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INTERNATIONAL

JUNE 2011
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cranes

AND SPECIALIZED TRANSPORT

Ranking the world's
largest crane-owning
companies



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Milestones are a theme this month. First, in its 16th year, the IC50 ranking of the world's largest crane-owning companies marks two. The main listing has reached a record 200 entries and the Tower Index has attracted 50. Nearly 40 new entries for the two lists is very encouraging and boosts the value of the IC50 concept.

While on the subject of IC's top lists, it is a good opportunity to mention that now is the time to complete entries for the 2011 Specialized Transport T50 ranking of the world's largest specialized transport companies. If your company owns this equipment and you think it should be in the table please complete and return the form on page 37. Copies of the form can be downloaded at www.khl.com

Other milestones are the range-topping new products in the news this month. Starting at the top, Sany has unveiled its biggest crane to date and what it says is the world's largest mobile crane. Rated at 86,000 tonne-metres, the 3,600 tonne capacity giant lattice boom crawler pips the new top of the range Zoomlion of a similar type announced at the same time. This one lifts a 3,200 tonnes and is rated at 84,000 tonne-metres. See *News* for more.

In the all terrain sector Tadano Faun has launched its top of the range, 400 tonner. It follows the 360 tonner launched at the Bauma exhibition in 2007. See the product news feature on page 17. Last but not least comes the news, as this issue was going to press, that Smit will order a 5,000 tonne capacity sheerlegs floating crane. *Asian Hercules III* will take the top spot in the fleet ahead of the 3,200 tonne capacity *Asian Hercules II*.

Back on land ALE has just launched its Mega Jack super heavy jacking system. The 5,200 tonne capacity jacking towers can be combined to lift up to 50,000 tonnes. Also on show this month is Mammoet's new PTC 120/160DS super heavy lift crane under test in the Netherlands. With the possible exception of the all terrain, all these cranes will primarily be engaged directly in construction related to electricity generation and petrochemicals – a powerful industry altogether.

ALEX DAHM

Editor

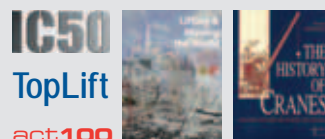
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THE QUEEN'S AWARDS
FOR ENTERPRISE
INTERNATIONAL TRADE
2010

CRANE PORTFOLIO

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eNEWSLETTERS:

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worldcraneweek
The weekly newsletter for lifting and transport worldwide
www.worldcraneweek.com

KHL's
worldconstructionweek
The international newsletter for construction, heavy, strong, crane and transport
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EVENTS:

**WORLD CRANE
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SUMMIT 2011**
AMSTERDAM
NOVEMBER 10-11

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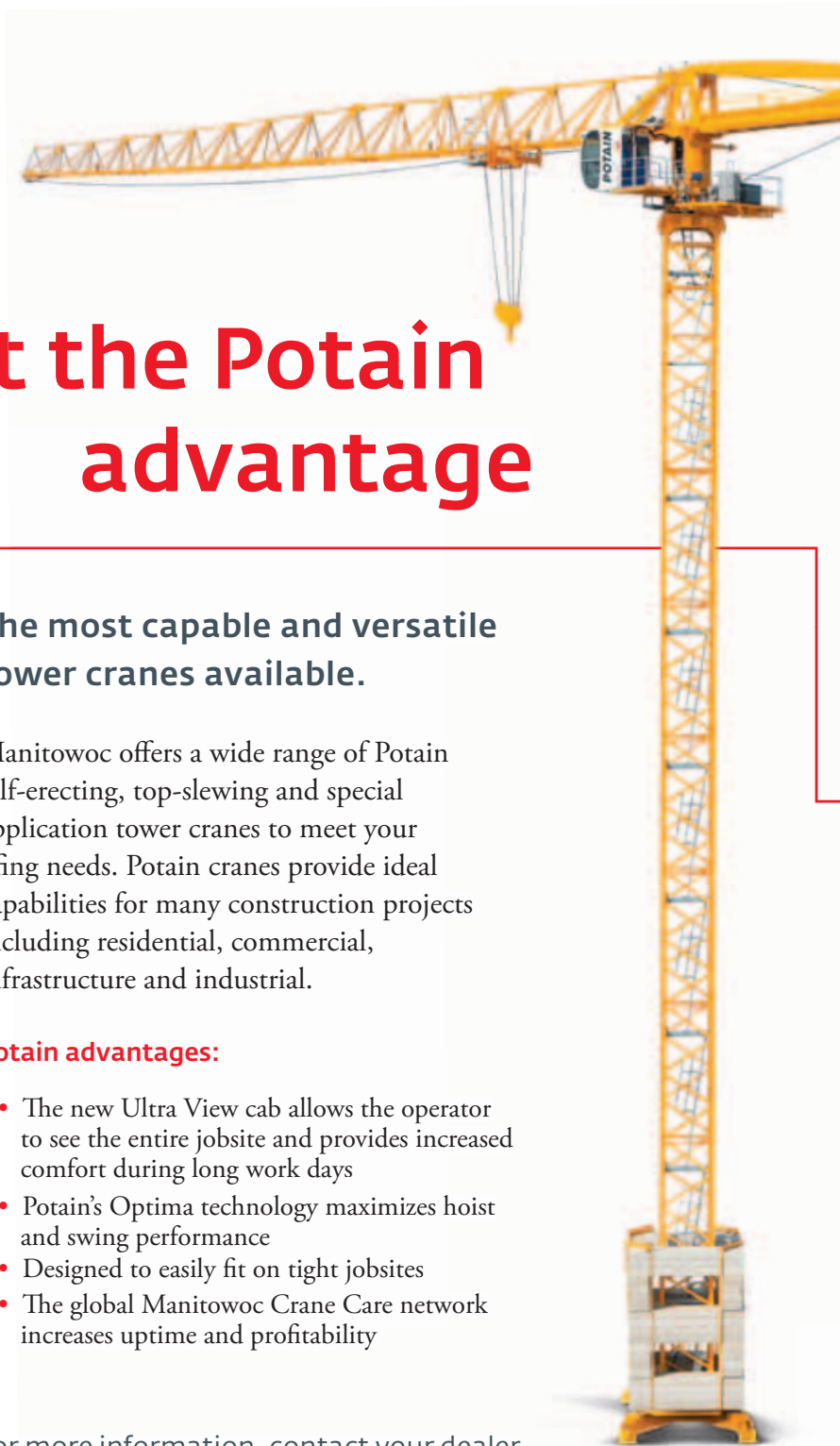
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ON THE COVER



Now in its 16th year, once again the IC50 ranking of the world's largest crane-owning companies hits more milestones in 2011. The full story starts on page 19.

SUBSCRIPTIONS

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May saw some reasonable gains for the mainstream stock market indicators, but it was a period of heavy losses in the crane sector. *Chris Sleight* reports.

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Tadano Faun launched the 400 tonne capacity ATF 400G-6 at its Crane Day 2011 customer event in Germany on 27 May. *Euan Youdale* was there.



IC50

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Another strong year for new entries, plus gains in the Index are positive signs in the IC50 ranking of the world's largest crane-owning companies. In its 16th year the Index continues to lead the way in monitoring progress of the global crane industry's end-user community.

ITC REVIEW

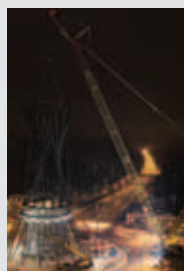
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More than 150 leading tower crane experts gathered in London on 12 May for the launch of International Tower Cranes 2011, the first global tower crane conference and networking dinner. *IC* reports.

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Europe's leader in manufacturing and the utilisation of cranes, Germany, is maintaining its position, confidence is returning and the outlook is positive. *Alex Dahm* reports



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Turkish haulage operator Çaba transported a 600 tonne amine absorber unit 1,300 km across the Karakum desert in Turkmenistan to a flue gas desulphurisation plant. *IC* reports.

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The Specialized Carriers & Rigging Association's Job of the Year winners were announced at the organisation's Annual Conference in April in California, USA. *IC* presents descriptions and pictures of the six winning projects.

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The first winners of the SC&RA Environmental Award were announced on 16 April during the closing night ceremonies of the Annual Conference in San Diego, California USA. *Terry White* reports.

MEMBER OF



HIGHLIGHT

■ Tata Steel will invest UK£ 8 million (US\$ 12.9 million) on the expansion of its Clydebridge plant in Glasgow, Scotland to produce 50% more high-strength quenched and tempered steel plate for crane chassis, superstructures and booms. The 960MPa yield strength plate will be available in thicknesses between 8 and 25 mm. 1100 MPa and 1300 MPa plate is in development with a production date in the medium term, Tata said. Output capacity will be raised to 3,200 tonnes per week and 26 jobs will be created.

■ Specialist lubricant company Lube-a-Boom, based in the USA, has appointed a UK distributor. TMC Lifting Supplies and Crowland Cranes, based near Peterborough in the East of England, is a dealer for the full range of boom greasing and other lubrication products for the lifting industry.

■ Cargotec has received an order for 21 MacGregor variable frequency drive (VFD) electric cranes to be installed on multipurpose cargo ships. The 28,000 deadweight (dwt) ships will be built at Huanghai Shipbuilding in China for Ethiopian Shipping lines. Three GLE electric cranes in the 60, 80 or 100 tonne class will be installed on each ship by September 2013.

Chinese crawler giants unveiled

The end of May was a busy time for Chinese manufacturers Sany and Zoomlion. Both launched range-topping crawler cranes of more than 3,000 tonnes capacity.

Sany's heavy lift twin lattice boom crane is the 3,600 tonne capacity SCC86000TM and Zoomlion's is the 3,200 tonne capacity ZCC3200NP. The SCC86000TM has a maximum load moment rating of 86,000 tonne-metres and the ZCC3200NP is rated at 82,000 tonne-metres, according to the manufacturers. Both are designed to work on the construction of China's nuclear

power stations, including the third generation CAP 1400.

The SCC86000TM was developed in Kunshan City in Jiangsu Province and is said by the manufacturer to be the world's largest mobile crane. The manufacturer claims 30 patents on the new crane.

On the ZCC3200NP, in addition to the main crawler tracks, another pair support the rear counterweight wagon. The manufacturer claims more than 20 patents on the new model, including Parallel Closed Control System and Multiple Engine Power Unit. Benefits of the design improve overall stability, anti-rollover



capacity and safety, according to the manufacturer.

Look out for more details as they become available.

Testing complete on 600t Huisman

Huisman has completed load testing of its 600 tonne capacity pedestal crane onboard wind turbine installation vessel *MPI Resolution*.

It represented the final step before the crane was handed over to customers Centrica Renewable Energy Ltd and MPI Offshore Limited.

The crane was constructed, installed, commissioned and tested at the Huisman facility in Schiedam, the Netherlands, with the final load test taking



place at the Keppel Verolme yard in Rozenburg, the Netherlands. The fact that the handover took place within 15 months after signing of the first agreement was a major achievement from all parties,

said the company.

With the new crane *MPI Resolution* will be able to handle larger wind turbine components for long term vessel charterer Centrica. It will first be deployed at the 270 MW Lincs wind farm project, off the east coast of England.

Huisman is scheduled to deliver a second 600 tonne pedestal crane to another client in the fourth quarter of 2011.

STRONG START FOR THAI ZOOMLION DEALER

Zoomlion crane dealer Chu Kai Public Company Limited in Thailand reported a strong start to 2011.

At the time of writing in May, the company had ordered 26 units, including two 220 tonne capacity QAY220 all terrain cranes. The others were ten units each of 25 tonne capacity QY25V431.R and 55 tonne capacity QY55V532.R truck cranes, two 30 tonne capacity QY30V432.R truck cranes, and a pair of 70 tonne capacity QUY70 crawler cranes. "The QAY220s are for the company's own rental fleet while the remaining 24 units are all booked by customers," said Thongchai Praerangsi, Chu Kai Public Company chief executive officer.

Zoomlion appointed Chu Kai as its exclusive distributor for truck cranes, all terrain cranes and crawler cranes in the Kingdom of Thailand on 1 August 2010. During the remainder of the year Chu Kai reported sales of 17 units to local customers in the Kingdom: six units of the QY25V431.R and eight of the QY55V532.R truck cranes plus three QUY70 crawlers.

"The company has been in the crane sales and rental business for over 30 years. Our commitment is to be a responsible, high quality and trustworthy company for all our valued customers," Thongchai added.



HIGHLIGHTS

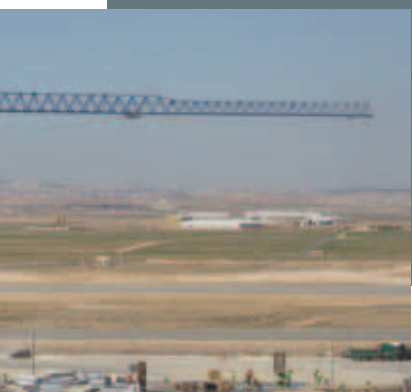
■ Shawmut Equipment, a Manitowoc distributor based in New England, USA is the newest company in the Manitowoc Crane Care EnCore Partner programme network. Shawmut can now fully remanufacture Grove, Manitowoc, National Crane and Potain cranes to original Manitowoc specifications, including all product updates.

■ The Crane Inspection & Certification Bureau (CICB) has moved to the Holt Crane & Equipment Link-Belt Complex in Houston, Texas, USA. The facility includes two modern classrooms that seat up to 40 participants. Cranes and rigging gear are also available for hands-on training, practice sessions and written and practical examination.

Joannou & Paraskevaides (Overseas) Limited (J&P) put three Linden Comansa flat top tower cranes to work at the extension of Queen Alia International Airport in Amman, Jordan.

With a US\$ 640 million budget, the airport extension represents one of the country's most important projects, says Linden Comansa. It will increase the airport's capacity from the current 3 million passengers per year, to 7 million when completed in 2012.

Building contractor J&P has rail-mounted the three 18 tonne capacity Comansa 21 LC 400 flat tops, for easy access to the entire job site. The cranes have a maximum jib length of 80 m, and for this project have been erected at different heights ranging from 45 to 65.5 m.



Demag rejects Terex offer

Germany-based Demag Cranes has recommended that its shareholders should not accept the voluntary public tender offer from Terex for all its outstanding shares.

The offer in May by Terex Industrial Holding, a subsidiary of Terex Corporation, stood at €41.75 in cash, which represents a premium of 41% to the pre-takeover speculation share price on 6 October, 2010, said Terex.

The management board and supervisory board of Demag Cranes AG said it regarded the offer as inadequate from a financial point of view. It added that strong rates of revenue growth were forecast in the next two financial years.

Revenue in the ongoing financial year will reach about €1.06 billion (US\$1.5 billion), up from a previous target of €1.02 to 1.05 billion (\$1.47 to 1.51 billion), said the company. By no later than 2012/2013, group revenue is forecast to grow to €1.3 billion (\$1.9 billion), exceeding record levels reached in 2007/2008 of €1.226 billion (\$1.8 billion).

There are plans for new emerging market product

families, added the company, to deliver a revenue jump in the 2014/2015 financial year to about €1.7 billion (\$2.5 billion).

"It is not possible at the current time to conclusively assess the strategic aims pursued in the offer or any other intentions of the bidder, including with regard to locations and jobs, especially in light of the fact that Terex has not initiated any discussions with the management board or the supervisory board of

Demag Cranes AG relating to the offer until the date of this statement," said a company spokesman.

Demag's business is highly complementary to that of Terex, said Terex in its offer statement, and the combination had a compelling industrial logic. The combined entity would have had total revenues of about \$5.8 billion in 2010, with a strong footprint in Europe and emerging markets, especially in China.

CRANES SALES DROP AT KOBELCO

Kobelco Cranes saw sales and income decrease during its full 2010 financial year as a result of "sluggish" demand in core markets, except some parts of Asia.

Parent company Kobe Steel reported a crane segment sale drop of 25.8% to 40.9 billion Yen (US\$499 million) in its results for the year ending 31 March 2011, compared to the previous year.

Ordinary income decreased 2.5 billion yen (\$31 million), compared with the previous year, to a loss of 1.3 billion yen (\$16 million).

The figures stand in contrast to sales in Kobe Steel's construction equipment segment. Sales increased 45.9% compared to 2009, to 313.1 billion yen (\$3.9 billion). Ordinary income increased 20.7 billion yen (\$259 million) to 26.3 billion yen (\$329 million).

"Japan's economy in fiscal 2010 on the whole continued to gradually recover as overseas economies improved, although the third quarter saw a slowdown in the pace of recovery due to a retrenchment in economic measures and the effect of the high yen. In overseas markets, too, the Chinese economy expanded," said a Kobelco company spokesman.

Liebherr launches 16 tonne luffer

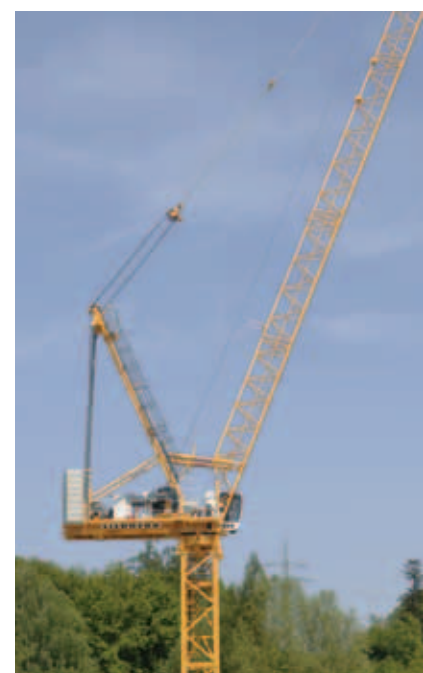
The 180 HC-L 8/16 Litronic is a new luffing jib tower crane from Liebherr in Germany. The 16 tonner is a development of and a replacement for the 160 HC-L.

A new feature is higher lifting capacity across the full torque range. The articulation point has been moved further outwards and jib-end load is higher than the outgoing model. At maximum working radius of 55 metres capacity is 2.6 tonnes.

Important parameters in the design of the new crane included practical requirements for rapid load handling at height on confined construction sites. Operation on restricted sites is helped by

a rear slewing radius of 7 m. It can be mounted on the 1.9 x 1.9 m 355 IC climbing tower system, which can be outside a building or inside a small lift shaft. Above 60 m the 500 HC mast system can be used for a freestanding height of 64.9 m.

Frequency controlled stepless drives are a standard feature, including the 65 kW hoist gear, 45 kW luffing gear unit with secondary brake, and two slewing gears rated at 7.5 kW. More powerful motors are available - 110 kW for hoisting and 65 kW for luffing. For operation on very tall buildings, a hoist system is available for hook height up to 874 m, travelling at up to 338 m/min.





ESTA Awards 2011 winners

The winners of this year's ESTA Awards of Excellence were announced during the ESTA users Night and Award Dinner at the Okura Hotel in Amsterdam, the Netherlands, on 7 June. See below for a list of the victorious entries.

TELESCOPIC CRANES, LIFTING CAPACITY LESS THAN 120 TONNES.

M. Skak Jensen Specialtransport, Denmark.

For the replacement of a large hydraulic press at the Hydro Aluminium factory in Denmark using a special purpose built Erkin 365 tonne-metre crane, mounted on a special 5-axle Volvo chassis.

TELESCOPIC CRANES, LIFTING CAPACITY MORE THAN 120 TONNES

Koninklijke Saan, Netherlands
For the erection of the main

steel structure of the new EYE Film Museum along the river Ij in downtown Amsterdam.

There were no 'straight forward' steel girders to install, on this futuristic building.

LATTICE BOOM CRANES

Mediacco Maxilift, France

For the assembly and lifting of two mega steel girders each with a weight of 1,665 tonnes and a length of 200 m using two 400 tonne crawler crane and two 600 tonne crawler cranes in a synchronised lift.

TRANSPORT: A. TRAILER AND LOAD UNDER 120 TONNES GCW (GROSS WEIGHT)

August Alborn, Germany.

For transporting a 40 year old UFO-shaped, reinforced plastic house with a diameter of 8 m and height of 4 m.

TRANSPORT: B. TRAILER AND LOAD MORE THAN 120 TONNES GCW (GROSS WEIGHT)

Fagioli, Italy

For the transportation of a 245 tonne transformer and a 269 tonne generator over land in Italy by sea and river transport to France, followed by a 157 km road transport.

COMBINED TECHNIQUES

NV de Groote, Belgium

For the handling, manipulation and lifting of both an old and a new 50 tonne cylinder for a hydraulic press placed in the centre of buildings in live production with small exits and ground floor area.

SAFETY

Wagenborg Nedlft, Netherlands

For the development of an 'electronic spirit level' to be used

on double hosting hook blocks. Maintaining horizontal position of the blocks during hoisting operation was a challenge

INNOVATION END USER

Mammoet, Netherlands

For developing the JS500 jacking system. The system includes a base frame with 4 jacks with a combined capacity of 500 tonnes, 0.5 m steel sections to be inserted from the base and an external hydraulic power pack.

