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Bauma the big or

Once every three years the industry gears up for the world's biggest equipment show - Bauma in Munich, Germany. The show is more than twice the size of **Conexpo and Intermat and some stands will take** months to build. Once again Cranes & Access will be there with our usual stand at the entrance to the main crane and access exhibit areas. In this issue we highlight some of the new products that you can expect to see, with a second instalment in the March issue.

Bauma is quite significant for the Vertikal Press as it will be celebrating the 15th anniversary of both the leading website www.vertikal.net and the Vertikal Bauma guide magazine which is distributed free at the show. **Both were launched at Bauma** 2001. As in most years it is the crane and big truck mounted lift manufacturers which make the most of Bauma and this year is no exception with most of them planning major new product launches. For several such as Manitowoc, Bronto and Terex it will be their first major show with new owners or managers and so a good chance to meet and size them up.

So is it worth attending? Well a place to stay can be an issue with even the dingiest dives costing a king's ransom. The public transport and road traffic are a nightmare, and once you are on site the crowds can be oppressive - well over half

a million visitors are expected to attend along with more than 50,000 exhibitor staff so you are facing around 600,000 people on site and sometimes it seems as though they are all there at the same time! Having said all that if you like big and unusual equipment and really want to shop around there is nothing else like it. So get booking!

A few practical details **Getting there**

Flights are plentiful with Munich airport well-served by domestic and international airlines. Additionally rail connections from Frankfurt and Stuttgart airports are also good. From Munich airport you will find a shuttle bus to the showground

- or Messe Gelande - or you can

take the U-Bahn from the airport with one change or direct from the central station. Be warned though - mornings until around 10 can be a challenge to squeeze on board. Take the second showground station for the crane and access areas.





See you at



Hotels are a real challenge and be careful booking with on line agencies. Last show several companies paid over their money only to find they had no rooms and the agency was nowhere to be seen. So book through an agency you know or direct with the hotel. Or if you are buying a new crane or access equipment you might get help from the manufacturer?

Getting in

Everyone has to pay to get in at Bauma, even exhibitors only get a few free staff passes. They can and do buy tickets for their quests, so it is worth checking with some of those you plan to visit. Otherwise:

Prices:	Online	At the gate
One-day ticket	€22	€32
Three-day ticket	€47	€64
Permanent pass	€59	€79

Students, pensioners, unemployed -€16 for a day pass

What to see

Bauma 2016

Manitou

Manitou will show several new telehandlers including the new six metre/2.5 tonne MT625 HA with two work platform options - a 365kg/two metre and more compact 200kg/1.2 metre model. Also two new 360 degree telehandlers available later this year - the MRT 2150 and the MRT 2550 which have increased capacities of five tonnes and lift heights of 20.6 and 24.6 metres respectively. Improvements include a new cab with better visibility thanks to a lower boom position and a new outrigger design. The MT Easy range will have two new additions, the 10 metre/3,000kg

MT1030 Easy with Deutz power and



Bauma 2016



autumn availability, and the larger 17.55 metre/4,000kg MT 1840 Easy later in the year. For those interested in mast-type forklifts a new two wheel drive, seven tonne capacity M70-2H will be on the stand.

No information is being released on new aerial lift launches, but technology geeks will like the new on-line Reduce TCO (Total Cost of Ownership) which shows the various elements of buying and running both a telehandler or access platform. Also check out two new concept machines including the hydraulic hybrid MLT 960 a joint project between Manitou and Dana.

Terex Cranes

Terex Cranes will show several new cranes although it is keeping any details firmly under wraps until the show. We can however reveal that new models will be from the Explorer range - one entirely new and one upgraded - as well as a new mid-range Rough Terrain crane. Terex will also use the show to promote its Boom Booster kit for the Superlift 3800 and the IC-1 Plus control system which calculates lifting capacities whatever the set-up.

Genie

Celebrating 50 years in 2016, Genie will have four new models on the stand including two new different sized Genie Z articulated boom lifts, a new compact GTH telehandler and a redesigned Genie mast lift - more details will be unveiled closer to the show, possibly at the upcoming Rental show in Atlanta.

