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WE'RE MOVING UP STEADILY

In July 2016, the BMS Group rose to no. 19 on the 'International Cranes and Specialized Transport IC50', a listing of the world's top crane companies using the total load moment rating in tonnes-metres of the cranes in the company's fleet.

On the last day of 2016, the Danish company Vamdrup Specialtransport A/S was included in the BMS Group as we took over all personnel and equipment. The new family member is specialized in complex transport assignments. With effect from November 2016, the BMS Group also includes Torben Rafn A/S. It is a haulage company with a large number of tractor units, block semi-trailers and axles for modular heavy haulers. The core

competencies of the company cover wind power turbines, light and heavy haulage as well as contractors' machinery. Furthermore, in March 2016 BMS took over eight trucks with flyjib and their chauffeurs from the Danish company K. Knudsen A/S.

During 2016, we have further developed our business in Scandinavia, Germany, Poland, and United Kingdom – and we have included the new markets South Africa and the United States. The articles in this magazine will take you through just a few of our assignments.

The last year has also brought quite a lot of new equipment to the BMS Group, for instance

our first 75 metres truck mounted lift from Palfinger, able to operate in wind up to 20.8 metres per second.

Based on our vastly expanded fleet of modern truck mounted lifts we launched the concept 'E24' in 2015. It is Europe's first 24-hour service with a groundbreaking total solution concept: Within 24 hours after contact we guarantee to have a specially trained supervisor at work with the customer to assess the need and plan the task, no matter where in Europe the call is coming from.

Safety and working environment is still at the heart of every single part of BMS. Our engineering and quality depart-

ment makes sure that all assignments are done correctly and are well documented, setting the standard for the entire market.

Since the establishment in 1953 – as part of the European Recovery Program after the Second World War – BMS has grown steadily. Today we are by far the largest in our home country Denmark and among the market leaders in Europe. For a few decades Denmark was our main working field but today we solve lifting assignments on three continents. By now we have some 450 cranes, truck mounted lifts and auxiliary vehicles – and a staff of more than 700 people.

This magazine is all about the work we do and how we do it. We hope that you will enjoy reading – and that you will trust us with your business.


Jens Enggaard
CEO

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For a few decades Denmark was our main working field but today we solve lifting assignments on three continents



Photo: Søren Schnoor.



SAFETY IS CRUCIAL



As safety is first priority for all parts of the BMS Group, every activity is embedded in a corporate Health, Safety, Environmental & Quality (HSEQ) system, providing a safe working environment for every BMS employee, subcontractor and customer.

One of the objectives of the BMS HSEQ policy is to train and educate the employees into supplying a higher level of safety

and quality work. Therefore, BMS has developed a new e-learning training platform, covering any risk described in the organization's risk assessment program for all routine tasks.

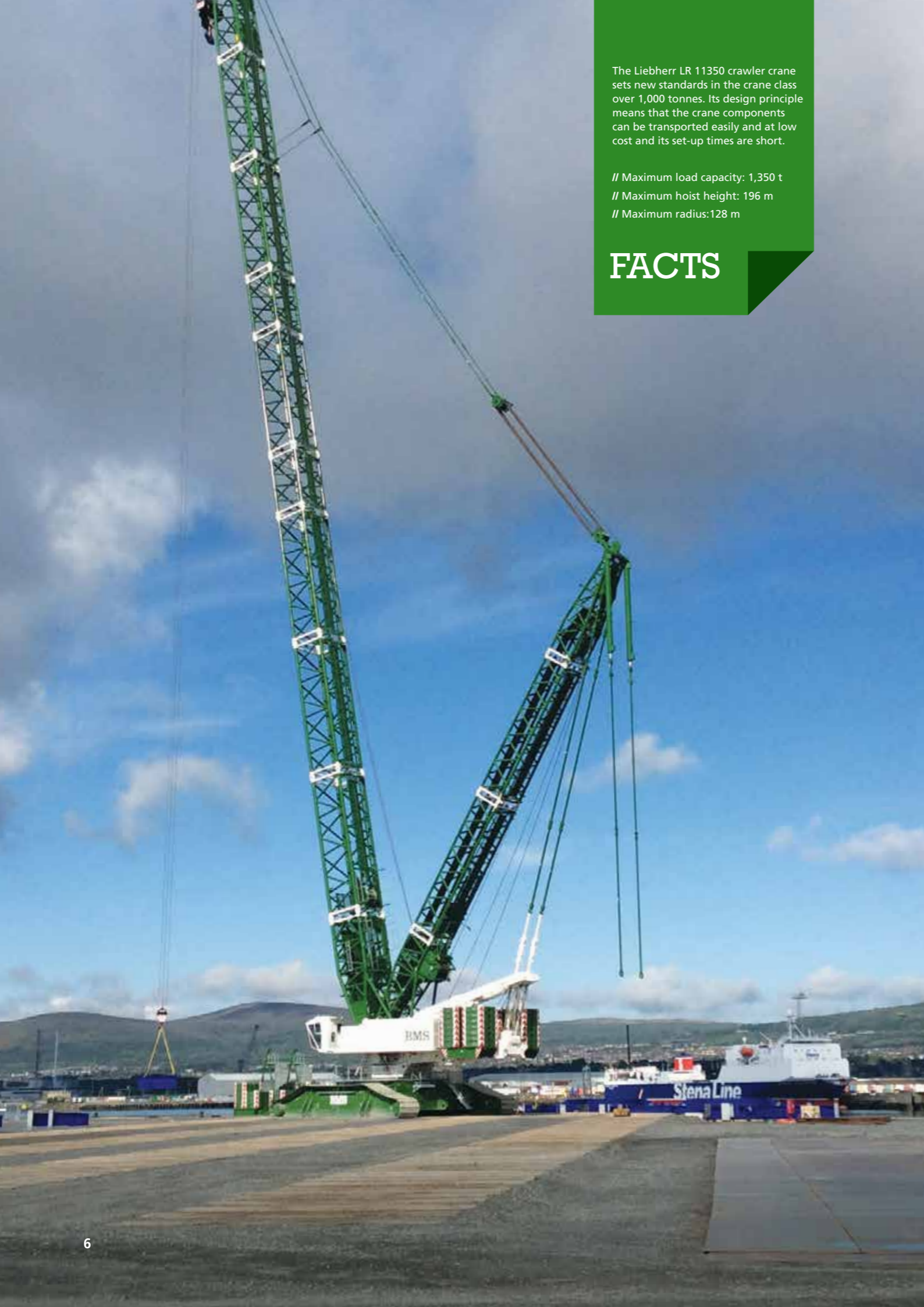
It is the aim of the platform to ensure continuous training of employees in the BMS Group, helping to minimize work related injuries and the number of damages. It is also an objective of the

BMS Group to be a leader in the effort to increase the degree of safety.

