www.vertikal

February 2020 Vol.22 issue

Van mounted platforms Aluminium cranes

Conexpo preview Telehandlers

<u>.Three new Tadano RTs...JLG badges Ausa telehandler...New 6 tonne Klaas.</u>



With Links of Contract of Cont

BISORI

Extraordinary Neight Larger SWL Ultra-light Design

Subversive Design

Sophisticated European R&D-Intelligently manufactured by Dingli in a new state of the art facility Global Patent Protection

Subversive Innovation

Innovative technologies such as dedicated axles, overall component downsize, lower counterweight for lower center of gravity and lighter machines, modular design for ease of maintenance and interchangeability of parts.

Subversive Performance(Compared with the same model in the industry)

The maximum working height heights have been increased by more than 2m to 30m on the telescopic Boom Lifts is 30m and 28m the Articulating Boom Lifts. Both models can be loaded into a standard container.

Maximum SWL increased by more than 30% to 454kg on telescopic booms and 300Kg on articulating Boom Lifts.

Maximum Horizontal Reach is increased by more than 1m.

Maximum gradeability is 50%, an increase of more than 20%.

The weight of the whole machine will also be 1 ton lighter.

Subversive Maintenance(Low maintenance costs)

Recent Exhibitions

Come And Visit Us

With a family-style modular design, 95% of the parts and more than 80% of the structural components are common across the range. More convenient maintenance and lower cost of components storage. Simple to maintain with integrated component down design.

BT28RT(28m)

With dedicated axles, the failure rate is lower.

Telescopic Boom Lifts BT24RT(24m) BT26RT(26m)

Articulating Boom Lifts BA24RT(24m) BA28RT(28m)









BT30RT(30m)

Las Vegas, US March 10-14, 2020 Booth:BL262



Donington, UK May 13-14, 2020 Booth:407

DINGL



Conexpo preview 43

This year's international construction equipment show is Conexpo in Las Vegas to be held in early March. We highlight some of the major new product launches along with a

> guide and full listing of lifting exhibits at this year's big show.



Batteries 53

The shift in people's attitude over the past year towards reducing their carbon footprint has resulted in an enormous move towards battery powered equipment, and in particular lithium

> ion battery packs. We take a look at this rapidly growing sector and some of the latest developments in battery technology.



regulars

- Training 59
- ALLMI Focus 61
 - IPAF Focus 63
- PASMA Focus 65
- Books and Models 67
 - **CPA** 69
- Letters and obituaries 70
 - What's on 72
 - Online directory 78

In the next C&A

Comment 5 News 6

Three new Tadano RTs, Wednesday mornings carry most risk, New 6 tonne Klaas K1100 RSX, Ernest Doe pick up mounted crane,

Haulotte launches BIM library, First Bobcat Waste Expert, 10 Demag City cranes for Felbermayr, New foldable platform, 80 cranes for Ulferts, TRT to handle Kobelco cranes, Rosenbauer acquires Italian dealer, First Potain MDT 809 in USA, New president for Manitou, New EWPA Good Practice Guide and financials round up...

Van mounted lifts 17

The move towards electric power in the utility and

public services market is gaining substantial momentum with a particular benefit for van mounted platforms, given that most of them work in the urban environment. We review the latest developments.

Aluminium boomed truck cranes 25

The aluminium boomed truck crane now appears to be

making its mark as a useful tool among the mobile crane

community in a good number of markets. We compare the new six tonne Klaas K1100 RSX with Böcker's flagship model the AK 52.

Telehandlers 33

We explore the history surrounding the 'telescopic handler/variable reach

forklift' and check out some of the latest developments and products unveiled over the past year or so.

The next issue of Cranes & Access scheduled for late March will feature a Vertikal Days 2020 preview, reviews of the Conexpo show in Las Vegas and the ARA show in Orlando Florida, Telescopic crawler cranes and Mastclimbers and hoists. If you have any contributions or suggestions to make or are interested in advertising in this issue, please contact our editorial or sales teams.

 SUBSCRIBE TODAY
 the only way to guarantee your copy

 WWW.VERTIKAL.NET/EN/SUBSCRIPTIONS

25 Aluminium boomed truck cranes





SUBSCRIPTIONS: Cranes & Access is published nine times a year and is available on payment of an annual subscription of £40.00. If you wish to subscribe, please send a crossed cheque made payable to The Vertikal Press Ltd to: Subscriptions, The Vertikal Press, PO Box 6998, Brackley, Northants NN13 5WY. Address changes should also be sent to this address. Please include the address label from a recent issue with all correspondence and allow 3 months for changes to he affective. llow 3 months for changes to be effective

SUBSCRIBE ONLINE AT:

www.vertikal.net/en/journal_subscription.php

BULK DISCOUNTS: These are available to companies wishing to take out multiple subscriptions. Please contact the subscriptions manager for more details. Fel: +44 (0)8448 155900 Fax:+44 (0)1295 768223

E-mail: info@vertikal.net Kran & Bühne: The Vertikal Press also publishes a German

magazine which deals with the same issues as Cranes & Access but is written for German users and buyers. Details available on request

While every effort is made to ensure the accuracy of information published in Cranes & Access, the Editor and Publisher can accept no responsibility for inaccuracies or omissions. Views expressed in The responsibility of indecated of of most of the second second





On the cover: A compact Merlo Panoramic 27.6 telehandler is used to carry building materials including ready mixed concrete from a drop off point in the street, through a tight entrance expo preview **Cleirandlers**

Van mounted lifts



into the courtyard of an old

in Beaune, France.

building undergoing renovation

Telehandlers

THE HIGHES STANDARD **NPOWERED** ACCESS EQUIPMENT IRE



IPAF Rental+ is the powered access industry's quality standard mark that provides assurance to customers at every stage of the MEWP hire/rental process.

It's proof a hire/rental company has been independently audited and meets rigorous standards of training, equipment inventory and customer satisfaction.

To find an IPAF Rental+ hire/rental depot visit www.ipaf.org/rental





cranes Baccess

For users & buyers of lifting equipment

Editorial team Mark Darwin - Editor editor@vertikal.net

Ed Darwin - Deputy editor editor@vertikal.net

Associate editors Rüdiger Kopf (Freiburg) Alexander Ochs (Freiburg) Leigh Sparrow

Sales & customer support Pam Penny Clare Engelke Karlheinz Kopp

Production/Administration Nicole Engesser

Subscriptions Lee Sparrow

Publisher Leigh Sparrow

Advertising sales

UK-based Pam Penny pp@vertikal.net Tel:+44 (0)7917 155657 Clare Engelke ce@vertikal.net Tel:+44 (0)7989 970862

Germany-based Karlheinz Kopp khk@vertikal.net Tel:+49 (0)761 89786615

The Vertikal Press

PO box 6998 Brackley NN13 5WY, UK Tel:+44(0)8448 155900 Fax:+44(0)1295 768223 email: info@vertikal.net web: www.vertikal.net

Vertikal Verlag

Sundgauallee 15, D-79114, Freiburg, Germany Tel: 0761 8978660 Fax: 0761 8866814 email: info@vertikal.net web: www.vertikal.net





ISSN: 1467-0852 © Copyright The Vertikal Press Limited 2020



facebook



A massive impact

Just how big an impact will climate change have on the lifting sector? In a word - massive - and that is probably a 'massive' understatement. Not many will remember the introduction of the first emission rules and regulations for cars - the 1970s in California and Euro 1 in Europe in 1992 - however as standards tightened with each subsequent level of legislation up to the current Euro 6d and Stage V for non-road mobile machinery, engine and equipment manufacturers have had to constantly

redevelop their products to accommodate the changes.

We now know, however, that exhaust emissions from diesel engines - however small - are not only a major contributor to environmental pollution, but also the cause of major health problems.

Programmes such as Sir David Attenborough's The Blue Planet and efforts by Swedish environmental activist Greta Thunberg and Extinction Rebellion have highlighted the issue and increased pressure on governments around the world, transforming the public's attitude towards the subject. The UK for example, has just brought its ban on the sales of petrol, diesel and hybrid cars forward five years to 2035.

With their products due to become unsaleable, engine manufacturers are having to switch development programmes to alternatives. We are already seeing changes in the aerial lift and telehandler market as manufacturers move towards all electric machines, mostly using lithium-ion batteries. Our feature on page 53 outlines some of the latest battery technology and products.

But are lithium-ion batteries the long-term answer? Probably not, given the environmental cost of manufacture and problems with recycling. A substantial increase in development work on new technologies is now essential.

But the problem of climate change will not be solved by 2050 or whatever target date governments choose as their carbon zero deadline. We already have climate change which can be seen with the more extreme weather resulting in more manmade 'natural' disasters such as the bush fires in Australia. Extreme winds and storms are also increasing in frequency and power, resulting in a higher incidence of crane collapses and longer periods of crane and lift inactivity on job sites. These extremes are only likely to get worse in the years ahead as we try to tackle the issue.

With all this in mind, perhaps crane and work platform designs and standards need to be reviewed to take into account the more frequent cases of extreme weather, for example by designing products to cope with higher out of service windspeeds or the ability to work safely in higher wind speeds.

To anyone who thinks that just swopping from diesel to battery power is the solution.....think again!

Mark Darwin

Comment and feedback is most welcome via post, email, fax or phone stating if we may publish them or not: editor@vertikal.net





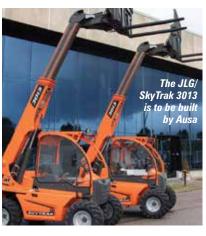
n e w s

Ausa to build JLG compact telehandler

Spanish compact telehandler manufacturer Ausa has signed a 10 year agreement to supply JLG with its first ultra-compact telehandler - the SkyTrak 3013 - with a four metre/13ft lift height and 1.22

tonne/2,700lbs capacity.

The SkyTrak weighs 2,400kg, allowing it to be transported on a regular two axle equipment trailer behind a 4x4 vehicle. It has four wheel drive and rear axle steering, is powered by a Kubota diesel matched to a standard hydrostatic transmission. Capacity at maximum lift height is 770kg, while forward reach is just under 1.7 metres with a 580kg capacity. Overall width is 1.4 metres and overall height 1.96 metres.



New Klaas 60 metre

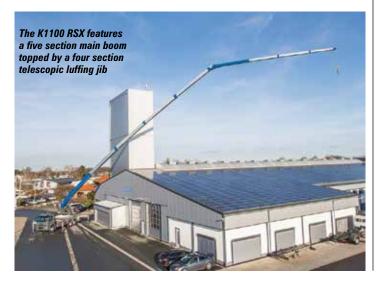
German crane and aerial lift manufacturer Klaas has launched the K1100 RSX, a new longer boomed six tonne truck mounted aluminium crane, with a five section 38 metre boom topped by an 18 metre four section telescopic



luffing jib offering a maximum tip height of just over 60 metres.

Mounted on a 26 tonne chassis, it can lift two tonnes to a height of 37 metres at a 20 metre radius. The crane has been designed for applications involving lifting modest loads at a long radius or height.

The new model is the seventh in the Klaas truck mounted crane line. For more details and a comparison with the Böcker AK 52 see the aluminium crane feature on page 25.





Towable Potain Hup

Potain has launched the towable version of its new Hup M 28-22 selferecting tower crane previewed as a concept at Bauma. It features an integrated transport axle and is rated to speeds of 80kph. It has a maximum capacity of 2.2 tonne and can handle 850kg at its 28 metre jib tip.

Maximum hook height is 31 metres. With an overall length of 11.6 metres and a travel height of 3.6 metres, the crane is suitable for road transport on a standard truck licence in Germany, complete with its permanent ballast. It has been designed with the German house building, timber and roof markets in mind.



The company claims it is the only self-erecting crane with a 28 metre jib that has such a compact transport format.

Eight mega cranes for Kuwait Airport

Zoomlion has delivered eight, 120 tonne flat top T2850-120V tower cranes to Kuwait for work on the construction of new terminal of Kuwait International Airport. The tower cranes are the largest ever exported from China and feature an 85 metre jib with 27 tonne jib tip capacity.

At least some of the cranes have been customised and are track mounted,

allowing them to travel with a load and cover a wider area. The core zone of the airport's terminal building has a massive steel and concrete dome structure which will be placed by the cranes.





Tadano launches Rough Terrain cranes

Tadano will launch three new Rough Terrain cranes for the North American market at Conexpo next month, two 90.7 tonne/100 ton machines - the GR-1000XLL-4 and GR-1000XL-4 - along with the 73 tonne/80 ton GR-800XL-4. The models are major upgrades of its current 75 to 100 ton class units launched in 2011 with improvements in safety, comfort and performance while meeting the latest emission standards.

The principal difference between the two 100 ton cranes is boom length - the GR-1000XLL-4 has a longer five section 51 metre boom, the longest on this size of RT - while the GR-1000XL-4 has a 47 metre boom, the same length as the GR-1000XL-3 which it replaces. All three cranes feature a 10.7 to 17.1 metre bi-fold swingaway extension which offsets by 45 degrees. The GR-1000XLL-4 also features a new 'Smart Counterweight' system providing the operator with two counterweight positions which can boost capacities by up to 20 percent.

The 73 tonne GR-800XL-4 uses the same five section 47 metre boom and has a GVW of 45 tonnes/99,800lbs making it a little easier to transport. Overall length is 14.37 metres - the same as the GR-1000XL-4 - the longer boom GR-1000XLL-4 is 15.18 metres. Overall width on all three models is 3.31 metres and overall height 3.8 metres. The cranes feature a redesigned cab with improved visibility and comfort, along with more efficient controls, including a new 10.4 inch multi-function colour pressure sensitive touch panel display which shows all operational settings and lifting information



and can be used while wearing gloves. The cab also tilts by up to 20 degrees for better visibility of high loads.

Tadano's 'View System' has cameras for winch drum monitoring and along the right, front and rear of the crane for added visibility while driving, while a 'Clearance Sonar' detects obstacles. Power comes from a Cummins EU Stage V/Tier IV B 6.7 diesel matched to a six speed transmission. A new pump disconnect function automatically stops the hydraulic pumps if the

crane is not operated for a certain amount of time, helping reduce fuel consumption. A fuel monitoring system, Eco-Mode, and Positive Control also play a role in reducing CO2 emissions and noise while improving fuel consumption. The cranes are equipped with Tadano's Hello-Net telematics and connected by its Hello-Data Link GSM, LAN/Wi-Fi.



So how does the Tadano GR-1000XL-4 stack up?

The chart below compares a few major characteristics with other 100 ton, US market Rough Terrain cranes.

| Capacity | Boom | 0/A width | GVW | 0/A length |
|----------|--------------------------------|---|--|--|
| 100t | 51m | 3.31m | 56,040kg | 15.1m |
| 100t | 47m | 3.17m | 52.600kg | 14.1m |
| 100t | 47m | 3.33m | 53.500kg | 15.1m |
| 100mt* | 50m | 3.3m | 48.250kg | 15.1m |
| 100t | 47m | 3.35m | 55.400kg | 15.4m |
| | 100t 100t 100t 100mt* | 100t 51m 100t 47m 100t 47m 100mt* 50m | width 100t 51m 3.31m 100t 47m 3.17m 100t 47m 3.33m 100mt* 50m 3.3m | width 100t 51m 3.31m 56,040kg 100t 47m 3.17m 52.600kg 100t 47m 3.33m 53.500kg 100mt* 50m 3.3m 48.250kg |

*rated at 80 tons in US



Wednesday mornings carry most risk

Following an analysis of its data over the past four years, Irish crane company Wm O'Brien, has found that the most likely time for its team members to have an incident/accident is Wednesday morning.

Tracking statistics from 2016 to 2019, the company found that the risk of an accident occurring on a Wednesday is 21 percent compared to 11 percent on Fridays ** - the least likely day for an incident - flying in the face of previous indications that suggested Friday

within a single company and team

of people while also covering a full

misses, minor incidents and serious

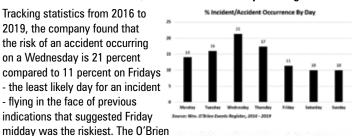
accidents O'Brien's data also shows

occur in the morning, rather than the

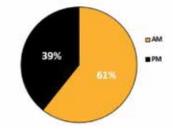
range of incidents, including near

that incidents are more likely to

afternoon.



% Incidents / Accidents AM v PM data benefits from comparing events



New pick-up crane

UK-based Ernest Doe has matched a 1.1 tonne/metre Next Hydraulics/ Maxilift ML110.3ERS telescopic loader crane with a Ford Ranger pickup. The little crane can handle one tonne over the side on the base boom section, or 250kg when fully extended to 3.75 metres.

The all up weight of the rig is 2,180kg although this can vary depending on the specification of the truck. The cargo payload with the crane fitted is

540kg, rather than the normal 840kg. The unit includes a set of rear manually operated stabilisers. The crane can also be mounted on Hilux. Navara and L200 pick-ups as well Ford Transit of similar vans.





7

Haulotte launches BIM library

Haulotte has published a Building Information Modelling (BIM) library allowing its products to be digitally included in the planning and management of projects.

So far the company has created eight BIM product files which include a Star 10 mast boom, three scissor lifts - the Optimum 8, Compact 12 DX and Compact 10 DX - three boom lifts including the HT23 RTJ Pro, HA20 LE Pro and HA16 RTJ Pro and the HTL 4017 telehandler. Updated on a regular

basis, each BIM data file contains structured and relevant product information such as working height, outreach and capacity.

The BIM data files can be used to help architects digitally include products into the planning stages of projects.

New facility for Multitel UK

Multitel UK has opened a new facility in Luton, Bedfordshire for the sales and service of the manufacturers range of truck mounted platforms and spider lifts with 13 to 77.5 metre working heights. The company was set up last year to handle the sales and service of Multitel truck mounted and spider lifts in the UK and Ireland, building on the work of Multitel veteran Melvyn Else

and his business Access Industries. The facility has 350 square metres of covered space and includes a workshop, offices and training rooms and is managed by sales manager Greg Moore and senior service technician Ian Thomson.

The new Multitel UK facility in Luton.

UK's first Bobcat Waste Expert

UK waste management company H.R. Skip Hire has taken the first 3.8 tonne/seven metre Bobcat TL38.70HF Waste Expert telehandler from distributor AMS Bobcat.

Part of a four model Waste Expert range the TL38.70HF is powered by a Stage IV diesel and includes extra-large boom nose, standard boom cushioning and extra protection for hydraulic cylinders, windshield, roof, lights and the fuel and oil tanks. The telehandler has also been fitted with heavy duty Camso TLH 792S 13 R24 tyres.



10 Demag Citys

Austrian crane and heavy transport company Felbermayr has ordered 10, 45 tonne Demag AC 45 City cranes, the first two of which have been delivered. The AC 45 City has a 31.2 metre main boom, while a 7.1 to 13 metre offsettable extension takes the maximum on board tip height to over 45 metres.

Felbermayr is based in Wels, Austria and runs more than 400 cranes, topped by a 1,000 tonner, as well as telehandlers and aerial work platforms, while offering heavy lift and transportation services.

> One of the first Demag AC 45 City cranes for Felbermayr.



Nigerian partnership deal for Mammoet

Nigerian company Lagos Deep Offshore Logistic Base (LADOL) - West Africa's largest offshore rig and vessel repair base - has formed a strategic partnership with Dutch international heavy lift and haulage company Mammoet to expand its project cargo handling and logistics capabilities for offshore oil & gas exploration and production companies in the region. Mammoet will supply LADOL with one of its 600 tonne MTC 15 heavy lift terminal cranes, which offers a load moment equivalent to a 1,200 tonne crawler crane and will base a 250 tonne crawler crane at the facility.



Foldable platform basket

Diversified Product Development has introduced a folding man basket for loader cranes - part of its Liftwise work platform range.

The 762mm square basket is attached to the loader crane boom or jib tip via a boom nose adapter that is designed specifically for each crane model and offers a platform capacity of up to 160kg. According to the company, the basket can be removed and folded in less than a minute for onboard stowage and easier transport. Overall dimensions when folded are 1.02 by 1.1 metres with a depth of

483mm, while its overall weight is 104kg. The folding basket features a grip slotted floor for easy drainage, harness anchor and an inward opening gate.

The basket can be folded for stowage or transport.





TRT to handle Kobelco cranes



Kobelco has appointed Hamilton, New Zealand-based Tidd Ross Todd (TRT) as its new crane distributor for the Oceania region, following the resignation of long time Kobelco distributor ACM in November.

TRT manufacturers the Tidd line of pick & carry cranes and represents Hiab from three locations in New Zealand. Its Australian operation in Queensland is the Grove and Manitowoc dealer for the state and will become a key centre of operations for Kobelco crane sales and product support in the region.

Third Tadano crane donated to Easter Island

Tadano has donated a third crane to Easter Island to help with the long-term ongoing restoration of the famous Moai stone The company donated the first crane in 1991, helping archaeologists return 15 Moai statues to their altars in Ahu Tongariki by 1995.

A second rough terrain crane was donated in 2005. In December the third crane was handed over to the Chilean ambassador to Japan, Julio Fiol. Chile administers Easter Island.





Rosenbauer acquires Italian dealer

Fire and recovery vehicle manufacturer Rosenbauer has acquired its former dealer Brandus which currently covers the South Tyrol region of Italy. Based in Andrian, Bolzano, Brandus will now operate as Rosenbauer Italia and will continue to be led by managing director Stefan Hofer and his team of 10 employees.

The company will offer the full range of Rosenbauer products, services

and product support. Rosenbauer said the acquisition is a result of the increasing importance of the Italian firefighting market for the company and is the first phase of longer term plans for the country.



Crosby acquires Fuebo

US-based hook and lifting tackle manufacturer Crosby has acquired German marine mooring components manufacturer Feubo, (Schmiedestück Betrieb Feuerstein) from the Feuerstein family. Feubo manufactures shackles, connectors and mooring

chains for the offshore oil, gas and wind power market. The company's production facility - located in Hattingen between Dusseldorf and Dortmund - will become the engineering and innovation centre for mooring components.





Mini crane hire specialists UK wide

- Spider crane hire
- Lifting attachments
- Contract lifts
- Lift Supervisor/ Slinger Banksman
- Specialist glazing equipment





Call us today: 0845 128 8911 – HIRE DESK or email us on office@liftltd.com www.liftminicranehire.co.uk



Graham Jones Cranes is a leading crane hire and contract lift specialist with over 25 years experience operating in the UK.

- Crane Hire and Contract Lifting under CPA conditions, with a main objective on safety
- 30-strong modern crane fleet and support vehicles from 25-450 tonne, working across a wide range of industry sectors
- In-house expertise to plan entire lift operation
- Fully trained and highly skilled operatives

To hire your crane now, email info@grahamjonescranes.co.uk or call: 01978 366458

www.grahamjonescranes.co.uk

First MDT 809 in US

Maryland contractor Schuster Concrete Construction has taken the first Potain MDT 809 M25 flat top crane to be delivered in the USA.

Launched at Bauma, it has a maximum capacity of 25 tonnes and an 80 metre jib with a nine tonne jib tip capacity. The company claims the crane is

faster to erect and dismantle than other cranes of this size, with smaller sections reducing the number of containers needed for transport. The crane went straight out on its first job at the 'City Ridge' development in Washington, DC.



Dingli booms for Keppel

Singapore-based industrial and shipbuilding group Keppel has taken delivery of the first batch of six 86ft Dingli BT26SRT Rough Terrain boom lifts. The BT26SRT has an outreach of 20.2 metres and 454kg unrestricted platform



capacity. The diesel booms include 4x4 drive, 410mm ground clearance and 50 percent gradeability with an overall weight of 16,500kg. They will be used within the group's shipbuilding and offshore jacket construction yards.

Orders pick up for PM loader cranes

Manitex International announced a pickup in orders for PM articulated loader cranes in North America, Western Europe and South America as well as Oil & Steel platforms and Valla industrial cranes, while order intake for Manitex boom trucks has been softer.



Konecranes completes MHE Demag deal

Port and industrial crane manufacturer Konecranes has acquired the remaining 50 percent of its overhead/industrial crane joint venture MHE-Demag, for €147 million. Established as a joint venture between Demag Cranes and Jebsen & Jessen in 1986, Singapore-based MHE-Demag provides industrial cranes, hoists and services throughout Southeast Asia under the MHE and Demag brands. The company also provides lift trucks, dock levellers, aerial work platforms, building maintenance units and compact construction equipment.

MHE-Demag generated revenues of €179 million in 2018. It employs more than 18,000 at its 11 facilities and 70 service locations throughout Australia, Indonesia, Malaysia, Singapore, the Philippines, Taiwan, Thailand and Vietnam.



The name for material handing

SPIDER LIFTS AT A HIGHER LEVEL FOR 40 YEARS

FALCON FS 330Z Vario

- Working height of 33 meters
- Reaches 19 meter at an up and over height of 11 meters
- Wireless remote control of all functions
- 250 kg. basket load



falconlifts.com



40 additional cranes

German rental company Ulferts & Wittrock has placed an order for a further 40 Liebherr cranes following a 40 unit order last year. The 80 cranes include regular All Terrains, City type All Terrains and truck cranes ranging from 30 tonne two axle models to the five axle 250 tonne LTM 1250-5.1.

The company says low movement cost was an important factor with its decision choosing a larger number of 70 tonne LTM 1070-4.2 and 90 tonne LTM 1090-4.2 four axle models which can travel with 10 tonne axle loads.

10 more GSRs for Smart

UK rental company Smart Platform Rental has ordered 10 units of GSR's 20.1 metre B200PX

truck mounted platforms following an order for 10 GSR 18 metre B180Ts in 2019.

Mounted on a 3.5 tonne, Euro VI compliant MB311 Mercedes Sprinter chassis, the articulated B200PX features a dual sigma type riser and two section telescopic boom with a maximum outreach of 9.2 metres and 250kg unrestricted platform capacity.



Canadian crane company defrauded

Peter Ramdath, the former chief financial officer of Winnipeg, Canada based Litz Crane & Rigging has pleaded guilty to defrauding the company to the tune of \$4.2 million between 2012 and 2017.

He pleaded guilty to a single charge of fraud over \$5,000, on the understanding that other charges would not be pursued and that no legal action



would be taken against his wife. Police began



investigating Ramdath in 2017 after the company became suspicious and hired a private investigator who discovered an extravagant lifestyle which included a stable of cars, such as a McLaren MP4-12C, Maserati Levante S and Aston Martin Vantage, as well as expensive overseas trips and designer clothes - all on a salary of \$85,000. Sentencing was adjourned until June 11th.



FRONTALE HALL 3A STAND 233

MINI PICKER MPK06

FOR THE NEW CONSTRUCTION SITE REQUIREMENTS



Financials round-up

JLG has reported a 13.1 percent fall in first quarter revenues to \$717.9 million. The decrease was due to lower sales of both aerial work platforms and telehandlers in North America and the Europe, Africa and Middle East region, partly offset by strong growth in the Asia Pacific region.

Sales of new aerial work platforms were just over nine percent lower at \$306 million, while sales of telehandlers dropped more than 25 percent to \$201.4 million - partly due to comparison with a strong jump in sales this

time last year. Other revenues - including replacement parts, used equipment and service - were almost four percent lower at \$210.5 million.

Operating income however, improved 3.9 percent to \$69 million thanks to a more favourable product mix and operational efficiencies. The order book at the end of December was \$1.01 billion, more than 39 percent lower than at this point last year.



United Rentals has reported full year revenues 16 percent higher at \$9.35 billion, thanks largely to the BlueLine and BakerCorp acquisitions. All revenue streams showed strong growth however the effect of the acquisitions on profitability was less positive, with pre-tax profits increasing just 2.5 percent to \$1.51 billion. Almost all of the growth was due to existing United Rentals operations. Capital expenditure on rental equipment was \$2.13 billion, two percent higher than in 2018. Fleet disposals however increased more than 25 percent to \$831 million.

Fourth quarter revenues improved by a more modest seven percent to \$2.5 billion and pre-tax profits were just over two percent higher at \$433 million. Capital expenditure in the quarter was \$158 million, up 10 percent on last year, while sales of used equipment from the fleet increased almost 32 percent to \$244 million.

The company is forecasting revenues in the region of between \$9.4 and \$9.8 billion for 2020, with gross capital expenditure of \$1.9 to \$2.2 billion.



Manitou revenues for 2019 were ≤ 2.1 billion, up 11 percent on 2018. The revenues are made up of three divisions: Material Handling and Access sales - mostly telehandlers and aerial work platforms - were ≤ 1.46 billion, up 13 percent, Compact Equipment - mostly Gehl - was up five percent to ≤ 328 million and Services and Solutions up 12 percent to ≤ 309 million.

Southern Europe sales were 17 percent higher at \in 677 million, Northern Europe increased eight percent to \in 813 million, the Americas by 15 percent to \in 403 million, while Asia Pacific was flat at \in 201 million.

Fourth quarter revenues fell six percent to \notin 494 million, with falls in both Material Handling and Access and Compact Equipment, while Services grew by 12 percent to \notin 80 million. The order book at the end of the year was \notin 650 million. Manitou has only released sales numbers so far, the full accounts will follow next month.





Tadano has reported nine month revenues to the end of December of ¥149 billion (\$1.36 billion), an increase of 18.8 percent on last year. Mobile crane sales increased 27 percent to ¥94.64 billion (\$863 million) of which ¥30.3 billion (\$276 million) came from Japan, up 24 percent. Mobile



crane sales overseas were 29 percent higher at ¥64.4 billion (\$587 million) comprising ¥58.6 billion (\$534 million) of Tadano cranes up 10 percent, and ¥5.8 billion (\$53 million) from Demag.

Total revenues from Japan were 12 percent higher at ¥71 billion (\$647 million), while European sales increased 5.7 percent to ¥15.89 billion (\$145 million) of which Demag was ¥3.1 billion (\$28.3 million). North American revenues leapt 40.3 percent to ¥34.76 billion (\$316.9 million) of which Demag represented ¥1.37 billion (\$12 million). The Middle East improved 30 percent to ¥5.3 billion (\$48.4 million) mostly due to Demag sales of ¥1.74 billion (\$16 million).

Pre-tax profit for the nine months jumped 53 percent to ¥10.42 billion (\$95 million), the company is now forecasting full year revenues of ¥228 billion (\$2.1 billion) up 21 percent, with the Demag business contributing ¥27.3 billion (\$225 million), although profits are likely to come in around 25 percent lower due to acquisition, restructuring costs and losses from Demag.

Hiab achieved an 18 percent jump in full year sales to ≤ 1.36 billion while order intake was four percent higher at ≤ 1.31 billion. Operating profits reached record levels at ≤ 159.3 million, 19 percent up on 2018.



Kalmar reported full year sales up six percent to $\in 1.72$ billion, although order intake for the year was seven percent lower at $\in 1.78$ billion. Operating income was 12 percent higher at $\in 154.4$ million.



Manitowoc has reported a slight fall in full year revenues for 2019, but a strong pick up in profits. Total sales were roughly flat at \$1.83 billion,

but order intake fell 13 percent to 1.64 billion. Pre-tax profit however jumped from a loss of \$71.7 million last year to a \$59 million profit this year. It is forecasting a 10 percent reduction in sales for 2020 to between \$1.6 and \$1.7 billion while profits are expected to come in at similar levels to 2019.



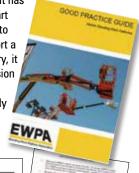
Manitowoc

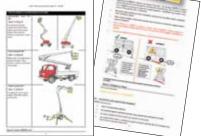
For the full reports on all these stories check out Vertikal.net

New EWPA Good Practice Guide

Australia's Elevating Work Platform Association has released its new Good Practice Guide for aerial work platforms. Based on the Worksafe NZ publication, the 74 page guide has been rewritten, reviewed and revised by a team of industry professionals. The association says that the guide will remain as a 'live' online asset with updates/modifications being implemented

on a regular basis. It has also said that as part of its commitment to promote and support a safe access industry, it has taken the decision to make the Good Practice Guide freely available to the general public.







The first of 250 JCB telehandlers for Ashbrook

£10m JCB order for Ashbrook

UK rental company Ashbrook has taken delivery of 250 JCB telehandlers along with rough terrain fork trucks and dumpers in a deal worth more than £10 million.

The order includes construction telehandlers ranging from the four metre/1.6 tonne 516-40 to the 17.5 metre/four tonne 540-180 HiViz models and two agricultural models - the 6.2 metre/3.8 tonne 538-60 AGRI Super and the seven metre/4.2 tonne 542-70 AGRI Super.

Ca

New president for Manitou

news

Manitou has appointed Elisabeth Ausimour to the new role of president of its material handling and access division - largely telehandlers, aerial work platforms and Rough Terrain forklifts - which had revenues last year of almost €1.5 billion, or 70 percent of total group revenues. She has also been appointed to the group's executive committee.

For the past three years she has been vice president of ERP and head of a process redesign project. Ausimour joined Manitou from shipbuilder Chantiers de l'Atlantique in 2005 as head buyer hydraulics. She took over the responsibility for quality control in 2009 and in 2011 was appointed as vice president of the company's aerial lift plant in Candé.



LEONARDO HD

Outperforming most access equipment, the Leonardo HD has been improving jobsites worldwide for 25 years.

Cut conventional choices and allow each operator to do more by choosing to work smarter, safer and easier. #whyshare

www.bravi-platforms.com

PLATFORMS



REACH HIGHER WITH SKYJACK'S NEW RT LINEUP

Skyjack's new range of full-size rough terrain scissor lifts offer higher platform heights and increased capacity ratings. The new range replaces Skyjack's previous 88 and 92 models and consists of the SJ9233, SJ9243, and SJ9253 RT.

Maintaining features common to all Skyjack products, including easily accessible service components and Skyjack's AXLDRIVE™ system, this new range is also compliant with Euro Stage V emission standards. Visit us at Festival Grounds booth #F6014 at CONEXPO.



www.skyjack.com

WS HIGHLIG Graham Arundell, chief executive

of the Hire Association Europe (HAE) and Event Hire Association (EHA), will retire at the end of April.

- HDW the Dutch distributor for Genie, Versalift and Teupen - is to open new headquarters in Heinenoord.
- Australia's Intermodal Group has taken five Konecranes reach stackers and a container handler.
- UK rental company Bray Cranes has taken a 25 tonne Kato CR-250V City AT.
- Australian terminal operator Patrick Terminals has signed a software maintenance and support agreement with Kalmar.
- UK lighthouse authority Trinity House has taken a 35 tonne Grove RT540E Rough Terrain crane.
- UK crane operator Tony Nuthall has died after a short illness.
- UK crane rental company Berry Cranes has taken a four axle Böcker AK 52.
- Germany's Wemo-Tec has purchased two Manitou MRT 3050 telehandlers.
- **GKN Wheels and Structures** has appointed Adbul Butt as chief executive.
- Abu Dhabi rental company Delta Gulf Group has taken a 250 tonne Demag AC 250-5.
- Haulotte has hosted an open day event at its facility in Guangzhou, China.
- Former Snorkel owner Al Havlin has died.
- UK rental company Tru Plant has taken delivery of a further 30 JCB telehandlers.
- Britlift has appointed Unique Group as exclusive distributor for its modular spreader beams.
- Bison Precast concrete has appointed Ainscough as its preferred crane supplier in the UK.
- Versalift has opened Versalift Ireland with Keith O'Rourke as sales manager.
- German heavy recovery company Florian Herbold has taken a 150t Grove GMK5150L All Terrain crane.
- Canadian port operator Montreal Gateway Terminal Partnerships has ordered four Liebherr ship to shore container cranes.
- Marcus Curry has joined the board of UK-based LEEA
- Whyte Cargo Handlers has taken a 250 tonne Liebherr LTM 1250-5.1 AT crane.

Spider lift manufacturer Palazzani has appointed Spimerica as distributor for the USA.

- France's CNC Levage has taken a 50t Liebherr LTC 1050-3.1 City type crane.
- Palfinger founder Hubert Palfinger senior has died following a serious illness.
- Easy Lift's UK distributor Aerial & Handling Services has delivered three new spider lifts.
- BBC's Top Gear programme's Freddie Flintoff carried out a bungee jump off the top of a large dam using a mobile crane and car.
- US-based All State Crane and Rigging is now a distributor for Potain self-erecting cranes.
- Access Link has added three new members from Ireland - KDM Hire, Blulift and Lift Hire Ireland.
- The Lifting Equipment Engineers Association (LEEA) has elected Richard Money as chairman.
- German rental company Wille Krane has taken a 450t Liebherr LTM 1450-8.1.
- Riwal Deutschland has appointed Klaus Maskort as managing director.
- Collett has opened a new facility in Bradford, West Yorkshire.
- US-based Empire Crane has ordered five Manitex 'Shorty' boom trucks/cranes.
- Alimak has announced the planned departure of chief executive Tormod Gunleiksrud.
- Oil & Steel has appointed GAM as its distributor for Spain.
- Al Maysan has taken the first 110t Link-Belt 120RT RT crane in Qatar.
- Singapore-based shipbuilding group Keppel has taken six, 86ft Dingli BT26SRT RT booms.
- US-based **Rental Hosting** has appointed Caleb Yell as its new chief executive.
- Instant UpRight has appointed the Clow Group as UK distributor.
- CECE has appointed Niklas Nillroth as its new president.
- Faresin has appointed Lissner as its distributor for Denmark.
- Speedy has introduced a four hour delivery service guarantee throughout the UK.
- Versalift UK has appointed David Northover as service manager.