Merlo is due to ship its 100,000th telehandler this year, since production started in the 1980s will the timing be right for Bauma? The company is not saying. Three new models will be on the stand,



as well as another four with engine

Merlo has been building its Roto

360 degree telehandlers since the

its largest vet with a lift height of

more than 30 metres. More details

to follow. It will also show its first

modular machine in the Panoramic

range which covers lift heights with

stabilisers up to 17 metres equipped

with Euro 3B engines. The TF 38.10

TT Hybrid - derived from the TF 42.7

Also on the stand is the new MMC -

Hybrid - has a 10 metre lift height.

manufacturer will have two new

Clear its biggest flat-top crane to

replaces the model 224. The new

luffer offers a compact 6.78 metre

tailswing, has a maximum capacity

of 24 tonnes and can lift 2.4 tonnes

to a radius of 60 metres. The Wolff

7534 Clear has a maximum 75

metre jib, 16.5 tonnes maximum

capacity and can handle 2.9 tonnes

Also on the stand will be the smaller

of its two US luffers. The 28 tonne

Wolff 355 B comes with jibs with

optional auxiliary hoist and fly-jib

adapted to meet US regulations.

Wolfkrann returned to the US market

in 2015 after an absence of nearly

40 years, opening a branch near

date and the 275B luffer which

cranes on display - the Wolff 7534

a light duty tool carrier.

The German tower crane

Wolffkran

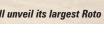
at the jib tip.

New York City.

1990s and will use Bauma to unveil

upgrades.





Manitowoc Cranes

Manitowoc will have a packed stand with 13 cranes on display, with several new products including a new 90 tonne GRT8100 Rough Terrain crane which introduces the GRT - Grove Rough Terrain - nomenclature. The new model features a 47 metre boom, plus a range of bi-fold extensions and inserts, including a hydraulic luffing or manual offset extension. A total boom/iib combination of up to 77 metres is possible. While the new boom is longer, the company says it is lighter and stronger with a better load chart throughout the range. The crane also features the group's CCS Crane Control System which is now being rolled out across all Grove, Potain and Manitowoc cranes.

Little is known about a brand new half a metre shorter.

the largest in the new CCS Topless range, all of which are fitted with the Crane Control System.

Wolffkran will have two new cranes

Another interesting exhibit will be the CabLift tower crane elevator, developed in conjunction with Alimak and shown on the MDT 219. It can be installed inside all Potain K-mast systems, and doubles as a work platform for erecting the tower. Sadly no Manitowoc crawler cranes will be on display but expect several other innovations to be unveiled. And don't forget that for most visitors this will be the first opportunity to meet the new management team.

Wacker Neuson

Wacker Neuson will show its new 2.7 tonne capacity 2706 compact telehandler which replaces the 2506. Two cab options are available with overall heights of 1.98 or 2.1 metres. The 2706 has the same six metre lift height as the 2506 and features a new hydraulic system, electro-hydraulic pilot controls and LUDV load-independent flow distribution. A new generation of its 'Smart Handling' overload system will also be highlighted, now with three operating modes (bucket, forklift and manual).

Tadano

The star of the Tadano stand will be the production version of the new 600 tonne tri-boom ATF 600. The company will also feature a new 60 tonne three axle ATF 50 and a new

Grove All Terrain crane slotting somewhere between the 250 tonne GMK5250L first seen at last year's Vertikal Days and an upgraded 100 tonne, four axle GMK4100L-1 which will feature a single engine rather than two allowing more counterweight to be carried. The upgraded 100 tonner is also more compact at 2.55 metres wide and

Potain tower cranes will include the Igo M 14 self-erector and the European debut of the 24 tonne MR 418 luffing jib crane with 60 metre iib. The new MDT 389 is the first of a new line of Topless - flat top cranes. At 16 tonnes capacity it is





GTC Mantis 800 telescopic crawler crane. All other AFT models except for the ATF400 will feature Euro 4 engines and completing the stand will be an HK65 truck mounted and GR 1450 Rough Terrain crane.

