Explosion-protected LNG hoists for China

Page 04

On the high seas Customised hoists on Australian FPSO ship

Page 08

A hot new addition Powder-coating line at STAHL CraneSystems

Page 12
editorial

Dear Readers,

“Anyone who moves in international circles learns to adapt to change.” Nothing could describe the way business has evolved in 2014 more aptly than these words taken from the foreword to the last Magazine. Six months ago we were acting on the assumption that business development would be predominantly positive, now the omens have changed dramatically over recent weeks. The ifo business climate index is at its lowest level since 2012 and the increasing number of trouble spots around the globe have led to increased restraint and postponement of investments – and this applies world-wide. However the crane technology world never stands still and so this issue too includes reports on many projects. Several articles portray orders from the power sector – from explosion-protected LNG hoists for Chinese liquid gas terminals to ocean-going crane technology for an Australian oil processing ship, to portal cranes for the first independent Malayan crude oil storage terminal. We are convinced that we will be able to steer our company through this temporary economic downturn thanks to the dedication of our crane building partners and our colleagues, and our unique team spirit.

Hoping you will enjoy reading this Magazine,
Yours,
Thomas Kraus

content

03 SW winch sets new standards
04 LNG wire rope hoists in action
06 New crane standards EN 13 001 and EN 15 011
08 Crane systems on the high seas
10 Fully automated crane solution for Ford India
12 New powder coating line
14 Foundry cranes for voestalpine Stahl
15 Portal cranes for oil terminal
16 Around the world
18 Load test of LNG slewing crane
19 Follow-up: Ex tandem crane
High safe working load, small dimensions—
the SW winch sets new standards

Our new SW winch was presented at the beginning of 2011, and heralded a number of significant innovations in STAHL CraneSystems’ winch manufacture. The SW winch lifts loads up to 250 t, is compact, long-lived and surprisingly low-priced. Since then STAHL CraneSystems’ powerhouse has been installed in many successful projects all around the world.

Compact dimensions
The SW winch meets our customers’ most important requirements: high safe working load combined with compact dimensions. It makes the best possible use of production areas thanks to its ideal approach dimensions. It is available in four frame sizes, 18 S.W.L. variants and four FEM classifications.

Well thought-out design for longer life
The shorter wheelbase gives the SW winch excellent approach dimensions with the wheel load evenly distributed. The short C dimension promises optimised short headroom and great lifting height. Return sheaves and rope sheaves in the bottom hook block are slightly angled as standard, guaranteeing accurate rope reeving and considerably reducing wear on the rope and rope sheaves. This technology has already proven effective as an option on our popular SHW 8 winch. The result: higher productivity from lower maintenance costs and fewer downtimes.

The modular principle
The SW winch is of modular design and is assembled from high-quality standard components. This makes numerous variants possible and allows us to produce the new winch at an attractive price in state of the art series manufacture. The compact structure of the series sub-assemblies and easy access to components facilitate maintenance work and replacing parts. This will gladden the heart of every service engineer and is of advantage to customers whose systems can be recommissioned fast.

State of the art technology
Frequency inverters supplied as standard on all drives ensure smooth starting and braking and minimal load swing. All frequency inverters have been specially developed for crane use and are supplied by the same manufacturer. The up-to-date condition monitoring system assists in fault analysis and maintenance. On request, the SW winch can be supplied with the ESR function: The “extended speed range” permits up to 1.7 times hoisting speed with partial load, making an additional auxiliary hoist superfluous.

In action across the world
Incidentally, the first models of this new winch were ordered by our Singapore subsidiary. An SW 16 with 160 t S.W.L. was supplied in September 2012 via Samsung Machinery Ltd. to the Miraflores power station in Panama. Two 180 t winches were installed by ALLA in November 2012 in a gas power station in Malaysia, where they lifted a 320 t gas turbine in tandem operation. Another winch with 130 t S.W.L. was ordered by Jardine Engineering Corporation and installed in a maintenance building in Lamma Power Station in Hong Kong in May 2013.

