# BIGNEWS

CORPORATE MAGAZINE | NO 25 | OCTOBER 2014





### INTRODUCTION

Dear Reader,

It is my pleasure to introduce BigNews Magazine Number 25 to you.

Since the last edition, we have been busy on a number of fronts. First and foremost we took delivery of Happy Star, which we proudly show on our front cover with her cranes mounted. Happy Star is now at Huisman China to finalise commissioning of the two 900 mt cranes. We expect her to start her first job in early November.

In the meantime, the fleet has been very active. After many years working around Australia, Happy Buccaneer was in Europe for a short spell, delivering a ship loader and loading heavy tugs in Rotterdam. Happy D vessels took up the challenge to sail in to the Arctic, to Baffin Island to unload crane parts at Milne Inlet and Happy Ranger and Transporter moved 18 large gas tanks to the Virgin Islands.

We transported various port cranes which entailed complicated engineering. We even hired Ro-Ro transportation for two shipments of six container cranes.

I trust you will enjoy reading about the challenges, including the project specific QHSE requirements, which our crew and staff meet time and time again. In close cooperation with our customers we manage to deal with these challenges to ensure the safe and timely delivery of our cargoes.

**Arne Hubregtse**Managing Director



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18 LIQUID PROPANE GAS TANKS CROSS THE ATLANTIC

The Virgin Islands welcomed the arrival of 18 Liquid Propane Gas (LPG) storage tanks, which will play a key role in reducing the consumption of local fossil fuel. It is expected that demand will go down by 60% and ultimately tax payers' electricity bills will be reduced by some 30%.

BigLift carried the LPG tanks in three shipments from Westdorpe, the Netherlands. Happy Ranger made two consecutive voyages with eight tanks each time and Transporter carried the two remaining pieces.

Some creative solutions were necessary to stow these big tanks. They were quite impressive at about 315 mt, with a length of 53 m and being nearly 7 m in diameter. Therefore, Happy Ranger crossed the Atlantic Ocean twice with two tanks protruding slightly over her portside. It goes without saying that BigLift engineering made sure that the tanks were sufficiently sea fastened and that all the cargo safely reached St Croix.

We wish the Virgin Islanders all the very best in reaching their goal!



02





03

Early in 2014, a challenging transport was carried out on behalf of Eurocrane. Two newly built, fully mounted, harbour cranes were shipped from the Port of Aveiro, Portugal, to Sete, France. The cranes were shipped in two consecutive voyages. This project was extremely time sensitive because of the delivery dates agreed between Eurocrane and its final client. At the same time, Eurocrane preferred to ship the cranes as late as possible to allow maximum time for completion and testing. This was all taken on board in our planning and we successfully performed a "last minute" delivery for both cranes.

Each crane was 70 m high, weighed about 650 mt and had a footprint of about 23 x 16 m. To ascertain safe and smooth handling, technical planning for the shipping operation started a year in advance, which made it possible to implement various technical solutions during the design stage.

The cranes were assembled in Aveiro directly on the quay that was assigned for the loading operation. The cranes were fully assembled and tested prior to the loading operations.

Upon completion of the tests, each crane was prepared for transportation, fitting all the

necessary internal lashings so that they were able to handle the possible stresses of a sea voyage.

The centre of gravity sitting high above the ground dictated a complex lifting arrangement and left no margins in terms of stability of the lift. The combination of a complex and high lifting arrangement and the height and size of the cranes meant that it was important to check the weather forecast regularly. Fortunately, it stayed fine during all the lifting operations.

As the centre of gravity was not in the centre of the crane, we decided to use our sync hoist

system as an additional safety measure. The main purpose of this system is to counteract any deviation of the lift from the horizontal axis by remotely adjusting the length of the lifting arrangement on one side.

Happy Dragon was the chosen vessel to perform this operation – one of five sister ships in our fleet. She is equipped with 2 cranes with a lifting capacity of 400 mt each – and one of 120 mt – and the notation to perform open hatch sailing.

The height of the harbour cranes and the objective to keep the acceleration forces on

them as low as possible, required that they were stowed as low in the cargo vessel as possible. In a tandem lift operation the harbour cranes were placed on the ship's tank top where the ship's own steel pillars, had been installed to distribute the weight of the cargo. With the cranes sticking out over the weather deck, they were safely shipped to Sete.



