BMS // 2018

DETERMINATION, ENTHUSIASM, POSITIVITY, AND THE ABILITY TO COOPERATE


Photo: Søren Schnoor.

Welcome to the third issue of the BMS Group magazine. Once more we will take you through a few of our assignments performed during the last year.

This time as well we present a very diverse excerpt of tasks that we have carried out in Denmark, Germany, Norway, Poland, Scotland, Sweden, and the United States. The knowledge of the companies in the BMS Group is centred on taking care of heavy loads as a preferred global and major player within cranes, man lifts, and transport solutions. We focus on a strong local presence when hiring out equipment of any size and to any assignment from our net of offices on four continents.

Thanks to our loyal customers, we are entrusted with extremely diverse tasks. From the construction of the metro in the Danish capital, repair work on a refinery for the largest fuel company in Sweden, and helping the fire-fighters in Poland to the erection of onshore wind power turbines in Scotland, and testing of lifesaving equipment for a global company within maritime and offshore safety. Furthermore, we have helped with maintenance work on the Öland Bridge in Sweden, established a wind park in the United States, and built a helicopter platform at a new university hospital in Denmark. And we have carried out lifting assignments for a world-leading subsea fabricator based in Norway, helped transport enormous elements for a new offshore wind farm in German waters, and balanced the elements of a spectacular pedestrian bridge in Denmark.

In 2017, the BMS Group rose to no. 16 on the 'International Cranes and Specialized Transport IC50', a listing of the world's top crane companies using the total load moment rating in ton-meter of the cranes in the company's fleet.

When it comes to a group of companies like ours, it is tempting to think only of large equipment. However, we would like to emphasize that the BMS Group attaches just as much importance to the people working with us. In most cases, we carry out jobs in teams making the close cooperation between the individual members of the team crucial. Determination, enthusiasm, positivity, and the ability to cooperate are key to being part of the BMS Group. In short: It is the people and their ability to collaborate with each other, the customers, and business partners that make all the difference.

Safety and working environment is at the heart of every single part of the BMS Group. Our engineering and HSEQ department makes sure that all assignments are done correctly and are well documented, setting the standard for the entire market.

We hope that you will enjoy reading about some of the most recent BMS Group jobs – and we look forward to doing business with you.

Jens Enggaard
CEO

When it comes to a group of companies like ours, it is tempting to think only of large equipment. However, we would like to emphasize that the BMS Group values just as much importance to the people working with us.

WHEN EVERY MINUTE COUNTS

Every minute counts when a situation requires abandoning an offshore installation regardless of whether it is an oil rig, a cruise ship or a freighter.
Safely evacuating the maximum number of crew in the shortest period of time is the priority and key performance indicator of any evacuation system.
Also, high capacity lifesaving equipment must be easy to handle while requiring limited involvement by the crew.

Viking Life-Saving Equipment A/S is a global company with close to six decades of innovation and leadership in maritime and offshore safety. Headquartered in Denmark, the company employs over 2,000 people in well over 30 countries around the world.

The company designs and produces a number of evacuation systems providing fast and easy evacuation and exceptional stability. Therefore the Viking products are trusted by offshore crews worldwide and they protect passengers and crew on many of the world's largest cruise liners and cargo ships as well as workers on the most advanced offshore platforms.

BMS Esbjerg has been cooperating with Viking for many years – first as one of more contractors but most recently BMS Esbjerg has been chosen as the sole supplier of crane solutions.

The Viking development department consists of dedicated and enthusiastic people striving to find still more clever solutions when it comes to rescuing at sea. BMS Esbjerg has been delivering crane solutions til VIKING for many years, most recently assisting with the testing of a new fleet system for larger vessels. The system is immersed in the water next to the ship where it is inflated. When the system is fully expanded, it contains a number of fleets with capacity for hundreds of people. The special feature of these fleets is that they are equipped with electric motors, allowing them to sail at a safe distance, for example, from a sinking or a burning ship.

READY FOR PATIENTS FLYING IN

An essential part of the new Aarhus University Hospital is a helicopter platform of a size allowing it to receive large military helicopters

In 2011, the two somatic university hospitals in Denmark's second largest city Aarhus merged into Aarhus University Hospital. The merger was performed in preparation for a new university hospital, which will become one of the biggest in Denmark. Today it is spread at four addresses around the city but before 2020 it will be located at one single address in the gigantic new facilities currently being built around one of the existing addresses in Skejby, a northern suburb of Aarhus.

The new university hospital will become one of the largest in Europe – indeed, the construction itself is the largest project in Northern Europe at this time. Contracts have been signed with some 70 contractors and an even larger number of subcontractors. When activity peaks approx. 1,200 construction workers are working at the same time and 200 shipments arrive at the construction site every day.

An essential part of the new hospital is a helicopter platform of a size allowing it to receive large military helicopters. BMS Aarhus carried out the lifting task in connection with the platform: Over a period of 14 weeks, the many individual parts of the aluminium structure were lifted in place. Due to the dimensions of the platform BMS Aarhus has to use some of its largest equipment: The task was performed with mobile tower cranes as well as mobile cranes up to 160 tonnes with flyjib.

Apart from the platform itself, the structure consists of a control tower, a footbridge and an elevator that will take patients directly to Department of Cardiology. The platform is a donation from two major Danish charitable foundations, while the Central Denmark Region administrative unit funds the control tower, the walkway, and the elevator tower.

