CORPORATE MAGAZINE | NO 29 | 2017

IN THIS ISSUE ARCTIC SPECIAL BIGGEST SHIPLOADER SO FAR INSTALLATION IN SABETTA





INTRODUCTION

Dear Reader,

It is my pleasure to introduce BigNews 29 to you in which we are proud to present not only some of the projects that demonstrate our inventiveness over the last months but also a selection of our experiences high up North.

Lately our vessels have been heading into the coldest regions of our planet for the Yamal SPP project. A large number of our ice-classed vessels, from BigLift, Spliethoff and BigRoll, have now travelled the whole or part of the Northern Sea Route. Happy Rover was the record holder last year as she was the first heavy lift vessel ever to sail around the North Pole in one season. In order to give you a taster of the cold and empty regions of our planet we have compiled an Arctic Special in this edition.

In more Southern regions, cranes and shiploaders are cargoes that we have seen quite often, and we have a couple of impressive examples to show you. Happy Sky collected two very large cranes from Rotterdam for Cadiz and for client Sandvik we shipped the largest shiploader to date.

From the coldest to the hottest parts of the globe, our vessels go where they are needed. Happy Diamond shipped six boilers from Korea to Kuwait and Happy Sky assisted Damen with the assembly and transportation of two Platform Supply Vessels from Cadiz, Spain to Halifax in Canada.

We were able to achieve all this and more through the good cooperation between our staff and the clients' technical and supervising staff. Time and again we notice that an early and open communication on commercial, technical, operational and safety matters is key to a safe and efficient shipment solution.

I trust you will enjoy reading our specially 'Arctic' BigNews 29.

Arne Hubregtse

Managing Director

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O 1 OVERSIZED STS CONTAINER CRANES HOW TO SHIP THEM?



In 2016, Happy Sky was challenged to the max by several exceptional projects. One of the biggest challenges was the shipment of two very large Ship To Shore (STS) container cranes from Rotterdam, the Netherlands, to Vigo, Spain. Until last year, the container cranes had served the then Home Terminal of container handling company ECT in Rotterdam. ECT moved to another terminal and the cranes were sold to Davila Group which is now operating them at the Termavi container terminal in Vigo.

Engineering challenges

The engineers of both BigLift and client Altius S.A. carried out extensive preparations as moving these huge cranes threw up many challenges. Not only were they enormous, but extremely heavy too at well over 800 mt. The cranes are over 60 m high, 86 m wide and have a footprint of 15.25 m between the rails. During transport they had an overhang of no less than 58 m in total – 40 m on the portside and 18 m on the starboard side.

Cranes are not designed to be transported by sea. Therefore, it was necessary to reinforce them to withstand the accelerations and forces occurring during the sea voyage. Eighty tonnes of additional steel was fitted in each crane in order to strengthen it.

Lifting and skidding

As the cranes' centre of gravity was very high, the lifting operation required cranes with sufficient lifting height. Happy Sky's two 900 mt Heavy Lift Mast Cranes offered this quality, making her very suitable for the job. Furthermore, her excellent stability enables such loading and discharge operations to be performed without the need for stability pontoons.

In order to spread the forces on the vessel's deck, load spreaders were positioned on the weather deck. After lifting the first container crane on board it was skidded over pre-installed rails to its stowage position aft. The vessel's cranes positioned the second container crane directly in its stowage position.

Meanwhile, the cranes were transported and discharged safely and are now serving the Port of Vigo and we trust they will do so for many years to come.

A video of Happy Sky in Rotterdam can be viewed on our youtube channel: www.youtube.com/user/BigliftShippingBV







BigLift is quite busy in the mining industry.
Last year, Happy Star and Happy Dover
transported equipment for Westshore
Terminals in Vancouver, Canada, for Sandvik
Mining & Construction. A stacker-reclaimer
for the same terminal is planned for March.
One of the pieces recently transported is the
largest shiploader ever built by Sandvik.

Westshore Terminals is undergoing a major infrastructural reinvestment programme, which is to be completed in 2018. During this project four of the oldest machines on site – the three original stacker-reclaimers and the

shiploader serving Berth One – will be replaced by modern, more efficient equipment.

BigLift was contracted by Sandvik Mining & Construction to transport the new shiploader and tripper car, and the first stacker-reclaimer and its accompanying equipment from Qidong, China to the berth in Canada. Volume-wise, it would just have been possible to transport all the pieces in one voyage on Happy Star – which would then have been totally packed. However, it was decided to split the shipment in two separate voyages on Happy Dover and Happy Star, because Sandvik was contractually

obliged to have the new shiploader fully operational within a fortnight after its arrival. This could only be done, if the shiploader arrived on a dedicated vessel. So the stacker-reclaimer was shipped first and made ready before the arrival of the shiploader.