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# 04

### **RO-RO BY BIGLIFT**



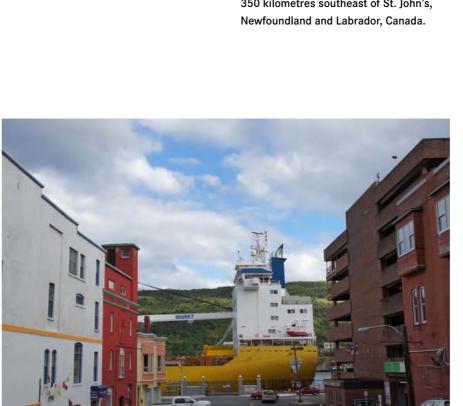
Kone Cranes contracted with BigLift Shipping the transportation of five ship-to-shore (STS) cranes for the Teluk Lamong container terminal. For this project BigLift chartered the deck carrier Korea Express and moved the cranes from Hailong, China to Surabaya, Indonesia in two voyages.

In the port of Hailong, the vessel's deck was fitted with rails and winches, so that the 960 mt cranes could be pulled onto the flat deck. The full loading operation, including

laying out the deck fittings and seafastening, was completed in only two days per crane.

The vessel arrived in Surabaya after 12 days of sailing. There the cranes were rolled back onto the quay with the winches and with the use of hydraulic cylinders were landed in their quay-side rails. For each crane, discharge took place in only one day.

A smooth operation, owing to the excellent work of BigLift's Engineering staff and all workers on the ground.





### **ROCK 'N' ROLL AT ST JOHN'S**

Husky Oil Operations awarded Technip a contract for the subsea tieback of the South White Rose Extension Field. This represents an extension of the White Rose Field located in the Jeanne d'Arc Basin approximately 350 kilometres southeast of St. John's, Newfoundland and Labrador, Canada.

The contract was executed in July 2014 and covered the supply and installation of flow lines and subsea structures to support oil production and water injection. BigLift mobilised Happy Diamond for this project. With her own powerful heavy lift cranes, the vessel loaded all the equipment at Technip's Flexi France facility in Le Trait and in St. John's transferred it onto the cable layer Seven Pacific.

BigLift's dedicated project team and the crew of Happy Diamond ensured an injury free and timely performance.

Happy Diamond's crew thoroughly enjoyed their visit to St John's. Where they were berthed, coincidentally gave them a front row seat at a local rock concert held on the pier.







## 05

# HOW TO SHIP THREE ROTOR TUGS TO BRUNEI

At first glance, transporting three tugs doesn't seem too difficult. However, these particular Rotor Tugs have propellers extending below the bottom and therefore, require supports with a minimum height of 2.7 m. For normal dry docking, the tugs are provided with two small steel frames which, together with dock blocks, are sufficient to support them in a static environment like a dry dock. Shipment on a vessel, however, is entirely different, as a ship rolls and pitches which results in acceleration forces working on all possible axes of the tugs. Since the original supports were only calculated for vertical forces, other solutions had to be found.

The size of these tugs (28x12x15 m) limited the available area on deck. And as they weighed 720 mt each, all three units had to be loaded within the reach of both cranes. Happy Buccaneer's deck is already an impressive 28.3 m wide. However, standing two boats side by side and adding the necessary space for sea fastening would require a total width of at

least 33 m. The solution was found by placing Happy Buccaneer's tweendeck covers on deck so that they acted as extended deck area and as the basis for the supporting structure below the central part of each tug. Because of this extra surface, transverse stoppers could be placed at the extreme ends of the tugs. Additional vertical supports were placed between each tug. The engineering, which included loading plans but also materials and supports, was performed in-house. Many of the materials used came from our own stock, but due to the particular shape of the hulls some tailor made pieces were also ordered.

Since the tugs were booked on a rather short time frame, many of the arrangements had to be performed simultaneously to meet the deadline for loading dates. This included shipments of necessary equipment both from our storage facilities and from various suppliers.

The lifting operation was a complex affair in itself. Divers went under water to help shift

the steel lifting belts along the supports and propellers to the lifting positions. As the tugs were fully fitted, including zinc anodes, special precautions had to be taken to protect all protrusions on the hulls which required wooden safeguards. As you can imagine positioning wood underwater is not easy, it's a time consuming task. Each tug being lifted was quite a spectacular sight.

