World’s largest RoRo
Wilh. Wilhelmsen takes delivery

Plus: FOUR HIGH-END DRILLING PACKAGES FOR CHINA
Groundbreaking fluid bed system
...and much more
Contents

First of RoRo giants for Wilh. Wilhelmsen ........................................... 2
Cargo access equipment delivery for world’s largest RoRo vessels

Environmentally friendly cruise ferry for Viking Line ................................. 4
Access solution for passenger ferry on Turku to Stockholm line

Massive surge in orders for deck equipment .............................................. 4
Growing global interest in TTS products as winch orders top €15m in Q1

Expansion of global services investments .................................................. 5
New offices in China, Italy, Brazil and Greece will boost sales in important territories

Merger unites German operations ............................................................. 5
TTS companies come together in new TTS Marine headquarters

New linkspans and auto-mooring system for Copenhagen Malmö Port ........... 6
Cost-effective solution for RoRo terminal’s ship-to-shore interface

Shiplift load distribution ............................................................................ 7
Groundbreaking TTS fluid bed system is the first of its kind, distributing peak loads to enable efficiency and cost savings

Container cassette system boosts US port efficiency .................................... 8
TTS to provide a further 10 translifters and 220 cassettes in ongoing project for Virginia Port Authority

Dock support arms for STX Florø ............................................................. 9
Tailored docking support addresses specific needs of smaller vessels moving into and out of drydock

Steel industry success for SC30 straddle carrier ........................................ 10
Celebrating five years of production and sales of industrial straddle carrier

Four high-end drilling packages for jackups in China .................................. 11
Record-breaking orders for complete packages to serve high-spec jackup rigs

Consolidation and new developments for Energy .......................................... 12
Independent units for Drilling, Offshore Handling and Mud will enhance effectiveness in key business areas

Setting the course for Brazil markets ......................................................... 12
TTS do Brasil takes advantage of growth markets to gain a secure foothold in Latin America

High performance drilling package for Rowan ............................................ 13
An important milestone has been reached in NOK 240m agreement for jackup rig in the North Sea. We look at what this means – and what lies ahead

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Welcome

JOHANNES D. NETELAND
President and Chief Executive Officer, TTS Marine ASA

Welcome to the 12th issue of TTS Review, in which we celebrate some exciting developments throughout the group. Demand for our products and services is growing in important global markets and we are consolidating in key areas, witnessing encouraging progress as we emerge from a difficult few months following the financial crisis.

We hope to be acknowledged as a major supplier and manufacturer of drilling equipment for the Chinese market in the next five to ten years.

I am delighted to announce a major breakthrough for us in China with four substantial contracts to supply drilling equipment for Dalian Shipbuilding Industry Offshore Co. Ltd. These are the first fruits of a strategic cooperation agreement signed with DSIC last year.

For more than a decade, TTS has enjoyed excellent cooperation with DSIC and CSSC in the ships equipment business. It is now our intention to continue that collaboration and we hope to be acknowledged as a major supplier and manufacturer of drilling equipment for the Chinese market in the next five to ten years.

Both the Port and Logistics division and Marine division have shown very encouraging activity following the financial crisis, as can be seen in several articles in this issue. In particular, the innovative technology behind the shiplift load distribution equipment profiled on page 7 augurs very well for the future development of our heavy load handling portfolio. Likewise, a strong TTS presence is assured in the new port in Malmö with delivery of an impressive linkspan arrangement.

The solid progress of the Marine division in recent months is underlined by large contracts for a range of international clients. The cover story re-iterates our industry leadership with delivery of the first in a series of the world’s largest deep sea RoRo vessels. We are also enhancing our profile in the cruise ferry industry with another project underway with STX Finland Turku Shipyard.

In addition, we can anticipate improved efficiencies in several areas of the business as a result of the merger of the offices in Germany and a move to new premises for TTS-LMG Marine Cranes.

This issue also features news on how our company in Brazil (see page 12) is taking advantage of market growth in the Latin American region and establishing a strong foothold in the Brazilian offshore market. This is part of a longstanding TTS commitment to develop new areas of expertise through consolidation of existing territories and expansion into new ones.

