

In addition to standard fit pallets or brick forks, telescopic handlers have been supplied with lifting hooks and man baskets since the mid 70s. Today they are seen much more as 'tool carriers', but do they offer a viable alternative to cranes or access platforms? *C&A* asks the industry.

Merlo introduced a new version of its SPACE system telescopic access platform at bauma 2004, which incorporates its own extension cylinder and 3000 rotation.



Alternative lifting

AS ATTACHMENTS on telehandlers have become increasingly easier and faster to fit in recent years, so their versatility has increased, often meaning that a hired-in crane can be replaced on the job site. Most regular telehandler lifting is conducted with a simple jib and hook. The rules change, however, once a load moves from the forks to being suspended, usually requiring a full overload system with cut-outs as found with cranes. Long-established and tested industry practice says though that if the maximum capacity is not over 1 t, such a system is not required and the telehandler's normal overload warning system is sufficient.

"The tendency to view telehandlers more like 'tool carriers' has been seen particularly in France and Germany, where many construction tasks were previously fulfilled by small wheeled-loaders," says Peter Grant of Italy-based telehandler producer, Merlo. "In the UK, however, we are not seeing a greatly rising trend towards the use of attachments other than the 'normal' front bucket and crane hook on traditional handlers."

The sales potential of the attachment led Merlo to set up its 'in-house' company, Tre Emme, to design and build attachments for its telehandler products, which now produces literally dozens of attachments ranging from simple variations of fork carriages, to dedicated aerial platforms and lifting attachments, all the way up to highly-specialised equipment, such as tunnel section handling platforms and boat-handling clamps.

The company says that its access platforms are becoming much more common, particularly as legislation is not permitting the use of basic work platforms on telehandlers above 6 m.

Merlo pioneered the use of fully-integrated platforms some 15 years ago and now supplies a wide range of platforms for its telehandlers.

"When fitted to the respective Merlo machine, each of the combinations has been certified to EN280, and can be used as a fully-approved Mobile Elevating Work Platform (MEWP), says Grant. "These are not merely basket attachments with controls. Full emergency lowering mechanisms are included, the machine's working parameters are automatically adjusted and there are dedicated load-limiting cells in the platform. It is important to realise though that such an attachment is not a cheap alternative to a MEWP, rather a MEWP that can be used for other things."

The most common Merlo access attachment is a 300 kg capacity platform that can be extended from 2.3 to 4.5 m. A new version with a 200 kg, light jib for raising cladding panels, among other things, into position was introduced at bauma along with a new version of the company's SPACE System telescopic access platform, which incorporates its own extension cylinder and 300° rotation, giving around an extra 9 m of working height – up to 36 m on Merlo's 25.25 m ROTO 40.25 MCSS. It can also be fitted 'upside down' for under bridge inspection. Grant is keen to point out that as a Merlo handler fitted with a platform more-or-less becomes a MEWP, the operator will require the relevant access training and certification.

"The situation with lifting equipment is much less clear," he says. "Handlers have traditionally been used with hook and jib attachments lifting up to 1 t, while there are

currently no pan-European lifting standards – PRen13000 is on the way, so it is left up to local legislation. In the UK, both PUWER and LOLER need to be observed by the user.

"We see a distinction between extending the lifting role of the handler, as opposed taking over the role of a crane," continues Grant. "There are many applications for which a traditional or slewing handler can be safely used – lifting light roof trusses for example. However, once winches and heavier loads come into play, attention must be given to the relevant lifting requirements.

"Higher capacity Merlo ROTO machines include load sensing equipment, which demonstrates real-time stability and does not rely upon a fixed load chart. This style of machine lends itself to low capacity lifting duties, but in



Bobcat offers crane jibs, winches, remote controls, extension or fly jibs and a man platform with its larger machines, such as the new T35120, T40140 and T40170 (pictured).

TELEHANDLERS

such applications the operator must be suitably qualified. They are alternatives to MEWPs and cranes where extra versatility is required and should never be seen as a cheap option. In the UK, we are noticing an increase in sales of the slewing ROTO machine," says Grant."

UK telehandler hirer, UKForks, says that since it unleashed some of the UK's first rotating telehandlers on UK construction sites a little over two years ago, it has seen a rapidly-growing demand.