---

**SW winch—the advantages**
- Excellent price-performance ratio
- Short wheelbase ensures short approach dimensions
- Optimised angled return sheaves reduce wear on ropes and rope sheaves
- Finely graduated steps in the S.W.L. range from 32 t to 250 t
- Modular construction ensuring fast erection, simple maintenance and cost-effective production
- Powerful 4-pole hoist motor
- Frequency inverters on all drives ensure smooth starting and braking and minimal load swing
- Extended life of hoist and travel motors thanks to continuous temperature control
- Pre-installed panel boxes expedite commissioning
- Condition monitoring speeds up fault analysis and maintenance

**Optional equipment**
- ESR (extended speed range) for up to 1.7 times hoisting speed with partial load. Often makes an additional auxiliary hoist superfluous
- Overwind protection instead of rope guide
- Radio remote control
- Maintenance platform
- Second brake
- Guide rollers instead of wheel flanges
China is continuously expanding its energy production, but is also progressively reliant on energy imports to meet its rising demand for energy. The People’s Republic is focussing increasingly on importing liquid natural gas (LNG). Cooled down to −160 °C, LNG is transported by tanker, for example from Australia or the Middle East, to LNG terminals on the coast of China, where it is stored temporarily. LNG is regasified by being heated in gasification plants and then pipelined to the interior. China has set up a total of 10 of these terminals in the past year, two more plants are to be commissioned in 2014. Explosion-protection technology is in demand wherever explosive gases are involved. As a specialist for explosion-protected crane technology, STAHL CraneSystems has been producing off-standard hoists specifically for LNG plants and gas tanks since 1997.

The Künzelsau company has supplied a total of 15 Ex hoists for gas tanks in 12 plants in China. The final two hoists were mounted on two LNG tanks in the North of China in May 2014. The order was processed by our Chinese subsidiary, based in Shanghai.
Hoisting operations in Ex Zone 2

Most LNG tanks have a heavyweight pump on the base which pumps the cooled liquid natural gas out of the tank. For maintenance, or during a breakdown, the pump must be lifted out of the tank – a manoeuvre which, due to the tremendous differences in temperature and the explosion hazard from evaporating gas, makes the utmost demands on the skill of the engineers and the reliability of the apparatus used. This is where STAHL CraneSystems’ crane technology comes into the fore. In the current project in North China, off-standard wire rope hoists from the field-proven SH 60 ex series, certified for explosion protection Zone 2 in accordance with ATEX, are used. The hoists are mounted on slewing cranes on the roofs of the liquid gas tanks and have a safe working load of 3.5 tonnes and a lifting height of 58 metres.

Sophisticated off-standard equipment

The hoists were optimised for use on the Chinese LNG tanks by modifying their controls and fitting off-standard rope drums. The customer specified both the rope diameter and the ratio of rope diameter to rope drum diameter. Meeting these requirements was not possible with the standard SH6 rope drum. STAHL CraneSystems thus manufactured a customised rope drum based on the standard SH6 drum (Ø 352 mm), however with a centre diameter of 457 mm. In this way the customer’s specifications could be met – while maintaining the frame geometry of the hoist and continuing to use the field-proven rope drum brake from the series hoist.

An off-standard rope, permanently attached to the pump and remaining in the tank’s maintenance shaft during normal operation, is used to lift the pump. When the shaft is opened this rope must be attached to the rope drum of the LNG hoist by three rope clamps. STAHL CraneSystems has equipped its wire rope hoists with additional key switches on hoist and control pendant to facilitate substituting the rope. The engineers can bridge the emergency hoist limit switch by pressing a button and thus unwind the final rope turns from the drum. The saline air and the harsh coastal climate made corrosion-resistant paint necessary. A housing protects the hoist from adverse weather conditions when it is not in use, as months, even years, may lie between maintenance operations.

Individual safety

The safety requirements for LNG hoists vary according to purchaser and country of destination. The highest standards are met by the wire rope hoists for Qatargas which STAHL CraneSystems supplied in 2009. They have fully redundant design and a rocking suspension, hoisting proceeds smoothly even in the (improbable) event that a rope should break. These are regarded as the safest hoists on the market.

Partner for international projects

STAHL CraneSystems has nine subsidiaries and a close-meshed network of sales and trading partners in order to provide optimum service to customers all around the world. The above project was quoted in May 2013 by STAHL CraneSystems’ subsidiary in Shanghai, and was fully supervised from China right up to commissioning in May 2014.