- The joint venture between <u>Deutz</u> and <u>Sany</u> China has been approved.
- UK sales and rental subsidiary HTC Wolffkran has changed its name to Wolffkran.
- Leguan Lifts has appointed Liftexperten as its distributor in Sweden.
- Dutch company Dynnig has taken 13 new Versalift VTL-140-F hybrid van mounted platforms.
- David Sagehorn, chief financial officer Oshkosh, is to retire.
- Boels confirmed it had 93 percent of Cramo shares and is proceeding with its acquisition plans.
- Swiss rental company Jaberg Nacelles has taken the first 33m Hinowa LightLift 33.17 IIIS Performance spider lift in Switzerland.
- Magna Tyres has appointed Hendri Swanepoel as sales manager for South Africa.
- Dutch port terminal operator Rhenus Logistics has ordered a fourth Konecranes Gottwald mobile harbour crane for its terminal in Maasvlakte, Rotterdam.
- **Oshkosh** has appointed Stephen Newlin as chairman, he succeeds Craig Omtvedt.

Sagehorn

- Xtreme Manufacturing has added three new C-class telehandlers to its range.
- Ireland's Crane Hire Ltd has taken a 450t Liebherr LTM 1450-8.1 and three 230t LTM 1230-5.1 All Terrain cranes.
- Manitex International has announced a pickup in order intake during the fourth quarter for PM products.
- Rosenbauer has acquired its former Italian dealer Brandus which currently covers the South Tyrol.
- Potain has launched the towable version of its new Hup M 28-22 self-erecting tower crane.
- Germany's Ulferts & Wittrock has ordered 40 Liebherr cranes.
- Manitou has appointed Elisabeth Ausimour as president of its material handling and access division.



UK based A-Lift Crane Hire has taken delivery of a 70t Tadano ATF 70G-4 All Terrain crane.

German rental company Seeger has taken delivery of six Airo A15JE battery powered boom lifts.

See www.vertikal.net news archive for full versions of all these stories

















Cale Yell

Niklas Nillroth





lony Nuthall

Abdu Butt

Al Havlin

Keith

O'Rourke

Curi

34GT*plus* ... designed to exceed your expectations



World Premiere



March 10-14 | Las Vegas, USA





Van mounts on the rise

We are constantly being reminded about the damage we are all doing to the planet and how we should be reducing our carbon footprint by changing to cleaner, renewable energy. The move towards electric power in the work at height sector is gaining substantial momentum with almost every manufacturer now either offering or looking to add a hybrid/electric option to their model range. This is particularly true for van mounted platforms - where simple hybrids are becoming increasingly popular - particularly as most of them work in the urban environment.

The main reason for using an enclosed van mounted lift is that it provides a method of working at height up to around 17 metres along with secure storage that can double as a mobile store, workshop or lockup. The 3.5 tonne truck mounted lifts above 20 metres on the other hand, have little if any spare payload capacity for tools or equipment.

The van mounted lift was originally developed for street lighting contractors and telephone engineers which carry electrical components to work on lights or overhead wires, while having the ability to carry out work on the ground in a dry environment. More recently other trades have come on the scene that appreciate such convenience, such as close circuit camera installers and maintenance contractors as well as urban tree care companies. Street lighting generally requires heights of up to 11 metres for town centres and amenity lighting and 12.5 to 17 metres for lights along major roads

or highways. Security camera work typically requires working heights of 12 to 13 metres with around five to six metres outreach.

The van mounted lift is most popular in the UK, France and some Nordic countries with sales growing at a steady rate. In the UK for instance the number of van mounts in the top rental fleets - according to the C&A Top 30 rental company survey - has gone up by 27 percent over the past two years and 58 percent over the past 11 years. As a comparison, truck mounted platforms increased by 42 percent since 2017 but just 11 percent since 2008. Major powered access rental companies now included 1,400 van mounted lifts in their fleets compared to 868 truck mounts.

Klubb pushing to be number one?

For many years Versalift has been the clear market leader in Europe, often dominating the market, however French manufacturer Klubb



- which only began making its own machines in 2016 - is now claiming to be the market leader in Europe. Klubb was formed out of Versalift dealer and licensee Time France, which had been the dominant player in France for more than 10 years taking Versalift booms and turrets, mounting them locally and adding additional components such as platforms. With aspirations to expand outside of France and the Francophone market, it decided that making the rest of the boom and turret was not such a big deal and so in 2015 began to seek out fabrication suppliers and look for a suitable production facility.

Revenues in its first year are said to be \in 40 million and it employed more than 150 employees. By 2019, thanks to a wider product range, increased sales and a couple of acquisitions revenues had - according to the company - increased to €100 million and employees had more than doubled. Klubb says that it delivered 1,800 vehicle mounted platforms last year, putting it on a par with truck mounted lift manufacturers such as Multitel.

van mounts

In 2018 Klubb acquired its UK distributor CPL which sold no van mounted lifts at all that first year, as it concentrated on producing almost 170 pickup based platforms. Last year CPL says it sold about 250 pickup mounted platforms, but also built almost 100 van mounted lifts. This year it is forecasting van mounted sales in the region of 150 to 200 units.

Over the past two years the proportion of electric vans has increased dramatically, with





van mounts





manufacturers estimating that this year four out of every 10 van mounts sold will have battery powered uppers. In addition to which a good number of likely to be all electric as demand for electric vans for local authority work increases, given the demand to cut their carbon footprint by 40 percent over the next five years.

"As a group we have the largest range of hybrid and electric conversions in the world, ranging from compact units like the K20 Goupil up to the K42p mounted on a long wheel base van," says Paul Murphy, managing director of CPL. "We are also seeing a rise in the number of compact vans for city maintenance work. The K20 eNV200 with a 10 metre working height and 4.1 metre working outreach is popular for maintenance applications. The one-man composite platform has a maximum capacity of 120kg and a travel range of just over 100 miles between charges but with the new 40kWh battery pack this will increase to 175 miles."

"The K26 Renault Master ZE which has 11.8 metre working height and 6.8 metre outreach is popular with companies that need to carry more equipment. The cutaway option is starting to take off as it is easier to manoeuvre in cities and busy towns, has no outriggers and takes less time to set up and stow."

"We converted more than 340 vehicles in 2019, double the previous year due to improvements within the facility, new processes and support from the Klubb group. We look forward to pushing on to achieve 500 plus builds per annum in the future."

More variations

The growth in the van mounted lift market is perhaps due to increased competition - and more companies spreading the message - while manufacturers now offer a much wider variety of products including smaller, more compact city vehicles, hybrid and electric drive and cutaway vans. Popular in France for some time, the cutaway van has several benefits. Overall it is more compact because the basket stows inboard of the rear of the chassis, while also offering greater protection for the basket therefore less likelihood of being damaged when reversing or manoeuvring. There is also a little more payload capacity due to the weight saved from removing the rear van panels although the internal storage space is reduced.

First EGI-Klubb model

Klubb acquired EGI - the French manufacturer of firefighting and fully







insulated platforms up to 65 metres - out of bankruptcy in 2018. The company had a checkered past and had struggled for years. Under new ownership the company recently launched the first redesigned Klubb-EGI model - the 14 metre insulated E14P. Based on a standard Klubb van mounted platform, the first unit was installed on a 3.5 tonne Ford Transit van and offers 7.5 metres of outreach and a 200kg platform capacity. The model is fully insulated to 46kV and complies with ANSI 92.2 standard cat. B and C allowing for it to be used for live line work carried out according to the ANSI recognised 'hot stick' (safe clearance) method.

The launch model was sold to Safe Technologies - which was recently appointed as the EGI and Klubb dealer for Russia - and was exhibited at the 'Power Grids' International Forum (PGIF) in Moscow in December. Klubb chief executive Julien Bourrellis said: "We have been working for a year to redesign the EGI products. It is a great achievement to launch this new model of insulated platform with our partner, Safe Technology, in Russia. These models combine the best of EGI and Klubb's technical know how."

Another new Klubb van mount is Klubb K32 with a single person platform, 120kg platform capacity, working height of 12.5 metres and 7.3 metres outreach without stabilisers. Mounted on a Renault Master chassis compliant with Euro VI standards it also meets the new Worldwide Harmonised Light Vehicle Test Procedure (WLTP), a laboratory test used to measure fuel consumption and CO2 emissions along with pollutant emissions. The new test came into force last September replacing the old NEDC test with assessment now based on real driving data.

Versalift expands

Although Klubb has done remarkably well since it was established four years ago, Versalift still remains the major player in many countries and it too has been busy developing new models.

Versalift is part of the US-based Time Manufacturing group, owned since 2017 by private equity firm Sterling. Time/Versalift is one of the major producers of utility platforms in North America and



VERSALIFTShaping the future of van-mounted platforms

- The largest vehicle-mounted platform provider
- Over 7000 vehicle-mounted platforms in the UK and Ireland
- National network of Versalift trained engineers providing 24/7 support
- Over £1M of OEM parts in stock and ready for next day dispatch









PICK-UP MOUNTED



CHASSIS MOUNT

TRUCK MOUNTED



Versalift United Kingdom Limited 1 Altendiez Way, Latimer Park, Burton Latimer, Kettering. NN15 5YT

 T: 01536 721010
 F: 01536 721111

 E: sales@versalift.co.uk
 W: www.versalift.co.uk



f 🔰 in

Versalift Ireland Suite 22, Osprey Business Centre, Devoy Quarter, Naas, Co. Kildare, W91 X40K, Ireland

T: +353 85 8563034 **E:** sales@versalift.ie

W: www.versalift.ie

van mounts

has been building vehicle mounted platforms for more than 55 years. The International business is based in Farsoe, Denmark, alongside the Danish distribution business, both of which now trade under the Versalift Denmark banner. As well as the local operation and international distribution business, the Danish company now manufacturers booms and turrets for the European and international markets. This is a significant change on previous years, as at one time all the group's booms and superstructures were manufactured in Texas and shipped out to local subsidiaries for completion and mounting.

The European network also includes manufacturing subsidiaries in the UK as well as France which was set up rapidly in 2016 when Klubb surprised everyone with the conversion of Time France to Klubb. The business has grown substantially over the past two years and now employs 55 staff across three locations including the opening of a second production facility in April 2019 and a new aftersales site in Brittany last month. In Germany Versalift works with truck mounted lift manufacturer Ruthmann.

The Danish operation also mounts lifts for other markets within Europe where the local dealer may not have the capacity do so themselves, or where sales volumes do not justify it. A new company Versalift Ireland began trading last month, reports into Versalift UK and also works with support partner for the Irish market - Mooretown Engineering. Versalift has also recruited a new sales manager for Ireland - Keith O'Rourke. The UK business typically builds between 400 and 500 units a year, the vast majority of them being van mounted lifts but also some fully insulated models, typically mounted on Unimog chassis.



New Versalift products

Last year Versalift launched the fully electric, 12 metre working height VTL 120 van mounted platform with a one man, 120kg capacity. The company says the product came about due to a growing customer demand for improved vehicle payload and to "retain boom strength and integrity given that vehicles are becoming heavier due to the latest engine emission requirements, battery technology and improved quality".

Mounted on a Renault Master electric van it has a range of 100 kilometres when fully loaded with driver, passenger and its maximum payload of 185kg. The lift is powered by a lithium ion battery pack with a choice of 2.5 or 5kWh outputs - the smaller pack can manage 20 to 30 full cycles with the larger pack lasting twice as long. This means that with the larger power pack the lift has a constant working time of around 90 minutes, although under typical usage situation it is likely to easily last all day and can of course be plugged in when working for an extended period at a location where mains power is available. Other features include a power pack information display in the platform to warn about low battery levels.

The electric van range also extends to the 13.5 metre VTL-135-FZ and the 13.9 metre VDTL-140-F model with 8.5 metres of outreach, 230kg platform capacity and a handy spare payload of 1,195kg when mounted on a five tonne Mercedes Sprinter chassis. One company that recently purchased some of the five tonne Mercedes mounted VDTL-140-Fs is Dutch traffic control and street lighting specialist Dynniq. The boom is lithium-ion battery powered and can be recharged while the van travels between





jobs. It can also operate from the vehicle's PTO pump if desired or required. Dynniq specified the units as part of its certification to level five - the highest level - on the CO2 performance ladder. The machines were prepared and sold by Versalift's Dutch dealer HDW.

Two larger vans

Versalift has also launched two larger van mounted lifts - the new 16.3 metre VDTL-165-F and the 16.6 metre VDTL-170-F. The company claims that the VDTL-165-F has the highest working height and widest working envelope of any platform mounted on a 3.5 tonne van, while maintaining a Gross Vehicle Weight of less than 3,500kg. The VDTL-165-F has a maximum outreach of 8.5 metres with 120kg platform capacity, or seven metres with the maximum 230kg. 180 degrees of platform rotation is standard and the stabilisers set up within the overall width of the vehicle's extended wing mirrors. Mounted on a 3.5 tonne chassis - either a Mercedes Sprinter or Renault Master - allows the lift to be used with a regular B class driver's license yet still offers a 300kg payload. A hybrid power pack is also available. With a three section telescopic boom and articulating jib, it compares with the recently launched 16.7 metre VTM-170-F which is mounted on a seven tonne GVW Iveco Daily 70C.

The VTM-170-F features a maximum platform capacity of 230kg, at which the outreach is 8.5 metres, whilst 10.5 metres outreach is possible with the unrestricted platform capacity of 120kg. The lift uses a





www.klubb.com

R CPL



1720

DCPL

THE NEXT LEVEL OF ACCESS

111

The new CPL - KLUBB Group aerial platforms allow you to combine technical performance, safety and low maintenance cost.

Our aerial work platforms are used to answer many business applications like access hirers, electrical contractors, CCTV/Security, arborists, highway contractors, utilities - DNO, utilities contractors, local authorities, facilities maintenance, telecoms, signage, roofing contractors, finance providers.

To stay closer to your needs, we offer more than 30 models of new aerial platforms mounted on all types of carriers. Take a look at the van mounted range, truck mounted range and pick-up mounted range.

Our expertise leads us to guide you in selecting the most judicious model for your business.

7 - 6

For more information contact us

www.cpl-ltd.com Tel: +44 (0)1536 529876 Email: Info@cpl-ltd.com

ZER.

DISCOVER THE FULL RANGE OF INNOVATIONS AT: www.cpl-ltd.com

128

van mounts

high tensile, two section telescopic boom, topped by an articulating jib. The van features a clear cargo capacity/payload of 2,200kg including driver, passenger and fuel. Versalift says the new machine replaces the LAT-160-F and is ideally suited for motorway or dual lane highway applications. The machine includes a secondary guarding antientrapment system, the LMC load sensing system which automatically adjusts the working envelope based on the load in the platform, and zero tailswing.

25 years in the UK

Versalift UK celebrated its 25th anniversary at the end of last year. Time Versalift decided to set up its own operation and later a factory in the UK in early 1994 following the demise of Simon and then the Versalift's dealer Powertech, A while later the business was moved to the current operation in Burton Latimer, Northamptonshire. Within 10 years the company was the clear market leader and currently builds up to 500 van and truck mounted lifts a year on the six acre site. as well as providing a repair and refurbishment service.

Versalift UK says that it has seen a 50 percent growth in revenues over the past two years and has extended its capacity with the erection of a temporary building. "The past two years have been our best ever with a 30 percent improvement in 2019 over 2018," says Versalift UK managing director Andy Bray.



When is a van not quite a van?

One of the more unusual 'van' mounted platforms is the Cela DT Van unveiled at Bauma last year. Mounted on a Fiat Ducato 2.3 chassis cab it uses a rear mounted three section telescopic mast fixed in an almost vertical position and a two section top boom with an end mounted platform giving a working height of 13 metres, an outreach of six metres with 230kg capacity and an up and over height of six metres. Slew is 370 degrees. Because of its mast the unit has an overall stowed height of 3.63 metres, while the overall length including basket is 6.37 metres. Between the boom and the cab there is space for a 10 cubic metre storage cabin measuring 2.5 metres high and two metres long which can carry up to 300kg of materials or tools. The DT Van has rear stabilisers built into the rear boom frame which are deployed within the width of the vehicle. Fibreglass and aluminium platforms are available including 700mm by 1.1 metre, 1.2 by 1.1 metre and 1.4 by 1.1 metre. The design of the DT Van means that users benefit from a totally clear storage area without the usual boom base or stabilisers encroaching on the usable area.

Comet X Van

Another company with a different take on the van mounted platform is Italian manufacturer Comet which offers three 'van mounts' one traditional enclosed van and two storage cab type platforms.



Mounted on a 5.2 tonne chassis, the 14-2-8 jib van mount has a 14 metre working height, 200kg platform capacity and up to eight metres of outreach with 360 degree continuous slew. Designed with a bridge turret means the inside of the van is clear of any obstruction.

Comet has two 'storage cab' platforms - the 12 metre X Van 12-2-4.5 and the 14 metre X Van 14-2-6.2. As the nomenclature suggests the 12 metre version has an outreach of 4.5 metres and a two person platform with 200kg capacity. The larger machine has 6.2 metres outreach but a lower 150kg platform capacity. Unlike the DT Van, Comet mounts its folding articulated telescopic arm and jib arrangement - which has an up and over height of five metres - behind the cab, with the storage compartment to the rear of the vehicle. Both are mounted

on a 3.5 tonne lveco chassis while the storage compartment is three metres long with an overall height of 2.71 metres. Overall length is 6.6 metres.

France Elevateur

At Bauma France Elevateur showed yet another variation on the theme - the 17.3 metre 172 CPL. Mounted on at least a seven tonne chassis, the platform has an outreach of 10.3 metres with 265kg platform capacity. Although slightly longer the 'compact chassis' version is mounted in an lveco 70C17 chassis and has a payload of 1,700kg in the three metre long storage compartment. When mounted on the 7.5 tonne Renault D7.5 L2 truck its length is 300mm shorter but height is slightly more at 3.6 metres.

The three section telescopic boom has a 135 degree articulated jib. It can work with or without stabilisers











- set up within the width of the vehicle - and on slopes up to a five degrees sideways and 15 degrees longitudinally. A hybrid electric pack is available as is a 1KV fiberglass basket.

Electric van mount for CCTV maintenance

A fully electric Klubb K26 Renault ZE cutaway van mounted platform is being used to maintain CCTV systems in London. Having no outriggers the van is quick to set up and takes up no more space than the vehicle's footprint. The van conversion uses the K26 boom which has a working height of 11.8 metres and an outreach of 6.8 metres with 120kg in the basket enough for one man and tools. The customer specified several optional extras including a reversing camera,



roof beacons, chapter 8 graphics and full vehicle ply lining. Klubb says its Green pack technology is available on all its vehicle conversions allowing the boom to be operated by the battery pack with the vehicle's engine switched off.

GSR van mounts for Finland

While the Italian market is not a substantial market for van mounted lifts - possibly due to the better weather - several platform companies do produce them. GSR was at one time a fairly significant manufacturer, working with SkyKing in the UK and Rothlehner in Germany. The company still produces van mounted lifts and recently won an order from Finnish utility Ampereen Vera, which took two 14 metre GSR E140TJV platforms, mounted on Mercedes Benz Sprinter Euro 6 vans for streetlight maintenance work. The E140TJV provides an outreach of 8.5 metres and a platform capacity of 250kg. The machines join several older GSR van mounted platforms and were delivered by GSR's Finnish distributor Mobile Lift.





We're shaping up for Vertikal Days 2020

DONINGTON PARK

MOVING

Reserve the dates now May 13th-14th 2020

Registration is now open for both exhibitors and visitors. Go to www.vertikaldays.net

www.vertikaldays.net

tikal



Still pushing Can the envelope

It may have taken many years, but the aluminium boomed crane now appears to be making its mark as a useful tool among the mobile crane community in a good number of markets. The coming of age is almost certainly related to its main advantage of offering substantial cost savings compared to an All Terrain crane when carrying out certain types of lifts.

In most countries crane rental companies have typically supplied a crane based on its nominal capacity - the higher the capacity, the longer its boom and the more it could lift - and for several decades that was certainly the case. However in recent years this has been turned on its head as new concepts, materials and technology became available and manufacturers developed new products, many of them focused on a certain type of lifting, rather than being all things to all customers.

As a result many of these new product types require users to keep an open mind to recognise their potential for specific applications. This has required crane rental companies, a) to take a leap of faith in the new concept and b) have the ability to 'sell the concept' and educate regular crane users that there is a better ... or different way...of lifting their specific loads. Not everyone is able to convince a regular crane customer who calls for a 50/60 tonne All Terrain that a four tonne aluminium crane can do the job as well and can in fact be far more effective and even cost less.

The aluminium boomed crane has

several advantages. First it has excellent reach and while it hasn't the absolute nominal capacity, it can lift more than enough at more than 30 metres radius to carry out work such as installing roof trusses, air conditioning units etc...in fact anything that doesn't weigh more than about a tonne and which needs to be handled at up to 35 metres, or a 250kg load at around 40 metres.

The fact that more than one manufacturer is now fully active in the sector certainly helps spread the message compared to a single player. Given that the concept has been around for some time it is unusual in that there are still only two main manufacturers - Klaas and Böcker - which are located around 20km from each other in Ascheberg and Werne to the north of Dortmund in Germany. However the same is true for spider cranes - with Unic and Maeda - and mobile self-erecting tower cranes with Spierings and Liebherr. All three products remain niche in comparison to other crane types. Klaas was established in 1933 by Theodor Klaas, the father of Ludger Klaas the current owner and chairman of the board. It remains a



family business run by the second and third generation of the Klaas family. The current chief executive is George Küter who is married to the founder's daughter.

Klaas developed the inclined material and furniture lift in the late 1940s, but it wasn't until the 1970s and 1980s that Ludger spotted the opportunities and benefits of using aluminium for crane booms, producing his first aluminium crane in 1993. Mounted on a 7.5 tonne truck it had a lift capacity of 500kg. This proved a turning point in the company's history and the basis for developing other machines, including firefighting equipment. It partnered with Iveco Magirus in 2000 and now produces three ranges of firefighting and rescue machines. In 2005 it developed the new TS aluminium boom profile - which it still uses today - which it says helps reduce weight while increasing strength and stability. The company has been responsible

Klaas boom sections welded with the stir welding method

truck cranes

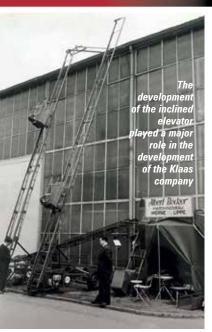
for many innovations over the years and in 2013 it started using the stir welding method on its aluminium booms. The welding process fuses the two elements of a boom section without adding additional material, resulting in zero distortion, increased strength and improved stability. There are apparently just four stir welding machines in the world with Klaas now operating two of them.







truck cranes



Böcker, on the other hand, was founded in 1958 by master blacksmith Alfred Böcker who established a metalwork and forge workshop. At first the company concentrated on producing farming implements and feed fences. However the following year Böcker developed the knee joint construction lift for transporting roofing tiles onto the roof. In 1962 the company delivered the first trailer mounted speed lift for carrying bricks and corrugated sheets to roof tops or elevated working area's which could be extended to 16 metres.

By the end of 1964 the company had sold 1,000 lifts and needing more production space, moving to its present facility and head office in Werne. In 1968 it developed its first double jointed lift allowing tiles to be transported over the ridge to the rear side of the roof. This was followed by the S-L-30 speed lift mounted on a truck chassis and due to the extendable aluminium rails the lift could extend up to 30 metres. The trailer materials lifts continued selling well with the 5,000th made in 1970 and the 7,000th just two years later in 1972. At this point 25 percent of sales were exported and the company was renamed Albert Böcker Gmbh & Co.

The first furniture speed lift was produced in 1974 with boom lengths of up to 47 metres. In 1987 Albert's son Robert made the first compact PH passenger lift replacing a ladder to work indoors. Its first truck mounted aluminium crane the AK 25/650 - was developed in 1989. Weighing 7.49 tonnes it had a 650kg capacity and a working radius of 23.5 metres. A year later Robert took over from his father and began working on ways to improve the product line through new designs, introducing the octagon aluminium boom profile in 1994 which helped take the capacity of the truck mounted cranes to 1,000kg. With growing demand for cranes with longer booms and more compact stowed dimensions the company developed a new seven section telescopic boom in 1997 for use on cranes up to the AK 36/1000. To put this into perspective, crane booms in general were shorter at the time and mostly limited to five sections. Shortly after this Böcker launched the first aluminium crane on a trailer - the AHK 27/700 - which was light enough to be towed by a car, a product that appeals mostly to the Germanic markets where towing long heavy trailers is the



norm, whether large trailer lifts, trailer cranes or simply to transport equipment. Today the company is run by Robert's son Alexander Böcker who took over at the end of 2014 following the untimely death of his father.

🕅 KLARS | K1100

Both companies have continued to develop and evolve the truck and trailer mounted cranes, and while the trailers are still very popular in their home market of Germany, it is the truck mounted cranes that are now making the running, selling well to its export markets. For Klaas - which claims to have produced 30 to 50 percent more cranes than Böcker - France, Belgium, the Netherlands and Poland are its fastest growing markets.

Böcker has five truck mounted

cranes in its product line - the AK 37/4000, AK 36/4000, AK 42/4000, the AK 46/6000 and its largest the AK 52 which has a standard three tonne lift capacity but with options for six and 12 tonnes. Klaas on the other hand offers six models - the K27-32 TSR, the K750RS, the K850RS, the K900 RSX, the K950 RSX and its largest and most popular model the K1003 RSX which has a three tonne standard capacity with a six tonne option.

In last November's issue of Cranes & Access (issue 21.8) we covered Klaas' open days held at its head office facility in Germany. At that time chief executive George Küter talked about the company and its products, hinting that it was working on a new 'large' truck





The new Klaas K1100 RSX is the most powerful aluminium crane it has produced

TOGETHER WE RISE

TADANO | CONEXPO MANTIS | 2020 DEMAG | F-8004

CC 2800-2

Better than ever.

What do you expect from a new Demag crane? Most certainly that it does everything a little better than its successful predecessor. That's why you should definitely get to know the new Demag® CC 2800-2 crawler crane! Its optimized transportability, its maximum system length of 192 meters, its lifting capacity of up to 600 tonnes and the powerful drive train of the Demag® CC 3800-1 make it the first choice for many projects. See for yourself.

Above. Ahead. Always.



truck cranes



mount which should be launched in January/February 2020. That new machine has just been unveiled, with the company claiming that it is the largest, most powerful aluminium crane yet produced. We thought we would look for ourselves and compare the Klaas K1100 RSX which has a maximum reach of 60 metres and can lift 350kg at 55 metres with Böcker's largest - the AK 52. the Klaas cranes - according to the company - is the performance gains from using the aluminium stir welding process. Boom production was the company's main bottleneck limiting further growth, so four years ago Klaas ordered a Swedish stir welding machine - the first company to employ the technology for crane booms. It added a second machine about six months ago which is now fully integrated and production capacity has improved significantly.



The Klaas stir welding joint

The increased strength and stability gained also allows Klaas to design larger capacity machines and use aluminium for all of its boom sections rather than using a steel base section like on the Böcker.

The new Klaas K1100 RSX v Böcker AK 52?

With a maximum hook height of 60 metres and a six tonne maximum hook capacity the new K1100 RSX is the largest and most powerful machine in the Klaas range of aluminium cranes. But how does it compare with Backer's largest - the AK 52?

Both are mounted on 26 tonne GVW, three axle chassis but the Böcker has recently added the option of mounting it on a 32 tonne four axle chassis if required which allows for a more compact outrigger set up. On a three axle chassis the Klaas is more compact in that its outrigger width is less than six metres (5.94m) compared to the Backer's eight metres - possibly due to its extending counterweight? giving it the edge when working on congested work sites with limited set up space.

The K1100 RSX features a five section 38 metre boom topped by an 18 metre four section telescopic luffing jib giving a maximum tip height of just over 60 metres. It can lift two tonnes to a height of almost 38 metres at a 20 metre radius or take a tonne out to 35 metres at a height of 31 metres and handle 350kg at a radius of 46 metres and a height of 35 metres.

Features include a 2.5 tonne winch, a variable extending counterweight system, radio remote controls and automatic levelling. It also features dual boom lift cylinders, twin lung cylinders and a separate diesel power unit helping save fuel, while a hybrid drive is also available.

The Böcker AK 52 features one less main boom section, plus a three section luffing jib for a maximum 52 metre tip height, with the option of taking it up to 55 metres with a three metre jib extension. The crane has a maximum radius of 45 metres and can take one tonne out to a 34 metre radius or a height of 30 metres.

Performance

While the Klaas grabs the headlines for reach - taking 350kg to a radius of 46 metres at a height of 35 metres which is unquestionably impressive - the Böcker AK 52 has a much stronger mid-range load chart.

Looking at the maximum three tonne capacity on a single fall for each crane, the Böcker can take the load out to almost to twice the radius (17 compared to nine metres) and twice the height (31 versus 17 metres) - this is probably where the greater outrigger spread

One of the main features of all

How the new K1100 RSX compares with the Böcker AK 52?

| Manufacturer Model | Klaas K1100 RSX | Böcker AK 52 |
|--------------------------|---------------------------------|---|
| Maximum capacity | 3t single fall (6t two fall) | 3t single fall (4t and 6t two fall and 12t four fall) |
| Boom max reach | 60m | 52m (55m with 3m jib extension) |
| Capacity @ max reach | 350kg @ 55m | 100kg @ 45m |
| Capacity/height/radius | 6,000kg at 11m high & 7m radius | 6,000kg at 23.5m high & 10m radius |
| | 3,000kg at 17m to 9m radius | 3,000kg at 31m to 17m radius |
| | 2,000kg at 30m to 23m radius | 2,000kg at 22m to 33m radius |
| | 1,000kg at 31.5m to 35m radius | 1,000kg at 30m at 34m radius |
| | 350kg at 35m to 46m radius | 100kg at 12m to 45m radius |
| Slew | 360 degree continuous | 360 degree continuous |
| Chassis GVW/axles | 26 tonnes/3 axles | 26 tonnes/3 axle or 32 tonne/four axle |
| Outrigger width max | 5.94m | 8m on three axle 6.4m on four axle |
| Outrigger width one side | - | 5.71m |
| Extendable counterweight | YES | NO |





Experience the Progress.



Mobile cranes from Liebherr

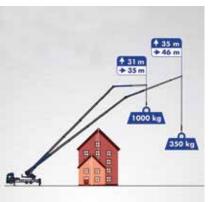
- Top capacities in all lifting classes
- · Long telescopic booms with variable working equipment
- · High mobility and short assembly times
- · Comprehensive comfort and safety features
- · Worldwide customer support by manufacturer

Liebherr-Great Britain Ltd. Normandy Lane, Stratton Business Park Biggleswade, SG18 8QB Phone: +44 1767 60 21 00 E-mail: info.lgb@liebherr.com www.facebook.com/LiebherrConstruction www.liebherr.co.uk



truck cranes





The Klaas K1100 RSX can lift 350kg at a radius of 46m and height of 31m.

makes the difference. When lifting a load weighing two tonnes, the two cranes are similar, with the Böcker having the slighting longer radius, while the Klaas can take the load higher. However at one tonne the Klass has just edged one metre in front taking the load to 35 metres radius at a height of 31 metres.

At the extreme the Klaas is far superior taking 350kg to a radius of 46 metres at a height of 35 metres. The Böcker can only manage 100kg to 45 metres radius at 12 metres height. So in essence if making a choice between these cranes you need to consider the type of work to be carried out, requiring crane rental companies to gain a better understanding of their customers' or potential customers' applications. As already mentioned Böcker has also just launched a new four axle AK 52 variation. Mounted on a 32 tonne chassis, the four axle machine benefits from a much narrower outrigger set up with its width reduced to 6.4 metres. It is still 460mm wider than the Klaas K1100, but a sizeable 1.6 metres narrower than the three axle AK 52. UK crane rental company Berry Cranes recently purchased a four axle 32 tonne machine - its second AK 52 - and said that the extra axle "proved decisive in the purchase, as the four axle crane offers the same lifting performance as the three axle version, but has a more compact working footprint, requiring considerably less space to set up".

New Böcker launches

As well as the four axle AK 52 Böcker has recently launched several new aluminium crane products along with two new



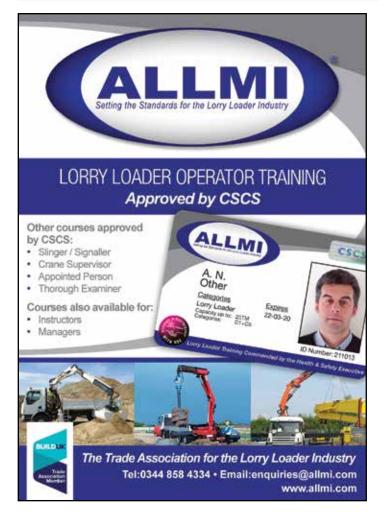
platform attachments, an electric E-Drive and a digital customer portal BöckerConnect which informs the crane owner in real time about the status and location of its cranes. BöckerConnect can also show how and when the crane was used including lift performance. Technical documents, such as data sheets, operating instructions or maintenance schedules are also stored centrally.

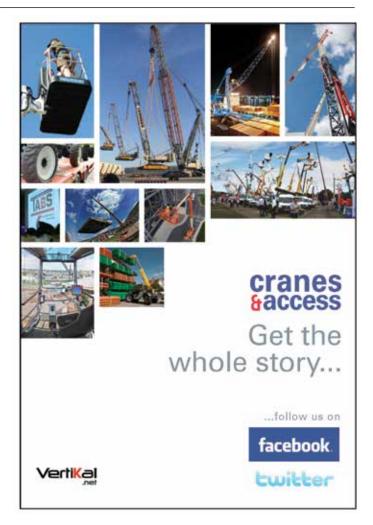
E-Drive and eReady kit

All Böcker cranes are now also available with a 400 volt electric drive. Depending on the crane model a hybrid version can be achieved by installing a 13 or 30kW electric



AC/DC power pack, and depending on the available power supply, the crane can recharge while working or operate from a local power. Customers who do not want to pay







PK 350-D can accommodate up to three people or 350kg

for the E-Drive package can specify the eReady kit, which allows the easy retrofitting of the E-drive power pack at a later date.

Two new platforms

The new Böcker PK 600 platform developed specifically for the AK 52 - has a maximum platform capacity of 600kg and can be hydraulically extended to 3.5 metres long during operation. Hydraulic platform rotation is 400 degrees.

The new 2.2 metre x 900mm, PK 350-D has the usual 180 degrees of platform rotation and can accommodate up to three people or 350kg. Böcker says that its Easy-Lock-System allows the truck crane to be converted into a fully integrated truck mounted work platform within a few minutes. For the AK 46/6000 this means a maximum working height of 40 metres, an outreach of up to 28 metres with 350kg in the basket increasing to 33 metres at a height of 15 metres with a 100kg platform capacity.



Conclusion

The performance of the aluminium truck crane continues to increase through improved manufacturing and technology developments. The latest Klaas K1100 RSX pushes the envelope further to level only matched by a sizeable All Terrain crane which is both much more expensive to purchase, to run and maintain.

"The aluminium boom crane is all about taking smaller loads - 500kg, one and two tonnes - as far out and as high as we can," says George Küter of Klaas. "The larger aluminium cranes are very cost effective when compared with steel boomed All Terrain cranes, where customers have to spend up to €100,000 more for the same performance. This is why these cranes are becoming more popular."



BMS

BMS Lifting -Taking the UK to greater heights



With the largest fleet of 103 metre truck mounted platforms in Europe - including one based in the UK, **BMS Lifting** are your perfect partner. With a fleet ranging from 45 to 103 metres our team are able to go further than the rest.

UK Office Tel: + 44 (0)330 320 0708 Email: bms@bmslifting.co.uk



www.bmslifting.co.uk

"THE SKON SA CRATCAL SA CRATCAL

NORTH AMERICA'S LARGEST CONSTRUCTION TRADE SHOW CONEXPOCONAGG.COM MARCH 10-14, 2020 | LAS VEGAS, USA

Still growing in popularity

The telehandler is now a hugely popular and essential material handling machine for the construction and agricultural industries in many parts of the world with sales having grown to around 70,000 units a year. We take a look at some of the history surrounding the 'telescopic handler/variable reach forklift' and check out some of the latest developments and products on the market.