INNOVATION MANUFACTURER

Liebherr-Werk Ehingen, Germany

For the development of the LTC 1045-3.1 hydraulic crane with a new innovative hydraulic extendable cabin concept. The disadvantage of previous single cabin cranes is the limited view.

SPMT

Mammoet, Netherlands

For moving a 14,000 tonnes integrated production and hotel facility platform from the fabrication hall to an outside yard using 418 axle line SPMTs. It was the largest deck ever built in the Netherlands.

GINO KOSTER AWARD (FORMALLY THE PERSONALITY OF THE YEAR AWARD)

Erich Sennebogen, Jr.

UK-based King Lifting has ordered five all terrain cranes from Terex. They include three 60 tonne capacity Terex AC 60-3L all terrain cranes and two 40 tonne capacity Terex AC 40-2L all terrains. All five machines are due for delivery during the second quarter of 2011.

The AC 60-3L is equipped with a 44 m telescopic main boom for a maximum on-board system length of 59.35 m. The two-axle, AC 40-2L has a 37.4 m boom.

This order follows the addition of a new 350 tonne capacity class Terex AC 350/6 all terrain and two other Terex AC 40/2L all terrains to the King Lifting fleet, delivered in the second half of 2010.



POSITIVE Q1 FOR MANITEX

Manitex International has recorded increases in revenue and backlog in its 2011 first quarter results.

The USA-based boom truck and rough terrain crane manufacturer saw net revenue hit US\$ 31.7 million, representing a 44% year-on-year increase, and a sequential increase of \$2.2 million or 7% from the fourth quarter of 2010. Excluding the impact of the CVS Ferrari operations, net revenues increased 15% from the prior year's comparable period.

There were revenue increases in both operating segments, with lifting equipment increasing 40% through a combination of cranes at 45%, and material handling products at 35%, and equipment distribution increasing 152%. "Crane sales continue to reflect strong demand for larger tonnage product from the specialty energy and utility markets, in both the US and internationally," said a company spokesman.

As of March 31, consolidated backlog stood at \$48 million, an increase of 20% or \$8 million from 31 December 2010.

"Subsequent to the end of the first quarter we were pleased to announce that we had been notified that we had successfully moved through the next stage of the process to acquire certain assets of CVS SpA - we would expect to complete a transaction during the third quarter of the year," added the company.

HIGHLIGHTS

■ Viant Crane, based in Superior, Wisconsin, USA is a new crane rental company serving the heavy industrial, energy and construction markets throughout the Midwest of the country. It has 10 Grove rough terrain hydraulic cranes up to 90 US ton capacity, six Manitowoc lattice boom crawlers up to 300 US ton capacity, and a Grove truck crane. Another Grove truck crane is on order.

■ Brazil-based rental giant Makro Engenharia has gained the ISO 14001 certification for its environmental policies, including measures to prevent pollution. "It is a commitment to shareholders, collaborators, suppliers, society and other stakeholders," it said.

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Continued growth at Palfinger

Palfinger has continued the positive trend of previous quarters with its latest financial results. In its first quarter results for 2011, the group reported a revenue increase of 48%, or €191.6

million (US\$269.5 million), compared to the first quarter of 2010. Acquisitions in Europe and North America in 2010 – Palfinger Marine, Ned-Deck Marine and ETI – contributed about 25% of the

revenue growth.

“Demand continued to rise, and the measures implemented in previous years started to bite. We are well prepared to face volatile markets in particular because we have reduced costs and capital employed. This is how we intend to ensure sustainable and profitable growth both now and in the future,” said Herbert Ortner, Palfinger chief executive officer.

In the first three months of 2011, EBIT was €14.2 million, equivalent to a quadrupling of the earnings recorded in the first quarter of 2010.

“The group’s performance in Europe reflected growth in demand, although some markets remained weak. Development of demand was also positive in all product areas in North America compared to the first quarter of 2010. Palfinger expects the upward trend in South

HIGHLIGHT

■ Cargotec has launched a 58 tonne-metre articulated loader crane, demonstrating continued demand for strength at long radius. The Hiab XS 622, exclusively announced by IC in its May 2011 issue, offers a new boom system and cylinders, improved couplings and seals, HiPro control system and variable pump as standard.

America to be reinforced due to the upcoming investments in infrastructure. The sharp increase in revenue recorded in Asia demonstrates that these markets are gaining in importance, although they still only contribute a small share of Palfinger’s business,” said a company spokesman.

The company added that it will develop its presence in Russia and China and forecasts organic revenue growth will exceed 20%.

ALL TAKES GROVE RT HEAVYWEIGHTS



It can now be confirmed that All Erection bought its second and third 150 US ton (135 tonne) capacity Manitowoc Grove RT9150E rough terrain cranes at the ConExpo exhibition in March.

The RT9150E is the world’s largest capacity rough terrain. Its 197 foot (60 m) boom is the longest on any current production rough terrain crane, said the rental company. Only seven RT9150Es are in circulation, claimed the company. It is easy to manoeuvre and ideal for pick-and-carry applications in plants, including processing, refineries and power plants.

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The party's over?

There was not much to get excited about in May as far as the mainstream stock market indicators were concerned, but there weren't any losses to worry about either. Pick of the bunch was the Dow, with a 2.76% gain between weeks 16 and 20. Meanwhile, the FTSE 100 edged up a miniscule 0.09%, while there was no net change for the Nikkei 225.

Global drop

In contrast, it was a bad month for crane manufacturers' shares. The IC Share Index lost almost 18% of its value in just four weeks, and almost all the individual companies that make up the Index saw their share prices fall.

The biggest losses were seen among the Chinese manufacturers, with Sany dropping a massive 34.64% in the space of just four weeks, and XCMG suffering a 16.25% decline. Liugong and Zoomlion also saw double-digit declines, but so did manufacturers from other parts of the world – Hitachi and Tadano from Japan, along with USA-based Manitowoc and Terex.

Correction

The only gainer over the course of the month was Palfinger, with a marginal 0.38% rise, while Yongmao Holdings was unmoved.

This fall among crane manufacturers looks like the start of a long-overdue market correction. Share prices in the crane sector have done

very little apart from grow for almost a year, and at the height of the rally in March, share prices in the sector stood some 50% higher than they had a year ago. With such strong gains, it is hardly surprising that investors have elected to sell up and take their profits.

This may just be a phenomenon among crane manufacturers' shares for now but the drop in the sector could be a portent of what is to come for the wider markets.

As cyclical stocks, crane manufacturers' shares can be a good leading-edge indicator of a turn in the market. They tend to be more sensitive to economic news than the more widely watched indicators like the Dow and, as such, can provide a useful indicator of the next market move.

Summer pattern

What will happen next on the stock markets is an interesting question. The fast-approaching northern hemisphere summer is usually a quiet period for the markets, with share prices lacking any strong direction and indexes moving with a series of inconclusive ups and downs.

With the first quarter results season now behind us, it looks like this could well be the pattern for the next few months of the year, unless there is any striking economic news to upset the normal pattern. ■

■ For information on the economic climate for cranes in Germany, the largest market in Europe, see the feature starting on page 31.

May saw some reasonable gains for the mainstream stock market indicators, but it was a period of heavy losses in the crane sector.
CHRIS SLEIGHT
reports

JUNE IC SHARE INDEX

STOCK	CURRENCY	PRICE AT START	PRICE AT END	CHANGE	% CHANGE	PRICE 12 MTHS AGO	12 MTH % CHANGE
IC Share Index*		103.49	84.87	-18.62	-17.99	78.68	7.87
Legacy IC Share Index**		409.12	372.11	-37.01	-9.05	300.95	23.64
Dow Jones Industrial Average		12267	12605	338.57	2.76	10193.39	23.66
FTSE 100		5991	5996	5.36	0.09	5106.30	17.42
Nikkei 225		9607	9607	0.26	0.00	9758.40	-1.55
Hitachi Construction Machinery	YEN	2008	1783	-225.00	-11.21	1794.00	-0.61
Konecranes	€	31.20	28.57	-2.63	-8.43	21.80	31.06
Kobe Steel	YEN	201	183	-18.00	-8.96	187.00	-2.14
Liugong	CNY	38	34	-4.01	-10.42	19.40	77.73
Manitowoc	US\$	20.97	17.98	-2.99	-14.26	11.58	55.27
Palfinger	€	27.68	27.78	0.11	0.38	15.72	76.72
Sany Heavy Industry	CNY	26.27	17.17	-9.10	-34.64	29.10	-41.00
Tadano	YEN	459	406	-53.00	-11.55	429.00	-5.36
Terex	US\$	32.48	29.64	-2.84	-8.74	21.18	39.94
XCMG	CNY	27.88	23.35	-4.53	-16.25	34.14	-31.61
Yongmao Holdings	SGD	0.15	0.15	0.00	0.00	0.17	-11.76
Zoomlion	CNY	16.14	14.25	-1.89	-11.71	19.81	-28.07

* IC Share Index, 1 Jan 2011 = 100

** Legacy IC Share Index, end April 2002 (week 17) = 100

EXCHANGE RATES - US\$

CURRENCY	VALUE AT START	VALUE AT END	CHANGE	% CHANGE	VALUE 12 MTHS AGO	12 MTH % CHANGE
CNY	6.53049	6.50399	-0.0265	-0.41	6.82768	-4.74
€	0.6139	0.6178	0.0039	0.64	0.6964	-11.29
Yen	82.67	81.90	-0.77	-0.93	89.69	-8.68
UK£	0.6992	0.7010	0.0018	0.26	0.8002	-12.39

Period: Week 16 - 20

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The 400 tonne capacity Tadano Faun ATF 400G-6 was presented at the manufacturer's Crane Day event held 27 and 28 May 2011



On top

Tadano Faun launched its 400 tonne ATF 400G-6 all terrain crane during its Crane Day event in Germany on 27 and 28 May. EUAN YOUNG was there



Hundreds gathered at Tadano Faun's 2011 Crane Day to witness the unveiling of its range-topping, world compliant ATF 400G-6 all terrain crane. During the two-day event customers and company associates were treated to product demonstrations and presentations, a factory tour and evening entertainment.

A significant feature of the ATF 400G-6 is its below-12 tonne loading across each of its six axles when weighed with driver, hook block, fuel, oil and 16.00 tyres, said Alexander Knecht, Tadano Faun president and CEO, speaking to *IC*. "We did very well matching the weight and axle distribution over six axles."

The ATF 400G-6 was assembled by the beginning of January and ready to be placed on the company's new test pad at the Lauf an der Pegnitz factory, where the crane will be manufactured.

"We did some outsourcing of some in-house manufacturing and demolished a building and bought some land at the rear and now we have a new test facility. This was one of the preconditions that we can manufacture the 400 tonner here in-house." Enhancements to manufacturing capabilities were also made.

During development the crane kept the ATF 360 name, in recognition of the existing 360 tonne ATF 360, which, says Knecht, was more-or-less a machine aimed at the Japanese and Asian market. But it became clear during testing that the new machine was now in the 400 tonne class.

It also differs from existing machines in the market, adds Knecht, because it is less complex: there is no Superlift or Y-guy; just a Tadano A-frame power system with no side wires. The machine's weight distribution produces outstanding lifting capacities on the main boom and luffer, claimed Knecht.

"It is our interpretation that, in the 400 tonne class, we do not see this equipment [superlift/Y-guy] as absolutely necessary and it will differ from the competition. Of course, it depends on the usage of the crane. We hear some voices in the market saying it should be simple, operator friendly, and need less backup transport. On the other hand you can say it is simpler but it has a little less capacity, so you have to make your own choice between those two options."

"The number of bigger cranes above 300 tonnes has been increasing, even during the crisis, so the share of bigger

cranes from the European manufacturers is getting bigger – we expect to get a nice part of the 400 tonne class market," said Knecht.

Features

Lifting capacity is 400 tonnes at 2.7 m. At a maximum 58 m radius the machine can lift 4.8 tonnes. The ATF 400G-6 has a 12 x 8 x 12 drive configuration with longitudinal and transverse differential locks. Another feature is the all axle steering without the need to disassemble components. It has speed-dependent rear axle steering where the rear axle is locked for highway driving.

Power comes from the Euro IIIB/Tier 4, 480 kW Mercedes-Benz OM502LA BlueTec engine. BlueTec is an emissions control system for reducing oxides of nitrogen. It uses urea-based AdBlue and a catalytic converter with particulate filter. If the AdBlue tank is empty the engine will continue to work but emissions will increase. Under US Tier 4 emission rules, if there is no AdBlue the engine power must reduce gradually so additional software is added for the US market.

The transmission is a mechanical ZF-TC-Tronic 12 TC 3040 SO with torque converter and integrated interarder. Dry clutch and automatic gear shifting are options.

Counterweight is entirely interchangeable, including between the left and right sides of the crane. ■

Alexander Knecht introduces the ATF 400G-6



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Coming back

Another strong year for new entries, plus gains in the Index are positive signs in the IC50 ranking of the world's largest crane-owning companies. In its 16th year the Index continues to lead the way in monitoring progress of the global crane industry's end-user community

IC50 MAIN TABLE NOTES

Companies are ranked by their IC Index, calculated using the total maximum load moment rating, in tonne-metres, of all cranes in a fleet. All companies in the list, plus other prospective ones, are given the opportunity to supply fleet information and other data. Where companies supply the full data the figure used is calculated by them. In some cases, where no data is submitted, or is incomplete, we have based a company's equipment fleet figure on IC estimates.

The IC50 Index will next be updated in the first quarter of 2012. If you think your company should be included please contact IC for an application form.

In 2011 the IC Index has hit the 200 entry mark for the first time. Another 33 new entries were added to the 173 total of the 2010 ranking while six companies dropped out due to insolvency, mergers or lack of timely data. Expect that many of the cranes from the deleted companies will still be in the total. Six of the new entries are in the top 100, the first being Allegiance Crane & Equipment from the USA at 72nd place.

Talking of places in the table, there are some major changes in the top 10. Mammoet has massively strengthened its position at the head of the table with close to a 45% increase in its Index figure. While the company has added 100 wheeled mobiles and 40 crawler cranes to its fleet

in the last year, the increase is largely due to the addition of the new 160,000 tonne-metre PTC 120/160 DS super heavy lifters.

It is a similar story at Sarens which moves up to second place from third last year. The addition to its fleet of, among others, the 120,000 tonne-metre SGC-120 super heavy lifter gives an increase in fleet capability of close to 20%. Sarens takes the number two spot from Lampson which slightly increased its fleet.

Another big increase in capability is at UK-based ALE which added 130,000 or >

IC50 LARGEST SINGLE CRANE

COMPANY	COUNTRY	MODEL	CAPACITY (t)
ALE Projects	UK	AL.SK350	5,000
Mammoet	Netherlands	PTC 200 DS	3,200
Sarens	Belgium	SGC-120	3,200
Al Jaber Heavy Lift & Transport	UAE	Demag CC 8800-1 Twin	3,200
Lampson International	USA	Lampson LTL-2600	2,600
Deep South Crane & Rigging Company	USA	TC-36000 Versacrane	2,268
Tat Hong Holdings	Singapore	Demag CC 8800-1	1,600
Sarilar Heavy Lift & Transport	Turkey	Terex CC 8800-1	1,600
Tiong Woon Crane & Transport	Singapore	Terex Demag CC 8800-1	1,600
Barnhart Crane and Rigging	USA	Demag CC 4000 RL	1,600



2011 rank	2010 rank	Company name	Based	Depots	Employees	Area of operation	Senior contact
1	1	Mammoet	Netherlands	68	3,700	Worldwide	Roderik van Seumeren
2	3	Sarens	Belgium	70	2,900	Worldwide	Hendrik Sarens
3	2	Lampson International	USA	8	275	Worldwide	William Lampson
4	4	ALE Projects	UK	23	775	Worldwide	Michael Birch
5	5	Maxim Crane Works	USA	32	1,800	Worldwide	Art Innamorato
6	6	All Erection & Crane Rental	USA	33	1,400	Worldwide	Michael Liptak
7	9	Sanghvi Movers	India	30	1,650	National	CP Sanghvi
8	8	Tat Hong Holdings	Singapore	40	2,420	Worldwide	Michael Ng
9	7	Al Jaber Heavy Lift & Transport	UAE	8	1,050	Worldwide	George Koshy
10	11	Essex Crane Rental	USA	22	276	Worldwide	Ron Schad
11	13	Mediaco Lifting	France	70	1,300	Worldwide	Christian-Jacques Vernazza
12	12	Sarilar Heavy Lift & Transport	Turkey	6	650	Worldwide	Ayla Gürbüz Aslan
13	19	Prangl	Austria	17	570	Continental	Christian Prangl
14	14	MIC Corporation	Japan	10	635	National	Eikichi Ohyama
15	15	Deep South Crane & Rigging Company	USA	4	400	Worldwide	Mitch Landry
16	16	Weldex	Scotland	4	106	Worldwide	Iain McGilvray
17	17	ABG Infralogistics	India	29	1,422	Local	Saket Agarwal
18	18	Tiong Woon Crane & Transport	Singapore	7	1,002	Asia and Middle East	Michael Ang
19	20	Eurogrúas	Spain	25	994	Worldwide	Antonio Carrion Fernandez
20	22	Consolidated Contractors Company (ccc)	Greece	n/a	140,000	Worldwide	Maher Kabbani
21	28	Havator Group	Finland	32	550	Continental	Jussi Yli-Niemi
22	23	Buckner Heavylift Cranes	USA	1	350	Continental	Doug Williams
23	21	Ainscough Crane Hire	UK	28	n/a	National	Neil Partridge
24	25	Schmidbauer	Germany	21	500	Worldwide	Werner Schmidbauer
25	27	Felbermayr Transport und Hebetchnik	Austria	43	1,800	Continental	Horst Felbermayr
26	30	Nordic Crane Group (Kynningsrud and Stangeland)	Norway	32	530	Continental	Trond Helge Skretting
27	26	Hovago Cranes	Netherlands	4	47	Worldwide	Doron Livnat
28	24	Barnhart Crane and Rigging	USA	21	800	Continental	Alan Barnhart
29	33	Breuer & Wasel	Germany	12	431	Continental	Matthias Wasel
30	31	Locar Guindastes e Transportes Intermodais	Brazil	6	1,500	National	Julio Eduardo Simoes
31	32	JF Lomma	USA	6	175	National	James Lomma
32	10	AmQuip Crane Rental	USA	14	600	National	Charles Snyder
33	35	Bigge Crane and Rigging	USA	10	350	National	Weston Settlemier
34	34	Uchimiya Transportation & Engineering	Japan	8	303	National	Hironobu Uchimiya
35	36	Boom Logistics	Australia	45	1,200	National	Brenden Mitchell
36	38	Guay	Canada	18	450	Continental	Jean-Marc Baronet
37	37	PVE Cranes & Services	Netherlands	5	37	Worldwide	Joost Bömer
38	29	NC Services Group	Canada	10	310	Continental	Ted Redmond
39	54	Hareket Heavy Transport and Lifting	Turkey	5	300	Worldwide	Engin Kuzucu
40	39	Musselli (CST Consorzio Sollevamenti Trasporti)	Italy	30	487	Continental	Ferruccio Musselli
41	44	Irving Equipment	Canada	9	280	Continental	Mike Hussey
42	41	Bragg Crane Service	USA	13	650	Continental	Michael Roy
43	42	Franz Bracht Kran-Vermietung	Germany	13	485	National	Dirk Bracht
44	43	Sterling Crane	Canada	18	600	Continental	David Snyder
45	45	Johnson Crane Hire	South Africa	14	508	Continental	Martin Bekker
46	48	BMS	Denmark	14	340	Worldwide	Nils Lundgren
47	47	Grúas Roxu	Spain	9	300	Continental	Jose Manuel García Suárez
48	53	Walsh	USA	1	5,000	National	Michael Gibbons
49	52	W.O. Grubb	USA	6	275	National	William Grubb
50	46	Chunjo Construction	Korea	12	120	Asia and Middle East	Chang-hwan Jang
51	49	Yonehara	Japan	30	972	National	Hiroki Yamada
52	58	Turner Bros	USA	6	500	Continental	David Cowley
53	64	Fagioli	Italy	8	700	Worldwide	Fabio Belli
54	51	Marco Crane & Rigging	USA	6	173	National	Dan Mardian
55	59	Michielsens	Belgium	7	273	Continental	Johan Michielsens
56	74	TNT Crane & Rigging	USA	8	452	Regional	Mike Appling
57	67	Sterett Crane & Rigging	USA	6	95	Regional	William Sterett III
58	55	Irga Lupércio Torres	Brazil	1	416	Worldwide	Lupércio Torres Neto
59	56	Vest Kran	Norway	10	90	National	Trond Emblem
60	57	Imperial Crane Services	USA	4	250	Worldwide	BJ Bohne
61	60	Foselev	France	27	410	Europe and Africa	Henri Brière
62	73	Dan McNally Ltd	Ireland	4	187	Worldwide	Hugh McNally

