The SmartRacker
A vision of high performance drilling technology

Plus:
THE STENA SUPERFERRY EFFECT
JiangNan–TTS opens for business
...and much more
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Welcome

Johannes D Neteland
President and Chief Executive Officer, TTS Marine ASA

Welcome to the 10th issue of TTS Review. It has been a busy and productive few months, as we have consolidated the group into three divisions from the original six. The aim of this reorganisation is to help us become more market-oriented and this has already allowed us to cut costs while focusing more effectively on our core markets.

“The marine division is currently doing extremely well in China, where we have more than 600 people working for us and the bottom line is very healthy.”

2010 event calendar

TTS is exhibiting at the following events. We would be delighted to meet you to discuss your marine, energy or port business requirements.

- **OTC** – Stand 5235
  Houston, USA, 3rd–6th May

- **RoRo** – Stand D32
  Bremen, Germany, 18th–20th May

- **Posidonia** – Stand 517
  Athens, Greece, 7th–11th June

- **TOC 2010 Europe** – Stand C62
  Valencia, Spain, 8th–10th June

- **SMM** – Stand 154, Hall A1
  Hamburg, Germany, 7th–10th September

The group’s global expansion continued in 2009 with the establishment of new service companies in Singapore and in Piraeus, Greece. The next major service hub to be developed in 2010 will be Shanghai. The marine division is currently doing extremely well in China, where we have more than 600 people working for us and the bottom line is very healthy.

Brazil is another growing market for our products. Having completed a number of successful deliveries to the country, we recently established a local office. Recruitment has begun for staff and we are working to comply with Brazilian legislation requiring us to establish domestic production. Discussions are underway with several potential partners to this end.

In recent years, we have spent over NOK100 million (USD $25 million) developing a broad range of products for land and offshore drilling. We have already delivered two complete drilling packages to the offshore sector, and our active heave compensated offshore cranes and winches have performed especially well. Although TTS has traditionally specialised in drilling equipment for fixed rigs, we are now working to develop drilling equipment with wave compensation systems for use on floating rigs. This is a new area of business that we hope will achieve good results in the future.

The Port and Logistics division has benefited from extensive changes to several of Stena’s shipping routes, thanks to the arrival of the new superferries. The increased demand for a wide range of our products and services in the affected ports is excellent news for our order book.

Finally, on the domestic front, we have greatly enhanced our production capacity for translifters with the move of TTS Liftec to new purpose-built premises near Tampere airport. The doubling of our output capability in this location will allow us to take on more and bigger projects.

All of these developments and many others are covered in this issue of TTS Review. I wish you a pleasant read and a profitable few months ahead.
AHC winches impress new customers

Proving its leadership in active heave compensated technology, TTS has completed two recent contracts for the supply of equipment designed for use in exceptionally demanding environments.

A custom-made 60 tonne crane with two active heave compensated winches is now in action on a versatile new Riise Underwater Engineering (RUE) offshore vessel. The vessel MPSV Atlantis Dweller, which can accommodate a crew of 70, is currently carrying out diving and ROV operations for Exxon Mobil off the coast of Nigeria.

The TTS crane is placed amidships, servicing the entire deck area as well as both port and starboard hangars. In addition to the main winch, the crane is equipped with an auxiliary winch with a 10-tonne lifting capacity. Both the primary and auxiliary winches operate with active heave compensation. “We looked into all the suppliers and found TTS’s expertise and technology to be excellent,” says RUE operations manager Arvid Bertelsen. “With this equipment, we have full flexibility in the performance of operations which at times require extreme precision.”

Before Atlantis Dweller set course for Nigeria, the equipment was tested off the coast of Haugesund, Norway. “We are extremely satisfied with the crane and the follow-up from TTS in relation to the installation and test runs,” says Bertelsen. “Should problems arise with regard to operation of the active heave compensated system, we know that help is always close at hand.”