With the kind assistance of Jürgen Klemke and Ivy Chen, STAHL CraneSystems Shanghai.
The groundwork has been completed
The new European crane standard EN 13 001 came into force in September 2012. After publication of the German version of standard EN 13 001-3-1, the world-famous German crane standard DIN 15018 was automatically withdrawn. EN 15 011, the product standard for bridge and portal cranes, was published as a supplement to the new crane standard as early as May 2011.

STAHL CraneSystems was closely involved in developing the new crane standards, wanting to be able to identify their impact on its hoists and products at an early stage and see in which direction Europe would go. In spite of this, nearly two further years were needed to analyse and assess how it would affect our products, and incorporate the results in our Product Information brochures and sales systems.

At long last
The information on our hoists needed to calculate cranes in conformity with EN 13 001 is available in the new Product Information brochures. We have deliberately not removed the “old” information conforming with DIN 15018 which was previously in force, as the Machinery Directive 2006/42/EC does not stipulate the use of the EN in non-European markets.

Our crane building partners abroad can thus base the design of their crane systems on other standards.

We anticipate that our sales system will enable CraneKits to be configured according to EN 13 001 from November 2014. In addition, the sales system will supply all necessary factors and loads to assist our crane building partners in their future work.

STAHL CraneSystems has trained sales staff and support departments to familiarise them with the new standards. We can thus continue to offer you expert assistance with enquiries for customised solutions in the future.

We wish you every success working with our Product Information brochures and CraneGuide software.

If you have any questions, just contact your designated sales engineer! Our team will be pleased to help you.
### Manual chain hoists
- **SHK**: 250 – 5,000 kg
- **SHK+**: 500 – 20,000 kg

### Chain hoists
- **SC/SCF**: 63 – 5,000 kg
- **ST**: 125 – 6,300 kg

### Wire rope hoists
- **SH**: 250 – 25,000 kg
- **ASR 7**: 20,000 – 32,000 kg
- **AS 7**: 6,300 – 80,000 kg
- **AS 7 ZW**: 25,000 – 125,000 kg

### Winch
- **SHW II**: 25,000 – 160,000 kg
- **SW**: 10,000 – 250,000 kg
Crane technology for gas processing on the high seas

Processing the extracted gas starts on the Central Processing Facility (CPF) where water and other liquids are eliminated, including large amounts of gas condensate. This base material for plastics or fuel is pumped onto a Floating Production Storage and Offloading facility (FPSO) anchored in the vicinity, and then off-loaded onto tankers.

The dedicated FPSO vessel is being built at present in Daewoo Shipbuilding & Marine Engineering’s (DSME) South Korean shipyard. The challenging crane technology for the FPSO was designed and manufactured by Eilbeck Cranes, STAHL CraneSystems’ Australian partner for explosion-protected crane systems.

Crane building experts in demand

In international projects of this magnitude, numerous requirements and specifications from the contractor, the countries involved and the responsible test authorities have to be met. All the crane systems had to fulfil INPEX’s own specification, which is predominantly dictated by the companies of the TOTAL group. The highest quality of project implementation, specific material requirements and material certifications were specified in the invitation to tender. In addition, Australian Standards and the invitation to tender demanded detailed testing for equipment to be used in both hazardous and non-hazardous areas. Strict specifications by the marine classification company DNV, including design testing and certification and a certified overload test with up to 125% of the maximum working load, ultimately made the project a challenge which only a few highly-specialised crane builders in the world were able to accept.

What spoke in Eilbeck’s favour?

Before awarding the contract for the crane technology, INPEX and DSME assessed a number of crane manufacturers around the world. The contract was then awarded to Eilbeck Cranes, STAHL CraneSystems’ Australian partner, a specialist for explosion-protected crane systems. A number of meetings in which Eilbeck Cranes had to demonstrate that they were in a position to meet the difficult strict project requirements as regards design and implementation preceded the award. Eilbeck was able to gain the contract on the basis of numerous reference projects in the Australian gas industry, its fabrication facilities, the high quality of its crane systems and its commitment to the project.

