

The return of the push-around scissor

lift has transformed working at lower levels in a number of markets, but particularly in the UK and parts of the Middle East. And despite being almost superceded by the 'powered push around', the low level push-around lift is making a major comeback in a whole range of new applications and in some cases a 'fully manual' format. Cranes & Access takes a look at market developments in this industrial/retail environment.

The UK has been at the centre of this new low level access phenomenon. A combination of a highly effective Health and Safety Executive and a strongly entrepreneurial private sector - rightly or wrongly using ladder scare tactics as a form of marketing - coupled with the ready availability of rental machines.

The result has dramatically changed the way many tradesmen work at height - at least on larger sites run by major contractors. From a starting point in 2006 the number of low

The Pop-Up started it all off in 2006 giving safe, quick and easy access

level lifts available for rent in the UK must now be well past the 10,000 barrier and it continues to grow.

Original and best?

The platform that started it all was the Pop-Up - the original low-level push around scissor lift - launched in 2006. The small, lightweight unit offered a 5.3ft platform height giving a working height of 3.63 metres and was simple in design and easy to use, giving safe, quick and easy access that traditionally would have been carried out using a step ladder or podium steps.

Its first sizeable order was to A-Plant in May 2006 and the company was heavily involved in the evaluation process. A Plant, like many at that time, thought the 240kg capacity Pop-Up would replace steps and ladders used indoors. Even seven years on this has not been the case, although Pop-Up sales alone in the UK have reached more than 6,000 and the push-around in all is guises has grown enormously in terms of popularity, with numerous manufacturers offering similar products. At the same time the number of ladders sold in the UK is possibly up to two million a year and shows no sign of abating.

Power Tower

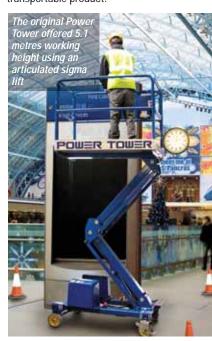
The second push around on the market was the Power Tower. With its articulated sigma lift it provided not only more working height - 5.1

metres - but also a totally different take on how to get there. With 250kg capacity the Power Tower had a 1,500mm by 650mm platform room enough for two men and materials although when rated for outdoor use it was restricted to a lower capacity.

Brian King who designed the Power Tower also pioneered the push around type lift with the Go Industries Hop-Up in the 1990s and then his own more sophisticated Power Tower at Access Machines. However apart from the modern Power Tower, the vast majority of push around lifts have used the scissor principal. Power Tower's second offering was the Nano which offers two heights of 3.8 and 4.5 metres and uses a square section telescopic mast - a smaller push around version similar to the Upright TM12 or the JLG 1230ES. The self-propelled Nano SP followed a little later.

With manufacturers actively seeking the ultimate ladder replacement you would have thought designs would have been more innovative? However this changed in 2007 when JLG Australia developed the Liftpod which looked like coming close to solving the ladder problem with a simple, easy to use and transportable product.





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The ladder alternative

Basically the Liftpod is made up of three components weighing a total of 70kg - the base, mast and basket - each light enough to manhandle into position and when separated small enough to put in the back of a van or even a car. When assembled it offers 4.4 metres working height, 150kg capacity and was powered by mains electric and battery pack. However the Liftpod has never quite taken off and generated the sort of volumes you might expect. JLG launched new versions last May with the slightly smaller 3.8 metre working height FS60 for North America and the 4.4 metre FS80 for South America.

The FS60 was developed so that it would fit through doorways and work under eight foot ceilings. Still with a 150kg capacity, it has inward opening gates and has been engineered to pass into elevators without needing to be dismantled. Its 762mm wide steel base frame with casters on the back also helps



improve mobility. Both versions break down into the three light-weight components quickly and are powered by either a power drill or battery power pack. And they also include the increasingly popular attachable work tray that holds up to 15kg of tools and materials.

The Liftpod is a great idea and seems to be a modern solution to a

step ladder or podium. Perhaps its design is too advanced or most likely too different, as all the other newer entrants into the rapidly growing sector are offering more traditional concept products, using scissors or telescopic masts.

Self-propelled push-arounds?

Many rental companies are onto their second generation lifts as the units delivered between 2006 and 2008 are replaced. The advent of automatic braking and the arrival of increased working height units without stabilisers have also been a catalyst driving this change. Concerns over the build quality and longevity of some of the early machines are generally proving unfounded. From what we understand apart from the usual switches and batteries that need replacing, the structures are holding up well.