The Department of Cardiology at Aarhus University Hospital is an internationally renowned and highly specialised department for diagnosis and state-of-the-art treatment of every aspect of heart disease. Focused on integrated patient care, treatments span from standard non-invasive procedures to highly advanced heart transplantation, electrophysiology testing and pacemaker treatment, including biventricular pacemaker implantation. The department collaborates with the most well reputed heart centres worldwide. Moreover, a large number of foreign heart specialists stay in the department for a short or longer period.

The New University Hospital in Aarhus will be the primary hospital for 320,000 citizens in and around Aarhus and the national and regional hospital for 1.2 million citizens in the Central Denmark Region. On an annual basis, it is expected to service 100,000 hospitalized patients and 800,000 patients for ambulant treatments.

FACTS

Aarhus University Hospital has 44 clinical departments with 1,150 beds and a staff of 10,200 employees.

Annual activities:

803,000 out-patient visits

94,300 discharges

83,200 surgeries

44,600 endoscopies

40,700 emergency visits

4,800 births

The car park is a public-private partnership, where CASA A/S finances, establishes, and operates the house as well as all surface parking until 2031. At that time, the region buys the house. CASA – one of Denmark's leading companies within development and construction of real estate – also establishes the heliport on top of the car park with the region as the owner.
Photos: CASA

COME BACK HOME TO THE REFINERY

Preem is the largest fuel company in Sweden accounting for 80 per cent of the country's refinery capacity and 30 per cent of the Nordic as well. Supplying more than half of Sweden's industrial companies with heating and energy products the company has refineries in the port cities Gothenburg and Lysekil in southwest of Sweden.

At the refinery in Gothenburg Preem had for a long period of time used the same supplier of cranes. However, in view of the September 2017 shutdown of the refinery Preem sent an inquiry to four companies including the Swedish division of the BMS Group.

BMS Kranar AB was chosen as the company has a wide range of crane and transport services – from truck-mounted cranes to mobile tower cranes, crawler cranes and large truck-mounted man-lifts. Furthermore, Preem emphasizes the ability of its suppliers to see both inside and outside the box and providing different suggestions on what might be better for a particular type of lift.

Before the actual shutdown the BMS people spent considerable time at the refinery, inspecting which crane sizes, types, and numbers were needed, all in order to provide an optimized solution for the customer. BMS Kranar AB also provided working environment certification, manageable planning, and engineering services to make Preem feel safe during the operation.

The shutdown as such went very well. After a few hectic start-up days the BMS team with Swedes, Danes, and Polish people working alongside proved that they not only could operate as agreed. They were also able to bring in extra equipment and personnel on a very short notice when unexpected requirements occurred. For instance, a specially trained lift-operator was brought in from Denmark within 12 hours.

BMS Kranar AB had a strong international management team during the execution phase at the refinery, including crane supervisors, HSEQ officers and project management.

FACTS

18 mobile cranes
(60 ton to 450 ton capacity)
10 truck-mounted cranes
(85 to 110 ton-meter)
2 mobile tower cranes
(104 and 136 ton-meter)
1 crawler crane (200 ton capacity)
1 truck-mounted man-lift
(103 m working height)
Up to 45 people

REAP THE WILD WIND

A 90-meter P900 Palfinger lift mounted on a 5-axle Scania P450 helps erect the turbines at the Kilgallioch Wind Farm in western Scotland

If you have read Dorothy L. Sayers' 1931 detective novel "The Five Red Herrings" featuring Lord Peter Wimsey, you might remember the Barrhill railway station. Located in the western part of Scotland Barrhill is just about five kilometres north of the Kilgallioch Wind Farm.

In 2013 the government granted consent for the construction of the wind farm and the work on site began two years later with the first wind turbine deliveries in early 2016. When complete, the Kilgallioch Wind Farm will have 96 Gamesa turbines, capable of generating up to 239 megawatts of power. BMS Lifting Ltd. has been a stable participant in the work at Kilgallioch Wind Farm for long periods – first from April to July and then again from October to November 2017. In both cases, the work has been carried out using a 90-meter P900 Palfinger lift mounted on a 5-axle Scania P450. This truck lift is one of 15 new units from 57 to 103 meter, purchased and delivered to the BMS Group in 2016 and early 2017.

Currently, the BMS Group has both a 64 and a 90-meter truck mounted lift stationed in the United Kingdom, where they are handled by BMS Lifting Ltd.

In general lifting tasks in the United Kingdom calls for documentation, planning, and safety precautions. This is why BMS Lifting Ltd. attaches the greatest of importance to the training of the employees. The education plan comprises everything from instructions, procedures, and service to safety, execution and maintenance. All BMS employees are trained IPAF (International Powered Access Federation) lift operators. IPAF is a safety training system for operators working in heights, including the correct choice of equipment and risk assessment of the task at hand.

The Kilgallioch Wind Farm is owned by Scottish Power Renewables. The company is part of the multinational group Iberdrola, one of the world's largest utilities and the leading wind energy producer. Scottish Power Renewables is responsible for progressing onshore wind energy projects in the United Kingdom as well as offshore wind farms throughout the world, managing the development, construction, and operation of all projects.