First shipment

Happy Dover loaded her cargo at the ROC berth in Qidong. She loaded the 550 mt stacker-reclaimer's main structure, the 203.5 mt elevator conveyor, a boom, the counter weights, the tripper car and several smaller items. Once at their final destination,

all this equipment was discharged onto a barge, as the discharge terminal was still fully operational at that time.

Second shipment

At the same berth in China, Happy Star lifted the 1060 mt shiploader and the 60 mt tripper car on board as soon as their construction was complete. BigLift has dealt with heavier cargoes in the past, but size-wise this ship-loader can be considered to be the largest cargo item ever shipped in one piece on a BigLift vessel. At 84.65 m long by 52.29 m wide and 53.96 m high, manoeuvring the shiploader between the

cranes was a challenge. During the voyage the shiploader had considerable overhang on both sides. The crane stuck out 43.7 m over portside and had an overhang of 11.8 m over the starboard side. The top of the shiploader was high up, at 63 m above the waterline.

After a successful discharge of both the new shiploader and the tripper car onto the quay at Westshore terminals, Happy Star turned around and took the old shiploader and tripper car away from the quay. The old crane pieces were placed on a barge to be removed from the site.

Third shipment

The second stacker-reclaimer and its additional equipment will be shipped to Westshore
Terminals on another BigLift vessel in May.

BigLift is happy to have been part of another interesting Sandvik Mining & Construction project.



ICE EXPERIENCES OVER THE YEARS

03 ARCTIC Our recent projects in the Arctic have inspired us to dedicate most of this magazine to our experiences in sailing through ice and operating in extremely cold weather conditions.

Over the past two years, a large number of vessels from BigLift Shipping, sister company Spliethoff and joint venture BigRoll Shipping have been active in the Arctic for a large project which is the subject of the article on the next page. In the 44 years of our existence – time flies – our vessels have been through a lot of snow and ice. In the early days, vessels like Project Orient had quite an adventure when

they loaded cargoes in the Great Lakes in the winter season when circumstances could be extreme. Vessels in those days were not as well equipped for these situations as they are now.

It would be a long list to mention them all, but some examples of projects executed in sub-zero temperatures are for instance the Fjardaal project, where a number of BigLift vessels moved prefabricated modules and cranes to Fjardaal in Iceland and Happy Dragon's voyage to Hammerfest in Norway where she loaded modules under severe weather conditions in 2013. Happy Star's

voyage to Sept Isles in 2015 (featured in BigNews 26) was memorable in many ways, one being the discharging and installation of two complete shiploaders in temperatures below -20°C, not counting the wind chill factor which made working outside an even more chilling experience.

Our sister company Spliethoff, which will celebrate its 100th anniversary in a few years, has been operating in these ice prone areas for a lot longer. In the 1950s wood production took the Spliethoff vessels to the Baltic countries and Russia. Ports like Murmansk and Archangelsk exported large quantities of wood to Western Europe. Since then, Spliethoff has been extending its

experience and upgrading its vessels so they have the highest Ice Class certification as many of them have to operate in the coldest areas on earth. They were instrumental in the execution of interesting projects that took their vessels away from inhabited areas to remote locations like Antarctica and Greenland.

With our innovative fleet and the wide experience we have been building up over time, we look forward to many more endeavours and challenges for our vessels in cold and remote locations.



weather conditions and the remote environment. Therefore, additional measures were taken to ensure the safety of the crew, cargo and vessels. All our captains and chief officers followed an Arctic Ice Navigator Course, Arctic winter clothing was provided, high latitude communication and navigation equipment was arranged and vessels' winterisation systems were reviewed, amongst other measures taken. With third parties, BigLift made arrangements for ice-breaker assistance and for the supply of 'on demand' weather and ice data.

Northern Sea Route

Late in the summer of 2015, Happy Sky was the first Dutch vessel ever to travel the whole Northern Sea Route delivering her cargo to Sabetta. Since then we have been involved in over 50 flawless sailings covering the whole Northern Sea Route. These voyages were performed by several Happy D, R and S-type vessels and Gracht vessels of D, E, F and M-types.

Navigating through ice

Quite a large number of these vessels had to deal with Arctic ice conditions during the

passage of the Northern Sea Route and the assistance of ice-breakers turned out to be inevitable during sailings taking place in the early and late navigational season.