Establishing the exact date when 'the first' of any new machine type came into existence is tricky, often with several companies claiming to have been the first. This is the case with the telehandler which in previous features in Cranes & Access we have suggested may have originated in the late 1970s, probably originally pioneered by UK company Matbro. Since then many other manufacturers have entered the market of course which is now dominated by JCB and Manitou and in North America by JLG.

Pettibone father of them all?

However, one American company - Pettibone - recently celebrated the 50th anniversary of its first telehandler - the Model 88 Extendo - which it believes was the first telescopic handler ever produced. There is no question that the company's earlier products such as Pettibone Carry-Lift was the forerunner of the modern telehandler - in that it offered variable forward reach - the concept dates back as far as the 1940s. The first Extendo as apparently developed in the late 1960s and with the first production units delivered in early 1970 as documented by the original 24th March bill of sale. The original Model 88s were manufactured at Pettibone's old facility in Alabama until it closed in the 1980s, when production moved to its Michigan facility.

Founded in 1881 Pettibone produced the first forward reaching material handling machines in the 1940s and was once a big name in cab down Rough Terran cranes as well as offering truck cranes. It had some success in Europe in the 1970s and 80s with its massive Carry-Lift loaders which could handle up to 27 tonnes. While not telescopic, the front end loader type lift arm pivot points could be moved forward to increase the reach and were particularly popular with logging and sawmill businesses.

Compared to today's telehandlers, the Pettibone Model 88 looks basic, but it was obviously sturdily built as machines from the early 1980s

> Pettibone believes the Model 88 Extendo was the first telescopic handler ever produced.



are still being used and sold on used equipment sites. The Model 88 took the concept of the variable forward reach machine a major step forward with the introduction of a three section telescopic boom, mounted with a high pivot point above and to the rear of the engine compartment, which was directly behind the open operator's cab. The Model 88 had a maximum capacity of 3.6 tonnes (8,000lbs) and could lift to a height of 10.36 metres. When fully extended to its maximum of 5.18 metres of forward reach it could handle 2.27 tonnes (5.000lbs).

The first Extendo

However, that first Extendo had several other features which are still innovative.

The advertising slogan on its launch

said: "Why buy two machines when one can do the work of both". This referred to the fact that in just 30 minutes the machine could be converted to a crane and vice versa. It also had four wheel drive and four wheel steer and when using the fork attachment could place materials up to 600mm below ground level. A jib could also be attached to the forks, adding reach to handle lightweight suspended loads, such as roof trusses, wall panels or beams. Overall weight was around 10.5 tonnes and maximum travel speed 24mph. The Model 88 also had 'sway control' which allowed the operator to tilt the boom by up to 11 degrees either side of centre to compensate for unlevel ground when placing a load onto scaffolding or building.

telehandlers





REACH NEW HEIGHTS WITH THE ALL NEW ROTO AND PANORAMIC RANGE

The PANORAMIC and ROTO Range design has inspired the construction market over the years, and is now introducing a new generation of wider cabs, improved cab comfort levels and a multitude of new features. The ROTO range has changed the movement method for telehandlers by introducing the rotating turret system that can rotate 360 degrees without having to reposition the machine. Merlo have skilfully evolved during time with exclusive technological innovations and an unparalleled level of performance, safety and efficiency.



www.merlo.co.uk



Skyjack machines are also gaining in popularity in North America



Current Extendo models include the 944X, 1246X and 1258X - part of Pettibone's Next Gen X-Series lineup - however its latest Extendo, the 1056X, is planned for a Conexpo launch. The X-Series also includes the company's Traverse mechanism, which claims to be the only telehandler left on the market with a sliding boom carriage, which allows the operator to move loads horizontally into a building without telescoping or elevating the boom or driving the machine forward. The concept was invented by Lull - now owned by JLG - with several Lull employees joining Pettibone and helping the company develop a similar concept without infringing the Lull patent.

JLG dropped the Lull product line at the end of 2014 in order to focus on the better selling SkyTrack and JLG models. The 13 metre/four tonne Pettibone Traverse T944X slides the boom forward up to 1.78 metres when the machine is stationery. Power is supplied by Cummins Tier IV Final diesels, while the cab includes a new analogue/LCD gauge cluster as standard with an optional seven inch digital display with integrated reversing camera. The all steel fuel and hydraulic tanks are part of the machine's simple but rugged build.

Telehandler developments

Over the years the manufacturers have developed and refined the telehandler into three distinct product types or categories - Fixed boom or Rigid frame machines, 360 degree or roto models, and Heavy Duty or high capacity machines. Smallest of the fixed frame units are the compact models with the regular compact models having an overall height under two metres with an overall width of two metres or less, while the even smaller subcompact models being no more than 1.6 metres high and wide. These units tend to have capacities up to two tonnes and lift heights of almost six metres. The larger fixed boom models now offer lift heights to almost 24 metres and five tonnes capacity, while the 360 degree roto type machines offer lift heights of up to 46 metres and six tonnes capacity. The Heavy duty models have lower lifting heights usually between eight and 11 metres, with the largest models lifting up to 50 tonnes. Specialist manufacturer Magni concentrates on the more

<complex-block>

extreme, more niche products - mostly heavy duty and top end 360 degree machines - and has become a major player in these sectors in just a few years. In fact, the largest machines in the three categories are all produced by Magni - the 50 tonne heavy duty HTH 50.14 which can take 28 tonnes to 14 metres, the 45.64 metre/six tonne 360 degree RTH 6.46 SH and the 23.9 metre/five tonne fixed frame

TH 5.24. The company says that it has several new machines on the drawing board, including a new TH fixed frame models such as the six tonne/25 metre model and a new 13 tonner as well as adding Tier V engines.

The market leaders in Europe however are unquestionably Manitou and JCB with Merlo guite a way back in third place. In North America JLG/Skytrak dominates the market largely with its classic high boom North American models, although more buyers are taking European concept compact and heavy duty models. Last year JLG telehandlers were its star product in term of revenue growth, with new telehandler machine sales increasing by 33 percent to \$1.26 billion, a growing part of the \$4 billion business.

JLG to badge compact Ausa

The JLG telehandler range runs to eight fixed frame models, ranging from the compact 2.5 tonne/six metre G5-18A to the 17 metre/5.4 tonne 1255 and a high capacity 10 metre/7.6 tonne 1732 under the JLG brand plus SkyTrak machines ranging from the 11 metre/2.7 tonne 6036 to the 16.21 metre/4.5 tonne 10054.

However last month JLG signed a 10 year supply agreement with Spanish compact telehandler manufacturer Ausa to badge its compact T144H telehandler as the SkyTrak 3013. The 3013 has the

same performance as the T144H with a four metre lift height, a maximum capacity of 1,350kg and is powered by a Kubota diesel matched to a standard hydrostatic transmission with a maximum travel speed of 20kph. The SkyTrak 3013 weighs 2,400 kg, allowing it to be

telehandlers

transported on a regular two axle equipment trailer behind a 4x4 vehicle. While it offers four wheel drive, steering is rear axle only. Capacity at maximum lift height is 770kg, while forward reach is just under 1.7 metres with up to 580kg. Overall width is 1.4 metres and overall height 1.96 metres.

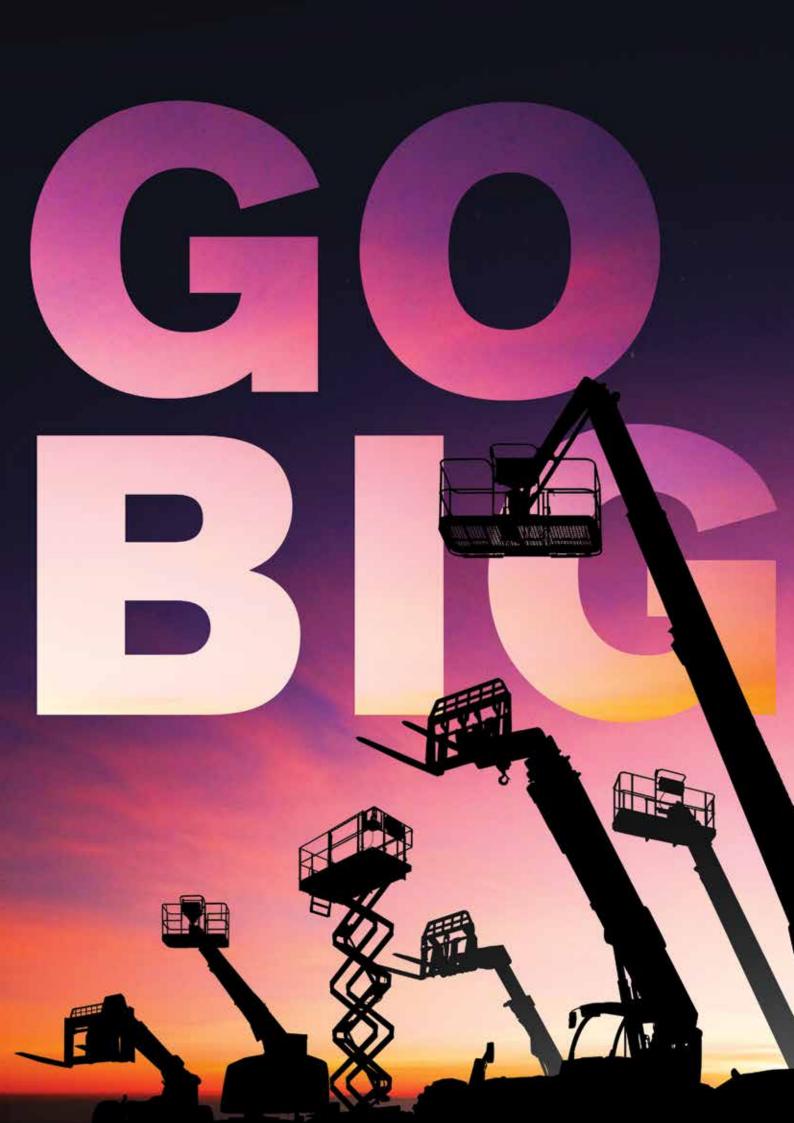
The JLG badged telehandler will be built at Ausa's plant in Manresa near Barcelona, Spain. In 2019, Ausa had revenues of €86 million, 70 percent of it derived from exports. Over the last five years Ausa has invested €12 million in R&D, producing more efficient and safer models with significantly cleaner engines. It has also launched its first electric model. On paper this looks like a good move for JLG as the Ausa T144H is well proven, can be easily transported and its compact dimensions are ideal for older building refurbishment work and industrial applications. JLG has track record of successfully sourcing specialist products from smaller companies - such as its co-operation with Hinowa which dates back to October 2010 and is still going strong - and it should help expand the smaller end of the US telehandler market.

JCB ROTO?

JCB has been a major player in the telehandler market since its first 520 Loadall was introduced in 1977. The company is particularly strong in the UK where more than half its total production is sold, helped along by mega deals with the major rental companies, such as the 1,100 unit /£75 million deal with UK rental company Ardent last summer, its largest order ever.

Rumours that JCB was to enter the 360 degree telehandler were finally realised last summer when it unveiled its first model the 5.5 tonne/20.5 metre Hydraload 555-210R. It can take 2.5 tonnes to its full lift height or handle 850kg at





CONEXPO/CON-AGG 2020 BOOTH F6962 FESTIVAL LOT

Join us at the **Xtreme Manufacturing[™] and Snorkel[™]** booth this year and be one of the first to see our **BIG** innovations!









SINOBOOM

CONEXPO-CON/AGG 2020 Las Vegas, NV

Date : March 10-14,2020 Location: LAS VEGAS CONVENTION CENTER 3150 Paradise Road Las Vegas, NV89109 USA Stand No: BL-240

HUNAN SINOBOOM INTELLIGENT EQUIPMENT CO., LTD.

- Address: No 128, East Jinzhou Avenue, Ningxiang High-tech industrial park, Changsha, Hunan Province, China, 410600
- TEL: 400-601-5828
- Email: overseas@sinoboom.com.cn
- Http: www.sinoboom.com

Sinoboom.Ltd

in Sinoboom Ltd Sinoboom Ltd

Decome To The Fabricans LAS VEGAS

NEVADA



JCB's first 360 degree model is the 5.5 tonne/20.5 metre ROTO 5.5-2.1

its maximum 18.5 metres forward reach, while travelling with up to 4.5 tonnes.

JCB says it launched the machine because of the growing popularity of rotating telehandlers with heavier lift capacities in other parts of Europe. It is also hoping that the changing construction methods used with modular homes will create more UK demand. JCB has since renamed the model to the ROTO 5.5-2.1. The first machines are just coming off the production line so first deliveries should be this spring.

The ROTO features automatic one touch outrigger deployment, stowage and levelling and it can also be operated with the outriggers set up inboard - within the machine's overall width or asymmetrically with each beam extended to fit the space available. Maximum road speed is 25mph/40kph.

The ROTO 5.5-2.1 is powered by a JCB Ecomax diesel and has a high degree of parts and service commonality with other JCB telehandlers. A low boom design is said to provide improved all round visibility, assisted by work light options and camera kits - including a boom head camera - making the placement of loads at full height easier. The JCB LiveLink telematics system is also fitted as standard.

A range of specially developed attachments using RFID technology can be identified by the machine which then automatically offers the correct load chart for that

The Manitou MRT 2550 hybrid Oxygen can operate 100 percent battery electric while having a Stage V diesel for longer shifts. attachment. Currently they include pallet forks, a 5.5 tonne carriage winch, a two tonne, two metre jib winch, a reduced height jib, 5.5 tonne hook, light duty buckets and a range of fork mounted accessories, such as waste and concrete placing skips. Remote lift end operation and aerial work platforms will also be offered later.

JCB's chief innovation and growth officer Tim Burnhope said: "Rotating telescopic handlers have become a genuine cost effective replacement for smaller mobile cranes, offering rapid set up and the ability to carry out technical lifting operations."

Going electric

In the past year or two there has been much talk about battery electric telehandlers among manufacturers. The pressure to develop such machines is coming from the increasing number of contractors seeking to lower their carbon footprint, while facing increased pressure from government to cut or even eliminate engine emissions and noise on prestigious city centre developments. Side benefits could also include drastically lower running and maintenance costs compared to diesel models. The downside though is the high purchase cost and questionable battery life, particularly on cycle work.

Last year Manitou launched a new 'green energy' initiative called Oxygen which aims to offer customers more sustainable solutions. Its new MRT 2550 hybrid Oxygen prototype shown at Bauma is capable of operating as a 100 percent battery electric machine, while having a Stage V diesel for longer shifts, and which can also be

used to recharge the battery pack. Manitou has also been testing an all-electric MT 625 e Oxygen.





Faresin All Electric

Italian manufacturer Faresin unveiled its new 'production ready' All Electric 626 telehandler at Bauma. Based on the company's standard 626 machine with six metres lift height, 2,600kg capacity and maximum forward reach of 3.1 metres with 900kg, it shares most of its components and structure with the regular diesel model.

Power comes from a standard lithium 80 volt, 300Ah battery, while a larger 400Ah battery pack is also available. The standard battery is said to provide three hours continuous operation or six hours typical usage. Recharge time to 100 percent is two hours with a Fast charger or four hours with standard charger.

The optional 400Ah provides four hours continuous operation or eight hours of typical usage and takes five hours 20 minutes with the standard charger or two hours and 35 minutes with the Fast charge.

JCB electric Teletruck

JCB quietly launched its first electric model with a preview at Vertikal Days last year. The new C30-19e fits into its Teletruck industrial range and offers a four metre lift height with up to three tonnes capacity maximum forward reach is 2.5 metres with 1,600kg capacity, 111 degrees

of carriage tilt is standard. Designed for industrial type applications, the machine is two wheel drive with rear wheel steer. The battery pack is said to be good for a typical eight hour shift, while dual shifts can be accommodated by the easy change battery pack, which can be changed over in around two minutes. The batteries are recharged with a rapid GNB high-frequency charger. Measuring 4.1 metres long, 1.29 metres wide and 2.2 metres high it has a turning radius of five metres. The compact unit weighs 5,040kg and features a new JCB CommandPlus cab with more internal space and new seat design and single lever controls.

Merlo E-Worker

Merlo has been a major player in the telehandler market - and the 360 degree Roto machines in particular - since the 1990s. Last year it launched the all electric E-Worker compact telehandler.



telehandlers





Two E-Worker 25.5 models are available - a 44kW two wheel drive or four wheel drive with 66kW power pack. Maximum capacity is 2.5 tonnes with a lift height of up to 4.8 metres. Maximum forward reach is 2.6 metres with a 1,000kg load. Overall the machine weighs 4.5 tonnes, has an overall height of 1.95 metres, a width of 1.53 metres and is 3.28 metres long. The battery pack is enough for an eight hour work shift and is capable of powering the compact machine at maximum speeds of 22kph and gradients up to 40 percent. The machine should be available later this year.

New Panoramics and Rotos

Merlo unveiled its latest range of Panoramic and Roto machines in 2018, new Rotos offer capacities ranging from four to seven tonnes and lift heights of between 15.8 and 34 metres. The entire range is equipped with a 170hp diesel matched to an electronically controlled hydrostatic transmission EPD - that lowers engine rpm when high power is not required.

Established over 30 years ago, the Panoramic range has evolved with the latest Modular machines. Features include a new high comfort cab and new axles. Lift capacities range from 3.5 to 12 tonnes and lift heights from 11 to 17.9 metres. This year the range will also be equipped with Tier V engines.

New 33 tonne Manitou

As well as its new 'green energy' Oxygen range, Manitou has launched several other new models including the heavy duty 33 tonne/12 metre MHT 12330 designed with an eye on the mining sector. It is second largest model in the Manitou range after the 35 tonne/14 metre MHT14350. The MHT 12330 has a maximum lift height of 11.92 metres and a forward reach of 6.6 metres. The unit is powered by a Deutz, Stage 5/Tier IV Final diesel coupled with a three speed hydrostatic transmission with four wheel drive.



The cab is equipped with Manitou's JSM (Joystick, Switch and Move) single joystick controller for all boom and hydraulic functions as well as drive. A four camera video system is mounted to the sides, front and rear of the machine, while operators can set restrictive zones for the boom height, outreach and hydraulic speed. A full telematics system also helps simplify machine management and is standard equipment. Overall width is 2.98 metres with an overall height of 3.6 metres and an overall length of 10.77 metres. Total weight is 49 tonnes. The first unit was sold to Stevenson Crane Service of Illinois.

Emerging market machines

Manitou has also unveiled two new telehandlers designed specifically to meet the requirements of developing

markets including Asia, Africa, the Middle East and Eastern Europe. The new models - the 7.6 metre MXT 840 and the 17 metre MXT 1740 - both offer a 4,000kg lift capacity and use the same booms and many chassis components used in the European models, however they feature a high boom mount configuration, while the European model's sophisticated controls and electronics have been replaced with simpler versions. Covers, mudguards and dashboards are all steel rather than the composite materials and the engine compartment has been reconfigured for easier maintenance. The usual three mode steering remains with a

> Manitou's heavy duty 33 tonne/12 metre MHT 12330 designed with an eye on the mining sector.







3.9 metre turning circle and a generous 380mm ground clearance. The 95hp diesel is matched to a regular torque converter transmission. The new models will be manufactured at the company's facility in India and are expected to cost around 20 percent less than their western equivalents, with that gap possibly widening if production volumes exceed current forecasts.

Product manager Kévin Arnou said: "Our ambition is to develop the telehandler market through models that are easy to use, robust and that have a total ownership cost suitable to the local users."

Compact Haulotte



Haulotte has a new 3.2 tonne/seven metre HTL 3207 telehandler - its most compact unit to date, which can take 2.5 tonnes to its maximum lift height of 6.85 metres or 1.3 tonnes to its maximum forward reach of 3.8 metres. Power comes from a Kohler Tier IV Final/ Stage 3B diesel, matched

to a full hydrostatic transmission, offering a maximum road speed of 15mph/25kph.

The new model has an overall width of 2.26 metres, an overall height of 2.33 metres - allowing it to squeeze into and load and unload a standard sea container - and an overall length of 4.67 metres. The stabilisers fall within the machine's overall width when fully set, while its overall weight with forks is just over seven tonnes.

The cab is just under a metre wide, with a large glazed area for maximum visibility, a fully adjustable seat with shock absorbers and 4 in 1 joystick for single handed operation. The load moment indicator includes an automatic cut off when operating in a danger zone, with automatic reset in case of a malfunction.



ELS enters market

The telehandler market is already bursting with manufacturers, but this has not stopped others from joining including Snorkel which is badging units built by Faresin and Turkish aerial lift manufacturer ELS working in partnership with Sanko Holding which builds the MST range of telehandlers. The ETH 935 is ELS's first telehandler and has a maximum capacity of four tonnes and can take three tonnes to a maximum height of 6.35 metres. Overall weight is 7.36 tonnes. Power is a Perkins Stage IIIA diesel.

Bobcat 'Waste Expert'

Bobcat has launched the 'Waste Expert' range of telehandlers for the refuse and recycling markets. Based on the TL43.80HF model Bobcat has started with four variants: the 6.4 metre/3,400kg TL34.65HF, two seven metre models - the 3,500kg TL35.70 and 3,800kg TL38.70HF - plus the 7.5 metre/4,300kg TL43.80HF, all powered by Stage IV diesels. All have variable transmissions with automatic parking brake and an ECO mode, which adjusts the High Flow hydraulic system to produce the best balance between performance and fuel consumption. The new machines feature an extra large boom nose, standard boom cushioning and equipment for working in harsh and tough conditions, with extra protection for hydraulic cylinders, windshield, roof, lights and the fuel and oil tanks.



REACH FURTHER WITH GT LIFTING

There's a reason we're No1. for nationwide sales and hire in the UK.



GT Lifting is the UK's largest hire and sales company of Merlo and Magni heavy lift and ROTO machines.





DEPOTS AT WEST SUSSEX & SOMERSET

NEW HT16 RTJ PRO HT46 RTJ PRO (US version)



HAULOTTE GROUP, La Péronnière - BP 9, 42152 L'Horme, France Tél. : +33 (0)4 77 29 24 24 - Fax : +33 (0)4 77 22 76 22 - haulotte@haulotte.com



The big American show

This year's it's the USA's turn to host the big international construction equipment exhibition, Conexpo 2020, which opens in Las Vegas on Tuesday March 10th and runs through to Saturday 14th March. The event looks as though it will be a particularly good one for cranes but a little weaker for aerial work platforms. With Bauma taking place less than 12 months earlier, don't expect too many radical new product launches - many are just north American launches of Bauma prototypes. That does not mean to say there are none. Most companies have something new to show and we may well get some last minute surprises.

All of the crane manufacturers are exhibiting along with all the major aerial work platform companies. The same applies to telehandlers but unlike the other two sectors, most north American telehandler models are completely different to those sold elsewhere, although most of the manufacturers are the same.

The following is a brief outline of some of the major exhibitors that had revealed their products or services as we went to press. For the aerial lift manufacturers it is the ARA rather than Conexpo that is on their minds. Perhaps at this stage the full brand listing of exhibitors and their stand numbers is more useful, and we hope to have a little more

Show Details

Dates: March 10-14, 2020. Tuesday - Friday: 9:00 - 17:00 Saturday: 9:00 - 15:00 product details in the Vertikal Guide to Conexpo.

This year the old Gold Lot which has been home to most of the lifting related stands for many years, is closed for construction work, and has been replaced with a new, temporary area dubbed the Festival Grounds with its Festival Hall pavilion. The Cranes & Access/ Vertikal stand will be just inside one of the pavilion entrances close to the products we cover.

In addition to this preview we will be publishing our separate bi-lingual - English and Spanish - Vertikal Conexpo Guide to the show. This will be available online the week prior to the show with a print version handed out at the event itself. It will include large scale maps and detailed lists by product type and display area as well as an alphabetical listing. If you want to make sure you do not miss anything and get around the show in the most efficient way, you can simply download a copy in advance in

order to plan your visit, see who is there this year and who is not. If you prefer to have a printed version, pick one up as you enter the Festival Lot or come and see us in the navilion

Registration and Entry tickets

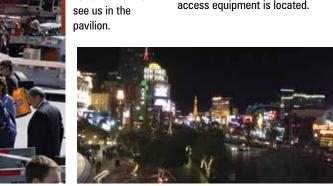
Conexpo 2020

A pre-registered general entry ticket to the show costs \$195 and provides you with true discounts on hotel prices, as well as use of shuttle buses and the Monorail. Some exhibitors offer discount codes, so do check this out in advance. And do not wait to pay at the gate as the price jumps to \$249. An advanced purchase pass for Friday and Saturday is a little cheaper at \$149. If you are interested in attending any educational seminars these badges are more costly at \$589, but a good deal cheaper than buying a seminars ticket separately. https://www.conexpoconagg.com/ visit/registration-and-pricing/

Transport

The show badge includes free use of shuttle buses between the show, including the all-important Festival Grounds and all official Conexpo hotels - apart from those within walking distance.

Another alternative is the Monorail - especially if you are on the same side of the street as the exhibition centre. A three day pass is included in your show ticket/badge. But note you will need to take a shuttle bus from the station to the Festival Grounds where all the cranes and access equipment is located.





SEE US AT CONEXPO 2020 FESTIVAL GROUNDS F7376

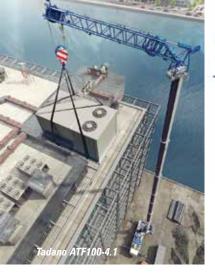
EVERYTHIG YOU NEED TO BOOST PRODUCTIVITY

The Terex® RT 90 - the latest in reliable performance.

Boost your lifting performance with the Terex* RT 90 rough terrain crane. The five section, fully hydraulic boom stretches an impressive 47 m (154 ft) to extend your capabilities on long reach applications. IC-1 controls provide easy operation, smooth control and integrated diagnostics while the removable counterweight lets you move quickly and efficiently from job to job. The RT 90 has everything you need to get the job done.



WORKS FOR YOU.



Tadano

Tadano and Tadano Demag will be at the show barely eight months since the acquisition of Demag was completed. While much progress has been made it is still very early days. The key new products will be the three new Series 4 Rough Terrain cranes aimed squarely at the North American market where Tadano is the market leader. It will also be a good chance to see the new four axle 100 tonne Tadano ATF100-4.1 and its five axle sister crane the 120 tonne ATF120-5.1. While both cranes were announced at Bauma last year the machines on display are the production units with shipments now underway. This is in effect the North American launch.

ATF-100-4.1 and ATF-120-5.1

Both new cranes use Tadano's two engine layout - increasingly rare on this size of crane - and feature a new 60 metre main boom topped by a nine to 19 metre swingaway extension that offsets by up to 60 degrees. Overall width of both units is 2.75 metres, while both incorporate Mercedes Benz EU Stage V/EPA Tier 4f diesel power units. Both can carry a decent amount of counterweight within the 12 tonne axle loadings, while the ATF-120 can travel intact with axle loads of less than 10 tonnes.

Liebherr EC-B flat top

New Tadano RTs

Turning to the new Rough Terrain models there are two 90.7 tonne/100 ton models - the long boom GR-1000XLL-4 and GR-1000XL-4 - along with the 73 tonne/80 ton GR-800XL-4. The models are full upgrades of models launched in 2011 and focus on improved safety, comfort, performance and work range as well as meeting the latest emission standards. The long boom GR-1000XLL-4 boasts a five section 51 metre boom, while the GR-1000XL-4 and GR-800XL-4 feature five section 47 metre booms, the same length as the GR-1000XL-3 which is being replaced. All three cranes feature a 10.7 to 17.1 metre bi-fold swingaway extension which offsets by up to 45 degrees. Further details can be found on page six.

There might just be a surprise or two under the Demag banner, given that the company was working on some interesting projects prior to the takeover. We do know that there will be an impressive display with the 220 tonne five axle AC 220-5, 100 tonne four axle AC 100-4L and 300 tonne six axle AC 300-6 as well as the recently launched 45 tonne AC 45 City. Dominating the stand however will be the 650 tonne CC 3800-1 lattice crawler crane.

Mantis Crawlers

Finally if you are interested in telescopic crawler cranes then this is the show to check out the Tadano Mantis range. The products have come a long way since the company was acquired by Tadano in 2009.

Manitowoc Crane Group

Manitowoc - which includes Grove



Cla

telescopic cranes, Potain tower cranes, National Crane boom trucks and

Manitowoc lattice crawler cranes - is planning a major show with six new models due to be launched. The company is being a little tight lipped so we are not sure if all of them will be totally new, include upgrades or be North America launches.

We do know that the display will include the 165 tonne Grove GRT9165 Rough Terrain, the long boom version of the popular 250 tonne five axle GMK5250XL-1 All Terrain, and the TMS500-2 truckmounted crane. If you are from Europe you will probably not have seen the Sennebogen-built Grove telescopic crawler cranes, so this is an opportunity with the 140 ton GHC140. The Potain tower crane line will include the Hup M 28-22 self-erector, complete with a transport/trailer axle that meets local road regulations. You might also check out the 54 tonne National Crane NBT60L truck mount.

Liebherr

Liebherr will have a major display with a number of very large cranes, including the new 650 tonne LTM 1650-8.1 eight axle All Terrain launched at Bauma and the new 800 tonne LR 1800-1.0 lattice crawler crane. The LTM 1650-8.1 is now production ready and available with a choice of 54 or 80 metre main booms. It is expected to take over from the 500 tonne LTM 1500-8.1.

The LR 1800-1.0 is likely to be the largest crane at the show and is - according to the company - the largest crawler crane that can be transported within a three metre overall width. The company will also have the new 200 tonne HS 8200





cycle crane on show which takes over from the HS 895 HD.

Liebherr tower cranes

Tower cranes will be represented by the new eight tonne capacity 125 K, self-erecting tower crane which offers a maximum jib of 55 metres and maximum hook height of 41.5 metres. The company's flat top range will be represented by the new 340 EC-B which is likely to be rigged with fibre rope. It has a maximum capacity of 12 tonnes, while maximum radius is 78 metres. Maximum hook height is 85 metres.

Terex Cranes

This is an important show for Terex cranes which now includes just two product lines Rough Terrains and Tower cranes. The company will launch the new 80ton/72.5 tonne TRT 80US with a 42.1 metre main boom, critically it will be the first model featuring TEOS - the Terex





Conexpo 2020



Operating System - building on previous technology with operating range limiter, engine automatic throttle, integrated diagnostics and improved information flow.

The new crane has been designed to be compact and easy to transport while offering advantages on tight job sites or for performing indoor lifts. Two extensions - eight or 15 metres - are available. The cab features a new steering column, dashboard and 10 inch display. LED lights are also part of the standard machine. Options include four cameras, radio remote controls and T-Link telematics.

Also on the stand the 20 tonne Terex CTT 472-20 flat top tower crane will feature a new slewing technology called T-Torque which it says is a fully dynamic system, allowing crane operators to customise slew characteristics to find the best fit to their driving style, from smooth movements to very rapid reactions. The CTT 472-20 offers 11 different jib configurations from 30 to 80 metres with a 4.48 tonne jib tip capacity. The Terex Power Plus boosts capacity by an extra 10 percent when needed.

Comansa

Comansa is another company showing an 18 tonne luffing jib tower crane. Its LCL310 luffer features a 60 metre jib, with 3,500kg jib tip capacity and is now equipped with the company's new Cube Cab.

Wolffkran

The company is planning to show its latest hydraulic luffing crane, the 166 B2

Maeda

Several new Maeda spider cranes will make their North American debut. Four new models will be on the stand including the new generation MC285-3 which features multi-angle outriggers, a new wireless remote control, next generation touch screen



load moment indicator and safety system and a removable electric power pack. It will also highlight the 900kg capacity MC090 spider, with a capacity of under 2,000kg it can be operated without operator certification. Standard features include radio remote controls and new load moment indicator.

Raimondi

Raimondi will show the 18 tonne LR273 luffing jib crane unveiled at Bauma last year, which it says is easy to erect, has a large hoist drum capacity and 60 metre jib.

Haulotte

Haulotte will display a brand new telescopic boom - the HT16 RTJ PRO - while highlighting an addition to its blue strategy with the 61ft HA61 LE articulated boom, the first in its Pulseo Generation.

Genie

Genie is focusing on the latest development in its telematics systems and new ANSI models, including the latest XC boom lifts, but don't be surprised if it has a surprise or two up its sleeve.

Oil & Steel

The company will show the Manitex/Oil & Steel A62, an ANSI version of its 19 metre Scorpion telescopic truck mount, with 11.6 metres of outreach and 250kg platform capacity. It is also likely to have one of its new Octopus spider lifts.

Sany

The big Chinese manufacturer will show crawler and Rough Terrain cranes, but the big news will be its plans to re-start the active marketing of its Rough Terrain cranes after a three year lull. As part of this plan it will display a new generation of Rough Terrain cranes ranging in capacity from 60 tonnes to 150 tonnes. The company will also show a 260 tonne crawler and might have a new 80 tonne telescopic crawler due to start shipping later this year.





Reachmaster

The Falcon spider lift dealer will have a wide range of products on show including a new US specification Ruthmann truck mounted lift, new Bluelift spider lifts and an interesting Winlet pick & carry glass handling machine.

Pettibone

Pettibone is celebrating the 50th anniversary of the launch of what it claims is the first telehandler. But the key product on the stand will be the new 14.1 metre/5.4 tonne Traverse T1246X telehandler. Uniquely it offers almost 1.8 metres of horizontal forward boom movement - traversing - allowing loads to be moved forward without telescoping/elevating the boom or driving forward.

Another first is its entry into the aerial lift market with a full range of Pettibone badged/LGMG built slab electric scissor lifts.

Magni

Magni will show off its latest 360 degree and heavy duty telehanders. At the last Conexpo it surprised us with a new 46 metre unit which has sold particularly well in North America. Who knows what we might expect this time round but it has several new machines on the drawing board including a new six tonne/25 metre TH fixed frame and a new 13 tonne Heavy Duty model.

Sinoboom

The Chinese manufacturer will have a full suite of scissor lifts and booms on display, but the star of the stand is likely to be the all new 153ft GTZZ46J articulated boom lift. Launched late last year this will be its international debut.

Hydro Mobile

Big talk at the Canadian mastclimber manufacturer will be the impending acquisition by Bandsafway. Also expect a full suite of mastclimbing platforms and hoists.



Pettibone slab electric scissor





TEC RANGE BUILT FROM OUR BEST IDEAS

Unfold with one fingertip – that is possible with the assistance of the PALFINGER P-Fold system. Thanks to the intuitive radio remote control PALcom P7, the crane is folded and unfolded with only one lever movement – for an easy and fast set-up.

ASSISTANCE

LIFETIME EXCELLENCE

PALFINGER.COM

1F

Conexpo 2020



NCCCO

The NCCCO will once again host the Lift Safety Zone at the bottom of the Festival area close to where the shuttle buses drop off. IPAF is located right next door.

Jekko and Fassi

Jekko and Fassi dealer Fascan International will show a full range of Jekko spider cranes including the new 3.2 tonne SPX532 first seen at Bauma, with its new outrigger system and all-new electronics and hydraulics. The crane has a maximum tip height of 17.3 metres with jib, while the maximum radius is 14.8 metres. Slew is 360 degree continuous and the crane folds down to an overall width of 770mm with a compact overall length of 1.96 metres while weighing just 2,350kg. The SPX532 is available with lithium battery technology or with dual diesel/AC electric power packs. Another model of particular interest is the 11.5 tonne JF545 articulated crawler crane. Developed in partnership with sister company Fassi, the crane has a maximum tip height of 29 metres with 550kg capacity and a maximum radius of 26.5 metres, at which it can handle 365kg. It has an overall width of 1.8 metres, overall length of 5.5 metres and an overall height of 2.7 metres.

The company is also showing the two tonne MPK20 Minipicker pedestrian operated pick & carry crane and its six tonne SPK60 mini crawler crane.

LGMG

This will be the first Conexpo for LGMG America which was established last year in Chambersburg, Pennsylvania.

JLG

JLG will have both aerial lifts and telehandlers on display but one of the more interesting might be the ultra compact four metre/1.35 tonne SkyTrak 3013, built by Ausa and announced a few weeks ago.



Skyjack

Skyjack will show its new generation boom lifts, the company's 40 and 60 ft booms now feature increased platform capacities and dual-module control system and advances telematics and





Snorkel

Key products on the Snorkel stand will include the new Lithium powered Speed Levels and the 19ft S3019E slab scissor lift with the scissor stack stowed inside the chassis providing an overall stowed height of just 1.76 metres. It also has direct electric drive and steer eliminating hydraulic hoses, while extending battery life between recharging.

Platform Basket

If you have not already seen it check out the company's insulated boom spider lifts, developed in North America but now available worldwide.