HELPING IN URBAN DEVELOPMENT

There is a great deal of building activity going on in Aalborg, Denmark – the home of the BMS Group headquarters. And the business division BMS Aalborg is providing the lifting capacity for a major part of what is being built, from car parks, student housing, family homes, and senior housing to shops, cultural activities, business enhancements, and urban development in general.

In the Middle Ages, Aalborg had numerous streams, but these were gradually piped and covered. Now, however, it has been decided that Østerå once again shall be an open watercourse. Therefore, at the House of Music on the central waterfront, a 220-ton crane from BMS Aalborg has been lifting 50 ton elements, which until now has kept the water hidden.

The Budolfi square in the heart of Aalborg – close to the city's medieval cradle – is undergoing significant changes. For a number of years, the square was used for parking, but now an urban environment for the benefit of citizens as well as visitors is being created. A 200-ton mobile crane from BMS Aalborg has helped in putting a tower crane in place.

For 100 years, Aalborg had a liquor factory whose products became known worldwide. Now production is taking place elsewhere, releasing a large area where the coming years will see the creation of an Eldorado of art and culture. Here too, BMS Aalborg is involved in the realization of the plans.

The same goes for the New Aalborg University Hospital, the backbone of the regional healthcare system. It will be ready by 2020, where all hospital functions in Aalborg will be gathered at one address. The New Aalborg University Hospital will cover 143,000 square meters and is the region's largest construction site, providing a wide range of tasks for companies in the BMS Group.

Equipment used:

Mobile cranes
(500, 220, 130 and 60 t)

Truck-mounted crane 75 tm

Floating crane Taklift 400 t

2 x 4 axle line Goldhofer delivered by BMS Krangården

Support beams and module towers

Weighing system

FACTS

CONNECTING OIL WELLS AND MANIFOLDS

Agility Subsea Fabrication AS is a world-leading subsea fabricator based in Norway. The company's core competence is the fabrication of underwater template and manifold systems as well as subsea processing systems. Kranringen – the Norwegian member of the BMS Group – has recently been involved in the transport and load-out of so-called well jumpers from the workshop to barges in Brevik, some 150 km southwest of the Norwegian capital Oslo.

The well jumpers – produced by Agility Subsea Fabrication at the Vard Brevik yard – is large underwater equipment connecting oil wells and manifolds. During 2017 Agility Subsea Fabrication has delivered eight well jumpers as part of the Shad Deniz 2 project in the Caspian Sea. Agility Subsea Fabrication's customer is TechnipFMC plc with the global energy business British Petroleum plc as the end user.

Each well jumper weighs 40-50 ton and has a diagonal length of 40-65 meter. Thus, it is a complicated lifting assignment that has placed great demands on competence and precision, both since the site was very narrow with a lot of obstacles and the well jumpers shape and design itself. During the project, HSEQ have had a major focus and been involved in planning as well as execution. For each load-out a documentation package consisting of RAMS and engineering as well as transport- and load-out manual, has been made by Kranringen.

The first phase of the project was to perform a test lift of the module based (up to 70-meter-long) special designed lifting beam, performed by Kranringen's 500 t mobile crane. The well jumpers were lifted by five overhead cranes in the workshop in a synchronized lift to avoid flexing in the pipe and loaded onto 2 x 4 axel lines SPMT with specially designed support steel set-up. Transport of the well jumpers from workshop to seaside, which had to be maneuvered on the spot allowing the floating crane to have sufficient space on each side of the lift since there were buildings on three sides. In the end the floating crane picked up the well jumpers from the SPMT's and on vessels.

The whole project has progressed as planned on time – without any damage to personnel or equipment and in accordance with everything agreed with the customer.

BURNING THE MIDNIGHT OIL

Had it not been for a few parked cars that the police had to remove, the operation would have been smooth. Now there was a 20 minutes delay, but that is not all that bad considering the total transport time of three hours. Here's the story:

The Shell Refinery in the Danish port city Fredericia produces more than a third of all the fuel products used by the Danes. The refinery was originally designed to process Arabic oil, but as Denmark became self-sufficient, operations were adapted to oil from the North Sea. A 320 km long pipeline supplies about 15 million ton of crude oil annually to the terminal at the Shell Refinery. About a third of the crude oil goes on to the refinery for processing while the rest is being shipped to other refineries around the world. The Shell Refinery can process 70,000 barrels of crude oil per day.

In conjunction with a planned turnaround in September 2017, a 40-year-old convection bank was to be replaced by a new unit of 225 ton, 12 meter in height, 11 meter in length and 2 meter wide. The convection bank regains heat from the processing plant for heating elsewhere in the refining process.

BMS Krangården got the task of unloading the convection bank from a heavy lift ship and putting it on an approximately 100-ton, 12-axle side-coupled SPMT. Then the unit was transported to the Shell Refinery during the night. On route to the refinery, steel plates were laid out and high-voltage cables lifted – and just behind the SPMT, a truck mounted crane collected the steel plates so that the road was safe for the morning traffic.

At the refinery, BMS Krangården lifted the old convection bank with a 750-ton crawler crane (Liebherr LR 1750). Then the unit was transported outside on an 18-axle SPMT and by means of two hydraulic mobile cranes (Liebherr LTM 1750 and Demag AC 500), it was loaded unto a modular trailer. While the old convection bank was taken for scrapping, the SPMT and the crawler crane installed the new unit at the refinery.