One of these vessels was Deltagracht. In mid-November 2015 she entered Arctic waters through the Bering Strait and was soon escorted by the ice-breaker Vaygach on her journey to Sabetta. The convoy, comprising only the ice-breaker and Deltagracht, had to fight its way through rapidly increasing icy conditions. Due to a lot of friction on the hull caused by ice compression it was rather tough for both vessels to maintain their speed. On some occasions even the powerful ice-breaker had to stop.

After an 11-day voyage the convoy arrived in the port of Sabetta. Once the cargo was discharged, the Deltagracht was escorted to the Kara Gate and safely entered the Atlantic Ocean where she continued her voyage with no further need for assistance.

On another occasion Happy Diamond was sailing in convoy with a small ice-classed

tanker whilst being escorted by the world's most powerful ice breaker '50 Let Probedy'. Although the ice conditions were well within the capabilities of Happy Diamond, the vessels had to follow each other at extremely short distances.

Sailing in such close proximity has its risks. If the front vessel gets caught in the ice and suddenly stops, the vessel behind it runs the risk of a collision. Standard procedure for the trailing vessel is then to steer immediately to port or starboard into the ice and create an emergency stop. The ice breaker then turns around and works at creating a new open trail for the convoy. The Happy Diamond convoy did actually run into this situation. The well-trained crew acted as planned and the little convoy continued to Sabetta without any damage. In order to meet these eventualities, our vessels sailing in ice were assigned an extra Chief Officer for extra vigilance on the bridge, which worked to our satisfaction.

All in all, we handled a great number of sailings through the NSR and are happy to report they were all successful and there were no incidents.

04 ARCTIC

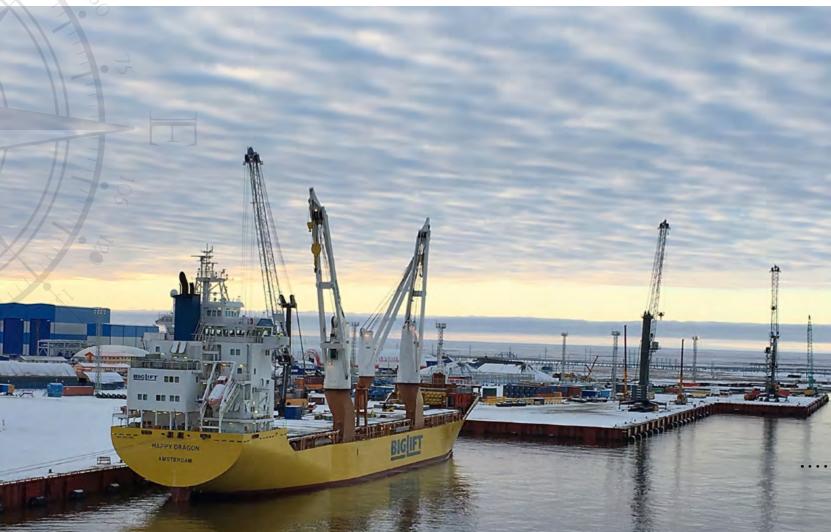
ARCTIC ADVENTURE

In the harsh environment of the Russian Arctic – covered in ice for seven to nine months of the year and with the sun staying below the horizon for three months – a huge LNG plant is being constructed. In the early stages the environment was nothing more than shallow beaches and permafrost shores where only reindeer and tundra could be found. With great effort an international port, a city for over 10,000 people and an airport had been built in Sabetta before the actual construction of the LNG plant could start.

BigLift was contracted to transport a considerable part of the Yamal LNG project from the Far East and Europe. The cargo mainly consisted of Site Preassembled Pipe racks (SPP), but also some heavy reactors were transported. As the volume of cargo was large, BigLift and Spliethoff joined forces. Together, they were responsible for shipping a major share of the cargo.

Ice-Class 1A

Due to the final destination in the harsh Russian Arctic, only vessels that have Ice-Class 1A notation could be used. All the vessels that were involved in the project met this notation and fulfilled other criteria for sailing in the Arctic. It is not possible to sail into Arctic waters without being thoroughly prepared for extreme



FROM +30°C TO -22°C





05 ARCTIC In November last year, Happy Delta discharged two, 369 mt APCI Heat Exchangers in Sabetta, Russia. The outdoor temperature during the discharge operation was around –22 °C, a difference of some 50 degrees Celsius compared to the situation when they were loaded in Port Manatee in Florida. The other generator had been loaded in Fairless Hills, Pennsylvania.