A web-based remote diagnostics system enables TTS specialists in Ålesund to log on to the programme controlling the crane and undertake fault location and software adjustments for the hydraulics and control system, regardless of the vessel’s location. “This provides exceptional assurance against costly disruption of operations,” says Bertelsen. Later this year, Atlantis Dweller’s sister

“ It is reassuring to have a supplier with a high degree of product expertise and an excellent service facility”

Left: MPSV Atlantis Dweller in tests off Haugesund, Norway. Above: GSP Prince equipped with a TTS 70-tonne AHC offshore crane capable of heavy subsea lifts
The AHC system is specially designed for handling loads lowered from a vessel towards underwater installations and other fixed targets on the seabed as well as for anchor handling and towing operations.

The system uses data supplied from a motion reference unit to compensate for the movements of the ship using nitrogen gas in a closed loop hydraulic system together with a piston compensator. This enables precise load handling, which is critical when mating subsea units or suction anchors on the seabed, and even more critical in rough seas or weather.

The complete system is operated from a tailor-made control system installed on the bridge, enabling trouble-free operation of the winch equipment.

Top: Atlantis Dweller showing the TTS Cranes.
Above: TTS has developed the AHC system to complement the range of anchor handling and towing winches, enabling AHTS vessels to perform subsea installations.

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As part of a series of seven drilling package contracts for PPL shipyard in Singapore, TTS Sense has supplied three new jackup rigs to Vantage Drilling.

Two jackups for Egyptian Drilling (part of Maersk) and two for the Egyptian Offshore Drilling Company have also been delivered to the PPL yard. For the seven rig projects at this yard, TTS supplied a range of equipment and services, including High Performance UltraHoist Multispeed Drawworks, a driller’s cabin equipped with a TTS X-Com Driller Control System, hydraulic cat heads, casing stabbing baskets, and drilling package integration. The company is also involved in projects at Singapore’s Keppel and Jurong shipyards.

Drilling package integration has helped the PPL yard to move away from outdated drilling packages, says TTS’s Arshi Pathan, marketing and business development manager, south east Asia. “The overall equipment quality on these rigs is better than that of conventional packages and the cost is lower. Rigs that leave the yard fitted with TTS equipment are treated as high-end machinery, as evidenced by positive remarks from the end users of rigs fitted with our technology.”

The equipment and service provided by TTS Sense on the Vantage project quickly won the approval of industry experts, says Bill Thomson, vice president, assets and engineering for Vantage Drilling, which has served the jackup and deep water market since 2008. While training staff to use the new

“Not only is the equipment very nice to work with, but the level of service and support that we got during the installation was great”

Above: Bill Thomson, vice president, assets and engineering, Vantage Drilling. Below left: one of the driller’s cabins equipped with a TTS X-Com Driller Control System. Below right: uciis cusapissiti sum rem que nos esti ut licilest laceate lam
ENERGY

In June 2009, TTS Sense Canada strengthened its presence in central America by setting up an office and service centre committed to providing a full range of aftersales services to customers in and around the region.

Ideally positioned near the Gulf of Mexico in the municipality of Tihuatlan, Veracruz, the TTS Sense Mexico Service Centre is home to a highly qualified team of Canadian-trained locals, including hydraulic, mechanical and electrical technicians, all equipped to provide the best possible service to the region, 24/7. The business office is located in Mexico City to support the administrative needs of the service centre and pursue opportunities in the emerging markets.

As part of this strategy, TTS is currently holding discussions with government officials to look at the possibilities of working directly with Mexico’s state-owned oil company Pemex. This year the company aims to almost double crude production to 60,000 barrels of oil a day at the onshore Chicontepec field.

Around 505 wells are expected to be drilled there in the coming months.

Work carried out so far by the new TTS service centre has been well received. Among other things, the office is developing Spanish and English training courses complete with simulators, and has established an inventory of critical spare parts to supply the oil, gas and marine industries. Preventative maintenance programmes are also being developed in addition to the maintenance services currently offered for rigs. Current projects include the servicing of 13 TTS manufactured rigs operating in the Chicontepec field, of which four are owned by Saxon and nine by Weatherford.
Originally developed as part of a complete drilling package for two advanced jack-up rigs, the SmartRacker is regarded today as the linchpin in the TTS product portfolio of high performance pipe handling solutions.