The company currently offers nine 'roto' machines in its fleet, from producers such as Manitou and Dieci, which offer the capacity to combine the telehandler functions with the abilities of a rough-terrain crane and an access platform, which, according to the company, makes them one of the most flexible and multi-purpose machines available to any site.

"We knew in 2001, when we became among the first to bring roto machines to the UK market, that the planning requirement for the development of brown-field, inner-city sites, which are often cramped and uneven, coupled with demand for the construction of taller, multi-storey buildings, would stimulate demand for the roto machines," says UKForks divisional director, Rob Coxon.

For every-day site duties, roto machines operate pallet forks, skips, general purpose buckets and can act as a sweeper with a fork or quick-hitch application, while the machines' hoisting and crane capabilities include a jib extension and a winch capacity up to 6 t. For platform attachments the rules for telescopic handlers are now quite specific in that any platform fitted to a machine that has a lift potential of six metres or more can only use a platform that meets EN280, the harmonized standard for aerial work platforms.

"Most roto telehandlers work on site as part of 'vehicle team' with smaller machines feeding materials to them so they can make the crucial lift when constructing high-rise developments," continues Coxon. "They are usually needed for specialist projects on short- or medium-term hire. Two of our 21 m Dieci machines are currently being used by Ogilvie Construction on behalf of Barratt Homes for the development of nine-storey apartments and penthouses at Kingston Quay, Glasgow.

"The two machines are operating back-to-back with a 15 m Manitou roto telehandler, all of which are being fed by a 7 m JCB telehandler and a new addition to the fleet, a JCB 520-40 compact unit, with a 4 m reach and a 2 t lift capacity. This unit is less than 2 m high, so is ideal for scurrying about inside developments, such as re-furbished industrial buildings, underground basements and car-parks, for collecting materials and passing them on to the roto machines outside."

The Dieci roto machines have a 2.5 m crane winch with a 1.2 t capacity, a three-way man basket, capable of rotating 180° left to right and down either side of the machine, while a remote control facility, which can be activated by means of a key in the cabin, allows the rotary aspects of the machine, boom, winch and man basket to be operated remotely from up to 100 m away.

Says Coxon: "The recognition that roto machines can be operated with standard CTA/CSCS certificates is increasing demand and there is also a greater appreciation among contractors that roto machines are fast and more cost effective than the conventional crane.

"The 360° capability of roto machines saves a great deal of time because they can reach for what they need in one movement rather than having to constantly manoeuvre back and forth, which is effectively down-time.

"Their versatility is also first rate, meaning that construction companies can carry out a variety of jobs for which they would otherwise need several different machines. Coupled with this is the fact that their rotational ability reduces the need to manoeuvre, which contributes to their safe operation on site.

"The telehandler is much more than a machine for material handling and lift-and-place applications," says Patrice Caulier, telescopic business unit manager at Bobcat. "The telehandler is a true tool carrier, so as well as buckets and pallet forks, Bobcat supplies an expanding range of attachments for use with its telehandlers.

"For crane and access applications, particularly with the larger Bobcat telehandlers, such as the new T35120, T40140 and T40170 models, Bobcat offers crane jibs, winches, remote controls, extensions or fly jibs and a man platform," says Caulier. "With these

attachments, many tasks can be carried out safely in a one-man operation involving just the telehandler and the operator. The ability to do several different jobs simply by changing between these attachments can also replace the need to hire in a crane.

"Maintenance work performed high above the ground can also be speeded up using the man platform attachment with stabilisers. With the crane jib and fly jib attachments used with the T40140 and T40170 machines, on the other hand, the telehandlers can be used as 4 t cranes and, where more precision is required, the winch attachment can be fitted with a proportional control system for the precise positioning of loads.

"The HSE's draft 'Guidance on the work at height regulations' based on the Temporary Work at Height EC Directive (2001/45/EC) states that 'telehandlers fitted with integrated working platforms, which have been designed to carry people, may be used for routine access to work at height'," he says. "This will lead to an increased demand for telehandlers in the UK and elsewhere in the future."

UKForks has supplied two 21 m Dieci machines to Ogilvie Construction to assist in the development of nine-storey apartments and penthouses at Kingston Quay, Glasgow.