GROUP

2011 event calendar

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

- OTC 2011
  Stand # 5235
  Houston, Texas, USA, 2–5 May
- Nor-Shipping
  Stand # D03-22
  Oslo, Norway, 24–27 May
- TOC Europe
  Stand # G4
  Antwerp, Belgium, 7–9 June
- Offshore Europe
  Stand # 3B20
  Aberdeen, UK, 6–8 September
Wilh. Wilhelmsen has taken delivery of *MV Tønsberg*, the first of four giant RoRos being built by Mitsubishi Heavy Industries in Nagasaki for operation in Wallenius Wilhelmsen Logistics’ (WWL) round-the-world trade. TTS Marine AB is under contract to supply cargo access equipment to each of the giant vessels, which are the fruit of a joint venture between Wallenius Lines and Wilh. Wilhelmsen, the contract with the Mitsubishi yard having been originally signed by TTS in May 2008. Each of the ships has an overall length of 265 metres with a total cargo volume of about 138,000 cubic metres over six fixed and three hoistable decks.

“*MV Tønsberg* is a welcomed addition to our fleet, allowing us to carry larger cargo, and more of it, with reduced environmental impact,” says Arild Iversen, president and CEO of WWL.

After extensive engineering and fabrication work, TTS has delivered a massive 3,000 tonnes of cargo access equipment for the new vessel, mainly comprising a huge quarter ramp, a wide stern door, internal ramps and hoistable car decks.

The stern access features a 25-metre-wide stern door and wire-operated quarter ramp in three sections, designed for a maximum safe working load of 505 tonnes and, with a driveway width of 12 metres, is able to take larger units than ever before. The ramp is equipped with an automatic self-tensioning winch system and can be operated either from the main control stand on the upper deck or using a remote control from the entrance deck. The overall design of the ramps and covers on the vessel, some of which are used to seal water- or gas-tight compartments, is arranged to create a smooth internal cargo flow.

Innovative design details include lightweight hoistable car decks as well as radio remote controlled operation of the car deck panels. Of particular interest is the use of electric instead of hydraulic winches for operation of the car decks. Although

“*Tønsberg* is a welcomed addition to our fleet, allowing us to carry larger cargo, and more of it, with reduced environmental impact”
hydraulic operation has an excellent track record with regard to oil leakage, electric winches are nevertheless a step forward, eliminating risk of leakage completely.

Each car deck section is independently hoisted by an electric drum winch, which operates a jigger winch with a wire to each corner of the panel. The lightweight decks are built as steel frames topped with plywood, and covered with a phenol film for slip and wear resistance. The steel frame has flush fittings for lashing.

A hand-held radio remote control is used to raise and lower each section of the hoistable decks. This gives the operator the freedom to stand at the most strategic position, both from a logistical and a safety perspective.

Following the delivery of MV Tønsberg, the three sister ships, two for Wallenius and a further one for Wilh. Wilhelmsen are due for delivery in August 2011 and two in 2012.

TTS also has orders for two pure car/truck carriers (PCTCs) being built at the same yard. These two vessels are a continuation of the previous series of ten PCTCs built at the yard for Wilh. Wilhelmsen which, along with Wallenius, has contracted one each of the new PCTCs, due for delivery to the owners in 2012.

"TTS has been a fantastic company to work with," says Captain Per Brekke, who is responsible for the hold and cargo handling equipment at Wilh. Wilhelmsen. "The team is very creative, and willing to investigate new solutions. We have been impressed with the company's 3D illustrations, which have made it really easy for us to visualise the technology. The completed job performs exactly as the expectations set by the illustrations. We look forward to close cooperation with TTS on many projects to come."

Above: approximately 18,000 m² of hoistable car decks are arranged on three levels, with one steel deck and two steel/plywood decks, all electrically operated. Below: the new Mark V class is the largest and most sophisticated RoRo carrier ever built. The first vessel, MV Tønsberg, is now in operation for Wallenius Wilhelmsen Logistics

Opposite page: with a width of 12 metres and safe working load of 505 tonnes, the vessel’s stern ramp offers customers the possibility to ship larger units than ever before
Further strengthening its position as a top supplier of access equipment for RoRo and cruise vessels, TTS has agreed a new contract with STX Finland Turku Shipyard to outfit a new, environmentally friendly passenger ferry for Viking Line. The ferry will operate between Turku and Stockholm and is scheduled for delivery to the owner in January 2013.

