to start from"?

- I would say, "You must have it in your heart." You can't really photograph one day of planes, another day of ships, another day of trains. I'm not a professional photographer. I've never learned to photograph. I would advise you to just take pictures, without inhibition. Do not think too much about the form, if you are interested in the subject in the first place. Show your work to others, perhaps "experienced" ship lovers. They will share their opinion, maybe - give some practical advice. But I don't think there is any universal recipe, or any special way, for photographing ships. Do what you like and how you like.

Piotr B. Stareńczak talked to captain Carsten Watsack.



The ferry

Mecklenburg-Vorpommern in Remontowa again

Recently, the ferry *Mecklenburg-Vorpommern* had been hosted by us in spring 2017. At that time, it was quite a long overhaul, lasting more than 2 months. This time the ferry was with us a bit shorter, although the scope of work was not small either.

The ferry entered Remontowa in January 2020. During its stay in our yard an additional 150 metres of flat bars were installed on the rail deck along the tracks and 140 square metres of asphalt were replaced.

More than three thousand square metres of ceiling surfaces have been renewed on decks. Dents on the bow, stern and starboard have been repaired. A lot of maintenance work was done on the superstructure, the gratings, the forebody of the ship, the two funnel housings and the mast.

The docking of the ferry enabled works in the underwater part of the hull, among

others: inspection of the bow thruster with the replacement and maintenance of seals, polishing of propellers, replacement of stern seals, disassembly and assembly of the right thruster hub, cladding and grinding of the propeller's blades, maintenance of hydraulic cylinders of the stern ramp and the lowered ramp between decks, as well as inspection of mooring rollers and inspection of central and oil plate coolers.

Parts of the fire protection system pipelines, as well as of the grey water and technical water systems were also replaced.

The Mecklenburg-Vorpommern (in the foreground) in the dock of Remontowa in January 2020. Photo: Marcin Koszałka



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The ship departed from Remontowa as a cable layer... Photo: Marcin Koszałka

> Sailed into the yard as a Platform Supply Vessel, sailed out as a Cable Layer

Mobilisation of *Ile d'Ouessant*

In March 2020, the mobilisation of *Ile d'Ouessant*, commissioned by Luis Dreyfus Armateurs, was completed in Remontowa Shiprepair Yard.

The project was to change the configuration and equipment of the ship which entered the yard as a Platform Support Vessel and adapting for a Cable Layer, whose task is to lay and repair submarine telecommunication cables.

The flexibility of the solution is that once the contract for which *Ile d'Quissant* was mobilised has been completed, the

ship's original functions and purpose can be quickly restored.

It was an interesting challenge for the shipyard, since the entire cable handling and laying system had to be assembled to the nearest tenth of a millimetre! The success of the project relied on the great precision of assembly of all equipment, mechanisms and systems



that are crucial for the future operation of the ship.

Mobilisation of *Ile d'Ouessant* was prestigious and one of the most interesting, technically complicated projects carried out recently. In addition, the ship has undergone standard dock and maintenance repairs in the shipyard, extended by several other important items.

Three big modules for cable laying: a cable deck, three cable tanks and slides were mounted on the foundation specially prefabricated in the Shipyard. The tanks and the new cable deck are bolted and not welded to the deck as usual. A lot of other equipment has been installed and connected to the cable installations, including deck cranes and two cable drums. Each weighs approximately 25 tonnes and will pull the cable out of the cable tanks.

The slides, weighing about 100 tonnes that used to lower the cable into the water, were mounted on the modified stern. A total of about 20 kilometres of different electric cables and wires were laid on the ship, new switchboards and many other devices were installed.

The ship also underwent repairs. The first task was to dismantle the helideck, just after the ship entered the shipyard.

Another important item on the work schedule was the preparation of piping

and electrical installations for the future ballast water treatment system. A special container has also been installed on the new deck, which will house the control centre for specialist equipment, cable jointing and a laboratory work room.

The entire technical and detailed design of the new electrical installation related to the ship's mobilization was developed by the Remontowa Marine Design & Consulting company, a member of the Remontowa Holding Group. The company has extensive experience in designing and carrying out such work. It prepared class design and detailed design of a cable lay ship built a couple of years earlier in the Remontowa Shipbuilding Yard as well as supervised its construction on site.