Job title	Web site	Mobile cranes	Crawler cranes	Largest crane	Capacity of largest crane	IC Index
President and CEO	www.mammoet.com	1,450	300	PTC 200 DS	3,200	2,111,000
Director heavy lift	www.sarens.com	942	370	SGC 120	3,200	1,246,054
President	www.lampsoncrane.com	82	370	Lampson LTL-2600	2,600	1,096,900
Executive director	www.ale-heavylift.com	2	10	AL.SK350	5,000	810,000
CEO	www.maximcrane.com	1,870	252	Manitowoc 18000 Max-er	750	592,114
President	www.allcrane.com	2,180	403	Manitowoc 21000 Max-er	907	585,559
Chairman	www.sanghvicranes.com	241	236	Liebherr LR 1750	750	452,956
CEO	www.tathong.com	257	468	Demag CC 8800-1	1,600	439,285
Corporate marketing	www.ajhl.com	194	95	Demag CC 8800-1 Twin	3,200	413,000
President & CEO	www.essexcrane.com	244	365	Manitowoc 888 Ringer	600	376,615
Chairman	www.mediaco-groupe.com	696	61	Liebherr LTM 11200-9.1	1,200	273,000
Executive member	www.sarilar.com	197	48	Terex CC 8800-1	1600	261,814
Managing director	www.prangl.at	232	6	Terex Demag CC/TC 2800	600	250,185
President	www.micjp.com	213	164	Terex Demag CC 8800	1,250	234,701
President	www.deepsouthcrane.com	173	13	TC-36000 Versacrane	2,268	234,276
Director	www.weldex.co.uk	1	105	Liebherr LR 11350	1,350	230,585
Managing director	www.abgworld.com	146	77	Terex Demag CC 6800	1,250	218,842
COO	www.tiongwoon.com	157	125	Terex Demag CC 8800-1	1,600	211,729
President	www.eurogruas.com	383	10	Liebherr LR 11350	1,350	177,301
Manager	www.ccc.gr	626	232	Demag AC 350	350	162,632
CEO	www.havator.com	355	41	Demag CC 6800	1,250	152,005
President	www.bucknercompanies.com	24	55	Liebherr LR 1750	750	149,949
Managing director	www.ainscough.co.uk	457	5	Liebherr LTM 1800 with special equip	1,000	146,873
Managing director	www.schmidbauer-group.com	329	9	Terex Demag CC 6800	1,250	141,800
General manager	www.felbermayr.cc	360	20	Liebherr LR 1750	750	138,210
Managing director	www.nordiccrane-group.com	280	24	Liebherr LG 1750	750	136,528
President & CEO	www.hovago.com	157	31	Demag CC 2800-1	600	136,213
CEO	www.barnhartcrane.com	193	25	Demag CC 4000 RL	1,600	134,310
General manager	www.breuer-wasel.de	165	13	Liebherr LR 1600/2	600	116,000
CEO	www.locar.com.br	290	26	Liebherr LR 11350	1,350	114,675
President	www.jflommainc.com	239	68	Manitowoc 18000 Max-er	750	109,770
President & CEO	www.amquip.com	360	47	Grove GMK7550	450	109,690
CEO	www.bigge.com	295	60	Liebherr LR 1600	600	109,100
Sales director	www.uchimiya.co.jp	98	68	Kobelco SL13000	800	104,409
Managing director	www.boomlogistics.com.au	482	12	Liebherr LR 1750	750	100,383
President	www.gruesguay.com	391	20	Demag CC 2800-1	600	88,309
Director	www.pvecranes.com	0	76	Liebherr LR 1750	750	85,232
President & CEO	www.ncservicesgroup.com	147	37	Liebherr LTM 11200-9.1	1,200	81,270
General manager	www.hareket.com.tr	34	13	Manitowoc 18000	750	73,822
President	www.musselli.it	300	0	Demag AC 800	800	71,109
General manager	www.irvingequipment.com	120	25	Liebherr LR 1750	750	70,307
Executive vice president	www.braggcrane.com	240	28	Grove GMK7550	450	70,068
Managing director	www.bracht-autokrane.de	195	12	Liebherr LTM 11200-9.1	1,200	68,800
President	www.sterlingcrane.ca	127	27	Terex Demag CC 8800	1,250	66,124
Managing director	www.jch.co.za	280	3	Liebherr LR 1750	750	65,631
Director	www.bms.dk	144	13	Liebherr LG 1750	750	62,379
CEO	www.gruasroxi.com	157	6	Liebherr LTM 11200-9.1	1,200	61,349
Corporate equip. manager	www.walshgroup.com	112	79	Manitowoc 2250	300	59,545
President	www.wogrubb.com	166	36	Grove GMK7550	450	57,963
President	www.chunjo.com	125	30	Liebherr LR 11350	1,350	56,945
Manager	www.yonehara.co.jp	395	50	Liebherr LTM 1450NX	450	56,280
Executive vice president	www.turnerbros.com	59	21	Liebherr LTM 11200-9.1	1,200	53,643
Managing director	www.fagioli.com	22	7	Liebherr LR 11350	1,350	53,349
President	www.marcoocrane.com	176	15	Grove GMK7550	450	52,135
CEO	www.michielsens.eu	307	4	Demag AC 700	700	50,400
President and CEO	www.tntcrane.com	157	2	Demag AC 700	700	50,238
President	www.sterettcrane.com	134	22	Liebherr LTM 1500	500	48,970
President	www.irga.com.br	55	14	Terex Demag CC 2800	600	47,510
CEO	www.vestkran.no	40	4	Terex Demag CC 2800-1 SL	800	46,985
CEO, president	www.imperialcrane.com	215	19	Grove GMK7550	450	44,906
President	www.foselev.com	227	3	Liebherr LTM 1500-8.1	600	41,700
Managing director	www.cranehire-ireland.com	31	3	Liebherr LTM 11200-9.1	1,200	41,000

>

2011 rank	2010 rank	Company name	Based	Depots	Employees	Area of operation	Senior contact
63	61	H&E Equipment Services	USA	68	1,600	National	Bill Fox
64	62	Avi Cranes	Israel	3	250	National	Avi Yochanan
65	63	Turner Industries	USA	4	215	Regional	Davis Lauve
66	69	Wagenborg Nedlift	Netherlands	11	409	Continental	AG Klijn
67	65	Canibano	Spain	6	280	Worldwide	Angel Canibano
68	72	Laramie Enterprises Group	USA	2	76	National	Patrick Henry
69	75	Riga Baumann	Germany	5	158	Continental	Jos Vogelzang
70	70	B&G Crane Service	USA	2	225	National	Havier Grilletta
71	66	Scott-Macon Equipment	USA	7	164	Worldwide	Robert Dimmitt
72	n/a	Allegiance Crane & Equipment	USA	2	109	Worldwide	Jim Robertson
73	78	Makro Engenharia	Brazil	8	880	National	David Rodrigues
74	76	Stevenson Crane Service	USA	2	120	National	Donna Stevenson
75	68	Crane Rental Corporation	USA	2	95	Worldwide	Alan Ashlock
76	77	Big Crane and Equipment Rentals	Thailand	2	373	National	Ananya Chatjuthamard
77	71	Dielco Crane Service	USA	1	95	Regional	Richard Dieleman
78	n/a	Beyel Brothers Inc.	USA	5	194	Regional	Joseph Beyel
79	87	Kelley Equipment Company	USA	2	33	National	Michael Kelley
80	n/a	Bay Limited, (a Berry Company)	USA	6	3,500	National	Berry Peterson
81	n/a	The Cianbro Companies	USA	6	4,000	National	George Bell
82	50	Sims Crane and Equipment	USA	11	209	Local	Dean Sims
83	82	Ness & Campbell Crane	USA	6	160	Regional	Tony Steelman
84	80	Nostokonepalvelu	Finland	5	115	Continental	Toivo Nieminen
85	85	Mountain Crane Service	USA	3	52	Continental	Paul Belcher
86	81	Dufour Transports Manutentions	Belgium	3	300	Continental	Olivier Dufour
87	93	Dozier Crane	USA	3	53	Worldwide	Dozier Cook
88	84	Hewden	UK	17	200	National	David Leiper
89	86	Mr Crane / Inquipco	USA	3	119	Regional	Lee Steinberg
90	91	Kirby-Smith Machinery	USA	9	286	National	Ben Graham
91	83	Tecmaco Integral	Argentina	5	200	Continental	Miguel Alejandro Gil
92	101	Afcons Infrastructure	India	25	2,000	Worldwide	V Manivannan
93	89	Toggenburger & Co	Switzerland	6	78	Continental	Werner Widmer
94	90	Vernazza Autogru	Italy	9	168	Europe	Diego Vernazza
95	n/a	Barcelona Equipment	USA	1	n/a	Regional	Bob Steiner
96	92	Jousai Transport & Crane Company	Japan	25	464	National	Ichiro Kurikawa
97	96	Hellmich Kranservice	Germany	6	78	National	René Hellmich
98	n/a	Crane Rental & Rigging Inc.	USA	9	n/a	Regional	Ted Hickson
99	97	Asia Group Leasing	Singapore	3	430	National	Jeffry Poh
100	94	RH Marlin	USA	1	70	Regional	Joe Fox
101	98	Energy Transportation	USA	4	131	Continental	Dan McGlade
102	99	Agiris	Turkey	3	80	Worldwide	Genco Serin
103	104	Edwards	USA	5	425	Regional	Derrill Edwards
104	125	Scholpp Kran & Transport	Germany	5	110	National	Götz Schleith
105	100	Southwest Industrial Rigging	USA	4	150	National	Harry Baker
106	106	Giuffre Bros Cranes	USA	6	70	Worldwide	Todd Proctor
107	108	Northwest Crane Service	USA	5	80	National	Andy Hodges
108	103	Freo Machinery	Australia	7	240	National	Antonio Canci
109	105	Wagstaff Crane Service	USA	4	60	Regional	Jim and Ron Wagstaff
110	102	Wanzek Construction	USA	2	550	National	James Henry
111	124	Alamo Crane Service Inc.	USA	4	80	Regional	Marvin Ohlenbusch
112	109	Burkhalter Rigging	USA	5	125	Worldwide	Delynn Burkhalter
113	111	Auriga	Mexico	2	100	National	Jose Cano
114	120	Clark Rigging & Rental	USA	3	55	Worldwide	David Clark
115	114	Brandt Kran und Logistik	Germany	7	96	Worldwide	Andreas Malischewski
116	115	Eagle West Cranes	Canada	8	197	Continental	Bob Fairbank
117	110	Ring Power Crane	USA	7	75	National	Dave Glass
118	107	JPW Riggers	USA	1	80	National	Dave Schwalm
119	117	Summit Crane & Rigging	USA	10	100	National	Jay Izienicki
120	113	United Crane Rentals	USA	2	38	Regional	Timothy Shinn
121	121	Somadias	Morocco	3	270	National	Aldo Carbonaro
122	127	Nederhoff Kraanbedryf	Netherlands	2	88	National	R Nederhoff
123	n/a	Erickson's Inc	USA	4	75	Regional	Steve Erickson

Job title	Web site	Mobile cranes	Crawler cranes	Largest crane	Capacity of largest crane	IC Index
VP and GM cranes	www.he-equipment.com	344	3	Manitowoc 4100	209	40,789
Owner	www.avi-crane.co.il	80	3	n/a	1,000	40,157
President	www.turner-industries.com	62	9	Demag TC 4000	800	38,995
General manager	www.wagenborg.com	126	6	Liebherr LR 1750	750	38,211
President	www.canibano.com	73	5	Terex Demag CC 4800	800	37,500
VP and GM	www.laramiecrane.com	60	37	Demag AC 1200	450	37,313
Senior project manager	www.riga-baumann.de	68	2	Liebherr LR 1750	750	36,952
CEO	www.bgcrane.com	85	19	Liebherr LR 1600/1	600	35,374
Executive vice president	www.smequipment.com	272	48	Terex RT 130	118	34,417
President	www.allegiancecrane.com	65	15	Liebherr LTM 1500	500	33,069
Commercial director	www.makroengenharia.com.br	322	11	Liebherr LTM 11200-9.1	1,200	32,398
President	www.stevensoncrane.com	98	24	Manitowoc 18000 Max-er	750	31,301
President	www.cranerental.com	36	36	Manitowoc 18000	750	31,219
General manager	www.bigcrane.co.th	233	42	P&H 5300	300	30,405
President	www.dielcocrane.com	71	12	Liebherr LR 1750	750	29,385
President	www.beyel.com	99	28	Terex Demag AC 1300	400	29,252
Chairman and president	www.kelleyequipment.com	68	30	Manitowoc 2250 Max-er	450	28,952
Internal equipment mgr	www.bayltd.com	139	10	Terex American 11320	400	28,697
VP and GM equipment	www.cianbro.com	76	46	Manitowoc 16000	440	28,620
Vice president	www.sims Crane.com	158	28	Kobelco SL6000	544	27,042
President	www.nesscranes.com	76	1	Grove GMK7550	450	26,018
Managing director	www.nostokonepalvelu.fi	91	8	Demag TC 2800	600	25,607
Owner	www.mountaincrane.com	44	13	Liebherr LR 1600/2	600	25,535
CEO	www.dufour.be	70	10	Demag AC 700	700	25,263
CEO	www.doziercrane.com	31	51	Manitowoc 2250	300	25,150
National crane manager	www.hewden.co.uk	163	0	Demag AC 100	100	25,036
President	www.mrcrane.com	88	9	Grove GMK7550	450	24,549
Vice president	www.kirby-smith.com	160	7	Manitowoc 2250	300	24,522
Engineering leader	www.tecmacintegral.com.ar	81	4	Terex Demag CC 2200	350	23,846
Vice president	www.afcons.com	51	54	Manitowoc 18000	600	23,836
Managing director	www.toggenburger.ch	30	4	Terex Demag CC 2500-1	500	22,309
Managing director	www.vernazzaotogrui.it	100	0	Terex Demag AC 800	800	22,240
n/a	www.barcelonaequipment.com	35	30	Manitowoc 999	250	20,847
President	www.jousai.co.jp	141	18	Demag AC 700	700	20,217
CEO	www.hellmich-kranservice.de	37	2	Liebherr LTM 1300-1	300	19,660
Executive director	www.cranerent.com	63	7	Liebherr LTM 1500-8.1	500	19,253
Business dev't manager	www.asiagroup.com.sg	131	70	Liebherr LTM 1500-8.1	500	18,232
Vice president	www.rhmarlin.com	62	16	Liebherr LTM 1300/1	300	18,031
President	www.energytran.com	37	6	Liebherr LTM 1500	500	16,964
Marketing manager	www.agiris.com.tr	27	3	Demag TC 2000 SL	400	16,734
President	www.edwardsinc.com	68	1	Terex Demag AC 500-2	500	16,566
Managing director	www.scholpp.com	50	0	n/a	700	16,535
President and owner	www.swirusa.com	50	4	Grove GMK7550	450	16,336
Branch manager	www.giuffre.com	221	0	Liebherr LTM 1090/2	90	16,240
Owner	www.northwestcraneservice.com	20	3	Liebherr LR 1600/2	600	16,071
Managing director	www.freomachinery.com.au	112	2	Liebherr LTM 1500	500	15,457
Owners	www.wagstaffcrane.com	55	0	Grove GMK7550	450	15,276
President	www.wanzek.com	21	15	Terex Demag CC 2800-1	600	15,173
n/a	www.alamocrane.com	40	1	Liebherr LTM 1400-7.1	400	13,711
President and CEO	www.burkhalter.net	12	12	Liebherr LR 1400/2	400	13,690
President	www.auriga.mx	21	1	Grove GMK7550	450	13,608
Vice president	www.clarkrigging.com	57	4	Terex Demag AC 500-2	500	13,398
CEO	www.btb-logistik.de	65	0	Liebherr LTM 1500	500	13,299
COO	www.eaglewestcranes.com	89	1	Liebherr LTM 1300	300	13,234
Vice president	www.ringpowercrane.com	74	6	Grove GMK5275	250	13,088
Executive vice president	www.jpwriggers.com	15	10	Terex AC 500-2	400	12,751
General manager	www.summitcrane.com	37	3	Grove GMK7550	450	12,748
President	www.unitedcranenj.com	30	6	Demag AC 500-1 SSL	500	12,114
Director	www.somadias.com	27	5	American Hoist 11320	410	11,686
General manager	www.nederhoff.nl	47	10	Demag AC 650	650	11,418
President	www.ericksonsgcr.com	22	4	Grove GMK7550	450	11,358

> Continued from page 19

nearly 20%, to its fleet capability, although even this was insufficient to move it up from fourth place in the table. Next is Maxim, maintaining its position at number five for the second year running, closely followed by All Erection, also in the same position as last year. Both these US companies had lower Index values than a year earlier.

Up two places at seven is Sanghvi Movers in India, up about 17.5%. Despite an increase in its fleet, Tat Hong retains 8th place while Al Jaber, in ninth, has traded position with Sanghvi. Finally, with a higher Index and 238 more wheeled mobiles, Essex is back in the top ten after a year just outside.



Up again

Encouraging again this year is that the main Index total of the top 100 companies is again higher, by more than a million, or close to 7.5%. It is slightly less than the 10% increase of the previous year but, perhaps, will not reduce any further over the next 12 months. The IC Index is calculated using the total load moment rating, in tonne-metres, of all wheeled mobile and crawler cranes in a company's fleet.

Going through the top 100 numbers this year compared to 2010, all the totals are positive. The number of depots is up by 81 – more than 5% – and the number of employees is up 8% or an impressive 15,532 people. Total tonnage of the largest crane is up by nearly 3% while the total number of cranes, both wheeled and crawler mounted is only up slightly, by close to 1.5%.

For a closer comparison, there is the index produced for a couple of years now, from a sample of the same ten companies. The companies were the top ten in the 2009 IC50. Last year when they were compared for the first time, the 2010 numbers were higher than in 2009. The same is true for 2011 with one notable exception.

In the 2011 IC50 Top 10 Index sample the total is up by nearly 10%, the number of depots is up nearly 15% and the number of



employees is up by about 3%. The number of wheeled cranes is up by 160 units or 2%, while the number of crawler cranes is down by 28 units or about 1%. Total tonnage of the largest crane is up by 1,143 tonnes or close to 7.5%. In the table of the top ten largest single cranes, it now only goes down to 1,600 tonnes whereas last year 1,350 tonnes made it in.

On the table

Looking down the ranking, notable movers include Prangl up six places at 13, Havator at 21 up seven places, and Hareket at 39, up 15 places from 54. Fagioli is up 11 places at 53 with an increase in its Index of more than 15,000. TNT has jumped an impressive 18 places to 56 on the back of several acquisitions in the southern US



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states over the last year. Next in the table at 57 and also from the USA is Sterrett Crane & Rigging, which has also moved up 10 places. Another strong riser is McNally's from Ireland, up nine places to 62.

Back in the USA, Kelley Equipment Company is back at 79, closer to the 74 of 2009 before it dropped last year to 87th place. Alamo Crane Service at 111 is up 13 places from 124.

As would be expected there are also companies that have moved down the table, some as a result of new entries above them and others due to fleet reductions. In that category this year is AmQuip where mobiles are down by 214 units and crawlers are down by 94 units, which lowered the company's Index by 262,761 to 109,690. That translated into a drop from 10th to 34th place. Others down in the USA are NC Services down from 29 to 38 and Sims Crane and Equipment down 32 places at 82.

Of the 200 companies in the main IC50 Index table for 2011 there is space in this article to include the top 123 of them. For more information and the full table of all companies in the IC50, a more comprehensive report will be available for purchase online at www.khl.com

IC50 Towers continued on page 26 >

IC50 TOP TEN WHEELED MOBILE FLEETS

COMPANY NAME	COUNTRY	WHEELED MOBILE CRANES
All Erection & Crane Rental	USA	2,180
Maxim Crane Works	USA	1,870
Mammoet	Netherlands	1,450
Sarens	Belgium	942
Mediacco Lifting	France	696
Consolidated Contractors Company (CCC)	Greece	626
Boom Logistics	Australia	482
Ainscough Crane Hire	UK	457
Yonehara	Japan	395
Guay	Canada	391

IC50 TOP TEN CRAWLER FLEETS

COMPANY NAME	COUNTRY	CRAWLER CRANES
Tat Hong Holdings	Singapore	468
All Erection & Crane Rental	USA	403
Sarens	Belgium	370
Lampson International	USA	370
Essex Crane Rental	USA	365
Mammoet	Netherlands	300
Maxim Crane Works	USA	252
Sanghvi Movers	India	236
Consolidated Contractors Company (CCC)	Greece	232
MIC Corporation	Japan	164

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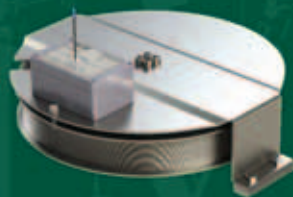
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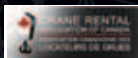
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Steady work

A notable feature of this year's Tower Index is its stability against the 2010 figures. The top 20 is represented, in the main, by the same companies as last year, and almost in the same order. Belgium-based Arcomet has established itself in the top position over the last three years, with a Tower Index this year of 212,385, representing a minor drop on its total in 2010.