The TTS-supplied equipment, scheduled for delivery and installation during 2012, will include a stern ramp/door, bow doors, folding frame bow ramp, internal ramp/cover, hoistable car deck with ramps, and cargo and provision lifts with covers and side shell doors, all with associated hydraulic and electric systems and with a total weight of more than 400 tonnes.

The cruise ferry, with an optional sister vessel, will be about 214 meters in length and, with a width of 31.8 meters, will have a gross tonnage of 57,000t. The vessel will be full of new and innovative environmental solutions such as LNG-fueling and, with a service speed of 22 knots, is planned to hold 2,800 passengers. There will be 1,250 lane-meters for trucks and a separate car deck of approximately 500 lane-meters for passenger cars. Additional space for passenger cars will be available on the hoistable car decks.

The contract is built on the established presence of TTS in the Finnish shipbuilding industry. The company supplied cargo access equipment to the previously built Viking XPRS and all six of the newly built RoPax vessels for an Estonian owner (also built at STX yards in Finland) as well as to several vessels built for other owners.

“We have worked on many different projects with the Finnish yards, which now belong to the STX Group” says Björn Rosén, Vice President Sales and Projects for TTS Marine AB. “This new contract further enhances our cooperation and strengthens our relationship with the group”.

Massive surge in orders for deck equipment

This year has already seen one of the largest intakes of winch orders in the history of the company, with the order book boosted by €15m in Q1. This crop of orders includes a contract to supply a special type of winch – the CEH self-contained electro-hydraulic type – to various LNG vessels. As much as 50 per cent of world’s fleet of LNG carriers has so far been equipped with TTS winches and these new orders are evidence that the LNG market is now showing signs of new growth, having been static for some time.

The advantage to shipyards of the CEH winch is that it’s supplied as a complete system and is therefore easy to install, being simply lifted on deck, welded and connected to the electric power supply. The advantage to owners is that the winch is easy to maintain as it has no oil pipes on deck and so no risk of oil spillage. The fully enclosed electric and hydraulic systems ensure a low maintenance budget as well as protection against external impact and weather.

The CEH is now being specified for other types of ships, for example large tankers (VLCC), as the winch fulfills the specific requirements of the oil and gas industry.
Expansion of global services investments

Enabling customers to realise optimum value from their marine equipment is the aim of the TTS services business and the company has continued to invest heavily in its global service network, bringing qualified and experienced engineers to more key locations worldwide. Over the past 12 months, TTS has established new offices in Shanghai, China, Italy, Brazil, and Piraeus, Greece, as well as grown its Bremerhaven team to expand the service offering in northern Europe.

New senior vice president of the marine division Services business unit, Arne Knudsen, is confident that the new offices will continue to help the company deliver the best quality aftercare to its customers. “Establishing new offices in locations like Shanghai and Italy allows TTS to better serve existing and new customers by offering rapid response times and giving them improved access to our highly experienced engineers,” said Knudsen, who was previously general manager of TTS Shanghai and has been in his new position since the beginning of November 2010.

Among services offered worldwide, TTS has seen growing interest from customers wanting to convert and enhance their existing deck equipment. “This type of service offering has been well received in the market,” said Knudsen. “Every week we have a number of enquiries from customers looking to convert their cranes to improve ship-to-ship operations while minimising costs.”

Meanwhile, TTS has also developed its own Davit Survey System service to help customers adapt to the new Solas regulations that require yearly and five-yearly davit testing. “Our new system facilitates a simple routine for ship owners to manage their davits. We can also help customers manage hooks and some rescue boats with this new service,” said Glenn Ervik, Davit Survey manager.

Merger unites German operations

The coming together of TTS companies in Germany reached another milestone in January with the move to new premises of TTS-LMG Marine Cranes. The new offices are situated in Bad Schwartau, approximately 5km north of Lübeck. This follows the merger of the two Bremen-based TTS companies, TTS Ships Equipment GmbH and TTS Kocks GmbH, into a single entity, TTS Marine GmbH, in September 2010.