It is worth recalling that *Ile d'Ouessant* has not been the only ship recently mobilised for cable operations at sea in Remontowa SA. In 2019, the shipyard carried out a similar project concerning the cable layer *Ile de Batz* for Alda Marine – Suresnes.

Again, the main and most important tasks were the prefabrication of foundations, the transport and installation of specialized equipment dedicated to support cable laying operations and the operation of remote-controlled underwater vehicles for bottom observation.

A few months earlier, the Ile d'Ouessant entered as a Platform Supply Vessel. Photo: Marcin Koszałka





The ferry *Ulysses* retrofitted with four scrubbers leaving Remontowa.

Photo: Marcin Koszałka

More and more ships equipped with EGCS at Remontowa SA

Scrubbers still on the crest of a wave

Since the 1st of January 2020 the global 0,50 percent sulphur cap entered into force. Retrofitting ships with scrubbers is still the preferred way to comply with the new regulations.

In the first quarter of this year we have already completed several such projects on different types of ships.

The ships of the Grande Marocco series

The *Grande Gabon* Container/Ro-Ro carrier was the first ship of the "Grande Marocco" series owned by the Italian shipowner Grimaldi Deep Sea SpA, which entered Remontowa SA in 2020. The ship will

be followed by five vessels of this type in the months to come.

The "Grande Marocco" series, named after the first ship of this generation, was built in 2010-2011. These ships are five years older than the "Grande Lagos" series, which was earlier serviced in Remontowa SA.

All ships in that series, i.e. *Grande Lagos, Grande Dakar, Grande Tema, Grande Abidjan, Grande Luanda* and



Grande Cotonou were retrofitted with scrubbers in Remontowa in 2018 and 2019.

Those ships were already designed with a view to be equipped with EGCS in the future, unlike the ships of the "Grande Marocco" series. *Grande Gabon*, which had not been prepared for scrubber installation at the design and construction stages was the first to call at the yard. Therefore, it was necessary to adapt an appropriate room from the cargo space and equip it with the necessary systems, such as ventilation, fire-fighting systems, sewage plants, etc.

Another difference is that the "Grande Marocco" series ships are being equipped with Alfa Laval scrubbers (previously, the EGCS supplier was Wärtsilä).

A large range of works on *Grande Gabon* also included the stern ramp, which was dismantled for extensive repairs. The ship with retrofitted scrubber left the shipyard in March paving the way for *Grande Marocco* to arrive in the same month.

The Baltic Spirit, the Cool Spirit

The twin reefer vessels, *Cool Spirit* and *Baltic Spirit*, operated by Cool Carriers have also been retrofitted with EGCS in Remontowa. Both ships were equipped with open loop systems of the Finnish

company Lang Tech. The scrubbers were installed at the stern in the deck houses that were prefabricated in the shipyard beforehand.

The Star Best

The *Star Best* reefer called at Remontowa in the first quarter of 2020. It was not the first ship owned by Grace Ocean Private Ltd, which was serviced in our shipyard in recent years. In 2019 we installed BWT systems on twin ships owned by the company, *Star Stratos* and *Star Trust*.

On Star Best we have also installed a BWT system. However, the biggest challenge was to retrofit this ship with a scrubber, which was installed in the new funnel.

Another large scope of work concerned deck cranes, of which columns, due to numerous cracks, were replaced. Disassembly of the cranes required the involvement of two floating sheerlegs, which transported the dismantled elements to land for the duration of the repair.

In addition, the hydraulic cylinders of all four cranes were overhauled, anchor-mooring windlasses were inspected, CO2 and nitrogen system pipes on board were replaced and the stern tube bearing was overhauled. The damaged stern tube sleeve, previously dismantled from the ship, was repaired as well.

The Cool Spirit reefer as well as her twin ship Baltic Spirit was retrofitted with EGCS in Remontowa.

Photo: Marcin Koszałka





Grande Marocco was the second ship of the Grimaldi Group after Grande Gabon, to call the shipyard for a scrubber installation. **Photo: Marcin Koszałka**

Mounting four scrubbers on the Ulysses ferry

The ferry *Ulysses* (Irish Ferries), arrived in the first half of January at the shipyard to be retrofitted with 4 scrubbers - one for each of the four main engines. A *Wärtsilä* hybrid system, which enables the exhaust gases from sulphur oxides to be cleaned in both open-loop and close-loop cycles, was installed.