Designed by a team assembled from each of four technical disciplines – mechanical, structural, hydraulics and controls – the fully automated column type racker is one of the company’s most impressive machines to date. Both complex and compact, it is built to operate at high speeds with absolute precision, handling tubulars measuring up to 41 metres tall, 3-1/2” to 13-5/8” diameter, and weighing up to 15 tonnes, with its unique gripper head.

Featuring AC technology to control its movements, the SmartRacker has been optimised for simple and intuitive operation with the added benefit of requiring less maintenance than other units on the market. Also, unlike hydraulic systems, AC technology is neither sensitive to temperature change nor prone to leakage and contamination.

Through a simple-to-use, yet advanced robotic control system, workers can operate the machine with a joystick, moving the individual arms, column and trolleys with complete precision thanks to the integrated geometric model, which calculates the set point of each axis in real time.

Full scale testing of the machine was carried out over a four-month period in a purpose-built, 50 metre-high test tower in Kristiansand, Norway. “We ran all tubular sizes through it, tested all failure modes, simulated all component failures, and tested and retested the software,” says Erik Zachariasen, chief technology officer at TTS Energy. “When we delivered the SmartRacker to the new jack-up rigs, we knew that we had created the best pipe handling machine possible.”

Having the SmartRacker installed at the test tower has given TTS the opportunity to show the machine to various potential clients and the feedback has been overwhelming. “It has been great to hear people talking about how simple and intuitive it is to operate, and how responsive and well engineered it is,” says Zachariasen. “We are very proud of the machine we have created.”

**SmartRacker key features**

- Main functions driven by AC technology
- Safety features (dual lifting wire / dual motors / emergency lowering / protected instrumentation)
- Lifting head multi-range of 3-1/2” to 13-5/8” (handles DP, DC and CSG)
- Long-life tungsten carbide dies
- Pick-up elevator with fail-safe pipe lock and a multi-range of 2-7/8” to 13-5/8”
- Soft stabbing function
- 4 metre arm reach and 359 degree rotation
- Guide arms have vertical travel to improve racking
- Advanced features, yet simple to use
- Joystick controlled
- Moves in accordance with a geometric model

Left: the SmartRacker shown at the company’s test tower facility in Kristiansand, Norway
Three-way merger for operations in Germany

Following the announcement of their consolidation into a single entity, all three TTS companies in Germany are now anticipating the full benefits of the new organisation. TTS-LMG Marine Cranes, TTS Ships Equipment and TTS Kocks have already begun preparations for their transformation into the new company, which will be known as TTS Marine GmbH.

The process of merging the companies began in October 2009 with management restructuring at TTS-LMG Marine Cranes in Lübeck. Jens Meldal, previously with TTS Kocks, has taken on the position of managing director at TTS-LMG Marine Cranes, and will prepare the company for the merger, planned for the first quarter 2011. The other two German companies, TTS Ships Equipment and TTS Kocks, have also started preparations for the new company formation. TTS Ships Equipment has begun adjusting staff levels with close to a 20 per cent reduction in December to reflect changes in both the current and expected markets in the worldwide shipbuilding industry.

The changes will have many advantages for TTS in Germany, says Edgar Bethmann, managing director, TTS Kocks. “We will gain a lot of synergies which will make us more competitive in the future. Our financial situation will be stronger and we will be able to utilise our existing relationships with customers. We can offer more complete packages and provide better aftersales service by presenting one face to the customer instead of three.”

With its head office located in Bremen, the new company will also maintain a service station for customers and ships calling at the important port of Bremerhaven. “We will be able to provide customers with a full support for all TTS products,” says Bethmann. “Workshops will be available to offer fast, flexible service with assistance from TTS Marine.”

In practice, the companies are already starting to work as a single unit (see article on a recent project in Korea, page 9), and some departments, including finance, contract management, IT and human resources, have been moved into new offices. The remaining departments will follow in due course.

The implementation of a new ERP system, which began at the end of 2008 at both TTS Ships Equipment and TTS Kocks, has been reviewed and adjusted to meet the new requirements of the joint organisation.

Flow of RoRo deliveries continues

Several vessels equipped with TTS RoRo equipment have been delivered to clients across various markets this year. Two TTS-equipped PCTC vessels have been manufactured in Korea, one for Hoegh Autoliners and the other for Liberty Maritime. In addition, Ray Shipping has taken delivery of the first ever Vietnam-built car carrier.

