

Would you prefer to receive your own personal copy of the printed version of **Cranes & Access**? Then register on-line now for your personal subscription. Cranes & Access: The UK Lifting Professional's magazine.

www.Vertikal.net/en/journal_subscription.php

Do you need to keep up to date with what's happening in the German, Austrian and Swiss lifting industries? Then our sister magazine, **Kran & Bühne**, is the magazine for you. Subscribe now to Germany's leading independent magazine for the crane and access industries and keep up to date with the latest news (published in German).

www.Vertikal.net/de/journal_subscription.php

The world's largest on-line listing of mainland European crane and access rental companies is available to you now. Just click the link below to go to Vertikal.net/Vermieter where the bi-lingual site will guide you to hire companies throughout Europe.

www.Vertikal.net/Vermieter

Free! Up to the minute news from the lifting industry by e-mail straight to your mailbox. Sign up for **NewsAlerts** to get head line news as it happens. You choose which sectors are of interest to you and we make sure you only get short, individually selected emails that are relevant to you.

www.Vertikal.net/en/newsletter.php

Laptop users: Download **complete issues of Cranes & Access or Kran & Bühne** to read when you have the time. Using the latest version of Adobe Acrobat you can search for specific words or names in the issue or even have your PC read the articles out loud to you while winging your way across the Atlantic (or wiling away the hours on the Motorway!). But, please note these are large files of about 5Mb each.

Cranes & Access: www.Vertikal.net/en/journal.php

Kran & Bühne: www.Vertikal.net/en/journal.php

spiders multiplying

The market for self propelled crawler mounted boom lifts with outriggers, often called spider lifts, is growing rapidly as end users find that the compact dimensions, great gradeability and low ground bearing pressure are ideal for many different jobs.

Many years ago while holidaying in a log cabin in Denmark, a man and his brother came up with the idea for an outrigger system for the ultra narrow aerial lifts they wanted to produce. The two constructed a model with the aid of paper clips and eventually managed to turn the idea into reality. The family name of the two brothers was Falck Schmidt, and the machines that they fitted with the unusual outrigger design, became known as Spiders; thanks to the similarity in leg design to the arachnid that crawls around your house.

Today the Spider name is commonly used in many European countries to describe self propelled crawler mounted boom lifts with outriggers. Even when the outriggers bear no resemblance to spider's legs.

The number of producers is ballooning

In the past two years the number of companies producing such products has ballooned, especially

of the smaller units. The concept for these smaller units began in Italy. Although Falck Schmidt robustly defended its patent for the spider leg outriggers, Italian (as well as German) engineers quickly appreciated the benefits and began to copy them. However the concept was, for many years only employed on niche machines, largely for high reach atrium type applications.

Then Oil and Steel and construction equipment producer Hinowa, introduced small 12 metre models with rubber tracks, these small units have themselves, until recently, only occupied a niche sector within the lift market but the new work at height regulations and the sudden explosion in the number of companies producing them, is now rapidly expanding this sector.

Today there are at least 20 producers, 14 of them located in Italy, selling over 50 different models of this type of lift. With such a wide range of products



The new Basket RQG150 offers up to 8.5 metres outreach,

on the market and the vast majority of suppliers relatively unknown outside of their home market, the choice is complex.

Hopefully this feature will help highlight the different choices you have when selecting this type of lift, while looking at the type of applications they are suited to.

The market for crawler mounted lifts breaks down at the first stage

Britain's own manufacturer, Niftylift builds a range of three crawler mounts with nine, 12 and 17 metre working heights. The units have been designed to climb stairs.



into two different sectors, the big units designed for specialist atrium type work, usually over 25 metres, and the smaller units, most of which are in fact are under 17 metres. The top end of the market remains a very specialised, business, while the bottom end is growing as fast as any sector in the aerial lift market.



The Bluelift is a relatively new high quality heavy duty lift, with steel platform rather than the usual aluminium.

The Oil&Steel Octopussy demonstrates just how compact and tight a package these units can be in transport mode.



Why crawler mounted?

The single biggest factor that has spurred the popularity of this type of lift has been the arrival of relatively inexpensive rubber tracks, now so popular on mini excavators. Rubber tracks allow these boom lifts to be equally at home outside on soft ground or inside on expensive marble type floors where low ground bearing pressure is essential. This is helped of course by the fact that the use of outriggers enables the gross vehicle weight of these lifts to be kept down to the minimum. For example a 12 metre model weighs around 1,400 kgs, less than half that of a self propelled wheeled boom or even a self propelled scissor lift.

These units are also taking market share away from trailer lifts, which in the past have been used for such lightweight applications.



A Teupen telescopic on an indoor application

The crawler mounts have the ability to pass through single doorways, are far more compact, in terms of overall length, particularly when the booms are raised. They can travel up fairly steep ramps or even stairs and as we have already said the tracks give very low ground pressures as they spread a similar weight over the full length of the tracks. The original spider type outriggers should also not be underestimated,

they allow the machines to set up on the most extreme of slopes or steps, where it would be very difficult for other lifts to even reach.