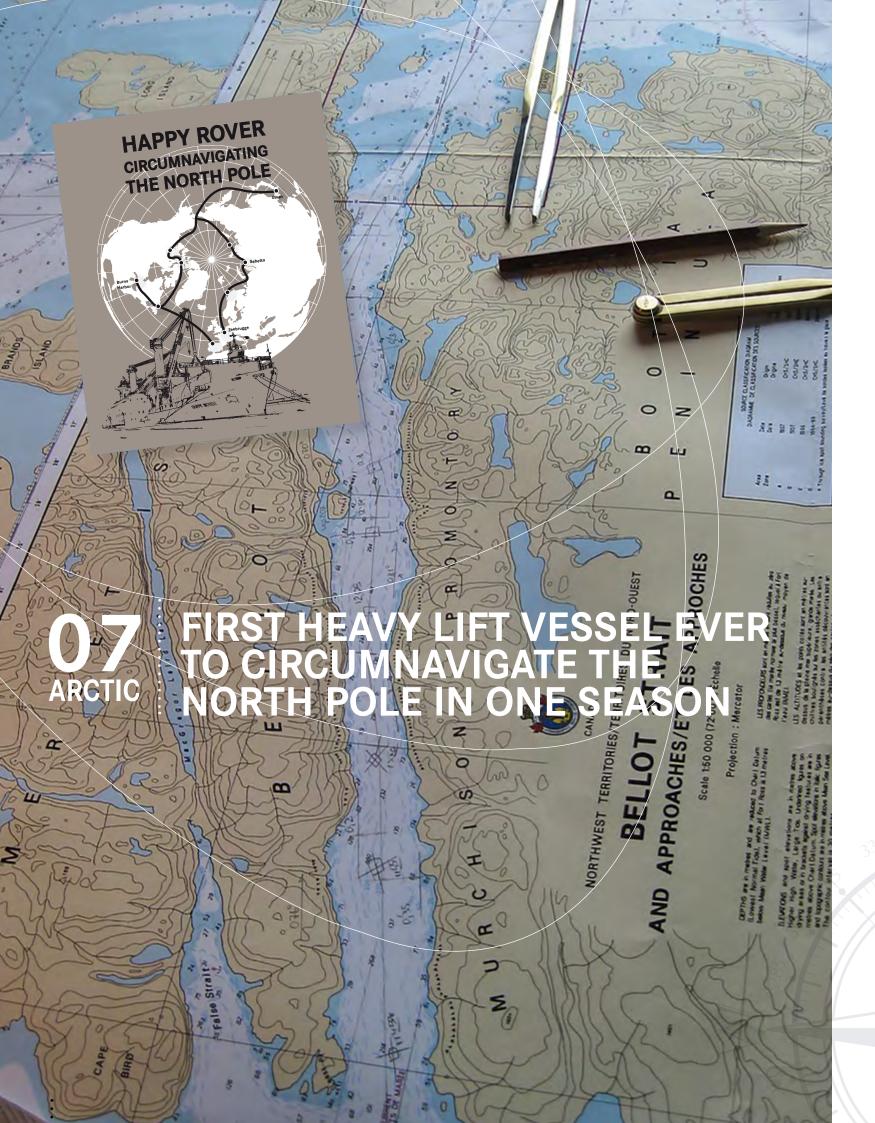
The two heat exchangers – measuring $50.25 \times 5.6 \times 6.05$ m – were transported below deck. Allegedly they were the most critical items of the project. They were smoothly discharged in just one day. That is quite an achievement in this extreme weather, especially when you realise that ballasting and antiheeling operations are already regarded as difficult activities just below freezing point. Because special

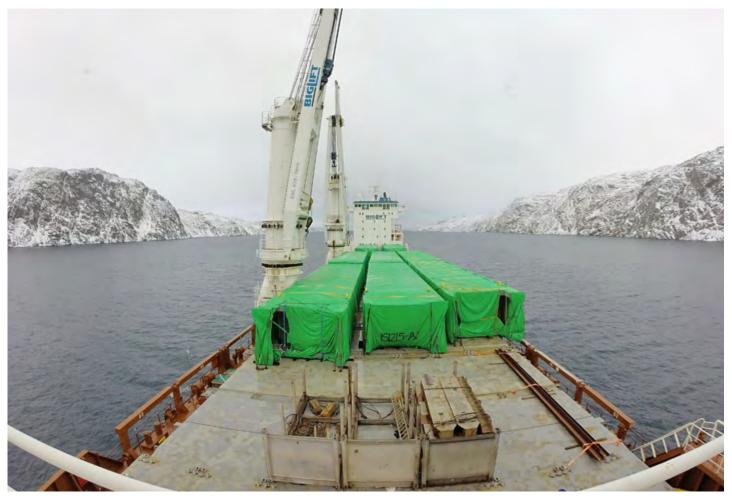
'sub-zero procedures' were developed in-house, Happy Delta could perform without difficulty. Despite the cold, vessel and cranes operated as they should; well within their capabilities.

