

The front line

C&A caught up with a number of the lifting industry's attachment producers to see which designs have been rolling of their drawing boards of late

Lightening the load

LOADLIFT in the UK has added a new brick/block grab to its line-up of mechanical action lifting equipment. The PMR100 has been specifically designed for lifting bricks, blocks, kerbs and slabs and has a safe working load of 1.8 tonnes and a large adjustable depth from 200 to 970 millimetres. The unit is fitted with a simple automated locking system and can be adjusted to pick up half packs or smaller loads.



Designed for use in tough environments, the PMR100 incorporates net hooks and handles, has detachable rubber jaws with individual replacement rubber sections and pivot bolts fitted with grease nipples.

Injury clamp-down

"ACCORDING to a recent law passed in Great Britain, construction workers may no longer manually lift loads weighing more than 20 kilograms," says Albert Hunklinger of Germany-based Hunklinger. "The Hunklinger Type 01 stone clamp provides a remedy for this problem."

The clamp suitable for use with equipment such as knuckle boom cranes is fully hydraulic with gripping jaws that grab concentrically with a 360-degree rotary motor and a freewheeling capacity for gripping and accurately laying heavy rectangular and voluminous elements.

"All mobile and sensitive parts are concealed in the unit's frame so that the clamp is quite unsusceptible to damage," says Mr Hunklinger. "This makes it very suitable for rental purposes and it has recently been made available with an assortment of different adapter jaws."

The Type 01 clamp is suspended from two clamp arms that extend from both sides of the unit so that it is always at the centre of gravity, while the standard clamping area is between 0 to 150 centimetres. A special version with an area up to 180 centimetres is available on request.



Too many cooks...



Accurate load positioning is done using four SyncHoist cylinders attached between the cables and the load.

HYDRAULIC lifting technology specialist, Enerpac, says that lift projects that would ordinarily require the use of more than one crane for the accurate positioning of a single load, such as in the petrochemical and oil and gas industries, can now be performed using a single crane fitted with its SyncHoist load positioning technology.

The SyncHoist system is a hydraulically operated auxiliary attachment comprising individual hydraulic cylinders that fit between a crane's cables at each of its lifting points. During a lift, the crane provides all the lift power to move the load as close to the final position as possible, at which point either the crane's operator in the cab or a worker at load level can position the load with greater accuracy through the SyncHoist system's individual cylinders by remote control. Each lifting point has its own cable and double-acting cylinder that allows the precise control of both lifting and lowering adjustments in each cable. Stroke sensors within each cylinder also allow each lifting point's movement to be checked simultaneously.

"The standard maximum pulling capacity



Bridge segments are positioned using Enerpac's SyncHoist system.

of the hydraulic cylinders is 110 tons (99.8 tonnes) per lifting point, but higher pulling capacities are available upon request, so the only limitations are in the other components such as the cables or the crane itself," says Karel van Galen, technical publications director at Enerpac BV

The maximum positioning accuracy of the system is plus/minus one millimetre, but Enerpac says that each cable's elasticity must be considered.

Enerpac also says that its SyncHoist system ensures better control of vertical transportation and load positioning, eliminates the synchronisation risks bound to a multi-crane lift and reduces the costs of hiring in extra cranes.

No meshing

A JOINTLY-funded project between Kinshofer UK, UK manufacturer of steel reinforcement, BRC, and UK fleet operator, Seymour Transport, has resulted in this grab attachment for handling wire mesh. According to Kinshofer, the grab eliminates the need for the traditional use of chains for handling this type of material.

The grab is fitted with a hydraulic accumulator to maintain constant hydraulic pressure, while a mechanical dampening system fitted between the crane link and rotator head controls the swing when the knuckle boom is in operation for accurate positioning of the attachment when handling loads.

The specially adapted Kinshofer 923-S grab has been fitted to a new fleet of seven radio remote controlled Atlas-Terex AK 120.2E knuckle boom cranes for loading and placing wire mesh on-site.

“Conscious of the Health and Safety Executive’s (HSE) on-going campaign to improve



working methods in the construction industry, we made the deliberate decision to re-think our entire approach to materials handling,” says Hugh Thompson, Seymour Transport’s managing director.