When it comes to transportation, they can very quickly be loaded onto a small trailer in the same way as a mini excavator and towed behind a car. Some producers such as Oil&Steel have designed special trailers for their crawler mounted lifts, allowing them to be used from the trailer without unloading, thus combining the full benefits of a trailer lift with the added versatility of a self propelled.

Take the rough with the smooth

In addition to indoor work, the small crawlers are well suited to outdoor applications, for example, the new work at height regulations oblige a whole new raft of contractors to consider aerial work platforms in place of traditional ladders. This includes, house painters, gutter, antennae and satellite dish installers and even window cleaners.

Normal self propelled lifts can be pricey given that many jobs might only last a few hours or a day or two at best. Trailer lifts or small truck mounts are a good alternative, but if a lot of the work to be done

is at the rear of a single family home, narrow garden gates, steps or soft ground can prevent them gaining access. In extreme cases access to a rear garden might only be through the house itself!

Clearly alloy towers are a good solution for many such applications, but, if the work requires outreach or the contractor wants to use powered access, the small crawler mount is one of the few products that at least stand a good chance of reaching enclosed locations or other awkward places.

Tree work

Another area where the crawler mount has been well accepted is forestry work, the crawler chassis, particularly on the wider based units, can cope with the soft rutted ground and once in place can use its outriggers to level up. The crawlers are even better suited to working on parkland, for local authority work or on golf courses or private grounds, and can be ideal for jobs as diverse as hedge trimming and external light maintenance.



The units are well suited to urban situations, thanks to the ability to level themselves and their light weight.



This new 19m Omme demonstrates the tremendous levelling ability of the spider type outrigger legs.

When it comes to trimming trees in the street, this type of lift is well suited, although in such cases many contractors prefer the convenience of a van or small truck mount.

Before we leave tree work, the HSE has been quite specific in its guidelines for tree surgeons, the practice of climbing trees in order to prune and trim, should be avoided where possible, and equipment such as powered access used instead. A brief survey we conducted in September however, found that a number of local authorities in the UK continue to award tree pruning work with no reference to the method of access that might be used. In the case of an accident the local authority is every bit as likely to be held liable as the contractor, especially if they have not stipulated that regulations such as the work at height rules and HSE codes of practice should be followed.

What's available?

If you take a look at the models available it is clear that they break down very roughly into a few key height categories. The vast majority of units under 18 metres are articulated with one, two or three risers, a telescopic boom and an articulating jib. The units over 18 metres tend to be straight telescopic, with large articulating jibs, although one of the largest of them all, the Teupen Leo 50 GT, is an articulating boom.

Concentrating on the smaller units, most producers offer three working heights in the 12, 14 and 16 metre ranges, the vast majority feature overall widths of 800mm or less and Gross weights of between 1,400kgs and 2,500kgs, with outreach of between six and eight metres. Lifting capacities are generally up to 200kgs, with many full outreach is only possible with loads of up to 120kgs. A few units are strictly one man machines with small baskets.

The following companies offer Crawler mounted (spider) lifts.

Manufacturer	Up to 13.5 metres	14 to 16 metres	17 to 25 metres	Over 25 metres
Basket	Yes	Yes	Yes	Yes
Blue lift	Yes	Yes	Yes	No
Cela	No	No	Yes	Yes
CTE	Yes	No	No	No
Falck-Schmidt	No	No	Yes	Yes
Galaxy	Yes	No	No	No
Hinowa	Yes	Yes	No	No
Imai	Yes	No	Yes	No
Italmec	No	Yes	Yes	No
Leader	Yes	Yes	No	No
Leguan	Yes	No	No	No
Nifty Lift	Yes	Yes	Yes	No
Oil&Steel	Yes	Yes	Yes	No
Omme	No	No	Yes	Yes
Palazzani	No	No	Yes	Yes
Polar	Yes	Yes	No	No
Ram	Yes	Yes	No	No
Ranger	No	Yes	Yes	No
Socage	No	No	Yes	No
Teupen	Yes	Yes	Yes	Yes

The crawler mounted lift is as portable as a mini excavator or trailer lift.





engineered FROM THE ground up

Genie's product range is renowned throughout the industry for being rugged and reliable. There is a machine for just about every need and condition. Nothing is ever too high, too wide or too hard to get to.



TELESCOPIC BOOMS ARTICULATING BOOMS SCISSOR LIFTS TRAILER MOUNTED BOOMS TELEHANDLERS MATERIAL LIFTS AERIAL WORK PLATFORMS

The world leader in lifts is ready to serve you with comprehensive product support, parts, training and people who understand your business. With Terex financial services, putting the right piece of equipment on your work site is easier than ever. To learn more, contact Genie today.

TEL: **+44 (0)1476 584333**
 FAX: **+44 (0)1476 584334**
 EMAIL: **infoeurope@genieind.com**
 WEB: **www.genieindustries.com**



WORLDLIFT INDUSTRIES AS

The perfect combination

DENKA LIFT AND FALCK SCHMIDT

WORLDLIFT INDUSTRIES AS is the result of the merger of Denka Lift A/S and E. Falck Schmidt A/S. Both companies have always been known for their high quality products. Together they are the perfect combination.