The employees are guided through the most important instructions and procedures in their work area and when they have reviewed this part, they will have to pass a test before the training can be concluded. At present, the e-learning platform exists in Danish, but during 2017 it will also be available in

English, German, Norwegian, Polish, and Swedish, allowing all employees to be instructed and trained in the most common assignments.

As part of the new platform the BMS Group will introduce a number of separate courses that may also be of relevance to customers. These courses include rigging, working at height, lashing of goods, dangerous goods etc.



The Liebherr LR 11350 crawler crane sets new standards in the crane class over 1,000 tonnes. Its design principle means that the crane components can be transported easily and at low cost and its set-up times are short.

- // Maximum load capacity: 1,350 t
- // Maximum hoist height: 196 m
- // Maximum radius: 128 m

FACTS

EXPERTS ARE JOINING FORCES

Quite often you will see the manpower and equipment from various parts of the BMS Group joining forces in the effort to solve a task in the most efficient manner. This is for example the case in Belfast where for months BMS Heavy Cranes and BMS Krangården have been working closely together.

In Liverpool Bay on the west coast of the United Kingdom you will find the Burbo Bank Offshore Wind Farm. It opened in 2007 – and already two years later the planning for an extension began. The first of the 32 new Vestas V164 8.0 MW wind turbines was installed in September 2016, delivered by MHI Vestas Offshore Wind. This 50/50 joint venture stands on the shoulders of Japanese Mitsubishi Heavy Industries Ltd and Danish Vestas Wind Systems A/S.

The assembly of the wind turbines takes place in Belfast – and

that is why we find BMS Heavy Cranes and BMS Krangården here.

While BMS Krangården

supplies a 24 axle self-propelled modular transporter (SPMT), BMS Heavy Cranes provides one of its Liebherr

LR11350 crawler cranes. The SPMT is a platform vehicle with a large array of wheels, used for transporting massive objects such as wind turbines, bridge sections, oil refining equipment, engines, and other bodies too large or heavy for trucks.

The scope of work in Belfast includes receiving and offloading of turbine components, transport of turbine components to storage, up-end of towers and assembly of towers on tower stands, lifting and bringing full towers to quay side, and transport of nacelles and blades to quay side.

The BMS gear is operated by a crew consisting of three to six people for the crane and three to eight for the SPMT, depending on shifts. The crewmembers coming from Denmark, England, Ireland, and Scotland are working Monday to Sunday, subject to when the loads are coming in.





SMALL



IS

BEAUTIFUL

While BMS Heavy Cranes has been lifting the tunnel boring machines to and from the working sites of the Copenhagen metro line all through 2016, another BMS Group company – the Copenhagen based Kranexpressen – has been working at the central station.

Since 1911 the current Copenhagen Central train station building has been located opposite the world famous amusement park and pleasure garden Tivoli in the heart of the Danish capital. Copenhagen Central is the largest railway station in the country. It is the hub of the Danish State Railways' network serving Denmark and international destinations, it services the Copenhagen

suburban rail network – and from 2019 it will also be part of the City Circle metro line with 17 stations in the metropolitan area.

When metro lines are being established, a very great deal of the work obviously takes place underground. It is also the case at Copenhagen Central, as the future subterranean metro station will be located southwest of the present central railway station and the two will be connected through a tunnel.

Whereas much of the work on the metro is being carried out with equipment of enormous size, the mantra of Kranexpressen's work has been 'small is beautiful'.

The task has been to establish elevators from the platforms to the existing pedestrian tunnel, which in the future will connect the metro station and Copenhagen Central. As the building – made of materials such as brick, slate and granite and with a wealth of ornamental details – is protected by a preservation clause, there are very strict guidelines on what can and cannot be done. Therefore, there have been quite special considerations associated with this assignment.

In this context, Kranexpressen used a Liebherr LTC 1045. This compact mobile crane is characterized by being able to stay below 310 cm in height. This means that it can be transported on a rail



vehicle without damaging wires and other vital equipment and installations.

After test liftings, carried out with the help of the sister company BMS Copenhagen, the actual work could begin. It extended over nine week-ends and public holidays – from the fall of 2015 and well into the spring of 2016 – as it had to be carried out while trains and passengers were able to move as usual in Copenhagen Central.

The metro in Copenhagen, Denmark is being expanded with a City Circle line consisting of 17 stations. The new line – an approximately 15 kilometres underground railway under the Danish capital – is expected to open in 2019.

FACTS





WORKING IN A COUNTRY OF BRIDGES

Denmark – the home country of the BMS Group – consists of one peninsula north of Germany and 443 named islands. Of these, 74 are inhabited and bridges connect quite a number of them.

The southernmost Danish part of the BMS Group is BMS Lolland-Falster, centrally located to several very exciting construction projects of the years to come. They include the new Storstrømsbroen, with its four kilometres the country's third largest bridge. Storstrømsbroen will be equipped with a two-lane road and an electrified railway in two

tracks, since the bridge is an important part of the rail corridor between Copenhagen and Germany. The bridge should be completed by 2022.

