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ANSI models shown.

Top of the ta

What comprises a big self propelled scissor lift? Talk to a dozen people in the industry and you are likely to get a dozen different answers. Certainly anything over 50ft definitely qualifies. Increasingly though it is being applied specifically to the products that have been made popular by companies such as Holland Lift and Liftlux, now JLG-Liftlux.

With lift capacities averaging more than 800kg, lift heights of up to 34 metres and platforms as large as 9.6 metres by 2.8 metres, everything about this type of lift qualifies as big. More recently there has been a trend towards tall narrow, heavy duty electric machines, currently topped by the Holland Lift 280N with almost 100ft working height within an overall width of 1.3 metres/50 inches.

The sector is growing

The expansion of this market has drawn in a number of producers, including German based PB Liftechnik and HAB, and UK-based UpRight via its Dutch partner Omega Lift, which also builds such machines under its own brand.

The concept of a heavy duty scissor lift is hardly new, Holland Lift is celebrating its 25th anniversary this year (see following story) while Liftlux is 15 years old. In the beginning though these expensive machines were purchased largely by Dutch and German rental



companies, happy to pay the premium for what they considered to be the ultimate scissor lifts. In markets such as the UK, and most of the rest of Europe, the notion of paying up to double the price for a 40 or 50ft lift that still only went up 40 or 50ft and which would at the end of the day be rented out for the same price as the British or American built models made no sense to rental company buyers. Better to buy a larger number of lighter weight models.

At the lower end of the heavy duty market this is still the case although the pricing differentials are far more modest. What has changed though is that as both Holland Lift and Liftlux introduced lifts above 50ft. and added other specialised models such as high narrow electric scissors and high capacity large platform models, so rental companies in other parts of Europe began to buy them for specific clients or applications.

Even in the UK where price or rather value is king and 'bells and whistles' are not really appreciated - at least in the rental market - several hundred such lifts have been sold over the past five years. Even Nationwide, where at one time if a salesmen claimed his product was specialised or niche he would be politely shown the door, now runs a fleet of around 100 such units following its recent merger with The Platform Company.

What has changed is that users are becoming more discerning as the use of aerial lifts continue to grow. More sophisticated contractors now understand that the right machine can help transform the way they do certain jobs, saving them money while improving safety and keeping

JLG Liftlux produces a wide range of heavy duty big scissors, which top out the JLG scissor range.



the skilled men who use them happy and productive.

A glimpse at Platformers' Days in Germany shows how big a deal big scissors are and this is without Holland Lift.



One of the key applications for the high-reach, narrow electric scissor lifts has been the construction of high cube automated warehouses and distribution centres which are often more than 20 metres high. These big narrow scissors are ideal for the installation of the racking systems, not to mention fitting out overhead items such as lighting, heating & ventilation and sprinkler systems. In parts of continental Europe where these massive warehouses are more common, heights are now approaching 30 metres. In addition to this, contractors have discovered more efficient ways to build them. Typically the steel frame goes up first followed by the concrete slab, the cladding and finally the racking company typically moves in with the fit-out trades.

Racking installation contractors are increasingly looking to install the racking before the cladding as it gives them better access to bring the materials in and to access the aisle ends. As a result of this change, manufacturers of narrow aisle high lift scissor lifts have had to look at designing them for outdoor as well as indoor use. Not an easy challenge when you have a 20 to 28 metre scissor stack on a 1.2 metre wide chassis!



Installing high rise racking is a big application.

To the rescue came Genie when it launched its GS3232 in 2006. Little could it have realised that the concept of putting levelling jacks on a narrow aisle electric scissor lift would be quickly adopted by the makers of these big beast scissor lifts, rather than copied on mini scissors.

big scissors



PB offers levelling jacks on all of its narrow scissors which now range to 20m high on a 1.2m chassis.



The big scissor producers have taken different approaches. PB for example which is rapidly expanding its presence in this market, has taken the Genie concept, beefed it up and now offers it as an option on all of its big electric scissors, allowing the machines to be levelled on slopes or to set up on a curb. The jacks can also ensure that the machine is perfectly level prior to elevating, thus providing greater stability than a machine that is off level by a degree or two, helping it to pass calculations for outdoor use which require wind to be taken into consideration.

Holland Lift has modified the concept slightly on its new 28 metre narrow aisle scissor lift, angling its jacks outwards by a few degrees, so that not only is the machine levelled when the jacks are down, but it also gains a few millemetres width, adding further to the machine's stability, or at least saving some counterweight.



On the new 28 metre platform height Holland Lift N280 the outriggers are angled to provide a 1.3 metre width. The other accoutrement that these big electric scissors are increasingly acquiring is four wheel drive and in some cases four wheel steer.