As soon as a tug was positioned on its supports, sea fastening constructions were built up at the sides of the tugs and lashing wires were installed in a longitudinal direction to hold the tugs in position during the shipment.

We have shipped a great variety of boats over the years but because of their size, weight and shape, these were really special!





### TO LOAD UNLOADERS

BigLift was contracted by Cargotec Sweden Bulk Handling for the transportation of two ship unloaders from Trieste, Italy to Immingham in the UK.

The ship unloaders, each weighing in at approximately 600mt, were designed to discharge wood chips and coal at the Immingham Renewable Fuel Terminal. This terminal facilitates an increasing demand for renewable fuels from the power plants situated nearby.

For this project a Happy R-type, in this case Happy Rover, was the most suitable vessel in the BigLift fleet, on the one hand having sufficient capacity to lift and stow the two ship unloaders in one voyage and on the other being able to deal with the limited draught and obstructions at the berth in Trieste.

In Trieste, the fixed shore crane on the Frigomar Berth prevented a conventional lifting operation taking place over the mid-section of the berth. A special draught survey was conducted and it was decided that Happy Rover could be berthed forward, outside of the regular deep water zone, but just clear of the obstruction by the shore crane on the quay. Because of the draught limitation and the subsequent low draught of the vessel, the stability for lifting was a challenge, but Happy Rover was able to lift the unloaders in a tandem lift.

Long before the actual lifting operation took place, an extensive preparation path had started. BigLift's Engineering and Project Department in Amsterdam calculated and planned all the different steps of this operation, which included simulations of all the manoeuvring that had to be done with the ship unloaders once on board. In short, an actual storyboard was ready for the operation in Trieste.

Due to the high centre of gravity of the ship unloaders, calculations showed that the best place to stow them was as low as possible on the tweendecks, which can be set in different heights, yet still high enough to be able to manoeuvre the unloader's offloading booms over the weather deck hatches, thereby making good use of the vessel's capacity for open sailing.

With Happy Rover's standard equipment, two complete hold length rail tracks were created on Happy Rover's tweendeck, providing enough length to stow and manoeuvre the ship unloaders on board.

After six days of preparation while berthed in Trieste, the actual lifting operation could commence. The shipunloaders were brought alongside one by one on SPMTs. Their booms were slewed into lifting position, keeping just clear of the surrounding buildings; ready for the lift

When the first unloader had been placed on the rail track on the tween deck, its engine was started and in close cooperation with Cargotec's supervising engineer, the booms were brought into position for the first manoeuvring on board. The ship unloader was driven forward over 30 m, thereby passing the ship's forward crane to make space for the second unloader. The extensive simulations proved their worth.

Once the second ship unloader was manoeuvred in to its stowage position, the next challenge for the crew was to attach over 120 lashing wires to the unloaders and Happy Rover to secure the cargo for the sea voyage to Immingham. Then, the unloaders' vertical booms were secured with large 19 m long push-pull braces and ultimately 180 mt of the SULs' counterweights were taken down before the seavoyage with Happy Rover's additional flyjib, which was the only way to access them.

The sea voyage to Immingham went smoothly.

After berthing, the whole operation was carried out in reverse order and the ship unloaders were carefully discharged onto the rails of Humber International Terminal's jetty.



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**07** ARCTIC DELIVERY



Baffinland Iron Mines Coporation (Baffinland)'s Mary River Project is located on northern Baffin Island, in the Territory of Nunavut in the Canadian Arctic. It is considered one of the best iron ore projects in development in the world with an ore grade of approximately 65%. On September 8, 2014, Baffinland began mining and transporting ore to the port site with the intent of shipping first product during the open water season of 2015.

The facilities for shipping the iron ore are nearing completion. Förderanlagen Magdeburg (FAM) have been contracted to design, engineer and build the ship loader, which will be able to load 2 x 3,500 mt per hour at the Port Site at Milne Inlet which is located a distance of 100 kilometres from the Mine Site at Mary River.