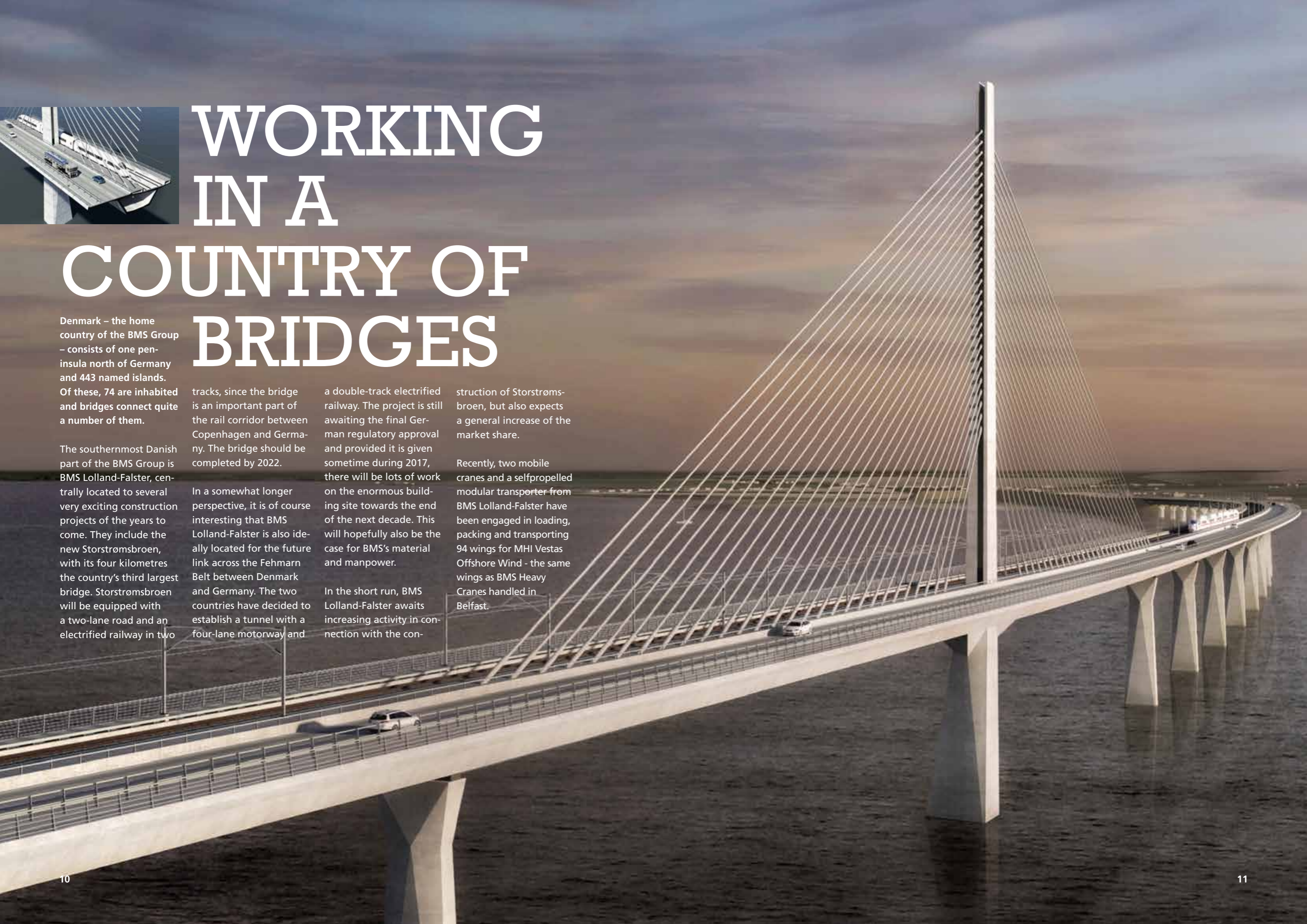
In a somewhat longer perspective, it is of course interesting that BMS Lolland-Falster is also ideally located for the future link across the Fehmarn Belt between Denmark and Germany. The two countries have decided to establish a tunnel with a four-lane motorway and

a double-track electrified railway. The project is still awaiting the final German regulatory approval and provided it is given sometime during 2017, there will be lots of work on the enormous building site towards the end of the next decade. This will hopefully also be the case for BMS's material and manpower.

In the short run, BMS Lolland-Falster awaits increasing activity in connection with the con-

struction of Storstrømsbroen, but also expects a general increase of the market share.

Recently, two mobile cranes and a selfpropelled modular transporter from BMS Lolland-Falster have been engaged in loading, packing and transporting 94 wings for MHI Vestas Offshore Wind - the same wings as BMS Heavy Cranes handled in Belfast.



Spierings AT6
 // Maximum load: 10,000 kg
 // Maximum radius: 60 m
 // Lifting height: 35 m

FACTS

Narrow streets characterize the inner city of the Danish capital Copenhagen. Often the access is very limited, especially when it comes to building renovation and construction. Obstacles such as street lighting and transmission lines only add to the challenge.

BMS Copenhagen is specialized in mobile tower cranes, combining the flexibility of the mobile crane with the reach of the tower crane. This type of crane is especially ideal when it comes to installation of facades and win-

dow sections, for instance on the famous pedestrian street 'Strøget' in downtown Copenhagen.

By putting the tower crane – often described as the crane of cranes – on wheels, you literally combine the best of both worlds. Not least in areas with limited space the mobile tower crane will outdo most alternatives. The cranes can be operated by remote control, allowing the crane operators to be quite close to the load or stand on a location particularly suitable for solving the specific task.



THE BEST OF BOTH WORLDS

BMS Copenhagen's mobile tower cranes can be operational in just 25 minutes after arriving at the scene, partly because they do not require extra parts on support vehicles.

The undercarriage is very flexible, as it can turn on all wheels. This means that it can get around even in very dense urban areas – and the crane can be unfolded in very limited space. Due to easy

transport, express installation and great flexibility mobile tower cranes are very affordable compared to standard mobile cranes.

The BMS Copenhagen fleet includes Spierings

AT4 and AT6 hydraulic folding cranes. The AT4 is the fourth generation of hydraulic mobile tower cranes with four axles. The four-part jib provides a 48-metre radius. The maximum lifting height is

27.8 metres with the jib in horizontal position, and 58.1 metres with the jib at a 45-degree angle. It can lift its maximum load of 7,000 kg without using the additional ballast blocks. As for the six-axled AT6

it is the largest mobile tower crane in the world. It has a 5th extendible jib section – combined with the four other jib sections, this delivers an unrivalled radius of 60 metres.

A TURNING POINT IN POLAND

2016 has really been a turning point for BMS Kran, the Polish division of the BMS Group.

