

# MOBILE CRANES

There is a new breed of all terrain cranes, all competing in the 100 tonne class. But, says **Bill Green**, the problem for the crane buyer is which is the "bestest" for him?

**Mirror  
WILLOL**  
**on the wall  
which is the  
"bestest"  
of them all?**

**F**rom the stables of Demag, Grove, Liebherr and Tadano Faun, each of the new generation of 100 tonne AT's carries a long boom, in excess of 50 metres. All have lattice boom extensions (as long as 34 metres in one case) and touches 88 metre tip height. Each sports different counterweight configurations, which are road legal to 12 tonnes per axle or, in the case of the UK (where axle loadings are nothing short of a farce), maximum roadable counterweight can be as high as 26 tonnes, creating axle loadings as much as 14.60 per axle or more.

As load charts are within a lick and split of each other, on paper the buying decision is not straightforward. So there is a need to look under the covers to see which one has qualities over the other – or not as the case may be. There could be a clear leader, but much depends on the users perception and brand preference.

Since we saw the first 100 tonne new breed machines at SED 2000, the population has very quickly grown in the UK. Over 50 units have been sold, with Liebherr leading the way with over 20 units in the field, followed by Grove approaching 20 sales and Demag in third place, just in double figures. Tadano Faun has yet to rise to the occasion, as statistics for the UK show no sales to date. This should not come as a complete surprise considering its distribution turmoil, which has only very recently been resolved with the appointment of Cranes UK Ltd. (No relationship to *Cranes & Access*, formerly *Cranes UK*.) ▶

## First UK Y-Guy to Ainscough



Ainscough Crane Hire is to be the first UK company to take delivery of Liebherr's new 500 tonner, the LTM1500/1, with the 'Y-Guy' lateral stability attachment.

The Demag AC500-1 and Sideways Superlift, which pioneered the concept behind the Y-Guy, lost out on the deal. "The Liebherr was chosen because of its superb boom length in comparison to other machines in its class, ensuring competitiveness", stated Danielle Hitchin, Ainscough's sales and marketing manager. "Obviously the deal was right for us and we do have a few contracts in the pipeline for when the machine arrives."

The Liebherr boasts the worlds longest telescopic boom at 84 metres, together with a luffing jib of 91 metres. Ivan Ellis, Heavy Cranes Manager at Ainscough said "The machine has many advantages; it is driveable on site when fully rigged with boom, luffer and all 165 tonnes of counterweight without the need to dismantle."

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A quick check of the specifications first though, as size can matter!

Width and length in town or on a congested site can be a problem and, as most cranes in the UK are shod with 16.00 tyres, the combination width and length could make a difference. The Liebherr LTM1100/2, when equipped with 16.00 tyres, remains at 2.75 metres – the same as if it had 14.00 tyres. On the other hand, the Grove GMK 5100 with 14.00 tyres begins at 2.75 metres wide, but 16.00 tyres increase the width to 3.00 metres. Demag, like Liebherr, does not suffer from a width increase when 16.00 tyres are fitted. The slim 2.75 metre-wide chassis remains the same as though it had 14.00 tyres.



The Demag AC100, with the shortest chassis at 11 metres

Demag talks of the shortest chassis at 11.0 metres, but overall dimensions are probably more important. Whilst Demag is just a little over 14.0 metres, Grove is pushing 14.5 metres, Faun over 14.6m. Liebherr quietly slips into the sub 14.0 metre length at 13.63 metres. This in turn gives Liebherr the best clearance radius of only 11.3 metres, the same as Faun, compared to Demag at 11.4 metres, and Grove having a huge 12.1 metres, even though all wheels steer on the GMK5100.

They say “you cannot change the law of physics” and the load charts on Demag, Grove and Liebherr 100 tonne cranes go a long way to prove this. All have varying methods of boom pinning devices, plus huge chunks of counterweight to maximise lifting capacities. Come the final analysis the load charts,



The Tadano Faun ATF 100-5

whilst not quite the same, do have similar characteristics. Tadano Faun for the moment continues with the tried and tested full power, non pinned boom, hence capacities slip away at radius and so far it has not opted for the additional

cheek / pup counterweights as has its competition.

So when it comes to making that purchase decision, what is the clincher? Is it the fact that the cab inclines to give the operator a better and safer view of the load? Is it the tried and tested transmission, is or is it the dealer / distributor who the user will have confidence in for the future? Or is it any of the many other frills and fancies each manufacturer considers important?

After all the manufacturers have put into developing this new breed of crane and the money spent on Research & Development, it cannot just be down to the price, can it?

