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Reaching new heights





BIGGER AND BETTER PICK & CARRY CRANES?

The industrial pick & carry crane market, once a sleepy backwater, has seen a spate of innovative new product launches this year, spanning a wide range of capacities, while the arrival of Australian and North American crane/lifting machines reflects the sector's growing diversity. We take a look at some of those launches and new arrivals.

Italian manufacturers have been - as per usual - particularly active. Galizia introduced the 13 tonne GF130 and 72 tonne GF720, Ormig, the 75 tonne 75iEh, Valla the 35 tonne V320RC, and JMG showcased a new 17.6 tonne capacity articulated crane - the MC95000RE. They demonstrate how the sector is growing and becoming more diverse, with manufacturers addressing everything from simple industrial material handling to heavy lift challenges in the industrial moving market. The pace of product development has also been driven by new technology, such as electric power trains and modular design innovations.

VALLA ON THE MOVE

During GIS, Valla - now part of Tadano - unveiled the prototype of a new 35 tonne crane, the V320RC, claiming that it is the opening salvo in a project that will extend to 50 tonnes. The company is clearly also leveraging its parent company's resources whilst maintaining its traditional philosophy and focus on pick & carry cranes.

The V320RC is available with a standard three section boom which can handle 15 tonnes at its maximum lift height of 13.2 metres, while having a maximum radius of nine metres with a capacity of 4.4 tonnes. The four section long boom version - the V320RC-RB - provides a maximum 16 metre lift height with 10 tonnes capacity, along with 12 metres maximum radius with 2.7 tonnes. Overall weight, without counterweights, is 31.15 tonnes for the V320RC and 33.15 tonnes for the V320RC and 33.15 tonnes for the V320RC-EB.

Overall length for both models is five metres, width is 2.15 metres and height 2.4 metres.

Valla chief executive Paolo Balugani explained the historical context. "The company has been manufacturing electric cranes for the past 20 years, with models up to 90 tonnes. This project was launched two years ago, but this is the first time we have displayed it. Next year we will show a 50 tonner."

A key element of the new generation product is modular construction, meaning that many crane components remain the same for all models, an important factor when it comes to spare parts.

This modular approach extends across several new technical features including a disc braking system, addressing what Balugani identifies as a critical safety element in heavy selfpropelled equipment. The hydraulic system also incorporates variable piston pumps driven by an electric motor, the combination of which provides a 20 percent improvement in battery life.

"We have also introduced a system to monitor oil contamination which warns operators when it needs changing, as well as a new self-install counterweight system," says Balugani.

"When it comes to the telescopic system, the Valla way is to go direct hydraulic - no cables or chains. This is a key feature when it comes to maintenance and, importantly, boom stiffness."

A new touchscreen in the cab provides detailed operating data, with a similar set-up on the remote controller. "One of the crane's important,







patented features is a ground pressure monitoring system on the wheels, enabling the operator to see the weight on each wheel and the ground pressure it is applying, with an alert when maximum capacity is reached to prevent floor damage," says Bulgani. "Cranes like this are aimed at machinery and industrial movers, along with the heavy haulage operators."

Current production focuses on the 4.6 and 20 tonne models - its most popular cranes, but the company is seeing growing demand across the range: "We are growing quickly, possibly faster than the market as a whole. Last year we manufactured between 80 and 90 units, but Tadano is looking for us to boost production further."

THE TADANO EFFECT

Carl Cooper of UK rental company Hird, which has distributed Valla products for many years, believes Tadano's ownership could transform the competitive landscape. "For several years now, the European pick & carry market has been Valla, JMG, Galizia and Ormig, all relatively small independent companies, but now that Tadano has acquired Valla, there is, for the first time, a crane powerhouse behind a pick & carry company," he says.

He estimates that there are between 300 and 400 pick & carry units manufactured in Europe each year, which we would not disagree with, but he believes that with more of them adding higher capacity models, it may open up new markets for pick & carry cranes.

Cooper also sees the trend towards larger cranes being all electric only going upwards. "An increasing number of companies are choosing to avoid diesel units, with products such as the 35 tonne Valla V320RC more often than not working indoors in the same way as smaller cranes, and so also need to be emission free."

"It is uncommon for customers to order more than one crane at a time, even those running a fleet might just take one a year," says Cooper. "Our dual role as distributor and rental fleet operator



informs our pricing strategy, because we run them in our fleet, we have a good understanding of what they're worth. I'm not just a salesman but an end user as well."

Hird operates from three locations and runs 70 Valla cranes in its rental fleet from two tonne models up to a 25 tonner. The company has also collaborated with Valla on development projects, including the nine tonne 90DTRX and five tonne 55TRX, as well as the Valla Connect System, enabling real time communication between cranes and the manufacturer for monitoring and support.