First of all a Demag AC 250 all terrain telescoping boom crane has been added to the family, not least supporting the Enercon projects in Germany. It is a very compact and agile six-axle crane with a maximum capacity of 250 tonnes. For the last four years BMS Kran has been using 200 tonnes class cranes, for instance when working on big wind projects together with the sister company BMS Heavy Cranes.

Since October 2016 the company's Grove GMK 7450 has been operating within new areas. This all terrain telescopic boom crane has been working in the steel construction sector but most recently it has been involved in a number of assignments within the chemical and the heavy industry sector. This is the strongest crane in the BMS Kran division.

The year also saw the establishment of a Machinery Movement department in Poland, which has been quite a success already. More than 35 jobs have been carried out, primarily relocating various heavy machines weighing from two to 35 tonnes. This part of BMS Kran is gradually winning new customers and 2017 also looks quite promising within this field.

2016 also brought a strong reinforcement of the management staff as Adam Falana came back to the company after a period of three years of work abroad. As Operations Manager Mr. Falana is primarily taking care of the activities related to the Machinery Movement department and transport.

More jobs and more gear calls for more space and to this end BMS Kran will during spring 2017 move to a new office. The new headquarter will also be located in Gorzów Wielkopolski in the western part of Poland.

The Loeriesfontein project is equipped with Siemens SWT-2.3-108 wind turbines with a rotor diameter of 108 m and towers with a hub height of 99.5 m.

FACTS

Until recently the small South African town Loeriesfontein 425 km north of Cape Town was best known for the Fred Turner Museum. It commemorates the travelling bible salesman who in 1894 established a general store around which the town settled.

For years the most striking sight to greet you

when driving through Loeriesfontein, has been a cluster of more than two dozen wind pumps, displayed as part of the Fred Turner Museum. However, over the last few months the skyline around Loeriesfontein has changed significantly.

As part of its most recent wind power contract in South Africa, Siemens

is supplying 157 wind turbines for the projects Khobab, Noupoort, and Loeriesfontein.

BMS Heavy Cranes is helping to erect 61 wind turbines at Loeriesfontein, each with a capacity of 2.3 MW. The wind farm will be connected to the national power grid by end-2017 and is expected to supply up to

120,000 homes. Provided that the weather is good erecting of a 100 m tall wind turbine can be done in just one day. Still, the procedure itself is quite complicated, as the three 53 m fibreglass reinforced epoxy blades are connected to the rotor at ground level before being lifted. At this point two cranes are required to work

simultaneously – one raising the assembled rotor whilst another guide the rotor into the correct position.

The BMS Heavy Cranes crew at Loeriesfontein consists of two European and three South African crane operators, an European crane supervisor, three riggers from South Africa, a HR manager,

and a Project Manager. After Loeriesfontein BMS Heavy Cranes will continue to Khobab Wind Farm, also consisting of 61 Siemens wind turbines.

BLOWING IN THE WIND





Trine Linnemann primarily operates a Liebherr LR1200 lattice boom crane. This type of crane is particularly well suited for construction and steel installation assignments. It can be erected – and it lifts – without supports. At the same time, it can transport the load, which makes it flexible and quick at the construction site.

FACTS

'THE CRANE' OPERATES THE CRANE

In certain circles in Denmark it is quite common to describe a female acquaintance or a girlfriend by the loving nickname 'The Crane'.

It is also a description that 23-year-old Trine Linnemann has heard a few times. However, in her case there is a quite special reason for this, as she is Denmark's first female crawler crane operator.

Trine Linnemann was initially trained as a

hotel receptionist and has worked as a property manager and in a surveillance company. In this context, she was on the job at a construction site in Copenhagen, where she got to chat with some of the crane operators. They encouraged her to change job and since she could easily see herself as the operator of a crane, she went to BMS Copenhagen to hear whether there was basis for an employment. She got the job – and after a four-week course Trine Linne-

mann was certified as a crawler crane operator. She has completed a vocational training program aimed at maintaining and improving the skills and competences of the participants in accordance with the needs on the labour market. The course that Trine Linnemann took is part of a flexible system of programmes primarily directed towards specific sectors and job functions.

As Trine Linnemann has always had a passion for

motorcycles and cars, it suits her very well to work with a big machine; partly because it involves considerable responsibility, partly because it is a demanding task.

By no means it bothers Trine Linnemann that she is working in a very male-dominated environment. She likes the good humour among the colleagues, and she is happy that there is an absence of what she refers to a 'girlish chicken coop'.





DEFYING THE FORCES OF NATURE

The wind can be a costly opponent, for example when mountainsides need to be secured and wind turbines and mobile antennas serviced and repaired, sometimes at more than 100 metres above street level. Until now, the major crane and lift solutions have not been approved for use at wind speeds of more than 12 metres per second – equivalent to force 6 on the Beaufort scale or ‘strong breeze’.

Now BMS – together with the market’s leading manufacturer, the Austrian-German Palfinger AG – has developed and commissioned a long-sought-after lift version that so far only BMS is offering its fast-growing European market. This version is classified and authorized to operate at up to

20.8 metres per second, corresponding to force 9 or ‘severe gale’ – that is, in weather where roof tiles loosen and branches break off. This newly developed lift version gives BMS significantly increased flexibility. This benefits customers with large amounts of money at stake when, for example, telecommunication company networks break down and there is need for emergency repairs or error recovery.

In a world that expects more and more efficiency, the weather still has a significant impact on the equipment. The less the weather can affect the robust truck mounted lifts’ ability and possibility to work, the happier the customers will be. Less time wasted means money saved for the customers, and this is an


important competitive parameter for BMS.

The further development of the Palfinger lifts supports the BMS Group vision as well as the E-24 concept. This internationally oriented concept guarantees a maximum of 24 hours response time on any customer enquiry, no matter where in Europe the customer and the task is located. So far the service guarantee applies in Benelux, Germany, Scandinavia, and United Kingdom, but it is gradually being extended in line with the expansion of the BMS Group.

BMS has 38 truck mounted lifts at its disposal. The working height of the four largest – also the market’s largest – reach up to 103 metres. Among other things, the truck mounted lifts from

BMS have floor heating and control desks, which makes it possible for the customers’ specialists to work effectively for a long time despite the cold and the wind. The actual personnel basket can hold up to six people or lift 600 kg with mounted lifting beams and can rotate 360 degrees around its own axis.