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Many industry specialists though would like to see simple fork-mounted platforms outlawed, but the HSE takes the view that for "occasional use" at lower heights, the use of such platforms is at least substantially safer than alternatives, such as ladders and step ladders, and therefore provide a practical improvement in many environments and applications where users

would otherwise be at risk. Such applications might include the changing of the occasional light fitting in a small industrial plant, where it is unlikely that a self-propelled platform would be purchased or hired in for the job.

For the time being "the great majority of our high reach machines are sold with man-platforms, but the proportion is different in

each country," says Caulier. "In France, the man-platform can be subsidised by the Social System, so many man-platforms are sold there. In the UK, however, you don't find so many man-platforms with telehandlers, but we are already seeing an increase in this number and this is certain to increase in the future.

C&A

bauma showdown



JLG used the bauma show to debut its largest telehandler to date, the 17 m, 4 t capacity 4017 based on its 4000 series, but with an extra fourth boom section.



JCB boosted its Loadall telehandler range with the release of its 13.8 m lift height, 3.5 t payload 535-140 (pictured), while it also introduced the 540-170, with an improved lift capacity over its 532-120 predecessor, and the 540-140, also with an improved lift performance over its 537-135 predecessor.



New from Genie was its Terex Italia-built 7 m working height Gladiator II GTH-3007 telehandler, which has replaced the first Gladiator model.

Another flagship machine, the Faresin-Haulotte partnership produced the latest 'Toplift' FH 17-40 with a 17 m lift height and a 4 t lift capacity.



German producer, Sennebogen, displayed its unique 5 t capacity, 7 m lift height 305 Multihandler, which features a cab that can be raised to around 4 m up the boom of the machine.



Manitou introduced its 24 m lift height, compact chassis MRT 2540 with a maximum reach of 18.5 m, now the largest machine in the company's heavy-duty telehandler line.

From Komatsu came two models from its new six-strong "super-low profile" series, the 12.7 m, 3.5 t capacity WH613 (pictured) and the 14.1 m, 4 t capacity WH714.



Reach-out



NOW AVAILABLE from Manitou is its latest additions to its telehandler product line-up, the MRT 2440 East Placing System (EPS) Rotating Telescopic forklift and the NC 1000 roofer's platform.

First up, the MRT 2440 EPS is a tilting telescopic boom head mounted onto the main boom of a 4 t capacity Manitou telehandler. Fixed to an articulation point at the top of the main boom, the telescopic EPS enables the placing and removing of loads up to a height of 21 m and can be used with various fixed or extendable 2 and 6 m wide working platforms with load capacities ranging from 365 to 1,000 kg. The system can also house a hydraulic winch or jib capable of suspending loads up to a building's seventh floor.

Also seen at bauma was Manitou's NC

1000 roofer's platform. For use with its 13 and 17 m telehandlers, the 1 t capacity platform utilises roof detection sensors that are activated when the platform touches the roof. Gates are then opened at the front of the platform allowing access to the roof, from which time all movements of the telehandler unit are barred until the gates are closed. **C&A**



JCB, the UK's largest construction equipment manufacturer and market-leading producer of telescopic handlers, launched a range of fully CE compliant aerial work platforms for use with its 535-125, 535-140, 540-140 and 540-170 Loadall machines at bauma.

Telehandler functions can be operated fully from the platform, which offers a big rough terrain scissor-sized deck on the end of a boom. And following on this theme it offers dual-deck extensions to provide lateral reach while retracting to a practical width for travelling. **C&A**

A-Plant boosts tele fleet



UK PLANT hire firm, A-Plant, recently expanded its telehandler fleet with an order for more than 20 JCB telehandlers, taking the firm's fleet to 580 units. Included in the order was JCB's 4 m lift height, 2 t capacity 520-40s, its 12 m, 3.2 t capacity 532-120s and the 17 m, 4 t capacity 540-170s. A-Plant says that the purchases will meet the demands of UK developers who are building higher rise properties to meet increasing housing density requirements of the Government's Planning Policy Guidance No 3 (PPG3). Instead of the conventional two-storey properties to meet PPG3, more three- and four-storey properties are being constructed that require greater lift heights.

Said A-Plant managing director, Gary Thompson: "With the growth in inner-city refurbishment and the impact of PPG3 on the housing sector, I feel the telehandler market will continue to grow and the new JCB equipment will help meet the demand." **C&A**

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