Second to fourth positions are also held by the same companies as 2010: Morrow, Breuer & Wasel and Wolffkran, respectively. There is some variation in their figures. Morrow's fleet is up, as is its index, but employees are down. Breuer & Wasel's index is up 7% on last year, while Wolffkran remains static with the same index figure as 2010. In fifth place, however, is new entry NFT, based in the UAE, which has notched up a Tower Index of 126,400.

Sixth position is claimed by Tat Hong Holdings. Its fleet is up significantly, by 120 units, as is its index at 123,900 compared to 105,895 in 2010. Despite its growth, the company has slipped one place from fifth last year, as a result of NFT's first appearance. As a result, formerly sixth-placed Select Tower Cranes, in the UK, has been pushed into seventh this year.

At 18th, USA-based Essex Rental Corp. just makes it in to the table as the second of the two new entries in the top 20 this year. Its fleet is headed up by its largest crane, a Potain MD 650.

Of the 50 companies in the Tower Index table for 2011 there is space in this article to include the top 20 of them. For more information and the full table of all companies in the IC50, a more comprehensive report will be available for purchase online at www.khl.com

IC TOWER INDEX

In a similar way to the main IC50 Index, companies that own and/or rent out tower cranes are ranked by their IC Tower Index. Reflecting the widespread use of the tonne-metre rating method, the index is calculated by adding together the maximum load moment rating, in tonne-metres, of all tower cranes in a company's fleet.

Where companies supply the full data the figure used is calculated by them. In some cases, where no data is submitted, or is incomplete, we have based a company's equipment fleet figure on IC estimates. Like the main IC50 listing the IC Tower Index will be updated in the first quarter of 2012.

If you would like an application form for your company for next year's listing, please contact IC at the address on page 3.

To enter the Transport 50 see page 37.

IC TOWER INDEX 2011

2011 rank	2010 rank	Company	Country	No. of depots	Number of emps	Area of operation	No. of towers	Largest tower (make and model)	Largest tower (tonnes)	IC Tower Index
1	1	Arcomet	Belgium	23	342	Worldwide	1612	Terex Comedil CTL 630-32	32	212,385
2	2	Morrow Equipment	USA	24	232	Worldwide	554	Liebherr 1800 C 60	60	183,010
3	3	Breuer & Wasel	Germany	12	431	Worldwide	448	Liebherr 630 EC-H 50	50	183,000
4	4	Wolffkran	Switzerland	10	400	Worldwide	600	Wolff 1250B	80	126,746
5	n/a	NFT	UAE	6	450	Worldwide	650	Potain MD 1100	50	126,400
6	5	Tat Hong Holdings	Singapore	40	2,420	Worldwide	684	Sanyo M125/75	50	123,900
7	6	Select Tower Cranes	UK	6	1,200	Worldwide	450	Comedil CTL 630	32	96,100
8	7	Van der Spek	Belgium	3	120	Worldwide	405	Liebherr 630 EC-H 50	50	82,491
9	10	Wilbert	Germany	2	180	Worldwide	200	Wilbert WT2405L e.tronic	128	74,300
10	8	Kammerlander	Germany	6	54	Worldwide	385	Wolff WD 262	17	54,710
11	12	Matebat Groupe	France	8	120	Worldwide	489	Potain K 3.59	12	47,894
12	9	AmQuip	USA	14	600	National	91	Potain MD 615	32	45,749
13	13	Jaso	Spain	6	321	Worldwide	615	Jaso J600	20	43,158
14	11	All Erection and Crane Rental	USA	33	1,400	Worldwide	100	Peiner SK 575/32	32	42,055
15	14	Neremat	Belgium	3	50	Continental	200	Potain MD 1100	50	39,800
16	15	HTC Plant	UK	2	280	UK and Ireland	200	Wolff 500B	45	38,100
17	16	D & G Hoist and Crane Hire	Australia	6	255	Regional	160	Potain MR 615-H32	32	35,009
18	n/a	Essex Rental Corp	USA	22	276	Worldwide	101	Potain MD 650	40	33,140
19	19	Ramirent	Finland	8	55	National	155	Liebherr 550 EC-H	20	30,309
20	20	Kranenbouw Group	Netherlands	1	55	Worldwide	111	Comedil CTT561-32	32	23,196

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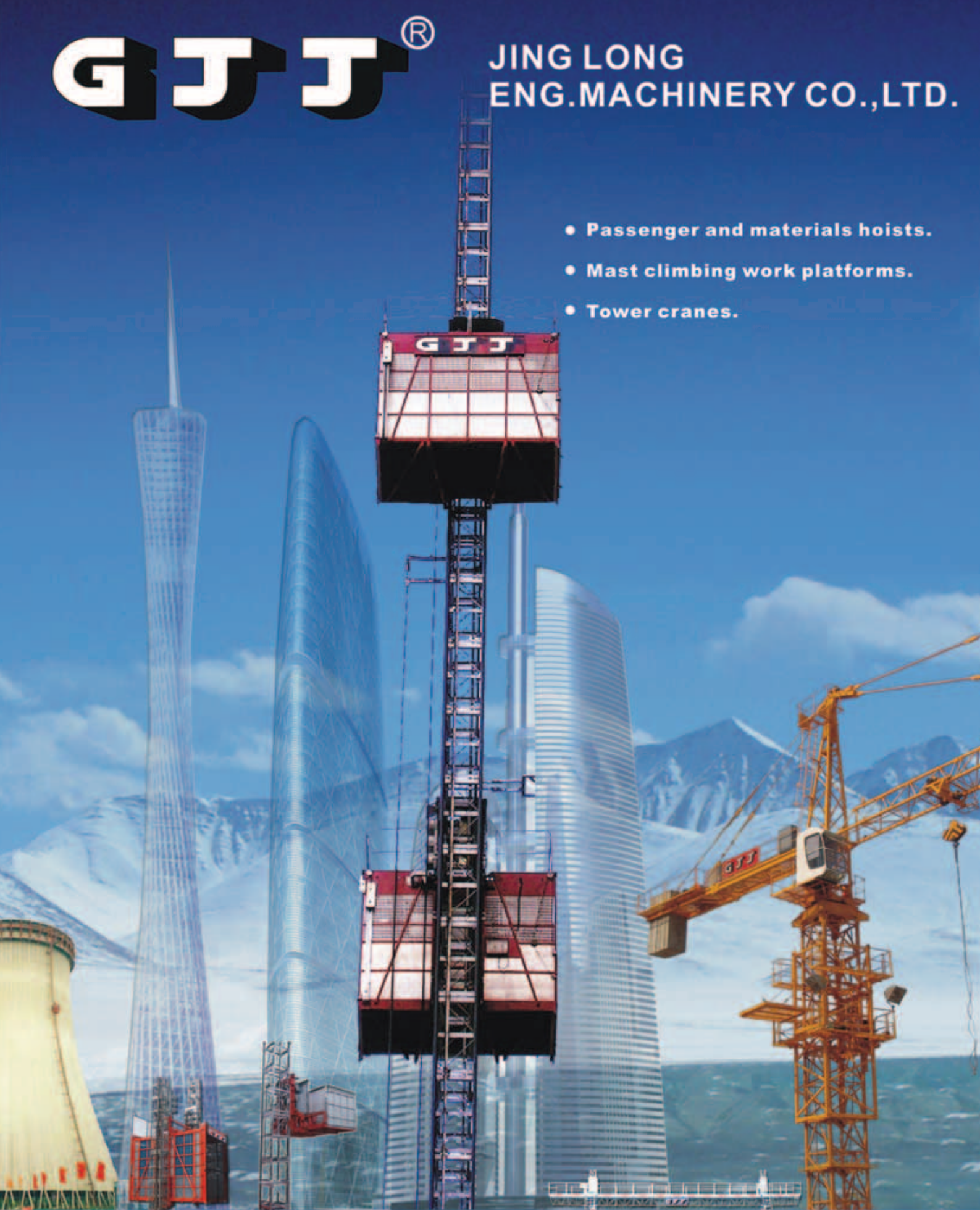
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Tower success



More than 150 leading tower crane experts gathered in London on 12 May for the launch of International Tower Cranes 2011, the first global tower crane conference and networking dinner.

IC reports



Organised by *International Cranes and Specialized Transport*, and its publisher KHL Group, delegates attended from more than 50 companies and 17 countries. They represented some of the biggest rental and contracting companies in the sector, including Arcomet, Morrow, BAM, Lend Lease, Cranes Inc, London Tower Cranes, Van der Spek and Select.

Countries inside and outside Europe were well represented, with delegates travelling to London from Australia, Brazil, China, India, Japan and the USA.

The conference was developed as a top-level information and social event for leaders and senior managers at tower crane companies end users, their suppliers and manufacturers. Presentations focused on best practice worldwide, safety and the development of common international standards, regulations and work practices.

The conference also received strong support from the UK Construction Plant-

hire Association and its respected Tower Crane Interest Group, which used the event to launch a report and guidelines on the climbing, or jumping, of tower cranes.

Presentations on counterfeit parts, tower crane regulation in the USA, and safety requirements from a contractor's point of view were particularly well-received. Other topics covered included causes of accidents, the development of EN 14439 and global market trends.

The conference's gold sponsors were Liebherr, Terex and Zoomlion. Silver sponsor was Jing Long Engineering Machinery Company Limited (GJJ). Supporting sponsors were Baoda, Morrow Equipment and Radius Crane Management.

■ For further information and a photo gallery see www.khl.com/itc



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Powerhouse

Europe's leader in manufacturing and the utilisation of cranes, Germany, is maintaining its position, confidence is returning and the outlook is positive.

ALEX DAHM reports

Construction output rose in Germany by 16.2% in March 2011 compared to a year earlier, according to Eurostat. It was the second highest recorded of the 13 European member states for which data is available.

For construction equipment as a whole, 2009 saw sales in Western Europe drop to their lowest level for more than 20 years. A 15% recovery was recorded in 2010 by Off Highway Research. Leading this recovery was Germany as the largest market in 2010, with sales rising nearly 30% to 24,000

units, a quarter of the European total. A severe winter in 2009 meant a slow start to 2010 but it picked up after the first quarter and strongly towards the end of the year.

Boosting the market in Germany has

been a government stimulus programme for infrastructure projects like road construction, road widening and bridge improvements. In addition, there have been environmental incentive schemes for domestic, commercial and industrial solar energy installations. As a result confidence is returning to the market.

Unprecedented sales leading up to the economic crash in 2008 left the machinery park well supplied with relatively young machines with low hours. While these block new sales to some extent, supply is beginning to dwindle in some sectors and prices of used machines are showing signs of rising, making it more economical to trade them in and replace them with new. Financing, however, can still be a problem with credit hard to find.

OHR forecasts that demand for construction machinery as a whole in 2011 will still rise but at a lower rate of about 16%. In cranes, the consensus between the largest manufacturers in Germany – Liebherr, Manitowoc, Tadano Faun, Terex – is that the crane market overall is slightly increasing but from a very low level. A 10 to 15% increase in crane sales in the first quarter of 2011 over the same period in 2010 was reported.

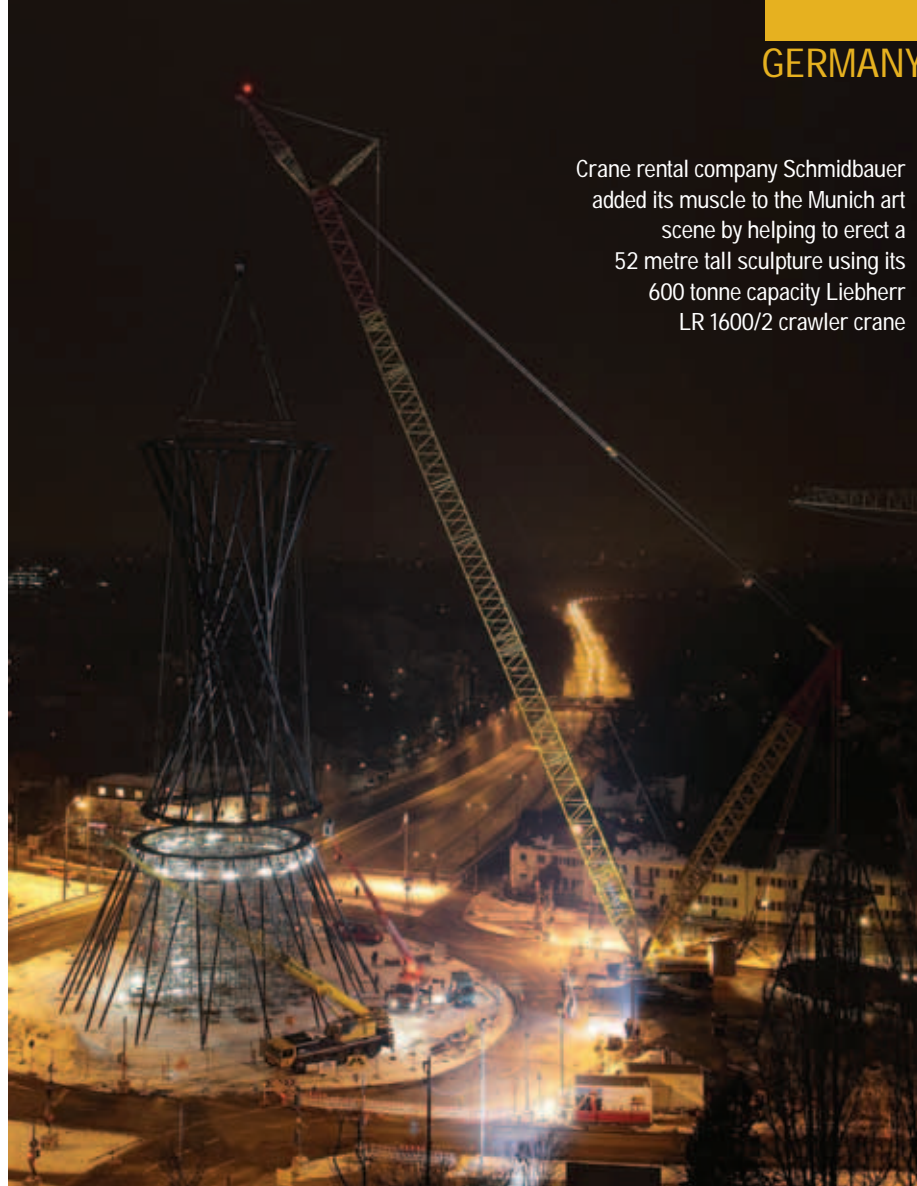
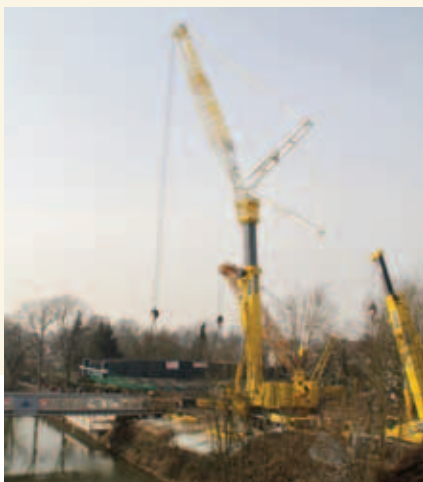
FRANKFURT RESIDENTS RECONNECTED BY EISELE

Crane rental and transport specialist Eisele carried out a dual lift to reconnect two parts of Frankfurt after the former bridge was demolished. Traffic between Heddernheim and Eschersheim was severely disrupted since the demolition of the road bridge over the Nidda River in February 2010.

Eisele used its 1,200 tonne capacity Liebherr LTM 11200-9.1 wheeled mobile crane and 300 tonne LR 1300 lattice boom crawler to lift the 140 tonne, 32 m long bridge into place.

"Although each crane would have been able to lift up the enormous weight individually, the fact that the bridge had to be slewed across the river and positioned right on spot required two separate units as well as extraordinary teamwork," says Rocco Schimmel, head of Eisele Crane & Engineering Group's technical department.

The LTM 11200-9.1 lifted one end of the pre-assembled bridge across the river while the LR 1300 turned the structure to its required position. "Operating two cranes at the same time requires precise co-ordination of their movements," Schimmel says. The weights each crane had to lift changed as the larger crane stood still while the crawler moved forward toward the bridge's final position.



Crane rental company Schmidbauer added its muscle to the Munich art scene by helping to erect a 52 metre tall sculpture using its 600 tonne capacity Liebherr LR 1600/2 crawler crane

Manufacturers all have a positive outlook. Satoru Oyashiki, Tadano Faun president, says "German customers feel better this year. The winter weather was not too bad, they have had a good start and utilisation is good. I feel that customers are positive." Matthias Donner, Liebherr-Werk Biberach managing director, says, "The German market in general is very promising." Klaus Kroepfel, Manitowoc vice president of sales for Central and Eastern Europe, says, "Overall, the market in Germany is reasonably good and, in

CUTTING IT FINE

With the help of a 500 tonne capacity lattice boom crawler crane, Riga Baumann lowered a tunnel boring machine, complete with cutter head, into position in Düsseldorf.

Challenges on the metro expansion project included some 60 lifts in confined space and on a tight schedule. The crane had to be assembled and dismantled between 9 p.m. and 5 a.m. "Space limitations ruled out using a mobile crane," said Uwe Langer, project manager.

Lowering the 130 tonne, 9.5 metre diameter cutter head demanded precision. "We had to position the load precisely, so that the technicians in the construction pit could mount the cutter head at the front of the 65 m long tunnel boring machine. To allow us to work within the available 12 m radius, we rigged the Terex CC 2500-1 with a 54 m SH main boom, superlift configuration and 100 tonnes of superlift ballast," explains Tim Langer, the CC 2500-1 operator.



comparison with some other markets in Europe, it is looking quite positive."

Thomas Schramm, Tadano Faun general manager, sales, concurs, "The German market overall has still been doing relatively well. Other countries have gone down a lot more. We have the impression now that Germany is at a similar level to last year or growing a little. The sentiment is that we are not going down further, we are at the bottom and we can start planning and adjusting fleet sizes. The number of orders for the first three months of the year was better. Compared with 2008 it is still, by a long way, not good but there is growth."

Thomas Hartmann, Terex Cranes sales director, has a similar view, "The future in Germany is bright for the next three or four years. The assessments on tax income are encouraging and it will lead to public investment again in infrastructure, such as autobahns and bridges." Hartmann forecasts that it will be five or six years before the crane market will be back to 2008 levels.

Wheeled mobiles

Germany is the world's largest market for all terrain cranes. It remains so despite a 50% fall in sales from 2008 to 2010, says Hartmann.

"The mobile crane market is also recovering, but the recovery there is slower than in the tower crane market. Our Grove customers are being more cautious in their investments, but we are optimistic for the coming months and years," comments Kroepfel.

In forecast for 2011 Schramm



comments that "a little improvement compared to last year is not unrealistic. Industry is expanding in Germany so there is work for cranes and utilisation in 2010 turned out to be better."

Axle loading is Germany is becoming more of an issue, due more to weak bridges than carriageway damage. Coupled with fuel consumption and maintenance costs putting pressure on margins from low rental rates, this means heightened interest in truck mounted cranes. Tadano reports an increase in planning and order backlog for its HK40 truck mounted crane. It runs at 10 tonnes per axle with less restriction or permit requirement than an all terrain.

Towers

The tower crane market is particularly cyclical with sudden and extreme rises and falls. At the peak of the market in 2007 close to 1,000 new tower cranes were sold in Germany. Since then sales declined to

GSK55 ALTERNATIVE

Easy and efficient transportation is an increasingly important factor for crane operators in Germany. "The financial cost and paperwork put a drain on funds and resources," says Frank Lichtenberg, general manager at KranAgentur Werner, which handles Grove cranes in Germany.

"Also, with concerns over fuel prices, we see the GSK55 as an excellent alternative in the 50 tonne capacity class," Lichtenberg continued.

The GSK55 uses the upper works from a Grove GMK3055 all terrain crane and a specially-designed truck chassis acting as a trailer. It is hauled by a standard two axle tractor unit and needs no special permits for travel. With full 43 m boom and 10.6 tonnes of counterweight it weighs less than 40 tonnes. It is classified in Germany as a "trailer-mounted work machine," meaning any truck towing it is exempt from road charges or taxes.





Satoru Oyashiki, left, and Thomas Schramm at Tadano Faun in Germany

popularity of bottom slewing cranes over top slewers among end users and rental companies. "Since last year fast erecting cranes in 60 tonne-metre class have been selling more and more." Many factors are driving what is an unexpected shift from top slewing cranes leading the sector. In Germany bottom slewing tower cranes are used instead of truck cranes to move formwork and much of the construction activity is single unit dwellings or their renovation.