In addition, all BMS’ truck mounted lifts are equipped with satellite connections to allow the various European centres to monitor whether the mechanics and electronics are running at peak performance. This also allows the software to be updated no matter where in Europe the vehicle is working, and even if it does not have a sufficient local mobile connection.



A fast-driving truck mounted lift with two drivers can travel far in 24 hours from BMS’s strategically placed European centres.

FACTS

All BMS-cranes are equipped with two winches in order to turn elements in the air, regardless if they weigh one or 40 tonnes.

FACTS

In Denmark's case the reduced construction activities during the Second World War meant a great shortage of housing. As most construction work was still traditional, there was also a scarcity of skilled labour – and this problem was not fixed before the industrialization of construction work from around 1950.

The mounting of concrete elements introduced industrially manufactured parts. The advantages of this type of construction are a reduction of the manual labour and the fact that elements can be produced industrially away from wind and weather. In addition, buildings are erected and can be finished in less time than with conventional construction.

Traditionally, a disadvantage of mounting of concrete elements has been handling, but here BMS has contributed significantly to reducing the problems. Over the years, BMS has built up considerable expertise in the assembly of everything from small to the very largest and most complicated elements.

Mounting of concrete elements and project assignments are typically carried out with mobile cranes up to 250 tonnes, while truck mounted cranes perform ad hoc tasks. The BMS Group also has low loaders, steel plates and manpower for rigging assignments. Mounting of concrete elements can last from as little as a few hours to long-term rental of equipment and personnel for 12 to 24 months. For the really big and long-term jobs BMS mostly uses crawler cranes.

It requires a large amount of planning to organize mounting of concrete elements, getting the equipment to

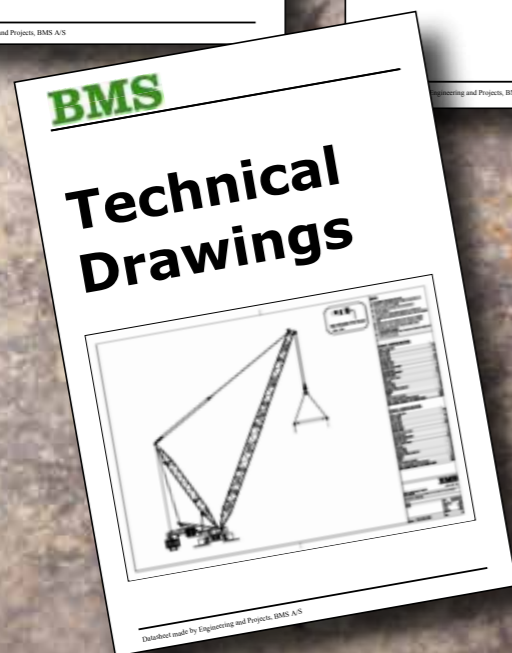
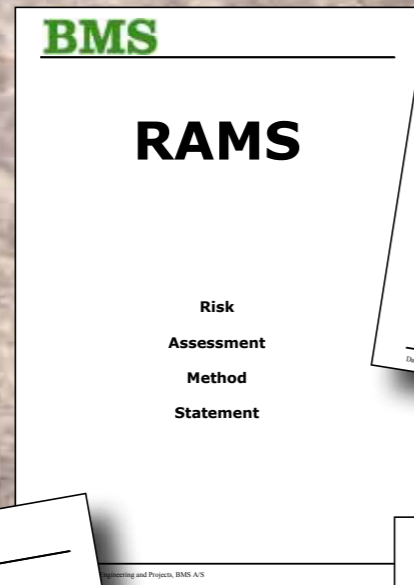
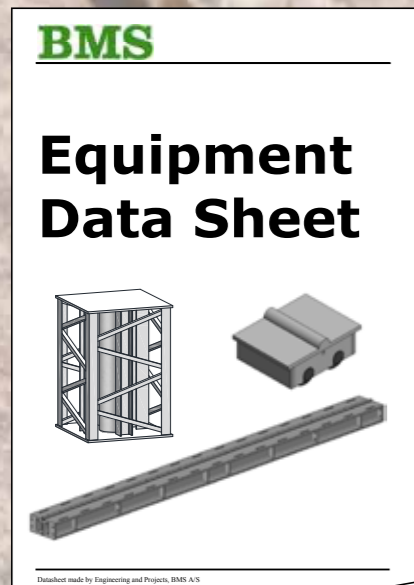


work as much as possible and using the optimum gear for each task. The BMS conductors assess a given assignment before the machines and manpower are put to work.

LEAVE THE CONCRETE ELEMENTS TO BMS



ENGINEERS AT WORK



BMS Engineering is a fully staffed internal engineering department, working as project managers and technical advisers for every company in the BMS group. Thanks to the engineering department BMS can take on combined projects, where advanced engineering services are required in addition to the best in equipment.

As all engineers have several years of practical and theoretical experience in heavy lifts and transport, BMS Engineering contributes to the best in quality. Therefore, the customers are guaranteed qualified support in the planning as well as the most effective technical solution with the best equipment for the task at hand.

The BMS engineers collaborate closely with the lifting professionals to develop new working methods and test unusual ideas. Furthermore, they act as appointed persons in the field in order to ensure the most direct link in case of an unforeseen event and maximum learning for the next job.

Lift planning from basic 2-D to 3-D animated operation sequences in order to ensure maximum safety

and optimization of project timings is a core competence for BMS Engineering. So is development and calculations of equipment and solutions from fairly simple crane layout drawings to very complex calculations, advanced manoeuvring tasks, and heavy lifts. In addition, BMS Engineering has considerable experience in proactive project and risk management, steel design to Euro-Code, the design of lifting systems according to offshore codes, method statements, and documentation of projects out of the ordinary.

The past year BMS Engineering has worked with dedication to deliver even better 3-D modelled solutions. As part of the continued development in this key area, all engineers have been training in 3-D modelling.