Master and crew have logged another arctic shipment in their books!









With her voyage through the Northern Sea Route and immediately thereafter through the Northwest Passage, Happy Rover has achieved two important milestones. She is the first heavy lift vessel ever to have sailed these two routes within one season and she is also the first vessel to have used the shortest of the Northwest Passage routes, via Fury & Hecla Strait, for a transit between the Pacific and Atlantic Oceans.

The adventure started on August 11, when Happy Rover left Zeebrugge, Belgium for Sabetta in Russia. After Sabetta, she continued in an easterly direction through the Northern Sea Route to reach Ulsan, Korea. There she loaded modules for Burns Harbour in the Great Lakes, Canada. While Great Circle sailing towards the Pacific Ocean, it became clear that the route through the Bering Strait and the Northwest Passage, through Fury & Hecla Strait, was open. This would be a good and

shorter alternative for the Pacific Ocean and the Panama Canal for reaching Montreal and the Great Lakes in order to discharge in Burns Harbour.

Northwest Passage

The Northwest Passage is a route connecting the northern Atlantic and Pacific Oceans by way of the Arctic Ocean, along the north coast of North America through waterways in the Canadian Arctic Archipelago. The various routes in this area are navigable for only a few weeks per year and Happy Rover was the first merchant vessel ever to choose the shortest passage through Fury & Hecla Strait. The Canadian Arctic straits are rather narrow, so they retain a lot of ice, which is often several years old, thus giving it a much harder structure than ice out in open waters. Only vessels with high ice class certifications and with a crew trained in ice navigation can enter this area. Happy Rover was built with Finnish Ice Class

1A and both the crew and the ship had been carefully prepared for this journey. To ensure its success, the voyage was planned in close cooperation with Transport Canada and Canadian Arctic experts Northwest Passage Marine.

Northern Sea Route

The NSR is a shipping route officially defined by Russian legislation as lying east of Novaya Zemlya and specifically running along the Russian Arctic coast from the Kara Sea, along Siberia, to the Bering Strait. For the main part it lies in Arctic waters and some areas are only free of ice for some two months a year. With the assistance of atomic ice breakers, traffic can be extended by a number of weeks.

BigLift Shipping is proud to have achieved these mile stones and is convinced that more successful trips through the Northern Sea Route and the Northwest Passage will follow.







08 ARCTIC

INSTALLING LNG ARMS IN SABETTA

Last October, Happy Dragon moved 10 LNG loading arms and two condensate arms from Zeebrugge, Belgium to Sabetta, Russia, where the arms were installed on their final berth.

The challenge of this project was not the weight of the cargo, but the size of the pieces and their ultimate location.

At 25 m long each, the loading arms are the largest of their kind. From SVT, the factory in Germany, the loading arms were driven to the port of Zeebrugge by truck. There, Happy Dragon used her own heavy lift cranes to place them on board. The voyage to Sabetta was a smooth one and

local conditions turned out to be favourable. The highly experienced crew was undeterred even though this was in fact a journey into the Arctic.

The loading arms had to be installed on two different jetties in the port of Sabetta; five on the one, and five plus the two condensate arms on the other. From here, LNG will be delivered and transhipped in the near future. BigLift and SVT were given the task to engineer the complete operation on board.

For the installation of the loading arms, they needed to be tilted to an upright position.

Two of Happy Dragon's heavy lift cranes carried out this manoeuvre and once in a

vertical position, the loading arms could be installed into their slot on the jetty in a single lift operation. Subsequently, they were dressed with counter weights and swivels.

Because of the good cooperation between South Tamby LNG, SVT and BigLift and the favourable weather conditions in the Arctic, the whole job took less than a fortnight, whereas calculations and weather predictions beforehand had expected this to be a maximum of 30 days.

A video of Happy Dragon in action in the port of Sabetta can be viewed on our youtube channel:

www.youtube.com/user/BigliftShippingBV







In May 2015, BigLift was entrusted with the transport of six large 520 mt boilers for the Clean Fuels Project of KNPC in Shuaiba, Kuwait. Booking such contracts almost a year in advance has the advantage that all challenges emerging from such projects can be tackled in plenty of time.