Sennebogen

Sennebogen will show two new lattice crawler cranes - the 300 tonne 6300E and the 125 tonne 3300E - as well as its 50 tonne 653E telescopic crawler unveiled at Vertikal Days 2015. The 6300E duty cycle crawler is aimed at the dredging, quarrying and civil engineering sectors. The unit has an 80 metre boom and a track width of 6.8 metres. With a 350 bar hydraulic pressure, a 2,000 litre hydraulic tank and oversized hydraulic lines and valves, it can power a number of major hydraulic attachments.

The 3300E has a variety of attachments and is powered by the latest Tier 4f CAT engine. Its Star Lifter undercarriage is just 3.2 metres wide, extending to 5.8 metres on site. Boom lengths range from 13.1 to 94 metres.

The new 50 tonne 653E telescopic crawler crane has a 30.4 metre four section full power boom plus a 6.5 to 13 metre offsetting swingaway extension for a maximum tip height of 45.4 metres. The crane - which is sold in the Americas as the Grove GHC55 - has load charts for working on inclines up to four degrees and can pick & carry its full capacity.









Liebherr

With the biggest stand at Bauma by far, Liebherr will have a full array of new cranes including an eight-axle All Terrain, a new self-erector range and a prototype 100 tonne crawler crane. The company is keeping details of the new AT - possibly a 600 tonne capacity? - under wraps but it will probably use the carrier from the 500 tonne LTM 1500-8.1 and have a very long boom. Will it be single or twin engined and a new Superlift system? We will have to wait until the show.

Two other cranes - the five-axle single engine, 250-tonne LTM 1250-5.1 with Variobase and ECOmode, and the 500 tonne LR 1500 crawler crane - seen for the first time in Ehingen last autumn will also be on show. Liebherr says that the LR 1500 delivers the capacities of a 500 tonner with the dimensions and component weights of a 400 tonne class crawler crane.

Liebherr will also unveil its new L1 series of self-erecting tower crane, headed by the L1-24 with a maximum capacity of 2,500kg, a hook height of 19.2 metres and with a radius of either 25 or 27 metres. It is available with a standard concrete or optional steel ballast which can be carried on the crane. The crane's footprint can also be kept under four metres.

The new 100 tonne LR 1100 crawler crane will be available this summer and features a 71 metre boom, 66.8 metre luffing jib or 32 metre fixed jib for a maximum combination of 104.8 metres. Capacities are said to be better than its predecessor and can be improved by around 20 percent with optional hydraulically suspended counterweight.

Liebherr will also show a new high-strength fibre-rope named SoLITE developed in conjunction with Austrian rope manufacturer Teufelberger. Field tests are currently underway, with the new rope said to be 80 percent lighter than an equivalent wire rope, while offering twice the capacity with a claimed lifespan 10 times longer. The new rope incorporates colour change wear indicators to highlight when replacement is coming up or due. After seven years' development work the rope should be on the market in two to three years.

Atlas cranes

Three new loader crane models will be on show, the 66.3E four section 2.8 tonne articulated crane with a maximum reach of 11 metres, the 152.3 with up to six hydraulic sections and a maximum reach of 16.7 metres, and the largest new crane on the stand, the 206 VE construction crane with a 14.3 metre reach and 1,160kg capacity

at maximum radius. At 2.4 metres it can lift 4.8 tonnes.

IPAF

The International Powered Access Federation will use the exhibition to focus on the safe loading and unloading of various types of aerial work platform. On the stand will be probably be a low loader with demonstrations on the correct methods to load and unload safely.

Deutz engines

In addition to its Stage V ready product range, Deutz will launch several new engines including a new three cylinder 55kW TCD 2.2 diesel, but most interesting of all is that the company will show an LPG gas variant of the new engine, the first in Deutz's otherwise diesel only range. The company's new gas engines are its entry into a sector that it says offers significant future potential as they meet EU Stage V standards without the need of an exhaust after-treatment system.



Enerpac

Heavy lifting and hydraulics specialist Enerpac will show several new products, including the SHAS (Series Synchronous Hoist System) a below-the-hook attachment that enables a single crane to precisely position unbalanced loads. The device includes double-acting hydraulic manipulation cylinders





with an integrated pump and remote controls, this allows a single operator to control the precise final positioning from a safe distance. The system can perform several types of movements including synchronous lifting and lowering, balancing and tilting, all of which can be pre-programmed.