CMC

CMC and its dealer All Access will show some of its latest spider lifts possibly including the new 28 metre S28.

Dica

Dica will display its lines of outrigger pads, cribbing blocks, pole barriers and introduce a new product type.



Dinolift

Dinolift is launching its new North American distribution business and will show both trailers and booms with a focus on its lightweight self-propelled boom lifts which sell particularly well in the USA.

AMCS

French anti-collision software specialist AMCS promises some world previews on its stand with local dealer Finnco Services. The new anti-collision and zoning system for tower cranes DCS 61-S (Driving Control System Safety) is now available.

A1A Software

A1A Software has live demonstrations of several new features within its 3D Lift Planning and iCraneTrax fleet management programmes. These include integration between the two allowing users of both products to save 3D Lift Plans to iCraneTrax job records and to check the availability of a crane to be scheduled before selecting it for lift plan creation. Both products are also more accessible on the go. New tools for gathering lift planning information with a tablet or computer include Sketch Pad, Crane Comparison, Load Chart Viewer, Crane Loads Calculator and Mat Calculator.



Cia Conexpo 2020





www.platformbasket.com

Conexpo 2020 Cfa So who is exhibiting?

The following is an alphabetical list of all exhibitors that produce products or services that have any relationship to lifting equipment, predominantly cranes, access and telehandlers. More detailed lists by product sector will be found in the Vertikal Conexpo Guide.

| | nd No/Hall |
|---------------------------------------|------------|
| A | D02112 |
| 3B6 A1A Software | B92112 |
| A1A Software | F7804 |
| AAH Fluid Power | S81359 |
| Aarcomm Systems | B93227 |
| Accella Tire Fill Systems | C22400 |
| AGF | F3776 |
| Air-Weigh | S62052 |
| Airo Industries | F100200 |
| Alimak | F2886 |
| All Access Equipment | F8252 |
| Alliance Tire Americas | F6708 |
| Allied Pedestal Boom Systems | B90111 |
| Allison Transmission | S84831 |
| Almac | F5836 |
| Alps Wire Rope Corporation | F100027 |
| Altec | F7838 |
| AMCS technologies | F101211 |
| American Road & Transp.Builders Assoc | |
| American Roller Bearing | S62545 |
| American Soc. of Mech.Eng. (ASME) | GL12594 |
| ANMOPyC | GL12287 |
| Applied Machinery Sales | F5785 |
| Arcomet Service | F7456 |
| Armadillo Tire | F100111 |
| ASM Sensors | S80041 |
| Assetworks | S65616 |
| Assoc. General Contractors of America | GL11279 |
| Associated Wire Rope & Rigging | F7338 |
| Associ. of Equip. Management Prof. | GL20701 |
| Association of Equipment Manufacturer | s GL20401 |
| ASV | F100801 |
| ATN See Fassi | F4569 |
| ATC - Mateks | S83300 |
| Atlas | BL636 |
| Auburn Gear | S82431 |
| AuctionTime | S64818 |
| Autec | C23000 |
| Auto Crane | C22020 |
| Avant Tecno | F3768 |
| В | |
| B2W Software | S65228 |
| Bailey Specialty Cranes and Aerials | F8730 |
| Baldwin Filters | S85321 |
| Bauer | F6946 |
| bauma 2022 | GL12596 |
| bauma China | GL20903 |
| bauma CTT Russia | GL20903 |
| Bibbi lift | F5836 |
| Bigge Crane and Rigging | F100905 |
| Bil-Jax | F6134 |
| | |
| BKT Bluglift | C22705 |
| Bluelift | F5836 |

| BobcatN10001Bonfiglioli RiduttoriS83617Bosch RexrothS80215Brand HydraulicsS81516BrandSafwayF3376BridgestoneN13166Brigade ElectronicsS62645Briggs & StrattonB7405BrodersonF7538Brutus Truck BodiesB7228Bucher HydraulicsS82119CCCamsoC22521CAN in AutomationSL80201CasagrandeF5815CasaarF101111Caterpillar EnginesS84331Caterpillar EnginesS84331Caterpillar EnginesS84331Caterpillar EnginesS84331Construction Machinery AssociationGL1901CMCF8252CobaB92112Cobra NextB7228ComansaF5803Comer IndustriesS82831CornachF33780CornachF3780CornachF3780CornachF3780CornachF3780CornachF3780Cranes & AccessF101325Crane Hot LineF101403CornachF3780Cornstruction Equipment Association GL11681ContinentalF101524Cranes & AccessF101325Cranes MaufacturingS81323Cross ManufacturingS81323Cross ManufacturingS81323Cross ManufacturingS81323Cross ManufacturingS81323Cross ManufacturingS81323< | Company | Stand No/Hall |
|---|---------------------------------------|---------------|
| Bonfiglioli RiduttoriS83617Bosch RexrothS80215Brand HydraulicsS81516BrandSafwayF3376BridgestoneN13166Brigade ElectronicsS62645Briggs & StrattonB7405BrodersonF7538Brutus Truck BodiesB7228Bucher HydraulicsS82119CCCamsoC22521CAN in AutomationSL80201CasagrandeF5815CasarF101111Caterpillar EnginesS84331Caterpillar EnginesS84331Caterpillar EnginesS84331Caterpillar EnginesS84331ComsoF2228Cobra NextB7228ComansaF100911CMCF8252COBOB92112Cobra NextB7228ComansaF5803Comert IndustriesS82831ComettoF2872Construction Equipment AssociationGL11681ContinentalF101403CorranethF3780CorranethF3780CorranethF3780CorranethF3780CorranethF3780CorranethF3780CornachF3780CorranethF3780CornachF3780CornachF3780CornachF3780CornachF3780CornachF3780CornachF3780CornachF3780CornachF3780CornachF3780 | Bobcat | N10001 |
| Bosch RexrothS80215Brand HydraulicsS81516BrandSafwayF3376BridgestoneN13166Brigade ElectronicsS62645Briggs & StrattonB7405BrodersonF7538Brutus Truck BodiesB7228Bucher HydraulicsS82119CCCamsoC22521CAN in AutomationSL80201CasagrandeF5815CasarF101111Caterpillar EnginesS84331Caterpillar EnginesS84331CatorecB8901China Construction Machinery AssociationGL31901CM Labs SimulationsF100911CMCF8252COBOB92112Cobra NextB7228ComansaF5803ComertoF2872Construction Equipment AssociationGL11681ContinentalF101403CormachF3780CormidiBL155Cranes & AccessF101325Crane Hot LineF101419Cranes InformationSR407Construction & Certification BureauF100804Cranes 101F101524Cranes MaufacturingSR3123Cross ManufacturingSR4031Curriss-WrightSR3031Delta PowerSR3043Delta PowerSR3043Delta PowerSR3043Delta PowerSR3043Delta PowerSR3043Delta OF8024Delta OF8026DeutzSR5231DICA O | | |
| Brand HydraulicsS81516BrandSafwayF3376BridgestoneN13166Brigade ElectronicsS62645Briggs & StrattonB7405BrodersonF7538Brutus Truck BodiesB7228Bucher HydraulicsS82119CCCamsoC22521CAN in AutomationSL80201CasagrandeF5815CasarF101111Caterpillar EnginesS84331Caterpillar EnginesS84331CatorotecB8901China Construction Machinery AssociationGL31901CML abs SimulationsF100911CMCF8252COBOB92112Cobra NextB7228ComansaF5803ComertoF2872Construction Equipment AssociationGL11681ContinentalF101403CormachF3780CormidiBL155Cranes & AccessF101325Crane Hot LineF101419Crane Industry ServicesF101524Cranes 101F10524Cranes MaufacturingS81233OcruschS84043CurminsS84043CurminsS84043CurnissS80931Delta PowerS83043Delta-QF100127Demag TadanoF8004DenkaF5836DeutzS85231DICA Outrigger PadsF8258 | | |
| BrandSafwayF3376BridgestoneN13166Brigade ElectronicsS62645Briggs & StrattonB7405BrodersonF7538Brutus Truck BodiesB7228Bucher HydraulicsS82119CCCamsoC22521CAN in AutomationSL80201CasagrandeF5815CasarF101111Caterpillar EnginesS84331Caterpillar EnginesS84331Caterpillar Construction Machinery AssociationGL31901CML abs SimulationsF100911CMCF8252COBOB92112Cobra NextB7228ComansaF5803ComertoF2872Construction Equipment AssociationGL11681ContinentalF101403CormachF3780CormidiBL155Cranes & AccessF101325Crane Hot LineF101403Cranes for AccessF101524Cranes for Cortification BureauF100804Cranes 101F101524Cranes ManufacturingS81323Cross ManufacturingS81323Cross ManufacturingS81323Cross ManufacturingS81323Deta PowerS83043Delta PowerS83043Delta PowerS83043Delta-QF100127Demag TadanoF8004DenkaF5836DeutzS85231DICA Outrigger PadsF8258 | | |
| BridgestoneN13166Brigade ElectronicsS62645Briggs & StrattonB7405BrodersonF7538Brutus Truck BodiesB7228Bucher HydraulicsS82119CCCamsoC22521CAN in AutomationSL80201CasagrandeF5815CasarF101111Caterpillar EnginesS84331Caterpillar EnginesS84331Caterpillar Construction Machinery AssociationGL31901CML abs SimulationsF100911CMCF8252COBOB92112Cobra NextB7228ComansaF5803Comerto Equipment AssociationGL11681ContinentalF101403CormachF3780CormidiBL155Cranes & AccessF101325Crane Hot LineF101403CornachF3780CornotolSCensorCranes 101F101524Cranes ManufacturingS81323Cross ManufacturingS81323Cross ManufacturingS81323Cross ManufacturingS81323Cross ControlS84043CurminisS84407Curtis Instruments IncB90330Curtis Instruments IncB90330Delta PowerS83043Delta PowerS83043Delta PowerS83043Delta-QF100127Demag TadanoF8054DeutzS85231DICA Outrigger PadsF8258 | | |
| Brigade ElectronicsS62645Briggs & StrattonB7405BrodersonF7538Brutus Truck BodiesB7228Bucher HydraulicsS82119CCCamsoC22521CAN in AutomationSL80201CasagrandeF5815CasarF101111Caterpillar EnginesS84331Caterpillar EnginesS84331Caterpillar Construction Machinery AssociationGL31901CML abs SimulationsF100911CMCF8252COBOB92112Cobra NextB7228ComansaF5803ComettoF2872Construction Equipment AssociationGL11681ContinentalF101403CormachF3780CormidiBL155Cranes & AccessF101325Crane Hot LineF101419Crane Industry ServicesF101524Cranes ManufacturingS81323Cross ManufacturingS81323Cross ControlS84043CurminsS84407Curtis Instruments IncB90330Curtis Instruments IncB90330Curtis S-WrightS83131DDDanaS84707DanfossS80931Delta-OF100127Demag TadanoF8004DenkaF5836DeutzS85231DICA Outrigger PadsF8258 | | |
| Briggs & StrattonB7405BrodersonF7538Brutus Truck BodiesB7228Bucher HydraulicsS82119CCCamsoC22521CAN in AutomationSL80201CasagrandeF5815CasarF101111Caterpillar EnginesS84331Caterpillar EnginesS84331Caterpillar Construction Machinery AssociationGL31901CM Labs SimulationsF100911CMCF8252COBOB92112Cobra NextB7228ComansaF5803ComettoF2872Construction Equipment AssociationGL11681ContinentalF101403CormachF3780CormidiBL155Cranes & AccessF101325Crane Hot LineF101419Cranes ManufacturingS81323Cross ManufacturingS81323Cross ManufacturingS81323Cross ManufacturingS81323Cross ControlS84043CurminsS84407Curtis Instruments IncB90330Curtis Instruments IncB90330Deta-OF100127Demag TadanoF8064DeutzS8231DICA Outrigger PadsF8258 | | |
| BrodersonF7538Brutus Truck BodiesB7228Bucher HydraulicsS82119CCCamsoC22521CAN in AutomationSL80201CasagrandeF5815CasarF101111Caterpillar EnginesS84331Caterpillar EnginesS84331ComtecF8252COBOB92112Cobra NextB7228ComsusaF5803ComettoF2872Construction Equipment AssociationGL1681ContinentalF101403CormachF3780CormidiBL155Cranes & AccessF101325Crane BA AccessF101325Crane Industry ServicesF101524Cranes ManufacturingS81323Cross ManufacturingS81323Cross ControlS84043Curtis Instruments IncB90330Curtis Instruments IncB90330Curtis Instruments IncB90330Curtis Instruments IncB90330 <t< td=""><td></td><td></td></t<> | | |
| Brutus Truck BodiesB7228Bucher HydraulicsS82119CCCamsoC22521CAN in AutomationSL80201CasagrandeF5815CasarF101111Caterpillar EnginesS84331Caterpillar EnginesS84331Comstruction Machinery Association GL39011CM Labs SimulationsCMCF8252COBOB92112Cobra NextB7228ComsoaF5803ComettoF2872Construction Equipment AssociationGL1681ContinentalF101403CormachF3780CormidiBL155Cranes & AccessF101325Crane Hot LineF101419Cranes In1F101524Cranes In1F101524Cranesmart SystemsF101525Cross ManufacturingS81323Cross ControlS84407Curtis Instruments IncB90330Curtis Instruments IncB90330 </td <td></td> <td></td> | | |
| Bucher HydraulicsS82119CCamsoC22521CAN in AutomationSL80201CasagrandeF5815CasarF101111Caterpillar EnginesS84331Caterpillar EnginesS84331Caterpillar EnginesS84331Caterpillar Construction Machinery AssociationGL31901China Construction Machinery AssociationGL31901CM Labs SimulationsF100911CMCF8252COBOB92112Cobra NextB7228ComansaF5803Comert IndustriesS82831ComettoF2872Construction Equipment AssociationGL1681ContinentalF101403CormachF3780CormidiBL155Cranes & AccessF101325Crane Hot LineF101419Cranes 101F101524Cranes 101F101524Cranes 101S1323Cross ManufacturingS81323Cross ManufacturingS81323Cross ControlS84043CurminsS84407Curtis Instruments IncB90330Curtiss-WrightS83031Delta PowerS83043Delta PowerS83043Delta - QF100127Demag TadanoF8024DanaS84207DICA Outrigger PadsF8258 | | |
| CCamsoC22521CAN in AutomationSL80201CasagrandeF5815CasarF101111Caterpillar EnginesS84331Caterpillar EnginesS84331CaterpillarF4455CavotecB8901China Construction Machinery AssociationGL31901CM Labs SimulationsF100911CMCF8252COBOB92112Cobra NextB7228ComansaF5803Comer IndustriesS82831ComettoF2872Construction Equipment AssociationGL1681ContinentalF101403CormachF3780CormidiBL155Cranes & AccessF101325Crane Hot LineF101403CorasesF101524Cranes 101F101524Cranes 101F101524Cranes 101S1323Cross ManufacturingS81323Cross ManufacturingS81323CornscintolS84407Curtis Instruments IncB90300Curtiss-WrightS83043Delta PowerS83043Delta PowerS83043Delta PowerS83043Delta OF8004DenkaF5836DeutzS85231DICA Outrigger PadsF8258 | | |
| CamsoC22521CAN in AutomationSL80201CasagrandeF5815CasarF101111Caterpillar EnginesS84331Caterpillar EnginesS84331Caterpillar EnginesS84331Caterpillar Construction Machinery AssociationGL31901CM Labs SimulationsF100911CMCF8252COBOB92112Cobra NextB7228ComansaF5803ComettoF2872Construction Equipment AssociationGL11681ContinentalF101403CormachF3780CormidiBL155Cranes & AccessF101524Crane Industry ServicesF101524Cranes I01F101524Cranes I01F101524Cranes StatumS84407Curtis Instruments IncB90330Curtis Instruments IncB90330Curtis Instruments IncB90330Curtis Instruments IncB90330Delta PowerS83043Delta-QF100127Demag TadanoF8004DenkaF5825DICA Outrigger PadsF8258 | | <u>S82119</u> |
| CAN in AutomationSL80201CasagrandeF5815CasarF101111Caterpillar EnginesS84331Caterpillar EnginesS84331Caterpillar Construction Machinery AssociationGL31901China Construction Machinery AssociationGL31901CM Labs SimulationsF100911CMCF8252COBOB92112Cobra NextB7228ComansaF5803Comer IndustriesS82831ComettoF2872Construction Equipment AssociationGL1681CormachF3780CormachF3780CormachF101403CormachF101403CormachF101403CormachF101524Cranes & AccessF101524Crane Industry ServicesF101524Cranes 101F101524Cranes 101F101525Cross ManufacturingS81323Cross ControlS84043CurminsS84407Curtis Instruments IncB90330Curtiss-WrightS83043Delta PowerS83043Delta-QF100127Demag TadanoF8004DenkaF5836DeutzS85231DICA Outrigger PadsF8258 | | |
| CasagrandeF5815CasarF101111Caterpillar EnginesS84331Caterpillar EnginesS84331CaterpillarF4455CavotecB8901China Construction Machinery AssociationGL31901CM Labs SimulationsF100911CMCF8252COBOB92112Cobra NextB7228ComansaF5803Comer IndustriesS82831ComettoF2872Construction Equipment AssociationGL11681ContinentalF101403CormidiBL155Cranes & AccessF101325Crane Industry ServicesF101524Cranes 101F101524Cranes 101F101524Cranes 101F101525Cross ManufacturingS81323Cross ControlS84043CurminsS84407Curtis Instruments IncB90330Curtiss-WrightS83043Delta PowerS83043Delta-QF100127Demag TadanoF8004DenkaF5836DeutzS85231DICA Outrigger PadsF8258 | | |
| CasarF101111Caterpillar EnginesS84331CaterpillarF4455CavotecB8901China Construction Machinery AssociationGL31901CM Labs SimulationsF100911CMCF8252COBOB92112Cobra NextB7228ComansaF5803Comer IndustriesS82831ComettoF2872Construction Equipment AssociationGL11681ContinentalF101403CormidiBL155Cranes & AccessF101325Crane Industry ServicesF101524Cranes 101F101524Cranes 101F101524Cranes 101F101525Cross ManufacturingS81323Cross ControlS84043CurmininsS84407Curtis Instruments IncB90330Curtis Instruments IncB90330Curtis ServicesS80931Delta PowerS83043Delta PowerS83043DenkaF5836DeutzS85231DICA Outrigger PadsF8258 | CAN in Automation | |
| Caterpillar EnginesS84331CaterpillarF4455CavotecB8901China Construction Machinery AssociationGL31901CM Labs SimulationsF100911CMCF8252COBOB92112Cobra NextB7228ComansaF5803Comer IndustriesS82831ComettoF2872Construction Equipment AssociationGL11681ContinentalF101403CormachF3780CormidiBL155Cranes & AccessF101325Crane Industry ServicesF101524Cranes 101F101524Cranes 101F101524Cranes 101F101525Cross ManufacturingS81323Cross ControlS84043CurminisS84407Curtis Instruments IncB90300Curtis Instruments IncB90300Curtis ServicesS80931Delta PowerS83043Delta-QF100127Demag TadanoF8004DenkaF5836DeutzS85231DICA Outrigger PadsF8258 | - | F5815 |
| CaterpillarF4455CavotecB8901China Construction Machinery AssociationGL31901CM Labs SimulationsF100911CMCF8252COBOB92112Cobra NextB7228ComansaF5803Comer IndustriesS82831ComettoF2872Construction Equipment AssociationGL11681ContinentalF101403CormachF3780CormidiBL155Cranes & AccessF101325Crane Hot LineF101419Cranes AccessF101524Cranes 101F101524Cranes 101F101525Cross ManufacturingS81323Cross ControlS84043Currtis Instruments IncB90330Curtiss Instruments IncB90330Curtiss S8031Delta PowerDanaS84707DanaS84707DanaS8043Delta PowerS83043Delta PowerS83231DICA Outrigger PadsF8258 | | F101111 |
| CavotecB8901China Construction Machinery AssociationGL31901CM Labs SimulationsF100911CMCF8252COBOB92112Cobra NextB7228ComansaF5803Comer IndustriesS82831ComettoF2872Construction Equipment AssociationGL1681ContinentalF101403CormachF3780CormidiBL155Cranes & AccessF101325Crane Hot LineF101419Cranes 101F101524Cranes 101F101524Cranes 101F101525CrossyC20637Cross ManufacturingS81323Corss ControlS84043CurminsS84407Curtis Instruments IncB90330Curtiss-WrightS83043Delta PowerS83043Delta PowerS83043Delta QF100127Demag TadanoF8004DenkaF5836Dut/ S85231DICA Outrigger PadsDICA Outrigger PadsF8258 | Caterpillar Engines | S84331 |
| China Construction Machinery AssociationGL31901CM Labs SimulationsF100911CMCF8252COBOB92112Cobra NextB7228ComansaF5803Comer IndustriesS82831ComettoF2872Construction Equipment AssociationGL11681CorninentalF101403CormachF3780CormidiBL155Cranes & AccessF101325Crane Hot LineF101419Cranes Industry ServicesF101524Cranes Inspection & Certification BureauF100804Cranes 101F101524Cranes MaufacturingS81323Cross ManufacturingS81323Cross ControlS84043CurminsS84407Curtis Instruments IncB90330Curtiss-WrightS83043Delta PowerS83043Delta PowerS83043Delta PowerS83231Delta AnaF5836DeutzS85231DICA Outrigger PadsF8258 | Caterpillar | F4455 |
| CM Labs SimulationsF100911CMCF8252COBOB92112Cobra NextB7228ComansaF5803Comer IndustriesS82831ComettoF2872Construction Equipment AssociationGL11681CorninentalF101403CormachF3780CormidiBL155Cranes & AccessF101325Crane Hot LineF101419Cranes Industry ServicesF101524Cranes 101F101524Cranes ManufacturingS81323Cross ManufacturingS84043CurminsS84407Curtiss Instruments IncB90330Curtiss-WrightS83131DDDanaS84707DanaS84043Delta PowerS83043Delta-QF100127Demag TadanoF8004DenkaF5836DeutzS85231DICA Outrigger PadsF8258 | Cavotec | B8901 |
| CM Labs SimulationsF100911CMCF8252COBOB92112Cobra NextB7228ComansaF5803Comer IndustriesS82831ComettoF2872Construction Equipment AssociationGL11681CorninentalF101403CormachF3780CormidiBL155Cranes & AccessF101325Crane Hot LineF101419Cranes Industry ServicesF101524Cranes 101F101524Cranes ManufacturingS81323Cross ManufacturingS84043CurminsS84407Curtiss Instruments IncB90330Curtiss-WrightS83131DDDanaS84707DanaS84043Delta PowerS83043Delta-QF100127Demag TadanoF8004DenkaF5836DeutzS85231DICA Outrigger PadsF8258 | China Construction Machinery Associat | tion GL31901 |
| CMCF8252COBOB92112Cobra NextB7228ComansaF5803Comer IndustriesS82831ComettoF2872Construction Equipment AssociationGL11681CorninentalF101403CormachF3780CormidiBL155Cranes & AccessF101325Crane Hot LineF101419Crane Industry ServicesF101524Cranes 101F101524Cranes mart SystemsF101525Cross ManufacturingS81323Corross ControlS84043Currtis Instruments IncB90330Curtiss-WrightS83131DDDanaS84707DanaS84707DanaS84933Delta PowerS83043Delta-QF100127Demag TadanoF8004DenkaF5836DeutzS85231DICA Outrigger PadsF8258 | | |
| COBOB92112Cobra NextB7228ComansaF5803Comer IndustriesS82831ComettoF2872Construction Equipment AssociationGL11681ContinentalF101403CormachF3780CormidiBL155Cranes & AccessF101325Crane Hot LineF101419Cranes Industry ServicesF101524Cranes 101F101524Cranes 101F101525Cross ManufacturingS81323Cross ControlS84043Currtis Instruments IncB90330Curtiss-WrightS83131DDDanaS84707DanaS84707DanaS84043Delta PowerS83043Delta PowerS83043Delta-QF100127Demag TadanoF8004DenkaF5836DeutzS85231DICA Outrigger PadsF8258 | | |
| Cobra NextB7228ComansaF5803Comer IndustriesS82831ComettoF2872Construction Equipment AssociationGL11681ContinentalF101403CormachF3780CormidiBL155Cranes & AccessF101325Crane Hot LineF101419Crane Industry ServicesF101524Cranes 101F101524Cranes 101F101525Cross ManufacturingS81323Cross ControlS84043Curtris Instruments IncB90330Curtiss-WrightS83043Delta PowerS83043Delta PowerS83043Delta QF100127Demag TadanoF8004DenkaF5836DeutzS85231DICA Outrigger PadsF8258 | | |
| ComansaF5803Comer IndustriesS82831ComettoF2872Construction Equipment AssociationGL11681ContinentalF101403CormachF3780CormidiBL155Cranes & AccessF101325Crane Hot LineF101419Crane Industry ServicesF101524Cranes 101F101524Cranes 101F101525Cross ManufacturingS81323Cross ManufacturingS81323Cross ControlS84043Curtis Instruments IncB90330Curtiss-WrightS83043Delta PowerS83043Delta PowerS83043DenkaF5836DeutzS85231DICA Outrigger PadsF8258 | | |
| Comer IndustriesS82831ComettoF2872Construction Equipment AssociationGL11681ContinentalF101403CormachF3780CormidiBL155Cranes & AccessF101325Crane Hot LineF101419Crane Industry ServicesF101524Cranes 101F101524Cranes ManufacturingS81323Cross ManufacturingS81323Cross ControlS84043Currtis Instruments IncB90330Curtiss-WrightS83043DDDanaS84707DanfossS80931Delta PowerS83043DenkaF5836DeutzS85231DICA Outrigger PadsF8258 | | |
| ComettoF2872Construction Equipment AssociationGL11681ContinentalF101403CormachF3780CormidiBL155Cranes & AccessF101325Crane Hot LineF101419Crane Industry ServicesF101524Cranes 101F101524Cranes 101F101525Cross ManufacturingS81323Cross ControlS84043Curntis Instruments IncB90330Curtiss-WrightS81311DDDanaS84707DanfossS80931Delta PowerS83043DenkaF5836DeutzS85231DICA Outrigger PadsF8258 | | |
| Construction Equipment AssociationGL11681ContinentalF101403CormachF3780CormidiBL155Cranes & AccessF101325Crane Hot LineF101419Crane Industry ServicesF101524Crane Inspection & Certification BureauF100804Cranes 101F101525CrosbyC20637Cross ManufacturingS81323Cross ControlS84043Curntis Instruments IncB90330Curtiss -WrightS81311DDDanaS84707DanfossS80931Delta PowerS83043DenkaF5836DeutzS85231DICA Outrigger PadsF8258 | • | |
| ContinentalF101403CormachF3780CormidiBL155Cranes & AccessF101325Crane Hot LineF101419Crane Industry ServicesF101524Crane Inspection & Certification BureauF100804Cranes 101F101524Cranesmart SystemsF101525CrosbyC20637Cross ManufacturingS81323CrossControlS84043CurminsS84407Curtis Instruments IncB90330Curtiss-WrightS83043Delta PowerS83043Delta-QF100127Demag TadanoF8004DenkaF5836DeutzS85231DICA Outrigger PadsF8258 | | |
| CormachF3780CormidiBL155Cranes & AccessF101325Crane Hot LineF101419Crane Industry ServicesF101524Crane Inspection & Certification BureauF100804Cranes 101F101524Cranesmart SystemsF101525CrosbyC20637Cross ManufacturingS81323Cross ControlS84043CurminsS84407Curtiss Instruments IncB90330Curtiss-WrightS83031DDDanaS84707DanfossS80931Delta PowerS83043Delta-QF100127Demag TadanoF8004DenkaF5836DeutzS85231DICA Outrigger PadsF8258 | | |
| CormidiBL155Cranes & AccessF101325Crane Hot LineF101419Crane Industry ServicesF101524Crane Inspection & Certification BureauF100804Cranes 101F101524Cranesmart SystemsF101525CrosbyC20637Cross ManufacturingS81323Cross ControlS84043Currtis Instruments IncB90330Curtiss-WrightS83131DDDanaS84707DanaS84707DanaS80931Delta PowerS83043Delta-QF100127Demag TadanoF8004DenkaF5836DeutzS85231DICA Outrigger PadsF8258 | | |
| Cranes & AccessF101325Crane Hot LineF101419Crane Industry ServicesF101524Crane Inspection & Certification BureauF100804Cranes 101F101524Cranesmart SystemsF101525CrosbyC20637Cross ManufacturingS81323Cross ControlS84043Curtis Instruments IncB90330Curtiss-WrightS83131DDDanaS84707DanaS84707DanaS80931Delta PowerS83043Delta-QF100127Demag TadanoF8004DenkaF5836DeutzS85231DICA Outrigger PadsF8258 | | |
| Crane Hot LineF101419Crane Industry ServicesF101524Crane Inspection & Certification BureauF100804Cranes 101F101524Cranesmart SystemsF101525CrosbyC20637Cross ManufacturingS81323Cross ControlS84043Curtis Instruments IncB90330Curtiss-WrightS81311DDDanaS84707DanaS84707DanaS80931Delta PowerS83043Delta-QF100127Demag TadanoF8004DenkaF5836DeutzS85231DICA Outrigger PadsF8258 | | |
| Crane Industry ServicesF101524Crane Inspection & Certification BureauF100804Cranes 101F101524Cranesmart SystemsF101525CrosbyC20637Cross ManufacturingS81323CrossControlS84043CurninsS84407Curtis Instruments IncB90330Curtiss-WrightS81311DDDanaS84707DanaS84707DanaS80931Delta PowerS83043Delta-QF100127Demag TadanoF8004DenkaF5836DeutzS85231DICA Outrigger PadsF8258 | | |
| Crane Inspection & Certification BureauF100804Cranes 101F101524Cranesmart SystemsF101525CrosbyC20637Cross ManufacturingS81323Cross ControlS84043CurminsS84407Curtis Instruments IncB90330Curtiss-WrightS83131DDDanaS84707DanfossS80931Delta PowerS83043Delta-QF100127Demag TadanoF8004DenkaF5836DeutzS85231DICA Outrigger PadsF8258 | | |
| Cranes 101F101524Cranesmart SystemsF101525CrosbyC20637Cross ManufacturingS81323Cross ControlS84043CumminsS84407Curtis Instruments IncB90330Curtiss-WrightS83131DDDanaS84707DanfossS80931Delta PowerS83043Delta-QF100127Demag TadanoF8004DenkaF5836DeutzS85231DICA Outrigger PadsF8258 | | |
| Cranesmart SystemsF101525CrosbyC20637Cross ManufacturingS81323Cross ControlS84043CumminsS84407Curtis Instruments IncB90330Curtiss-WrightS83131DDanaS84707DanfossS80931Delta PowerS83043Delta-QF100127Demag TadanoF8004DenkaF5836DeutzS85231DICA Outrigger PadsF8258 | Crane Inspection & Certification Bure | |
| CrosbyC20637Cross ManufacturingS81323Cross ControlS84043CumminsS84047Curtis Instruments IncB90330Curtiss-WrightS83131DDanaS84707DanfossS80931Delta PowerS83043Delta-QF100127Demag TadanoF8804DenkaF5836DeutzS85231DICA Outrigger PadsF8258 | Cranes 101 | F101524 |
| Cross ManufacturingS81323Cross ControlS84043CumminsS84407Curtis Instruments IncB90330Curtiss-WrightS83131DDDanaS84707DanfossS80931Delta PowerS83043Delta-QF100127Demag TadanoF8004DenkaF5836DeutzS85231DICA Outrigger PadsF8258 | Cranesmart Systems | F101525 |
| CrossControlS84043CumminsS84407Curtis Instruments IncB90330Curtiss-WrightS83131DDDanaS84707DanfossS80931Delta PowerS83043Delta-QF100127DemkaF5836DeutzS85231DICA Outrigger PadsF8258 | Crosby | C20637 |
| CumminsS84407Curtis Instruments IncB90330Curtiss-WrightS83131DDDanaS84707DanfossS80931Delta PowerS83043Delta-QF100127Demag TadanoF8004DenkaF5836DeutzS85231DICA Outrigger PadsF8258 | Cross Manufacturing | S81323 |
| Curtis Instruments IncB90330Curtiss-WrightS83131DDDanaS84707DanfossS80931Delta PowerS83043Delta-QF100127Demag TadanoF8004DenkaF5836DeutzS85231DICA Outrigger PadsF8258 | CrossControl | S84043 |
| Curtiss-WrightS83131DDanaS84707DanfossS80931Delta PowerS83043Delta-QF100127Demag TadanoF8004DenkaF5836DeutzS85231DICA Outrigger PadsF8258 | Cummins | S84407 |
| Curtiss-WrightS83131DDanaS84707DanfossS80931Delta PowerS83043Delta-QF100127Demag TadanoF8004DenkaF5836DeutzS85231DICA Outrigger PadsF8258 | Curtis Instruments Inc | B90330 |
| DDana\$84707Danfoss\$80931Delta Power\$83043Delta-QF100127Demag TadanoF8004DenkaF5836Deutz\$85231DICA Outrigger PadsF8258 | | |
| DanaS84707DanfossS80931Delta PowerS83043Delta-QF100127Demag TadanoF8004DenkaF5836DeutzS85231DICA Outrigger PadsF8258 | | |
| DanfossS80931Delta PowerS83043Delta-QF100127Demag TadanoF8004DenkaF5836DeutzS85231DICA Outrigger PadsF8258 | | S84707 |
| Delta PowerS83043Delta-QF100127Demag TadanoF8004DenkaF5836DeutzS85231DICA Outrigger PadsF8258 | | |
| Delta-QF100127Demag TadanoF8004DenkaF5836DeutzS85231DICA Outrigger PadsF8258 | | - |
| Demag TadanoF8004DenkaF5836DeutzS85231DICA Outrigger PadsF8258 | | |
| DenkaF5836DeutzS85231DICA Outrigger PadsF8258 | | |
| DeutzS85231DICA Outrigger PadsF8258 | | |
| DICA Outrigger Pads F8258 | - | |
| | | |
| Dieci F2879 | | |
| | | F2879 |

| Company | Stand No/Hall |
|--------------------------------|--------------------|
| Dinamic Oil | S81554 |
| Dingli | BL262 |
| Dinolift | F3178 |
| Doosan Bobcat | N10001 |
| Double Coin | F100710 |
| E | |
| Eaton | S80231 |
| Eberspaecher | B92725 |
| Elliott | F5826 |
| Enerpac | S60713 |
| Everdigm | S5054 |
| EZ Scaffold | B7427 |
| F | |
| Falcon | F5836 |
| F&M Mafco | F101826 |
| Faresin | B7227 |
| Fascan | F4569 |
| Fassi | F4569 |
| Faun Trackway | B9208 |
| Faymonville | F2872 |
| FM Gru | S5174 |
| Ford | S61139 |
| Freightliner | S63639 |
| G | |
| Galizia | F5836 |
| Gates Corporation | S80731 |
| Geda | F8728 |
| Gehl | F4458 |
| Genie | F7376 |
| GKN Wheels | C23031 |
| GKS Lifting and Moving | F101424 |
| Globe Trailers | F3165 |
| Goldhofer | F7310 |
| Goman | BL251 |
| Goodyear | N11557 |
| Groeneveld Lubrication | N10867 |
| Grove | F6144 |
| Gunnebo | F3686 |
| Н | |
| Harrington Hoists | F101201 |
| Hatz | S84106 |
| Haulotte | F6134 |
| HAWE | S81142 |
| HBC-radiomatic Inc | C22133 |
| Hetronic | B9906 |
| Hinowa See JLG | F5324 |
| Hirschmann | F101819 |
| Historical Construction Equipm | ent Assoc. GL12286 |
| Hitachi | N12525 |
| HMF - IMT | N12367 |
| HoistCam by Netarus | S63646 |
| HookCam | F3168 |
| Hubei Goman | BL251 |
| | |