Pressure on cost and time is increasing on job sites so lower equipment cost, and shorter erection, disassembly and transport time, are all important considerations. "The 81K fast erector is moving into a range of lifting works done in the past using small bottom slewing cranes. You can climb in tower sections to increase its height, which makes it even more attractive and you don't need a mobile crane to lift up the whole thing like you do with a top slewing crane to erect it."

Environment

Energy costs and environmental concerns are a major driver in the tower and other crane sectors. "Alternative energy generation is coming more into the picture than other places. Nuclear power is an issue. There is a trend towards a decentralised power supply infrastructure rather than having a few big power plants here and there feeding the whole country," Donner says.

Self erecting tower cranes and mobile folding tower cranes are finding good

a low of around 300 units in 2009 but had already climbed again in 2010 to more than 400 units.

This upward trend in towers is widely forecast by the manufacturers to continue for 2011 and beyond. "We started to see some recovery in the tower crane market in 2010 and that has continued in 2011. We are seeing good demand for our Potain self-erecting cranes and a smaller recovery for the top-slewing market. However, it's important to recognize that we are still some way from the market highs of 2008," says Kroeppel at Manitowoc.

"Utilisation is good but rental rates are down," says Donner at Liebherr. For top slewing towers there is some work on big city projects. There was a lot of work for cranes in the 150 to 280 tonne-metre range on privately funded office building projects, technology parks and big shopping malls but this market is saturated.

Donner reports strong growth in the

ABOUT OHR

Off-Highway Research is a management consultancy specialising in the research and analysis of international construction, and agricultural equipment markets. It is the largest of its kind in the world. The consultancy was formed in 1981 as part of The Economist Intelligence Unit (EIU) and is now privately owned. For more information see www.offhighway.co.uk

ABOUT EUROSTAT

Eurostat is the statistical office of the European Union. It provides the European Union with statistics at European level to enable comparisons between countries and regions. Eurostat was established in 1953 to meet the requirements of the Coal and Steel Community.

business installing solar panels. For a normal house it is two or three days of work and for a factory is up to two weeks. Another busy area for self erectors is renovation and upgrade work installing thermal insulation, air conditioning and water runoff management like grass roofs.

In addition to solar panels for energy this also means wind turbines. "Following the disaster in Japan there is a clear green trend. It will bring a lot more wind work and will create sensitivity to whether we are doing things in a clean and proper manner," Schramm says.

The crawler crane market will come back, primarily for wind turbine work, and projects are in the planning phase. ■

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Turkish haulage operator
Çaba transported a
600 tonne amine absorber
unit 1,300 km across
the Karakum desert in
Turkmenistan to a flue gas
desulfurization plant.
IC reports

The convoy, more than 40 m long, began its journey at the port of Turkmenbashi



Desert destination



The 600 tonne load rolls through the Karakum Desert in Turkmenistan on 36 axle lines

Çaba has regularly transported amine absorber units from Turkmenbashi, a port on the Caspian Sea, to the desulphurization plant in Eloten since November 2010.

Some 1,000 km of the 1,300 km journey is across Karakum Desert sand dunes, which covers 70% of Turkmenistan – an area of more than 350,000 km².

For this latest task, Çaba used Scheuerle InterCombi platform trailers with 24 axle lines. An additional 12 axle lines of InterCombi SL (split type) were laterally coupled. The split type can be divided longitudinally, meaning the transport unit can be extended laterally. This 3-file combination offers improved stability for

loads with a higher centre of gravity.

The load was pushed and pulled by three Mercedes 8x4 2MB 3850 6x6 WSK truck tractors. The total combination is more than 40 m long, 7.5 m wide and almost 7 m tall. For handling such dimensions, a number of precautions had to be taken.

Overcoming obstructions

All bridges crossed on the route were fitted with reinforcement systems. In addition, obstacles such as electricity pylons and road signs had to be removed. As a result, a single transport takes on average 60 days. In addition, asphalted roads had to be built for these transports for the remaining

80% of the route consists of a sandy desert road

300 km of the route.

The InterCombi's modular design offers a range of solutions based on 2, 3, 4, 5, 6, 7 and 8-axle platform trailers. These can be coupled both longitudinally and laterally, said the manufacturer.

InterCombi has a 36 tonne axle load capability. As an extension of the InterCombi series, the InterCombi PB (Power Booster) is available, fitted with drive axles that can be activated if required. It too is driven by a power pack unit (PPU), for gradients without the use of an additional tractor.



For the remaining stretch, an asphalted road had to be built

ENTER THE 2011 TRANSPORT 50

International Cranes and Specialized Transport invites you to submit an entry form for the 2011 Transport 50 listing.

This increasingly comprehensive listing of the world's largest specialized transport companies ranks entries by the total maximum carrying capacity of the specialized transport equipment fleet. It complements the original and market-leading IC50 listing of cranes which appears in the June issue of the magazine.

This is editorial, not advertising, and costs nothing.

■ Please complete the entry form on page 35 or download a digital version at:

www.khl-group.com/E_CASTS/KHL/IC_Transport_50.pdf

Please return all completed forms by Monday 4 July 2011.



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Transport50

Please read this form and the notes on page 30 carefully. If you have any questions, please do not hesitate to contact the team at International Cranes and Specialized Transport magazine.

1. MODULAR TRAILER SYSTEMS

SPMT (self propelled modular transporter) *

total number of axle lines lines

total capacity tonnes **

CONVENTIONAL MODULAR TRAILERS *

(8 wheels per line)

total number of axle lines lines

total capacity tonnes **

CONVENTIONAL MODULAR TRAILERS *

(4 wheels per line)

total number of axle lines lines

total capacity tonnes **

SELF PROPELLED CONVENTIONAL MODULAR TRAILERS *

total number of axle lines lines

total capacity tonnes **

2-AXLE AMERICAN STYLE HOUSE/STRUCTURAL MOVING TYPE DOLLIES

total number of dollies dollies

total capacity tonnes **

TOTAL CAPACITY

of all modular trailers and dollies tonnes **

2. SPECIALIZED TRAILERS

DOUBLE DROP / LOW LOADER

total number of units units

total capacity tonnes **

STEP FRAME / SEMI-LOW LOADER

total number of units units

total capacity tonnes **

EXTENDABLE FLATBED TRAILER

total number of units units

total capacity tonnes **

LONG LOAD DOLLY

total number of units units

total capacity tonnes **

TOTAL CAPACITY

of all specialized trailers and dollies tonnes

TOTAL NUMBER OF TRUCK units

TRACTOR UNITS

* electronic multi-way steering versus hydro-mechanical power steering

** Please supply figures in metric tonnes



IMPORTANT:

The listing must only include transport equipment that you will have in your fleet at 4 July 2011. Please do not include equipment for which you have placed orders but not yet taken delivery of.

Company name

Head office city and country

Senior contact and job title

e-mail address

Company web site

Number of depots

Number of employees

Area of operation ☐ local ☐ national ☐ continental ☐ worldwide

☐ I confirm that the information shown above is correct

Signed:

Name (please print)

Date:

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alex.dahm@khl.com

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Job of the Year

The Specialized Carriers and Rigging Association's Job of the Year winners were announced at the organisation's Annual Conference in April in California

Rigging Under US\$150,000

BARNHART CRANE & RIGGING

Vexing vessels

Barnhart Crane & Rigging was contracted to provide engineering, labour, equipment and supervision to remove two vessels from an existing structure and replace them with new vessels during a refinery turnaround in Southern California. The first vessel weighed 14,310 pounds (6.5 tonnes) and measured 4 feet 6 inches (1320 mm) in diameter and was 16 feet (4.9 m) long. The second vessel weighed 29,349 pounds (10.6 tonnes) and was 8 feet (2.4 m) in diameter and 20 feet (6 m) long.

The challenge was removing the two horizontal vessels from the existing structure without removing a substantial

portion of the structure. There was also limited access to the worksite, and work had to be done over and around active process piping and equipment. The engineering team ruled out two conventional methods: using a crane to remove the vessels through the roof of the building or using two cranes to stab the vessels into the building.

The solution was a tri-block and cantilever beam system in which counterweights were used to counter balance the payload to allow the lifted item to be brought under an overhead obstruction. The auxiliary load line was then operated to adjust the pick point and set the load in final position.

The client was initially concerned with this plan as it was a new concept for the plant. In addition, it would require lifting and transferring the vessels over 'hot' lines and other operating equipment. To alleviate this concern, a test lift was performed for the refinery personnel to demonstrate the approach.

Before work started, a comprehensive safety plan was developed to meet the client's stringent safety procedures and Barnhart's corporate safety standards. Crews underwent Los Angeles Refinery Safety Operation training. Due to working at elevations exceeding 6 feet (1.8 m), there was 100% tie off for crew members.

The process started with the staging and assembly of equipment, lifting and removal of existing vessels, placement of existing

A tri-block and cantilever beam system with counterweights to counter balance the payload was used to lift the 6.5 and 10.6 tonne vessels



vessels onto a transporter, transport to lay down area, transport of pre-loaded new vessels to the work site and lifting and setting the new vessels in place.

Engineering included crane layout drawings that were reviewed by the client's civil engineer. It was determined that foundations would have to be installed in the existing roadway to support the outriggers on the crane, which was a Grove Model GMK6350 supplied by Maxim Crane. Safety was built into the lift plan process; the crane selected operated at 71% of capacity. The crane layout included a detailed plan of how to assemble the crane and the related equipment since space was very tight.

The tri-block and cantilever beam assembly was staged and assembled in a blocked off road parallel to the structure housing the vessels. Just prior to the lifts, crews checked all equipment and reviewed communication protocols. The lift director flagged the crane during the entire lift process.

The first vessel was removed and replaced in one day and the second vessel was removed and replaced on a second day. The project was finished two days ahead of schedule without any accidents. The use of the tri-block and cantilever beam system introduced the refinery to one of Barnhart's specialized rigging methods. ■



Rigging \$150,000 to \$750,000

BARNHART CRANE & RIGGING

Dam challenge

The San Vicente Dam, owned by the San Diego Water Authority, is being raised about 100 feet (30 m) to provide more water to the San Diego region.

Phase I of the project was to prepare the dam for the concrete work, which involved the widening and raising of the dam structure. A Cofferdam was needed for a new discharge tunnel to be drilled through the dam structure.

The scope of work for Barnhart was to erect 11 pre-fabricated Cofferdam sections into one 420,000 pound (191 tonne) final Cofferdam, lower the final Cofferdam into the water and onto the dam wall at about a 6 degree angle, and to hold the load in a stationary position to allow divers to secure the Cofferdam to the face of the dam, which it was estimated would take five to 10 days.

The first rigging option was to locate a large crane on the dry side of the dam. This option wasn't feasible due to the lack of space and the size and capacity of the crane required. There were also safety concerns regarding suspending the load from the crane for such a long time. The second option was to locate a large crane on a barge on the water side of the dam. But the number of barges needed to support a heavy lift crane made this idea unfeasible. There was no roll-on facility on the reservoir and the completed Cofferdam would then have to be held for five to 10



Barnhart engineered a cantilever system to carry out Cofferdam section lifts

days by a floating barge crane for securing by the divers. Again that would have been a huge safety concern.

Barnhart chose to develop the lifting system on top of the dam. Yet, still there were challenges to installing such a system. Access was difficult, the work area was tight and the weather was windy and hot.

Barnhart engineered a cantilever system on top of the water dam to perform multiple lifts of Cofferdam sections using strand jacks. The cantilever system consisted of 60 130-foot (40 m) strands, two 300 US ton (272 tonne) strand jacks, three 450 US ton (408 tonne) strand jacks and five floating anchors.

A total of six Cofferdam lifts were performed with the largest piece weighing 410,000 pounds (186 tonnes). The job was very challenging due to the incline and the fact that multiple jobs were going on within the vicinity of Barnhart's equipment and work area.

Barnhart's successful cantilever system came from the company's tool box and involved many innovations including a synchronised strand jack system, elimination of counterweights

with an anchor design, rocker design and installation, the use of an erection sequence/straddle barge and the tilting of Cofferdam to Slope of Dam Face.

The cantilever system required just five truck loads of rigging equipment. Barnhart supplied engineering, project management, risk management, superintendent and strand jack technicians. The customer supplied the lift crane, craft labour, barges and water bags for the test lifts.

Barnhart's safety programme included highly trained crews (with QUAL cards), daily safety meetings, communications plans, pre-lift meetings, PPE and fall protection, and onsite risk manager and a test lift.

Barnhart created a plan of how to work with heavy equipment on site to move and transport the equipment. Scheduling overhead lifts and communication with surrounding contractors was imperative in order for all parties involved to maximise a day's worth of work. In the end, the job was completed safely in 30 days with no issues or violations. Barnhart collaborated with the customer and other contractors on safety, sequence, and efficiency. ■





Fagioli designed a lifting system with two L300 strand jacks to replace two 327 tonne stators

Rigging Over \$750,000

FAGIOLI INC

Innovation in Mexico

The Laguna Verde Nuclear Power Plant, located in Veracruz, Mexico is the country's largest electric power generating nuclear plant, producing about 4.5% of Mexico's electrical energy. Two stators needed to be replaced to increase the capacity of the plant by 20%.

Manvel, Texas-based Fagioli Inc. was awarded the contract to remove and replace the stators. The job included many challenges, including the heavy weight of the stators at 720,000 pounds (327 tonnes) each; the restricted working area; the insufficient capacity of the existing overhead crane; and no time available for a dry-run to test the fitting of the system. In addition, working in a nuclear plant had its own issues, including the health and safety of the crew.

Fagioli's engineering division came up with an innovative, interesting and successful solution to complete the operation without the need for civil interventions within the operative plant. Engineering preparations started a year-and-a-half before the job began.

Due to the insufficient capacity of the hook on the overhead crane, Fagioli designed a lifting system consisting of two L300 strand jacks which was conceived to fit between the existing beams of the

overhead crane. After being awarded the job in August 2009, it took months of intensive work to complete the design. The final approval was given in December 2009, leaving only two months to fabricate, test and ship the system to the jobsite. Fabrication was done in Houston with Fagioli engineers monitoring the quality and testing the components before delivery in mid-February 2010.

The lifting system itself weighed almost 133,000 pounds (60 tonnes) and was built with high grade steel to keep the weight within the limit indicated by the overhead crane manufacturer. The system consisted of a swivel connected to the anchors of the strand jacks. The two 300 US ton (272 tonne) strand jacks were positioned on the jack support beam, which sat on each end on a U-shaped structure.

The 882,000 pound (400 tonne) capacity swivel (able to rotate the stator), rollers and girders were supported by the beams of the existing overhead crane. The structure was suspended from the traverse top beams, and at both ends the roller beams sat on the overhead crane girders, precisely on the trolley tracks.

When the installation work of the system started inside the building, 24 hour continuous operations were necessary

due to the 45 days allotted. Accessing and exiting an active nuclear plant is neither easy nor quick, and required an organised shift schedule. Safety was a priority: crews worked at height with temperatures reaching 105 degrees in a radioactive environment.

Every effort was made to maintain exposure to radiation as far below the dose limits as possible. This included wearing protective clothing, continuously monitoring radiation absorption of each person, having back-up crews and shifting personnel.

All operations for the removal of each generator, including installation and removal of the lifting system on and from the overhead crane, were to take place within the timeframe of 84 hours. The same timeframe was allotted for the installation of the new generators.

With the limitation of 12 feet (3.7 m) per hour on the 200 foot (61 m) translation of the overhead crane between the equipment hatch and the generator foundation, the time left to install and remove the system, lift the generator 15 m, rotate it 90 degrees and lower it 5 m was minimal.

Fagioli accomplished the task a day ahead of schedule without accidents. ■



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Hauling Under 160,000 pounds

TRADELOSSA

Rugged haul

Tradelossa, Mexico relocated three mills from a mine in Zacatecas, Mexico through the Sierra Madre Mountains to two different mines in the state of Chihuahua. Two mills went to a mine 490 miles away, the other to a mine 480 miles (722 km) away. The mills measured 22 feet (6.7 m) long by 16 feet, 9 inches (2 m) in diameter and weighed 110,231 pounds (50 tonnes).

Tradelossa took on the project after two other specialized transporters failed to move the load beyond the first mile. Because of the lost time, the client needed the job completed as quickly as possible: the federal road permits were valid for just 30 days. Other challenges included passage through traffic; rough, narrow roads; tollbooths; small towns; access to mines; tight turns and even tighter clearances. Tradelossa's engineering solution was the use of hydraulic equipment with a girder bridge open to 3.6 m (11 feet, 10 inches), enabling the load to be dropped as needed almost to ground level.

The equipment had been in use on another project, so Tradelossa had only four days to assemble it and check that the required configuration could operate correctly. Without the ability to reduce the height of the shipment, the convoy would have been forced to take considerably



Tradelossa overcame a range of route challenges to deliver heavyweight mills to two locations in Mexico

longer routes. Even after disassembling the cargo as much as possible, there was barely a foot (0.3 m) of clearance at the side and a mere two inches (50 mm) at the top of the storage facility exit. Additionally, the length of the load made the very narrow road access even more taxing.

In some places, the roadways were so narrow that Tradelossa had to use both

lanes, blocking traffic for as much as 7.5 miles (12 km). In other places, rough terrain necessitated the pulling power of two tractors in front of the load. The company worked closely with the Federal Electricity Commission which had to cut electricity as the load passed beneath low power cables. A new 820 foot (250 m) onsite road had to be built because the existing one had extremely tight turns, prohibiting the equipment from passing through. Because of the steep upward slope of the new, loosely compacted road, Tradelossa used a bulldozer to help the tractor move ahead.

When the client unexpectedly changed the unloading site, Tradelossa was unable to exit the same road it had entered. So the crew disassembled the equipment to go out through the principal road, which was not used originally because the equipment was too long for successful navigation. The entire job required 475 man-hours, including 200 hours of planning. Tradelossa invested in safety, sending key personnel to Germany for training by Goldhofer. Additionally, Tradelossa made good use of information provided by Goldhofer to ensure the crew made optimal use of the equipment.

The project was completed with no accidents, on time and on budget. ■



Hauling Over 160,000 Pounds: BARNHART CRANE AND RIGGING

Giant generator

Barnhart Crane and Rigging transported a steam turbine generator from Port Allen, Louisiana through the Appalachian Mountains to St. Paul, Virginia. After the original heavy hauler was unable to receive the necessary permits, Barnhart began performing route feasibility studies and bridge analyses. Barnhart received the transportation contract in January 2010, more than two months after the initial scheduled delivery date.

The customer suffered from liquidated damages every day the generator was not on the final site, so Barnhart agreed to do everything possible to complete the job safely within six months. Such an extensive project normally called for 18 months of planning alone.

The 795,000 pound (361 tonne) generator – 35 feet, 11 inches (10.7 m) long by 18 feet, 7 inches (5.7 m) wide by 17 feet, 1 inch (5.2 m) tall – was the largest single item ever hauled in Tennessee and Virginia. Barnhart provided analysis of 36 of 109 bridges crossed along the 176 mile (283 km) route. Five independent engineering firms worked simultaneously to generate hundreds of pages of data per bridge.

Total permit costs, including permit fees, bridge engineering, bonds and

remediation, were \$1.9 million. Barnhart set a new precedent in safety planning with a 115 page engineered heavy transport plan. Briefings with many local and state officials, community groups and the press included a route survey with state engineers and traffic control officials to discuss each day's planned movements.

To meet Tennessee requirements, Barnhart transformed its 24-dolly transporter to accommodate 28 dollies. As it moved through the state, it measured 365 feet, 5 inches (111.4 m) in length, 22 feet 2 inches (6.8 m) in width and 17 feet, 3 inches (5.3 m) in height, with a gross weight, including prime movers, of 1,404,869 pounds (637 tonnes). In

Virginia, Barnhart shifted back to 24 dollies without transloading.

The project necessitated development of numerous innovative tools and techniques. A special Dog-Bone Link support system with two 100 US ton (91 tonne) jacks enabled expeditious reinforcement of the transporter's transition girders.

Barnhart expanded its proven crab-steering technique for spreading the weight of the transporter laterally and longitudinally across bridges, creating seven new steering arrangements to complement the company's traditional crab-steering arrangements.

Barnhart's redesign of its Hanging Suspension System used carrier beams beneath the sole plates of the generator to minimise the overall height to 17 feet, 3 inches (5.2 m).

Finally, Barnhart completed five different bridge jumps of up to 130 feet (39.6 m), including one bridge jump in the middle of a 7% grade ascent and descent within a quarter mile. ■




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Hauling/moving

EMERT INTERNATIONAL

Transport conundrum

Immediately after winning the contract to transport four replacement steam generators from the Port of Long Beach, California to San Onofre, California, Emmert International began a detailed planning and engineering process that took nearly three years to complete.