TTS Marine’s portfolio includes a wide range of products, from hatch covers and winches to yacht equipment, as well as service and aftersales. TTS Kocks GmbH, designer and supplier of deck machinery, has now transferred its entire asset base with all rights and obligations to TTS Marine GmbH.

The new company is continuing its activities with Edgar Bethmann as president.

The incorporation of TTS-LMG Marine Cranes into TTS Marine as a branch office is the next stage in the process of forming a single legal TTS entity in Germany – to be completed within the second quarter of the current year. Torsten Paas has been appointed as branch office manager, reporting to Mr. Bethmann. He will take up his duties in Bad Schwartau on 1 July this year after returning from a four-year term as general manager of TTS Marine in Florida, USA.

To coincide with the move, TTS-LMG Marine Cranes has transferred its remaining local assembly activities to sister companies in the Czech Republic and China. Warehouse and logistics operations have been centralised in Bremen using the same local forwarding company already serving TTS Marine.
The large-scale expansion of facilities at Copenhagen Malmö Port (CMP), coupled with a move further away from Malmö city centre, is now bringing significant benefits to the owner, with brand-new, ultra-modern goods and ferry terminals expected to handle five times as much traffic as previously. Swedish company, Skanska, is the turnkey contractor for the entire port project, which includes the construction of three new terminals to handle ferry cargo, containers and railway traffic.

Skanska contracted TTS Port Equipment AB to supply a cost-effective solution to the RoRo terminal’s ship-to-shore interface, including two double-tier linkspans and a semi-automatic mooring system. Flexibility is the key to the design throughout – both upper deck linkspans are adjustable at transverse angles to the berth allowing them to handle vessels with various beam widths. An interchangeable outer component also enables easy adaptation to future requirements.

The linkspans, two lower deck and two upper deck, are located at berths on either side of the pier. Installation was completed in April, with all equipment tested and commissioned and operators trained in the operation of the equipment.

“Flexibility is the key to the design throughout – both upper deck linkspans are adjustable at transverse angles to the berth allowing them to handle vessels with various beam widths”

Below: aerial view of Copenhagen Malmö Port showing the linkspans in place. Right: the linkspans during installation.

Photo: Copenhagen Malmö Port
The 27 metre wide, 16 metre long lower deck linkspans are hydraulically operated and adjustable to different levels to cater for the various RoRo and RoPax vessels serving the port. They are hinged at the quay and supported by an integrated tower connecting both levels. The linkspans feature a low noise interface function, making flaps unnecessary.

A rope-type semi-automatic mooring system will also be delivered, situated in the new port’s north harbour. The device is designed to buffer the transverse forces from dedicated vessels. The side of each of these vessels is fitted with a compatible bollard.

Along with the auto-mooring rig, the system includes a hydraulic cylinder and power pack housed in a cabinet on the quay. Quayside personnel operate the equipment using push buttons and by manually directing a self-tensioning rope around the vessel’s fitted bollard. Safety features include an alarm system designed to alert personnel to significant changes in tension or system failure.

The TTS solution to this problem uses a fluid bed system with trolleys that distribute and even out the peak load on a shiplift platform that features winches on each side to avoid overload during lifting. The system boosts shiplift performance for a wide range of vessels and enables more efficient and economical moving of loads.

TTS fluid bed technology creates optimised load distribution, giving a smooth and controlled transfer of the vessel onto the platform. The transfer trolleys can be submerged during launch.

The system, which is designed for new build and repair yards, offers significant improvements in safety compared to conventional transfer systems. It can be used to distribute loads evenly during transfer of vessels onto the shiplift and from the shiplift to the berth.

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**Shiplift load distribution**

A problem faced by many shipyards is that vessels are becoming larger and heavier, especially for offshore use. While lengths have not always increased much, there has been a marked increase in the number of ships carrying heavier loads without equivalently increasing the keel length. One of the drawbacks of ships of this kind is that the load per metre increases unevenly due to uneven distribution of weight. When docking on a shiplift, this can place ships outside of the shiplift’s maximum load per metre.

When lifting a vessel that suffers from uneven distribution, the result is often overload in two or more winches and, although there may be spare vertical lifting capacity on the neighbouring winches, the shiplift cannot utilise it.