Challenges

The boilers were 20 m long, 15 m wide and 13 m high and had to be shipped under deck in three separate voyages. Their size meant that they required a high hold and also that additional spreader beams for the loading and discharge operations were necessary. Given the advance notice to organise these voyages, BigLift's project manager and engineers set to work.

The issue of hold height was solved by enlisting our Happy D type vessels which have a hold height of nearly 13.5 m. With their ample holds of 17.8 m wide, they were also able to accommodate the general cargo that came with the boilers. Happy Diamond's own heavy lift cranes were easily able to lift the boilers and the additional general cargo. This challenge was neatly solved.

Spreader beams

A further challenge was the width of the boilers.

The vessel's standard equipment on board needed

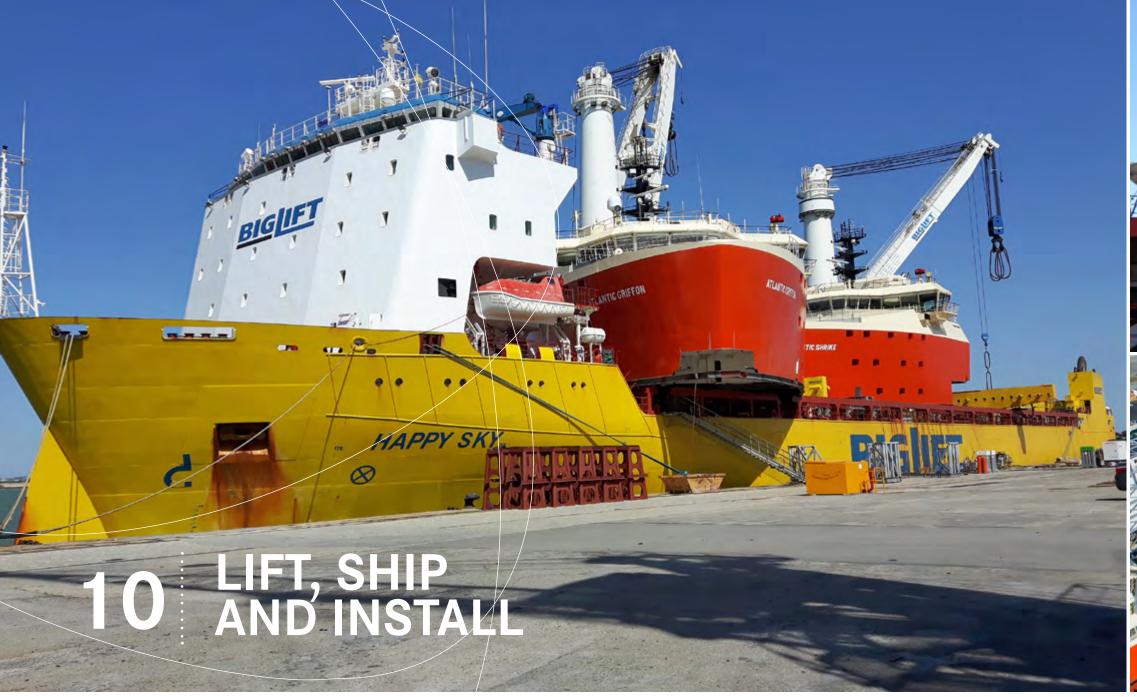
expansion. Good cooperation with our client Hyupjin Shipping of Korea – and through them with the ultimate client, the EPC JV partners Fluor, Daewoo and HHI – ensured that our own Engineering Department could carry out the design and production of the longer spreader beams in-house.

Great cooperation

Overall, this was quite an international exercise in which our staff in the Middle East, Korea and Amsterdam were all involved to solve the technical challenges before the first shipment in February.

Shipments were planned and executed in February, April and June and they all arrived at the Mina Abdullah Refinery on time.









As part of a larger project, Damen Shipyards was asked to build two Platform Supply Vessels (PSVs) in multiple sections in Galati, Romania, with the aim of assembling them in Halifax, Canada.

At the start of the project, the division of the ships had not yet been decided upon and Damen assessed the possibilities in close cooperation with BigLift. In the end it was decided that just taking the accommodation units to Canada separately would be the most suitable method for transportation and installation. In Cadiz Happy Sky lifted the accommodation units on board and transported them to Canada while the dead hulls were towed across the Atlantic by seagoing tugs operated by Atlantic Towing.

