

Terrains rule OK

The All Terrain crane has all but replaced the truck crane in Crane Hire fleets across the UK and Ireland. This due as much to the fact that the four main suppliers no longer offer European truck cranes as to the fact that Japanese suppliers such as Kato and Tadano have stopped importing them.

Many hire companies we spoke to confirmed that for most jobs the traditional truck crane is perfectly acceptable and confirmed Søren Jensen's view (MD of BMS Scandinavia's largest crane hirer) that small to mid size Japanese truck cranes provide a far better return than most All Terrains. He also likened All Terrain use on most work to using a Range Rover for travel around London.

In spite of this All Terrains are here to stay. The choice is becoming wider than ever, starting off with two axle compact city crane versions up to the largest mobile cranes on the market.

New ultra compact

The latest ultra compact city crane to be launched on the UK/Irish market is the Locatelli ATC20 a 20 tonner, while not totally new, the lack of an importer into these parts has prevented it taking off until now. Valla Cranes UK has recently been

appointed as the importer, so you can expect to see them on our streets in the near future. Its total weight of only 17 tonnes, virtually no boom overhang, exceptionally compact dimensions, combined with a boom mounted fork attachment and the ability to use a standard Merlo aerial work platform, make it highly versatile, it also narrows the gap between crane and 360 degree telescopic handler at the bottom end of the market.

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all terrain

At the larger end of the market all the big telescopics are dubbed as All-Terrains although the weight and size of these units make the label largely academic. Few companies have been investing in the largest machines in the past year or so, although Grove shipped in its first GMK7450 450 tonne crane towards the end of last year with a sale to Bryn Thomas of Flint in North Wales. An order for a second unit will be announced shortly.

The 100 tonne+ Taxi crane

The hottest area in the All Terrain crane market at the moment is the five axle, long boom, easy transport models coming onto the market.

The latest five axle All Terrain product launches offer capacities of between 95 and 130 tonnes, main boom lengths of 58 to 60 metres and the ability to carry a proportion of counterweight within 12 tonnes axle loadings and in some cases, full counterweight under the UK's STGO rules. These new models take the taxi crane capability to a new level.

First among these new products was the Demag AC120 and140 launched at Bauma last year with first deliveries to the UK arriving in December. Then came the Grove GMK 5130-1 which began shipping at the end of 2004, although the

first UK units are only arriving now. With Dewsbury & Proud taking the first unit. Finally, new for 2005 is the Liebherr LTM 1095-5.1 launched at the recent Conexpo show in Las Vegas.

Tadano does not yet directly contend this precise "market", it has the 110G-5 which is short on main boom length in comparison, while its 160G-5 five axle unit offers a full



60 metres of main boom length but due to its high nominal lift capacity is larger physically and carries less on board counterweight, particularly with 12 tonne axle loads. In the UK STGO rules allow this unit to travel with 13 tonnes of counterweight which gives it capacities similar to the other



units. For this reason we have included it in our chart. The first 160G-5 is destined to arrive in the UK by mid year while the first 110G-5 arrives later in April. Both units have been sold to McGovern Crane Hire.

In addition to the AC120-1 Demag has the 100 tonne AC100 which has proved popular in the UK, but like the Tadano 110 it carries a shorter boom. Hewden took delivery of four AC100 in 2004 complete with the additional tag axle allowing it to travel with every piece of equipment on board. The tag axle is also available on the AC120-1.



Tadano 160G-5

The following chart is a snapshot of different criteria on the main producers latest five axle products. The range of configurations available to crane owners is so wide that such a chart can only scratch at the surface, sadly we do not have the space here to do a full comparison. The chart does show how compact and lightweight these units have become and yet they all offer very long boom lengths with excellent capacities.

Locatelli ATC20

Characteristics	Liebherr 1095-1	Grove GMK 5130-1	Demag AC120-1	Tadano 160G-5
Maximum rating	100 t	130t	120t	160t
Rating @ 3m radius	95t	94.5t	120t	160t
Main Boom	58m	60m	60m	60m
Carrier	10x8x10	10x8x10	10x6x8	10x8x8
Full Counterwt	23t	40.1t	40t	51t
Cwt @12t/axle	15 t	8.5t	6t	1t
Overall Length	13,780mm	14,540mm	14,180mm	15,248mm
Overall width	2.75m	3m	2.75m	3m
Carrier length	11,313mm	12,390mm	11,035mm	13,264mm
O/R spread	7m	7.5m	7m	8.3m
Capacity@5m	61t	70.5t	88.4t	120.5
Capacity @10m	26.4t	38t	39.5t	50.6t
Capacity @20m	10.6t	16t	14.3m	24.3t
Max radius with 3t	40m	47m	43m	53m
Max Hook height	84m	95m	93m	100m

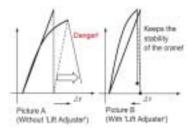
All capacities are with full counterweight fitted.