| Company | Stand No/Hall |
|---------------------------------------|-------------------------|
| Huddig | F1739 |
| Hunan Sinoboom Heavy Industry | BL240 |
| Hunger Hydraulics | S80359 |
| HYDAC | S80843 |
| Hydra Dyne Technology | S81743 |
| Hydra Tech Pumps | C31094 |
| Hydro Mobile | F3776 |
| IC-Fluid Power | S80515 |
| Igus | S85200 |
| Imder - Turkish Construction Associ | |
| IMET | B92922 |
| IMT | N12367 |
| Intermat | GL10978 |
| International Powered Access Feder | |
| International Union of Operating Engi | |
| Interstate Trailers Iowa Mold Tooling | F3771 N12367 |
| IPAF | F9100 |
| IPS Cranes | C22900 |
| Isuzu | S85406 |
| J | |
| Jaso | F5200 |
| JCB Power Systems | S84017 |
| Jekko | F4569 |
| JLG | F5324 |
| JMG Cranes | F3572 |
| K Kaufman Trailers | F1650 |
| Kenworth | F1658 S62939 |
| Kessler | S84931 |
| KHL Group LLP (Construction) | S5998 |
| Kinshofer | F2732 |
| Knott Brake Company | S85421 |
| Kobelco | F8338 |
| Kohler | S84600 |
| Kubota Engine | S84914 |
| | E100007 |
| Lampson International LLC Landoll | <u>F100227</u> S5165 |
| Leavitt Cranes | S62651 |
| Leguan see Avant Tecno | F3768 |
| LGH | F2543 |
| LGMG | BL606 |
| Liebherr | F5258 |
| Lift & Move USA | F9008 |
| Lift Safety Zone - NCCCO | F9107 |
| Lift Systems | F2339 |
| Liftking Manufacturing | F7538 |
| Linde Hydraulics | S81631 |
| Linden Comansa Link-Belt Cranes | F5803 F5211 |
| LiuGong | F6781 |
| LoJack | S61857 |
| LUBE-A-BOOM | F100122 |
| Ludwig System | F101401 |
| М | |
| Maeda | F7532 |
| Magna Lifting Products, | F100001 |
| <u>Magna Tyres</u> Magnetek | F100611 |
| Magni Telescopic Handlers | <u>S82043</u> F3459 |
| MAIT | F1534 |
| Manitex International | F6258 |
| Manitou | F4458 |
| Manitowoc Cranes | F6144 |
| Mantis Tadano | F7556 |
| | |

| Company | Stand No/Hall |
|---|-------------------|
| Mastr Control Technology | B92913 |
| Maxilift Next Hyd | B7228 |
| Mazzella Lifting | F100024 |
| MEC Aerial Work Platforms | F5825 |
| Meritor | S84207 |
| Merlo | F5785 |
| Mi-Jack Products | F7538 |
| Michelin | C22521 |
| Miller | F101800 |
| MinnPar | C20347 |
| Mitchell Crane | F100222 |
| Moba Movex Innovation | C32579 F100425 |
| | F100425 |
| Mustang Manitou N | F4430 |
| National Assoc. of Women in Const. | GL10982 |
| NCCCO | GL10302 |
| Nelson | F2358 |
| Next Hydraulics | B7228 |
| Nimet | S83531 |
| North American Crane Bureau | S65321 |
| North American Hydraulics | S82419 |
| O | 002110 |
| OEM Controls | S81506 |
| Oil & Steel | F6258 |
| Operating Engin. Training Institute Ont | tario F100911 |
| Ormig | F2460 |
| OTR Wheel Engineering | B91808 |
| Р | 53050 |
| Palfinger | F7256 |
| Parker Hannifin | S80245 |
| PAT - Wika | F101819 |
| PB Liftechnik | F5836 S83131 |
| Panny & Giles Peri | F3785 |
| Perkins Engines | S84331 |
| Peterbilt | S63909 |
| Pettibone | N11265 |
| Pfeifer | F101423 |
| Platform Basket | F6815 |
| PM | F6258 |
| Poclain Hydraulics | S81613 |
| Potain | F6144 |
| Power Step | F101425 |
| Prinoth | F3263 |
| PVE Equipment | F1240A |
| R | |
| Raimondi Cranes | F3370 |
| RaycoWylie | F2532 |
| RBI Bearing | B93126 |
| ReachMaster | F5836 |
| Rexnord | <u>S62628</u> |
| Rigging Warehouse | B92324 |
| Rotzler | <u>S83842</u> |
| Rud-Chain | F101823 |
| Ruffy Controls | B93909 |
| Ruthmann | F5836 |
| RYCO Hydraulics | <u>\$80453</u> |
| Sage | S64419 |
| <u>Sage</u> Sany | F7826 |
| Scania | S85630 |
| Scanreco | C22125 |
| Scheuerle | F3264 |
| Sennebogen | C22004 |
| Sentry Tire & Rubber | B93218 |
| | 000210 |
| Serious Labs | F100901 |

| Company Stand | No/Hall |
|---|------------------|
| Shuttlelift | F3574 |
| Sinoboom | BL240 |
| Skyjack | F6014 |
| SkyTrak | F5324 |
| Smart Lift | S62651 |
| SMIE | F5267 |
| Snorkel | F100211 |
| Soilmec | F1748 |
| Spanco | S61838 |
| Spartan Mat | B92518 |
| Specialized Carriers & Rigging Assoc. | F100101 |
| Spydercrane | F5204 |
| SSAB Hardox | C33019 |
| Steel Erectors Association of America | GL31201 |
| STI & Tiger Cranes | F5068 |
| Stros | F3180 |
| Sun Hydraulics | S80917 |
| Sunfab Hydraulics | B93013 |
| Sunward | BL414 |
| Superior Tire & Rubber | C32467 |
| T Tadano | ETEEC |
| Tadano Demag | F7556 F8004 |
| Talbert | F5504 |
| Tele Radio | F100023 |
| Telemecanique | B92626 |
| Terex Cranes | F7376 |
| Terramac | F1732 |
| Teufelberger-Redaelli | F100923 |
| Teupen | F1144 |
| The Assoc. of Machinery Distributors | GL40001 |
| The Western Group | C31221 |
| Tiger Cranes | F5068 |
| Timken | N10867 |
| Trackunit Inc. | S62610 |
| TracMec | F100018 |
| Trail King | F7310 |
| Trelleborg Wheel Systems | F101219 |
| Trident | F100819 |
| Trimble | F4467 |
| TVH | C22201 |
| U | |
| | F5204 |
| Union rope | F101111 |
| Velle | EC2E0 |
| Valla Van Beest | F6258 F101719 |
| Personal second s | F100505 |
| Verope Vertikal Press | F100505 |
| Volvo Trucks | F3432 |
| W | 13432 |
| Wacker Neuson | F2548 |
| WIKA Mobile Control | F101819 |
| Winlet | F5836 |
| WireCo WorldGroup | F101111 |
| Wolfkrann | F5832 |
| X | |
| XCMG | F6424 |
| Xtreme Manufacturing | F6962 |
| Xuzhou Const. Machinery Group - XCMG | F6424 |
| Y | |
| YAK Access | B90618 |
| Yoder & Frey Auctioneers | S65433 |
| Z | |
| ZF | S85113 |
| Zhejiang Dingli Machinery - Dingli | BL262 |
| Zoomlion | F6270 |
| ZTR Control Systems | S63009 |

Introducing a revolutionary battery for the Cranes & Access market... Superior Lead Carbon AGM Gel



A TRIBRID COMBINATION OF LEAD CARBON, AGM & GEL

Enter the **Superior Lead Carbon AGM Gel** battery boasting the following elements:

Carbon = To overcome Partial State of Charge & Sulphation

AGM Double Separators = To prevent Acid Stratification

Gel Electrolyte = To maintain plate moisture in both hot & cold temperatures

Huge benefits for the Access Market

- Fit & Forget maintenance-free
- Fast Recharge: to 80% in less than 3.5 hours and ideal for opportunity charging
- 1,000 cycles @60% DOD
- Wide operating temperature range
- Available in a range of group sizes
- Works with AGM chargers
- Non-hazardous: suitable for airside applications

Reduce downtime and increase your productivity! For a FREE TRIAL of the Superior Lead Carbon AGM Gel battery don't hesitate to contact us. For enquiries please contact:

Chris North on: M. 07736 167 623

DBS Leoch Ltd E: chris.north@dbsleoch.co.uk www.dbsleoch.co.uk





Seismic shift

The shift in people's attitude over the past year towards reducing their carbon footprint through the use of renewable energy and battery power has been astonishing. TV programmes such as Sir David Attenborough's The Blue Planet has forcefully identified the problems the world faces and together with Swedish environmental activist Greta Thunberg and the global movement of Extinction Rebellion, not to mention the wildfires in Australia, have all helped strengthen the environmental argument resulting in increased Government action around the world.

Driving this change is the reduction of emissions from petrol and diesel vehicles, with auto manufacturers at the forefront of battery and hydrogen technology in an effort to offer a realistic alternative. Government legislation is also forcing development in this area. The UK for example, has just brought its ban on the sales of petrol, diesel and hybrid cars forward from 2040 to 2035. in order to stand any chance of achieving its target of zero carbon bv 2050.

The policy was announced as part of a launch event for a United Nations climate summit - COP26 - to be held in Glasgow, Scotland in November with UK Prime Minister Boris Johnson saying 2020 would be "a defining year of climate action for the planet". Most people now agree that the longer the delay, the worse it will be.

Research carried out by three

specialised, independent research companies - Climate Neutral Group, CE Delft and SGS Search concluded that the more efficient use of current construction equipment can also play a significant role in reducing the total carbon footprint. The European Rental Association estimates that even if end users were to use current equipment more efficiently it could lead to reductions of between 30 and 50 percent, simply by using the right equipment for the job, minimising transportation, improving utilisation and maintaining the equipment properly.

However to emit zero carbon emissions the only solution is to switch from internal combustion engines to electric or hydrogen power. Across the sectors we cover the biggest move towards battery and hybrid power has been self-propelled aerial lifts. They have the advantage in that slab electric





batteries

The UK has just brought its ban on the sales of petrol, diesel and hybrid cars forward from 2040 to 2035 in order to stand any chance of achieving its target of zero carbon by 2050



scissor lifts have always been battery powered, with most using the traditional lead acid battery pack made up of four, six volt batteries. But to work efficiently they need to be kept well charged and regularly maintained. The use of lithium ion batteries has also grown significantly over the past year or two, initially with spider lifts, but is rapidly becoming more widespread. They offer superior performance and charging capabilities as well as being smaller and lighter for the same power output. The downsides are they are expensive, difficult to recycle and can be unstable, leading to overheating.

Battery growth

Lithium ion batteries have become the dominant battery technology in the consumer market, from portable electronics to automotive and energy storage systems, ousting other battery technologies such as lead acid, nickel metal hydride and nickel cadmium. However the supply of the raw and refined materials needed for their manufacture is becoming as strategic as oil supplies.

According to figures from Roskill Information Services between 2015 and 2018 shipments of lithium ion

batteries have increased by 24 percent a year dwarfing demand for nickel metal hydride or nickel cadmium batteries. There has been significant investment to meet demand, with major battery producers planning to invest a further \$50 billion in expanding manufacturing capacity over the next five years in China, the USA and Europe.

Whilst portable electronics formed the first wave of demand and remain an important market for lithium ion batteries, the main growth is driven by hybrid and electric vehicles - mainly cars but growth is also coming from commercial and off road vehicles which includes telehandlers and aerial work platforms and even cranes. Automotive applications accounted for more than 70 percent of all lithium ion battery shipments in 2018 compared to just 43 percent in 2015 and six percent in 2010. Over the next 15 years it is expected to grow at an annual rate of more than 30 percent.

Alternatives?

While some aerial work platform manufacturers have used lithium batteries for more than 10 years - Hinowa spider lifts for example

batteries



- many are only now 'jumping on the lithium bandwagon' thanks to a reduction in price, availability of off the shelf products that can easily replace the six volt lead acid unit and customer demand of course. While the cost remains high compared to lead acid batteries, it could be argued that fewer are needed. JCB for example use two, 12 volt lithium ion batteries instead of four, six volt lead acid units on its scissor lifts. Other benefits include being maintenance free, having a longer operational life and being cleaner, yielding significant savings in manpower. Also customers no longer need to concern themselves with battery maintenance or being careful about where they recharge them.

Given the costs of lithium ion another maintenance free alternative that is becoming more popular is the AGM or Absorbed Glass Mat battery originally used as a less expensive alternative to Gel



batteries for applications in food preparation areas and clean rooms etc. Its main negative was that for a given size the AGM battery only achieved 90 percent of the run time as the equivalent lead acid battery. Back when scissor lift battery life was a pressing issue, this was significant - however in subsequent years everything has changed. AGM batteries now offer more storage capacity than lead acid, they have the maintenance free benefits of lithium ion and offer a real alternative to both. When combined with machines featuring direct electric drive, they offer enough life to manage two shifts of intense use without the concerns of lithium overheating or their recycling challenges.

A battery revolution

Self-propelled work platforms generally require short bursts of high power to move or elevate and then remain still while work is carried out, so selecting the best batteries for the job is essential. Older batteries which use flooded technology have been around for years but are only as good as the charging regime.

A process of 'opportunity charging' allows batteries to be topped up during the work cycle, allowing almost perpetual use where power outlets are plentiful. However, during opportunity charging, some batteries (including flooded) can suffer and fail from Partial State of Charge, Sulphation and Acid Stratification. The high rates of charge needed to increase the battery's temperature can also dry out the plates.

This is where new technologies such as Hong Kong-based Leoch Battery's Superior Lead Carbon AGM Gel (SLCA) battery - a combination of Lead Carbon, AGM



Leoch Battery's Superior Lead Carbon AGM Gel (SLCA) battery.



and Gel - comes into its own, as it can cope with partial charging. They are also maintenance free and offer a higher cycle life. The inclusion of carbon overcomes the Partial State of Charge and Sulphation issues, with AGM Double Separators to prevent Acid Stratification and a Gel Electrolyte that maintains plate moisture in both hot and cold conditions.

As well as providing a long life the batteries can be charged to 90 per cent in just three hours and are specifically designed for deep cycle applications, with a positive plate formula to minimise water consumption and provide a longer service life. A unique mixture of carbon and other additives found in negative material allows the SLCA range to perform in partial state of charge. This increases charge acceptance, optimises fast charging capability and reduces sulphation, a key reason for premature failure. The batteries also have a wide operating temperature range of -40 to +65degrees Celsius, are non-hazardous and therefore suitable for airside applications and work with both AGM and Gel chargers.

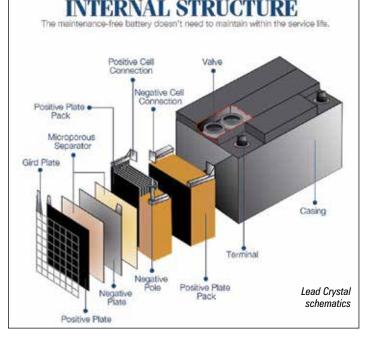
Lead Crystal batteries

Another emerging alternative are Lead Crystal batteries which are said to deliver a similar performance to lithium ion, partly due to the fact that they can be discharged to almost zero without

stressing the battery. Claims suggest they can recharge in half the time of lead acid. They also do not 'leak' charge when stored, do not suffer from 'memory' and are said to last up to 18 years - all at a lower price. They are also 99 percent recyclable through traditional channels and classified as non-hazardous goods for transport. The technology uses pure lead, high purity calcium selenium plates and a safe silicon dioxide electrolyte solution that solidifies into a white crystalline powder when charged/ discharged. It also contains less acid, no cadmium and no antimony.

Batteries for larger equipment

Converting aerial work platforms which are not constantly moving, to hybrid or electric power is relatively easy compared to larger machines, such as cranes or telehandlers that are both heavy, travel greater distances and are often used for cycle work. That said manufacturers such as Spierings - with its City Boy mobile tower crane - and Manitou, Faresin, JCB and Merlo with their telehandlers have all developed battery powered machines.



World Class Battery Engineering Flooded Motive Power Batteries



/ertikal

MAASTRICHT

25

SEE US AT THE SHOW

DONINGTON PARK www.vertikaldays.net

Don't get marooned!

Relied upon worldwide, *Rolls Motive Power Batteries* are internationally recognised for their dependability and product development.

For *over 60 years*, Surrette Battery Company has been proudly manufacturing Rolls

premium deep cycle lead acid batteries and remains Canada's only independent battery manufacturer.

For enquires please contact:

Barden | +44 (0) 1489 570770 Battery Service Hub | +44 (0) 1858 433008 Dingbro | +44 (0) 1224 682000

STAND NO.



www.rolls-battery.com





Both units use four electric wheel



essentially Haulotte's environmental policy with plans for the entire company to become carbon neutral and as environmentally friendly as possible within the time frame.

As well as its work on electric telehandlers Manitou launched a 60ft all electric Rough Terrain articulated boom - the 200ATJ - last year as part of the company's new 'Oxygen' range of environmentally friendly machines. The all new drivetrain uses two heavy duty telehandler type axles, powered by one large inboard mounted AC drive motor.

Battery theft

We have been running a long-term online poll regarding the theft of batteries from electric powered work platforms and can now confirm that with more than 1,100 individuals responding, 69 percent admitted to having had batteries





stolen in the past year, while 31 percent said they had suffered frequent thefts. One thing that came from comments received was the need for manufacturers to work more closely with rental companies to make the batteries more difficult to steal. Skyjack immediately responded highlighting a lockable bracket kit that can be retrofitted to the battery trays on its slab electric scissor lift range. This is a subject we plan to follow up on during the year.



The benefit of battery packs with a greater power to weight ratio than lead acid is that larger battery powered boom lifts are becoming practical alternatives to diesel. Battery powered booms up to 86ft are now finding favour, with JLG offering an all-electric version of its 800 series of telescopic boom, although it currently uses a very large traditional battery pack. The same applies to the electric powered JLG boom lift conversions developed by Riwal, which now range from the 66ft JLG 660SJ to the 135ft 1350SJP. Most of Niftylift's 86ft HR28 articulated boom lifts have been sold as hybrids, with a complete battery pack alongside a small diesel.

When it comes to 60/66ft boom lifts the choice is wider still, with Genie's all electric Z-60/37DC and hybrid FE version launched in 2017. drive motors which can outperform the regular 4x4 diesel powered Z-60s in the rough. Genie has since unveiled the 45ft Z-45 FE - a smaller version of the 60ft Z-60 FE - with the same concept and similar operating systems. It uses four AC wheel motors and oscillating axle, with an additional Stage V/Tier 5 diesel powered generator to top up/ recharge the battery pack or boost performance. The Z45 FE has two modes of operation full electric which can handle a full shift on a single charge - or Hybrid which combines the two and can run for a week on a single tank of diesel. Haulotte unveiled its new HA20 LE Pro Pulseo in 2018 and went further, stating that it will cease manufacturing internal combustion units over the next few years as part of its Blue Orientation strategy -

Gel batteries for Antarctica platform The Genie Z-45XC has a larger canacity and latter

Antarctica is the highest, driest and windiest continent on Earth creating extraordinary challenges for construction projects. Reliable equipment is of utmost importance, while the climate is not the best for battery performance.

Dutch company HDW supplied a custom modified Genie Z-45XC to BAM Construction and swapped the starter battery to a gel one, as they are more resistant to cold temperatures

and have a longer lifespan. In spite of the limited space, it squeezed in a larger capacity battery with a peak capacity of 1100Cca. The battery is also connected to a trickle charger, ensuring maximum battery power at all times.

The project is part of a seven to 10 year partnership to modernise the UK's Antarctic infrastructure, with construction work taking place during the Antarctic summer, where ambient temperatures are down to minus 15°C. The first phase of the project on the Rothera Research Station will take five years, during which time the Z-45XC will have clocked up 2,000 hours.





Riwal electric JLGs for Sørby

Norwegian rental company Sørby Utleie has taken delivery of two all electric battery powered 66ft JLG 660SJ boom lifts, sold and converted from diesel power by Riwal Scandinavia.

They are the first units of this new model sold by Riwal to an outside rental company. The machines incorporate a 230 volt integrated battery charger and feature non-marking tyres. Owner Lars Sørby said: "With the focus on sustainability, we believe the JLG 660SJ electric will be a fantastic addition to our fleet together with our recently delivered 135ft JLG 1350SJP electric also from Riwal.



Are your staff properly trained?

Don't risk it! Call a certified local company today.



All training centres above offer **IPAF/PASMA/CPCS** or other approved and audited training courses. European directives and most national regulations require that staff are properly trained in the safe use of the equipment they operate. If you wish to become a sponsor of the Training & Safety page opposite by advertising, contact us on **info@vertikal.net**



500 plus students attend Liebherr Lift & Move event

Liebherr USA hosted 550 high school juniors, seniors, technical college students, teachers and administrators from 17 schools at its location in Houston, Texas for the Lift & Move USA event.

The event highlighted crane operator and rigger occupations as well as manufacturing and service related jobs. A dozen cranes were used at a variety of learning stations including a 750 tonne LTM 1750-9.1 All Terrain, a 500 tonne LR 1500 crawler crane, a 100 tonne LRT 1100-2.1 Rough Terrain crane and a 70 tonne LTM 1070-4.2 All Terrain operated via Bluetooth control. In addition, Morrow Equipment demonstrated a Liebherr 81K.1 self-erecting tower crane.

Tracy Bennett, director of Lift & Move USA said: "Hands on exploration is one of the best ways to introduce students to careers, especially ones that are critical and in high demand but less visible to the average student. Lift & Move is the type of event that can be a game changer for students."

During the event a Certificate of Congressional Recognition was presented to Liebherr USA managing director Daniel Pitzer by Texas congresswoman Sheila Jackson Lee.

Man faces life for death of three linesmen

A man has pleaded no contest to the manslaughter of three linesmen - Ryan Barrett, 22, George Cesil, 52, and James 'Bo' Ussery, 61 - in Wausau, Florida in October 2018. All three men were standing under power lines while colleague Robert Morgan was working in an aerial work platform. John Goedtke lost control of his car and trailer and ran into the three men.

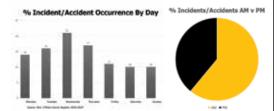
He ran from the scene and was arrested six miles away. He has also been charged with leaving the crash scene and of driving without a valid licence. The court heard that Goedtke had enough methamphetamine and amphetamine in his blood to impair his ability to drive safely. He faces a minimum of 34 years in prison and a maximum of life.

Wednesday morning most dangerous

Following an analysis of environmental, health and safety data over the past four years, Irish crane rental company Wm O'Brien, has found that Wednesday morning is the most likely time for its team members to suffer an incident/accident.

The statistics from 2016 to 2019 show that the risk of an accident occurring

on Wednesday is 21 percent while surprisingly Friday is the least likely for an incident to occur at 11 percent.



Caa training

\$529,000 fine for Virginia contractor

Virginia Occupational Safety & Health Agency has issued details of major fines issued in 2019, one of the largest - \$528,692 - was levied against contractor T.D. Fraley & Sons following an incident in Springfield Virginia in July 2018.

Two employees were working on a six metre scaffold just 2.2 metres below live 19,900 volt overhead power lines. One of the men was installing the guardrails when he inadvertently moved it too close to the power lines receiving a severe shock and suffering serious injuries.

The citation said Fraley did not adequately protect its workers by allowing them to work within three metres of overhead power lines, used unsound blocks to support the scaffold, failed to equip the scaffold with adequate guard railing, allowed employees to rig the scaffold without being trained by a qualified person, and made no allowance for employees to reach the platform, obliging them to climb up the scaffold end frames. The company was also cited for not reporting an injury requiring hospitalisation within 24 hours.

Mental Health training fund

The UK-based NASC has created a £30,000 funding pot dedicated to mental health first aid training. The fund allows NASC members to claim up to £125 towards the cost of completing a mental health first aid course. The campaign is aimed at breaking down the stigma surrounding mental health and promoting the importance of focusing on employee wellbeing in the workplace.

Who trained him then?



Spotted in a tunnel in what looks like the UK, a team working at height with a scissor lift and telehandler. For some reason they have lifted a stowed 26ft scissor lift with a compact telehandler to reach a light at a height of around five metres. It looks as though none of the crew question the methodology.



YOUR BETTER WAY UP

SPECIAL EQUIPMENT contains a young rental fleet of 250 to 300 units of heavy lifting telehandlers, specialized scissor lifts, telescopic booms and mini crawler cranes.



ALLMI



Contact us: T +31 10-2081530 www.special-equipment.eu



ALLMI accredited Lorry Loader Operator Training Providers

| Nationwide | Nationwide |
|---|---|
| PALFINGER UK | Professional Training |
| Contact: Sunny Patel | LorryLoader |
| t: 01380 722381 m: 07483 039588 | Training Ltd |
| Email: sunny.patel@thwhite.co.uk | 24, Mayfair Drive, Crewe, Cheshire, CW15BB |
| www.palfinger.co.uk | Tel: 01270 505 824 Mob: 07970061171 |
| Devizes, Bradford and Falkirk | Web: www.lorryloader.co.uk |
| Nationwide | Nationwide |
| Wharfedale Road, Euro Way Ind. Est. Bradford. BD4 6SL | Hiab Ltd |
| Tel: 08444 996688 | Cargotec Industrial Park, Ellesmere, Shropshire, SY12 9JW |
| Neale Martin: 07836 238281 | Te1:07792 831869 |
| Web: www.atlas-cranes.co.uk | e-mail: wayne.ctsl@gmail.com • Web: www.hiab.com |

Are your Lorry Loader Operators properly trained? Call an accredited ALLMI training provider and insist on the ALLMI card.

The training accreditation service for the lorry loader industry ALLMI, Unit 7b, Cavalier Court, Bumpers Farm, Chippenham, Wiltshire. SNI4 6LH. tel: 0344 858 4334 email: enquiries@allmi.com web: www.allmi.com

ALLMI chairman to retire

Further to his retirement from the lorry loader industry in 2019, Mark Rigby will soon step down as ALLMI chairman after 14 years in the role.

ALLMI chief executive Tom Wakefield said: "ALLMI has a tremendous amount to thank Mark for, he has served a longer term than any chairman in ALLMI's history and has overseen huge progress, growth and development. His tenure has been underlined by his selfless hard work and dedication, all in the interests of furthering the association and raising standards throughout the lorry loader industry. I know I speak on behalf of all members when I say how grateful we are for Mark's time as chairman, and how we wish him a very happy, healthy and peaceful retirement."



Rigby added: "It has been a great honour and privilege to carry out the chairman's role for the past 14 years, having the opportunity to work with the board and wider membership, for the betterment of the industry. I am extremely proud of all that we have accomplished and would like to thank members for their continued support during my time as chairman, the association's longevity, evolution and success is a testament to their attitudes and commitment, and a genuine desire to see standards continually improved. I look forward to welcoming my successor into the position. ALLMI, today, is stronger than ever, and I have no doubt that this progress will continue for years to come."

The association is currently carrying out the election process for the chairman's position, as well as the wider board of directors. Look out for updates in the next issue of ALLMI Focus.

EN 12999 Update

ALLMI technical manager, Keith Silvester, attended the recent CEN meeting of Working Group (WG) 18, the committee responsible for developing EN 12999, the European product design standard for loader cranes. The meeting in Stockholm looked at final edits to the draft of the latest revision of EN 12999, prior to it being submitted to CEN/TC 147 for Formal Vote to publish. The revised version of EN 12999 looks to contain amendments covering a range of areas, including safety systems on remote controls, stability testing, and improved mapping against the Essential Health and Safety Requirements of the Machinery Directive. Look out for further updates as the Standard reaches publication.

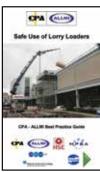




ALLMI/CPA Best Practice Guide update

An eclectic group of industry experts, representing numerous lorry loader sectors, recently got together for the second revision meeting of the ALLMI CPA Best Practice Guide for the Safe Use of Lorry Loaders. Endorsed by a wide range of leading organisations, the Guide is a highly regarded, pan industry document that provides guidance on an array of lorry loader activities and aims to expand upon the requirements of BS7121 Part 4.

ALLMI technical manager, Keith Silvester said: "With the Best Practice Guide reaching its 10 year anniversary in 2020, there is a need to bring the document further up to date in terms of product development and industry practices. In addition, the impending revision of BS7121 Part 4, scheduled for later this year, means that a full review of the Guide is perfectly timed."



"The document is an incredibly useful industry resource, covering a wide range of topics, including planning, personnel, training, siting, safe operation, maintenance, inspection and thorough examination. However, as well

as updating and enhancing any applicable sections, new material is being developed on subjects such as hybrid lifts, lifting team monitoring, medical fitness, and tag lines, to name but a few, making the Guide an even more important source of advice."

ALLMI chief executive Tom Wakefield added: "The revision is progressing well and once we are further along in the process, a draft will be made available for public comment. We would, therefore, encourage interested parties to contact us, should they wish to register their interest in this phase

of the project, as it's an ideal opportunity to have input into a publication that will continue to shape good practice throughout the lorry loader industry."



The Best Practice Guide Working Group Meeting.



For details of ALLMI standards, guidance documents and training, visit: **www.allmi.com**

The Vertikal Guide to Conexpo









the most targeted guide to the big North American show

Book your advertising early to secure the top positions in this popular bi-lingual (English/Spanish) guide to lift equipment!

• Digitally available to download online via Vertikal.net and Magzter stand App

• Highly targeted with printed copies distributed in the Cranes, Access and Telehandler zones

• Full list of lifting exhibits and exhibitors by product type and name

- Guided tours by major product type including new product launches
 - Easy to read large scale maps of lifting exhibition areas
 - Guide to Las Vegas with city maps and restaurants, bars and sights suggestions

For more information contact us on Tel: +44 (0)8448 155 900 or email: info@vertikal.net www.vertikal.net

Don't miss the advertising deadline ...

20th February 2020

All PAL Cards are now 'Smart'

All valid PAL Cards issued by IPAF to operators of powered access equipment worldwide are now Smart cards, because since January 2015 all cards issued have been Smart capable.

The use of Smart technology was mandated by IPAF from 1st January 2015 to help prevent fraud, misuse and to interact with security, telematics and tracking systems to ensure only authorised, qualified and correctly familiarised personnel operate Smart compatible machines. As all PAL Card training must be refreshed or renewed at least every five years, no cards issued pre-1st January 2015 are still be valid.

Director of operations Giles Councell said: "IPAF works hard to safeguard its training programme against misuse and thwart any attempt to copy, counterfeit or fraudulently obtain a PAL Card. The use of Smart technology, operators' photo id and our online verification system are all key planks of that."

Chief executive Peter Douglas added: "It is encouraging the effort IPAF puts into making the PAL Card a robust and globally recognised certification of operator training and is valued by equipment manufacturers, rental companies, end users and contractors worldwide. At Elevation 2019, it was heartening to hear from Sarah Garry of Build UK, that the IPAF PAL Card, which is now able to carry the CSCS holographic logo allowing the

authorised holder to gain access to Build UK sites, has been identified through the ongoing Build UK audit programme as a shining example to other card scheme issuers."



To quickly and easily verify an IPAF PAL Card online visit www.ipaf.org/checkpal

IPAF's CEO renews PAL Card

IPAF's new chief executive Peter Douglas is no stranger to operating booms and scissor lifts, but during his short time out of the industry his IPAF PAL Card lapsed. One of the first orders of business having taken up the post in December was to renew it.

He said: "Thanks to Versalift UK's training centre and instructor Lee Tibbles for helping me conduct and complete my 3a & 3b IPAF MEWP operator training, at its Burton Latimer location - I am now certified to operate them for the next five years!"



Find your nearest IPAF-approved training centre at www.ipaf.org/training

Judges meet to decide IAPAs shortlist

The judges for the 2020 International Awards for Powered Access - which takes place after the Summit in London UK, on 23rd April - have met to decide shortlists.

This year's judges are Erhan Acar of Rent Rise, Turkey, Malcolm Bowers of Lifterz, Ian James of Bronto Skylift, Norty Turner of United Rentals and Dan Vorsholt of GSV Materieludlejning, Denmark. To book your place, please visit www.iapa-summit.info



Powered access technician apprenticeship enrolment opens

IPAF's Richard Whiting and Jo Power visited training partner F-Tec to help launch enrolment on the upcoming Lift Truck and Powered Access Engineering Technician Apprenticeship, which forms part of IPAF's 'Roadmap' to qualified service technician status. The two attended F-Tec's open day at its Swindon training centre, to showcase a new 'Trailblazer' apprenticeship to employers ahead of enrolment opening.

Whiting said: "Demand is high for the new Trailblazer apprenticeship, as until now there has been a distinct lack of recognition or clear pathway to certified engineer or technician status to suit the particular needs of maintaining powered access, forklift and telehandler fleets. The new apprenticeship is just one route under the IPAF Roadmap to qualified service tech status, the

first course will commence this March, and anyone interested is invited to email me at Richard. Whiting@ipaf.org for information, or visit the F-Tec website at www.f-tec.org.uk for details.



Kathryn Roberts of F-Tec at the launch

IPAF stand at Conexpo offers free advice to help save lives

All Conexpo 2020 delegates who visit the IPAF stand can learn how to select the suitable machine for the job, develop a specific safe use plan, and train operators and supervisors to improve workplace safety by complying with new ANSI standards, which come into effect soon.

IPAF's stand F9100 is at the entrance to the Festival Grounds. IPAF staff will offer free advice and share technical expertise, while IPAF North American Council is sponsoring FREE registration to its new ANSI-compliant MEWP Supervisor training course just prior to Conexpo.

IPAF's North America regional manager Tony Groat, who also sits on ANSI and CSA Standards committees said: "There is zero defence should someone get injured or killed on your watch in arguing that you did not know what an aerial work platform specific safe use plan is, did not realise you need to train supervisors as well as operators, or do not understand the difference between familiarisation and thorough operator training – all of which are required in the new ANSI standards.We hope to see you in Las Vegas!"







Upcoming changes to EN 1004

EN 1004 is expected to be updated later this year, following a review and revision process started by the European Committee for Standardisation (CEN) back in 2012.



EN 1004 is the design standard for mobile access towers, used throughout Europe, which specifies the materials, dimensions, design loads, safety and performance requirements they should conform to. Everyone designing, manufacturing, supplying, buying, renting or using a mobile access tower in Europe should make sure that it complies with EN 1004.

EN 1004 was first published in 2004 and has remained unchanged since then. Following the review in 2012 it was decided that the standard should be updated, and the revision began. PASMA participated extensively in this process.

The draft revision of EN 1004 includes numerous technical and editorial adjustments that clarify or improve on the current standard but there are two significant changes:

- Low level towers with the working platform below 2.5 metres now fall within the scope of EN 1004 for the first time, as it is set to cover towers from the ground up (rather than the current 2.5 metre and above).
- On towers with the working platform below two metres it will be possible to access the platform from outside the tower. That allows EN 1004 towers to be developed for easier access at low level.

The revision has been put to a formal vote across all the CEN member countries. Voting closes on 13th February 2020, by which point each of the countries will have voted to accept or reject the revision. If it is accepted, as PASMA expects, the revised standard will be ratified and published.

PASMA will be supporting its members and the wider industry as they prepare for the changes. For all the latest information and guidance, visit pasma.co.uk/en1004

Easy access to 70+ scaffold tower instruction manuals

PASMA has re-launched its library of scaffold tower instruction manuals, which includes a comprehensive range of assembly guides from all PASMA's Manufacturing Members. For easier access, the library of over 70 manuals is now divided by tower type and then by manufacturer. It includes instructions for:

- Mobile access towers
- Cantilever towers
- Towers with bridges
- · Towers on stairs
- · Low level work platforms

PASMA recommends that anyone assembling a mobile access tower, prefabricated tower scaffold or low level work platform follows the

instruction manual. No manual should mean no tower.

The manuals are available at pasma.co.uk/manuals

Meet PASMA at the Health and Safety Event

PASMA will exhibit at the Health & Safety Event at the NEC in Birmingham from 28th - 30th April, along with the Access Industry Forum (AIF).



CHA PASMA focus

Test & Research Centre for towers and ladders

In 2018, PASMA agreed to support the establishment of a UK test centre, certification body and training facility for access equipment. One of the driving ideas was that the work of the centre would generate new insights into the root causes of falls from height.

The Centre has now opened in Soham, Cambridgeshire, and PASMA will use its services to train new PASMA instructors, and train professional tower riggers, thanks to a 25 metre high tower area, along with a mix of steel, cladding and blockwork walls.



PASMA has also set up certification schemes which are managed by the centre. They include:

- · Mobile access and working towers (based on BS EN 1004)
- Prefabricated tower scaffolds (BS1139-6)

• Low level work platforms (BS 8620)

Manufacturers can have their towers certified under these schemes, earning the right to use the new T&RGETMARK certification mark. The Test & Research Centre is managed by John Darby, formerly head of technical support at PASMA.



Learn more at testandresearch.org

Tower training and testing taking place at the new facility.

Brexit implications

PASMA invited Kevin Shakespeare from the Institute of Export & International Trade to host a one hour web seminar for its members on the impact Brexit will have on UK-based businesses in the Work at Height Sector, and how they can prepare. It covered Transport and Logistics, Customs, Tariffs and Taxation, Regulation and Compliance, Staffing and Human Resources and Intellectual Property Protection.