“Our operators can now work remotely from the knuckle boom in complete safety, using a grab which speeds up and simplifies the whole process of loading and unloading on site. The grab can lift every size and dimension of material from 4.8 to 5.9 metres long, with centres ranging from 100 to 400 millimetres.”

The total span of the grab’s hooks is 1.509 to 2.409 metres, with lateral hook centres of 1.075 metres.

IP says that it will backdate the warranty on any clamps already in existence not older than five years (standard use), or three years (intensive use). Depending on the number of operating years, a maintenance or overhaul service will be carried out by an IP-trained Certex engineer, after which the guarantee will be effective for a maximum of ten years from the original purchase date.



Inter Product has introduced a ten-year warranty for its lifting clamp product range, which is exclusively distributed in the UK by Certex UK.

- Certex recently launched a new guaranteed 24-hour delivery service for its crane rope products. Through Crane Rope Express, which was launched at the recent Crane Safety conference in London, customers can expect next day delivery following a call to one of Certex’s UK branches. Certex also says that a 30 percent discount will be given to customers if it fails to meet the promised delivery time.

Rozzi extends reach

ITALIAN producer of hydraulic and electro-hydraulic lifting attachments recently re-shaped its product line-up with the introduction of a number of new additions and replacements. The company’s range of polyp-grabs was extended by a 280- and a 320-centimetre cubed scrap handling grab for use with knuckle boom cranes between 1.5 and 3 tons (1.4 to 2.7 tonnes) lifting capacity. The RV 280 and the bigger RV 320 are both constructed from Hardox 400 steel and feature full shaft protection and easy component access for hassle-free maintenance.

Also for use with cranes up to 3 tons (2.7 tonnes) capacity is the company’s new R 30/340, R 30/360, R 30/380, R 30/800 (pictured) and R 30/1000 circular digging attachments. Each unit comprises two vertical cylinders for high pressure drilling up to 300 bar.

For the timber sector comes the R 50/427 timber grab (pictured), which replaces Rozzi’s earlier R 50/426 model. The unit is produced from Weldox 700 steel and is designed for fitting on knuckle boom cranes with capacities between 0.8 and 2.5 tons (0.7 and 2.3 tonnes).



30 percent of lifting clamps unsafe claims UK producer

AT LEAST 30 percent of safety lifting clamps in use today may be unsafe, according to research carried out by lifting equipment producer Inter Product (IP). The findings are based on a customer survey carried out by the company, which focused on the use and maintenance of lifting clamps produced by many different manufacturers.

“For some time, IP, in conjunction with Certex UK [the sole UK distributor for IP’s product range], has offered a repair and maintenance service for its customers, which includes an option to trade in their old non-IP clamps for new ones,” says Carl North, IP’s UK and Ireland business development manager. “It was obvious that some of the clamps that were submitted for trade-in should have been discarded long before they were returned.

“We also conducted a telephone poll asking users how they used their clamps; how they maintained them or if they ever refurbished them,” says Mr North. “We were able to calculate that around 30 percent of working clamps were in either a dangerous state of disrepair or had not been used correctly.

“Obviously, it is very worrying that there could be this level of failure within the industry, with potentially fatal consequences,” says Mr North.

IP recently applied a new ten-year warranty for its own lifting clamp range. The company says that the guarantee is subject to a specified programme of safety inspections, preventative maintenance and regular service, the responsibility of which is shared between the end user and trained service engineers authorised by IP.

Gunnebo tops hook line



GUNNEBO Lifting, subsidiary of the hoisting technology company Gunnebo AB, has topped its GrabiQ series of RH hooks with the introduction of a five tonne capacity version. The RH 5-8+ has been produced as a single-piece component and is suitable for use with four and five tonne WLL web and roundslings.

“Two heels on the hook help to protect the sling if the hook and sling are dragged along the ground,” says Morgan Longman, product manager at Gunnebo Lifting. “Additionally, the hook is designed not to snag other components. The radius of the RH hooks’ contact surface with the sling has also been made extra large to minimise the risk of crushing or damaging the sling during lifting.”

Gunnebo’s RH hooks are colour coded and type tested according to EN-1677 standards and are type approved according to the German Gerufsgenossenschaft (BG).