On many conventional shiplift arrangements, the operator is not able to use the system close to maximum capacity, as a single pair of winches can easily become overloaded. Neighbouring winches might have spare capacity but if load distribution is uneven, it is not always possible to benefit from this.

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Container cassette system boosts US port efficiency

Virginia Port Authority has ramped up its operations with TTS port equipment, using a cassette system for the horizontal movement of containers within the APM container terminal.

Having designed and supplied the US port’s container handling system in 2007, TTS Port Equipment AB will now supply a further 10 translifters and 220 cassettes, with delivery already under way. This will bring the total TTS equipment in use at the port to 20 translifters and 420 cassettes for moving containers between rail-mounted gantry crane stacks and the on-dock rail at the terminal.

The cassette system comprises a combination of translifters and cassettes (detachable steel platforms onto which containers will be loaded for transporting). The translifter is a self-loading trailer with 62-tonne loading capacity. This design allows it to be coupled to any universal towing tractor. The manually operated vehicles lift and move the cassettes using hydraulic systems, with the translifter lowered and driven underneath the cassette and then raised until the cargo is loaded for further transportation.

Delivery is set to meet the expanding demands of the terminal’s traffic, which has doubled since container operations were moved from Norfolk International Terminal (NIT) to the APM terminal in Portsmouth, Virginia over the summer, amounting to in excess of one million twenty-foot equivalent units of additional traffic. The move follows a July 2010 deal whereby the port authority is leasing the operations from APM Terminals.

The initial contract to equip the new terminal has allowed TTS to roll out its revolutionary container handling system for the first time in the US. A TTS study of operations in many container terminals worldwide has revealed that most are still using the tractors and trailer sets conventionally used in most US terminal operations would not have met the efficiency demands of our current traffic levels, so we are very happy with the TTS container transfer method.

One of the 62-tonne loading capacity translifters delivered to APM Terminals. Behind are the stacks of the cassettes (detachable steel platforms) onto which containers will be loaded for transporting within the terminal.
methods that have been in place for many years, with operators typically increasing capacity by buying greater quantities of equipment rather than considering new ways of handling cargo.

TTS has found that container terminal managers need to rethink their approach to handling as many terminals are reaching capacity. In addition, they face conflicting goals, such as the need to serve container ships as fast as possible while also minimising terminal equipment costs.

"In our container terminal system, the cassette acts as a floating buffer between container cranes and the terminal transport vehicles that transfer containers to or from a road or rail carrier," says Michel Lyrstrand, vice president, R&I at TTS Port Equipment AB. "Using this system, containers are quickly and easily disconnected from expensive terminal transport equipment, thus ensuring that the cranes continue to operate without stopping. This floating buffer concept is the key to our innovation in the container terminal market."

The initial briefing from APM Terminals tasked TTS with expediting cargo movement while keeping workers and drivers safe. The new equipment enables increased productivity, as drivers no longer have to leave their cabs to decouple them from loads. Thus fewer trucks are needed to handle the same amount of containers, causing less environmental damage and saving time and money.

"The decision to run port operations using the TTS handling system has been fully validated," says Jeffrey Florin, deputy executive director and operations chief operating officer at Virginia Port Authority. "The tractors and trailer sets conventionally used in most US terminal operations would not have met the efficiency demands of our current traffic levels, so we are very happy with the TTS container transfer method."

Dock support arms for STX Florø

Meeting the needs of smaller vessels entering drydock, TTS has won a contract to supply docking support arms to STX Europe at its shipyard in Florø, Norway. STX provides services for a wide range of ships, from offshore and specialised vessels to tankers, cargo vessels, ferries and coastal vessels. The Florø shipyard is a significant builder of chemical and liquid tankers to the worldwide market.

In 2010, STX Europe stepped up its activity within the market for maintenance of ships and oilrigs. The decision to commission a tailored docking support system for its 216m x 40m drydock is part of a strategy to become more competitive in the repair business with a focus on smaller vessels.