Emmert worked closely with the client, federal and local environmental agencies, the US Marine Corps, California Department of Transportation, as well as federal and local security and law enforcement agencies. Each generator measured 67 feet (20.4 m) long, 23 feet 8 inches (7.3 m) wide and 21 feet 1 inch (6.4 m) high and weighed 1,352,300 pounds (613 tonnes).

After three months, Emmert concluded that the best solution involved a 15 mile (24 km) route incorporating unimproved access roads, an interstate highway, a state park, and a beach.

The entire replacement project at the power plant, including transportation, was subject to a permit from the Californian Coastal Commission, which required an extensive Environmental Impact Report. Independent biological monitors controlled all work and movements in areas designated as environmentally sensitive, which included virtually the entire route.



Most of the route passed through areas supporting endangered and federally protected species of flora and fauna, and the focus was to avoid any impact on these. During the active nesting season for sea birds from early spring until September, beach operations are prohibited, which further complicated scheduling.

Emmert received the generators on a barge it provided after they were shipped from a Japanese manufacturing plant. The barge was then towed in the open Pacific Ocean to Del Mar basin within the confines of the US Marine's Camp Pendleton. To avoid severe rip currents in the tidal basin, the voyage took place at night.

After the heavy-lift dock was dredged, Emmert offloaded the barge using a 16-axle double wide Goldhofer PST to cross a 30 foot (9 m) ramp. From there Emmert moved across the Marine base on

asphalt roads to a staging area protecting underground services along the way with steel plates and lowering or shielding overhead cables as the load passed below.

For the next stage, a 7 mile (11.3 km) move along the beach, Emmert used two 700 US ton (635 tonne) capacity transporters mounted under a steel platform holding a generator. These tracked vehicles could travel on soft sand without matting but topped out at 3 - 5 miles per hour (5 - 8 km per hour) when loaded.

After three days, the generator exited the beach at a 10% grade on a temporary road created by Emmert, was loaded onto the Goldhofer and moved off the elevated area until passing onto the interstate for a night-time move of about 0.5 mile (0.8 km). The Interstate portion took less than 30 minutes, excluding preparatory work and the clearing up of steel plates and matting afterwards.

Next, each load moved to a State Park, subject to environmental scrutiny because of the presence of a number of endangered species. Tight clearance at park entrances posed an additional challenge.

The generator then moved 1 mile (1.6 km) along a frontage road with underground services requiring protection from the load entering the power plant reservation through a car parking area. Traveling on a road built to Emmert's precise specifications, the load then descended on a 6% grade onto the power plant's main entry road, maneuvering between existing buildings with a pinch point of 1/4 inch (7 mm) on both sides and a steep embankment along a curved road.

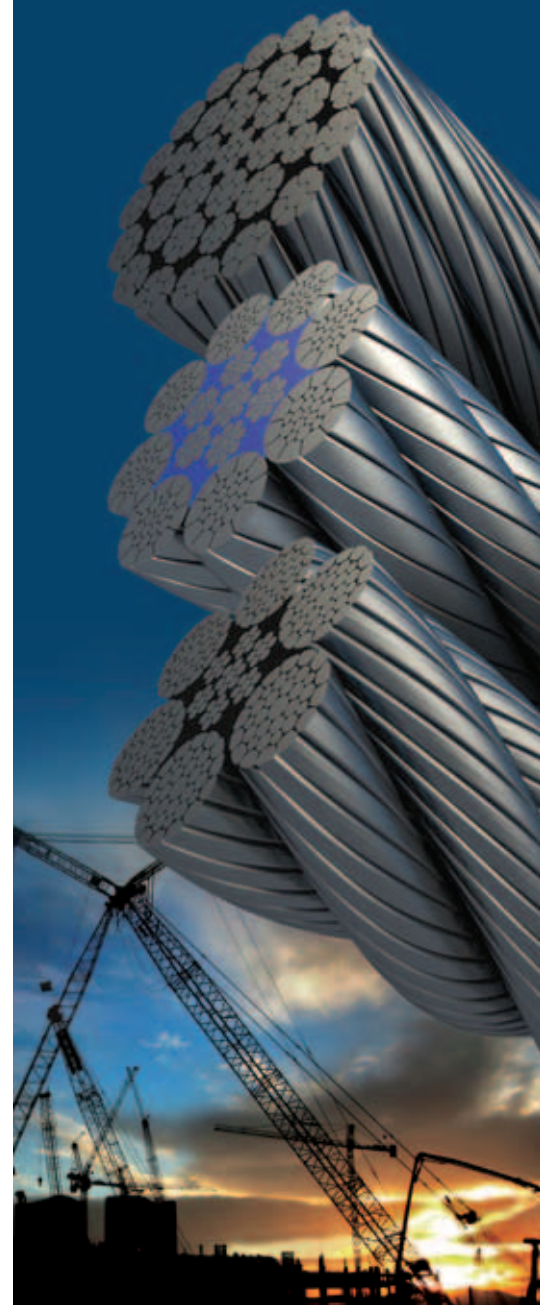
Emmert transported four 613 tonne generators across environmentally sensitive areas including a beach, state park and access roads



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SC&RA Jobs of the Year: other entries

Heavy contest

While every job could not win the top prize, there were compelling entries in every category

Rigging job, under \$150,000

■ **BRAGG CRANE & RIGGING** removed and replaced a generator at a power plant in Eureka, California. The generator, which weighed about 132,000 pounds (60 tonnes), was about 14 feet (4.3 m) long, 12 feet (3.7 m) wide by 11 feet (3.4 m) high.

Rigging job, \$150,000 to \$750,000

■ **EMMERT INTERNATIONAL** lifted a tunnel boring machine out of a 45 foot (13.7 m) diameter, 115 foot (35 m) deep shaft in Oregon. Rather than dismantling the tunnel boring machine at the bottom of the shaft, Emmert International chose to lift the machine up in one piece using a lifting gantry over the shaft.

■ **MOUNTAIN CRANE SERVICE** performed a two-crane pick, lifting a steel sky bridge over historic Main Street and the light rail system in downtown Salt Lake City.

■ **BURKHALTER RIGGING** was contracted to up-end and set a 1,051,000 pound (477 tonne) hydrocracker reactor onto its anchor bolts in an active plant amid existing vessels, piping, electrical structures, railroad tracks, firewater hydrants, post indicator valves and roadways that couldn't be blocked.

Rigging Job over \$750,000

■ **BRAGG CRANE & RIGGING** handled 10 291 tonne engines and generators several times including load out, roll on barge, marine voyage, roll off, heavy haul, off-load, rough and final installation.

■ **AL JABER HEAVY LIFT AND TRANSPORT** was contracted by a leading fabrication company in the United Arab Emirates to execute the onsite transportation and installation of 50 x 10 x 10 m rig leg extensions on already existing legs.

■ **BARNHART CRANE & RIGGING** was awarded the heavy haul and lift work for Marathon Oil's Detroit Heavy Oil Upgrade Project. Barnhart transported and set more than 90 pieces of project equipment, ranging from 60,000 pounds (27 tonnes) to 1.5 million pounds (680 tonnes).

■ **EMMERT INTERNATIONAL** was contracted to receive and install an 886,248 pound (402 tonne) generator, part of a new coal

burning power plant. The generator was transferred by self-propelled Goldhofer system and lifted 55 feet (16.8 m) and moved 100 feet (30.5 m) into the facility.

Hauling under 160,000 pounds (net)

■ **EMMERT INTERNATIONAL** transported an accumulator drum from Oklahoma to Whiting, Indiana, a route consisting of 1,034 permitted miles spanning five states. The load dimensions were 166 feet (51 m) long by 19 feet 6 inches (6 m) wide by 15 feet 8 inches (4.8 m) high, with a net cargo weight of 130,500 pounds (59 tonnes).

Hauling over 160,000 pounds (net)

■ **BRAGG HEAVY TRANSPORT** transported a 228,000 pounds (103 tonnes) liquid oxygen tank 2,300 miles (3,701 km) from Theodore, Alabama to Mojave, California via special rail cars on a dedicated train, then 400 miles (644 km) by truck to Vandenberg Air Force Base, California.

■ **EMMERT INTERNATIONAL** hauled a fluid catalytic cracking reactor from Tulsa, Oklahoma to Billings, Montana using a specially designed 12-dolly perimeter transporter with modified transport saddles to accommodate the load.

■ **MCTYRE TRUCKING CO.** hauled a 489,430 pound (222 tonnes) transformer about 100 miles (161 km) in Florida to the Port St. Lucie power plant.

■ **TRANSPORTES TELLERIA**, Pachuca, Mexico, moved seven 210,000 pound (95 tonne) transformers from Guanajuato to Nayarit, a distance of over 346 miles (557 km).

Moving Job (with specialized equipment)

■ **BRAGG HEAVY TRANSPORT** transported 10 680,000 pound (308 tonnes) diesel engines and 10 235,000 pound (107 tonne) generators from a dock in California to another dock one mile away.

■ **FAGIOLI** transported a stator from Naples, Italy and an alternator from Genova, Italy to the Bayet Power Plant in France. The stator weighed 326 US tons (296 tonnes), the transformer weighed 245 tonnes.

New generation

Crane and engine manufacturers have been faced with a range of choices and challenges concerning current and future engine emission laws. EUAN YOUNGDALE investigates

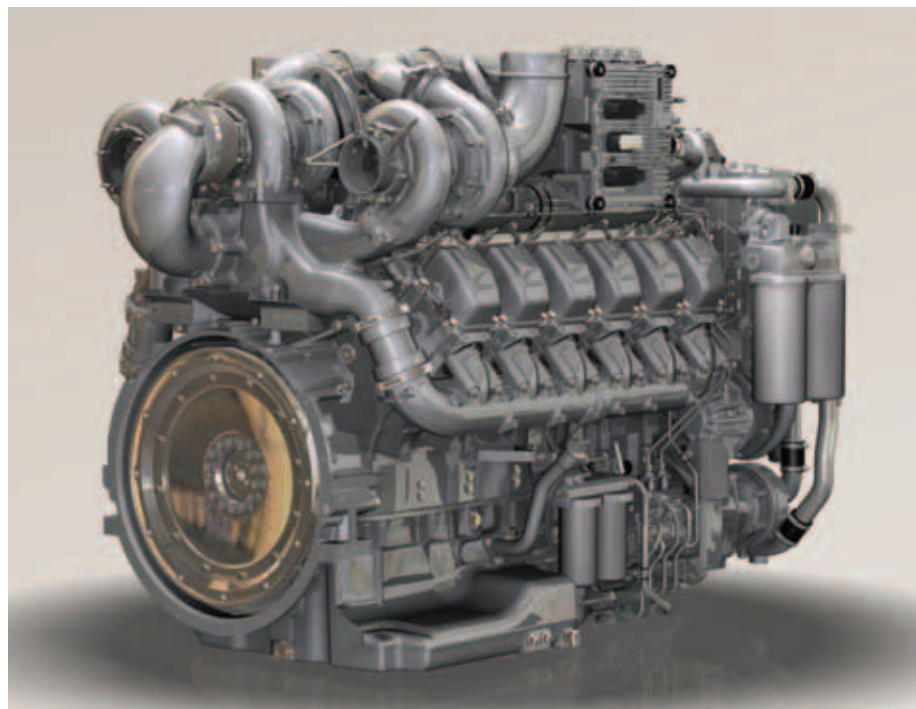
At the start of 2011, substantially-reduced emission limits came into force for off-road diesel engine manufacturers.

These were in the form of Stage IIIB and Tier 4 Interim engine laws in Europe and the USA respectively, while the stricter EU IV/ US Tier 4 Final rules must be complied with by 2014.

The regulatory overhaul means that state-of-the-art engines released from 1 January 2011 must satisfy demanding legal requirements on emissions, including emitting 90% less particulate matter than current machines and 50% less NOx (oxides of nitrogen).

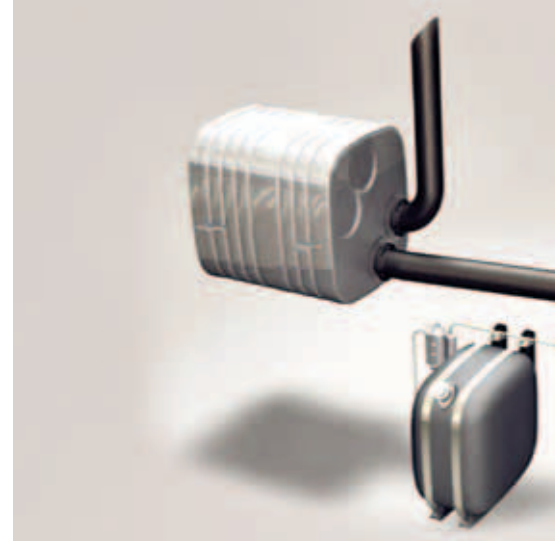
Manufacturers have a choice between two very different approaches when it comes to tackling diesel engine emissions. The selective catalytic reduction (SCR) exhaust aftertreatment system involves reprocessing exhaust gases with a urea resin to convert harmful NOx into inert nitrogen and water. The other method is the exhaust gas recirculation (EGR) system. This reduces emissions by cooling and pumping a proportion of the exhaust gas back into the engine's cylinders.

Diesel particulate filters (DPF), which



MTU showcased its new 2011-compliant Series 2000 engines at the ConExpo exhibition in Las Vegas in March

filter out the black exhaust soot that diesel engines produce, are often used in conjunction with the EGR approach.



REGULATION

Compared to Stage IIIA regulations, Europe's Stage IIB and the US Tier 4 Interim regulations call for approximately 90% reductions in particulate matter (PM) emissions and 50% reductions in emissions of NOx in engines producing less than 560 kW, such as those used in construction machinery.

And the 2014 Stage IV/Tier 4 final phase of the regulations will require further NOx emissions reductions of about 80%.

In November last year, Italian equipment association Unione Nazionale Aziende Construction Equipment & Attachments (UNACEA) called for increased flexibility for engine manufacturers that are struggling to comply with the European emissions laws.

UNACEA and CECE (the Committee for European Construction Equipment), have supported an increase in flexibility allowances which would allow European equipment manufacturers to bring more "old" engines to the market while phasing in new, more environmentally-sound designs.

Currently engine manufacturers are still allowed to bring an annual production allowance of 20% "old" engines to market after the new laws come in to force. The European Commission submitted an amendment to the European Parliament in July, 2010, to increase this allowance to 50%. The proposed changes would expire on 31 December 2013, and the European Parliament is due to vote on whether to adopt them in May this year.

Uniform systems

Liebherr-Werk Ehingen in Germany has chosen the SCR system for its range of mobile and crawler cranes. "It is more tolerant for fuel with higher sulphur content. So we can deliver a uniform system worldwide," says Wolfgang Beringer.

"The challenge was to adapt an additional exhaust after treatment system to the engine and to integrate this system in an existing crane design. We had to solve problems concerning weight and space. There are also logistical challenges, as we have to convert the complete range of engines and cranes within a very short time. This affects not only the crane manufacturer and engine manufacturer but also component suppliers."

Following an evaluation of development costs, aftermarket service support and market preference, Manitowoc chose Cummins for its rough terrain, truck mounted, crawler and industrial crane product lines, while MTU/Mercedes was



A computer generated image from Manitowoc demonstrating some of the latest crane technology

selected for its all terrains, says Bob Satori, Manitowoc Cranes senior engineering manager.

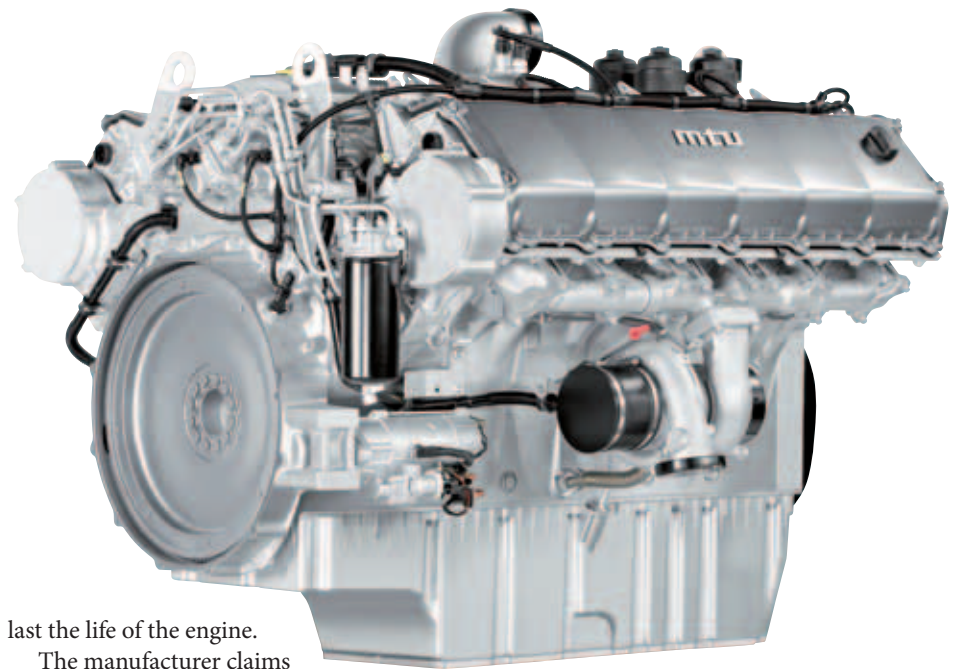
Cummins uses the EGR technology and MTU/Mercedes uses the SCR technology to meet Stage 3b/Tier IV interim requirements.

“Different engine manufacturers chose different solutions based on what was determined the best for their product and for their customers. The EGR system requires greater heat rejection of the cooling systems and, in certain duty cycles, full efficiency improves,” explains Satori. “The SCR technology requires the customer to maintain additional fluid (DEF) for the engine while maintaining more commonality to the Stage 3a and Tier 3 installations. It is anticipated that the technologies will converge as engine manufacturers modify their approach to meet Stage 4 and Tier IV Final requirements,” adds Satori.

Challenges

Cost, weight, space and availability of information for Stage 3b and Tier IV interim engine installations were major hurdles in the design process of engines and the cranes themselves. “We will continue to face these same challenges through the introduction of Tier IV Final. The implementation of the EGR technology for Stage 3b and Tier IV interim created a larger development effort for OEMs than the SCR technology. An associated increase in the Tier IV Final effort will be seen by those that chose SCR for Tier IV Interim,” explains Satori.

Cummins is using catalysts in its new Tier 4 Interim-compliant, 75-173 hp QSB3,3, QSB4,5 and QSB6,7 engines. However, it is using this in combination with the cooled EGR approach. The Cummins Compact Catalyst is designed not to require ash removal, servicing or a diesel particulate filter, and is designed to



last the life of the engine.

The manufacturer claims it is the only fully passive after treatment system below 174 hp, and its engines will deliver up to 5% better fuel economy than Tier 3 counterparts. The company said it had decided against the full SCR approach for its 2011-compliant engines because of the bulky on-board urea tank that the method requires.

“Operators of off-highway equipment have consistently expressed a preference to avoid the additional cost, supply and refilling of an SCR system. Cummins cooled EGR and Cummins Compact Catalyst does not require this additional fluid,” a company spokesman says.

New generation

Another notable feature of modern engine design, adds Beringer, is common rail fuel injection systems. On diesel engines, it features a high-pressure (more than 1,000 bar/15,000 psi) fuel rail feeding individual solenoid valves, as opposed to low-pressure fuel pump feeding unit injectors (pump nozzles). Third-generation common rail diesels now have piezoelectric injectors for increased precision, with fuel pressures up to 1,800 bar/26,000 psi.



MTU's Series 1600 (the 12V1600 is pictured) engine will be available as of 2014 and meets the EPA Tier 4 Final emission standard

The new MTU engine has advanced common-rail fuel injection with pressures of up to 2,500 bar, while two-stage turbo charging further reduces the engine's emission levels.

MTU met the January 2011 targets in Europe and the US by using SCR for engines below 560 kW, and EGR for engines from 560 to 730 kW – sticking to compact designs in both.

The state-of-the-art off-road engines for Tier 4 Final compliance in 2014 are similar designs, featuring a small number of external connections – such as for coolant pipes and air ducting or electronic interfaces – to speed up installation. “The latest engine incarnation is a quantum leap, not just technologically speaking but in precision manufacturing terms as well,” according to an MTU spokesman.

For Liebherr, current and future challenges will come in the design of a completely new engine with diesel particulate filter (DPF) and SCR system and to integrate it into the complete crane range, says Beringer.

Satori continues that the most significant development comes in Cummins' announcement that the diesel particulate filter (DPF) will not be required for their Tier IV Final solution for their 9 litre and smaller engines. “Cummins has also indicated that it does not anticipate any increased heat rejection requirements for Stage 4 and Tier IV Final,” says Satori. ■

The Cummins Compact Catalyst features in Cummins' QSB3,3, QSB4,5 and QSB6,7 engines, designed to meet 2012 emissions standards



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Manufacturers are responding to a new confidence in the container handling market with environmentally conscious and economically viable machines. EUAN YOUNDALE reports



Streaming ahead

One of the most notable sagas in the dockside sector has been the ownership of Demag Cranes and approaches from major manufacturers interested in buying the company out. For an up-to-date progress report on this topic see the news starting on page 6 of this issue.