Enerpac will also show a new MBL hydraulic gantry, its latest jack-up systems and a mini Self Propelled Modular Transporter with reduced height and slim design.

Palfinger

With two stands - one for loader cranes and one for aerial work platforms - Palfinger will have a wide range of products on display. A new crane series will be launched with the new heavy-duty PK 165.002 TEC 7. Designed for chassis up to 32 tonnes the new crane has improved capacities, yet is 800kg lighter than its predecessor the PK 150.002.

Other new models, will include the PK 17.001 SLD 1, the PK 17.001 SLD 3 and the PK 19.001 SLD 5 Solid models, replacing the PK 16.001, PK 16.001-K and PK 18.001 EH. A new Solid Compact crane series will also be unveiled, as will an HPLS

crane in the seven metre range. The company also says that it will have a new fall protection system for loader cranes.

Palfinger Platforms

Palfinger Platforms unveil its largest Jumbo NX truck mounted platform the 75 metre P 750 - with 39 metres of outreach. The platform features the innovative X-jib and 400 degrees of platform rotation. The company will also launch a new range of track mounted spider lifts alongside the latest models in its Low Smart Series.

Skyjack

Skyjack will launch two new products the 40ft SJIII 4740 DC slab electric scissor lift and the 30ft SJ30 ARJE battery powered articulated boom with rotating jib. The SJIII 4740 is the highest narrow aisle electric scissor lift Skyjack has ever produced. With its 14 metre working height and the compact dimensions of the SJIII series. Platform capacity is 350kg and overall width just under 1.2 metres. The SJ30 ARJE has a working height of 11 metres and maximum capacity of 227kg. It is an industrial boom, with short dual risers,

two section telescopic boom and



articulating jib. Deliveries are expected to start in the third quarter. The new boom has been designed along the same principles as other Skyjack booms, with a focus on being simple to maintain, repair and operate.

Alimak Hek

Two new mastclimbers and an upgrade to its Scando 650 hoist will be the highlights on Alimak Hek's stand. The new Hek MC 650 and MC 450 platforms will be easy to operate and price competitive. Both are available in single or twin mast configuration with adjustable platform lengths and widths. The





MC 450 has a capacity of 4,500kg with platform lengths from 10 to 30 metres, while details of the larger MC 650 will be announced later.

The Scando 650 hoist upgrade is said to offer improved safety, productivity and ride comfort. A new 10 inch control panel display, provides real-time hoist information on payload, current landing location, fault status and improved fault tracing. High wind speed warnings can also be specified.

Other features include larger - 200mm higher - stronger car doors and strengthened aluminium flooring, allowing for larger car sizes up to five metres long with higher capacities up to 3,200kg. An extension option in the hoist roof allows items up to four metres long to be carried.







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Dana Rexroth

The 50/50 Dana Rexroth joint venture will unveil the R3 version of its hydro-mechanical variable transmission (HVT), with production expected later this year. The HVT concept combines a hydrostatic and a direct gear transmission to provide fuel savings at higher speeds of up to 25 percent compared to a torque converter, while offering the slow speed precision of a hydrostatic. Engines can also run at a constant RPM for maximum efficiency. The HVT has so far been used on reach stackers and wheel loaders and the company is now looking at the telehandler market.

Dana

Dana will launch its Spicer Smart Suite, which converts operating data from the drivetrain for enhanced productivity, safety and reduced operating costs. This includes an integrated axle overload sensor which is fully proportional and fully enclosed and not subject to distortion on slopes or when rear wheels are turned. Prototypes will be available by year end for testing and are expected to provide very accurate load weighing and overload protection.

Dana will also have a telehandler driveline layout complete with hydraulic hybrid attachment on the Manitou stand. The Spicer PowerBoost hydraulic-hybrid powertrain is said to consume 15 percent less fuel and provide up to 45 percent more power.



Ausa has no telehandler launches planned, but will show the production version of its tiny T 144, unveiled at Intermat last year and the 2.3 tonne capacity T 235. Also look out for its Urban truck with attachments such as a work platform made by Movex and a Palfinger crane.