All the documentation of the scrubber installation was done by the Marine Design & Consulting design office.

A certain difficulty was the small amount of space available on board for installing EGCS. Due to the fact that cabins, a cinema and restaurants are located on the higher decks of the ship, the installation of the entire system required not only the modification of the funnel itself, but also the rearrangement of the remaining adjacent space of the ship.

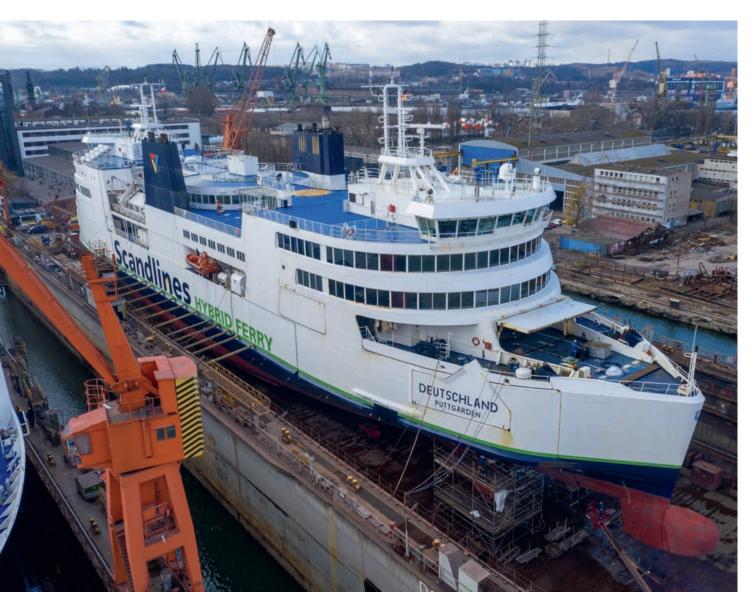
The EGSC system also includes the SMO steel tank, earlier prefabricated in Remontowa. SMO is a high-alloy austenitic stainless steel developed for use in seawater and other aggressive chloride-bearing media. This grade of steel has excellent resistance to pitting and crevice corrosion. It is also highly resistant to general corrosion and to stress corrosion cracking, having higher strength than conventional austenitic stainless steels.

The tank made of SMO steel, which requires high technology steel processing, was built to serve scrubbers on the ferry. Residual substances, which are created as a result of the scrubber's cycle of operation, will be flowing into the tank. Its contents will be disposed of when the ferry arrives in port.

In addition to the scrubber installation, many other works were also carried out on this ferry. Over 35 kilometres of electric cables were laid. During the dock work, one







On the Deutschland ferry its scrubber system has been modified.

Photo: Marcin Koszałka



The Star Best docked in Remontowa S.A.

Photo: Marcin Koszałka

tunnel thruster was replaced and the other was repaired. The entire underwater part of the ferry was maintained. Moreover, in some areas of the ship indicated by the shipowner, the paint coating was renewed.

The Deutschland with new thrusters

After last year's repair of the ferry *Schleswig-Holstein* owned by Scandlines, a twin ferry, *Deutschland* was repaired in the first quarter of 2020.

The main task was to modify the propulsion system of this ferry. All four azimuth thrusters have been replaced with new ones, including their control systems. The new thrusters are now controlled electrically while the older ones were hydraulic.

The scrubber system has also been modified to increase the possibility of its use by the entire propulsion system of the ferry.



We equip further ships with Ballast Water Treatment systems

Chemical tankers and Ro-Ro

Last year, a significant number of ships were equipped in our shipyard with Ballast Water Treatment systems supplied by many manufacturers. This year began with many more such projects. We present some of them.

The Trans Chemica

Chemical tankers, which belong to SeaTrans have already visited Remontowa Shiprepair Yard several times. One of them, *Trans Chemica*, underwent a major repair project involving a wide range of steel replacement 2 years ago in our shipyard.