There will always be those that mis-use equipment. With push-arounds surfing - moving the unbraked lift by pulling from the platform to the next work point - was a problem. Whether this in fact meant that users really wanted the self-propelled capability or not it led quickly to automatic braking on lift-off.

This of course also accelerated the growth of the 10ft self-propelled push-around market, with manufacturers adding a drive function to create self-propelled models, while increasing the height, making for a good, lightweight, low level platform which not only offers an alternative to podiums, small towers and push-arounds, but



that also knocks on the door of the established 12ft electric scissor/mast market.

Platforms in this sector must be ultra-compact with low maximum floor point loadings so that they can work on the modern low capacity raised 'computer' floors which are now very common in new commercial construction and ride in the smallest of elevators. Such machines only started to appear a few years ago, but there is already a wide selection to choose from with working heights up to around five metres (10ft platform height). Weight has always been an issue, but there are now self-propelled products on the

In the March 2013 issue of Cranes & Access we looked at smaller electric scissors and in particular how the new 10ft 'self-propelled push-arounds' compared with the established 12ft mast and scissor lifts.

market that weigh little more than

the push-arounds.

One of the key features of the 12ft lift was its low weight and compact dimensions however in recent years these platforms have put on some weight and now range from around 700 to 1,000kg which can cause problems for users with smaller elevators. While the 12ft lifts are cheaper to purchase and run than 19ft scissors, the 10ft self-propelled





- apart from the obvious lower platform height - offer a much lighter, smaller and cheaper package. It can only be a matter of time before the 10ft platform - available from the likes of Custom, Bravi, Dingli Pop-Up, Youngman, Snorkel, Iteco, Power Towers and Faraone to name a few - is the new 12ft? With weights around 500kg and capacities between 150kg and 200kg they offer everything of older 12fts but with a slightly lower platform height.

Retro step?

Perhaps the surprise of recent years has been the growth of the manually powered lifts. First to be launched was the power spring assisted Power Scissor from Russon Access. While many derided the introduction of such a 'basic' hand operated platform, the interest, sales and subsequent development of other platforms with no motors, pumps or electrics shows that increased sophistication is not necessarily the answer to future, or even current demand. Alan Russon's new company The Access Platform Company has expanded its 'non powered' range in recent months and now has four product lines - the Skywinder mini, Quickstep, Power Scissor and Power Lift. Formed in 2011 its objective was to manufacture and supply simple access products designed with low maintenance costs and able to work in all environments.

The UK designed and built Skywinder mini - launched to the UK at last month's Vertikal Days along with the American-built Power Lift - uses a single mast and simple dual handle winch with built-in brake to move the basket. It has a 150kg capacity and a maximum working height of 3.5 metres. With four



braked castor wheels 1.1 metre long, 740mm wide the unit is easily stowed and has a total weight of 136kg.

The Power Scissor is now available in three versions: the PS400, PS500 and PS600 with working heights of four, five and six metres respectively. Platform capacity is 210kg for the PS400 and 120kg for the larger units. The platform can either be raised by a crank handle or a power drill. The unit has in-built stabilisers and can be used both indoors and

outdoors as it is rated for up to 20mph winds. Weight wise the three are 260kg, 290kg and 340kg respectively.

The Access Platform Company is also distributor for the American ReechCraft Power Lift. This is another variation on the masted platform offering working heights of up to 6.3 metres but the mast is erected (and taken down) from the platform in easy to lift sections which are stored alongside the basket.

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The one man platform climbs up the mast powered by PowerTrak technology which includes a gearbox with internal clutch and cone brake for added safety using a power drill. Front and rear outriggers when needed are manually slotted into the main base section and built-in transport tyres allow easier movement across uneven surfaces and up curbs etc. Total weight is 126kg.

Power Tower Pecolift

Another fully manual lift is Power Towers Pecolift. Weighing 150kg it features a gas assisted two section elevating mast, large diameter round steel tubular guardrails, dual saloon style gates, four point braking, rubber bumpers and a tool tray. The lift rolls on three wheels, two fixed wheels at the front and a single rear castor which, combined with its low overall weight, makes it easy to manoeuvre and roll-over thresholds. When you enter the platform the brake on the castor is immediately applied as the machine drops onto two heavy non marking rubber skids. To raise the platform from this position the control knob is pulled and the sizeable wheel turned.