The NYK-operated car carrier Victory Leader has been fitted with TTS cargo access equipment. Featuring a new design tailored to building conditions in Vietnam, the vessel has 11 decks (two of them liftable) for the loading of cars, and a total capacity for about 4,900 cars.

A further two orders for TTS-equipped RoRo vessels have been fulfilled in European markets. Flensburger has delivered another RoRo vessel in a series of six for Cobelfret, while NCA in Italy has supplied the seventh in a series of RoRos to Grimaldi.

The Cobelfret vessels are fitted with a wide stern ramp covering access to the main and upper decks. In addition, a side-hinged ramp cover closes the main deck above the fixed ramp to the tanktop. The Italian RoRos for Grimaldi have two stern ramps, the wider of the two providing access to the main deck and the smaller connecting to the upper deck. The fixed ramp to the tank top is covered by an end-hinged ramp cover.

Several TTS conversion projects have also been finalised, including installation of a new side ramp in an existing rail ferry for Scandlines, and reinforcement of the bow area for a French RoPax vessel.
The TTS presence in China received a boost in November with the formal opening of JiangNan-TTS (Nantong) Ships Equipment Manufacturing Co. Ltd.

JiangNan-TTS is China’s only domestic supplier specialising in the fabrication of access equipment such as hatch covers, and the JiangNan-TTS factory will supply hatch cover production to shipyards for the China State Shipbuilding Corporation (CSSC), the largest shipbuilding group in China, as well as to other customers of TTS Hua Hai. The project has benefited from CSSC advice and the support of the Jiangsu Provincial government, as well as the Nantong and Rugao local governments. Orders have already been received from Waigaoqiao, JiangNanChangxing, Dayang, and NACKS.

JiangNan-TTS is jointly owned by JiangNan Heavy Industry Co. Ltd (50 per cent), TTS Hua Hai Ships Equipment Co. Ltd. (40 per cent) and SDARI (10 per cent). The three shareholders each bring particular strengths to the company. JiangNan Heavy Industry, as a listed company, has rich experience of fabrication and management in the field of access equipment manufacturing. TTS Hua Hai is a Sino-foreign joint venture company with advanced techniques in designing access equipment and a large share in the domestic market, while SDARI brings design competence and a strong record of developing ship types.

Besides various types of hatch covers, JiangNan-TTS mainly produces RoRo access equipment and other steel structures for ships. Through close cooperation, the three parent companies will dedicate themselves to making JiangNan-TTS a highly competitive and specialised base for the manufacture of access equipment.

JiangNan-TTS is located in Rugao Port Zone of Jiangsu Province, covering a land area of 220,000 square metres with a quay line of 150 metres. The total investment during Phase One is ¥250 million. Construction to date includes a welding workshop covering 35,000 square metres, sub-assembly and final assembly areas over 28,000 square metres, and a 6,500-square-metre painting workshop. Annual production capability is currently 45,000 tons and the Phase Two construction programme will see production levels of 80,000 to 100,000 tons annually.

A specialised team has been set up to provide hatch cover installation services for customers. JiangNan-TTS has approximately 90 shipset orders on hand and production tasks have been scheduled until the first half of 2011. By the end of this year, the company will have completed approximately 60 shipsets with a sale price of around ¥200 million – impressive earnings for the first year of production.

In her opening speech on 29 November 2009, the company’s chairman, Madam He Pu, remarked: ‘JiangNan-TTS is surely established as the most competitive company in its field in China, combining research and development, design, sales,
fabrication, installation and global services. Thanks to the advances in China’s shipbuilding industry and the development of the block assembly shipbuilding trend, the ship access equipment industry has high market potential."

The assistant to the general manager of CSSC said that the establishment of JiangNan-TTS symbolised a bold new step forward for CSSC in the shipbuilding industry.

He paid tribute to the work done by Mr Tan Zuo Jun, the general manager of CSSC, in developing the facility. “His expertise and guidance was invaluable in the areas of ownership structure and planning the plant’s facilities, which has given JiangNan-TTS a sound foundation to build future success.”