DENKA TRAILERS
 Working height from 12 to 30m. The new DLX15 is the only trailer mounted lift with jib-arm, thus combining the best of articulating and telescoping principles.

FALCON SPIDER/NARROW
 Compact track or wheeled lifts developed for indoor and outdoor use. Down to 0.79m wide you can access everywhere. Working height from 19 to 55m.

FALCK SCHMIDT SERIES
 Truck mounted, total weight 3500kg with working heights up to 21m, as well as highly sophisticated utility platforms mounted on truck or van.

Visit: www.wl-industries.com

Quality

Innovation

Reliability

Odense + 45 66 13 11 00 Holbæk + 45 59 45 55 00



SPILIFT 160TJ

Ultra COMPACT - ONLY 788mm wide - Low GVW - ONLY 1900kgs
 AVAILABLE WITH extendable TRACKS UP TO 1,200mm wide
 Working height of 16.5m.
 6.4m Outreach at an 11m pivot height
 HYDRAULIC PROPORTIONAL CONTROLS
 110° articulating jib
 200 KG. - 2 PEOPLE lift capacity
 BASKET ROTATION
 AIR and WATER lines to the platform
 BIENERGY MODEL: AC electric and PETROL OR DIESEL ENGINES



Leader Srl
 Via Guerrazzi, 3
 42100 Reggio Emilia - Italy
 Tel 0039 0522 619270
 Fax 0039 0522 619269
 info@leader-piatt.it

www.leader-piatt.it

Determine what you need

Although the specifications on paper might look much the same, regardless of who produces it, in reality the products vary enormously. Far more so than with more mature lift sectors, such as electric scissor lifts. Some units are lightweight, while others are heavy duty, Working envelopes are quite different due to the wide variation in the lift mechanism designs used and that is just the beginning, the producers themselves range from back yard factories to more full line established companies.

The key is to decide in advance what suits your application. Is up an over reach critical? If so then the units that use two or three risers are the ones to look for, they also tend to be more compact. If outreach is critical the heavier units with single risers or straight telescopic booms are the ones to go for and so on.

If extreme levelling is a desire, then make sure that you select a unit with the more expensive spider type outrigger systems.

Power

Power source is a major consideration with this type of lift, most use a Honda petrol engine, although diesel is usually available. An option to consider is some form of electrical power, especially if you plan to use the lift indoors, some machines do have battery power on board, often in a bi energy format, while others offer an AC option, that allows the machine to be plugged into the mains when working indoors and the engine used while outside.

Where are the big players?

One noticeable absence in this market sector is the absence of any of the big self propelled aerial lift manufacturers. To some extent this reflects the fact that until a year or so ago this was a small niche and most larger producers are poor at predicting or setting trends. It took more than ten years for the big companies to start moving into small trailer lifts, you can be sure that it will not take as long for them to move into this market.

"If you go down to the woods"



Once in place the unit sets up, imagine trying to get a wheeled boom into this area.

The 42m Falck-Schmidt, owned by Alpina, negotiates a heavily wooded mountain slope in France to reach transmission towers.



The R16 can pass through an 800mm gate

Once in the back garden the R16 can cover a wide area.

Ranger R16 chosen for building maintenance

DRJones, building contractors of Yeovil specialise in a wide variety of building and refurbishment work, including internal and external decorating, mainly on behalf of local authorities from four branches across the South West. The company recently took delivery of a model R16 narrow tracked access platform from Ranger Equipment of Chesterfield to assist with the painting and maintenance of housing association properties throughout the South West.

Jones had already experienced some of the advantages of access platforms when hiring them for particular jobs. However, when the company came across the narrow crawler boom concept at an exhibition and discovered its ability

to pass through standard doorways and be towed behind a standard 4x4 vehicle, the decision was taken to purchase a unit outright.

Jones chose the Ranger R16, built by Italmec, which offers a maximum working height of 16 metres with an outreach of up to 6.5 metres. Its narrow tracked undercarriage, only 780mm wide allows the machine to reach almost any working area with ease.

Jones' contracts manager Nigel Gillett said: "The new platform is perfect for our type of work where we often have to gain access to confined back gardens via pedestrian gateways. Once the machine is in place the operator can then usually work on a total of three properties from one position."

One leg on, one leg off

Within the crawler mounted boom market there are many innovations and product differentiations, one such idea comes from German producer Teupen, it offers a lateral levelling system that allows its machines to level up for traversing slopes, or to set one track lower than the other to cope with a job for example where one track is in the road while the other is on the pavement (sidewalk), a frequent situation with urban tree trimming.

Each track is pivoted from the central chassis on a parallelogram, not unlike the independent suspension on a car. A hydraulic cylinder raises or lowers each track to adjust to a slope, or different levels.

Teupen offer a lateral levelling system