Preparation

Three years of preparations took place in which numerous drawings and calculations were made. Each PSV accommodation unit weighed 650 mt and was 34 m long, 25 m wide and 22 m high. A base frame was designed to spread the loads on Happy Sky's deck and to seafasten the accommodation units against the accelerations expected during the sea voyage. The base frame was equipped with six guiding pins, ensuring the correct position of the accommodation units on the frame.

'Deck chess'

Lifting the accommodation units was challenging and was therefore very carefully planned. With her own two heavy lift cranes carrying out tandem lifts, Happy Sky loaded the two accommodation units on board. In order to put the accommodation units in the correct order for the discharge operation, the units were subjected to some so-called 'deckchess', shifting them around on Happy Sky's deck using single lifts. So, when the first unit was on board, it was shifted forward on Happy Sky's deck, with the accommodation unit's bow leaning over the passage way.

Now the deck space between the cranes was available to take the second unit on board. After the loading operation this was repositioned to the aft of Happy Sky and the first unit was then shifted back to its transportation and discharging position between the cranes. For moving the units

about on the deck in a single lift action, the rigging equipment was very complex because of the sheer size and weight of the units, and this too had been meticulously calculated and prepared in advance.

Close communication

The loading operations of the accommodation units were thrilling. Not only was Happy Sky ballasting continuously to counteract the increasing loads in her cranes, but also the PSV moored alongside had to ballast simultaneously while she was losing the weight of the accommodation unit. Crucially, the crews of both Happy Sky and the PSVs kept in very close communication between themselves and each other for a smooth operation.

At one point during the lifting operation of the first unit its portside rose, but the starboard side seemed to remain in its starting position. This was immediately spotted and remedied. As with all lifting operations, the loading was very closely monitored all the time. The lifting operations, including the deck-chess with the single lifts, continued smoothly and soon Happy Sky could cross the Atlantic Ocean.

A fitting finish

In Halifax the accommodation units were discharged and positioned on the hulls successfully, with all the frames and bulkheads within the accommodation fitting exactly. When repositioning the second unit in a single lift operation, a building on the quay had to be passed within just a few metres

with the accommodation unit's bow hanging transversally over the quay. But this too, was well calculated and predicted. The second PSV was completed with its accommodation unit fitting back on the hull.

We have executed many interesting projects with our valued client Damen before, and we are honoured that Damen involved us in yet another technically challenging project. The cooperation with Damen and Atlantic Towing went very smoothly and we look forward to working together again in the future.



SHORT NEWS



MEETING IN LOAD PORT

Recently, Happy Buccaneer and Traveller met in the port of Aviles. Both vessels came to load cargoes, but for different projects.

Traveller loaded two identical coke drums - 9 m diam. by 36 m long, weighing 270 mt - for Gdansk, Poland. Happy Buccaneer loaded five columns, the largest of which was 74 m long and weighed 740 mt for the Talara project in Peru.

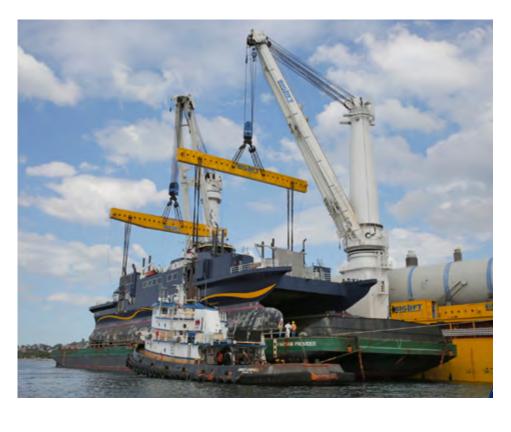
With our vessels sailing around the world for many different projects, it rarely happens that they meet at all, let alone at the same quay.

CATAMARAN FOR THE RED CROSS

Recently, mv Happy Star was involved in the transportation of catamaran-type vessel mv Susitna for the Philippine Red Cross. The Red Cross had bought the catamaran from Matanuska-Susitna Borough, Alaska. In Port Angeles, USA Happy Star loaded mv Susitna on a barge which was towed to Subic Bay in the Philippines. While doing other things on the way, Happy Star met mv Susitna in Subic Bay to lift her off the barge.

Chairman of Philippine Red Cross Richard Gordon said "there is an average of 170 maritime accidents in the country every year, mostly in the Visayas area. The ship will be used to provide disaster-relief and emergency services. It will also provide search and rescue services after maritime disasters. The Susitna will serve as a mobile clinic/hospital ship serving some of the most isolated of the 7,107 Philippine Islands."

BigLift is proud to have been involved in this project and hopes that the Philippine Red Cross will be able to help many people with its new catamaran.