The one hour seminar is available at: youtube.com/pasmaltd

PASMA instructor training dates

Anyone wishing to become a PASMA instructor should contact karen.oneill@pasma.co.uk for availability on instructor training courses. The next courses include:

- 23 27 March (Essex)
- 20 24 April (Gloucestershire)
- 18 22 May (Kent)





For more information about the Access Industry Forum (AIF) and the No Falls Foundation charity for working at height, please visit www.accessindustryforum.org.uk and www.nofallsfoundation.org



The International Access Platform Exhibition

Back to where it all began: MECC Maastricht to host 10th edition

Me mecc

Maastricht

REGISTER ONLINE FOR A FREE ENTRY

Visit apexshow.com and click on 'PRE-REGISTER AS A VISITOR'

Sponsored by:



Supported by:





Demag AC 700-9

This 1:50 scale model of the nine axle Demag AC 700-9 is made by IMC Models of the Netherlands and is the Collector's Edition. It comes in high quality packaging and includes a very nice book describing the real crane with a good many photographs. The build manual for the model is very comprehensive and tools are included in the box.

The carrier has a detailed cab and chassis, with nice wheels. The axles steer independently apart from axle six, which is a lift axle to permit crab steering. There is also sprung suspension on each axle.

The outrigger assemblies are fully functional and can support the crane wheels free. Also included are metal spreader plates which have useable lifting lugs.

The crane superstructure has a detailed cab and small graphics enhance the appearance. The cab rotates from the transport position and tilts to a good angle. The counterweight can be fitted in various configurations, including on the carrier deck during self-assembly, and the individual ballast slabs have useable lifting points.

The main boom lift cylinders are excellent metal parts and they lock at any extension using a key. Detailing



on the boom includes spooling drums and access platforms, and the graphics are of a high quality. Pendant bars for the Sideways Super Lift (SSL) are stored for transport. Telescoping the boom is smooth with spring clips locking each boom section at 45, 90 or 100 percent.

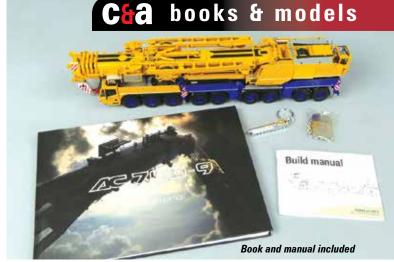
Two hook blocks are included, and they are very good metal parts. Also included are sets of lifting chains and these are welcome additions to a crane model. A key is used to operate the main winch and it has a positive brake system. Access to the winch is enabled by a removable panel held in place by magnets, and this is a high quality solution to avoid unsightly holes in the crane panel work.

The crane can be displayed in a variety of transport modes from the lightest configuration (no front outriggers and no SSL), to fully loaded. Various parts can be carried on the supplied trays on a suitable truck.

> IMC Models has made an excellent job with this model of the Demag AC 700-9. The aim has been to set a very high standard, and this has been achieved, with the book and other additions in the Collector's Edition being top notch. This version of the model costs €549 and is available from the Demag web shop.

To read the full review of this model visit www.cranesetc.co.uk

| Cranes Etc Model Rating | | |
|-------------------------|-----|--|
| Packaging (max 10) | 10 | |
| Detail (max 30) | 28 | |
| Features (max 20) | 19 | |
| Quality (max 25) | 23 | |
| Price (max 15) | 12 | |
| Overall (max 100) | 92% | |





Transport trays are included



Impressive on the road





AN EXTENSIVE RANGE OF TOWER CRANES, SUITABLE FOR ALL **TYPES OF** CONSTRUCTION PROJECTS

OVER 50 YEARS

of experience designing, manufacturing, supplying and offering support services for tower cranes for construction.

+20,000 CRANES manufactured by COMANSA

COMMITTED **TO LIFTING EVOLUTION**

COMANSA.COM

ASIA Hangzhou - P.R. China +86 571 8299 5555 sales@comansa.cn

INTERNATIONAL HQ

NORTH AMERICA Pineville (NC) - USA +1 800 589 7980 sales@lcacranes.com



Huarte - Spair +34 948 33 50 20 sales@comansa.com

CPA Stars of the Future 2020 nominations open

The CPA Stars of the Future awards scheme is being expanded for 2020 with awards for Mechanics, Technicians, Lifting Technicians, Operators and Hire Controllers.



Nominations are invited from rental companies, manufacturers, contractors and others with the closing date of Thursday 9th April. Nomination forms are available at www.cpa.uk.net and winners will be announced at the Stars of the Future awards ceremony, held at



the Heart of England Conference Centre, Fillongley near Coventry on Wednesday 10th June.

Stars of the Future is a UK awards scheme for apprentices and trainees in the construction equipment rental industry. It is being extended to five categories with national and

regional awards for Mechanics (Level 2), Plant Technicians (Level 3), Lifting Technicians, Operators and Hire Controllers, reflecting the key occupations in the industry and the corresponding apprenticeships. Full details can be found at www.cpa.uk.net

Technical Information Notice (CIG TIN 107)

The Crane Interest Group has issued a Technical Information Notice (104) in order to clarify the definition of a 'hybrid' lifting operation and the potential issues arising from this type of lifting operation.



CPA

BS 7121-1:2016 identifies two sets of contractual arrangements for the provision of mobile cranes. In the first - Straight Crane Hire - the customer hires a crane and manages the lift themselves, in which case they - the employing organisation - are responsible for ensuring that a safe system of work is in place and that all lifting operations are carried out safely in accordance with current legislation and best practice. The crane owner needs to provide a competent operator and ensure the crane is properly maintained, inspected and thoroughly examined. Straight Crane Hire arrangements should be carried out using the CPA Model Conditions and the Supplementary Conditions applicable to Mobile and Crawler Cranes.

In the second arrangement - a Contract Lift - the customer employs a lifting contractor such as the crane company to carry out the lifting operation including planning, supervision and execution of the lifting operation. It should always be carried out using CPA Standard Terms and Conditions for Contract Lifting Services.

However there is a third arrangement in which a crane is hired to a customer, but the crane owner becomes involved with some aspects of planning the lift. This is known as a 'Hybrid' lift, but it is unclear who is responsible for ensuring that the planning of the lift - as set out in BS 7121 - is carried out. This could well result in incomplete planning and an ineffective safe system of work.

A further complication is where a crane with an operator is hired with additional personnel such as slinger/signallers. In this case these people could potentially be viewed as being in charge/control of the lifting operation.

From a commercial aspect this can compromise the crane owner if the crane has been hired under

the CPA Model Conditions, as by becoming involved with planning the lift, the owner automatically takes on some of the responsibilities associated with a Contract Lift. If the lifting operation fails, the crane owner is likely to have difficulty in contractually recovering their costs for crane repair, etc. and may well face counter claims from the customer for not having planned the lift properly.

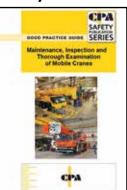
Past incidents of this nature have led to criminal prosecution of the crane owner by the HSE for being partially responsible for inadequate lift planning. They have also resulted in protracted and costly legal proceedings as the various parties and their insurers seek to recover costs.

Hybrid lifts - as described in Clause 5.7.2.3 of BS 7121-3:2017+A1:2019 - mean the crane owner takes on additional responsibilities, placing themselves at considerable reputational and financial risk should issues occur and should be avoided.

CIG TIN 107 can be downloaded from www.cpa.uk.net/crane-interest-group-publications-guidance

Changes to the Best Practice Guide -Maintenance, Inspection and Thorough **Examination of Mobile** Cranes (CIG 1001)

The Crane Interest Group guidance on the maintenance, inspection and thorough examination of mobile cranes - originally published in 2010 - was subject to a minor revision in November. Additions and revisions include:



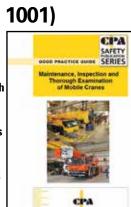
- · The specific inclusion of heavy lift cranes.
- · A new section on the inspection of the chassis of roadgoing mobile cranes.
- · New requirements for the identification and recording of safety critical components.
- · New guidance on the need for thorough examination of mobile cranes after rigging on site.
- · Additional information on the preparation of defined scopes of periodic thorough examination and thorough examination following installation.

Additional information has been included on ground assessment, medical fitness and protection against fumes along with an updated bibliography and references.

The updated guidance can be downloaded from www.cpa.uk.net/crane-interest-grouppublications-guidance/

Construction Plant-hire Association

Include | South | Prop



letters

Readers Letters

Rate talk

I enjoyed the rate guide in the latest Cranes & Access entertaining in places - useful? In parts certainly. I know this is a thankless task but definitely worth the effort you guys clearly put into it. I does strike me that nothing changes - rates always useless, everyone blaming someone else for cutting rates, yet nothing changes. How we all keep on going year after year just boggles the mind! Some of the results sharpens the mind and focusses attention that's for sure. What no one said - unless I missed it - is how you find a good niche product pay over the odds for a better or special machine - like spiders or hybrids - persuade your customers that you have something that will save them time or be easier to use even though it is more expensive. And as soon as you have some success some joker jumps in, buys the same machines probably with a 'buy now pay later' deal and starts cutting the rate! No wonder the majority don't want their kids to join them! Mind you I wonder why the crane guys are so enthusiastic? Something else going on there - looks like a business even less attractive than access hire.

Leonardo De Caprio

Before you say anything we are under no illusion that an Oscar winning actor is a regular reader. But this is the name we were given and so it's the one we will use. He does make some valid points though.

To use or not to use a ladder

Dear Sir,

A recent prosecution at Wellingborough Magistrates' Court has again highlighted the importance of ensuring work at height is properly planned, supervised and carried out by a competent person.

The court heard that a painter and decorator sustained serious, life changing injuries after falling from height while setting up ladders to paint the exterior windows and soffit boards of a private property. The fall resulted in the employee being permanently paralysed from the chest down.

An investigation by the Health and Safety Executive found that the incident could have been prevented if the work at height hierarchy had been followed in the planning process and if appropriate equipment had been provided to the employee. In this specific case, the risk assessment should have identified that the work was not of a short duration and as a result, ladders were not the most appropriate equipment to use.

The painting contractor was sentenced to a 12 month community order, 160 hours of unpaid work and ordered to pay costs of £2,124.28 with a surcharge of £85.

In response to this prosecution, we at the Ladder Association are urging all ladder users, and those responsible for managing the safe use of ladders, to put ladder training at the top of their agenda.

Ladders can be a sensible and practical option for low risk and short duration tasks, but they shouldn't automatically be your first choice. The law states that ladders can be used for work at height when a risk assessment has shown that using equipment offering a higher level of fall protection is not justified because of the low risk and short duration of use, or there are existing workplace features which cannot be altered.

Unfortunately, this case highlights the devastating effect a lack of planning can have on using the right type of equipment for working at height. We strongly believe training is an important contribution in keeping people safe when working at height and that training is about more than just using the ladder; it's about understanding when it's right to use a ladder, and importantly when it's not, choosing the right ladder and then understanding the simple steps to take to use the ladder safely.

Dennis Seaton,

Chairman - Ladder Association Training Committee

The Late Bob Youngman

6 February 2020

Dear Mark,

Further to the Obituary on this New Zealander, published in last month's edition, I knew Bob personally for about 50 years starting from when he joined Richardson McCabe in 1972 as Sales and Marketing Director. He was like a breath of fresh air into that somewhat died in-the wool organisation, who had represented Priestman since the early part of the century. Bob was a 'larger than life' character, apart from his proven track record as an entrepreneur as described in your Obituary.

Under Bob, we had some great success with Priestman sales in the 1970s and early 80s. He had no equal in putting on a show to launch new product, in which customer participation in trying out the new machine was paramount. On one occasion, after a very good party put on by Bob as part of the Launch, a somewhat stuffy customer took me to task for a rude song or recitation which he felt went too far. and upon my telling Bob the next day, his succinct response was: "Oh him! Don't worry, he's just a bloody Pom!" In 1982, Bob had a terrible accident which would have killed most normal beings. He was crossing the busy road to Auckland Airport to buy a paper, and, halfway across, stepped right in to the path of a speeding car, and was knocked completely unconscious. In his own words later: "Some joker turned me over with his foot and said 'e's gorn', but I 'adn't' y'know!" After several days in a virtual coma, recover he did. Bob took me fishing on Lake Taupo. I am no fisherman, but we trawled the bait and I caught a large trout. It was against the rules to catch any small fish, and, if Bob felt that we had, he would chuck them back into the lake if a Ranger came close, and then re-catch the dead fish once he was out of sight. This was the true Bob, a great friend and mate, with whom I kept in touch up until his death.

Yours sincerely, Dick Lloyd

Tony 'Nut' Nuthall 1974 - 2020

Well-known UK crane operator Tony Nuthall has died after a short illness. He was only 45. The following tribute came from one of his colleagues who knew him well. They are also looking to raise a little money to help his family at this challenging time. He leaves behind wife Shelley and three children Jordan, Connor and Arron.

It is with great sadness to announce that we have lost

another brother from the crane industry. Tony 'Nut' Nuthall died peacefully at home with his family by his side on the 17th January after suffering a short illness. He was everyone's right hand to their left. He was the joker of the pack and never failed to make people smile with his quip - "happy sexy greetings from the tin tent" (the crane cab).

Tony Nuthall most recently worked with Baldwins Crane Hire but had previously been employed by Ainscough and Total Tyres. He was a wellknown chap in and around the West London area, and will be sorely missed by his colleagues in the region. Our thoughts are with Shelley and family at this sad time.

Can you help Dave Foster raise £2,000 to help support In remembrance of Nutty (Tony Nuthall) to help his family at this difficult time? We all have memories of Tony, lets show how much we care X. Please donate to their JustGiving Crowdfunding Page. https://www.justgiving.com/crowdfunding/dave-foster?

Hubert Palfinger senior 1942- 2020

Palfinger loader crane founder Hubert Palfinger senior died on Sunday 19th January following a serious illness. He was 77.

Born in Grieskirchen (upper Austria) in April 1942, Palfinger signed up as an apprenticeship machine fitter, completing his Höhere Technische Lehranstalt (HTL) degree in 1964. He then joined his father Richard in the metalworking and repair

workshop which he had set up in 1932 for agricultural trailers, tippers and vehicle bodies. The company had 12 employees at the time. In 1959, Palfinger built its first crane and designed its first loader crane in 1964 when Hubert Palfinger took over the family business. He began series production of loader cranes in 1968. The company weathered a number of global economic crisis, restructuring and reinventing the business in order to survive and grow. It went public in 1999 but retained control with a majority holding. The family, including his wife Josephine, two sons and a private foundation still hold a majority stake in the business, with his sons, Hubert junior and Hannes, both sitting on the supervisory board.

He stepped down from his operational role in the company in 2008 but remained a board member until 2011. It also gave him time to focus on his other company, Hubert Palfinger Technologies which specialises in marine related activities, including the maintenance of ship hulls, and won the prestigious Energy Globe World Award last November.

A statement from the company said: "With the passing of Hubert Palfinger Sr, Palfinger has lost an extraordinary person and a visionary entrepreneur who has developed the group into a global corporation employing around

12,000 people. Making people a top priority is an integral part of the corporate culture, and it was Hubert Palfinger who laid the foundation for that philosophy and played a key role in shaping its

implementation. For that, Palfinger pays tribute to its founder, to whom the company owes an enormous debt of gratitude."





letters



letters

Ca

Allen 'Al' Thomas Havlin 1945 - 2020

Former Snorkel owner Al Havlin passed away on the 26th January he was 74. Havlin had been a successful sales rep for Fluid Power Systems, when in 1978 he spotted the potential of a small local company named Fluid Tech that had been set up in 1972 but that was struggling in what was a tough market. He sold his home and cashed in the commissions



that he had built up and used the funds to acquire the young company. At the time he said: "I didn't want to start a company from zero. This one was already started and was running. The core was basically there, and sales went up rather rapidly."

He expanded the company rapidly over the next 12 years and then in 1995 he founded the Midwest Suppliers Alliance, a sort of co-op which included a number of local suppliers working together to offer manufacturers a wide range of products and in effect reduce the number of separate suppliers they had to deal with.

In 2002 Havlin was chief executive and co-owner of Fluid Tech which by then supplied components to a number of crane and aerial lift companies, including Snorkel, Altec and Terex Cranes. When Snorkel ran into difficulties he teamed up with other local investors in Kansas City as part of Elwood Holdings, to acquire the company in order to maintain his business.

The Snorkel plant in Elwood and St Joseph, Kansas had been mothballed early in 2002 after owner Omniquip - part of Textron - had failed to find a buyer for the company as a going concern. Havlin managed, where others had failed, to persuade Textron to sell the company to him and his partners at a sensible price and took over in late 2002. The new owners restarted the production lines a month or two later and



recruited well known access industry sales manager Frank Scarborough as president. Havlin built the Snorkel business back up again before selling it to Tanfield in mid 2007. Tanfield merged it with UpRight, which it had acquired a few years earlier and after several years of mismanagement managed to 'sell' it to Don Ahern in 2013.

Al Havlin maintained an interest in the aerial lift market long after he had sold Snorkel and was a regular visitor to the ARA Rental show. He seemed to enjoy the more personable side of the business compared to the hydraulic component supply industry. He celebrated the acquisition of the Snorkel business by Don Ahern in 2013 which effectively saved the company he had saved for the second time.



Terry Jones *1942-2020*

Although he had nothing to do with the lifting equipment industries we wanted to add our brief and humble tribute to the late great genius and Monty Python member Terry Jones, who passed away on January 21st, having suffered for several years from frontotemporal dementia (FTD), he was 77.





To get your **SUBSCRIPTION** up and running register online at **www.vertikal.net**/en/subscriptions



YEARLY SUBSCRIPTION

£40.00/€60.00 (UK and Ireland) **€75.00** (Rest of Europe) **\$110.00/£60.00** (Other regions) Payable by BACS transfer/ credit card/cheque

AN INDEPENDENT NEWS SERVICE COSTS MONEY AND NEEDS YOUR SUPPORT SUBSCRIBE TODAY!

2020

The ARA Show 2020

February 9-12 2020 Orlando, Florida, USA Tel: +1 800 334 2177 www.therentalshow.com

Big 5 Saudi

March 08-11, 2020 Saudi Arabian construction exhibition Jeddah, Saudi Arabia Tel: +971 4 445 3715 SALD! www.thebig5saudi.com

Conexpo 2020

March 10-14, 2020 The leading US construction show. Las Vegas, Nevada, USA Tel: +1 414-298-4133 www.conexpoconagg.com

Samoter

March 21-25, 2020 International earthmoving and building equipment show Verona, Italy SaMoTer Tel: +39 045 8298111 www.samoter.it/it

HAE Hire Awards of Excellence 2020

April 04, 2020 Hire Association Europe annual awards dinner London, UK Tel: +44 (0) 121 380 4605 www.awards.hae.org.uk

SC&RA Annual Conference

April 14-18, 2020

Annual Conference of the US crane and heavy transport association including the Jobs of the Year awards

Amelia Island, Florida, USA Tel: +1(703) 698-0291 www.scranet.org/SCRA/Events/



www.ipaf.org

Anril 23 2020 Annual summit and awards dinner. London. Tel: +44 (0)15395 66700

Vertikal Days 2020

UK/Ireland crane, access and telehandler event. May 13-14, 2020 **Donington Park** Tel: +44 (0) 8448 155900 www.vertikaldays.net

Bauma CTT 2020

May 26-29, 2020 Russian construction equipment exhibition Moscow, Russia Tel: +4989 94922-339 boumo CTT RUSSIA www.bauma-ctt.ru

HIRF₂₀

May 27-28, 2020 Hire and Rental Industry Association annual convention, Adelaide





nats on

IPAF

October 15-17, 2020 The annual conference of the Australian crane association Perth, Australia

Tel: +61 03 8320 0411 www.cica.com.au/

HIANZ – Conference 2020

July 29-30, 2020 Annual conference and exhibition of the Hire Association of New Zealand Queenstown, New Zealand Tel: +64 7 575 2563 Website: www.hianz.net.nz

Interschutz 2020

15 to 20. June 2020 International fire and rescue show Hannover, Germany Tel: +49 511 89-0 www.interschutz.de

HCEA International Convention and Old Equipment Exposition

August 28-30, 2020 The Historical Construction Equipment Association's annual convention and expo Concordia, Kansas, USA Tel: +1 785 243 0083



September 09-11, 2020 French cranes and access exhibition/event Beaune, France Tel: +33 (0)1 45 63 68 22 101

www.jdlexpo.com

www.hcea.net

JDL Expo

Platformers' Days 2020

18 to 19. September German access and lifting show Karlsruhe, Germany Tel: +49 721 3720 5096 PD www.platformers-days.de



October 13-14, 2020 Annual conference of LEEA Lifting Equipment Engineers Association Liverpool, UK Tel: +44 (0) 203 488 2865 www.liftex.org LiftEx 2020

Bauma China 2020

November 24-27, 2020 SNIEC Shanghai, China Tel: +49 (0)89-9492051 www.bauma-china.com



Bauma Conexpo India

December 15-18, 2020 The bauma/Conexpo exhibition in India Delhi, India Tel: +49 89 949-20255 www.bcindia.com





ICUEE /Demo Expo

September 28-30, 2021 The US utility industry's largest show Louisville, Kentucky, USA Tel: +1 414-274-0644 Website: https://www.icuee.com/

2022

Bauma 2022 boumo April 4 -10th

World's largest construction equipment exhibition. Munich, Germany Tel: +49 (0) 89 51070 www.bauma.de

lisit: www.Vertikal.net/en/events/ for a full listing of events with direct links to the organisers.

All sorts of mobile elevating work platforms as well as non-powered. Pre-register for a FREE entrance now ! MAASTRICHT - 11 JUN www.apexshow.com

Marketplace

RECRUITMENT . USED EQUIPMENT . REPLACEMENT PARTS

Cranes & Access reaches over six times as many UK/Irish buyers of aerial lifts and lifting equipment than any other crane or access magazine, along with an exceptionally strong international readership, with over 15,000 lifting related professionals around the world reading either the printed or online editions of the magazine.

Given the wide global readership you will be surprised at how cost effective it can be as a medium to promote your products or services.

ADVERTISING:

The Vertikal Press Ltd. PO Box 6998, Brackley, **NN13 5WY UK.** Tel: +44 (0)8448 155900 Fax: +44 (0)1295 768223 E: advertising@vertikal.net

GERMANY: +(49)(0)761189786615.





ARA

Apex 2020 trade show



















CAN YOU WRITE? DO YOU WANT TO WRITE?

The Vertikal Press is looking to add to its editorial team and has openings for editorial staff/ journalists both experienced and at trainee level, part time or full time.

We would be interested to hear from freelance writers with experience of the equipment industry, preferably with some lifting/work at height experience, as well as those looking for something more permanent.

We are also looking for trainees either seeking work experience and training in the publishing world, or those with some experience who wish to progress their careers. Openings are available for work on our online and print publications as well as in our events management department. Location is flexible although European based candidates will have an advantage, however we would also welcome applications from further afield.

Our English language magazine Cranes & Access is read in more than 182 countries around the world, while Kran & Buhne is Germany's leading lifting magazine, with strong additional readership in Switzerland and Austria. Verikal.net is the global leader in accurate timely news for the lifting/work at height industry. Updated daily it attracts more than 75,000

unique visitors a month, from 194 countries.

For more information contact us in confidence at jobs@vertikal.net



SALES MANAGER seeks a new challenge in the Access, Rental, or Mobile Equipment markets and/or OEM position.

I am a business professional with more than 25 years of sales, product and dealer development experience.

Recent years in a senior sales management and national accounts role working for Original Equipment Manufacturers who distributed to various national rental equipment dealers including United Rentals, Sunbelt Rentals, HERC Rentals, CAT Rentals,

H&E Equipment, and various other independent dealers across North America.

Awareness campaigns have included general contractors such as Mortenson Construction, Balfour Beatty, Gilbane, Skanska, and Turner Construction and I am experienced with merchandisers such as Home Depot, Lowes, and Wal-Mart.

Based in the Midwest Region (WI), and am open to new challenges and am flexible with the right company and or opportunity.

Contact: dbschneider40@yahoo.com



recruitment

recruitment

Tower Crane Erection Supervisor Location: Harrow, North West London

The Company

Trident Lifting Solutions are one of the leading cranes & lifting service providers in the UK. Our passionate and experienced team specialise in Tower Crane Hire, CPA Contract Lifting Services, Lifting Consultancy and Auditing. We are proud to be the exclusive UK dealer for Comansa Tower Cranes ranging from 12-90 tons. Our Engineering Team can design crane schemes to maximise programme efficiency across all sectors. Trident possess a superior after-sales structure to handle the erection, dismantling, maintenance and repair of all Comansa Tower cranes in the UK.

Due to continued growth and high-profile project wins we have a requirement for an experienced tower crane erection supervisor to join our team.

Requirements

- Control of all senior erectors, erectors and trainee erectors.
- Control of any additional craneage and lifting equipment which could be used in the installation operation,
- thereby fulfilling the role of the crane supervisor.
 Ensuring that the operation is carried out in accordance
- Ensuring that the operation is carried out in accordance with the method statement.
- Ensuring that any additional craneage and equipment is in accordance with that specified and properly certified.
- Ensuring that all erection personnel are equipped with the necessary tools and personal protective equipment.
- Extensive industry experience in Tower Crane Erection, Dismantle & Climbing Operations
- NVQ Level 3 Plant Installation (Tower Cranes) with relevant endorsement (Or International Equivalent).
- CPCS Crane Supervisor (Or International Equivalent).
- CPCS Slinger Signaller (Or International Equivalent).

Personal Skills and Attributes

- Good interpersonal skills and the ability to communicate with people at all levels, technically and non-technically, in both verbal and written form;
- Ability to maintain personal effectiveness and foster team spirit and morale at times of high workload and pressure;
- · Desire to excel and widen experience in the role
- Professional maturity and enthusiasm.

Reward and benefits

We offer highly competitive remuneration package commensurate with qualifications and experience to the right candidate including excellent staff benefits and long-term career development opportunities. Included within the package will be:

- A Company van and all required tooling
- · Fuel Card and Expenses
- Company Mobile Phone
- Company Tablet with all erection RAMS and Manuals
- Regular training and direct product training with Comansa in Pamplona, Spain



Please reply in writing to: info@tridentliftingsolutions.co.uk

www.tridentliftingsolutions.co.uk

Post Date: 09 January 2020 Closing Date: 08 February 2020

FIND THAT PERSON

LOOKING FOR CRANE, ACCESS OR TELEHANDLER PEOPLE? LOOKING FOR A JOB?

Then why not start right here in the Cranes&Access recruitment section? With your support we can build a highly useful recruitment resource for the industry right within the UK and Ireland's only dedicated publication.

Call or email us today to find out about our great start up rates. Jobs Wanted ads are FREE!

+44 (0) 8448 155900

If responding to one of the ads please say you saw it in Cranes&Access.







HIRE20 Delegate Bookings NOW OPEN

Register and pay by 20 March 2020 to receive the EARLY BIRD DISCOUNT

HIRE20 will again be bringing you keynote speakers, offering thought leadership, motivation and strategic content to all attendees.

There is no better place to see the latest innovative technology and network with peers from across the country and the globe. We look forward to seeing you at HIRE20 in Adelaide.



www.hire20.com.au

marketplace

C<mark>a</mark>a

Having trouble with Grove or Krupp EKS units?

The EKS Repair Centre can provide rapid solutions to your problem. We specialise in stocking and repairing all types of **Grove** and **Krupp** EKS units. We can offer you four options to have your crane working quickly and safely again:

- 1. You send us the EKS unit (via courier/secure delivery preferably insured), We will repair the unit for you within seven working days and send it back to you.
- 2. We can immediately send you a refurbished unit if is available from stock you can install it as get back to work with the crane. You can decide whether to send your old EKS back to us or not. If you do we will inspect it and refund you the value of the old unit.
- 3. We can send you a brand new unit, if they are still available and in stock, you can then choose whether to send the old EKS back to us or not, if you do we will inspect it and refund you the value of the old unit.
- **4.** We can also offer you new or used E-proms (programmed) for all models of Krupp and Grove cranes.



info@eks-repair.com www.eks-repair.com www.crane-parts.co.uk

Did you know

Cranes & Access is read in the following countries:

UK, Germany, United States, Netherlands, France, Italy, Australia, Canada, Belgium, Austria, Ireland, Sweden, Switzerland, Japan, Finland, Denmark, Poland, United Arab Emirates, China, Norway, Singapore, New Zealand, Spain, Russia, India, Morocco, Turkey, Malaysia, Czech Republic, South Korea, Hong Kong, South Africa, Brazil, Ukraine, Hungary, Saudi Arabia, Romania, Greece, Slovak Republic, Thailand, Qatar, Mexico, Serbia, Bulgaria, Chile, Israel, Portugal, Oman, Indonesia, Bahrain, Luxembourg, Vietnam, Pakistan, Taiwan, Slovenia, Philippines, Malta, Colombia, Latvia, Iran, Trinidad and Tobago, Croatia, Cyprus, Ethiopia, Iceland, Sri Lanka, Itihuania, Kuwait, Argentina, Algeria, Liechtenstein, Estonia, Sudan, Peru, Egypt, Jamaica, Ghana, Cape Verde, Iraq, Nigeria, Angola, Lebanon, Mongolia, Albania, Azerbaidjan, Kazakhstan, Jordan, Belarus, Tunisia, Guatemala, Bangladesh, Isle of Man, Moldova, Tanzania, Kyrgyzstan, Mauritius, Bosnia-Herzegovina, Venezuela, Macedonia, Dominican Republic, Uruguay, Kenya, British Virgin Islands, Ecuador, Bolivia, Democratic republic of Congo, Libya, Panama, Čosta Rica, Jersey, Georgia, Uganda, Laos, Macau, Barbados, Cayman Islands, Puerto Rico, Paraguay, Yemen, Cambodia, Myanmar, Surinam, Guernsey Palestinian Territories, Honduras, Guam, French Guyana, Botswana, Namibia, Mozambique, Faroe Islands, Maldives, Guyana, Somalia,

Brunei Darussalam, Reunion, Turkmenistan, Papua New Guinea, Montenegro, Gambia, Armenia, Uzbekistan, Andorra, Mauritania, Monaco, El Salvador, Zambia, Bermuda, Falkland Islands, Fiji, Togo, Rwanda, Senegal, Congo, Cameroon, Virgin Islands, Belize Djibouti, Benin, Afghanistan, New Caledonia, Cuba, Nicaragua, Antigua and Barbuda, Liberia, Bahamas, Aland islands, Ivory Coast, Tadjikistan, Palau, Syria, Saint Vincent & Grenadines, Dominica, Gibraltar, Chad, Saint Kitts & Nevis Anguilla, Tokelau, Nepal, Cook Islands, Bhutan, Martinique, Haiti, Aruba, Zimbabwe.

Results are for January 2019 and include printed copies currently posted to 83 countries - and digital copies downloaded from www.vertikal.net or the Magzter newsstand.



info@universal-crane-mats.com

Online Directory www.vertikal.net online Access&Lifting directory - the fast and efficient way to find a supplier

Access Equipment Manufacturers

| | <i>i.</i> accessplatformcompany.co.uk |
|-------------------------------|--|
| Platform Company | |
| Ascendant Access | www.ascendantaccess.com |
| Aichi | www.aichi-corp.jp |
| AIRO | www.airo.com |
| Alimak Hek | www.alimakhek.com |
| ATN | www.atnplatforms.com |
| Barin | www.barin.it |
| Biljax | www.biljax.com |
| Böcker Maschinenwerke | www.boecker.de |
| Bravi | www.braviisol.com |
| Bronto Skylift | www.brontoskylift.com |
| CLM Construction Supplies | www.clm-supplies.com |
| CMC | www.cmclift.com |
| Co.Me.T | www.officinecomet.it |
| CPL | www.cumberlanduk.co.uk |
| CTE | www.ctelift.com |
| DENKA-LIFT | www.rothlehner.com |
| Dino Lift | www.dinolift.com |
| Dingli | www.cndingli.com |
| Easylift | www.easy-lift.it |
| Falck Schmidt | www.tcalift.com |
| GEDA-Dechentreiter | www.geda.de |
| Genie | www.genielift.com |
| GSR Spa | www.gsrspa.it |
| Haulotte | www.haulotte.com |
| Hinowa Tracked Aerial Platfor | |
| Holland Lift | www.hollandlift.com |
| Imer Access | www.imergroup.com |
| Instant UpRight | www.instantuprightlifts.com |
| Isoli | www.isoli.com |
| Iteco | |
| JCB | www.imergroup.com |
| JLG | www.jcb.com |
| Klaas | www.jlgeurope.com |
| | www.utility-equipment.com |
| Klubb France | www.klubb-france.fr www.laddersafetydevices.co.uk |
| Ladder Safety Devices | |
| Leguan Lifts Manitou | www.leguanlifts.com |
| Mantis Access | www.manitou.com www.mantisaccess.co.uk |
| | www.mantall.com |
| Mantall Matilea | |
| Matilsa | www.matilsa.es |
| MEC | www.mec-awp.com |
| Niftylift | www.niftylift.com |
| Oil&Steel | www.oilsteel.com |
| Omega Platforms | www.omegaplatforms.com |
| Omme Lift | www.ommelift.dk |
| Palazzani Industrie | www.palazzani.it |
| Palfinger Platforms | www.palfinger-platforms.com |
| Planet Platforms | www.planetplatforms.co.uk |
| PB Liftechnik | www.pbgmbh.de |
| Platform Basket | www.platformbasket.com |
| Power Towers | www.powertowers.com |
| Ranger tracked access | www.tracked-access.co.uk |
| Runshare | www.runshare.net |
| Ruthmann | www.ruthmann.de |
| Sinoboom | www.sinoboom.com |
| Skyjack | www.skyjack.com |
| Skyking | www.skyking.co.uk |
| Snorkel | www.snorkelusa.com |
| Socage | www.socage.it |
| SUP | www.supelefant.com |
| TCA Lift | www.tcalift.com |
| Teupen | www.teupen.com |
| Turner Access | www.turner-access.co.uk |
| UTS Sales & Repairs | www.towersandpodiums.co.uk |
| Versalift distributors (UK) | www.versalift.co.uk |
| Scaffo | old Towers |

| Scattol | a lowers |
|---------------------------|---------------------------|
| CLM Construction Supplies | www.clm-supplies.com |
| Eurotowers | www.eurotowers.co.uk |
| Instant | www.instantupright.com |
| Lyte Industries | www.lyteladders.co.uk |
| Planet Platforms | www.planetplatforms.co.uk |
| Svelt | www.svelt.it |
| Turner Access | www.turner-access.co.uk |
| Youngman | www.youngman.com |
| | |

| Wastclimbe | ers & Hoists |
|---------------------------|---------------------------|
| Adastra Access | www.adastra-access.co.uk |
| Alimak-Hek | www.alimakhek.com |
| Brogan Group | www.brogangroup.com |
| CLM Construction Supplies | www.clm-supplies.com |
| GB Access | www.gbaccess.co.uk |
| GEDA-Dechentreiter | www.geda.de |
| Klaas | www.utility-equipment.com |
| SGB | www.sgb.co.uk |
| LTC Hoists Division | www.ltchoists.co.uk |
| Safi | www.safi.it |
| Specialist Scoffolding | |

Specialist Scaffolding Advance Scaffolding (SW) www.advancedscaffoldingltd.co.uk SGB

Platform Rental

| E1 | |
|--------------------------|------------------------------------|
| 1st Access Rentals | www.1staccessrentals.co.uk |
| 2 Cousins Access Limited | |
| AA Access (Specialists) | www.aaaccess.co.uk |
| ABBA Plant Hire | www.abbaplanthire.co.uk |
| Access Link | www.accesslink.biz |
| Access Platforms Direct | www.accessplatformsdirect.co.uk |
| Acrolift | www.acrolift.co.uk |
| Active Rentals Scotland | www.activerentals.co.uk |
| Actual Access | www.actualservices.co.uk |
| Advanced Access Platform | ms www.accessplatformsuk.com |
| Aerial and w | ww.aerialandhandlingservices.com |
| Handling Services | - |
| Aerial Platforms | www.aerialplatformsltd.co.uk |
| AFI- Uplift | www.afi-uplift.co.uk |
| A-Plant | www.aplant.com |
| ASR Access Platforms | www.access-platforms.com |
| ATP | www.atphire.com |
| Bluelift | www.bluelift.ie |
| Drammen Liftutleie AS | www.drammenlift.no |
| Elevation | www.elevation.net |
| ES Access Platforms | www.esaccess.co.uk |
| Facelift | www.facelift.co.uk |
| Fraco | www.fraco.co.uk |
| GT Access | www.gtaccess.co.ukk |
| Height for Hire | www.heightforhire.com |
| High Access Hire | www.highaccesshire.co.uk |
| Higher access | www.higheraccess.co.uk |
| Hi-reach | www.hi-reach.co.uk |
| Hird | www.hird.co.uk |
| Horizon Platforms | www.horizonplatforms.co.uk |
| JMS Powered Access | www.jms.co.uk |
| Lifterz | www.lifterz.co.uk |
| Loxam Access | www.loxam-access.co.uk |
| LTC Powered Access | www.ltcpoweredaccess.co.uk |
| LTC | www.ltcaccess.co.uk |
| Mainline Access | www.mainline-access.co.uk |
| Manlift Group - Mid East | www.manliftgroup.com |
| Manlift Hire | www.manlift.ie |
| Mayes Access Platform S | |
| Mr Plant Hire | • • |
| | www.mrplanthire.co.uk |
| North American Rentals | www.nationwideplatforms.co.uk/Hire |
| Peter Douglass Platforms | www.bigbooms.com |
| Platform Sales & Hire | |
| | www.platformsales.co.uk |
| Power Platform Services | www.pps.co.uk |
| Rapid Platforms | www.rapidplatforms.co.uk |
| Readyplant Ltd | www.readyplant.co.uk |
| Riwal | www.riwal.com |
| Sandhurst Access Rental | |
| Trac-Access | www.trac-access.com |
| United Powered Access | www.upa-uk.com |
| Universal Platforms | www.universalplatforms.com |
| Warren Access | www.warrenaccess.co.uk |
| Wilson Access | www.wilsonaccess.co.uk |
| N | latified Rody |