The gas assisted lift will raise 80kg on its own with the wheel providing control and assistance. With a platform capacity of 150kg heavier people will of course need to put a little more effort into raising the platform. When raised, two spring-loaded, plunger-type brakes



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lock the front two wheels to create four point braking.

Hugo

Another new lift that has recently been launched is the Hugo - a 4.2 metre stock picking lift. Manufactured in Yorkshire by Vistark - a new division of Aerial Investments set up by Stuart Honeywood, Lorraine Fleming and Andrew Fishburn of HLS - the Hugo is the first model of a planned range of products aimed at retail offices, hospitals, warehouses factories and public buildings. Weighing 250kg it has a platform capacity of 120kg with a further 50kg on the adjustable material shelf as well as 50kg that can be placed on the chassis storage tray. Powered by a 12 volt, 52 amp/hour gel battery the company claims it has sufficient battery life for 70 full lift cycles from a single charge.

Designed for indoor use it features patented auto-closing and locking gates and a 4Glide wheel and steer system which allows the front wheels to lock to function like a shopping trolley. It also has forklift pockets for easy loading, unloading and movement over longer distances. Other features include Involuntary Elevation Control - IEC - which prevents the machine elevation if the contactors fail and a failsafe wheel locking system when elevated. The machine also has a

cushion descent system. The standard machine is powder coated but a special food safe coating system is also available, allowing the Hugo to be used in most strict food manufacturing environments.

Bravi goes smaller

Bravi has been producing its own type of compact self-propelled lifts for decades and yet only recently launched an ultra-lightweight push-around called the Spin-Go (spingo is Italian for I push). Based on the company's popular Caddy self-propelled stock picking lift. The Spin-Go offers a platform height of 7.2ft for a working height of 4.2 metres, yet weighs just 230kg all up. The compact and attractive unit is just 1,155 mm long by 730mm wide and has a stowed height of 1,500mm. Importantly for this market which includes applications such as retail, offices and schools the platform entry height is an easy 363mm step. Once in the platform the controls could not be simpler up or down. Platform capacity is 130kg with a further 90kg on the material shelf/tray and 112kg can be place on a chassis storage tray. Bravi says that a number of its major retail customers for the Caddy asked for a product that was smaller, simpler and perhaps most importantly less expensive, in order to help them introduce the powered access concept to smaller stores





allowing them to eliminate ladders and steps from their premises completely. The Spin-Go features an adjustable parcel shelf which levels with the top of the mast when fully raised, making it easy to load heavier boxes. Braking is automatically on at all times, there is a spring loaded button built into the push handles which releases the brakes when pushing. For faster moves and unloading etc...fork pockets are built in.

Cushman

A major variation on the selfpropelled scissor lift is the 5.25 metre working height Cushman Titan T-1145 the 340kg capacity Custom HB-1030E scissor lift stack and platform, complete with 480mm slide-out deck extension is mounted on an electric powered industrial transport buggy, ideal for maintenance departments in larger facilities.

The machine was shown at Vertikal Days with the intention of garnering feedback prior to finalising CE certification. The platform is 1.52 metres in length by 1.02 metres wide with an 11ft platform height. The compact buggy weighs just 1,177kg carries two people, can transport loads up to 794kg and tow up to 2,268kg with a maximum speed of 13 mph taking the

maintenance man to the job much quicker and in greater comfort. Other features include solid non-marking tyres and a fold-down step for easy access onto the lift.

The Titan has four wheel braking, but when the platform is raised stabilisers are automatically lowered from the chassis as an additional safety precaution and to take out any suspension sway or movement. The unit is fully electric, running on a 48 volt battery system with direct electric drive.