The climate conditions of the north Baffin region play an important role in the planning and execution of the project. The area experiences very low temperatures that average -30° Celsius in the winter and 24-hour darkness from November to January. Summers bring 24-hour daylight from May to August, but continued cool to cold conditions. These typical Arctic conditions require consideration in the planning and logistics relative to most project activities, but especially to shipping and construction.

FAM chose to employ BigLift for the sea transportation of the dismantled shiploader. BigLift's considerable experience in operating in very cold conditions, along with the availability of eight suitable highest lce Classed Heavy Lift Vessels guaranteed the required reliability. This is specially true since two of the vessels were required for about 17,000 frt from Shanghai and a similar quantity from Bremen. Both vessels were to arrive at Milne within a narrow time window. BigLift's flexibility in tonnage turned out to be a key factor for success

The cargo was shipped on Happy Delta and Happy Dover. Due to the remoteness of the area the vessels had to be self-sufficient for a longer period. Several on board systems needed to be installed in order to meet the required redundancy and environmental standards for the Canadian Arctic.

Upon arrival at Milne Inlet both vessels dropped anchor near the shore. The entire discharge operation was carried out by the vessels' cranes, equipment and crew. Some pieces were over 18 m high and 32 m long but that did not faze the experienced and well-trained BigLift crew who demonstrated their hard work and expertise.





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BigLift believes that all operations can be executed without accidents. All employees have to contribute to this high level of excellence and operational reliability in executing and maintaining our QHSE system. Our many years of experience in the heavy lift industry and the high risk environment we are working in enable us to define QHSE methods and systems for all project phases, combining the heavy lift market QHSE challenges with international QHSE standards.

Any project starts with a thorough assessment of the risks and proper planning, followed by detailed engineering, coordination, preparation meetings and careful execution. For all phases in our projects we adhere to BigLift's policies and procedures, which are based on the latest Health, Safety, Environmental and Quality standards applicable to our industry.

BigLift operations are continuously improved

via a system of audits, by analysing project close-out and any near misses, reporting and taking into account any suggestions for improvement raised by BigLift colleagues.

BigLift's management system is certified, complying with ISO 9001, the International Safety Management (ISM) Code and all international and Dutch legislation. Additionally, some projects have their own special standards or require compliance with specific local legislation as well. Any of these requirements are considered in the early stages of the project.

The Gorgon Barrow Island project and the Wheatstone project are two examples of projects where QHSE was a top priority.

Gorgon project - Chevron (Barrow Island - Western Australia) The Gorgon project centres on the development of gas reserves via gas processing facilities located on Barrow Island in Australia. This project was a real challenge because Barrow Island is a Class A Nature Reserve, which includes several species that are now extinct or greatly reduced on mainland Australia, and because of this it has very stringent quarantine requirements.

For the Gorgon project BigLift transported a number of Field Equipment Rooms (FERs), four XTRs (so-called 'Christmas trees'), as well as four bases and general cargoes from several ports worldwide.

Because of the very strict environmental requirements, the vessels needed to be fully quarantine compliant. In practice this meant that all vessels in the Gorgon project had to be free of all native plants, growth, animals and insects. In order to reach this level of cleanliness, all kinds of risk areas had to be

inspected, removed or cleaned and sprayed with insecticides. Rodent traps, flour trays, ant lures etc. – a long list of items – had to be added to the vessel and BigLift regularly checked all the extra equipment. Daily reports were made to the Client. We also arranged training facilities for the crew so we could conduct Barrow Island familiarisation and introduction courses. All this needed to be done on top of the regular business of preparing the cargoes of course.

Ultimately, BigLift was pleased to play a role in helping protect the diversity of Barrow Island's flora and fauna for future generations.

#### **Wheatstone Project**

Another challenging project as regards QHSE concerned the shipment of LNG plant equipment, such as modules and compressors from Marina di Carrara and Livorno (Italy) to Ashburton, Australia.

One of the requirements in the preparation of the Wheatstone project was to comply with the Offshore Vessel Inspection Database (OVID). This database and criteria set are developed by the industry association 'Oil Companies International Marine Forum'

As BigLift vessels are not built specifically to these criteria, there were some discrepancies between the heavy lift cargo vessels and the OVID requirements. With creative thinking, team work and a clear view of where we needed to go, solutions were found to close any gaps and comply with the OVID standards.