Notified Body

| Powered Access Certification www.pac.uk.com | Powered Access | Certification | www.pac.uk.com |
|---|----------------|---------------|----------------|
|---|----------------|---------------|----------------|

New & Used Platforms

| Access Platform Sales (APS) | www.accessplatforms.co.uk |
|-----------------------------|---------------------------------|
| Advanced Access Platforms | www.aaplatforms.co.uk |
| AFI Resale | www.afi-resale.co.uk |
| A.J. Access Platforms | www.accessplatforms.com |
| Baulift | www.baulift.de |
| Davis Access | www.davisaccess.co.uk |
| Facelift | www.facelift.co.uk |
| | ww.Flesch-Arbeitsbuehnen.de |
| Gantic Norway | www.gantic.no |
| Genie | www.genielift.com |
| GSR Aerial Platforms UK | http://en.gsrspa.it |
| GT Access | www.gtaccess.co.uk |
| Height for Hire | www.heightforhire.com |
| Hird | www.hird.co.uk |
| JLG | www.jlgeurope.com |
| JMS Powered Access | www.jms.co.uk |
| Kemp Hoogwerkers | www.kemphoogwerkers.nl |
| Kunze GmbH | www.kunze-buehnen.com |
| Lavendon Sales | www.lavendonsales.com |
| Leader | www.leader-piatt.it |
| Liftright Access | www.liftrightaccess.com |
| Manlift Sales | www.manlift.ie |
| Mech-Serv (GB) | www.mech-serv.co.uk |
| Mr Plant Hire | www.mrplanthire.co.uk |
| Nationwide Platforms www.n | ationwideplatforms.co.uk/sales/ |
| | |

| www.bigbooms.com | North American Rentals |
|----------------------------|------------------------|
| www.rothlehner.com | Rothlehner |
| www.trackedaccess.com | Tracked Access |
| www.platformsales.co.uk | Platform Sales |
| www.promaxaccess.com | Promax Access |
| www.rapidplatforms.co.uk | Rapid Platforms |
| www.reachmaster.com | Reachmaster (USA) |
| www.riwal.com/used | Riwal |
| www.turner-access.co.uk | Turner Access |
| www.tvh.com | TVH - Group |
| www.universalplatforms.com | Universal Platforms |
| www.utility-equipment.com | Utility Equipment |
| www.vertimac.com | Vertimac |
| www.wilsonaccess.co.uk | Wilson Access |
| www.workplatformltd.co.uk | Workplatform |

Special/Respoke Access & Lifting Solutions

| te Access a Linning Solutions | |
|------------------------------------|-----------------------|
| | Access Platform Sales |
| www.gtliftingltd.co.uk | GT Lifting Solutions |
| www.laddersafetydevices.co.uk | Ladder Safety Devices |
| www.jms.co.uk | JMS Powered Access |
| www.liftrightaccess.com | Liftright Access |
| www.mantisaccess.co.uk | Mantis Access |
| www.nationwideplatforms.co.uk/Hire | Nationwide Platforms |
| www.planetplatforms.co.uk | Planet Platforms |
| www.platformsales.co.uk | Platform Sales & Hire |
| www.spiderlift.co.uk | Ranger Equipment |
| www.warrenaccess.co.uk/hire | Warren Access |
| www.workingatheightltd.com | Working At Height Ltd |
| www.workplatformltd.co.uk | Workplatform |

Special & Niche Access

| opecial u h | IIUIIU AUUU33 |
|--------------------------------|------------------------------|
| Acrolift | www.acrolift.co.uk |
| DENKA Narrow | www.rothlehner.com |
| | vww.easyreachscotland.co.uk |
| Facelift | www.facelift.co.uk |
| Height for Hire | www.heightforhire.com |
| High Access Hire | www.highaccesshire.co.uk |
| Higher Access | www.higheraccess.co.uk |
| JMS Powered Access | www.jms.co.uk |
| Rapid Platforms | www.rapidplatforms.co.uk |
| Smart Platform Rentals | www.smartplatforms.co.uk |
| Special Equipment | www.special-equipment.eu |
| Universal Platforms | www.universalplatforms.com |
| Utility Equipment | www.utility-equipment.com |
| Wilson Access | www.wilsonaccess.co.uk |
| Special Lift & Tra | ansport Equipment |
| Arnold Schwerlast GmbH & Co.KC | |
| Collett A Sons, UK | www.collett.co.uk |
| Wagenborg Nedlift, NL | www.wagenborg.com |
| Heavy Transnor | t/Abnormal Loads |
| Collett A Sons, UK | www.collett.co.uk |
| S.A. Smith | www.sa-smith.co.uk |
| | |
| | odular Transporters |
| Collett & Sons, UK | www.collett.co.uk |
| Wagenborg Nedlift, NL | www.wagenborg.com |
| Telescopic Hand | ler Manufacturers |
| Dieci Telehandlers Ltd | www.dieci-telehandlers.co.uk |
| Genie | www.genielift.com |
| Haulotte | www.haulotte.com |
| ПС | |

www.manitou.com www.merlo.co.uk Now & Lload Tolohandlore

www.jlgeurope.com

JLG Manitou

Merlo

| New & Used Telenandiers | |
|------------------------------|-----------------------------|
| Dieci Telehandlers | www.dieci.com |
| GT Lifting Solutions | www.gtlift.co.uk |
| Industrial Access | www.industrialaccess.ro |
| Lisman | www.lisman.nl |
| Riwal | www.riwal.com/used |
| TVH Group | www.tvh.com |
| Vertimac | www.vertimac.com |
| VHS Vissers Heftruck Service | www.vhsbladel.nl |
| Telehandler Rental | |
| ABBA | www.abbaplanthire.co.uk |
| GT Lifting Solutions | www.gtliftingltd.co.uk |
| JMS Powered Access | www.jms.co.uk |
| Mr Plant Hire | www.mrplanthire.co.uk |
| Readyplant Ltd | www.readyplant.co.uk |
| Site Safet | y Audits |
| Access Safety Management | |
| Alfa Access Services ww | /w.alfa-access-services.com |
| Industry Associations | |
| ALLMI | www.allmi.com |
| CICA | www.cica.com.au/ |
| riepe | ununu aiana ann uli |

| CICA | www.cica.com.au/ |
|-------|------------------|
| CISRS | www.cisrs.org.uk |
| CPA | www.cpa.uk.net |
| EWPA | www.ewpa.com.au |
| IPAF | www.ipaf.org |
| NASC | www.nasc.org.uk |
| OSHA | www.osha.gov |
| PASMA | www.pasma.co.uk |

| www.nrcplant.co.uk | Load Systems UK Ltd www.loadsystems.com |
|--|---|
| www.hird.co.uk | Mantracourt Electronics www.wirelesssensorsystem.com |
| Cranes | Marwood www.marwoodgroup.co.uk |
| brynthomascranes.com | SMIE www.smie.com Software |
| ww.corkcranehire.com www.citylifitng.co.uk | Higher Concept www.higherconcept.co.uk |
| www.electrogen.ie | inspHire www.insphire.com |
| johnsutchcranes.co.uk | Matusch GmbH www.matusch.de |
| www.kinglifting.co.uk | MCS Rental Software www.mcsrentalsoftware.com Structural Repairs |
| adybirdcranehire.co.uk | Avezaat Cranes www.avezaat.com |
| s www.highsparks.co.uk | Crowland Cranes www.crowlandcranes.co.uk |
| ondontowercranes.co.uk | John Taylor Crane Services www.jtcranes.co.uk |
| www.electrogen.ie | Training Associations & Networks |
| ement | ALLMI www.allmi.com AWPT www.awpt.org |
| www.dwls.co.uk | AWPI www.awpt.org IPAF www.ipaf.org |
| isk Analysis | NASC www.nasc.org.uk |
| a1asoftware.com www.dwls.com | Pasma www.pasma.co.uk |
| vww.hliconsulting.com | Training Centres & Trainers |
| nent | Access Platforms Direct www.accessplatformsdirect.co.uk Access Platform Sales (APS) www.iapsgroup.com |
| www.tmc-lifting.com | Astra Access www.astratraining.co.uk |
| es | Boss Training www.bosstraining.co.uk |
| www.rbauction.com | Active Safety www.activerentals.co.uk |
| nufacturers | Advanced Access Platforms www.accessplatformsuk.com Ainscough www.ainscoughtraining.co.uk |
| w.shieldbatteries.co.uk | AJ Access www.accessplatforms.com |
| vww.trojanbattery.com atinuminternational.com | Approved Safety www.approvedsafetytraining.com |
| oring Systems | Training -Ca CMT www.c-m-t.co.uk |
| www.msluk.net | CMT www.c-m-t.co.uk Elevation www.elevation.net |
| w.pce-instruments.com | Emerson www.emersoncranes.com/training |
| ms | GT Access www.gtaccess.co.uk |
| www.moba.de | IAPS www.iapsgroup.com |
| www.intercontrol.de | Lift-Manager www.lift-manager.com LTC Training Services wwww.ltctrainingservices.co.uk |
| www.electrogen.ie | Mentor Training Solutions www.mentortrainingsolutions.co.uk |
| www.jms.co.uk | Nationwide Platforms www.nationwideplatforms.co.uk/Training |
| | SGB www.sgb.co.uk Smart Platform Rentals www.smartplatforms.com |
| www.finchgroup.net | TVH Group www.tvh.com |
| Help | UTN www.utntraining.co.uk |
| www.cranetools.com | Versalift Training Direct www.versalift.co.uk/training |
| Roadways | Warren www.warrenaccesstraining.co.uk/courses/ Access Training |
| .craneriggermats.co.uk www.gtp-europe.com | Workplatform www.workplatformltd.co.uk/ |
| v.marwoodgroup.co.uk | customer-support/operator-training |
| .sarumhardwood.co.uk | Safety Training |
| www.nolim.nl w.outriggerpads.co.uk | Atlas Cranes UK www.atlasgmbh.com Avon Crane www.avoncrane.co.uk |
| www.timbermat.co.uk | Brogan Group www.avoncrane.co.uk |
| www.tmc-lifting.com | Davis Access www.davisaccess.co.uk |
| iversal-crane-mats.com | Emerson www.emersontrainingservices.co.uk |
| www.welexgroup.com bliers | Height for Hire www.heightforhire.com |
| www.conedrive.com | Facelift Training Services |
| w.pce-instruments.com | HCS www.hydrauliccraneservices.co.uk |
| w.ue-components.com | Hewden Training www.hewden.co.uk/training |
| ppliers | Hi-Reach www.hi-reach.co.uk Hiab www.hiab.com |
| indhandlingservices.com a-access-services.com | Horizon Platforms www.ipaftrainingcourses.co.uk |
| www.amerparts.net | JLG Training www.jlgeurope.com |
| w.caunton-access.com | L&B Transport www.lbtransport.co.uk |
| www.conedrive.com | Liebherr Training (UK) www.liebherr.co.uk Lifting Equipment Training www.letltd.co.uk |
| .crowlandcranes.co.uk www.ctech-ind.com | Loxam www.loxam-access.co.uk |
| ww.davisaccess.co.uk | Lyte www.lyteladders.co.uk |
| www.donghua.co.uk | Mainline Access www.mainline-access.co.uk Mentor Training www.mentortraining.co.uk |
| www.electrogen.ie stdoeloadercranes.com | Mr Plant Hire www.mrplanthire.co.uk |
| ww.ipspartsonline.com | Nationwide Platforms www.nationwideplatforms.co.uk |
| www.jlgeurope.com | Norfolk Training Services www.norfolktraining.co.uk |
| www.lift-manager.com | Rapid Platforms www.rapidplatforms.co.uk Southern Crane & Access www.southerncranes.co.uk |
| www.otrwheel.co.uk w.pce-instruments.com | TH White www.thwhite.co.uk |
| www.tvh.be | Terex Atlas (UK) Ltd. www.atlascranes.co.uk |
| w.ue-components.com | TVH Group www.tvh.com |
| www.unifiedparts.com www.vertimac.com | CM Labs Training Simulators www.cm-labs.com |
| workplatformltd.co.uk | Crane Attachments |
| | Kinshofer www.kinshofer.com |
| ndhandlingservices.com | Wire Rope & Cable |
| + | Teufelberger Seil www.teufelberger.com |
| t ikal.net/en/recruitment | TMC Lifting www.tmc-lifting.com |
| Software | Casar www.casar.de Winches & Hoists |
| w.higherconcept.co.uk | Rotzler www.rotzler.com |
| www.insphire.com | Tyre Suppliers |
| www.mcs.co.uk | Mitas Tyres www.mitas-tyres.com |
| lters www.plantfilters.co.uk | Traffic Management |
| ent | Atlas Traffic Management www.atlastm.co.uk |
| www.ags-btp.fr | Technical & Safety Consultancy |
| www.airteksafety.com | Access Safety Management www.accesssafety.co.uk |
| v.heatonproducts.co.uk v.heatonproducts.co.uk | Site Safety Audits Access Safety Management www.accesssafety.co.uk |
| w.livelinedefender.com | |
| | artikal not ar call |