Lift capacities with max Counterweight to STGO rules

Radius	Liebherr LTM 1095-1	Grove GMK 5130-1	Demag AC120	Tadano 160G-5		
cwt	23T	23.5T	23.1T	13.1T		
3m	95t	94.5t	116.5t	160t		
5m	61t	70.5t	87.2t	97t		
10m	26.4t	33.5t	30.7t	35.5t		
20m	10.6t	11.3t	10.8t	11.8t		
3,000kg	40m	39m	37m	36m		

Long Boom deflection

With boom lengths getting longer and lighter thanks to higher tensile strength steels, the problem of deflection is greater than ever. While good design, boom dimensions and tight tolerances help, Tadano has patented a new operator aid that allows the crane to automatically compensate for boom deflection. The built in device can be switched on or left off in a similar manner to traction control in a car. When activated the crane calculates the deflection and then raises the boom angle, loading the boom so that the deflection has already been allowed for before the load leaves the ground. This avoids the risk of the load swinging out a potential problem, particularly with heavy loads on long booms.







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4 Stage 32 metre boom

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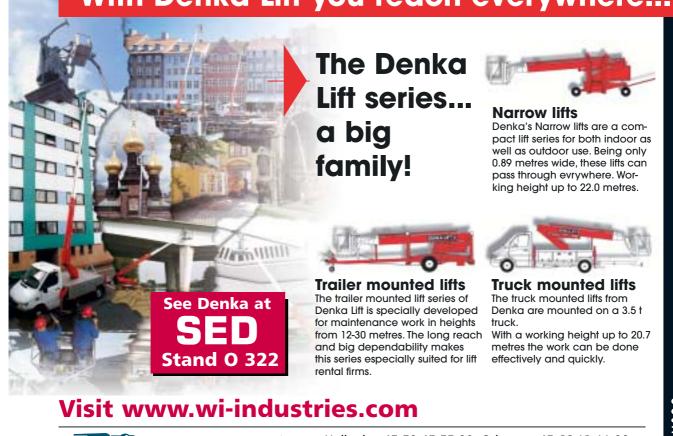
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Ainscough place biggest AT order ever

Ainscough, the UK's largest crane hire company has followed up on its order for 30 Liebherr All Terrains at the end of last year, with one of the biggest single orders for All Terrains ever placed. The new order, once again for Liebherr, will include 92 units for delivery throughout 2005 and into 2006. The order is for All Terrains ranging in size from the 35 tonne LTM1030-2.1 to the 220 tonne LTM 1220-5.1 and includes 16 of the new LTM 1095-1 with a 100 tonne maximum rating.

Locatelli appoint Valla UK and plan an SED launch.

Locatelli the Italian crane producer has appointed Valla UK Ltd. as its importer for the UK market. Locatelli has a strong reputation for its Rough Terrain cranes and has more recently had success with its City crane the ATC20, which offers a 20 tonne lift capacity, 34 metre on board tip height, 17 tonnes Gross Vehicle Weight, 70kph travel speed, under three metres overall height, 6.4 metre length and 2.3 metre overall width all of which make this a crane that is likely to be very popular in the UK.

Valla will formally launch the Locatelli range at SED on May 17th.

900 tonne emergency



Crane Services to the rescue with 900 tonnes of lifting capacity.

Crane Services of Ossett, West Yorkshire was called on recently to rescue an excavator that had fallen down a large shaft on the edge of a housing estate. The incident was complicated by the fact that the excavator had been lifting a muck skip when it fell into the shaft and both had come to rest on top of a mini excavator that had been working in the shaft. The incident occurred around 2pm on Friday March second, Crane services immediately sent a team in to inspect the site and draw up a lift plan complete with

CAD drawing, method statement and risk assessment. On Saturday morning at 8:00 am a 500 tonne Liebherr LTM1500YHL and a 400 tonne Demag AC400 arrived on site complete with appointed person, riggers and a selection of steel mats and relevant equipment. Both cranes were rigged with their superlift devices, and between them lifted the muck skip and the upturned excavator clear of the shaft they then, in tandem, turned it upright before lifting the mini excavator out.

The Boom Extension/Fly Jib debate

At last years crane safety conference Martin Ainscough, Managing director of Ainscough crane hire called for manufacturers to eliminate Pin on hoom extensions and jibs in the name of safety. The company's large order placed at the end of last year was notable in that boom extensions were only ordered for those cranes going into specific applications such as Petrochemical plants where

such extensions are used on a frequent basis. Not everyone agreed with this initiative which had a strong impact given Ainscough's position as chairman of the CPA crane interests group. We received a copy of the following open letter from Peter Hird of Valla **UK to Martin Ainscough** agreeing on his stance for larger cranes but warning of the detrimental impact it might have on mini cranes.

"Don't write off the Jib please"

Dear Martin,

I Hope your family and you are all well, attached is a copy of our new Valla 120D TRX crawler crane.

This is a very compact crane designed for the ever demanding lifting industry, Buildings are becoming more complex and the modern designs of inner city buildings are pushing our designers to come up with better solutions every day.

We understand your view on the fitting of fly jibs to cranes and the risks they present our operators yet the Mini Crane market will still need to have these options available. My view is 100% with you on the larger cranes where operators are working at height and only do this on very few occasions, creating a very high risk factor. The Mini crane market however is different, operators are only 1-1.5m from the ground when the fly jib is installed and they install the extensions on a very regular basis.

Whilst this fly jib matter is an Ainscough decision to safe guard your own interests and I am sure, a good one, I do not think it helpful that safety officers and the HSE become totally opposed to all fly jibs.

We trust you as a key figure within our industry, and hope you find our comments of interest.

Regards

Peter Hird Valla Cranes UK Ltd

Cranes&Access welcome letters from

all of our readers and will publish any letter that covers a relevant subject. We reserve the right to edit all letters for sake of space and clarity.