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### FINISHING TOUCHES HAPPY STAR

Happy Star is in its very last stages of completion. Delivered by Ouhua Shipyard to the Owners, the vessel is now at Huisman in Zhangzhou for the installation and commissioning of her 900 mt heavy lift cranes. This is progressing well. Recently the installation was completed and end of October commissioning will be finished.

After her name-giving ceremony on 28 October she will be ready for her first voyage early November. With the impressive lifting height of 46.8 m above deck and the maximum outreach of 41.5 m we are looking forward to welcome Happy Star in our fleet.

### A 'REEL PARTNER'

BigLift has proven to be a real partner for the transportation of reels from Kalundborg to Brazil. Over the last three years BigLift has loaded more than 200 reels at the NKT Facility using its own vessels and heavylift gear and it has a very successful cooperation with DHL and NKT Flexibles. The reels weigh about 220 mt and measure 8.6 or 9.2 m in diameter.

M.v. Tracer shipped 12 such reels from Kalundborg to Rio de Janeiro recently.



### MUTUAL ASSISTANCE

Earlier in the year, BigLift and the Dutch Marines helped each other out. While Happy Dragon was protected against pirates in the Gulf of Aden, the Marines were given permission to film on board and stage a pirate operation for further education of their personnel. Dutch frigate F805 Evertsen and Happy Dragon sailed next to each other a number of hours while the training exercise took place and everything was put on film. Crew and marines were given a little insight in the others' worlds and the day was a great success.



### **COMMERCIAL STAFF EXPANDED**



Jörn Schinke
Commercial Manager
BigLift Germany

Jörn started his working life on a traineeship programme with Van

Ommeren in Hamburg. When the company moved to the NYK office he moved with it and after a number of years he took the opportunity to work for NYK Bulkship / RoRo in London. Jörn later returned to North Germany and joined Schifffahrtskontor Altes Land, now SAL Heavylift. Two years ago he decided together with Sune Thorleifsson to open the CombiLift office in Steinkirchen. Jörn joined BigLift last July and started the BigLift Shipping Germany office.



Nicolai Stoltz Nielsen Sales and Marketing, BigLift Houston

Nicolai joined the BigLift office in Houston on September 1st. He is

of Danish origin, but has been living and working in the United States for about 16 years. He worked for K/S Combi Lift, managing its Houston office for the last eight years. Nicolai will be working together with Peter Ludwig and Margaret Stevens in expanding BigLift's name and good reputation in the US market.



Anthony Hoeks Commercial Manager BigLift Amsterdam

Anthony studied
Business Engineering and
Financial Management

in Amsterdam and joined Boskalis as a Junior Project Controller in Mombasa and Cotonou. Later he moved to Boskalis Offshore in Papendrecht and learned the basics of hiring out barges, tugs and sheerlegs for dredging projects, towing services and installation projects. While studying he had his internship at BigLift and earlier this year he decided to come back to the BigLift fold.



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#### **HAPPY STAR**

DELIVERY Q3 2014

### **HAPPY SKY**

YEAR BUILT 2013



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**HAPPY BUCCANEER** 

YEAR BUILT 1984

length o.a. 156.00 m
length p.p. 147.60 m
breadth mld 29.00 m
deadweight 20,000 mt
under deck 20.150 cbm
on deck 3.400 sqm

registration Netherlands 2 cranes each 900 mt class LLOYD'S ₹100A1 Finnish Ice class 1A Open sailing 

 length o.a.
 154.80 m

 length p.p.
 145.20 m

 breadth mld
 26.50 m

 deadweight
 18,680 mt

 under deck
 20.500 cbm

 on deck
 3.250 sqm

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

#### HAPPY DELTA HAPPY DIAMOND HAPPY DOVER HAPPY DRAGON HAPPY DYNAMIC

YEAR BUILT 2011

#### HAPPY RIVER HAPPY ROVER HAPPY RANGER

YEAR BUILT 1997/1998



length o.a. 156.93 m registration Netherlands length p.p. 147,75 m 2 cranes each 400 mt 1 crane 120 mt breadth mld 25.60 m 17.518 mt class LLOYD'S ₹100A1 LA deadweight under deck 20,892 cbm Finnish Ice class 1A on deck 2,736 sqm Open sailing

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





