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## 

25 years ago Max Access - or B&G crane sales as it was then known - introduced the first spider lifts into the UK when it started to import the original Falck Schmidt spider lifts from Denmark. Launched at the Haydock show in 1982, the new concept struggled given that powered access was still in its infancy and the spider machines were completely unknown and expensive. like a 'spider'. The brothers were struggling to find a solution of how to get good outrigger spread from an ultra-narrow access platform chassis. The story goes that the two were on holiday at the time, passing a rainy afternoon in their log cabin playing with paper clips when they came up with the solution. On returning to their

In the 25 years since, the popularity of access equipment in general has soared, but it is only relatively recently that the spider platform has become widely accepted. To many they are still only used when everything else fails - a last resort rather than first option. But this is slowly changing as even the major hire companies are starting to add small numbers of the more popular sized units to their fleets.

British Aerospace at Broughton bought the first spider in the UK in 1982, the company having a specific need satisfied by the spider solution. That first deal was difficult with Max Access calling on Falck Schmidt to help bring the price down to an acceptable budget level for the client.





Relatively high purchase prices still remain, particularly for the larger specialist spider platforms, but given their rise in popularity and the increase in manufacturers now producing machines, there is a very wide range of platform heights, technical features and prices.

But back to the basics and clarifying exactly what is meant by a spider lift. The original machine invented by the Falck Schmidt brothers was so called because of its four, two-section outrigger legs which when folded down and supporting the weight of the machine, makes the platform look workshop, they not only found that the spider leg concept worked, providing a stable base from an 800mm wide chassis, but it also provided extreme levelling capability with a variety of outrigger base dimensions.

Lincoln Nave vault inspection

spider lifts

The original machines were fitted with both wheeled and tracked chassis although today the vast majority on now fitted on tracks. A more popular version of the concept uses regular outrigger legs on smaller, tracked undercarriages. These now popular machines are simpler, cheaper and easier to operate. Straight booms tended to be used initially and these are still popular on the larger machines such as Omme and the larger Teupen units for example. The articulated boom is becoming increasingly popular, particularly on the smaller units giving excellent up and over capabilities as well as keeping the overall weight down.

In the late 1990's manufacturers such as Hinowa and Oil&Steel mounted small 10 and 12 metre articulated booms to the rubber tracked mini excavator chassis. The advantages included a narrow chassis - narrow enough to drive through a single door - and very low ground bearing pressure enabling it to cross a muddy lawn and set up on a slope. These are all highly desirable features allowing the spider platform to work in restricted or remote sites not accessible to other types of platforms.



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Over the past few years the number of companies producing such lifts has ballooned, as has the range of models produced by each company. So extensive is the range of products on offer worldwide that when it came time to draw up our comparison chart (see page 33) we were forced to edit the listing to those manufacturers who distribute products internationally.

In the UK there are now about 15 manufacturers offering 'spider' type machines but only one - Niftylift manufactures in this country.

Estimates of the total UK/Ireland park is about 600 units of which perhaps more than 200 are Falck Schmidt with the remainder made up of machines from manufacturers such as Teupen, Omme, Hinowa, Oil&Steel, Palazzani and Niftylift with recent additions including Bluelift and CTE.

The most popular size of machine for hire has a working height of between 10 and 17 metres which covers the needs of most users. This sector of the market is dominated by Italian manufacturers thanks to their innovative design, wide product range and perhaps critical to rental companies, competitive pricing. There is a great similarity between many of the products on offer with 12 to 14 metre working height machines weighing in at around 1,400kg and 16 to 17 metre models with gross weights of around 2,000kg.

The major players at the small end are undoubtedly Hinowa followed by Oil&Steel both of which have

Recent entrant Bluelift is available in the UK from SkyKing.

set the design trend for this type of lift. Although Hinowa's machines are light in weight they have a solid reputation and appear to cope well with the rental environment.

One of the most recent entrants is Italian designed and built Bluelift with a range of superbly engineered products that stand out from the crowd. The company has decided to concentrate on higher specification models built in relatively small volumes. Last month the company opened a new 1,000 sq metre facility in Rimini with a further production area ready at the end of 2009. In the UK and Ireland the margue has been available from SkyKing since May of last year. Look out for a new 14 metre working height and seven metre outreach machine the company says it will

Italian manufacturers including Oil&Steel shown - are popular choices in the 10-17 metre sector



be launching in May. The machine is said to be very compact, the same size as one of its 12 metre machines and will incorporate 'innovative structural and technological solutions'.