1 The customised crane designed by Eilbeck Cranes for lifting the thruster of the FPSO vessel is equipped with redundant Stahl SHW 8 winches with 50 t S.W.L. each.
2 In addition to numerous certification procedures and production requirements an overload test with 125% rated load with angled runways simulating ocean swells was prescribed.
3 A double-girder overhead travelling crane is used in the forward compressed-air lock. It is equipped with an explosion-protected AS 7 ex ZW twin wire rope hoist with an S.W.L. of 27.5 t.
and safety standards guaranteed by the STAHL CraneSystems components quoted, and its experience along with knowledge of the Australian Standards. Eilbeck Cranes had previously supplied a number of cranes for the INPEX Ichthys onshore facility in Darwin through EPC contractor JKC Australia LNG and convinced the international joint venture of its abilities.

**Assignment for STAHL CraneSystems**

The order comprised six cranes, including a spectacular customised design solution for lifting the thrusters of the FPSO vessel. This crane needs to be reliable and be available immediately if maintenance work is necessary on the thrusters. The double girder overhead travelling crane has an S.W.L. of 70 t and is equipped with two SHWF 850 t winches. Two 5 t wire rope hoists act as fast auxiliary hoists and the crane components are of fully redundant design as specified by the client. In addition the crane is equipped with an off-standard centrifugal brake with which the load can be safely lowered in the event of a power failure. The drives for both long and cross travel are rack and pinion which enables the crane to be used on the vessel even in rough seas. All the hoists on the thruster crane were equipped for offshore use and possible contact with seawater.

A total of six Eilbeck cranes are installed in the offshore facility, three of them in explosion-protected design. The cranes are used for transporting containers or as maintenance cranes for the machinery. Wire rope hoists and crane components from STAHL CraneSystems are used on all cranes. The FPSO crane components were designed for ambient temperatures up to 45 °C and are also equipped with space heaters so that they are always available even at low temperatures.

**Successful conclusion for Eilbeck Cranes**

“It was a challenging project, with a great many specifications, particularly high quality standards, certification by the DNV, load tests in our production plant and specialised documentation requirements,” says Onkar Pathak, one of Eilbeck’s crane experts. The cranes were delivered to Korea at the beginning of 2014 and are at present being erected in the DSME yard inside the FPSO.

“The customer was well satisfied with our cranes, our flexible assistance in implementing Australian Standards and comprehensive documentation,” Onkar is pleased to report upon the successful delivery of this large-scale project.

With the kind assistance of Onkar Pathak, Eilbeck and Martin Roth, STAHL CraneSystems
Ford India relies on Made in Germany

First fully automated crane solution for Ford India press and stamping line

Sparkline, STAHL CraneSystems’ Indian crane building partner, has developed fully automated process cranes for a new Ford plant in India. The crane builder supplied a total of seven cranes – equipped with winches, wire rope hoists and crane components from STAHL CraneSystems. The cranes operate on two levels and in some cases can travel over one another. Wireless communication between the crane bridges and a complex anti-collision system permit the cranes to operate in various safety zones. Ford specified high speeds for the lifting and travel motions to enable the press and stamping line to be retooled quickly. “A high-end crane system of this type is unique in India at present,” Sparkline Managing Director Doshi explains proudly.

Automation results in higher productivity

Ford manufactures vehicle body components on the newly erected press and stamping line in Sanand, India. The tools in the presses must be changed regularly – this is usually time-consuming: the crane has to be summoned and moved into position, the operator must attach the tool, lift it carefully out of the machine, move it to the storage point and then set it down. Now he must take up the next tool, move the crane back to the machine and insert the heavy load into the press with millimetre accuracy. Retooling is fully automated in the new plant in Sanand – this saves valuable minutes and thus increases the productivity of the whole system. When the operator has entered the destination number of the tool, the crane travels to the position selected at a speed of up to 60 m/min, following prescribed routes and detouring around safety areas. Sparkline’s cranes meet Ford’s strict specifications with their positional accuracy of ±6 mm. When the crane reaches the machine, a grab lifts the tool, the crane travels automatically to the storage area and sets the tool down in a free space.

“Thank you for your patience! In-house, we promised to get the best crane system in this region, a system meeting all Ford’s global standards. Now we have it!” Jose Conce Romero

Experts on the spot

Most of Ford’s specifications for the crane system could only be built in customised design. STAHL CraneSystems started assisting its Indian crane building partner Sparkline with its expertise at an early stage, when the components were being selected and calculated. STAHL CraneSystems’ Indian team and experts from Germany were already at the table during the important preliminary discussions between Sparkline and Ford’s engineers. The Sparkline/STAHL CraneSystems team was thus able to offer convincing solutions for all the requirements when its quotation was presented and its technical flexibility even exceeded the high expectations of Ford’s team.