In February 2020, the chemical tanker called at Remontowa S.A. for the installation of a Ballast Water Treatment system of the Greek manufacturer Erma First. The shipyard also installed an additional inert gas generator in the housing, prefabricated beforehand and mounted at the stern

The chemical tanker *Trans Chemica* in the dock of Remontowa S.A. **Photo: Sławomir Lewandowski**



retrofits

of the ship. This installation required an additional stainless steel pipe routed from the manifold to the stern. Electrical equipment was installed to operate both systems.

The ship has also undergone dry-docking along with hull maintenance and some standard repairs. The main engine and electric motors were thoroughly overhauled. The schedule included work on the pipelines in the engine room as well as steel replacements on the deck and in the ballast tanks.

The Turchese

The cooperation between Remontowa SA and Finbeta S.p.a. from Savona started in 1994 with the repair of *Cristalo* and has been successfully continued ever since. This year a chemical tanker *Turchese*, which has

This year the *Turchese*, which has already visited Remontowa several times, returned after a four-year break. **Photo: Marcin Koszałka**





A Norwegian chemical tanker *Sten Fjell* visited Remontowa S.A. in 2020. **Photo: Marcin Koszałka**

already visited us several times, returned after a four-year break. What is more, two other ships are expected to call at Remontowa SA in the first half of the year.

Turchese underwent a special survey with the maintenance and painting of the hull. A thorough overhaul of the main generating set was carried out. The anchor-mooring equipment at the bow was overhauled. The anchor windlass and mooring winch were transported as a whole to the workshop and dismantled there, the shafts were treated and then the equipment was assembled and mounted on the ship.

The ship has been retrofitted with a Desmi BWT system based on UV lamps. Two units were installed, one in the tunnel thruster room and the other in the

pump room, both covered by one monitoring. Fitting work on the main deck and steel work, consisting mainly of making inserts in the bottom plating of most ballast tanks, were carried out.

The Sten Fjell

The Stenersen AS fleet consists of 18 ships, many of which visited Remontowa S.A. in the previous years. In 2018 we repaired two chemical tankers, *Stenberg* and *Sten Frigg*, in one dock at the same time. A year later we carried out a major repair of *Sten Skagen*, which involved a second class renewal and installation of Alfa Laval's ballast water treatment system.

A similar scope of work was carried out on the ship *Sten Fjell* in 2020. As part of a class survey, a main engine overhaul was



carried out in addition to drydocking and a standard repair. The main task consisted of the inspection and overhaul of three engine systems. Additionally an inspection of: vibration damper, turbocharger, compressed air cylinders, box coolers (with pressure test) and generators was performed.

What is more, the work on the ship's steering system was completed. The seal replacement was performed on the shaft and on propeller blades, which had to be dismantled beforehand. The slack on the sleeve, which holds the Becker rudder, was eliminated and a number of steel works on the rudder were carried out. Moreover, the tunnel thruster was inspected.

Overhauls of electric motors, power generators and shaft generator including treatment of covers were carried out.

The installation of a BWT system on *Sten Fjell* required two technological holes to be cut out in the bottom of the hull. New pipelines were installed at the bottom of the ballast tanks. The work involved removing the old GRE-made pipelines in the ballast system and installing the new ones - in the ballast tanks, the deck tunnel, the engine room and the new BWTS

room, for which the vessel's storage room was adapted.

The Regina Seaways

In 2015, the DFDS owned Ro-Ro ship *Regina Seaways* as well as a dozen others belonging to this shipowner, was retrofitted in Remontowa with a scrubber system.

In 2020 we installed a BWT system on the ship. The arrangement and layout of the BWTS in the ship's space was designed by the Marine Design and Consulting company, a member of the Remontowa Holding capital group.

In addition, a large scope of work was carried out in the underwater part, including the replacement of the right-hand rudder stock liner, replacement of seals on the shaft line and on the propeller blades, inspection and maintenance of the tunnel thrusters, maintenance of the open deck and replacement of steel in the fuel tank.

The fresh water tank was also cleaned, steel inserts in the ballast tanks were fitted and the sleeves and hinges on the stern ramps were replaced.

In 2015 the *Regina Seaways* was retrofitted here with EGCS. In 2020 we installed a BWTS on the ship. **Photo: Marcin Koszałka**





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