Sounds like the world has gone mad? Well not really, when you consider that these behemoths weigh up to 20 tonnes and feature massively stiff chassis, it begins to make sense to power them from both ends. It is also possible, of course, that four smaller motors are less expensive than two big ones? Four motors will also provide four wheel braking. The four wheel over centre steering, provides extra manoeuvrability which help these units, negotiate the narrow aisles in which they have to work, particularly when turning at the top end of a run.

> The tallest ultra narrow machine is the 28 metre Holland Lift N280 which offers a working height of 30 metres



Rough Terrain

When it comes to big rough terrain scissors, the recent pace of development has been slower. There have been very few introductions among the major players, Skyjack, Genie, JLG and Haulotte. In recent weeks UpRight has teamed up with Omega Lift in Holland to launch a new range of heavy duty big scissors while Iteco has added a 17 metre platform height electric RT, joining MEC in the big battery powered Rough Terrain market.

Cladding machines

A long-time favourite user of big RT scissors has been cladding companies which appreciate their ability to cope with the ground conditions around a new-build 'big-box shed', along with their big decks and decent lift capacities.

Over the past 10 years or so Skyjack has been a driving force in this market with its 9150 which was something of a special unit when it was first introduced, being larger than other models on the market and featuring a self-centering scissor stack and big double deck extension platform.

David Meek the founder of the UK rental company of the same name, which was ultimately acquired by The Platform Company, (now part of Nationwide Platforms) is most often credited with being the originator of the double-deck idea. The story has it that he challenged Wolf Hessler, the then owner of Skyjack to develop a six metre or more extended platform that could carry the longer cladding panels then coming into use. The idea to add a second deck extension was thus born and the rest is history. The current demand is frequently for seven metre extended platforms to handle the longest panels and most manufacturers now offer this.

The original double deck the Skyjack 9250



Taking this cladding concept a stage further, a number of companies have introduced cladding panel manipulators to fit onto the extended platforms of such big scissors. Nationwide Access was one of the pioneers of this concept with its Powerclad system, which when teamed up with a telehandler claimed to drastically reduce the time taken to clad a building, installing more than 30, seven metre long panels a day. Paul Cummins an interim owner of



the aforementioned David Meek worked with JLG to launch a similar cladding manipulator under the Blue Sky brand. However in spite of its huge productivity and manual handling advantages they just did not catch on to the degree that many had hoped.

As you might expect Genie, JLG and Haulotte all offer products that touch this market along with Skyjack. All compete with 30, 40 and 50ft scissor lifts which are more than high enough for most US or UK buildings of this type. In fact many,



if not most 40 and 50 ft scissor lifts have been purchased more for their deck size than their height. As a result some manufacturers have put big dual deck extensions onto 31 ft models. The benefit in addition to lower cost is often a higher platform capacity.

The top end

Most of these products while more than up to most cladding work, look like puppies alongside the true giants of this sector, such as the JLG LiftLux and Holland Lift Megastars These monsters offer up to 34 metres of lift height and 1,000kg of lift capacity and are the titans of the aerial lift market. A surprising number of these big lifts are kept busy in the UK, with companies such as Hi-Reach, Hewden, Lavendon and Access Rentals all operating models with over 30 metres lift height. Before that Dutch companies such as Doornboss had a large proportion of its 30 metre fleet almost permanently based in the UK.

The latest Introductions

Italian manufacturer Iteco introduced a heavy duty 50ft RT scissor at the recent APEX show, with a full Bi-Energy - Diesel and Electric, giving it a unique selling feature in this sector. The company has also released a 56ft battery powered Rough Terrain model, the IT17210, with a 2.1 metre overall width, overall length of under four metres and two metre deck extension, providing a 5.4 metre long extended platform.

C&A big scissors



Iteco has launched a range of Bi-Energy and Electric heavy duty Rough Terrain scissors with working heights to over 60ft/19m.

Another manufacturer MEC is also expanding its range ever upwards and reports strong interest in its 91ES electric Rough Terrain models with platform heights of up to 41ft. Airo of Italy has had some success with its 12 metre scissor lift models which have quickly become its best selling product, The company is looking now to expand sales of this range to new markets.



Airo produces RT and electric scissors up to 19 metres with double decks, but its best seller is now a new 12 metre electric model.

UpRight, a significant early player in the big scissor market from the earliest days with its rugged Flying carpets was also a major participant in this market in the 1990's with its LX range which proved highly popular but was eventually let down by poor paint quality and ongoing axle problems. The company has now moved into the heavy duty market signing an agreement with Omega Lift of Holland to produce UpRight branded 'Dutch style' scissor lifts. The latest model from this route is the new 67ft/20.5m platform height HX67RT (H = heavy duty, X = scissor) which joins the recently announced X80ND narrow diesel 4x4 and X28T tracked scissor lift.

The new lift will top-out a new three model family of heavy duty RT scissors with heights 43ft/13 metre, 53ft/16 metre and 67ft/20.5 metre platform heights and according to UpRight, more to come in 2009.