UPDATED APP IMPROVES SAFETY AND QUALITY

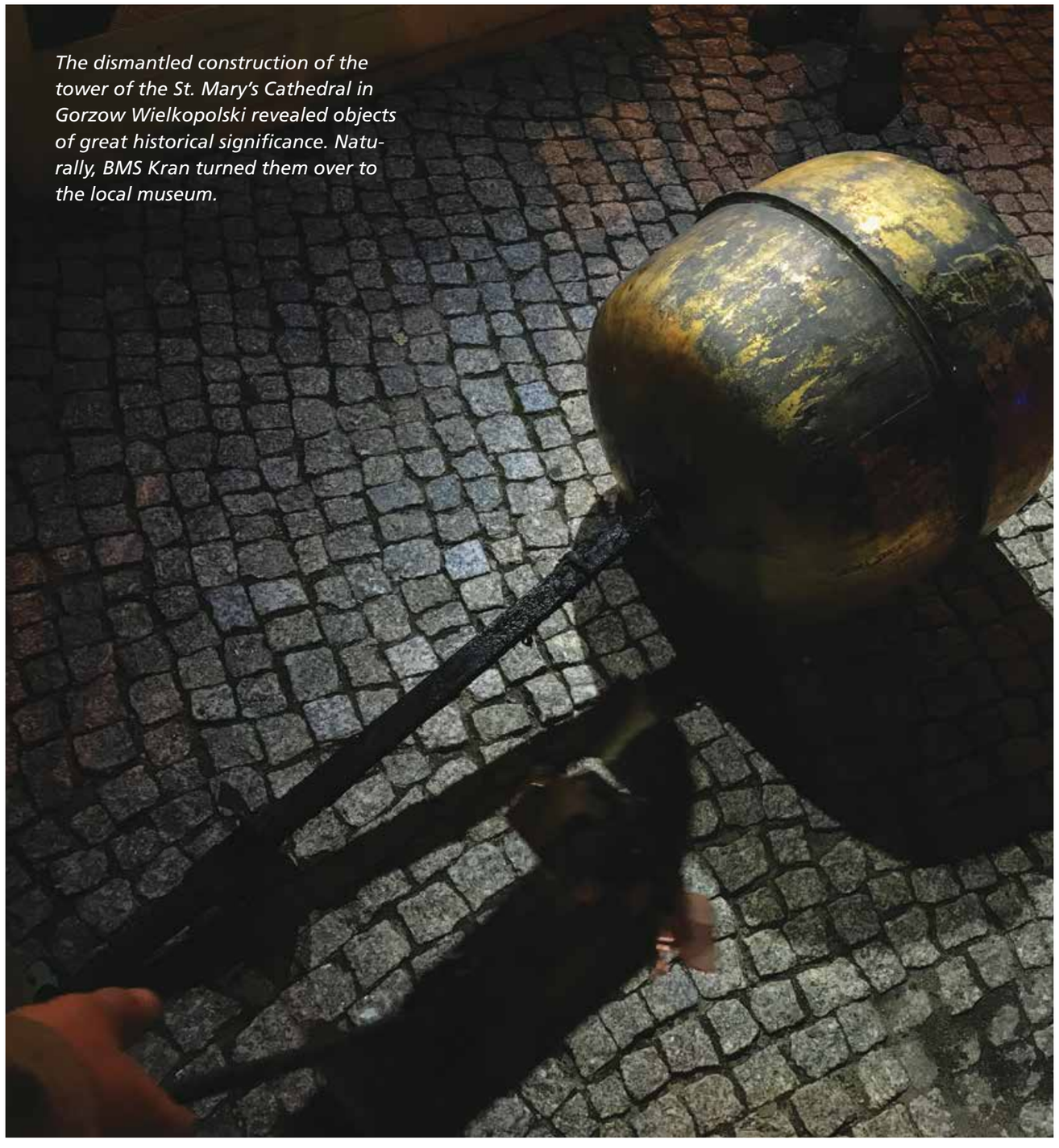
For some years, the BMS Group has had an app linked to the Health, Safety, Environment, and Quality (HSEQ) system. While the primary focus was on reporting near misses and accidents, the app was updated with a number of tools in 2017. At the same time it was made available to all employees – with access to an IOS phone or a tablet. Previously, only a limited number of specific employees could use the app.

A great many of the major customers of the BMS Group appreciate that their subcontractors have a good reporting system, allowing the entire organization to learn from incidents and accidents. The BMS Group has chosen to take things a step further and attach tools so that the system can be useful in various other contexts.

With the updated app comes a new database, where all records from the app are stored and can be sent for further processing if required.

The tools in the app and database include incident/accident reportings, checklists (including safety inspections, toolbox meetings, pre-lift checklists, vehicle/plant checklists, peer by peer training, and various site surveys.

The BMS Group app that bears the name BMS HSEQ is developed in collaboration with Mellora. In 2012, this Norwegian company launched the world's first open and free app for the reporting of HSEQ-related issues and more than 1,000 companies worldwide is currently using the HSEQ app from Mellora. However, for the BMS Group, it is a customized solution – And BMS was only the fifth company in the world to develop a customized version.



The dismantled construction of the tower of the St. Mary's Cathedral in Gorzow Wielkopolski revealed objects of great historical significance. Naturally, BMS Kran turned them over to the local museum.