The TTS system addresses the particular challenges faced by yards when positioning and supporting smaller ships as they move into drydock, eliminating problems caused by the mismatch between ships’ dimensions and the space they need to fit into. The system will enable STX to position ships more quickly while providing bilge support.
Steel industry success for SC30 straddle carrier

TTS Liftec is celebrating five years of production and sales of its SC30 industrial straddle carrier. With a particularly strong track record in the steel industry, the SC30 has been developed to transport long products, such as slabs, pipes and bars. The machine is perfectly suited to the demands of steel mills, where there is a high volume of traffic and loads are relatively small. It also offers effective use of space in warehouse areas and inside production buildings because its load-raising mechanism allows the machine to drive above other items stacked on the ground beneath it.

The history of industrial straddle carriers dates back to the late 1960s when Finnish company Valmet developed the first model, which was sold under its own name and later under the Sisu and Kalmar brands. At the end of the 20th century, Kalmar ceased manufacturing the carriers and TTS Liftec took up production. This low-volume niche product is well suited to the company’s product portfolio and since delivery of the first TTS Liftec SC30 in 2005, the machine has been sold to five Swedish steel mills.

Although the original idea was to make a replacement for the old Valmet industrial straddle carriers, Liftec revisited the design from scratch and modernised the technology to meet 21st century standards. The machine is powered by two 155kW Volvo Penta engines, which (together with hydrostatic transmission) generate a top speed of 30km/h even with a full 32,500kg load. The machine is equipped with a rotating seat and can be driven in both directions at full speed, ensuring smooth, effective operation. A great deal of effort has been put into ensuring the driver’s comfort over distances as great as 100km, moving up to 100 loads during an average eight-hour shift. Reliability is also important because each machine is on the move for an average of 6,000 hours over the course of a year.
TS Energy has signed a total of four major contracts with the Chinese shipbuilding yard Dalian Shipbuilding Industry Offshore Co. Ltd (DSIC Offshore) in recent months. Following the conclusion at the end of last year of the first two contracts, which cover complete drilling equipment packages, two identical optional packages were agreed in April. The packages will be installed on high specification Frieði & Goldman (F&G) JU2000E jackup rigs (for Prospector Offshore Drilling), scheduled for delivery between the fourth quarter of 2012 and the fourth quarter of 2013. DSIC Offshore has options with the yard for delivery of three additional drilling rigs.

By supplying quality drilling equipment packages to the rigs, TTS Energy will deliver the benefits of the most advanced drilling systems in the world. Equipment includes the Smart Racker (a fully automated column-type racker) as well as a 1000t drawwork, a 1000t top drive and a SmartCat catwalk machine with tail-in arm and mud pumps. Knuckle boom cranes and pedestal JiM 10 roughnecks will also be supplied to each rig.

The rigs are capable of operations in nominal water depths of up to 400 feet. They are outfitted for a hook load capacity of two million pounds and equipped to drill wells in pressurized and high temperature environments at depths of up to 35,000ft.

“The new-build rig market has recently picked up and looks promising compared to last year. It is good to get confirmation that we are competitive on high specification rig projects,” says Johannes Neteland, CEO of TTS Group ASA.

Simultaneously with the award of these four contracts, DISC and TTS Group ASA signed a strategic agreement for cooperation on offshore drilling projects. As part of this agreement, TTS Energy has established a dedicated site team at Dalian with the purpose of following up local manufacturing of components for the drilling packages. The partnership with DSIC offers significant earning potential for TTS, as the company is part of one of the largest shipbuilding groups in China.

“These high performance products demonstrate our commitment to delivering next-generation solutions, featuring automated drilling and handling equipment for remote control of the entire operation,” says Vibeke Bals Borge Håverstad, marketing manager, TTS Energy. “This makes our products safer, more reliable and easier to use. Based on a combination of innovative technology, experienced engineers and best practice, our designs provide efficient and cost-competitive solutions for rigs and vessels.”

Projected arrangement of one of the four high specification drilling packages for jackup rigs in Dalian, China
Consolidation and new developments for Energy

The Energy division has seen some changes across the board, from reorganisation of TTS Energy in Norway to new appointments in other regions. Acting on client feedback that had indicated a need for the operational units in Norway to be more visible and more clearly defined, there are now three independent units: Drilling, Offshore Handling and Mud.

The new units now have full responsibility for all projects and tasks within their remit, including project management and control, as well as technical and purchase functions. The after sales department will work together with all three units. Finance, sales and human resources functions are united at the division level independent of the operational units.