3-D technology has for instance been used in connection with an assignment for a cement plant. An external company carried out 3-D scanning of the portion of the production line that was to be replaced and this scan was turned into a 3-D model, allowing the BMS engineers to plan the entire job in a 3-D environment. Such a solution is particularly interesting where production stops are cost-intensive and delays can be extremely expensive.



Since 1868, the Port of Esbjerg has been the main centre for sea carriage and trade between Denmark and the rest of the world. Today, it is an international, multimodal transport centre with more than 200 companies - and 10,000 people work here

FACTS

IDEALLY LOCATED ON THE QUAYSIDE

Since the extraction of fossil fuels began in the Danish part of the North Sea close to 50 years ago, the Port of Esbjerg has been the principal base for Denmark's oil and gas activities.

However, thanks to its setting on the Danish west coast the Port of Esbjerg has been a centre for the transportation of goods between Denmark and other European harbours ever since it was founded in 1868. Today it is an international, multimodal transport centre serving as a Scandinavian gateway to the rest of the world.

The facilities of BMS Esbjerg are ideally located with a very short distance to the quayside in Esbjerg. Thanks to the ability

to move out quickly combined with considerable knowledge of port-related tasks, BMS Esbjerg has numerous assignments at the port every week.

Almost every BMS crane in Esbjerg is specially equipped with an elevating cockpit, making it particularly suitable for port assignments.

These are just a few examples of the diverse tasks that BMS Esbjerg carry out on the port:

// Loading of potatoes for Blue Water Shipping, a Danish company offering freight solutions by road, rail, sea and air through offices, agents and partners worldwide,

// Loading of materials for the full-service offshore provider Jutlandia Terminal, a part of the Lauritzen Group providing all requirements for the local exploration and production in the North Sea,

// Unloading of pipes for Niels Winther Shipping, a leading provider of marine support, logistics and supply chain solutions.

In cooperation with the companies in the port area BMS Esbjerg contributes to meet the objective set by the EC Commission: By 2050, half of all transportation of goods on distances of more than 300 km must be transferred to rail or sea carriage.





TELEVISION BROUGHT TO THE ENTIRE WORLD BY LIFT

The Nouveau Stade de Bordeaux – also known as Matmut Atlantique – was constructed 2014-2015 at a price of 168 million EUR. It has a capacity of around 42,000 spectators and today is the home ground of FC Girondins de Bordeaux, playing in the first division of French football.

FACTS

For a month last summer France hosted the 2016 version of the Men's European Football Championship – often referred to as UEFA Euro 2016 or just Euro 2016.

The 24 finalists contested a group stage consisting of six groups of four teams, followed by a

knockout phase including three rounds and the final. The matches were played in ten stadiums around France.

It is estimated that more than two billion viewers tuned into the Euro 2016 matches as many of the world's leading free-to-air broadcasters were joined by specialist sports channels to provide football fans with cutting edge coverage of the tournament. An unparalleled digital offering enabling fans to follow Euro 2016 to the fullest was supported by traditional linear television broadcast.

At each stadium 36 live match cameras were deployed to capture the match – and at the Nouveau Stade de Bordeaux you could meet Danish Jens Chr. Simonsen. While fellow Danes and

other football fans from all corners of the world watched the game, Jens Chr. Simonsen was working hard. During the five games at the stadium in Bordeaux he operated a 90-metres lift from BMS Lift Department equipped with a camera and antennas for communication with a television helicopter.

Several months before Jens Chr. Simonsen arrived in France, he had undergone thorough security clearance. Everywhere in and around the stadium, there was a heavy contingent of security guards, regular police, Police Nationale, civilian police, and soldiers. However, after being cleared Jens Chr. Simonsen had free access for essentially the entire stadium. In connection with the assignment in Bordeaux, he was

wearing an official Euro 2016 outfit, sending an unmistakable signal about the level of his security clearance.

Jens Chr. Simonsen was working for all five games at the stadium in Bordeaux:

Wales vs. Slovakia (2-1), Austria vs. Hungary (0-2) Belgium vs. Ireland (3-0) Croatia vs. Spain (2-1) and the quarterfinal Germany vs. Italy (1-1; 6-5 after penalty). Still, it was far from a summer vacation between the games, as Jens Chr. Simonsen had to be on standby throughout the entire Euro 2016 period.



The new Enercon 4-MW platform features maximum quietness, low noise and reduction of project lead times thanks to process optimisations in production, logistics and assembly.

// Rotor diameter: 127 m
// Hub height: Up to 159 m

FACTS

FROM WATER TO WIND POWER

Photo: Jasper Pluim – City Marketing Lelystad

Back in 1967 there was nothing but water – today there is the city of Lelystad with 75,000 inhabitants. In February 2016 there weren't any 4 MW wind power turbines here – today Lelystad has the newest Enercon prototype E-126 EP4.

Since the company was not established until 2011, BMS Krane has nothing to do with the foundation of Lelystad, a city built on reclaimed land on the seabed of the former Zuiderzee in The Netherlands. However, the German division of the BMS Group had quite a lot to do with the new Enercon installations, as the company helped erect the concrete towers as well as the turbines for the first model from the new 4-MW platform.

Indeed, the last year has been very busy for BMS Krane. Specialized in wind power turbines BMS Krane's equipment and personal has been working at numerous locations in and around Germany.

While BMS Krane used a Liebherr LG1750 lattice boom mobile crane for the job at Lelystad, another of the company's crawler cranes worked at Hallschlag in Germany. Here – close to the border between Germany and Luxembourg – BMS

Krane helped erect concrete towers and turbines for another Enercon installation.

During the summer a third crane started in Heinzenbach with concrete tower and turbine erection – and then moved on to work at Weißenfels, located approximately 30 km south of Halle.

Further Enercon projects in Germany has been carried out on locations such as Gagel, Güstow, Holzhausen, and Rüssen – and just before the turn of the year, BMS Krane was contracted for supplying Enercon with two crawler cranes for all of 2017.

The German wind turbine manufacturer Enercon was founded a little more than 30 years ago. The first 55 kW wind turbine was developed in 1984 – and most recently the company has introduced a 4 MW platform, combining innovative technology and intelligent modular design for more efficiency and reliability.

Today, Enercon has more than 37 per cent of the market in Germany and on a global basis the market share is more than five per cent, making Enercon the sixth largest wind turbine manufacturer in the world.