State of the art crane technology from Germany

The heart of the systems are modified winches from STAHL CraneSystems. During production in Künzelsau, South Germany, they were prepared for mounting the grabs, designed for a hoisting speed of up to 9 m/min and equipped with a second brake to meet the high safety requirements. STAHL CraneSystems supplied a total of 6 frequency-controlled SHWF 8 winches with safe working loads between 50 and
63 tonnes, and four ASF 7 wire rope hoists with safe working loads between 20 and 32 tonnes. The wheelblocks and travel drives were also supplied from Germany. Sparkline designed and built the cranes and grabs and programmed the controls. Intelligent crane control was required to operate the complex crane system safely and cost-effectively. The cranes operate on two levels and communicate by wireless to prevent collisions. Laser-based distance meters supply positional data. The control is a Siemens S7 PLC combined with latest generation inverters. Designing the safety features of the system was also demanding, as the specified American Standard CMAA 70–Class D (for heavy duty) had to be brought into line with Indian industrial standards. Sparkline’s crane builders rose to this challenge too.

German-Indian partnership
STAHL CraneSystems has been building up the crane technology market in India together with Indian crane building partners since 1999. Sparkline, as specialist for material flow solutions in the automotive industry, is now one of the largest purchasers of STAHL CraneSystems chain hoists in the world. The crane builder has its own chain hoist warehouse to supply standard products to its Indian partners quickly. They have two state of the art crane building facilities in Pune, India.

Commended on completion
Sparkline delivered the completed crane system just 9 months after receiving the order, in March 2013. The cranes were erected over the following months and commissioned in March 2014. Sparkline received more post from Ford in July 2014: the automobile manufacturer thanked Sparkline for its outstanding work and the successful completion of the project: “Thank you for your patience! In-house, we promised to get the best crane system in this region, a system meeting all Ford’s global standards. Now we have it,” wrote Jose Conce Romero, one of Ford’s global crane experts, on completion. An excellent basis for more Sparkline/STAHL CraneSystems projects, as an extension to the plant could be scheduled in just two or three years.

With the kind assistance of Anand Dayanidhi, General Manager, STAHL CraneSystems, Indien, Pvt Ltd.
STAHL CraneSystems purchased a new powder coating line in summer 2014, a capital investment of 500,000 Euro. The line has been in use since July 2014 and is operated in two shifts of two men each.

What’s the advantage of powder coating over conventional two-component liquid paint coating?
The coating is uniformly smooth and doesn’t form paint tears.
The process is much more environmentally friendly too.
It’s a big advantage that the parts can be handled immediately after they have cooled off and are then ready for assembly.

Can you explain the environmental aspect?
As there are no solvents involved we don’t produce any emissions and so we protect the environment. We save over 7 tonnes of emissions every year. The surplus powder falls through a grid onto the floor of the booth, is vacuumed up and then recycled.

Will all STAHL CraneSystems products be powder-coated in the future?
This is the standard process for steelwork such as beams, support frames, return sheave bars or crossbeams. Complete sub-assemblies such as gears can’t be powder coated as the workpieces are heated up to about +200 °C. The high temperatures would damage bearings and shaft seals. That’s why we’ve also updated our conventional 2-component paint line and retrofitted state of the art technology. We can still paint whole sub-assemblies such as gearboxes and motors to customers’ specifications.

Up to what dimensions is powder coating possible?
The maximum length of the components is 6 metres. The curing oven has 5 rails which can be loaded in parallel. The curing time is between 90 and 150 minutes depending on the thickness of the workpiece.

Is this process suitable for off-standard solutions too, e.g. offshore use?
Yes, that’s possible too. As with paint coatings, we can apply several films to offer better corrosion protection. We can apply up to 160 µm in one operation.