But the real proof of any crane is what the end user thinks, after he has had the crane operating in

his fleet for a few months. Cameron McQuarry of McSalvors Plant Hire in Truro, Cornwall, took delivery of a Grove GMK 5100 in mid 2001. McQuarry reports that, in his opinion, its the best 100 tonner on the market. “It does all it says it will and more, lifts like a horse, is highly manoeuvrable, extremely compact, ▶



Baldwins took delivery of 10 Grove GMK5100s as part of its major fleet purchase of 22 new Grove AT cranes

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The Liebherr LTM1100/2 with telescoping elevated cab the livery of William Whyte of NE Scotland



Kato CR250 25 tonne city crane on a Scottish harbour

ideal for congested sites and getting around the local road system. There are not too many straight roads in Cornwall”.

Ainscough Crane Hire took delivery of several Liebherr LTM 1100/2's during 2001 and Bob Bridge says “It's the best crane in the Manchester fleet, the duties are the best of it's class and can even out-lift a 140 tonne all terrain over a wide variety of duties. An excellent machine and an asset to the depot”, he enthusiastically claims.

## What the makers say

A number of developments of late turned a few heads.

The change of ownership of Kato Cranes UK Ltd to Metso Minerals of Finland preceded its announcement that the crane company did not fit into the new scheme of things, putting a tremble through the UK crane industry. But give time for the dust to settle. “It's very much business as usual”, Paul Rosevere reports from Kato Cranes. “Since the start of the New Year we have been as busy as ever, new sales have been booked for KR and KA machines and there are number of “hot to trots” for NK units. Orders are placed with Kato, Japan for more truck cranes. We have unfortunately had to make some further head count reductions” says Paul, “but the people at the sharp end are still there and will be happy to discuss any business opportunities.”

Terex Cranes UK, the new company selling PPM and Terex cranes, reports an outstanding start for the new entity. Over a dozen of the new 40 tonne all terrains have been sold, making it the market leader in it's class. Based at Upper Heyford, Oxfordshire, the Terex company store can justly claim more crane experience than most other crane suppliers pro rata. It has the desire to succeed in



Terex PPM ATT 400/3 at the French Terex factory

## Window shopping

The following tables show, at a glance, the longest boom lengths for 3-axle and 5-axle cranes (Research: Kran & Bühne)

### Specifications – 5 axle mobile cranes

Model	Hook height (m)	Main boom (m)	Lifting capacity (t)	Total length (m)
Liebherr 1200/1	103.0	60.0	200	13.1
Grove GMK 5200	97.0	60.0	200	13.21
Liebherr 1160/2	96.0	60.0	160	13.3
Liebherr 1150/1	90.0	56.0	150	12.6
Demag AC100	85.0	50.2	100	11.0
Demag AC100L	85.0	50.2	100	11.98
Grove GMK5100	86.0	51.0	100	14.5
Liebherr 1100/2	84.0	52.0	100	11.2
Tadano Faun ATF 100-5	82.0	51.0	110	14.65
Tadano Faun ATF 120-5	80.5	49.0	130	14.55
Demag AC120	78.0	60.0	120	11.98

### Specifications – 3 axle mobile cranes

Model	Hook height (m)	Main boom (m)	Lifting capacity (t)	Total length (m)
Demag AC 50-1	60	40.0	50	9.06
Liebherr LTM 1055/1	56	40.0	55	9.4
Tadano Faun AFT 50-3	55	38.6	50	11.38
Grove GMK 3050	53	38.1	50	8.4
Luna AT-40/35	52	34.3	40	10.5
Tadano Faun ATF 45-3	50	34.0	45	10.4
Liebherr LTM 1045/1	50	34.0	45	9.1
Demag AC 40-1	45	31.2	40	7.09
Compact Truck CT.3A	42	41.0	70	9.15
Demag AC30	39	25.0	30	6.88

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a difficult market, with a down to earth approach that will ensure its success.

Cameron McQuarry is one of the many who have orders placed with Terex Cranes. He says that the new PPM ATT 400/3 is by far the best he has tried in it's class. It out-lifts all comers and is extremely good on the road. And from a crane buyer as shrewd as McQuarry that is an accolade indeed. ■

● *Bill Green runs a successful crane sales, marketing and consultancy company and is one of the best informed specialists in lifting equipment in the U.K.*

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## Watch this space



Swiss manufacturer CT Compact Truck AG has yet to impact British buyers and poses no competition to the likes of Demag, Tadano Faun and Grove over here.

Yet, compared to the cranes we are familiar with, CT offers a quite unique product. Powered by the world's first fast-running hydrostatic drive, at 48 mph, vehicle dimensions have been slashed to make its cranes the most compact available.

CT's largest capacity crane is a 110 tonner, the CT 4-110, which is available on 4,5 or 6 axles and has a boom measuring 59 metres. Like all the range, when retracted, the boom has no overhang with the rest of the vehicle. Next down is the CT3-80, with a boom of 46 metres and travel weight of 48 tonnes. It can carry 12 of its 16 tons of counterweight. Because of light travel weights, CT cranes can operate all over the world within the national road travel regulations.

Managing Director Alexander Lutz has assured *Cranes & Access* that, once CT finds the right UK distributor, British buyers will have access to these versatile cranes, which can also act as access scaffold, working platforms and forklifts.