Haulotte

Haulotte will show the final production version of its new Star 6 12ft mast lift, now fitted with active pothole protection and indoor/outdoor ratings. Compared to the prototype, the platform is 100mm longer, has a saloon style gate and the option of a 400mm roll-out extension. The chassis has both lateral and longitudinal fork lift pockets for easier loading/carrying and a larger on-board diagnostic screen. In addition the company will unveil two totally new aerial lift prototypes for comment and input, possibly a compact hybrid RT scissor lift?

Haulotte will also introduce a new three model HTL heavy load telehandler range, the smallest of which is the 5.2 tonne/10 metre HTL5210, an all-new Haulotte designed and built model which can also handle 3.5 tonnes at 5.8

metres forward reach. Stabilisers and hydrostatic transmission are standard, with power coming from a Tier 4i/ Stage IIIB-compliant Perkins for Europe and a Tier 3-compliant Perkins 95 for the Americas, Asia-Pacific, Russia and the Middle East. The two larger telehandlers in the range, the 6.5 tonne/eight metre HTL6508 and 7.2 tonne/10 metre HTL7210 are designed and built by Dieci at its plant in Italy and branded for the Haulotte sales and support network.



Omme Lift

Denmark's Omme Lift will have two new platforms on display including the new 13 metre 1300E telescopic trailer lift which replaces its current 1250 E. In addition to an extra 300mm of platform height, the 1300E is 750mm shorter when stowed, has half a metre more outreach at nine metres and a stronger, more rigid three section boom. Power comes from a 24 volt 139Ah battery pack with built-in charger, capable of charging the batteries whilst the platform is in use. Hydraulic outriggers and two step dual controls are standard.

Haulotte HTL5210

The second new model is the 37 metre 3710 RBDJ spider lift, which replaces the 3700RBDJ. A key change is the new seven section boom with a six-sided profile to help improve strength and rigidity, topped by a 130 degree articulated jib. Maximum platform capacity is now 250kg, while maximum outreach is 14.2 metres. Boom elevation and telescope can be





operated simultaneously to help speed the time taken to reach full height. Overall length is eight metres or 7.4 metres with basket removed, while the width is 1.1 metres for transport, extending to 1.5 metres for additional stability on site.

Italian platform manufacturer Hinowa will launch an all-new 15.4 metre spider lift the Lightlift 15.70 Performance IIIS, which will replace the Goldlift 14.70. The fourth and smallest model in the Lightlift



Performance IIIS range, its main feature is its compact size - as little as 3.4 metres overall length - and weight of less than two tonnes. Outreach is 6.6 metres with 230kg unrestricted capacity, while the maximum outrigger footprint is 2.8 metres square. Three power packs are available - a Hatz diesel, a Honda petrol and/or lithium-ion battery pack. Upgraded versions of the 17 and 20 metre Lightlift 17 and 20 will also be on the stand.

12 degrees. Secondary guarding is also standard. A battery powered 12 metre

120TB trailer lift will also be on show together with the lightweight 240RXT semi self-propelled boom lift with improved steering and built-in compressor. The 190XTE trailer lift has a larger platform and increased 250kg capacity.

Dino 220XSE



maximum tip height of 28 metres. The jib can luff down from zero to horizontal with a maximum radius of 19 metres. Weighing 12.5 tonnes with counterweight, the track width extends from 2.3 to 2.9 metres at which it can handle six tonnes free on tracks.