What colours are possible?
Changing colours only takes about 5 minutes so we’re really flexible. We can cater for the whole range of RAL colours.
The coated steel components are now ready for assembly.
AUSTRIAN CraneSystems, our certified crane building partner in Austria, was established five years ago. Since then the team headed by Managing Director Herbert Lehner has gained a good reputation in Austria not just for building demanding new systems but also for upgrading indoor cranes and crane systems. AUSTRIAN CraneSystems serves customers from nearly all branches of industry and builds crane systems in the range from 50 kg to nearly 200,000 kg, using premium products from STAHL CraneSystems. The company offers its domestic and international customers comprehensive support: from consultancy, conceptual design and engineering to production and erection, training and maintenance, right up to supplying turnkey systems. Certified quality, high reliability and expert knowledge characterise AUSTRIAN CraneSystems’ engineers and technicians.

AUSTRIAN CraneSystems completed a further project for voestalpine Stahl GmbH in July 2014. Foundry cranes with 20 t S.W.L. were supplied and erected for transporting pig iron to furnaces number 05 and 06.

AUSTRIAN CraneSystems designed and manufactured the single girder overhead travelling cranes with cantilever crabs especially for this application. The hoisting equipment comprises off-standard cantilever crabs with extremely robust electric wire rope hoists, designed for this specific application in collaboration with STAHL CraneSystems. High-quality components, off-standard electrical and electronic components, a PLC control and a position encoding system complement the features required for operation in this harsh environment.

AUSTRIAN CraneSystems appreciates the trust placed in it by voestalpine Stahl GmbH and would like to express thanks for the cordial partnership prevailing during this project.

With the kind assistance of Herbert Lehner, AUSTRIAN CraneSystems
Our Malayan crane building partner Excellift has supplied six portal cranes for the new Independent Deepwater Petroleum Terminal (IDPT). The terminal is under construction in Pengerang, Johor, Malaysia and is the first independent crude oil storage terminal in South East Asia. The sheltered harbour has deep sea access and its 26 metre depth enables even oversized supertankers to discharge their crude oil and retail it via the independent oil tanks. Thanks to its strategically convenient location on international seaways, the terminal is well qualified to be a new trans-shipment centre for oil, gas and petrochemicals.

As soon as the project was publicised, Excellift approached the companies participating in the joint venture – Royal Vopak (Rotterdam), the Dialog Group Berhad (Malaysia) and Johor District. The crane builder was able to provide assistance to Dialog's developers on the technical implementation of details even during the technical conception stage. Excellift stayed on the ball and was finally awarded the order in 2012. Four of the cranes were commissioned in January 2014, a further two will start operating in autumn 2014.

The cranes are portal cranes with safe working loads of 10 and 15 tonnes. They run along the oil pipes on elevated runways up to 170 m long and are used as assembly and maintenance cranes. They are equipped with STAHL CraneSystems SH 6 wire rope hoists, which thanks to their robust construction are ideally suited to outdoor use in the harsh coastal climate. Both wire rope hoists and crane technology are taken from STAHL CraneSystems’ standard range. What is unusual however is the control: as explosion protection Zone 2 applies at ground level on the site of the terminal, the control unit needed to be explosion-protected, so the SWH5 ex control switch with ATEX and IECEx approval is employed.

Excellift drew up its own route plan to transport the portal cranes, with spans of between 32.6 and 34.8 m, safely to the erection point on the construction site, specifying the use of a mobile crane to negotiate the tight bends. The careful planning enabled Excellift to keep to the tight schedule and erect and complete the cranes within three days. Now that the project has been completed successfully, Excellift is optimistic that it will be given the opportunity of assisting Pengerang Independent Terminals again in later construction phases.

With the kind assistance of Edmund Lim and Simon Chan, STAHL CraneSystems Singapore
**Sporting activity in our region**

STAHL CraneSystems displayed its athletic side once more in September 2014 when the company’s sports team entered the 19th ebm-papst marathon in Niedernhall. With around 3400 runners taking part, the marathon is one of the year’s major sporting events in the Künzelsau area.

STAHL CraneSystems supported the members of its sports team by sponsoring their jerseys and paying their entry fees. Taking part in the ebm-papst marathon has practically become a point of honour for the STAHL CraneSystems team.

From left to right: Volker Dietrich, Annette Heußer, Bernd Kremp, Johann Köhler, Andreas Wulff and Hubert Kuhbach

---

**Uruguay wins the Football World Cup!**

Many of our customers, colleagues and friends demonstrated their great football expertise this summer during the Football World Cup and earned top places in our betting game's international ranking with their correct predictions.