UpRight launched the X80ND at APEX.

The new range will include fully automatic levelling jacks and oscillating axles as standard and a 7.5 metre x 2.4 metre extended double deck platform with up to 800kg lift capacity - enough for four people plus about 450kg of tools and materials.

UpRight has just announced the HX67RT - one of a family of heavy duty RT scissor lifts.



big scissors



25 years on

The large heavy duty scissor lift first reared its head in the early 1980's born out of the cancellation by MarkLift of its Dutch distributor, Amsterdam-based Neirstraat. The company had done particularly well with MarkLift's 40ft electric scissor lift and finding it difficult to replace, commissioned consulting engineer Martin Haak to copy the Mark design.

Knowing nothing about aerial lifts Haak measured up the Mark scissor lift and set about creating the Nitek 122E, something similar that offered more rigidity and met all German standards. Nitek built 22 units before getting into financial difficulties and going bankrupt. Haak had not been paid for his work and so went to see the administrators and demanded his drawings back, claiming to have retained title until he was paid. He succeeded in this endeavour and while deciding what to do with the designs, was called in by Hooghovens steel works following a serious accident with one of the

MarkLifts used around its coking towers. While asking him to investigate what had happened, they also revealed a need for a further five scissor lifts. Thinking on his feet Haak responded: "I have a company that makes such machines." When asked what the company was called he had to think even faster and blurted out Holland Lift.



Having been asked to make a quotation Haak went to Amsterdam the following morning and registered the name. He won the order for the five Hooghoven units

and this became the new company's first order. The next came from Peter Kauderer of what was then Maltech - the German aerial lift rental company - now Mateco. The company ordered a number of the 125EV which was essentially the Nitek design with a traversing deck, which also increased the platform height by 300 mm.

In order to bring manufacturing skills into the business Haak founded the company with Gerritt de Gier, who came from a family of fabrication experts.

Over the following years the company expanded, the product line and went from strength to strength while making its scissor lifts stronger, more

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specialised and more reliable, although expensive compared to the mass produced products built by American-based manufacturers. Haak then made another breakthrough in the early 1990's with the Monostar scissor concept, featuring two massive square box section scissor arms rather than four lighter ones for each rise. The arms were clamped tightly together with massive pins providing an exceptionally rigid mechanism with a narrow profile. The concept has since been adopted by other manufacturers and its use is now quite widespread.

Disaster strikes

In 1993 disaster struck when it was discovered that a number of lifts had been built with incorrectly specified pivot pins. Put simply they were too rough and after a period of pressure washing became worse, causing the scissor arm bushes to wear prematurely. Before the company had time to truly asses the extent of problem their accountant told the company's





bank that they might be facing DFL2 million worth of claims! The bank immediately called in its loan which totalled a similar amount to the 'potential' claim and effectively put the business into administration. It was quickly 'rescued' by MBB which was then part of Daimler Benz and had already taken over German scissor lift manufacturer AZ. The company owned the Dutch manufacturer for four years, during which time little happened, except a small group of employees left with copies of the companies latest designs in their heads if not on paper and started up in competition.

Terex moves in

In 1998 Terex, looking to expand in the lift business, purchased Holland Lift from MBB which wanted out of the access industry. What possessed Fil Filipov of Terex, which was following a 'pile-it-high, sell it cheap', no-frills filosophy at the time, is anyone's guess. Holland Lift products were high quality, top-of-the-range niche. After the usual management and staff shedding that Filipov became known for, he attempted to build volume, but the product was never going to be mainstream and quality suffered. These were grim days for Holland Lift. Terex did not take too long to realise that the remnants of Simon, Marklift and Holland Lift were never going to do it for them and the businesses were targeted for disposal.

Independent again

After an aborted deal with Haulotte in 2001, Holland Lift was surprisingly purchased in 2002 by Roger Tracey a neighbour of Filipov's in Chicago and owner of Stoneham, a construction equipment producer. The two company directors, Menno Koel and Pieter Boogert, who had attempted an earlier MBO of their own, gained a minority stake in the business at the same time.

In the past six years Holland Lift has expanded its product line, adding a number of narrow aisle, ultra-high electric scissor lifts along with additional features for its Rough Terrain models. It also signed a licensing agreement with Haulotte, which was intended to free-up production space, more than doubled its production space and developed the UK from nothing into a significant market. At the end of 2007 the two directors teamed up with a small Amsterdam-based private equity firm to buy Tracey out while boosting their share in the business to 40 percent. A few months later it acquired a 25 percent stake in its UK dealer Russon Access, which it has since been boosted to 40 percent and expanded its Germanbased parts and service business -ServiTec - into Holland.

As the company goes into 2009 and its 25th anniversary, it is sitting on a 14 month order book and looks set to achieve record revenues. Happy Birthday Holland Lift.

Holland Lift celebrates 25 years in 2009.



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