HISTORY REVEALED

In July 2017 a huge blaze engulfed the tower of the 700 years old St. Mary's Cathedral in the western Polish city Gorzów Wielkopolski. Up to 170 fire fighters worked for 24 hours to contain the flames threatening to ruin the oldest building in the city. In the end, the fire was limited to damaging the tower's clock face, the copper dome roof and much of the historic timber construction of the 40-meter tower dating back from the 17th century.

BMS Kran – that is the Polish division of the BMS Group – assisted the fire department in the dismantling of the burned roof construction elements. The situation required immediate action without detailed planning and therefore the job had to be based on the common experience of the people involved. Indeed the task was done exemplarily and BMS Kran helped prevent a catastrophe.

The dismantled construction revealed objects of great historical significance and BMS Kran therefore turned them over to the local museum.

The most complicated job during the last year was probably the installation of a flue gas duct system at Grupa Azoty Zakłady Chemiczne "Police" SA, one of the largest and most modern chemical plants in Poland and part of the EU's second largest manufacturer of nitrogen and compound fertilizers. The job lasted for four months and called for perfect planning and preparation, as it had to be carried out in an extremely tight and hazardous environment. The equipment involved included two mobile cranes: A Grove GMK 7450 with luffing jib and a Liebherr LTM 1100.

Over the last year BMS Kran has grown systematically and gained a strong position in the local market. The company has also had a successful entry to the German market and is often involved in projects managed by other parts of the BMS Group. Renewal of the fleet and new office facilities is part of the current picture when it comes to BMS in Poland.

FROM POTATOES TO FLOUR

Since 2016, the BMS Group has included Torben Rafn A/S, a haulage company with a large number of tractor units, block semi-trailers, and axles for modular heavy haulers.

A recent example of an assignment carried out by Torben Rafn is the transport of two calandrias for the potato flour factory

Karup Kartoffelmelfabrik A.m.b.a. in Denmark. The equipment had to be transported from the Danish process equipment supplier Ferreo A/S to the factory.

As the equipment was of considerable size, the total transport reached 45 meter in length, 6 meter in width, and 7.20 meter in height, while the overall weight was 200 ton. Subsequently, the authorities had decided that the transport could not be carried out by the direct route and had to be done over two nights.

The first challenge was the gateway to the production hall that was only just high enough for the equipment to get out. Safely outside, the calendarias were lifted and jacked up, so that the low loader did not cause damage to the goods during the transportation. After that, the transport was carried out with auxiliary vehicles blocking oncoming traffic and helping the driver to ensure that the transport did not hit other vehicles or obstacles underway.

Prior to transportation, the route had been carefully inspected. Steel plates had been laid out, road signs removed, and trees cropped – and three portals had to be temporarily lifted. These measures cost a considerable amount of time and money but were needed in order for the transport to run smoothly.

At Karup Kartoffelmelfabrik colleagues from BMS Krangården arranged for unloading and installation of the calendarias.

Every year, Karup Kartoffelmelfabrik transforms approximately 365,000 ton of good Danish potatoes to 85,000 ton of white potato flour. The annual production is made during the period from August to January, where the nearly 300 co-owners supply the potatoes to the factory. The finished product is stored in four large silos, so that potato flour can be delivered to customers throughout the year.

Calandria:
A heating element of an evaporator; especially a part of a vacuum evaporating system in which the liquid to be concentrated rises through tubes surrounded by steam and descends through a central well.

FACTS

THE PEOPLE MAKE THE DIFFERENCE

If someone is living in the delusion that working with cranes is solely a matter of lots of raw engine power, they have apparently not met Project Manager Jesper E. Jensen, Crane Supervisor Neil Joensen and their crew yet.

For decades, the Profen community in the German federal state Saxony-Anhalt was characterized by surface mining of lignite, a product often referred to as brown coal. However, the company GETEC green energy AG has begun establishing an energy park at the former mining area with a 28.8-megawatt wind power plant at its centre – and BMS Heavy Cranes is helping with the erection of 9 Siemens Gamesa SWT-3.2- 113 direct drive wind turbines at Energiepark Profen.

Working on wind turbines with a hub height of 115 meter calls for so infinitely much more than merely big machines.

Typically, a crane team around a Liebherr LG1750 lattice boom crane would consist of five to seven people, but at the Profen project, there are 10-12 men on the team, partly because they are working day and night shifts. Also, there are the people who take care of trucks and wheel loaders as well as the auxiliary cranes assisting with lifting parts of up to 100 ton to a height of over 100 meter.

"All the more crucial is the close cooperation between the individual members of the team. It requires determination and enthusiasm coupled with positivity and the ability to cooperate", says Neil Joensen.

Furthermore, for each one on the team, it is also a requirement that they possess a good deal of perseverance. If you are going to work on a crane team, you must be able to maintain pretty steady nerves and keep your head cold in all situations bringing heavy components perfectly in position high up in the air.

In short: It's the people and their ability to cooperate with each other, the customers, and business partners that make all the difference behind a successfully completed project.

The Cityring, which will consist of almost 16 kilometres of underground tunnels, has a total of 17 stations that will connect large parts of the central metropolitan area. When the Cityring opens in July 2019, 85 per cent of the inhabitants of Copenhagen will have less than 600 meters to a metro or train station.

FACTS

FROM 60 TO 116 MILLION PASSENGERS

The metro in the Danish capital transports more than 60 million passengers a year – and soon more will be added, as the metro network is currently being expanded with the so-called Cityring. In fact, the expectation is that by 2019 there will be 116 million passengers in the total Copenhagen metro system.