The first prize – an SC chain hoist – was awarded to Uruguay: Robert Woelke alias “Suarez” of the Bromberg company in Montevideo emerged as the top business customer scoring 140 points.

Congratulations!

---

**2014 Oktoberfest in Shanghai**

Our subsidiary in Shanghai sent out invitations to its Oktoberfest again this year. 200 customers celebrated with typical Bavarian music and delicacies.

---

**International Engineering Fair 2014**

Agrokomplex Nitra, Slovakia

20.–23.05.2014
The Swedish company PMH has been a “Partner of” STAHL CraneSystems since 2013. The company was established in 1974 with the focus on material handling technology, and with ergonomics playing an important role right from the beginning. Between 1980 and 1990 this focus evolved into material handling solutions and PMH was able to gain customers from industry. As it grew, PMH gradually included well-known brands in its programme, acting as their agent on the Swedish market. At present, PMH employs 25 staff in Technical Sales, Product Management, Maintenance and Repairs.

The focus nowadays is on products demanding considerable expertise, lifting technology solutions and upgrades. The customer base consists of manufacturing companies, including mining, energy, wood/paper industry. Thanks to its broad product range from 25 kg to 100 t the customer spectrum ranges from small-sized companies up to major Swedish industrial concerns. STAHL CraneSystems with its wide range of CraneKits, standard and customised solutions and explosion-protected crane technology meshes with this product range. PMH has been one of our crane building and sales partners in Sweden since 2013. PMH now builds single girder overhead travelling cranes based on STAHL CraneSystems CraneKits – 5 to 10 per year are planned initially. Since 2014 PMH has been distributing the SC chain hoist as a standard hoist on a volume base.

PMH profits from its partnership with STAHL CraneSystems in a number of ways: STAHL CraneSystems’ comprehensive knowledge of crane and lifting technology and personal consulting offers support to its partner on technical questions. Professional technical support such as the CraneGuide and the MarketingPortal provide crane building partners with round-the-clock access to CraneKits, hoists, crane components and marketing literature.

Successful participation in the Göteborg trade fair

“Underhåll” numbering 250 exhibitors and around 14,000 visitors is Scandinavia’s leading maintenance trade fair. PMH occupied its own stand there in March 2014, and presented among other equipment the ST chain hoist in ATEX-compliant explosion-protected design, the new SC chain hoist and the SH wire rope hoist.

Professional marketing activities including customer invitations and press releases turned the trade fair into a great success for PMH. Many customers were particularly appreciative of the extended range of STAHL CraneSystems products. The stand was visited both by customers who have been using STAHL CraneSystems products since the 1980s and 90s and new customers interested in STAHL CraneSystems hoists.

“We set great store by meeting our customers face to face, even if our website is very important for us,” says PMH’s Torbjörn Andersson. “Customers want to see and try out our products, and to get to know our sales team in person too.” At present the most important target for PMH is to inform the market about its partnership with STAHL CraneSystems, via its homepage, press releases, at small and large trade fairs, and by direct marketing to existing customers. STAHL CraneSystems is looking forward to assisting our new partner in Sweden in this.

PMH is based in Ystad, on Sweden’s Baltic coast. Ystad is a lovely old city with many half-timbered houses. In summer a beautiful beach entices people to sunbathe and swim. Ystad has also become famous since the beginning of this century in connection with Detective Inspector Wallander. This crime series was produced in Swedish and English and its dubbed version too is extremely popular in German-speaking countries.

What’s happening in...

Sweden?

One interesting project was a crane supplied to Dekra in the second half of 2013: 5 t S.W.L., 5.8 m span, equipped with a short headroom STK chain hoist. The crane is installed in one of Dekra’s testing facilities for the power industry.