TRANSPORTER LOADED 420 MT TUG

In Tampico, Mexico, Transporter loaded the 420 mt tug Vernicos Oceanus. After a smooth loading operation from the water, they sailed for Houston, TX.



HOUSTON OFFICES JOINING FORCES



As from Mid-March, the representative offices of BigLift and Spliethoff in Houston have merged into one office, representing both brands. We believe that this merge will improve our service to clients of both companies, as there is now one portal through which the extensive combined fleet of BigLift and Spliethoff can be accessed.

In the picture: Kasper Bihlet, Nicolai Stoltz Nielsen, Margaret Stevens, Peter Ludwig, Kyle

EXHIBITIONS & CONFERENCES

BreakBulk China

Shanghai 13 - 16 March 2017 stand 708

Breakbulk Europe

Antwerp 24 - 26 April 2017 stand 323H4

Offshore Technology Conference

Houston 1 - 4 May 2017 booth # 1525

COMMERCIAL STAFF EXPANDED



Starting her working life in the hospitality

industry, Sanne decided after a couple of years to make a radical move and step

into a men's world. She landed on the chartering department of Heerema Marine Contractors, and learned the ins and outs of hiring all types of vessels. After years of being the client Sanne decided it was time to look at the business from the other side and come to work for the vessel owner. She is very much looking forward to work together with BigLift's clients, both internal and external.



Wim joined BigLift as Commercial Manager last July. He has been in the shipping business since 1979. He started out in the

liner agencies in Rotterdam and spent 12.5 years with Vertom before deciding to do something completely different and turn to the heavy lift world. After a number of years with Jumbo Shipping in their commercial team, Wim recently joined BigLift Shipping. He enjoys the Amsterdam environment and the cooperation with colleagues from both Spliethoff and Sevenstar, and hopes to be working amidst the yellow ships for a long time to come.

HAPPY STAR HAPPY SUN

YEAR BUILT 2014 / EXPECTED 2018



length o.a. 156.00 m length p.p. 147.60 m breadth mld 29.00 m deadweight 18,374 mt under deck 20,535 cbm on deck 3,400 sqm

registration Netherlands
2 cranes each 900 mt
class LLOYD'S №100A1
Finnish Ice class 1A
m Open sailing

HAPPY SKY

YEAR BUILT 2013



length o.a. 154.80 m length p.p. 145.20 m breadth mld 26.50 m deadweight 17,775 mt under deck 20,561 cbm on deck 3,250 sqm

registration Netherlands 2 cranes each 900 mt class LLOYD'S №100A1 Finnish Ice class 1A Open sailing

HAPPY BUCCANEER

YEAR BUILT 1984



length o.a. 145.89 m length p.p. 134.00 m breadth mld 28.30 m deadweight 13,740 mt under deck 19,908 cbm on deck 3,067 sqm

registration Netherlands
2 cranes each 700 mt
ro-ro width 20.30 m
ramp capacity 2,500 mt
class LLOYD'S \$\pm\$100A1
Open sailing

HAPPY DELTA HAPPY DIAMOND HAPPY DOVER HAPPY DRAGON HAPPY DYNAMIC

YEAR BUILT 2011



registration Netherlands

class LLOYD'S № 100A1 LA

2 cranes each 400 mt

1 crane 120 mt

Open sailing

Finnish Ice class 1A

 length o.a.
 156.93 m

 length p.p.
 147,75 m

 breadth mld
 25.60 m

 deadweight
 17,518 mt

 under deck
 20,892 cbm

 on deck
 2,736 sqm

HAPPY RIVER HAPPY ROVER HAPPY RANGER YEAR BUILT 1997/1998



length o.a. 138.00 m length p.p. 127.14 m breadth mld 22.88 m deadweight 15,634 mt under deck 17,863 cbm on deck 2,450 sqm registration Netherlands 2 cranes each 400 mt class LLOYD'S № 100A1 Finnish Ice class 1A Great Lakes fitted

Open sailing

TRACER TRANSPORTER TRAMPER TRAVELLER

YEAR BUILT 1999 / 2000



length o.a. 100.50 m length p.p. 96.50 m breadth mld 20.40 m deadweight 8,600 mt under deck 10,530 cbm on deck 1,330 sqm registration Netherlands 2 cranes each 275 mt class BV 1 3/3 E Ice class 1C Great Lakes fitted

12 FLEET INFO

PRODUCTION

Editorial staff: communications@ bigliftshipping.com Pictures: BigLift Shipping Design: Vormgeving Onbekend

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