Two TTS companies in Germany are working together to supply four shipsets of hatch covers and winches for a major project serving large ore carriers in Korea.

In a joint contract with Daewoo Shipbuilding and Marine Engineering Co. Ltd (DSME) shipyard, TTS Ships Equipment GmbH will deliver the design and main parts for the hatch covers, and sister company TTS Kocks GmbH will supply the winches. The DSME vessels, to be delivered in the second half of 2011, are of type 400,000dwt VLOCs (Very Large Ore Carriers). Each 360m long vessel will transport ore from Brazil to China for a major Brazilian company.

TTS Kocks is to supply ten mooring winches and two combined anchor and mooring winches to each of the four ships. Manufacturing will take place in the TTS Kocks factory in Korea and the company will deliver the winches between Jan 2011 and March 2012. “This is the largest winch project that TTS Kocks has undertaken,” says Bernd Waldschmidt, head of sales and projects, TTS Kocks.

The TTS side rolling hatch covers are driven by hydraulic motor and feature a rack and pinion system. TTS Ships Equipment is providing drawings and parts including wheels, rubber seals and bearing pads. The delivery of parts is set to start in September 2010.

This is the first contract that TTS Ships Equipment has had with Daewoo for a long time, says sales and project manager Karsten Kroschel. In another first, it is also the occasion of the debut collaboration between TTS Ships Equipment and TTS Kocks. “We are very pleased to have a common project with Kocks,” says Kroschel. “We combined our sales force for this contract, and as a result, our volumes are better and our approach is stronger.” The two companies are based in the same building in Bremen and will soon merge to become part of a single German entity (see article, page 7).
A new TTS partnership has been established to meet the stringent demands of modern mega yacht owners. The TTS Yacht Group will form to unite the mega yacht operations of TTS Ships Equipment GmbH in Bremen and TTS Marine s.r.l. in Genoa.

The new yacht group has already signed a contract with a major German yacht builder to solve several problems with the doors on two of its mega yachts. The TTS solution was chosen from a number of possibilities, some of which had been developed by the yard itself.

The delivery and installation of the new doors is about to commence, and there will be numerous challenges for TTS to overcome along the way, as Stephen Cole, the contract’s project manager, explains: “The vessel is in continual use by the owner, so any downtime needs to be kept to an absolute minimum. We will need to make visits to take exact measurements, create a 3D model, manufacture the doors and then complete installation with as little disruption as possible.” TTS will work closely with the yard to achieve this.

The yacht group is also working on another project for the development of a special type of onboard aircraft hangar. “The aircraft is a special type which has, until now, never been used on a yacht,” explains Cole. “The exact specifics cannot be disclosed but, if built, the vessel, together with its special aircraft and hangar, will be a real achievement – something that has never been seen before.”

The group’s service operation in the important Greek market has received a boost with the recent formation of TTS Greece. The Greek shipowning market comprises 3,996 vessels, 9.5 per cent (14.2 per cent DWT) of the world’s fleet. The Piraeus-based company has been operating since November 2009, organising a range of activities to help TTS get closer to customers and establish a stronger presence in the Mediterranean market and beyond. This move is part of the group’s strategy to expand its service provision for marine installations and to support customers through the global network.

While TTS has worked with agents in both Greece and Cyprus in the past, the new office will facilitate increased market penetration in the region through more active sales and the availability of in-house service resources. The cooperation with sales and service partners in the region will be managed by TTS Greece.

The company supplies original parts and provides inspections, surveys, in-voyage repair, service on call, and planned maintenance, all from the Greek office. Pre-dry-docking and ultrasonic inspection services are also available. In addition, the office markets TTS equipment and offers support to shipowners building in the East, particularly in China.

Dimitris Manolias has joined TTS as company manager from a similar business environment. Responsible for account and contract management as well as customer support, he comments, “Through partnership with our customers, we aim to grow TTS market share in the Greek market from 5 to 20 per cent in the medium term.” The office is staffed by skilled technical and administrative personnel with many combined years of experience in the core areas of service.