| n k | Hird www.hird.co | |
|---|--|---|
| | Self Erecting Tower Cranes | |
| | Bryn Thomas Cranes www.brynthomascranes.c | om |
| | Cork Crane Hire www.corkcranehire.c | |
| ŧ | City Lifting www.citylifitng.co | |
| n | | |
| | Electrogen Int www.electroger | |
| n | John Sutch Cranes www.johnsutchcranes.co | |
| n | King Lifting www.kinglifting.co | .uk |
| n | Ladybird tower www.ladybirdcranehire.co | |
| n | | un |
| | Tower Cranes | |
| k | High Sparks TCS www.highsparks.co | .uk |
| n | London Tower Cranes www.londontowercranes.co | |
| e | | |
| k | Electrogen Int www.electroger | 1.16 |
| | Heavy Lift Management | |
| n | DWLS www.dwls.co | uk |
| 0 | | an |
| n | Heavy Lift Planning & Risk Analysis | |
| n | A1A Software alasoftware.c | om |
| | DWLS www.dwls.c | |
| | HLI Consulting www.hliconsulting.c | |
| n | ······· | UIII |
| n | Ancillary Equipment | |
| n | TMC lifting supplies www.tmc-lifting.c | om |
| | • | UIII |
| k | Auction Houses | |
| k | Ritchie Brothers www.rbauction.c | om |
| ē | | UIII |
| Ē | Battery Suppliers & Manufacturers | |
| ĸ | Shield Batteries www.shieldbatteries.co | սե |
| | | |
| n | Trojan Battery www.trojanbattery.c | |
| | Platinum International www.platinuminternational.c | om |
| t | • | |
| n | Load Cells & Load Monitoring Systems | |
| n | MSL Oilfield Services Ltd www.msluk. | |
| n | PCE Instruments UK Ltd www.pce-instruments.c | |
| | • | |
| n | Control Systems | |
| u | MOBA Automation www.moba | .de |
| | Intercontrol www.intercontrol | |
| k | Generator Sales & Rental | .uc |
| | | |
| fi | Electrogen Int www.electroger | i.ie |
| n | JMS Powered Access www.jms.co | .uk |
| t | · · · · · · · · · · · · · · · · · · · | |
| k | Insurance | |
| | Specialist Insurance www.finchgroup. | net |
| k | | |
| e | Online Technical Help | |
| n | Crane Tools www.cranetools.c | om |
| k | Outrigger Pads, Mats & Roadways | |
| | outrigger raus, mais a nuauways | |
| k | Alimats www.craneriggermats.co | .uk |
| k | GTP Europe www.gtp-europe.c | om |
| n | Marwood www.marwoodgroup.co | |
| t | | |
| | Mat & Timber Services www.sarumhardwood.co | |
| k | Nolim www.nolim | ı.nl |
| ĸ | Outriggerpads www.outriggerpads.co | .uk |
| k | Timbermat www.timbermat.co | |
| ē | | |
| k | | |
| | Universal Crane Mats www.universal-crane-mats.c | |
| n | Welex Group www.welexgroup.c | om |
| n | Component Suppliers | |
| n | | |
| | | |
| | | |
| n | PCE Instruments UK Ltd www.pce-instruments.c | om |
| | UE Components www.ue-components.c | om |
| | UE Components www.ue-components.c | om |
| n k | UE Components www.ue-components.c Parts & Service Suppliers | om om |
| | UE Components www.ue-components.c Parts & Service Suppliers Aerial & Handling Services www.aerialandhandlingservices.c | om om |
| k | UE Components www.ue-components.c Parts & Service Suppliers Aerial & Handling Services www.aerialandhandlingservices.c | om om om |
| k e | UE Components www.ue-components.c Parts & Service Suppliers Aerial & Handling Services www.aerialandhandlingservices.c Alfa Access Services www.alfa-access-services.c | om om om om |
| k e | UE Components www.ue-components.c Parts & Service Suppliers Aerial & Handling Services www.aerialandhandlingservices.c Alfa Access Services www.alfa-access-services.c Amerparts www.amerparts. | om om om om net |
| k e k | UE Components www.ue-components.c Parts & Service Suppliers Aerial & Handling Services www.aerialandhandlingservices.c Alfa Access Services www.alfa-access-services.c Amerparts www.amerparts. Caunton - Access www.caunton-access.c | om om om om net om |
| k e | UE Components www.ue-components.c Parts & Service Suppliers Aerial & Handling Services www.aerialandhandlingservices.c Alfa Access Services www.affa-access-services.c Amerparts www.amerparts. Caunton - Access www.caunton-access.c Cone Drive www.conedrive.c | om om om om net om |
| k e k | UE Components www.ue-components.c Parts & Service Suppliers Aerial & Handling Services www.aerialandhandlingservices.c Alfa Access Services www.alfa-access-services.c Amerparts www.amerparts. Caunton - Access www.caunton-access.c | om om om om net om |
| k e k n | UE Components www.ue-components.c Parts & Service Suppliers Aerial & Handling Services www.aerialandhandlingservices.c Alfa Access Services www.alfa-access-services.c Amerparts www.amerparts. Caunton - Access www.caunton-access.c Cone Drive www.conedrive.c Crowland Cranes www.crowlandcranes.co | om om om om net om om .uk |
| k e <u>k</u> n k | UE Components www.ue-components.c Parts & Service Suppliers Aerial & Handling Services www.aerialandhandlingservices.c Alfa Access Services www.alfa-access-services.c Amerparts www.amerparts. Caunton - Access www.caunton-access.c Cone Drive www.comolandcranes.co Crowland Cranes www.crowlandcranes.co C-Tech Industries www.ctech-ind.c | om om om om net om om .uk om |
| k e <u>k</u> n kk | UE Components www.ue-components.c Parts & Service Suppliers Aerial & Handling Services www.aerialandhandlingservices.c Alfa Access Services www.affa-access-services.c Amerparts www.amerparts. Caunton - Access www.caunton-access.c Cone Drive www.coundor.access.c Crowland Cranes www.crowlandcranes.co C-Tech Industries www.ctech-ind.c Davis Access Platforms www.davisaccess.co | om om om om net om om .um .um |
| k ekn kkk | UE Components www.ue-components.c Parts & Service Suppliers Aerial & Handling Services www.aerialandhandlingservices.c Alfa Access Services www.alfa-access-services.c Amerparts www.amerparts. Caunton - Access www.caunton-access.c Cone Drive www.conedrive.c Crowland Cranes www.crowlandcranes.co C-Tech Industries www.ctorowlandcranes.co Davis Access Platforms www.davisaccess.co Donghua Limited www.donghua.co | om om om om net om k um k um k |
| k ekn kkk | UE Components www.ue-components.c Parts & Service Suppliers Aerial & Handling Services www.aerialandhandlingservices.c Alfa Access Services www.affa-access-services.c Amerparts www.amerparts. Caunton - Access www.caunton-access.c Cone Drive www.coundor.access.c Crowland Cranes www.crowlandcranes.co C-Tech Industries www.ctech-ind.c Davis Access Platforms www.davisaccess.co | om om om om net om k um k um k |
| k ekn kkk | UE Components www.ue-components.c Parts & Service Suppliers Aerial & Handling Services www.aerialandhandlingservices.c Alfa Access Services www.alfa-access-services.c Amerparts www.amerparts. Caunton - Access www.caunton-access.c Cone Drive www.conedrive.c Crowland Cranes www.crowlandcranes.co C-Tech Industries www.ctech-ind.c Davis Access Platforms www.davisaccess.co Donghua Limited www.donghua.co Electrogen Int www.electroger | om om om net om um uk uk i.ie |
| k ekn kkkkk | UE Components www.ue-components.c Parts & Service Suppliers Aerial & Handling Services www.aerialandhandlingservices.c Alfa Access Services www.alfa-access-services.c Amerparts www.amerparts. Caunton - Access www.caunton-access.c Cone Drive www.conedrive.c Crowland Cranes www.crowlandcranes.co C-Tech Industries www.ctech-ind.c Davis Access Platforms www.davisaccess.co Donghua Limited www.davisaccess.co Delectrogen Int www.electroger Errnest Doe & Sons Ltd. www.ernestdoeloadercranes.c | om om om om om om com com com com com co |
| k ekin kkaka | UE Components www.ue-components.c Parts & Service Suppliers Aerial & Handling Services www.aerialandhandlingservices.c Alfa Access Services www.alfa-access-services.c Amerparts www.amerparts. Caunton - Access www.caunton-access.c Cone Drive www.coundendreaces.cc Crowland Cranes www.crowlandcranes.co C-Tech Industries www.ctech-ind.c Davis Access Platforms www.davisaccess.co Donghua Limited www.davisaccess.co Donghua Limited www.electrogen Int Errnest Doe & Sons Ltd. www.enestdoeloadercranes.cc IPS www.ipspartsonline.c | om om om om et om um um um um um um um om um um um um um um um um um um um um um |
| k ekn kkkkknn | UE Components www.ue-components.c Parts & Service Suppliers Aerial & Handling Services www.aerialandhandlingservices.c Alfa Access Services www.alfa-access-services.c Amerparts www.amerparts. Caunton - Access www.caunton-access.c Cone Drive www.coundon-access.c Crowland Cranes www.crowlandcranes.co C-Tech Industries www.ctoch-ind.c Davis Access Platforms www.davisaccess.co Donghua Limited www.donghua.co Electrogen Int www.electroger Ernest Doe & Sons Ltd. www.ernestdoeloadercranes.co JLG www.ijspartsonline.c | om om <u>onet</u> om <u>ukkie</u> i.i.om om |
| k ekn kkkkknn | UE Components www.ue-components.c Parts & Service Suppliers Aerial & Handling Services www.aerialandhandlingservices.c Alfa Access Services www.alfa-access-services.c Amerparts www.amerparts. Caunton - Access www.caunton-access.c Cone Drive www.coundendreaces.cc Crowland Cranes www.crowlandcranes.co C-Tech Industries www.ctech-ind.c Davis Access Platforms www.davisaccess.co Donghua Limited www.davisaccess.co Donghua Limited www.electrogen Int Errnest Doe & Sons Ltd. www.enestdoeloadercranes.cc IPS www.ipspartsonline.c | om om <u>onet</u> om <u>ukkie</u> i.i.om om |
| k eikin kikikikininin | UE Components www.ue-components.c Parts & Service Suppliers Aerial & Handling Services www.aerialandhandlingservices.c Affa Access Services www.affa-access-services.c Amerparts www.amerparts. Caunton - Access www.caunton-access.c Cone Drive www.conedrive.c Crowland Cranes www.crowlandcranes.co C-Tech Industries www.ctech-ind.c Davis Access Platforms www.davisaccess.co Donghua Limited www.davisaccess.co Delectrogen Int www.electroger Ernest Doe & Sons Ltd. www.ernestdoeloadercranes.c Itfs www.ijfgeurope.c Litf-Manager www.lift-manager.c | om om om om to to to to to to to to to to to to to |
| k ekin kkkkkininin | UE Components www.ue-components.c Parts & Service Suppliers Aerial & Handling Services www.aerialandhandlingservices.c Alfa Access Services www.alfa-access-services.c Amerparts www.amerparts. Caunton - Access www.caunton-access.c Cone Drive www.coweldineares.co Crowland Cranes www.crowlandcranes.co C-Tech Industries www.ctech-ind.c Davis Access Platforms www.davisaccess.co Donghua Limited www.davisaccess.co Donghua Limited www.electrogen Ernest Doe & Sons Ltd. www.ernestdoeloadercranes.c JLG www.ipspartsonline.c JLG www.ipspartsonline.c OTR Wheel Engineering Europe www.otrwheel.co | om om en om u u u u u u u u u u u u u u u u u u |
| k ekin kkkkkkinininik | UE Components www.ue-components.c Parts & Service Suppliers Aerial & Handling Services www.aerialandhandlingservices.cc Affa Access Services www.alfa-access-services.c Amerparts www.amerparts. Caunton - Access www.caunton-access.c Come Drive www.coundendreaces.cc Crowland Cranes www.crowlandcranes.co C-Tech Industries www.crowlandcranes.co Davis Access Platforms www.davisaccess.co Donghua Limited www.donghua.co Electrogen Int www.enestdoeloadercranes.c IPS www.ipspartsonline.c JLG www.ifgeurope.c Ufft-Manager www.ifit-manager.c OTR Wheel Engineering Europe www.otrwheel.co PCE Instruments UK Ltd www.pce-instruments.c | om om om et om u om u om u om u om om u om om u om om u om om u om om om om om om om om om om om om om |
| k eikin kikikikininininkik | UE Components www.ue-components.c Parts & Service Suppliers Aerial & Handling Services www.aerialandhandlingservices.c Alfa Access Services www.alfa-access-services.c Amerparts www.alfa-access-services.c Amerparts www.anton-access.c Cone Drive www.conedrive.c Crowland Cranes www.crowlandcranes.co Crowland Cranes www.crowlandcranes.co Crowland Cranes www.crowlandcranes.co Davis Access Platforms www.donghua.co Donghua Limited www.donghua.co Electrogen Int www.electroger Ernest Doe & Sons Ltd. www.ernestdoeloadercranes.cc IIG www.igeurope.c Lift-Manager www.lift-manager.c OTR Wheel Engineering Europe www.otrwheel.co PCE Instruments UK Ltd www.pce-instruments.c TVH - Group Thermote & Vanhalst www.twh | om om om et om um um um um um um um um um um um um um |
| k ekin kiyayaya k | UE Components www.ue-components.c Parts & Service Suppliers Aerial & Handling Services www.aerialandhandlingservices.c Alfa Access Services www.alfa-access-services.c Amerparts www.alfa-access-services.c Amerparts www.anton-access.c Cone Drive www.conedrive.c Crowland Cranes www.crowlandcranes.co Crowland Cranes www.crowlandcranes.co Crowland Cranes www.crowlandcranes.co Davis Access Platforms www.donghua.co Donghua Limited www.donghua.co Electrogen Int www.electroger Ernest Doe & Sons Ltd. www.ernestdoeloadercranes.cc IIG www.igeurope.c Lift-Manager www.lift-manager.c OTR Wheel Engineering Europe www.otrwheel.co PCE Instruments UK Ltd www.pce-instruments.c TVH - Group Thermote & Vanhalst www.twh | om om om et om um um um um um um um um um um um um um |
| k ekin kiyayaya k | UE Components www.ue-components.c Parts & Service Suppliers Aerial & Handling Services www.aerialandhandlingservices.c Alfa Access Services www.alfa-access-services.c Amerparts www.alfa-access-services.c Amerparts www.anton-access.c Come Drive www.conedrive.c Crowland Cranes www.crowlandcranes.co Crowland Cranes www.crowlandcranes.co Croken Industries www.ctech-ind.c Davis Access Platforms www.davisaccess.co Donghua Limited www.donghua.co Electrogen Int www.electroger Ernest Doe & Sons Ltd. www.ernestdoeloadercranes.c IPS www.igeurope.c Lift-Manager www.lift-manager.c OTR Wheel Engineering Europe www.otrwheel.co PCE Instruments UK Ltd www.pce-instruments.c TVH - Group Thermote & Vanhalst www.tuponents.c | oom oomet oo uu oo uu oo oo oo oo oo oo oo oo oo |
| א פואוח אאאאאאטטטטאאא | UE Components www.ue-components.c Parts & Service Suppliers Aerial & Handling Services www.aerialandhandlingservices.c Alfa Access Services www.alfa-access-services.c Amerparts www.amerparts. Caunton - Access www.caunton-access.c Cone Drive www.cowlandcranes.co Crowland Cranes www.crowlandcranes.co C-Tech Industries www.ctech-ind.c Davis Access Platforms www.davisaccess.co Donghua Limited www.donghua.co Delectrogen Int www.electroger Ernest Doe & Sons Ltd. www.ernestdoeloadercranes.c JLG www.jbgartsonline.c JLG www.iggeurope.c Cift-Manager www.lift-manager.c OTR Wheel Engineering Europe www.otrwheel.co PCE Instruments UK Ltd www.pce-instruments.c TVH - Group Thermote & Vanhalst www.unifiedparts.c Unified Parts www.unifiedparts.c | oom oometoonuuuuuuuuuuuuuuuuuuuuuuuuuuuuuuuuuuu |
| א פואוח אאאאאאטטטטאאא | UE Components www.ue-components.c Parts & Service Suppliers Aerial & Handling Services www.aerialandhandlingservices.c Affa Access Services www.affa-access-services.c Amerparts www.affa-access-services.c Amerparts www.amerparts. Caunton - Access www.caunton-access.c Come Drive www.coundon-access.c Crowland Cranes www.crowlandcranes.co C-Tech Industries www.crowlandcranes.co C-Tech Industries www.ctech-ind.c Davis Access Platforms www.davisaccess.co Donghua Limited www.donghua.co Electrogen Int www.enestdoeloadercranes.c JLG www.ipspartsonline.c JLG www.ipspartsonline.c Uff-Manager www.ifft-manager.c OTR Wheel Engineering Europe www.otrwheel.co PCE Instruments UK Ltd www.pce-instruments.c TVH - Group Thermote & Vanhalst www.unifiedparts.c Vertimac www.vertimac.c | oom oometoonukonukukeenoomonukonukonukonukonukonukonukonukonukonuk |
| א פואוח אאאאאאטטטטאאא | UE Components www.ue-components.c Parts & Service Suppliers Aerial & Handling Services www.aerialandhandlingservices.cc Alfa Access Services www.alfa-access-services.c Amerparts www.alfa-access-services.c Amerparts www.alfa-access-services.c Amerparts www.caunton-access.c Cone Drive www.conedrive.cc Crowland Cranes www.crowlandcranes.co Crowland Cranes www.crowlandcranes.co Croek Industries www.ctoch-ind.c Davis Access Platforms www.donghua.co Electrogen Int www.electroger Ernest Doe & Sons Ltd. www.ernestdoeloadercranes.cc IPS www.igeurope.c LIG www.igeurope.c LIG www.igeurope.c UR Wheel Engineering Europe www.otrwheel.co PC Einstruments UK Ltd www.pce-instruments.c UNH - Group Thermote & Vanhalst www.twi UE Components www.unifedparts.c Workplatform www.workplatformItd.co | oom oometoonukonukukeenoomonukonukonukonukonukonukonukonukonukonuk |
| א פואוח אאאאאאטטטטאאא | UE Components www.ue-components.c Parts & Service Suppliers Aerial & Handling Services www.aerialandhandlingservices.c Affa Access Services www.affa-access-services.c Amerparts www.affa-access-services.c Amerparts www.amerparts. Caunton - Access www.caunton-access.c Come Drive www.coundon-access.c Crowland Cranes www.crowlandcranes.co C-Tech Industries www.crowlandcranes.co C-Tech Industries www.ctech-ind.c Davis Access Platforms www.davisaccess.co Donghua Limited www.donghua.co Electrogen Int www.enestdoeloadercranes.c JLG www.ipspartsonline.c JLG www.ipspartsonline.c Uff-Manager www.ifft-manager.c OTR Wheel Engineering Europe www.otrwheel.co PCE Instruments UK Ltd www.pce-instruments.c TVH - Group Thermote & Vanhalst www.unifiedparts.c Vertimac www.vertimac.c | oom oometoonukonukukeenoomonukonukonukonukonukonukonukonukonukonuk |
| א פואוח אאאאאאטטטטאאא | UE Components www.ue-components.c Parts & Service Suppliers Aerial & Handling Services www.aerialandhandlingservices.c Affa Access Services www.affa-access-services.c Amerparts www.affa-access-services.c Amerparts www.anton-access.c Come Drive www.conedrive.c Crowland Cranes www.crowlandcranes.co Crowland Cranes www.crowlandcranes.co C-Tech Industries www.ctech-ind.c Davis Access Platforms www.davisaccess.co Donghua Limited www.donghua.co Electrogen Int www.electroger Ernest Doe & Sons Ltd. www.ernestdoeloadercranes.c IPS www.ipgaurope.c Lift-Manager www.lift-manager.c OTR Wheel Engineering Europe www.otrwheel.co PCE Instruments UK Ltd www.pce-instruments.c UNH - Group Thermote & Vanhalst www.unifiedparts.c Vortified Parts www.unifiedparts.c Workplatform www.workplatformItd.co Innovations | oom oomeroomukukeenoomukukeenoomukukeenoomukukeenoomukukeenoomukukeenoomukukeenoomukukeenoomuk |
| א פואומאאאאא מוסוסוסוסואאאאא מאא | UE Components www.ue-components.c Parts & Service Suppliers Aerial & Handling Services www.aerialandhandlingservices.c Alfa Access Services www.alfa-access-services.c Amerparts www.amerparts. Caunton - Access www.caunton-access.c Cone Drive www.conedrive.c Crowland Cranes www.crowlandcranes.co C-Tech Industries www.crowlandcranes.co Doris Access Platforms www.davisaccess.co Donghua Limited www.davisaccess.co Delectrogen Int www.electroger Ernest Doe & Sons Ltd. www.ernestdoeloadercranes.c JLG www.ipspartsonline.c JLG www.iggeurope.c Lift-Manager www.lift-manager.c OTR Wheel Engineering Europe www.otrwheel.co PCE Instruments UK Ltd www.pce-instruments.c TVH - Group Thermote & Vanhalst www.unifiedparts.c Vertimac www.workplatformIdt.co Innovations Aerial & www.aerialandhandlingservices.c | oom oomeroomukukeenoomukukeenoomukukeenoomukukeenoomukukeenoomukukeenoomukukeenoomukukeenoomuk |
| א פואומאאאאא מוסוסוסוסואאאאא מאא | UE Components www.ue-components.c Parts & Service Suppliers Aerial & Handling Services www.aerialandhandlingservices.c Affa Access Services www.affa-access-services.c Amerparts www.affa-access-services.c Amerparts www.amerparts. Caunton - Access www.caunton-access.c Cone Drive www.coundindcranes.co Crowland Cranes www.crowlandcranes.co C-Tech Industries www.crowlandcranes.co Donghua Limited www.davisaccess.co Donghua Limited www.davisaccess.co Donghua Limited www.electroger Ernest Doe & Sons Ltd. www.ernestdoeloadercranes.c Uff Manager www.iffemager.c UTR Wheel Engineering Europe www.iffemager.c TOTR Wheel Engineering Europe www.urtwheel.co PCE Instruments UK Ltd www.pce-instruments.c TVH - Group Thermote & Vanhalst www.urth UE Components www.uerified parts.c Workplatform www.workplatformItd.co Innovations www.aerialandhandlingservices.c | oom oomeroomukukeenoomukukeenoomukukeenoomukukeenoomukukeenoomukukeenoomukukeenoomukukeenoomuk |
| א אואואואואואואואואואואואואואואואואיא אוא | UE Components www.ue-components.c Parts & Service Suppliers Aerial & Handling Services www.aerialandhandlingservices.c Affa Access Services www.alfa-access-services.c Amerparts www.alfa-access-services.c Amerparts www.alfa-access-services.c Amerparts www.alfa-access-services.c Caunton - Access www.caunton-access.c Cone Drive www.conedrive.c Crowland Cranes www.crowlandcranes.co Crech Industries www.davisaccess.co Donghua Limited www.davisaccess.co Donghua Limited www.donghua.co Electrogen Int www.electroger Ernest Doe & Sons Ltd. www.ernestdoeloadercranes.c IPS www.igeurope.c Lift-Manager www.lift-manager.c OTE Instruments UK Ltd www.pce-instruments.c TVH - Group Thermote & Vanhalst www.th UE Components www.unifiedparts.c Workplatform www.workplatformItd.co Innovations Wew.aerialandhandlingservices.ct Recruitment | om monetonetone monetone monetone monetone monetone monetone monetone monet |
| א אואואואואואואואואואואואואואואואואיא אוא | UE Components www.ue-components.c Parts & Service Suppliers Aerial & Handling Services www.aerialandhandlingservices.c Affa Access Services www.affa-access-services.c Amerparts www.affa-access-services.c Amerparts www.amerparts. Caunton - Access www.caunton-access.c Cone Drive www.coundindcranes.co Crowland Cranes www.crowlandcranes.co C-Tech Industries www.crowlandcranes.co Donghua Limited www.davisaccess.co Donghua Limited www.davisaccess.co Donghua Limited www.electroger Ernest Doe & Sons Ltd. www.ernestdoeloadercranes.c Uff Manager www.iffemager.c UTR Wheel Engineering Europe www.iffemager.c TOTR Wheel Engineering Europe www.urtwheel.co PCE Instruments UK Ltd www.pce-instruments.c TVH - Group Thermote & Vanhalst www.urth UE Components www.uerified parts.c Workplatform www.workplatformItd.co Innovations www.aerialandhandlingservices.c | om monetonetone monetone monetone monetone monetone monetone monetone monet |
| א שואו אואואואואואואואואואואואואואואואוא | UE Components www.ue-components.c Parts & Service Suppliers Aerial & Handling Services www.aerialandhandlingservices.c Affa Access Services www.aerialandhandlingservices.c Amerparts www.aerialandhandlingservices.c Amerparts www.aerialandhandlingservices.c Amerparts www.caunton-access.c Caunton - Access www.caunton-access.c Cone Drive www.conedrive.c Crowland Cranes www.crowlandcranes.co Creach Industries www.creach-ind.c Davis Access Platforms www.davisaccess.co Donghua Limited www.donghua.co Electrogen Int www.electroger Ernest Doe & Sons Ltd. www.ernestdoeloadercranes.c IPS www.ipspartsonline.c Utf Manager www.lift-manager.c OTR Wheel Engineering Europe www.otrwheel.co PCE Instruments UK Ltd www.pce-instruments.c UTH - Group Thermote & Vanhalst www.unifiedparts.c VH - Group Thermote & Vanhalst www.unifiedparts.c Vertimac www.vertimac.cs Workplatform www.aerialandhandlingservices.ct Handling Services Ltd Recruitment Vertikal.Net | om monetonetone monetone monetone monetone monetone monetone monetone monet |
| טאַאַאַאַאַאַאַאַאַאַאַאַאַאַאַאַאַאַאַ | UE Components www.ue-components.c Parts & Service Suppliers Aerial & Handling Services www.aerialandhandlingservices.c Affa Access Services www.aerialandhandlingservices.c Amerparts www.amerparts. Caunton - Access www.caunton-access.c Cone Drive www.conedrive.c Crowland Cranes www.crowlandcranes.co C-Tech Industries www.crowlandcranes.co Donghua Limited www.davisaccess.co Donghua Limited www.davisaccess.co Delectrogen Int www.electroger Ernest Doe & Sons Ltd. www.ernestdoeloadercranes.c JLG www.ipspartsonline.c JLG www.ipspartsonline.c JLG www.ipspartsonline.c JLG www.iglgeurope.c JLG www.upce-instruments.c TVH - Group Thermote & Vanhalst www.utfwheel.co PCE Instruments UK Ltd www.upce-instruments.c Unified Parts www.unifiedparts.c Workplatform www.workplatformItd.co Innovations Aerial & Handling Services Ltd Recruitment Vertikal.Net www.vertikal.net/en/recruitmu Rental Management Software | om ometomikumikumikumikumikumikumikumikumikumiku |
| א שואואואואואואואואואואואואואואואואואואו | UE Components www.ue-components.c Parts & Service Suppliers Aerial & Handling Services www.aerialandhandlingservices.c Affa Access Services www.aerialandhandlingservices.c Amerparts www.amerparts. Caunton - Access www.caunton-access.c Cone Drive www.conedrive.c Crowland Cranes www.crowlandcranes.co C-Tech Industries www.crowlandcranes.co Donghua Limited www.davisaccess.co Donghua Limited www.davisaccess.co Delectrogen Int www.electroger Ernest Doe & Sons Ltd. www.ernestdoeloadercranes.c JLG www.ipspartsonline.c JLG www.ipspartsonline.c JLG www.ipspartsonline.c JLG www.iglgeurope.c JLG www.upce-instruments.c TVH - Group Thermote & Vanhalst www.utfwheel.co PCE Instruments UK Ltd www.upce-instruments.c Unified Parts www.unifiedparts.c Workplatform www.workplatformItd.co Innovations Aerial & Handling Services Ltd Recruitment Vertikal.Net www.vertikal.net/en/recruitmu Rental Management Software | om ometomikumikumikumikumikumikumikumikumikumiku |
| א שואום אאמאמטוםוםוםומאממאמאמאמאמא פואוש | UE Components www.ue-components.c Parts & Service Suppliers Aerial & Handling Services www.aerialandhandlingservices.c Alfa Access Services www.alfa-access-services.c Amerparts www.amerparts. Caunton - Access www.caunton-access.c Cone Drive www.conedrive.c Crowland Cranes www.crowlandcranes.co C-Tech Industries www.crowlandcranes.co Donghua Limited www.davisaccess.co Donghua Limited www.davisaccess.co Delectrogen Int www.electroger Ernest Doe & Sons Ltd. www.ernestdoeloadercranes.c JLG www.ipspartsonline.c JLG www.iggeurope.c UIt-Manager www.lift-manager.c OTR Wheel Engineering Europe www.otrwheel.co PCE Instruments UK Ltd www.pce-instruments.c TVH - Group Thermote & Vanhalst www.unifiedparts.c Vertimac www.workplatformtd.co Innovations Aerial & Handling Services Ltd Wertikal.Net www.vertikal.net/en/recruitmu Rental Management Software Www.higherconcept.co | oom ooneloonkonkkie oonoonkonkonkonkonkonkonkonkonkonkonkonk |
| א שואואואואואואואואואואואואואואואואואואו | UE Components www.ue-components.c Parts & Service Suppliers Aerial & Handling Services www.aerialandhandlingservices.c Alfa Access Services www.alfa-access-services.c Amerparts www.alfa-access-services.c Amerparts www.amerparts. Caunton - Access www.caunton-access.c Cone Drive www.conedrive.c Crowland Cranes www.crowlandcranes.co Croek Industries www.ctoeh-ind.c Davis Access Platforms www.davisaccess.co Donghua Limited www.donghua.co Electrogen Int www.enestdoeloadercranes.c ILG www.ipgeurope.c Uff-Manager www.lift-manager.c OTR Wheel Engineering Europe www.otrwheel.co OTE Instruments UK Ltd www.pee-instruments.c Unified Parts www.unifiedparts.c Unified Parts www.unifiedparts.c Workplatform www.aerialandhandlingservices.c Handling Services Ltd Handling Services Ltd Nettal Management Software Higher Concept Software Marking Karlow www.insplire.c | oom oonetooukikkeenoonoonetoonetoonetoonetoonetoonetoo |
| א שואום אאמאמטוםוםוםומאממאמאמאמאמא פואוש | UE Components www.ue-components.c Parts & Service Suppliers Aerial & Handling Services www.aerialandhandlingservices.c Affa Access Services www.aerialandhandlingservices.c Amerparts www.amerparts. Caunton - Access www.caunton-access.c Cone Drive www.conedrive.c Crowland Cranes www.crowlandcranes.co C-Tech Industries www.crech-ind.c Davis Access Platforms www.davisaccess.co Donghua Limited www.donghua.co Electrogen Int www.electroger Ernest Doe & Sons Ltd. www.ernestdoeloadercranes.c Iff-Manager www.lift-manager.c OTR Wheel Engineering Europe www.otrwheel.co PCE Instruments UK Ltd www.pce-instruments.c Unified Parts www.unifiedparts.c Vertimac www.vertikal.net/en/recruitmu Kental Management Software Higher Concept Software www.higherconcept.co Inspire www.inspirec. | oom oonetooukikkeenoonoonetoonetoonetoonetoonetoonetoo |
| א שאאטטאאאאטאטאאאאאאטטטטאאאאא איאטאטאאאאטאטאאא | UE Components www.ue-components.c Parts & Service Suppliers Aerial & Handling Services www.aerialandhandlingservices.c Affa Access Services www.aerialandhandlingservices.c Amerparts www.amerparts. Caunton - Access www.caunton-access.c Cone Drive www.conedrive.c Crowland Cranes www.crowlandcranes.co C-Tech Industries www.ctech-ind.c Davis Access Platforms www.davisaccess.co Donghua Limited www.donghua.co Electrogen Int www.electroger Ernest Doe & Sons Ltd. www.ernestdoeloadercranes.c JLG www.ipspartsonline.c JLG www.ipgeurope.c Lift-Manager www.lifteruments.c OTR Wheel Engineering Europe www.otrwheel.co PCE Instruments UK Ltd www.pce-instruments.c Unified Parts www.unifiedparts.c Vertimac www.vertimac.c Workplatform www.workplatformItd.co Innovations Aerial & www.ertikal.net/en/recruitmm Rental Management Software Meglacement Filters | oom oonetooukikkeenoonoonetoonetoonetoonetoonetoonetoo |
| א שאאאטאאאאאאאאאאאאאאאאאאאאאאאאאאאאאאאא | UE Components www.ue-components.c Parts & Service Suppliers Aerial & Handling Services www.aerialandhandlingservices.c Affa Access Services www.aerialandhandlingservices.c Amerparts www.amerparts. Caunton - Access www.caunton-access.c Cone Drive www.conedrive.c Crowland Cranes www.crowlandcranes.co C-Tech Industries www.ctech-ind.c Davis Access Platforms www.davisaccess.co Donghua Limited www.donghua.co Electrogen Int www.electroger Ernest Doe & Sons Ltd. www.ernestdoeloadercranes.c UIG www.ijgeurope.c Lift-Manager www.lift-manager.c OTR Wheel Engineering Europe www.otrwheel.co PCE Instruments UK Ltd www.pce-instruments.c Unified Parts www.unifiedparts.c Workplatform www.wertikal.net/en/recruitmu Rental Management Software Higher Concept Software www.ingherconcept.co INCS Rental Software www.ingherconcept.co Incovations www.ingherconcept.co Inspire www.inspire.c | omo ometonous ous in the second of the secon |
| א שאאטטאאאאטאטאאאאאאטטטטאאאאא איאטאטאאאאטאטאאא | UE Components www.ue-components.c Parts & Service Suppliers Aerial & Handling Services www.aerialandhandlingservices.c Alfa Access Services www.alfa-access-services.c Amerparts www.amerparts. Caunton - Access www.caunton-access.c Cone Drive www.conedrive.c Crowland Cranes www.crowlandcranes.co C-Tech Industries www.crech-ind.c Davis Access Platforms www.davisaccess.co Donghua Limited www.davisaccess.co Delectrogen Int www.electroger Ernest Doe & Sons Ltd. www.ernestdoeloadercranes.c JLG www.jbgpartsonline.c JLG www.iggeurope.c Cift-Manager www.lift-manager.c OTR Wheel Engineering Europe www.otrwheel.co PCE Instruments UK Ltd www.pce-instruments.c TVH - Group Thermote & Vanhalst www.urifiedparts.c Vertimac www.workplatformtd.co Innovations Aerial & www.vertikal.net/en/recruitmu Rental Management Software Higher Concept Software www.ligherconcept.co Insphire www.insphire.c Mathematical Software www.insphire.c Mathematical Software www.insphire.c Work Rental Software www.insphire.c Mathematical Software www.insphire.c Software www.insphire.c Mathematical Software Www.insphire.c Mathematica | omo ometonous ous in the second of the secon |
| א שואן א אואואואואואואואואואואואואואואואואו | UE Components www.ue-components.c Parts & Service Suppliers Aerial & Handling Services www.aerialandhandlingservices.c Alfa Access Services www.aerialandhandlingservices.c Amerparts www.alfa-access-services.c Amerparts www.alfa-access-services.c Amerparts www.aerialandhandlingservices.c Cone Drive www.conedrive.c Crowland Cranes www.crowlandcranes.co Crowland Cranes www.crowlandcranes.co Donghua Limited www.donghua.co Electrogen Int www.electroger Ernest Doe & Sons Ltd. www.ernestdoeloadercranes.c IPS www.igpartsonline.c DIG www.igpeurope.c Lift-Manager www.lift-manager.c OTR Wheel Engineering Europe www.otrwheel.co OTE Instruments UK Ltd www.pce-instruments.c Unified Parts www.unifiedparts.c VH - Group Thermote & Vanhalst www.twh UE Components www.workplatformItd.co Innovations Aerial & www.aerialandhandlingservices.c Handling Services Ltd Handling Services Ltd Higher Concept Software www.inglatters.co MCS Rental Software www.iplantfilters.co Safety Equipment | om ometonoulustic in the second of the secon |
| א שואים אמאמאמאמאמאמאמאמאמא שואיש אאמא איז אין ש | UE Components www.ue-components.c Parts & Service Suppliers Aerial & Handling Services www.aerialandhandlingservices.c Affa Access Services www.aerialandhandlingservices.c Amerparts www.aeracacess-services.c Cannon - Access www.caunton-access.c Cone Drive www.conedrive.c Crowland Cranes www.creathances.co Crowland Cranes www.creathances.co Crowland Cranes www.creathances.co Crowland Cranes www.creathances.co Crowland Cranes www.creathances.co Crowland Cranes www.creathances.co Danghua.limited www.donghua.co Electrogen Int www.electroger Ernest Doe & Sons Ltd. www.ernestdoeloadercranes.c IPS www.ipspartsonline.c JLG www.ipspartsonline.c OTR Wheel Engineering Europe www.otrwheel.co PCE Instruments UK Ltd www.pce-instruments.c Unified Parts www.unifiedparts.c Vertimac www.vertimac.c Workplatform www.vertimac.co Handling Services Ltd Recruitment Vertikal.Net www.vertikal.net/en/recruitmut Rental Management Software Higher Concept Software www.ligherconcept.co Insphire www.ipantfilters.co Safety Equipment Acs www.ags-bty | om ometomouloukle omooneloonelooneloonelooneloonelooneloon |
| א שואום אמממממוםוםוםוממממממממממממממממממ | UE Components www.ue-components.c Parts & Service Suppliers Aerial & Handling Services www.aerialandhandlingservices.c Affa Access Services www.aerialandhandlingservices.c Amerparts www.amerparts. Caunton - Access www.caunton-access.c Cone Drive www.conedrive.c Crowland Cranes www.crowlandcranes.co C-Tech Industries www.crowlandcranes.co Donghua Limited www.davisaccess.co Donghua Limited www.davisaccess.co Donghua Limited www.donghua.co Detectrogen Int www.electroger Ernest Doe & Sons Ltd. www.ernestdoeloadercranes.c Iff Manager www.lifeurope.c Lift-Manager www.lifeurope.c Uff Wheel Engineering Europe www.otrwheel.co PCE Instruments UK Ltd www.pce-instruments.c Unified Parts www.uerimacc.c Workplatform www.workplatformItd.co Innovations Aerial & www.aerialandhandlingservices.c Handling Services Ltd Recruitment Vertikal.Net www.vertikal.net/en/recruitmu Rental Management Software Higher Concept Software www.ligherconcept.co InStruments Software www.insphire.c MCS Rental Software www.lantfilters.co Safety Equipment AcS www.aeriakafey.c | omo ometonous on the second on the second of |
| א שואום אמממממוםוםוםוממממממממממממממממממ | UE Components www.ue-components.c Parts & Service Suppliers Aerial & Handling Services www.aerialandhandlingservices.c Affa Access Services www.aerialandhandlingservices.c Amerparts www.amerparts. Caunton - Access www.caunton-access.c Cone Drive www.conedrive.c Crowland Cranes www.crowlandcranes.co C-Tech Industries www.crowlandcranes.co Donghua Limited www.davisaccess.co Donghua Limited www.davisaccess.co Donghua Limited www.donghua.co Detectrogen Int www.electroger Ernest Doe & Sons Ltd. www.ernestdoeloadercranes.c Iff Manager www.lifeurope.c Lift-Manager www.lifeurope.c Uff Wheel Engineering Europe www.otrwheel.co PCE Instruments UK Ltd www.pce-instruments.c Unified Parts www.uerimacc.c Workplatform www.workplatformItd.co Innovations Aerial & www.aerialandhandlingservices.c Handling Services Ltd Recruitment Vertikal.Net www.vertikal.net/en/recruitmu Rental Management Software Higher Concept Software www.ligherconcept.co InStruments Software www.insphire.c MCS Rental Software www.lantfilters.co Safety Equipment AcS www.aeriakafey.c | omo ometonous on the second on the second of |
| א שואים אמאמאמאמאמאמאמאמאמא שואיש אאמא איז אין ש | UE Components www.ue-components.c Parts & Service Suppliers Aerial & Handling Services www.aerialandhandlingservices.c Amerparts www.atfa-access-services.c Amerparts www.amerparts. Caunton - Access www.caunton-access.c Cone Drive www.conedrive.c Crowland Cranes www.crech-ind.c Davis Access Platforms www.davisaccess.co Donghua Limited www.electroger Ernest Doe & Sons Ltd. www.enestdoeloadercranes.c JLG www.ipspartsonline.c JLG www.igpartsonline.c JLG www.igpartsonline.c JLG www.igpartsonline.c Unified Parts www.utrwheel.co POE Instruments UK Ltd www.pce-instruments.c Unified Parts www.uorkplatformId.co Unified Parts www.workplatformId.co Innovations Aerial & www.workplatformId.co Innovations Aerial & www.workplatformId.co Innovations Aerial & www.workplatformId.co Innovations Aerial Software www.ingherconcept.co Insphire www.insphire.c Www.as-titlers Plant Filters Plant Filters www.as-titlers Plant Filters wwww.as-titlers Plant Filter | omo ometonovinationalistic providence of the second se |
| אַ שּוֹאַיש אַצַאַאַאַאַאַאַאַאַאַאַאַאַאַאַאַאַאַא | UE Components www.ue-components.c Parts & Service Suppliers Aerial & Handling Services www.aerialandhandlingservices.c Affa Access Services www.aerialandhandlingservices.c Amerparts www.aeraccess-services.c Cannon - Access www.caunton-access.c Cone Drive www.conedrive.c Crowland Cranes www.crowlandcranes.co Creach Industries www.creach-ind.c Davis Access Platforms www.davisaccess.co Donghua Limited www.donghua.co Electrogen Int www.electroger Ernest Doe & Sons Ltd. www.ernestdoeloadercranes.c ITS www.ipgeurope.c Lift-Manager www.lift-manager.c OTR Wheel Engineering Europe www.otrwheel.co PCE Instruments UK Ltd www.pce-instruments.c UTH - Group Thermote & Vanhalst www.th UE Components www.workplatformItd.co Unified Parts www.workplatformItd.co Innovations Aerial & www.aerialandhandlingservices.c Handling Services Ltd Handling Services Ltd Higher Concept Software www.higherconcept.co MCS Rental Software www.instruments.c MCS Rental Software Higher Concept Software MCS Rental Software MCS Rental Software Neww.neatinghires.c Safety Equipment AGS www.aerialandial System www.heatonproducts.co Work heatonproducts.co | omo ometomoria. In the second of the second |
| א אוא אוא אוא אוא אוא או או או או או או | UE Components www.ue-components.c Parts & Service Suppliers Aerial & Handling Services www.aerialandhandlingservices.c Amerparts www.atfa-access-services.c Amerparts www.amerparts. Caunton - Access www.caunton-access.c Cone Drive www.conedrive.c Crowland Cranes www.crech-ind.c Davis Access Platforms www.davisaccess.co Donghua Limited www.electroger Ernest Doe & Sons Ltd. www.enestdoeloadercranes.c JLG www.ipspartsonline.c JLG www.igpartsonline.c JLG www.igpartsonline.c JLG www.igpartsonline.c Unified Parts www.utrwheel.co POE Instruments UK Ltd www.pce-instruments.c Unified Parts www.uorkplatformId.co Unified Parts www.workplatformId.co Innovations Aerial & www.workplatformId.co Innovations Aerial & www.workplatformId.co Innovations Aerial & www.workplatformId.co Innovations Aerial Software www.ingherconcept.co Insphire www.insphire.c Www.as-titlers Plant Filters Plant Filters www.as-titlers Plant Filters wwww.as-titlers Plant Filter | omo ometomoria. In the second of the second |
| א איז איז איז איז איז איז איז איז איז אי | UE Components www.ue-components.c Parts & Service Suppliers Aerial & Handling Services www.aerialandhandlingservices.c Amerparts www.alfa-access-services.c Amerparts www.amerparts. Caunton - Access www.caunton-access.c Cone Drive www.cowlandcranes.co Crowland Cranes www.crowlandcranes.co C-Tech Industries www.ctech-ind.c Davis Access Platforms www.davisaccess.co Donghua Limited www.davisaccess.co Delectrogen Int www.electroger Ernest Doe & Sons Ltd. www.ernestdoeloadercranes.c JLG www.ipspartsonline.c JLG www.ipspartsonline.c JLG www.ipspartsonline.c OTR Wheel Engineering Europe www.otrwheel.co PCE Instruments UK Ltd www.pce-instruments.c TVH - Group Thermote & Vanhalst www.unifiedparts.c Vertimac www.workplatformtd.co Innovations Aerial & www.aerialandhandlingservices.ct Higher Concept Software www.higherconcept.co Insphire www.insphire.c MCS Rental Software www.insphire.c Mart Filters www.insphire.c Mart Filters www.aestafety.c Plant Filters www.aestafety.c Hart Filters www.aestafety.c Hart Filters www.insphire.c Mart Software www.insphire.c Mart Management Software Higher Concept Software www.insphire.c MCS Rental Software www.insphire.c Martek equipment AGS www.aestafold Towers www.heatonproducts.co Heaton Trestle Handrail System www.leatonproducts.co Live Line Defender www.livelinedefender.c | om one in the second of the se |
| א איז איז איז איז איז איז איז איז איז אי | UE Components www.ue-components.c Parts & Service Suppliers Aerial & Handling Services www.aerialandhandlingservices.c Amerparts www.aerialandhandlingservices.c Amerparts www.amerparts. Caunton - Access www.caunton-access.c Cone Drive www.creation-access.c Crowland Cranes www.creation-access.c Crowland Cranes www.creation-access.c Crowland Cranes www.creation-access.c Davis Access Platforms www.davisaccess.co Donghua Limited www.donghua.co Delectrogen Int www.electroger Ernest Doe & Sons Ltd. www.ernestdoeloadercranes.c JLG www.ipspartsonline.c JLG www.ipspartsonline.c JLG www.ipspartsonline.c JLG www.ipspartsonline.c JLG www.upspartsonline.c JLG www.upspartsonline.c Www.upspartsonline.c Www.upspartsonline.c Www.uptimed Europe www.otrwheel.co PCE Instruments UK Ltd www.upce-instruments.c TVH - Group Thermote & Vanhalst www.uptimedparts.c Vertimac www.workplatformtd.co Innovations Aerial & Handling Services Ltd Recruitment Vertikal.Net www.workplatformtd.co Insphire www.insphire.c MCS Rental Software www.higherconcept.co Insphire www.insphire.c MCS Rental Software www.heatonproducts.co Heaton Trestle Handrail System www.heatonproducts.co Live Line Defender www.livelinedefender.c | om on the second s |

| Crane Manufacturers | | NRC |
|----------------------------------|-------------|------------|
| Böcker Maschinenwerke www. | ooecker.de | Hird |
| Galizia www.galiz | | |
| Grove www.groveworld | | Bryn |
| HCME (Hitachi-Sumitomo) www.nrcr | olant.co.uk | Cork |
| | /w.jekko.it | City |
| JMG www.jmgc | ranes.com | Elect |
| Klaas www.utility-equip | oment.com | John |
| Kobelco www.kobelcocm-g | lobal.com | King |
| | bherr.com | Lady |
| | nansa.com | - |
| Maeda www.maedaminicra | | High |
| Manitowoc www.manitowocc | | Lond |
| Mantis Cranes www.manti | | Elect |
| | rmig.co.uk | |
| Potain www.manitowocc | | DWL |
| | aimondi.co | 5115 |
| | ny.com.cn | A1A |
| Sennebogen www.sennet | | DWL |
| Spierings www.spiering | skranen.nl | HLIC |
| | adano.com | TILLIU |
| | adano.com | |
| Terex-Demag www.terex-c | | TMC |
| Unic Cranes www.unic-cra | | |
| Valla www.valla-cra | | Ritch |
| | olffkran.de | |
| Zoomlion www.zoomlioncra | anes.co.uk | 01-1-1 |

Lorry/Truck Loader Cranes

| Atlas Cranes UK | www.atlasgmbh.com |
|------------------------|-------------------------------|
| Effer | www.effer.it |
| Ernest Doe & Sons Ltd. | www.hiab.com |
| Hiab | www.ernestdoeloadercranes.com |
| Palfinger | www.palfinger.com |
| Penny Hydraulics | www.pennyhydraulics.com |
| PM Cranes | www.pm-group.eu |
| Nov | v & llead Cranes |

| New | b Used Cranes |
|------------------------|-------------------------------|
| AGD Equipment | www.agd-equipment.co.uk |
| Cotac Oy | www.crane.fi |
| Cranes4Cranes | www.cranes4Cranes.com |
| Cranes UK | www.cranesuk.net |
| Crowland Cranes | www.crowlandcranes.co.uk |
| Delden Cranes | www.deldencranes.co.uk |
| Electrogen Int | www.electrogen.ie |
| Ernest Doe & Sons Ltd. | www.ernestdoeloadercranes.com |
| High Sparks TCS | www.highsparks.co.uk |
| Hird | www.hird.co.uk |
| Jones-Iron Fairy | www.jonesironfairy.co.uk |
| Kobelco | www.kobelco-cranes.com |
| Leader | www.leader-piatt.it |
| London Tower Cranes | www.londontowercranes.co.uk |
| Maeda | www.maedaminicranes.co.uk |
| Mantis Cranes | www.mantiscranes.co.uk |
| M. Stemick | www.stemick-krane.de |
| NRC | www.nrcplant.co.uk |
| P.V. Adrighem BV | www.adrighem.com |
| Rivertek Services | www.rivertekservices.com |
| Terex Demag | www.terex-cranes.com |
| Utility Equipment | www.utility-equipment.com |
| Hanna | Lifeton Frankrause |

Heavy Lifting Equipment www.lifting-equipment.co.uk Lifting Gear UK

| Litting dour on | o quipinon a contraction and a |
|-----------------------------|--|
| Furni | ture Hoists |
| Böcker | www.boecker.de |
| The Furniture Hoist Co | www.furniturehoists.co.uk |
| Utility Equipment | www.utility-equipment.com |
| | ane Hire |
| AB2000 | www.ab2000.co.uk |
| ABBA | www.abbaplanthire.co.uk |
| Ainscough | www.ainscough.co.uk |
| Berry Cranes | www.berrycranes.co.uk www.bobfranciscranehire.co.uk |
| Bob Francis Crane Hirex | www.bobfranciscranehire.co.uk |
| Bryn Thomas Cranes | www.brynthomascranes.com |
| Cadman Cranes | www.cadmancranes.com |
| Cork Crane Hire (Liverpool) | www.corkcranehire.com |
| Crane Hire Ltd | www.cranehireltd.com |
| City Lifting | www.citylifitng.co.uk |
| Delden Cranes | www.deldencranes.co.uk |
| Emerson | www.emersoncranes.co.uk |
| Graham Jones Cranes | www.grahamjonescranes.co.uk |
| High Sparks TCS | www.highsparks.co.uk |
| J&M Crane Hire | www.jandmcranehire.co.uk |
| John Sutch Cranes | www.johnsutchcranes.co.uk |
| King Lifting | www.kinglifting.co.uk |
| Ladybird tower crane hire | www.ladybirdcranehire.co.uk |
| London Tower Cranes | www.londontowercranes.co.uk |
| Mantis Cranes | www.mantiscranes.co.uk |
| McNally crane hire | www.cranehire-ireland.com |
| NRC | www.nrcplant.co.uk |
| Sangwin | livision www.portservices.co.uk www.sangwin.co.uk |
| 0 | 5 |
| IVIIII | Crane Hire |

| A Mini Crane Hire | www.aminicranehire.co.uk |
|---------------------|-----------------------------|
| Easy Reach Scotland | www.easyreachscotland.co.uk |
| Emerson | www.emersoncranes.co.uk |
| GGR | www.unic-cranes.co.uk |
| Height for Hire | www.heightforhire.com |
| Hire Maeda | www.maedaminicranes.co.uk |
| JT Mini Crane Hire | www.jtminicranes.co.uk |
| Lift Limited | www.liftminicranehire.co.uk |

If your company is not listed sign up online or email info@vertikal.net or call 12 months online entry with hot-link to your website and publication in every issue of C&A costs just £175/€200

marketplace

USED EQUIPMENT • SPARE PARTS • RECRUITMENT • RECONDITIONING • HIRE • WANTED

GOING UP IN THE WORLD

A history of Simon Engineering, the development of the powered access industry and a lifetime as an engineer, by Denis Ashworth

Ashworth was a keen engineer and from an early age found himself in at the very start of the modern powered access industry.

His book is an unusual combination of autobiography and history of Simon Engineering Dudley, a pioneer of the powered access industry and at one time, the world's largest manufacturer of aerial lifts.

The coffee table sized book, is highly readable and includes around 150 photographs and drawings from the very beginning of the industry. It is a 'must read' for anyone who is interested in powered access, the hydraulic equipment industry or in comparing modern day engineering challenges with those of an entirely different era.

The book is available direct from the publishers at £19.50, plus E4.50 postage and packing.

- Continental Europe €23 plus €6.50 postage & packing
- Rest of world \$31 plus \$10 shipping

| 2 | | |
|---|--|-----------------------|
| orename iddress | | IFormation Surname |
| mait | | Telephone |
| Nease make all che | ques payable to 'The ' for £24 (£19:50 + £4.50 for €29.50 (€23 + €6.50 | 0 p8p) (p8p) |
| I enclose a cheque | | 1 |
| I enclose a cheque I enclose a cheque Please invoice me Please debit my ca | rd: | i) Issue No: |
| I enclose a cheque I enclose a cheque Please invoice me Please debit my ca Card No: | rd: | - |

ORMANC OUTRIGGER = Huge range of crane pads in stock and ready

for next day delivery when you order by 2pm

BE CONFIDENT.

BUY QUALITY.

01952 671403 outriggerpads.co.uk

FOR SALE TO LET INDUSTRIAL PROPERTY MANBY AIRFIELD

Brief details as follows: Location: Lincolnshire, LNII 8UT, 10 Acres Concrete apron with all services. Viewing strictly by appointment

Guide Price £1.5 million or to let

Email: TFS760@yahoo.com Tel: 07799 750190

Winchester Marine & Industrial Limited

marketplace

DELDEN CRANES LTD

Crawler crane hire from 50t to 300t

- Used crawler crane sales
- Crawler crane spare parts
- Test weight hire
- Fabrication of crane parts including boom sections
- Major overhauls including electric and hydraulic systems
- Site repairs and servicing for crawler cranes
- · Ancillary equipment such as hooks, booms and grabs

Crawler cranes for sale

Fuwa QUY90 90t, Year 2009, 49m boom + 39m luffer

Liebherr LR1280, Year 2008, 58.1m boom

Fuwa QUY160 160t, Year 2008, 63m boom, 31m fly Jib, runner jib

RB CH135 135t, Year 2005, 54m boom, 27m fly Jib

Kobelco CKE1350-1F 135t, Year 2008, 54.9m boom, runner jib

Kobelco CKE2500-2 250t, Year 2010, 61m boom, runner jib

111 Station Road, Selston, Nottinghamshire NG16 6FF, England Tel: +44 (0) 1773 581001 Fax: +44 (0) 1773 580483 Email: info@deldencranes.co.uk Web: www.deldencranes.co.uk





Timbermat Ltd

HARDWOOD CRANE & OUTRIGGER MATS TEMPORARY ACCESS ROADS

- Hire & Sales with our buyback Guarantee
- Nationwide and European Delivery Service
- Prompt professional service
- Specialising in Tropical Hardwoods Azobe (Ekki), and European Hardwoods Oak and Beech.
- FSC Certified CU-COC-817978

London: **+44 203 968 0439** Manchester: **+44 161 442 3157** Edinburgh: **+44 131 285 1215**

Email: info@timbermat.co.uk

www.timbermat.co.uk



UNDERBRIDGE INSPECTION PLATFORMS

FOR HIRE & CROSS HIRE IN THE UK





We offer the most modern, up-to-date Underbridge Inspection Platforms to the UK market for all you HIRE and CROSS HIRE requirements. From the moment of first contact until you return the machine we aim to satisfy your total needs.

Consultation, advice and site surveys are offered FREE of CHARGE as standard without commitment.

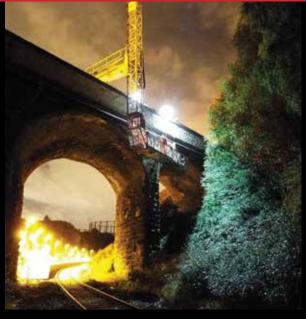
Hire periods will be for the time you require, minimum being one day, one week, one month, one year or longer. We also offer extended period contract hire.

For further information on the very latest in Underbridge Inspection Platforms for HIRE & CROSS HIRE please contact:



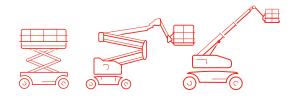
Head Office:

Unit C, Barryscourt Industrial Estate, Carrigtwohill, Co. Cork Tel: +353 (0)21 4389732 Tel: UK number +44 (0)1543 422868 Email: cork@manlift.ie





www.manlift.ie



vertimac

February 2020

Spare parts



PCB-G22052 Genie eq. 22052 Electronic card control box Used for Z45-25RT, Z60-34RT, S45, S85, ...



ES-H9340 Haulotte eq. 4000349340

Emergency stop Used for STAR 10, Optimum 8, Compact 10, Compact 12RTE, ...



GE-77026 Genie original Tilt sensor

Used for GS3369RT, GS5390RT, S45, S85, ...



DST-9T12V Multi brand Starter Deutz 9 teeth, 12V Genie eq. 139709 JLG eq. 7020479



JRJL-1A11 JLG eq. 1001134438 Joystick drive, steer 1 axis, rocker Used for ES-series, RS scissors

CBG-105295 Genie eq. 105295

Control box conv. kit, gen 1/5 Used for GS1530, GS1930, GS2032, GS2046, GS2632, GS2646, GS3246



AST-15 Multi brand Anti-slip tape 15cm x 10m

Haulotte eq. 118C159140 JLG eq. 44200695



DE-J2902303 JLG eq. 2902303 Decal kit safety (symbols) Used for 600AJ, 660SJ, 1250AJ,

1350SJP....



TI-155NM-H Haulotte eq. 2820302890

Wheel, non-marking Type 15x5 Used for Compact 8,

Used for Compact 8, Compact 8W, Compact 10, ...



TI-2455175468 JLG eq. 0273468 Non-marking tire + rim, foamed

240-55 D17.5 Lightning Used for E450AJ, M450AJ, 3369LE, M4069, ...

Machines



More information?



■ Machines + 32 56 772 666 ■ sales@vertimac.com

new website

visit our

www.vertimac.com





"NOW I CAN WORK WITHIN CITY LINITS AGAIN."

REGAIN ACCESS TO CITY JOBS WITH A ZONE-COMPLIANT FLEET.

Whether you're a contractor or rental company owner, each piece of compliant equipment is an investment in a successful future. Your vehicles must meet standards for today's job site, tomorrow's regulations and for better value at resale. That's why it's important to work with a provider that understands these new requirements and their impact on your business. JLG offers the widest range of environmentally friendly, compliant products to keep you at your most productive, whether you're working on a crowded job site, new construction, indoors, on slab or off.



Learn more at www.jlg.com

JLG EMEA BV [Polaris Avenue 63] 2132 JH | Hoofddorp | The Netherlands | europe@jlg.com