In its most recent financial results Demag Cranes CEO, Aloysius Rauhen, stresses the company is in good shape. "Our business performance has been very positive in the first two quarters of the financial year and has encouraged us to be optimistic."

Group order intake for the 2010-2011 financial year was 28.8% higher than the previous year's figure, standing at €278 million (US\$ 396 million). Order intake in the first half of financial year was €562 million (\$801 million), equivalent to a rise of 40.4% on the same period in 2009/2010.

In a similar vein, Cargotec's 2011 sales

are forecast to grow about 20%. Healthy first quarter order intake in the Industrial & Terminal and Marine segments, together with a recovery in the market generally support hopes for continued growth, says the Finland-based manufacturer. "Market activity for cargo handling solutions has, despite the natural catastrophes afflicting the world, strengthened to the extent that we raise our estimated sales growth for 2011. Our strong order intake for the first quarter confirms our success in the markets. The profitability improvement in Industrial & Terminal compared to the previous quarter is important for us, even if sales were slightly lower. After the regulatory approvals of the Navis

acquisition at the end of March, the development of our container terminal segment was started," says Mikael Mäkinen, president and CEO.

Improved demand

Konecranes is also reporting signs of an upswing. The combined orders for nuclear cranes, port cranes and lift trucks amounted to about 40% of all orders received in the last financial year and were higher than the previous year, said the company. The order intake included a number of large port crane orders.

"The demand for new equipment improved as the economic growth has eliminated much of the overcapacity within manufacturing industries. The container handling equipment market was clearly livelier than a year ago as the global container traffic set a new record in 2010. Also, the available statistics from early 2011 point to continued growth in port handling volumes," said a company spokesman.

Liebherr is mildly more cautious concerning growth prospects, but still echoes a rise in fortunes. This follows a weak 2009 in the mobile harbour cranes sector, with a drop of 40% in demand for these products. An improvement, however, >

Liebherr Container Cranes secured an order for the supply of two ship-to-shore container cranes to DP World Aden, Yemen. The container cranes have a waterside outreach of 55 m, span of 30.48 m and landside backreach of 15 m



DOCKSIDE LIFTING

was felt during 2010. "At the end of 2010 turnover reached €210 million, a slightly higher figure than in 2009."

Leap forward

Looking at regional turnover distribution, Liebherr said Europe accounted for 38%, Latin America 18%, India 15% and Africa 12%; the balance being almost equally shared between North America, the Middle East, Far East Asia and Australia.

"2010 was all about mastering challenges and securing the future. The introduction of the Pactronic hybrid drive system was definitely a quantum leap which is already reflected in the figures of the order backlog. As of 31 December, the order backlog for

Liebherr mobile harbour cranes amounted to more than €100 million. Of the existing orders, the new LHM 550 including Pactronic accounted for more than 25%," says a company spokesman.

Pactronic was introduced to the market on the new LHM 550. Serial production started in October 2010. So far more than 10 machines are on order, says the manufacturer. The LHM 550 provides customers with the same modular construction system available on Liebherr's LHM 600 model. "Different applications call for different configurations of winches and drive systems to conform to all variants of professional cargo handling. Tower extension and boom variants with different radii complement the modular concept," says the spokesman.

For dedicated container handling the recommended crane set up is a 54 m boom, 34.5 tonnes at 54 m maximum outreach. This allows for container handling up to the 18th row of a post-panamax container liner. With Pactronic the LHM 550 achieves up to 38 moves per hour.

For dedicated bulk handling the recommended crane set up is a 48 m boom. The configuration of 43.5 tonnes at 40 m is suited to handle capsize bulk carrier. With Pactronic the LHM 550 achieves up to 2,000 tonnes per hour, adds the company.

Environmental trend

Over the next two years the Pactronic Hybrid Drive will be gradually rolled out on all mobile harbour crane models. Liebherr's system represents a fast moving trend towards more environmentally conscious systems in the dockside market from most manufacturers.

Another example comes from Energy and data transmission system specialist Conductix-Wampfler, which received an order to convert 18 diesel-powered rubber tyred gantry cranes to electrical operation with its drive-in system. The E-RTG technology, developed in Weil am Rhein, Germany will be incorporated into the cranes in Yilport port near Gebze and Dilovasi, Turkey.

Diesel-driven RTGs often account for half of the power consumed in a port, and are responsible for a significant part



A liebherr LHM 550 rubber tyred gantry in the USA

of its carbon dioxide emissions, says the company. "Since diesel prices are continually rising and environmental protection is more and more important, many operators are looking for alternative power concepts for essential cranes. The electrification can be done with the Drive-In solution, the Plug-In solution, or with a motor cable reel. We can offer any terminal operator the system that's right for them," explains Ergün Hallac, Conductix-Wampfler project leader.

Sage deployment

Further reflecting such demand is Hamburg terminal operator HHLA's order for 14 Cargotec Kalmar 7+ generation ESC350W diesel-electric straddle carriers. Cargotec's most environmentally conscious model will be deployed at Container Terminal Burchardkai (CTB), in Germany. They are due for delivery in September 2011.

The new straddle carriers use selective catalytic reduction to meet Stage 3B emissions requirements in Europe. The 3-high machines with twin-lift spreaders, capable of lifting up to 50 tonne loads,



Conductix-Wampfler will convert RTGs in the Turkish port of Yilport with its Drive-In system



Gottwald port technology will supply a G HMK 8410 mobile harbour crane to PuertoAngamos, Mejillones in Chile

FIRST UNMANNED STS

ABB Crane Systems has put the world's first unmanned ship-to-shore crane (STS) into commercial production in Panama.

It was developed in co-operation with Manzanillo International Terminal (MIT), which had a team of engineers and operators to test and evaluate the functionality. The unmanned STS crane was conceived as a logical step in ABB's range of automation solutions for STS and stacking cranes, says the company.

Instead of sitting in the cabin attached to the trolley, the crane operator supervises the operation from a remote control station similar to that used for automatic stacking cranes (ASC). For the operator, this means an improved working environment without stress to the back.



will also be supplied with a variable speed generator (VSG) and winch hoist system with full AC drives to reduce harmful emissions and fuel consumption, said the manufacturer.

Cargotec will also supply HHLA with its Equipment Monitoring Service (EMS) and analysis tool. "Everything that the operator can see on the monitor in the straddle carrier cab, staff in the control will also be able to monitor remotely through wireless LAN. This data will be extremely useful, allowing HHLA to analyse and monitor operational trends within the straddle carrier fleet," said Ismo Matinlauri, Cargotec senior vice president, port cranes.

"The latest contract also underlines the fact that demand for Kalmar machines in developed economies is picking up once again in 2011, as terminals restart investment plans put on hold before the recession," added a company spokesman.

Emerging markets

While some terminals are getting back into their stride, others in emerging markets are just getting going. South American container terminal operator Santos Brazil

Terex Port Equipment will supply 20 Terex Noell SC624E diesel-electric sprinter carriers to Abu Dhabi Ports Company (ADPC), UAE. The Sprinter Carriers will see service in the new Khalifa Port which is being constructed at Al Taweelah. The first phase of the port will see its infrastructure completed by fourth quarter, 2012

has become the biggest customer of Cargotec Kalmar E-One rubber-tyred gantries (RTG), with its latest order of 12 units, bringing the total to 29. They will be delivered to the customer's recently inaugurated Tecon Santos Terminal 4 expansion. Delivery will commence in the fourth quarter of 2011.

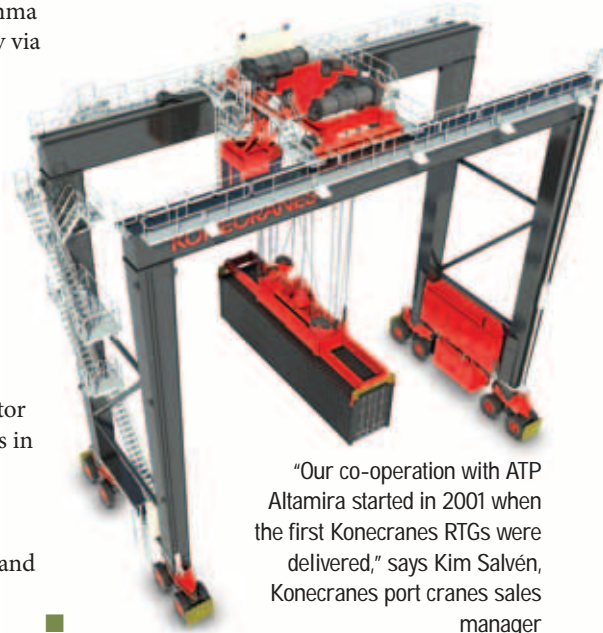
The 16-wheel, 7+1 wide and 1-over-6 high configuration is designed to put less stress on terminal surfaces compared to conventional 8-wheel units. They will have 55 tonne capacity twin-lift Bromma spreaders with load sensing capability via the twistlocks.

Confirming the importance of South America as a growth market is Gottwald Port Technology (Gottwald), a subsidiary of Demag Cranes. It will supply a G HMK 8410 mobile harbour crane to Puerto Angamos, Mejillones in Chile. The Generation 5 (Model 8) crane will be the largest Gottwald mobile harbour crane for container handling in the Americas. It will also allow the operator to service super post-Panamax vessels in the future.

"Central and South America have developed into one of our high-focus markets," says Thomas Hagen, COO and member of the management board Demag Cranes.

LIEBHERR

Liebherr has introduced the LHM 420 mobile harbour crane with the company's Pactronic hybrid drive system. It is successor to the LHM 400 and bridges the gap between the LHM 550 and the LHM 280. The LHM 420 will be available in two variants with capacities of 84 and 124 tonnes. Maximum radius is 48 m, making the LHM 420 ideal for loading and unloading from a wide range of vessels, from Handysize to Post-Panamax class, says the manufacturer. It is designed for container movement, bulk material, heavy loads and any other cargo handling tasks. The LHM 420's undercarriage cruciform supporting system is unrivalled in terms of stability and operational safety, claims Liebherr.



"Our co-operation with ATP Altamira started in 2001 when the first Konecranes RTGs were delivered," says Kim Salvén, Konecranes port cranes sales manager

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COMMENT

Joel M Dandrea

Safety action



Every day, about 3,500 people around the world leave home for the last time, losing their life in a road accident. Without action, road traffic crashes are forecast to result in the deaths of approximately 1.9 million people annually by 2020. In response to this major worldwide challenge, the United Nations (UN) launched the Global Plan for the Decade of Action for Road Safety 2011-2020 on 11 May. Co-ordinating these long-term efforts will be the World Health Organization (WHO), the UN's public health arm.

The Global Plan features five pillars of practical activities. Indicators have been developed to measure progress in each of these areas:

Road safety management includes activities such as putting into practice major UN road safety conventions, establishing a lead agency for road safety in the country involving partners from a range of sectors, developing a national road safety strategy and setting realistic and long-term targets for related activities with sufficient funding for implementation.

Safer roads and mobility includes activities such as improving the safety-conscious planning, design, construction and operation of roads; making sure roads are regularly assessed for safety; and encouraging relevant authorities to consider all forms of transport and types of safe infrastructure when they respond to the mobility needs of road users.

Safer vehicles includes activities such as implementing new assessment programs so that drivers are aware of the safety performance of vehicles; trying to ensure all new motor vehicles are equipped with minimum safety features, such as seat-belts; and promoting more widespread use of proven crash-avoidance technologies.

Safer road users includes activities such as encouraging the development and adoption of model road safety legislation and sustained or increased enforcement of road safety laws and standards. These efforts will be combined with public awareness and education to increase such behaviour as seatbelt and helmet

wearing and to reduce drinking while driving, speeding and other risks.

Post-crash response includes activities such as developing re-hospital care systems, including implementation of a single nationwide telephone number of emergencies, providing early rehabilitation and support to injured patients, establishing insurance plans to fund such initiatives, and encouraging a thorough investigation into crashes and an appropriate legal response.

We welcome this Global Plan and believe it nicely complements SC&RA's worldwide commitment to safety on roads. When SC&RA formed the World Crane & Transport Alliance in October 2009 in Amsterdam, the first paragraph of the charter agreement included the pledge that "Members of this alliance shall continually strive to advance safety, productivity and profitability of their own members throughout the world."

While remaining committed to safety, SC&RA will continue to work to protect its members against efforts – whether in legislative or regulatory bodies – that unfairly impede members' productivity and profitability without contributing any real protection to people or property. We have often found that by working patiently and thoughtfully with local and national governments, other associations, and businesses, we can help fine-tune proposals so they enhance safety in ways that make the most sense.



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Environmental

The Specialized Carriers & Rigging Association (SC&RA) announced the first winners of its Environmental Award on 16 April during closing night ceremonies of its Annual Conference in San Diego, California USA

As part of its commitment to “go green with increased awareness and visibility for environmental issues,” SC&RA instituted the award to recognise a member company that has made outstanding contributions to environmental protection. “I am pleased to report the competition drew some very strong entries,” said Bill Stramer, SC&RA chairman. “In fact, in this first year, there were two members that were so strong in various policies, programmes and practices that we elected to issue two awards.”

Winning entries came from Buckner Companies, Graham, North Carolina, USA and Skanska USA Building, Inc., New York, New York.

Salvaged design

Buckner was recognised primarily because its new headquarters simultaneously serves as a vivid demonstration of material salvage and recycling and as a showplace for the steel erector’s trade. Designers combed the company’s bone yard for components, including old crane parts that

could be incorporated into the project.

Ultimately, 83 tons of steel – more than 40% of all the steel in the building – came directly from Buckner’s yard. The completed project features reconditioned columns and girders for the exposed steel frame, reused corrugated metal deck to support roofs and floors, and salvaged curved wood glue-laminated roof beams, which were overlapped to create a clerestory.

The 15 ton pedestrian bridge that links the new and existing buildings was recovered from the University of North Carolina campus, where Buckner had first installed it 30 years before. And two pieces of 15-foot girder salvaged from Clemson University’s Littlejohn Coliseum form the walls of a new conference room, which cantilevers out the front to shelter the main entrance.

The sustainable building effort grew to embrace other environmental measures, including a chip-and-tar drive, storm water bio-retention pond, and new materials with high recycled content such as Galvalume roofing, linoleum flooring and low-flow toilet fixtures. Networked roof drains supply a 15,000-gallon water cistern, which recycles grey water for use in washing vehicles and irrigating landscaping. The new clerestory faces south to introduce natural light, as well as sunshine and warmth, to conserve energy.

In addition, Buckner embraces progressive office and workshop recycling practices, aggressive fuel storage and hazardous-materials practices, a conversion to virtually paperless management, computer-controlled thermostats, programmable lighting and basic external landscaping with minimal water requirements.

Buckner’s headquarters building is largely constructed from salvaged material



Skanska USA’s Environmental Stewardship

Since 1995 Skanska has been a member of the World Business Council for Sustainable Development. All Skanska offices worldwide are registered in compliance with ISO 14001, meeting the International Organization for Standardization’s criteria for environmental management systems. Skanska was the first construction company in the Americas to be ISO14001 registered.

Skanska was ranked the top global leader of green building by Construction magazine. Beth Heider, Skanska senior vice president, has been elected as a future chair of the U.S. Building Council’s Board of Directors.

Skanska USA headquarters, in the Empire State Building, reflects the company’s belief that its longstanding commitment to green building as demonstrated in its Leadership in Energy & Environmental Design (LEED) Platinum certification “is not only the right thing to do, but it is good business.”

Skanska capitalises on the abundance





business

space requirements.

Skanska also actively participates in EPA's SmartWay programme. The company offers US\$100 a month to employees who purchase, own and drive a Certified Smartway Green Vehicle. Skanska, however, purposely located its offices within walking distance of mass transportation hubs and encourages employees to use bicycles, even stationing some at offices.

All diesel vehicles (excavators,

backhoes, cranes, compressors, generators, bulldozers, and more) are powered by ultra-low sulphur diesel, and use the latest in best available technology for reducing emissions. All cranes use diesel particulate filters with a silicon carbide centre body to reduce particulate matter, hydrocarbons and carbon. Each piece of equipment undergoes a monthly environmental audit to assure it is running at peak environmental performance. ■

of natural daylight entering the space from large windows at the perimeter. Lighting and occupancy sensors have been installed throughout the workspaces in conjunction with a high-efficiency lighting system. The company uses light-emitting diode (LED) task lighting at each workstation, as well as motorised shades to reduce glare.

Most of the space is cooled by a pressurised raised floor air-distribution system with an air diffuser near each workstation for individual controls. Heating comes from perimeter steam convection. Carbon dioxide sensors throughout the space help maintain air quality.

The building maintenance team uses all green cleaning products and receives training on properly maintaining the waterless urinal. All equipment and appliances are Energy Star rated by the Environmental Protection Agency (EPA).

As a result of these and other practices, management representatives from the Empire State building routinely tour Skanska USA offices to showcase the space and use it as a benchmark for future tenant

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Ore spreading

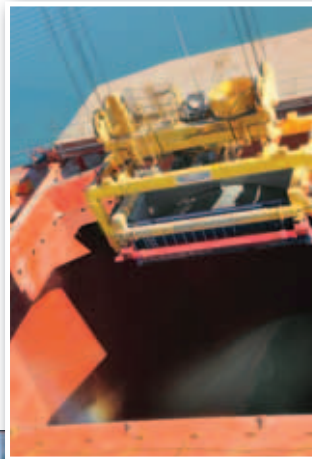
Ram has delivered three patented Revolver bulk handling spreaders to DP World Adelaide for handling containerised iron ore shipments from Australian mining company IMX.

The newly launched units will load about 70,000 tonnes of ore onto vessels for each voyage and have up to a 1,700 tonne per hour capacity. It allows containers filled with iron ore to be lifted and tipped into the hold of a vessel. The containers are handled in the port, by rail and at the mine with standard container handling equipment, such as straddle carriers and reach stackers.

The project has allowed IMX to export its product quickly with low capital investment while meeting all environmental requirements, said Ram. "Whether the Ram

Revolver is fitted to a ship's crane, quay crane, mobile harbour crane or even a reach stacker it has the potential to meet customers' requirements in many different projects," said a company spokesman.

■ For more information see www.ramspreasers.com



TEST PADS

The SBL-2 range of shear beam load cells from LCM Systems has been designed for use in a range of weighing applications from vessel weighing to floor scales and pallet trucks. The range comes in nickel-plated alloy steel and a rated load from 250 - 2,000 kg. Installation is enhanced by the number of mounting options available, said the company. These include assemblies for platform foot or vessel mounting, as well as shock mounts.

Environmentally sealed to IP67, the SBL-2 load cells are designed for use in harsh and rugged conditions. Supplied on their own or together with LCM instrumentation for a complete system, all sensors are backed by engineering support and a team of in-house engineers to advise on the best shear beam load cells for individual applications.

■ For more information see www.lcmsystems.com

Flexible and directional

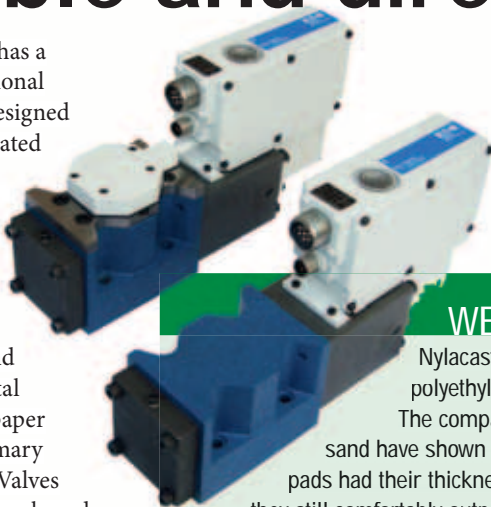
Eaton Corporation has a new line of proportional directional valves designed to support sophisticated electro-hydraulic axis controls.

The KBS series valves find applications in test simulation, blow moulding, wind turbine control, metal forming, pulp and paper machinery, and primary metals production. Valves have programmable onboard electronics and integral spool linear voltage differential transformer (LVDT) sensors for precise, accurate, responsive axis control.

The initial products are offered in ISO-3 and ISO-5 sizes with rated flows of 40 litres/min and 100 litres/min (10.6 and 26.4 gallons/min), and maximum flows of 75 litres/min and 180 litres/min (19.8 and 47.6 gallons/min) respectively. Both have

350 Bar (5,075 psi) rated A- and B-ports and 250 Bar (3,625 psi) rated T-ports.

■ For more information see www.eaton.com



WEIGHING UP

Nylacast has claimed its cast nylon Bigfoot outrigger pads outperform polyethylene pads following a number of tests.