The metro construction is an international large-scale project that requires great experience, precision and perseverance. From the big lines drawn on a map to detailed analyses and legislation for the construction work. From dialogue regarding the environment to managing over 20 major construction sites with more than 1,500 employees. From adaptation to an international labour market under rapid change and to completion of the entire construction.

Logically, for a project of such complexity, the metro construction involves a large number of companies. One of them is BMS Copenhagen, which during the busiest periods has had 19 units operating simultaneously from 7 AM to 10 PM six days a week. Mobile cranes and crews have been involved in lifting elements up and down in the shafts that lead from street level and down to the construction sites under Copenhagen. In parallel with these lifting tasks, BMS trucks have transported material from storage locations to the construction sites as these often have very limited operation space.

Throughout the project a supervisor has been attached, giving the many international companies involved in the metro construction a permanent point of contact within the BMS Group. This supervisor has also been in charge of the planning of larger and more complicated lifts, which has been done in collaboration with BMS Engineering.

The Liebherr LR 1750 crawler crane is typically used in power plants, refineries, on bridge construction sites, and for erecting wind turbines. Thanks to the compact dimensions of the crane components and their moderate weights the crane can be transported to the site at modest cost.

Maximum load capacity	750 ton
Maximum hoist height	191 meter
Maximum radius	156 meter

FACTS

Source: Bladt Industries A/S

SAVING UP TO 1.2 MILLION TON OF CO_2 ANNUALLY

For more than a century the city Sassnitz on Germany's largest island Rügen has been renowned as a seaside resort as well as the gateway to the Jasmund National Park with its unique chalk cliffs. However, in recent years, the significant activity at the port of Sassnitz has attracted a fair share of attention as well.

Recently, BMS Krane GmbH – the German subsidiary of the BMS Group – has contributed to the activity at the port as one of the company's Liebherr LR 1750 cranes with a 56-meter main boom and super lift has been assisting in lifting heavy loads bound for a new offshore wind farm in German waters.

Specialised in large-scale and highly complex steel structures the international steel contractor Bladt Industries has manufactured 60 transition pieces (TP's) at its facilities in Aalborg, Denmark. From here they were shipped to Sassnitz for storage before final installation – and BMS Krane carried out the lifting assignment.

Over a long period, BMS Krane GmbH has had a crane operator and a supervisor on site lifting the 60 TP's with a height of 18 meter, a diameter of 8 meter and a weight of 290 ton each.

Operating within three key areas of business Bladt Industries provides steel solutions for the oil and gas industry, for infrastructure, and for the wind and renewable energy sector. In the specific case, the 60 TP's are for the offshore wind farm Arkona-Becken Südost located in the Baltic Sea approximately 35 km north of Rügen.

The wind farm will have a total installed capacity of 385 megawatts and is calculated to supply renewable energy to 400,000 households. Compared to electricity generated conventionally, the wind farm will save up to 1.2 million ton of CO_2 annually. When fully commissioned in 2019 Arkona-Becken Südost will consist of 60 six-megawatt Siemens turbines. The wind park – an investment of some 1.2 billion EUR – is owned and developed by German E.ON and Norwegian Statoil.

HELPING TO MAINTAIN THE LIFELINE

The Öland Bridge is a 6,072 meter long concrete beam bridge with 155 spans. It opened in 1972, but as severe breakdown was observed only a few years later, most pillars were rebuilt already in the 1980s and 1990s. The bridge is Sweden's longest, which is exclusively on Swedish territory.

The Øresund Bridge is longer, but it is divided between Denmark and Sweden.

FACTS

The Öland Bridge (Ölandsbron) is the only fixed connection between Öland – one of the easternmost Swedish islands – and the mainland.

As such it is an important lifeline for commuters, tourists, visitors, and companies In order to preserve the bridge, the Swedish Transport Administration performs periodically planned maintenance work.

18,600 vehicles on average cross the bridge per day, in summer as many as 25,000. This rather heavy use of the bridge implies constant wear and tear while sea and wind affect the construction and the lifetime of the bridge. The most recent maintenance work began in 2016 and will last until 2019. Although it represents an expense of 124 million SEK (12.5 million EUR), it is both time- and cost-effective to renovate the existing bridge, compared to building a new one.

The work has been outsourced to Svevia, a Swedish company specializing in building and managing roads and infrastructure. Svevia has approached the BMS Lift Division, as it is well known that this is where you will find the necessary expertise when it comes to bridge inspection lifts.

For this specific task, the BMS Lift Division has used an MBI110 bridge inspection lift. This 11-meter custom-built lift is one of presently five in the company, reaching from 5 to 21 meter.

Advanced and cost-effective equipment requires competent and flexible employees. Therefore Svevia has emphasized having a subcontractor with a strong focus on safety, credibility, performance and responsiveness.