Mr Joakim Håkansson, CEO
Mr Torbjörn Andersson, Product Manager
TGE Gas Engineering in Bonn is a systems builder active at international level. The company was established in 1980 and specialises in storing, processing, handling and transporting liquid gas. In the past 30 years, TGE has built liquid gas plants all over the world, employing hoists and crane technology from STAHL CraneSystems in many projects. The LNG slewing cranes from the current series are destined for a terminal to the south of Shanghai. At 5.3 t, they have a higher S.W.L. than the cranes supplied previously. This necessitated not just more powerful hoists, but overall a stronger and more heavyweight design – and also renewed approval by an independent test authority and certification for the Chinese market. As regards the technology, this project was resolved by using four explosion-protected SH 6 ex wire rope hoists and the corresponding crane controls from STAHL CraneSystems. Increased safety is ensured by rope drum brakes: if the hoist motor comes to a halt, the ratchet of the rope drum brake engages with the ratchet wheel on the rope drum and prevents the load from falling.

During the load and overload tests (with 125 % of maximum working load for the static and 110 % for the dynamic overload test), the stiffness of the crane jib was certified in addition to the accurate response of the overload cut-off. At a future stage – when the crane has been erected in China – design and components will be certified by the Chinese authorities to simplify supplying LNG slewing cranes of this type in the future.

In October, slewing crane specialist Vetter Krantechnik and STAHL CraneSystems finished building a further four LNG slewing cranes. The final acceptance by systems builder TGE Gas Engineering included load and overload tests endorsed by an independent test engineer from TÜV Rheinland. These tests were performed at the explicit request of the Chinese end customer and were a constituent part of the order. As it was not possible to erect the 14.26 m high slewing cranes in Vetter’s shop, one of the pillars was designed to be divided into two parts, enabling Vetter’s team to erect one of the cranes, now approx. 6 metres high, in the shop.

Passing the test

LNG slewing cranes

lift 5.3 t and more
Gasunie commissioned its natural gas compressor station in Embsen (Verden district, Lower Saxony) on schedule on 1st October 2014 after approx. 18 months’ construction time. The new installation extends the Gasunie natural gas transport network towards Hamburg, Schleswig-Holstein and Scandinavia. In our last issue we reported in detail on the explosion-protected tandem crane which our partner SMI tech installed in this natural gas compressor station at the beginning of 2014. The crane – equipped with two explosion-protected wire rope hoists and radio remote control – was used in the following months for installing gas pipes and metering apparatus. We were given the opportunity to photograph the crane again in July after the crane system had been successfully erected. Work in the metering and control station had practically been completed by then and gas was to about be piped into the system.

Since 2010, all LNG slewing cranes have passed the desk of STAHL CraneSystems project manager Martin Klossek, who travelled to Haiger especially for the final acceptance. Klossek praises the smooth cooperation with Vetter and adds: “Anyone who wants slewing cranes in this high manufacturing quality will inevitably end up at Vetter.” Ewald Söller from TGE too is convinced by the standard of quality: “There are very few manufacturers in the world supplying LNG hoists and explosion-protected crane technology. We have always had positive experiences when working with STAHL CraneSystems, and we look forward to continuing our successful relationship in the future, the LNG market is booming!”

With the kind assistance of Martin Klossek, STAHL CraneSystems
Information literature
Copy, fill in, fax

Company

Name

Department

Address

Telephone

Fax

Fax to +49 7940 128-2300

The SC chain hoist
No. of pages: 18
DE  EN  ES
FR  NL  PT
RU  ZH

The ST chain hoist
No. of pages: 28
DE  EN  ES
FR  NL  RU
ZH

The SH wire rope hoist
No. of pages: 24
DE  EN  ES
FR  NL  PT
RU  ZH

The AS 7 wire rope hoist
No. of pages: 24
DE  EN  ES
FR  NL  PT
RU  ZH

The SW winch
No. of pages: 10
DE  EN  ES
FR  NL  PT

The crane components
No. of pages: 24 Seiten
DE  EN  ES
FR  NL  PT

The CraneKit for crane builders
No. of pages: 18
DE  EN  ES
FR  NL  PT

Expertise in explosion protection
No. of pages: 18
DE  EN  ES
FR  NL  PT
RU  ZH

The LNG engineering solution
No. of pages: 8
DE  EN  ES
FR  NL  PT

Presented by:

www.stahlcranes.com
STAHL CraneSystems GmbH
Daimlerstr. 6, 74653 Künzelsau, Germany, Tel +49 7940 128-0,
Fax +49 7940 55665, marketing.scs@stahlcranes.com

Partner of Experts

STAHL CraneSystems