The company said recent independently verified tests under load on dry and wet sand have shown that they significantly outperform. "In fact, even when Nylacast Bigfoot pads had their thickness reduced by 25% they still comfortably outperformed polyethylene pads," said a company spokesman.

In addition, Nylacast Bigfoot also outperformed in plastic recovery, added the manufacturer, with the product measuring a faster rate of recovery and less permanent deformation than an identical PE pad. Nylacast Bigfoot is capable of safely supporting 1.6 times more load than an equivalent polyethylene pad, the manufacturer said.

"Unfortunately capsized cranes can occur and cause a significant number of injuries and fatalities a year. Many of these accidents are caused by operators using inappropriate materials or the use of no crane pads at all," said the spokesman.

■ For more information see www.nylacast.com



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EVENTS DIARY

ESTA AWARDS DINNER

7 June 2011

Amsterdam, the Netherlands
www.khl.com/events

INTERNATIONAL RENTAL EXHIBITION (IRE)

7 - 9 June 2011

Amsterdam, the Netherlands
www.IREshow.com

APEX 2011

14 - 16 September 2011

Maastricht, The Netherlands
www.apexshow.com

ICUEE

The International
Construction & Utility
Equipment Exposition

4 - 6 October 2011

Kentucky, USA
www.icuee.com

SAIE 2011

5 - 8 October 2011

Bologna, Italy
www.saie.bolognafiere.it

BICES 2011

18 - 21 October 2011

Beijing, China
www.e-bices.org/

WORLD CRANE AND TRANSPORT SUMMIT

10 - 11 November 2011

Amsterdam, the Netherlands
www.khl.com/wcts

THE EUROPEAN ROAD TRANSPORT SHOW (TERTS)

16 - 21 April 2012

Amsterdam RAI,
The Netherlands
www.roadtransportshow.nl/terts2009/e/home/default

INTERMAT 2012

16 - 21 April 2012

Paris, France
www.intermat.fr

M&T EXPO 2012

29 May - 2 June 2012

São Paulo, Brazil
www.mtexpo.com.br

HILLHEAD 2012

19 - 21 June 2012

Buxton, UK
www.hillhead.com

INTERMAT MIDDLE EAST 2012

Autumn 2012

Abu Dhabi
www.intermat.fr

Picture of the month

A Hiab XS 622 articulated loader crane lowering a compressor to the bottom of a roadside embankment



PEOPLE NEWS



■ Essex Rental Corp. has named **TERRY HOWARD** president of its wholly owned subsidiary, Coast Crane Co in the USA.

Howard will be responsible for all personnel and operating activities at Coast Crane, and will succeed **DAN GOODALE**, whose planned retirement as chief executive officer of Coast Crane is effective 30 April. Howard has more than 20 years of experience in the construction equipment industry, including rental and sales.



■ **ALAN SWAGERMAN** has been appointed president of the Mains group of companies, based in Canada. The

group includes Mains Crane & Rigging Ltd., Main Crane, Mains Transportation Services Inc., Nisku Engineering Ltd. and Independent Crane & Equipment Ltd. Swagerman has been involved in the crane rental industry for more than 25 years in eastern and western Canada.



■ **GREG BALLWEG** has been promoted to general manager at Kobelco Cranes North America, Inc. He will be

responsible for day to day operations in North America. "Greg has played a key role in our growth and I look forward to utilising his experience in this new role," said **JACK FENDRICK**, Kobelco Cranes North America president.



■ **MATTHEW DOBBS** has been promoted to director of sales, western region, at Terex Cranes in the USA. Dobbs was senior business manager

of tower cranes for the company. He reports to **FRANK BARDONARO**, vice president and managing director at Terex Cranes North America.



■ ACE Winches has made four appointments as the company expands its international operations. Introduced at the company's global headquarters in Aberdeenshire, Scotland were (from left): **ALISTAIR STEPHEN**, drawing office manager; **GARY LENTON**, engineering support operations manager; **MARK MELLOR**, hire sales engineer; and **KEN BEAVERS**, technical applications specialist.

■ Send picture of the month entries and all other back page-related information to International Cranes and Specialized Transport, KHL Group, Southfields, Southview Road, Wadhurst, East Sussex TN5 6TP, UK or by e-mail to alex.dahm@khl.com. Picture caption entries should include: the month and year taken, the place, type of crane, owner and project, plus any other relevant information.

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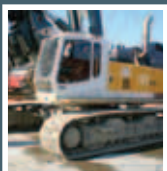
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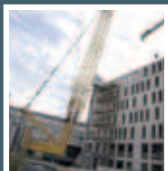
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2001 IHI CCH1000-5, 120 Ton Crawler Crane, Full Spec Crane



1997 KOBELCO BM500, 37 Meter Boom



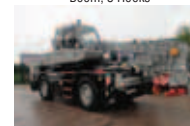
1996 HITACHI CX500, 43 Meter Main Boom, 3 Hooks



1997 SUMITOMO SC500-2, 37 Meter Main Boom, 3 Hooks



2005 KATO CR250, 25 Ton City Crane, As New Condition



2003 KATO 25 Ton City Crane, Excellent Condition



2009 KATO CR100, 10 Ton City Crane, only 1,089 hours



2009 KATO MR130, 13 Ton City Crane, Like New Condition



2010 HITACHI ZX210LC, 10 Ton Telescopic Crane



2009 HITACHI ZX180LC, 9 Ton Telescopic Crawler Crane



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STOCKLIST

TELESCOPIC AT-CRANES

capacity	manufacturer	type	year	drive/steering	boom/jib (m)	delivery
300 t	Liebherr	LTM 1300/1	2000	12 x 8 x 10	60 / 35	direct
90 t	Liebherr	LTM 1090/2	1998	8 x 6 x 8	52 / 19	direct
90 t	Liebherr	LTM 1090	1993	10 x 8 x 10	45 / 20	direct
75 t	Grove	GMK 4075	2001	8 x 6 x 8	43,2 / 27	direct
70 t	Krupp	KMK 4070	1990	8 x 6 x 8	38 / 16	June
65 t	Grove	AT 865	1990	6 x 6 x 6	35 / 14,5	direct
60 t	Liebherr	LTM 1060/2	2000	8 x 6 x 8	42 / 17	direct
60 t	Faun	ATF 60-4 (2x)	1999	8 x 6 x 8	40,2 / 16	direct
50 t	Liebherr	LTM 1050/1	1999	6 x 6 x 6	40 / 16	direct
50 t	Liebherr	LTM 1050/1	1999	6 x 4 x 6	40 / 16	direct
50 t	Liebherr	LTM 1050/1	1997	6 x 4 x 6	40 / 16	direct
50 t	Liebherr	LTM 1050/1	1996	6 x 4 x 6	40 / 16	direct
40 t	Demag	AC 40-1	2001	6 x 6 x 6	31,2 / 13 / 1,2	direct
40 t	Demag	AC 40-1	1998	6 x 6 x 6	31,2 / 13	direct
40 t	Liebherr	LTM 1040/1	1999	6 x 6 x 6	30 / 14,5	direct
40 t	Liebherr	LTM 1040/1	1999	6 x 4 x 6	30 / 14,5	direct
40 t	Liebherr	LTM 1040-3	1993	6 x 4 x 6	30 / 14,5	direct
40 t	Liebherr	LTM 1040-3	1992	6 x 4 x 6	30 / 14,5	direct
40 t	Faun	RTF 40-3	1993	6 x 6 x 6	30 / 14,5	direct
35 t	PPM	ATT 400	1998	4 x 4 x 4	30,4 / 15	direct
35 t	Luna	AT 35/30	1998	4 x 4 x 4	29,2 / 15	direct
35 t	Grove	GMK 2035	1996	4 x 4 x 4	29 / 15	direct
35 t	Liebherr	LTM 1035-2	1988	4 x 4 x 4	26 / 8	direct
30 t	Liebherr	LTM 1030/1	1996	4 x 4 x 4	26 / 14	direct
30 t	PPM	ATT 335	1997	4 x 4 x 4	27,4 / 15	direct
30 t	Luna	AT 30/27	1989	4 x 4 x 4	27	direct
25 t	Demag	AC 25	2000	4 x 4 x 4	25 / 1,2	direct
25 t	Liebherr	LTM 1025	1992	4 x 4 x 4	26 / 8,2	direct
25 t	Krupp	KMK 2025	1992	4 x 4 x 4	23	direct
20 t	Krupp	KMK 2020	1994	4 x 4 x 4	20,5 / 3,8	direct

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250 t



Demag AC 665 SL, 1996

130 t



Grove GMK 5130, 2006

100 t



Liebherr LTM 1100-5.1, 2005

90 t



Liebherr LTM 1090-2, 1999

80 t



Demag AC 205, 1994

70 t



Liebherr LTM 1070/1, 1995

45 t



Krupp KMK 3045, 1993

40 t



Demag AC 40, 2000

35 t



Faun HK 35 L, 2001

30 t



2 x Liebherr LTF 1030, 1993 & 1995

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30 t, Faun ATF 30-2L, 2003
50 t, Grove GMK 3050, 2002
50 t, Faun ATF 50-3, 2001
60 t, Faun ATF 60-4, 1998
75 t, Grove GMK 4075, 2003
80 t, Faun ATF 80-4, 2005
100 t, 2 x Grove GMK 5100, 2001 & 2005
180 t, Grove GMK 5180, 2001
220 t, Grove GMK 6220 L, 2002
300 t, Grove GMK 6300, 2005
500 t, Demag AC 500 SL, 1999

Prices on request/ Subject to alteration and prior sale/ Colour variation possible

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SALE



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cabin, PPU Z350 and PPU Z100

SALE



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120 t Terex-Demag, AC 120, Y. 2009

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Demag AC 50
50 t YOM 2002



Demag AC 60 City
60 t YOM 2003



Liebherr LTM 1070-1
70 t YOM 1997



Krupp KMK 4060
80 t YOM 1996



Liebherr LTM 1100-2
100 t YOM 2001



Liebherr LTM 1120-1
120 t YOM 2000



Demag AC 395
120 t YOM 1996



Liebherr LTM 1160-5.1
160 t YOM 2007



Grove GMK 5220
220 t YOM 2008



Demag AC 665
250 t YOM 1996




Liebherr LTM 1250-1
250 t YOM 2003


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2 x Kobelco 7065	upgraded to 75t	1991
1 x Hitachi-Sumitomo SCX700-2	70t	2008
1 x Kobelco CKE700	70t	2006
1 x Hitachi KH230-3	60t	1996

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Make / Type	y. o. m.	Drive	Boom / Fly Jib
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30 t PPM ATT 335	1997	4x4x4	27,40m + 15,00m
30 t Faun ATF 30-2L	1998	4x4x4	28,50m + 12,20m
35 t PPM ATT 400	1998	4x4x4	30,40m + 15,00m
35 t Faun ATF 30-2L	2005	4x4x4	28,50m + 12,20m
50 t Marchetti MG 50.3	1992	6x6x6	32,00m + 16,00m
50 t Faun ATF 50 G-3	2008	6x6x6	40,00m + 16,00m
55 t Grove GMK 3055	2005	6x6x6	43,00m + 15,00m
65 t Faun ATF 65G-4	2009	8x6x8	44,00m + 16,00m
65 t Faun ATF 65G-4	2007	8x6x8	44,00m + 16,00m
70 t Liebherr LTM 1070/1	1995	8x8x8	40,00m + 15,80 m
75 t Grove GMK 4075	2001	8x6x8	43,20m + 27,00m
80 t Demag AC 80-2	2004	8x8x8	50,00m + 17,00m
80 t Demag AC 205	1994	8x6x8	50,00m
90 t Faun ATF 90G-4	2008	8x8x8	51,20m + 19,00m
100 t Grove GMK 5100	2001	10x8x10	51,00m + 18,00m
110 t Faun ATF 110G-5	2007	10x6x10	52,00m + 16,20m
120 t Terex-Demag AC 120-1	2008	10x8x8	60,00m + 33,00m
130 t Grove GMK 5130	2006	10x8x10	60,00m + 18,00m
160 t Faun ATF 160G-5	2010	10x8x8	68,00m + 37,20m
180 t Krupp KMK 6180	1992	12x8x10	60,00m + 20,00m
200 t Marchetti MG 198	1994	12x6x8	44,20m + 48,00m
220 t Faun ATF 220 G-5	2009	10x8x8	68,00m + 37,20m
500 t Terex-Demag AC 500-1	2001	16x8x14	56,00m + 90,00m

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30 t Liebherr LTF 1030	2003	6x4x2	26,00m + 8,20m
30 t Liebherr LTF 1030	1993	8x4x4	26,00m + 8,20m
35 t Tadano Faun HK 35L	2001	8x4x4	30,00m + 9,05m

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 LTM 1130-5.1, 2011
 LTM 1090-3, 2004

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 GMK 6300, 2011
 GMK 4080, 1996 2 winches
 GMK 5095, 2009 2 winches
 GMK 5220, 2007
 GMK 4100L, 2008

TADANO FAUN

ATF60 1999
 ATF80 2005

DEMAG

AC500-2, 2007 complete
 AC100, 2000
 AC395, 1996
 AC200-1, 2007
 AC250, 2006, 2 winches
 AC300, 2000
 AC700, 2004

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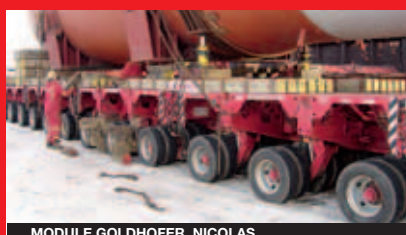
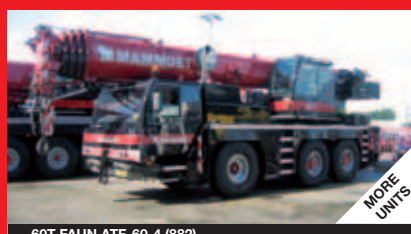
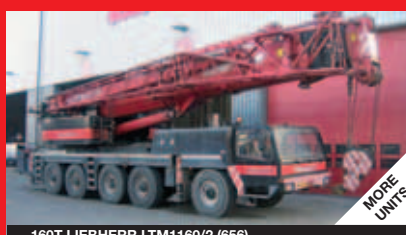
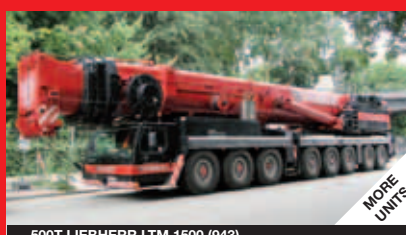
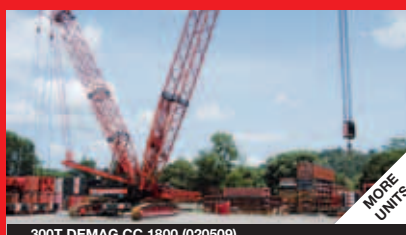
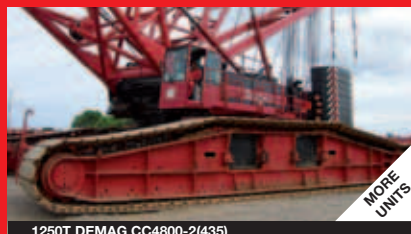
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40 T	LTM 1040/1	2001
60 T	LTM 1060-2	2000
60 T	LTM 1060-2	2003
90 T	LTM 1090-2	2000
90 T	LTM 1090-2	2000
90 T	LTM 1090	1991

Faun

40 T	RTF 40/3	2000
40 T	RTF 40/3	1999

Demag

80 T	AC80	2008
80 T	AC80	2007
35 T	AC35	2005

PPM

30 T	ATT 340	1995
35 T	ATT 400	2001

Grove

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Liebherr	LTF 1030	1993	30 t
PPM Terex	ATT 340	1993	30 t
Faun	RTF 30	1986	30 t
PPM Terex	ATT 400	1999	35 t
PPM Terex	ATT 400/2	2000	35 t
Liebherr	LTM 1040-1	2000	40 t
Liebherr	LTM 1040	1991	40 t
Grove	GMK 3050	1999	50 t
Grove	GMK 3050-1	2006	50 t
Liebherr	LTM 1050-1	2000	50 t
Liebherr	LTM 1055/1	2002	55 t
Liebherr	LTM 1060-2	2000	60 t
Tadano Faun	ATF 60-4	1999	60 t
Tadano Faun	ATF 60-4	2003	60 t
Tadano Faun	ATF 70-4	1994	70 t
Liebherr	LTM 1090-2	1997	90 t
Liebherr	LTM 1090-2	1999	90 t

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DEMAG	AC155	1997	50 TON
DEMAG	AC100	2005	100 TON

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ZOOMLION	QY70	2008	70 TON
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LIEBHERR	LR1160	2009	160 TON
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38 + 16 m, 6x6x6, 2 hoist, MB engine
55 t GROVE GMK 3055, year 2006
43 m + 15 m, 6 x 6 x 6, MB engine
70 t KRUPP KMK 4070, year 1991
38+16 m, 8x6x8, 2 hoist, MB engine

80 t DEMAG AC 80-2, year 2004
50 + 17,6 m, 8x8x8, MB engine
100 t GROVE GMK 5100, year 2004
51 m + 18 m, 10x8x10, 2 x MB engines
160 t LIEBHERR LTM 1160-5.1, y. 2006
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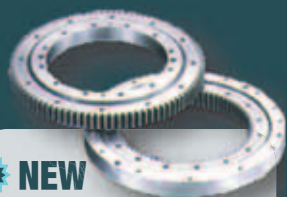
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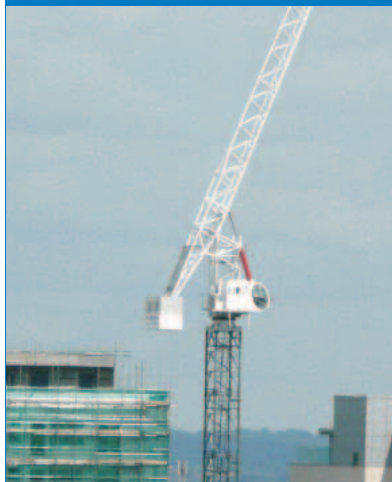


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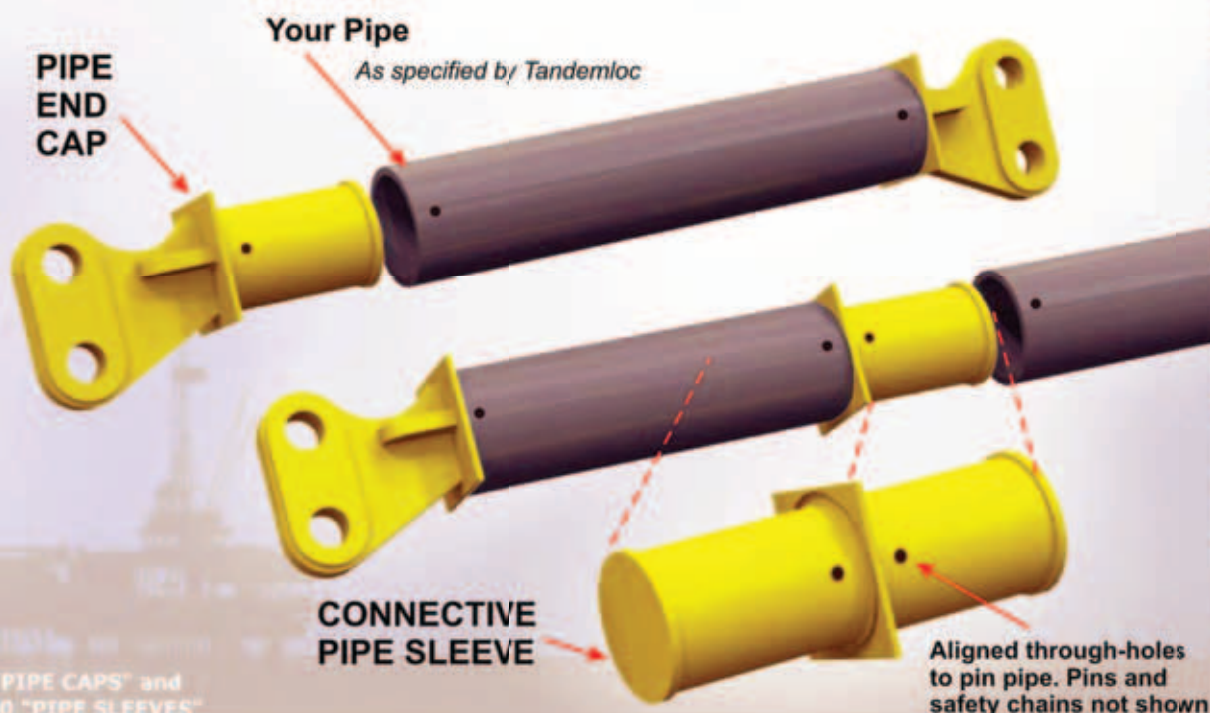
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