According to Margrethe Hauge, senior vice president, services, the new Marine division will work closely with customers, developing solutions that make their lives easier. “We are recognising the global needs of our customers, and will accommodate those needs by establishing offices with competent staff in key locations and continuing to develop industry-wide solutions.”

To raise awareness of the new service office, TTS Greece Ltd has organised a sales and technical seminar on 5 May at the Yacht Club of Greece in Piraeus. President of TTS Group, Johannes Neteland, will address the event. Representatives from other TTS offices will present papers covering the new product range, as well as the group’s service offering and global network, including strategies for business in China.
The Stena superferry effect

Stena Line is making far-reaching changes to ferry traffic in the Baltic and North Sea with massive investments in vessel construction, conversion, and the port infrastructure needed to accommodate these changes.

Firstly, two new giant superferries, Hollandica and Britannica, have been built to replace the existing vessels of that name on the Hoek van Holland–Harwich route. At 240 metres long, the two new vessels will be the world’s largest RoPax vessels and will increase the number of vehicles carried by more than 30 per cent compared with existing tonnage.

Secondly, with Stena Line maintaining confidence in investment while allowing for flexibility in the deployment of its fleet, the company has decided to close its Travemünde–Gothenburg service, preferring the economic attraction of Kiel for both freight and passenger/car traffic customers in the long term. This unprecedented shift means that the four ships currently serving the Gothenburg to Germany corridor will now be replaced by two – the existing Britannica and Hollandica which will move from the Hoek–Harwich route.

Stena had, assisted by TTS Port Equipment, made investigations into switching these vessels to the Karlskrona–Gdynia route, replacing the three-vessel service with these two much larger ships. Now, though, the existing Germanica and Scandinafico (each 1,628 lane metres) now serving the Travemünde–Gothenburg passage will be moved there.

Understandably, these complex alterations to ferry traffic have necessitated a fundamental retooling of the ship to shore interfaces at the affected ports where vessel sizes and traffic volumes are undergoing such significant change. From the earliest stages of Stena’s grand strategy, TTS Port Equipment has been engaged to supply a clear vision for cargo handling and berthing facilities over both short and long terms for all six ports. TTS was chosen for its expertise and experience, having partnered Stena before on similar projects, and is responsible for investigative analysis and conceptual development in each case.

For instance, the capacity of the new superferries – 5,500 lane metres compared to 4,200 and 4,000 on the existing Britannica and Hollandica respectively – has necessitated significant infrastructure work in both Hoek van Holland and Harwich with the installation of double tier linkspans at each port. At Hoek, TTS has converted the lower deck linkspan by changing the operational method of the existing structure, with its upper deck counterpart being built as new. The new operating functions and structures have been installed with minimum disruption to Stena Line’s port operations with many of the activities carried out during night time. “The vessel operation and freight and passenger traffic has continued without any delay at all. The installation work at site has been very well performed”, said Pim de Lange, Area Director for Stena Line.

Across the North Sea, the new TTS-built linkspan at Harwich facilitates double-tier operations, providing upper level access to the ferries each of which has the capacity to load and discharge vehicles from an upper deck over the bow. This arrangement maximises the efficiency of the new Stena vessels, significantly reducing loading and unloading times. TTS has also modified the seaward nose of the existing pontoon to improve vehicle transitions.

“...
Meanwhile, at Gothenburg’s Majnabbe terminal, preparations for the berthing of the newly converted Britannica and Hollandica are underway with TTS designing an adjustable wedge system to be installed on top of the existing concrete ramp, and equipped with a special low noise feature. The wedge will connect the ramps of the vessels to the main deck, with the flexibility of serving both vessels facilitated by the ability to manoeuvre the wedge into position and set the appropriate level before each vessel reaches the port.

Also at Gothenburg, TTS is designing a sophisticated new passenger gangway to connect the berthed vessels with a new floor to be built on top of the existing terminal building. The gangway will be designed for high mobility, with the possibility of movement along the quay for a distance of approximately 13 metres on rails connected to the terminal building and to a frame at the quayside.

A TTS semi-automatic mooring system is also on order to serve the two vessels. It will be located on the new dolphin as the new vessels will be much longer than their current counterparts, which are each less than 175 metres long.