Hird's most recent sale was a 3.6 tonne Valla V36R to soft drink can manufacturer Ball Packaging. Launched in 2020, it features a three section boom and can handle 800kg at its maximum lift height of 7.5 metres and 500kg at its maximum radius of 4.75 metres. With power coming from an 80 volt/300Ah battery pack, the crane will be used to carry out maintenance within the factory.

ORMIG PUSHES FURTHER

Ormig, founded in 1949, has frequently pushed capacity boundaries towards the limit. The company launched a 50 tonne model at Bauma and presented a 75 tonne crane at GIS, though its largest machine is a 100 tonner.

Ormig's current design focus is on reducing overall dimensions whilst maintaining maximum capacities. Its 75 tonne crane incorporates several new developments, particularly the hydraulically operated boom nose in response to repeated customer demand. The first 75iEh - sold to heavy transport company P&P Transporti - is the company's most recent all electric crane with a lift height of between 13 and 16 metres, depending on the extension. The overall length is 5.68 metres, overall width 2.35 metres and overall height 2.5 metres.

The modular counterweight system, used on many of its cranes, can be configured for different applications and capacities by adding or removing





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PICK & CARRY CRANES The 100 tonne Ormig 100iE

the modular counterweight sections, providing lower transport weights and lower ground bearing pressures when the maximum is not required. Ormig manufactures between 60 and 70 units a year, with roughly 50 percent of them exported mostly to Belgium, the Netherlands, Germany, South Africa, the United States and Japan. "Our sales by country fluctuate, depending on numerous factors, but many of our distributors tend to move this type of crane regardless of whether the market is up and down. When the economy is growing, their customers buy new cranes, when it dips, they may have to sell production machinery, so either way, the trade in pick & carry cranes goes on," said the company.

GALIZIA IN THE RACE

This year, Galizia has launched two new all electric pick & carry models, the 13 tonne GF130 and the 72 tonne GF720X, both made their debut at GIS. When the telescopic chassis frame is extended, the 13 tonne GF130 has a maximum tip/lift height of 10.5 metres or 10 metres with the variable boom nose lowered, at which point it can handle up to seven tonnes.

The maximum radius is 6.5 metres with a 2.3





How the JMG compares with the Jekko and BG Lift

Make Model	JMG MC95000RE	Jekko JF545.2	BG Lift CWE525
Lift capacity	17.6t	15.5t	14.5t
Lift height	21m	19.1m	19.5m
Lift height (jib)	33m	31m	32.5m
Maximum radius	18m	16.5m	16.85m
Max radius (jib)	30.1m	28.3m	29.4m
Max capacity at radius	3.4t	2.5t	2.3t
Max capacity (jib)	1000kg	600kg	580kg
Overall weight	23.7t	13.7t	13.2t
LxWxH	5.5m x 2.4m x 2.99m	5.8m x 1.8m x 2.8m	5m x 1.85m x 2.61m

tonne capacity. The crane has an overall width of 1.45 metres, and an extended chassis length of 4.15 metres, retracting to 3.4 metres. The overall stowed height is 1.9 metres. The GF130 has an overall stowed length of 4.75 metres and four metres when retracted for transport. Total weight is 14.5 tonnes, reducing to 10.9 tonnes with the counterweight removed. Rear steering is 180 degrees, allowing it to virtually turn on the spot. Power comes from an 80 Volt/750 Ah battery. The 72 tonne GF720 has a maximum lift height of 16.6 metres and a maximum radius of 11.5



metres, but load charts have yet to be published. The crane has an overall width of 2.29 metres, while the extended chassis length is 6.9 metres, retracting down to 5.19 metres and a stowed height of 2.8 metres. Overall length when stowed is 7.77 and 6.77 metres respectively. Power comes from a 96 Volt/1550 Ah battery driving two electric motors on the front axle. As with most models, the GF720 can be equipped with a fork carriage, converting it to a sort of mega telehandler.

JMG MAKING MOVES

JMG also unveiled its latest model - the 95 tonne metre MC95000RE - at GIS. The new unit - which has a maximum capacity of 17.62 tonnes - is an interesting machine in that it uses a large articulated loader crane boom on wheels, rather than on tracks, which a number of other manufacturers now offer.

The MC95000RE has a standard eight section boom providing a maximum lift height of 21 metres. It can handle the 17.62 tonnes at a 4.31 metre radius, or 3.4 tonnes at its 18 metre maximum radius. It also offers a maximum pick & carry capacity of 9,400kg at a five metre radius or 750kg at 18 metres.

An optional six section jib takes the maximum lift height to 33 metres and the maximum radius to 30.1 metres with one tonne load. Overall stowed dimensions are 5.5 metres long, 2.4 metres wide and 2.99 metres high, with an overall weight of 29.1 tonnes, or 23.7 tonnes with the four counterweights removed.