20-25 MM CLEARANCE SHOULD WORK

The story of the Danish company pK Chemicals began during World War II with two Swedish Nobel Prize winners, Professors Theodor Svedberg and Arne Tiselius, who initiated basic research at the University of Uppsala, Sweden based on sugar beets. In 1941 two of their students, Bjørn Ingelman and Anders Grönwall, identified and separated dextrose and in cooperation with the professors developed dextran for use in freeze-drying of blood plasma for military medicine. As the scientists discovered that dextran could be utilized as a replacement for blood plasma during blood transfusions they contacted Pharmacia, one of the oldest independent pharmaceutical companies in Scandinavia founded in 1911.

pK Chemicals combines its chemical and pharmaceutical expertise to manufacture dextran, dextran derivatives and customized products to world-leading companies in the pharmaceutical and cosmetics industries. In 2013 the company changed owners to the present private owner group. However, the heritage from Pharmacia is up to this day reflected through the “p” in the name and the sugar beet in the logo.

At the facilities in Køge approximately 30 km south of the Danish capital Copenhagen pK Chemicals manufactures dextran derivatives as well as contract manufacture ingredients and intermediates according to customers’ requirements.

Recently an 8.6 ton tank had to be transported to and installed at the site in Køge and BMS Kruse was called. The tank was maneuvered in place lying down and raised indoors using a specially designed crane able to operate under very tight conditions. This saved the customer three days of costly production shutdown. Leading up to the lift itself, BMS Kruse performed risk assessment and method description as well as a thorough walkthrough of scenarios in cooperation with BMS Engineering. At that point, it was clarified that it should be possible to carry out the lift with a 20-25 mm clearance to pipes and ceiling. And indeed it was.

NOT EXACTLY UNTESTED GROUNDS

Although it is only seven years since the company was established, the fund management company Copenhagen Infrastructure Partners (CIP) already has more than 5 billion EUR under management. The investments include a wide range of energy infrastructure assets such as offshore and onshore wind, offshore power transmission, biomass, and waste to energy. One of the on-going projects is the onshore wind farm Bearkat I in Glasscock County, Texas, USA. Here CIP is making a net equity investment of 68 million EUR.

While Bearkat I is the first CIP equity investment in onshore wind in the United States, it is not exactly untested grounds for the US joint venture KranWind established by BMS Heavy Cranes and the American partner Buckner.

For decades Buckner has been the driving force behind some of the largest projects in the United States. With a focus on innovation and progressive projects, North Carolina based Buckner has become a leader in the wind energy industry. Working with partners such as BMS Heavy Cranes to erect wind farm sites Buckner has been involved in a large portion of the turbines that exist across North America.

Bearkat I will consist of 57 Vestas turbines with a total capacity of 196.7 MW. The park is constructed by Black & McDonald, a leading contractor in the North American onshore wind market. Vestas will provide operational and maintenance services and E.ON Energy Services will provide route to market services and will be responsible for the operation, maintenance and management of the wind farm.

The project places significant demands on KranWind as around 130 men,14 cranes, and a large amount of auxiliary equipment is in use on the site.

The mechanical and electrical installation of Bearkat I is carried out by Global Wind Service, one of the largest companies in Europe offering onshore and offshore installation and servicing of wind turbines around the world.

NEW WEBSITE PRESENTS THE BEST OF THE BMS GROUP

A short while ago the BMS Group introduced a new website at the main address bms.dk.

The website is divided into a few but carefully selected sections that make it easy to locate the desired information for example on Knowledge, Markets, HSEQ, Equipment, and Cases.

The knowledge of the companies in the BMS Group is centred on taking care of heavy loads as a preferred global and major player within cranes, man lifts, and transport solutions. The group focuses on a strong local presence when hiring out equipment of any size and to any assignment from a network of offices on presently four continents.

This Knowledge part of the website takes the visitor through areas like Heavy Lifting, Heavy Transport, Bridge Inspection, Mountain Safety Restraint, Jacking & Skidding, Engineering, Project & Site Management, Personnel Access in Height, Port Handling, and Wind Turbine Installation.

Over the years the BMS Group has gained significant insight into a number of vital markets. For more than three decades the companies within the group have worked with Offshore Wind as well as Onshore Wind – and they are equally qualified when it comes to areas such as Oil & Gas, Telecom, Infrastructure, Construction, Industry, and Power Plants.

As safety is the first priority for every part of the BMS Group, all activities are embedded in a corporate Health, Safety, Environmental & Quality (HSEQ) system, providing a safe working environment for every employee, subcontractor and customer – and naturally there is a specific section of the new website dedicated to HSEQ.

Also, you can find business cases describing some of the many and extremely diverse assignments carried out by the companies within the BMS Group.

Furthermore, the website includes an overview of the variety of BMS equipment – from Crawler Cranes, Mobile Cranes, and Mini Cranes over Mobile Tower Cranes, Truck Mounted Cranes, and Truck Mounted Lifts to Bridge Inspection Lifts, Jacking & Skidding as well as SPMT's & Trailers.

Finally, the website contains information about the BMS Group's mission, vision, and values, extracts from more than 60 years of BMS history, and news from the group. Also you will find contact information for all parts of the BMS Group.

Presently the new website is in English, but the BMS Group aims at introducing the central parts of it in Danish, German, Norwegian, Polish, and Swedish over the coming months.

Foto: Jesper Blæsild, Banedanmark

The Køge North Station pedestrian bridge consists of six steel sections of in average 10 meters width and 40 meter length and a weight of 108 and 144 ton. It will serve as a new gateway to Copenhagen with 100,000 people passing on a daily basis.

FACTS

BALLET FOR THREE HUGE CRANES

Three massive cranes from BMS Krangården – two 750 ton and one 500 ton – conducted several coordinated ballet performances as they balanced the elements of a spectacular pedestrian bridge at the Køge North Station in place.