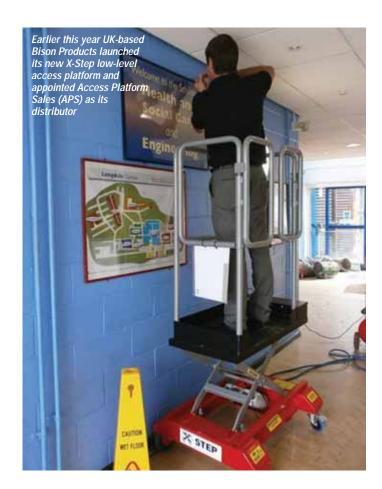
Pedal power

A new low level self-propelled podium platform which uses pedal power to move the platform between work positions has been introduced in the UK. With a working height of more than three metres the Mini-Mobi is aimed at low level jobs where contractors are increasingly using platforms instead of stepladders. The folding aluminium work platform features a patented pedal drive system with steering from the basket. At 600mm wide it can pass through a standard interior doorway and folds down for transport in an estate car or small van. Weighing 50kg, the wheeled folded unit is easily pushed into the work position and once erected is relocated from the platform which has a maximum capacity of 120kg. Originally produced for the aerospace industry, Mini-Mobi has a platform height adjustable from 460mm to 1.2 metres in increments of 150mm. Standard safety features include a self-closing gate, toe boards pull-out stabilisers and locking castors and there is also an operator-applied brake. Optional extras include a hand rail-mounted tool tray, front-mounted tool tray and a storage/transport trolley.

Ultra low/ultra compact

Earlier this year UK-based Bison Products launched its new X-Step low-level access platform and





appointed Access Platform Sales (APS) as its distributor. The unit was field trialled last year with rental company Hire Station, and is designed as an alternative to steps and podiums for working heights of up to three metres. It is powered by a 24 volt sealed rechargeable battery which operates a smooth



The Mini-Mobi uses pedal power to move the platform between work positions.

electric screw type actuator, to raise the single scissor stack, thus avoiding the need for any hydraulics.

The unit weighs just 85kg - 75kg without the guardrail - and has stowed dimensions of 900mm x 700mm x 500mm, allowing it to fit comfortably in the rear of a car or small van. It has a lift capacity of 140kg, enough for one person with tools. Standard features include non-marking wheels and autolocking brakes, plus storage for a spare battery which according to the manufacturer can be changed in seconds and will last for around 80 full cycles.

The proof of the pudding...

The final endorsement for a new product is when the major rental companies start adding large numbers to their fleets. Dutch based Riwal has just added its first Bravi Leonard HD to its rental fleet in the UK. The chassis on the Leonardo Heavy-Duty version is tougher and stronger than the standard Leonardo, allowing it to work on uneven ground, overcome obstacles up to 100mm high, and climb a 40 percent incline. The Leonardo HD also has a compact footprint and reduced floor loadings. It is probably better suited to the ground conditions found on many





The 4.2 metre Hugo stock picking lift issue of Cranes & Access - and the number of electric powered boom

construction sites or certain areas found in some production plants.

Riwal has also ordered the Bravi Solo Gyps attachment allows one-man handling and installation of sheet material such as plasterboards or plywood, along with wall and ceiling panels

1,000 to go

Last month the UK division of Lavendon - Nationwide Platforms stepped up its investment in Power Tower's Pecolift. After taking the first units about six months ago it now expects to have around 1,000 bythe end of the year. With a substantial number of units already delivered, the lifts are currently working on some of the UK's largest projects, including the St Barts redevelopment and Heathrow T2B in London.

Richard Miller, Nationwide Platforms' executive director - sales said: "Our major investment in this

product represents our belief that the Pecolift can truly transform working at height for many of our customers. Not only does the product present an incredibly cost effective, safe and convenient method of working, the number of applications it can aid is also incredibly impressive. It is a highlyefficient and safety-conscious alternative to podium steps, ladders and step ladders etc... which are thought to contribute to around a third of reported fall-from-height incidents every year."

In summary

As our review indicates the market for lower level working at height equipment is ballooning at an exceptionally rapid pace whereas developments of industrial lifts with larger working heights has been sluggish in comparison. JLG and ATN have both introduced new mast booms - which we will cover in a separate feature in the October

lifts with platform heights of 60ft or more has increased topped out with the impending launch of Niftylift's 28 metre working height HR28 Hybrid. Also we have not even mentioned the increasingly wide range of spider lifts that are well suited to many challenging industrial applications. All-in-all there has never been such a wide selection of safe and highly efficient access equipment on the market in terms of both functionality and price. There is no excuse whatsoever for make-do solutions such as the use of a forklift and pallet etc... or dodgy ladder. If you are involved with any annual shutdown work make sure that you keep it safe and at the same time you will find the quality of work improves and you will gain time, helping to stay ahead of the planned schedule.



Pecolifts by the end of the year



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