A GENUINE ZERO-JOB

Since the goal was zero injuries, zero damage to equipment, zero emissions to the underground and zero customer complaints, you can call this a genuine zero-job. Here is why:

The Norwegian part of the vinyl producer Inovyn had to carry out major maintenance works on

the chlorine/VCM plant at Rafnes southwest of Oslo. Together with other parts of the Inovyn organization the plant supplies fundamental raw materials for industry sectors as diverse as automotive, building and construction, paints and adhesives, healthcare and medical, personal care, pulp and paper, textiles, and water

treatment. Since Kranringen has substantial expertise in the planning and execution of crane and lifting operations in the process industry, Inovyn contracted with this part of the BMS Group.

The task of Inovyn was indeed very comprehensive: Over a period of four weeks Kranringen had

close to 50 people working with everything from mobile cranes and trucks to wheel loaders, forklifts, and rigging. The task began with the preparation of lifting plans and compliance with regulatory requirements for the lifting operations. Subsequently, a total of nine cranes from 40 to 500 tonnes were put to use,

supplemented by three crane trucks, two trailers, a 90-metres lift, three forklifts, a wheel loader, and 25 riggers, supported by BMS in Denmark.

Working at a petrochemical site requires a high safety standard, and a separate safety plan was developed for the project. All involved personnel

were trained to meet the safety requirements, and this contributed to the safe and efficient execution of the project.

During the entire process Kranringen was in close dialogue with Inovyn, ensuring efficient and good use of all resources. Thanks to optimum cooperation within Kranringen

and its subcontractors, high safety as well as the best standards of performance were ensured.

Among other things the specific task included replacement of a flare tip at 76 metres height, lifting of heat exchangers of up to 50 tonnes, lifting of boilers and valves, and a wide range of logistical

tasks with forklifts and wheel loaders.

At Inovyn there is no doubt that the good results can be attributed to a dedicated and skilled workforce, everyone contributing with great atmosphere and professional expertise.

WHEN THE CHIPS ARE UP

DONG Energy is one of the leading energy groups in Northern Europe, engaged in developing, constructing and operating offshore wind farms, generating power and heat from power stations, providing energy to residential and business customers, and producing oil and gas.

Amongst the DONG Energy facilities are Skærbæk Power Station in southern Denmark, established in 1951 and for years operating as combined gas and oil power plant. The plant, which produces electricity and district heating, is currently under reconstruction for burning wood chips.

The new construction is a very comprehensive task involving machinery and personnel from almost all BMS departments in Denmark. Periodically, BMS has had 12 to 14 cranes at work at a

time – and all sizes have been represented: from 60 to 750 tonnes cranes and 50 to 220 TM truck mounted cranes to a 250 tonnes crawler crane, a 60 metres mobile tower crane, and many riggers.

BMS arrived at the site in August 2015. Throughout the project period the company has organized the many very different lifting tasks along with Danish and foreign contractors – from method statements and risk assessments to lifting plans and coordination between all contractors. There have been lots of lifts – from small to very large and complex tandem lifts. They have all required planning and timing, since many contractors rely on as few disruptions as possible in connection with the challenges provided by crane lifts.

For instance, two huge steam drums were hoisted 45 metres and

placed on top of the station's boilers. Each steam drum, separating water and steam formed in the wood chip boilers, weighs 85 tonnes and is 18 metres long. They have a diameter of two metres, are built of 10 cm thick steel – and were lifted into place by a 750 tonnes crane.

BMS has had a supervisor on the site throughout the construction period, among other things in order to present each planned lift on a daily coordination meeting with the contractors and the DONG Energy management. Naturally, experienced crane operators heavily focused on safety has been performing all lifts.

DONG Energy expects the entire conversion of Skærbæk Power Station to be completed by April 2017.



RAPID GROWTH IN SWEDEN

Gothenburg – Sweden's second largest city, which turns 400 years in 2021 – is growing rapidly.

The city has launched a comprehensive development plan up to the year 2035 in order to make room for around 700,000 inhabitants, which are 150,000 more than today. That means new neighbourhoods on former industrial sites,

densification of the city, and the creation of jobs, schools, shops, and parks. Parallel to this, there is a continued expansion of the Port of Gothenburg, which is the largest port in the Nordic countries.

Keeping up with the development in Gothenburg, BMS Kranar established a department just here in April 2016. It all started with five cranes

and two truck mounted cranes – and by August this part of the BMS Group set up a rigging department currently with six employees.

The first months BMS Kranar had no workshop in Gothenburg, but had to conduct its business from a rented tent. Here the first employees purchased and built up all necessary equipment and

by November 2016 BMS Kranar could move into a more permanent domicile with both workshop and offices.

Alongside the development in Gothenburg BMS Kranar is in the process of expanding activities elsewhere in Sweden.

For example, the department in Malmö – covering the south-western

part of Sweden – has almost doubled the number of cranes and employees over the last year. This has been achieved through the acquisition of a company focused on truck-mounted cranes and the investment in mobile tower cranes. Especially this business area is one that BMS Kranar has high hopes for. Most recently, the Malmö part of the BMS Group

has established a rigging department, presently with eight employees.

In the course of 2017 BMS Kranar expects to establish yet another department, this time in Stockholm. However, already at this stage the company is working on a large-scale project in the Swedish capital.





REVIVING OF A DEPARTMENT STORE



In the heart of Copenhagen lies the 125-year-old department store Illum. Since its foundation in 1891, it has offered not only the finest in fashion and beauty but also the latest trends in interior design and decoration. The Illum founder, Anton Carl Illum was a businessman well known for his sharp eye for innovative thinking. He predicted the consequences of industrialization and the growing demand for luxury and high-quality products.