Nikol Nielsen Gulis, project manager at the Port of Gothenburg, describes the Stena conversion project as “a major and very positive initiative.” Calling it “the largest shipping change in Gothenburg in over 20 years,” Stena Line CEO Gunnar Blomdahl remarks, “This investment will not only benefit our customers, it will also reinforce Gothenburg as a tourist destination and as a hub for companies in western Sweden.”

Across the water at Kiel, the Bollhörnkai berth requires the installation of an adjustable main deck linkspan to replace an existing concrete slope. TTS will design and supply a 26 metre wide linkspan that will be flexible enough to interface with several vessels, initially to serve the existing Germanica and Scandinavica and then their replacements that are moving from the Travemünde–Gothenburg route.

On the Karlskrona–Gdynia route, TTS will upgrade the existing Karlskrona linkspan and install a new passenger gangway there. The company has also been commissioned to analyse the interface between the new vessels and the berth in Gdynia, to ensure that the linkspan, passenger gangways and stop fenders are adequate for the new arrangements.

The introduction of the Stena superferries has also created modernisation requirements for several other ports in northern Europe, effectively revolutionising ferry activity across the region.

Production of TTS translifters has received a major boost with a company move to new, custom-designed premises. A steady growth in business, resulting in pressure on existing facilities, led TTS Liftec to seek new headquarters two years ago. The company decided to rent new premises, custom built for its needs, and the move took place in June 2009.

The new site is close to Tampere Airport, approximately 10km away from the old premises. As an added bonus, thanks to the location on the main road from the airport, there are opportunities for highly visible branding on the exterior. TTS Liftec has signed a long-term rental agreement for the premises, with the possibility of future development on the plot.

The new factory at the site serves primarily as an assembly station for translifter production. Design, sales, aftersales, purchase, assembly and warehouse functions now all benefit from more space. In addition, the layout of the new location supports developments to the company’s way of managing project teams.

New elements include an automated storage system for smaller items, which improves warehousing, and updated processes for the flow of materials throughout the site. Because the company’s product design lays emphasis on modular construction, production processes have been enhanced by better location of dedicated assembly areas for each model.

“We now have all of the necessary tools and components easily available,” says Tatu Mikkulainen, President, TTS Liftec. “We have minimised unnecessary, repeated journeys within the factory and people can work more efficiently.”

There have already been many positive results from the move, says Mikkulainen. “Efficiency has increased significantly and we can achieve production levels up to twice as high as before. This means that we can take bigger orders and serve more customers. We can also deliver more quickly and we have a much higher capacity if needed. Altogether, we are in a better position to serve our customers.”

**Positioning of one of the columns of the linkspan at Hoek van Holland, undertaken at night to enable vessel traffic to continue during the installation phase**
PORT AND LOGISTICS

The Cobelfret Group has chosen TTS Liftec to supply translifters for use on its new Rotterdam–Dublin and Zeebrugge–Dublin services. Handling standardised cargo in 45ft containers, the routes both now rely on the combination of translifters and cassettes for horizontal transportation in port.

“The decision to award the contract to TTS was made because the company’s cassettes and translifters are perfectly matched to the newly built vessels on these routes,” says Willeke Duits, a Cobelfret Group manager who has extensive experience of purchasing this type of equipment. “We have a very good relationship with TTS Liftec and their service is of a very high standard. The equipment is working well and we don’t face any major operational or technical problems.”

Cobelfret has been committed to working with the system of cassettes and translifters in the three ports since July 2009. After carrying out modifications to achieve good connectivity between existing tugmaster machinery and the translifters, TTS delivered the full complement of equipment to Zeebrugge in November 2009 and to Rotterdam in the first quarter of 2010.

With two sailings a week between each of the ports, Rotterdam and Zeebrugge are now better equipped for cargo handling with eight TTS Liftec translifters working at each port. A third party has provided similar equipment to Dublin.

A good fit with Cobelfret

The new production facilities extend to 2,400m² of floor space, facilitating the provision of 5+2 assembly bays for translifter production where the vehicles are built complete, including electrical and hydraulic testing. A separate assembly area has been built for the production of motorised vehicles, such as the SC-30 straddle carrier and the Durion.
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