Other changes to the global structure of the Energy division include the appointment of a new chairman in Brazil, Sigbjørn Langvik, who also will lead sales activity in the region. To help TTS Energy tackle the challenges related to low-cost production in China, Svein Erik Hernes has been named as manager of the TTS Bohai site team in Dalian, while Arne Lindetleiv will be responsible for Chinese and Canadian operations.

Arnt Lauen will still oversee the US and Singaporean market, while North Sea activity will be strengthened by employing Sven Arild Evertsen as sales manager for this area. The offshore handling business segment has also seen some changes, with VP sales and marketing Hans Kristian Jensen now heading up the team with the support of Per Slettemoen, Odd Kaldestad, Erling Oftedal and Jan Ove Hovdenak.

Setting the course for Brazil markets

A

other milestone has been reached in TTS Group’s global expansion with the establishment in June 2010 of TTS Energy’s first office in South America. TTS do Brasil supports the expansion of all three divisions of the Group and liaises with a vast number of clients already operating in Brazil. General manager Joao Araujo remarks: “A wealth of marine and offshore cranes, deck equipment, drilling rigs and equipment for subsea construction vessels are located in Brazilian waters today, originally supplied by TTS companies. Brazil is a well established and booming market, strategic for the growth of our group”.

Working closely with the major exploration and production companies in the region, TTS has seized opportunities to bid for onshore and offshore projects. “It’s a growing market, open to new players and demanding tailor-made solutions,” says Araujo. “From land rigs to wellhead platforms, from workover to drilling rigs, we will pursue business opportunities that can potentially boost our development in this area”.

In the last quarter of 2010, TTS joined forces with Siemens and M-I Swaco, creating a consortium led by TTS Energy. The consortium is participating in tender processes in Brazil and has recently been invited by Mexican state-owned petroleum company PEMEX to participate in bid rounds for technical projects.

The TTS Marine division has also benefited from the Brazil presence. In 2011, TTS do Brasil started giving technical and commercial support to marine clients established in the country. “There is a still growing shipbuilding market in Brazil, that can present us with more opportunities as well as the development of a local service centre,” adds Araujo.

The company’s main office is located in the city of Macaé, 170km north of Rio de Janeiro. Since the 1980s, the city has been the chief support centre for the offshore industry in Brazil. “For TTS it was a strategic decision to establish offices where we closely share ground with the major players in the deepwater market today,” says Araujo, who joined TTS in 2010 after 13 years as a drilling contractor.

Joao Araujo, general manager, TTS do Brasil
A high performance TTS drilling package is set for delivery in June to US-based international contract drilling provider Rowan, which bought Skeie Drilling and Production (SKDP) in 2010. The package, which covers supply, commissioning and installation of equipment for use on a jackup rig in the North Sea, is worth NOK 240m. Planning on the project began in September 2007 and delivery is scheduled for mid-June this year.

Rowan provides contract drilling services utilizing a fleet of 28 self-elevating mobile jackup rigs and 30 deep-well land rigs. The high-specification, premium rigs are used for both exploratory and development drilling.

The drilling package, which includes derrick with accessories, pipe and BOP handling equipment, rotating equipment and drilling control, is for installation on the third in a series of three ‘monster’ jackup rigs being built for Rowan by Singapore shipbuilding company Keppel FELS, which specialises in the design, construction and repair of mobile offshore rigs. The engineering for the package was carried out in Norway, with manufacturing taking place in a variety of locations, including Poland, Estonia, Denmark, Norway, Singapore and Holland, and with installation in Singapore.

In 2007, TTS entered into a contract with Keppel FELS for the supply of the drilling package on the three KFELS N Class jackup rigs, the first of which was delivered to Rowan in October 2010. The project will benefit from the facilities of the TTS site office in Singapore that opened in April 2010, with a site manager and 12 employees.

Once the equipment is in the field, service delivery will be undertaken by TTS under a separate agreement. TTS will help with setting up the operation and will have staff at the platform during the startup.

The JiM20 is a high performance roughneck which replaces the traditional roughneck, tubing tongs, backup tong, mud bucket and casing tong. The equipment is capable of making up and breaking out drill pipes and casings from 2 7/8” to 20” diameter.