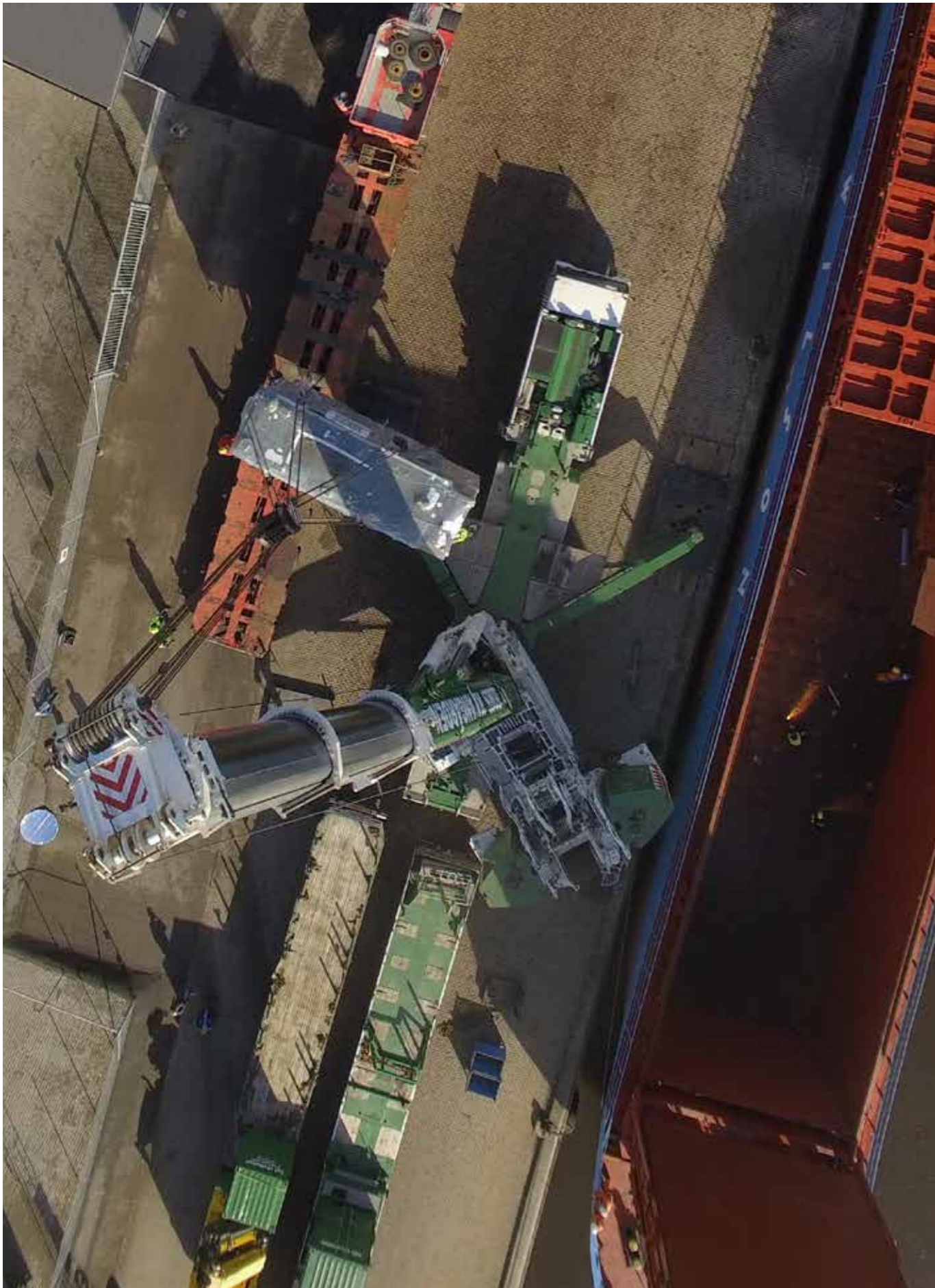
In 2013, Illum was bought by La Rinascente, bringing with it more than 150 years of experience in operating Italian department stores, offering the best in fashion, accessories, beauty, interior and decor, design and gastronomic delicatessens. When taking over Illum, La Rinascente decided that the Copenhagen department store should be repositioned within the Danish retail industry with an emphasis on history, design and exclusive brands. To meet

this objective La Rinascente launched a major rebuilding of Illum.

A key part of this transformation was the relocation of two six-tonnes ThyssenKrupp escalators – a task that was entrusted to BMS Kruse, who has accumulated considerable expertise in this particular area.

This type of job requires long-term advance planning to the very last detail, as additional shutdown time cannot be

tolerated. With equipment designed for the specific task and a highly efficient teamwork with the escalator installers BMS Kruse managed to solve the task through the normal means of access, so Illum had no disadvantages in terms of security within the building. In addition, the job was done according to plan between 9 pm and 6 am, which is during the normal closing hours of the building.



BMS ON THE ROAD

With effect from November 2016, the BMS Group also includes the 100 per cent owned subsidiary Torben Rafn A/S, located in Sommersted in the southernmost part of Denmark.

Torben Rafn is a haulage company with a large number of tractor units, block semi-trailers and axles for modular heavy haulers, including considerable equipment such as beds, tower modules, boiler decks, spacers, turntables, road train equipment, and bogie equipment. The core competencies of the company cover wind power turbines, light haulage, heavy haulage, and contractors' machinery.

The company was established in 1966. To begin with, it was mostly involved in transporting road con-

struction materials and agricultural lime, but over the years it developed into an all-round haulage business, operating in Europe and the Middle East. Today, the company has more than 2,000 square metres of workshop and storage facilities as well as a comprehensive range of vehicles for all types of specialist haulage assignments.

The workshop services and repairs the company's own equipment and the mechanics build up the heavy hauler modules for each assignment. Torben Rafn is approved to inspect equipment according to the German TÜV requirements. For lighter loads, Torben Rafn has an almost infinite number of trailer combinations. The light haulage department handles jobs requiring straight trailers up to 30 metres and 35-40 tonnes as well as

drop deck trailers up to 15 metres and 35-40 tonnes. For transporting heavy items, the company uses modular heavy haulers, which can be built up according to need. They can be combined with equipment for transporting high loads, for example boiler decks, beds with equipment for transporting long loads such as turntables or hydraulic adaptors. Heavy haulers can be built up with one to 150 axles connected to 3, 4 or 5-axle tractor units with a load capacity to more than 3,000 tonnes.

Torben Rafn often transport equipment for contractors, construction companies, and contractors' equipment dealers as well as for the agricultural sector. These transports include items such as excavators, dumpers, loaders, and demolition machinery.



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