While there is no direct competitor to the MC95000RE, it might be interesting to compare it with articulated tracked spider cranes such as Jekko's 15.5 tonne JF545.2 which was launched in 2017, or to BG Lift's CWE525. (See table above)



eço











JMG also unveiled a hydrogen powered hybrid crane at the Hydrogen Expo in Piacenza in June. Based on the company's 25 tonne electric MC250.09FL heavy duty pick & carry forklift/crane, the unit incorporates a hydrogen fuel cell module and lithium-ion battery pack.

The hydrogen system uses a Polymer Electrolyte Fuel Cell combined with a 6kg hydrogen tank and a 30kW lithium buffer battery. The battery lasts two to three hours under normal use, with the fuel cell automatically topping it up when required. Combined, the system provides five to six hours of continuous operation before refuelling. Refilling the cylinder takes approximately five minutes, or the tank can simply be swapped in a similar manner to an LPG tank. Recharging the lithium battery takes 90 minutes.

The hydrogen module can be interchanged with the standard machine's lead acid battery pack. Switching between configurations only requires repositioning the electrical cables and adding a controller area network wiring harness, which will be fitted to all standard models from the start of next year.

JMG chief executive Maurizio Manzini said: "This new technology marks a milestone for JMG, confirming our pioneering vision in the energy transition of industrial lifting by introducing a flexible, scalable energy system suitable for intensive work cycles. The first units should be ready to ship in the new year and represents the first concrete step of a new research and development path."

BIG AMERICAN LIFTERS

Not all manufacturers are chasing maximum capacity. Whilst Italian manufacturers seem to be focusing on adding new cranes in the 75 to 100 tonne region, the North American market has long been different with its carry deck style of pick & carry industrial cranes at the smaller material

handling end of the market, and high capacity extending fork trucks for heavy machinery moving and installation. When load handling jib attachments are added, they blur the line between big traditional forklifts and pick & carry cranes.

Manufacturers include Landoll, Versalift and the Hoist Liftrucks. Versalift was one of the original developers of this type of lifting machine, and as a result became market leader, but lengthy lead times opened up opportunities for new competitors to enter the market, including, more recently, a European company - JMG with its unusual MV250.09FL.

In last year's feature, we spoke to Jayson Flegg of UK based Flegg Projects which added two Landoll PT40 heavy telehandlers to its fleet. In February, the company was acquired by Ainscough Industrial Services, and in that same month was appointed as the European distributor for US based Forklift Exchange to sell and service its heavy lift extending forklifts, including units manufactured by Hoist Liftruck and Royal.

Flegg has operated Forklift Exchange units in its fleet for several years but will now offer the Hoist FR series, initially focusing on the 11 to 16 tonne 25/35, the 18 to 27 tonne 40/60 and the 27 to 36 tonne 60/80. Flegg says that since taking on the distributorship, it has received multiple orders for the 40/60 and 23/35.

Flegg will also offer units built by Illinois based Royal Rig-N-Lift, which recently restarted production of the Rig-N-Lift 80/100 and 100/140 models. The agreement aims to reduce lead times for European buyers while providing local parts and service support.

Maxx Flaska of Forklift Exchange said: "Flegg Projects is the perfect partner for reaching the European market because of its distribution and servicing coupled with our equipment."

FRANNA RETURNS

Australian articulated pick & carry crane manufacturer Franna - part of the Terex group - introduced its new 22 tonne AT22-2 to the European market at Vertikal Days in September. The launch was in partnership with its UK distributor Crowland Cranes.

The AT22-2 is the first new Franna crane to arrive in Europe for 25 years and features a 17.9 metre four section boom, while handling its maximum capacity at up to 1.4 metres radius, and a height of up to six metres. A 2.5 metre extension takes the maximum tip height to 20.5 metres, at which point it can handle just over three tonnes. Maximum forward reach on the main boom is 15.8 metres with a capacity of 1.7 tonnes, or 18.8 metres with the extension installed. A work platform attachment offers a 20.2 metre working height and an outreach of up to 18.5 metres. The crane has an overall weight fully rigged of 20 tonnes, with 12 tonnes on the rear axle. Power is provided by a Mercedes diesel linked to an Allison six speed transmission. Maximum road speed is 80kph/50mph.

Pete Issitt owner of Crowland, the first European distributor to take a new Franna in many years, said: "Franna pick & carry cranes are highly suitable for a number of industries due to their versatility, reliability and capabilities, along with travel speed. In fact, several older Franna cranes are already in operation in the UK, and our team has been actively supporting them in the field. This experience has given us valuable insight, not only into the machines themselves but also into the technical and parts support provided by the team in Australia, which has consistently impressed us with their reliability."

You can read more about the Franna crane and Crowland Cranes in an interview with Peter Issitt starting on page 47. ■





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