Initially, the cranes lifted the first element of more than 100 ton over the railway tracks blocked for traffic while the lift was carried out. Later, five more sections, also weighing more than 100 ton each, were lifted in place over the motorway.

The Køge North Station – located some 45 km southwest of the Danish capital Copenhagen – is a new hub where the busiest motorway in Denmark, a line of the hybrid urban-suburban rail serving the metropolitan area, and a future high-speed train line will meet.

A quite significant part of the station is a 225-meter pedestrian bridge of about 1,000 ton of steel, including lifts and escalators. When completed the new bridge will consist of a closed southern facade that shields against direct sunlight, while an open north facade provides a stunning 180-degree panoramic view of the cultural landscape and the dynamic lines of the busy traffic arteries.

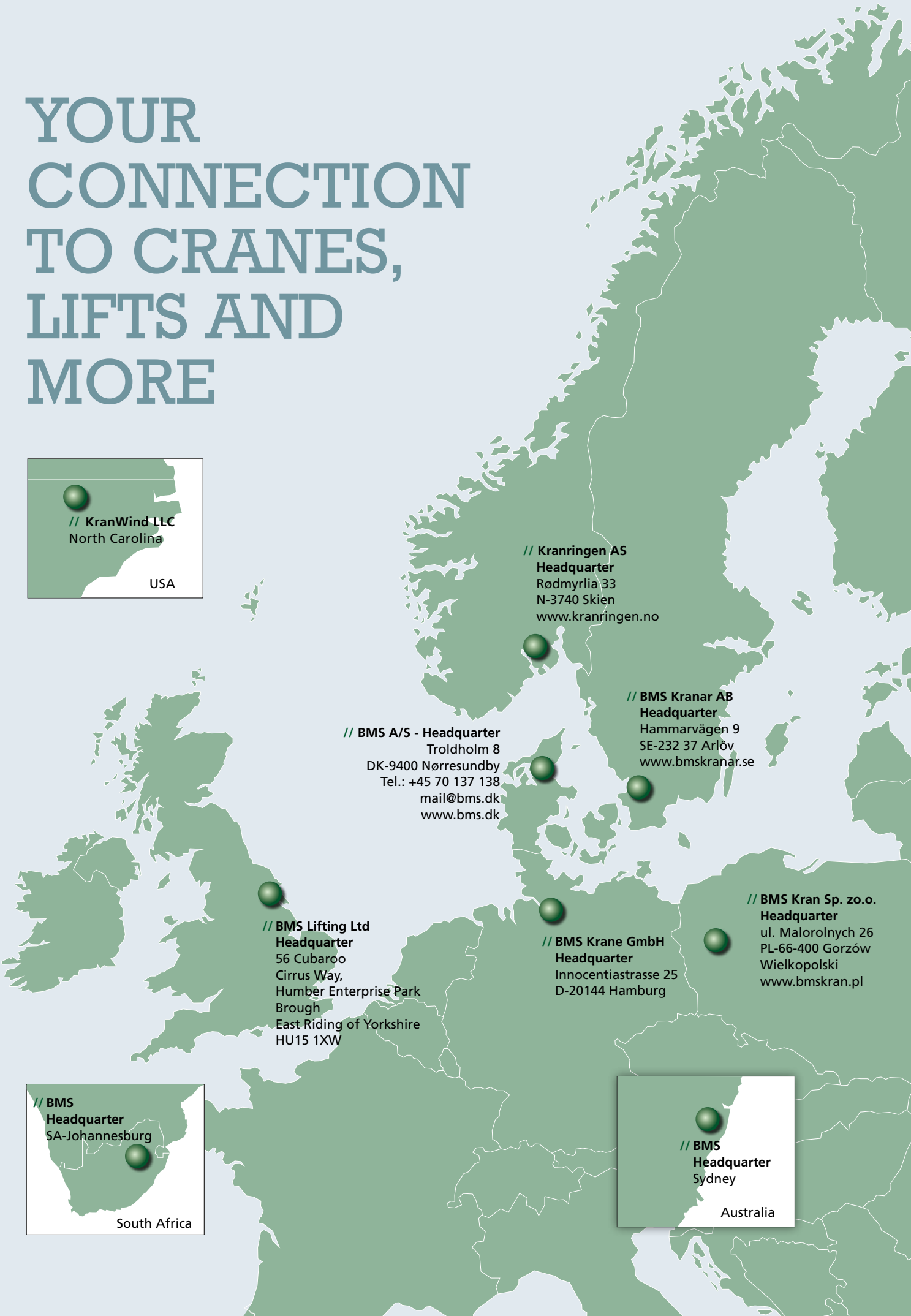
Until 2019 a new double-track electrified railway is constructed between Copenhagen and Ringsted approximately 60 km from the capital. This line, prepared for passenger trains running at speeds of up to 250 km/h, will be the first in Denmark for high-speed trains.

The new station will be a distinctive landmark for green mobility as it gives passengers easy access to changing from a number of modes of transport.

Also, it will serve as the basis for extensive urban development in the vicinity of the station.

The current railway between Copenhagen and Ringsted is of international importance as it forms part of the trans-European network connecting Scandinavia and the rest of Europe.

YOUR CONNECTION TO CRANES, LIFTS AND MORE



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