Other new products include the new five tonne MPK50 pick &

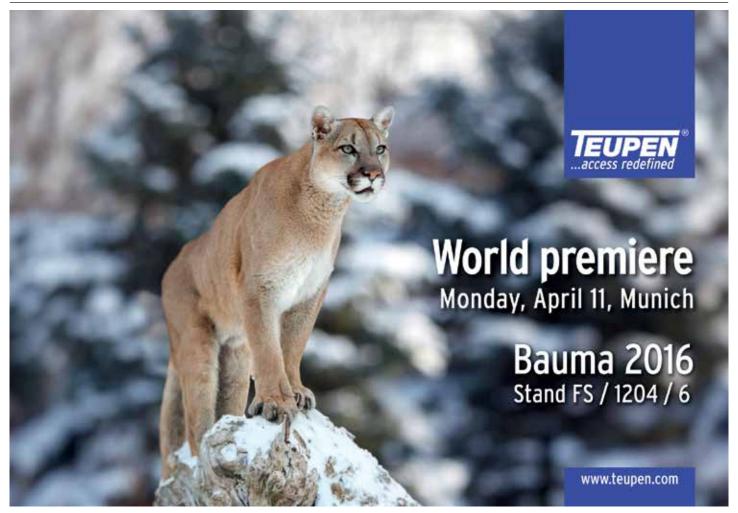




Dinolift is continuing to develop its 22 metre 220XSE boom lift with new features including a large 1.3 x 2.4 metre basket with 350kg unrestricted capacity and a remotely controlled telehandler with 500kg capacity. The basket is mounted on the boom with forks that feature a safe, quick-release mechanism. The unit on show will have optional outriggers that can level the machine on slopes of up to



Jekko will have three new models. the SPK60 crawler crane with 17.7 metre five section boom, plus a four section telescopic luffing jib for a



Bauma 2016

Cla

carry crane, a larger version of the popular two tonne MPK20 fitted with radio remote controls, slewing superstructure and front outriggers. Also look for the new 2.5 tonne MPK25 - the fully radio remote controlled evolution of the MPK20.

Kohelco

Sharing the stand with Kobelco Construction, the cranes division with have a 90 tonne CKE 900G and 250 tonne 2500G on show and may well announce details of a new larger crane.

Luigong

While Chinese manufacturer Luigong is expanding its crane and aerial lift product lines, it has no plans to show any of them on its Bauma stand.

JLG

JLG will exhibit a lighter weight version of the Toucan 10E, for easier transport, the trade-off is that its outside rating is now for one person rather than two. However the heavier counterweight version will still be available.

The company will also launch the all new 10 metre/3.5 tonne full specification 3510H telehandler with an all-new cab new covers and new styling. Full details of this new model are not yet available yet. JLG will also highlight its customer support offering throughout the life of its products with demonstrations of smart equipment and the latest in hybrid technology. A pioneer with hybrid drive platforms, the company is bringing all such models under the 'Inner city Eco solutions' branding.

Power Towers

Sharing a JLG stand for the first time since the company acquired it, Power Towers will display a selection from its range of low level push around and self-propelled lifts.

Fassi

Fassi will launch three new 'light' cranes, two models from its middle



range and three in the heavy range including its new flagship, the 136 tonne/metre F2150RAL, with up to 41 metres of reach. Derived from the F1950, the F2150 has 16 percent more lifting performance in the RAL version.

Other new cranes include the F710RA in the XHE range and the F545RA - a 53 tonne metre, 24.9 metre crane in the XE series fitting between the larger F560RA and the smaller F485RA but with significantly increased performance. Fassi says that its dimensions are compact enough for a three-axle chassis. Also in the XE range are the new F305A and F255A.

In the 'small' crane sector Fassi will show the new F65B and F70B, using ultra-high strength steels they are lighter than other cranes in the six to seven tonne/metre class. The light crane range is completed with the new compact F40B with up to 9.5 metres reach — ideal for 3.5 tonne chassis.

CTE

CTE will show off its new B-Lift truck mounted platforms with an innovative S3 (Smart Stability System) stabiliser system. The new range will be represented by a 39 metre B-Lift 390 High Range, the smallest model in the High Range -topped by a 61 metre unit — which





has a 600kg platform capacity.

Niftylift

Nothing new yet but the boom and trailer lift manufacturer will highlight its highly successful HR28 Hybrid which has sold exceptionally in Germany, but most important of all will be an all-new product which it is keeping quiet until closer to the show.

Orlaco

The Dutch camera system manufacturer will launch a new digital camera system with internet

connectivity at the show. A full working system will be fitted to Liebherr's big crawler crane. The new system will allow the remote monitoring of a lift as well as the ability to recording it. Plenty of new and improved compact hoist view cameras with wide view functionality and new rear view systems will also be displayed.

Bronto

While no details have yet been provided, expect to see a new truck mounted lift in the 70 to 75 metre range to top out the company's XR range.





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