Another new entrant is CTE which has launched a 13 metre and a 17 metre model. In particular the 17 metre has been praised by



users for its working envelope, particularly at lower working heights.

As mentioned earlier, not only is Niftylift the only UK-based

Niftlift is the only UK-based spider manufacturer.

spider manufacturer but its three model range is also a little different. The company tends to be dismissive of its presence in this sector but quietly ships a sizeable number of units making it a significant supplier. Niftylift uses standard superstructures from its self propelled boom and trailer lift range. Its 12 metre model is, therefore, a few hundred kilos heavier than other lightest models on the market. Currently available in two versions - a narrow model that can retract its undercarriage to 780mm to pass through doorways and a more popular fixed chassis machine with an overall width of 1,100mm.



### spider lifts

The company believes that the popularity of the fixed machine is primarily due to its two man basket. It is still narrow enough for most applications and a fixed undercarriage is certainly simpler to own and operate. A narrow machine with a neatly designed retractable two man cage has been launched recently. In normal use the platform is extended, then when taking the machine through a narrow opening, the cage is rapidly retracted. About 20 seconds is all it takes thanks to a very neat over-centre mechanism which avoids any moving parts on the platform floor and provides an extended basket every bit as solid as the standard two man version. It will be interesting to see if this new design makes the narrow model more popular. The first unit off the line has been sold to local Milton Keynes company, Elavation.

### Niftylift's retractable two man cage is quick and easy to operate.

Niftylift's 17 metre model is a bit of a beast, especially compared to its Italian competitors. The use of standard superstructures results in a long, and at more than 3,000kg, a heavy machine. So while it might be an ideal machine for rugged forestry work it is too bulky for many users. As a result the company is flirting with introducing a 15 metre model that offers more working height and outreach than its 12 metre models but is more compact than the 17 metre. Time will tell if this unit makes it to the open market.



At the top end of the spider lift market are the models built in Germany and Denmark plus a couple of specialised Italian producers. Teupen is exceptional in that it is one of a few companies to produce a full range from 12 metres up to 50 metres - currently the tallest model on the market. However due to the specialist materials and innovative features its machines are a good deal more expensive than those covered so far.

1230ES

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In spite of this they do have a strong following, obviously in its home market of Germany where specification and quality are the primary requirements, but also among the specialist hirers and end users in the UK. Users who clearly appreciate the features and build quality they offer. UK distributor Ranger Equipment says that the 15 metre Leo 15GT is one of its most popular models but the Leo 23GT is hard to beat for a machine that will do anything. The range is constantly being improved and two models have just been added - the 17.8 metre working height Leo 18GT and the Leo 25GT arriving this month.



The telescopic boom Leo 25T has been completely redesigned and complements the articulating boomed Leo 23GT model that the arborculture industry already knows so well. The main advantage of the telescopic boom is speed, which Teupen claims is much quicker to achieve maximum elevation than any articulating boom lift. The Leo 25GT also has a horizontal outreach of 15.50 metres, along with 25 metres working height. With a gross weight of 3,000kg, the unit can be towed behind a large 4x4 using a special Fortuna trailer which weighs just 450kg.

Teupen has also just shipped an unusual 12 metre model to the UK. The Leo 12T Arcade has been designed without outriggers specifically for working on upper open floors in shopping centres. Strictly not a true spider lift this straight telescopic boom lift has dual slew rings, the first allows a short superstructure arm, roughly 1.5 metres long, to rotate by up to 100 degrees at a height of 1.39 metres with the main slew bearing attached to its end. The result is that the main boom can be swung out over the banister of an upper floor in a mall to reach a typical atrium dome.

The unit can be guickly reduced to an overall length less than three metres yet offers up to 8.6 metres working outreach. Its main benefit is that it can in some cases replace a much larger machine without taking up space on the ground floor. Among the Danish producers is the originator of the concept, Falck Schmidt. Now part of Worldlift Industries which includes Denka, the company sits at the top of the market and tends to specialise in providing machines for high atriums. Even its largest models - available with either tracks or wheels - can fit through a standard door while its largest tracked machine is more than capable of traveling up an escalator!

The other Danish producer is Omme Lift, represented in the UK and Ireland by APS. While not the prettiest lifts to look at, they are much prized for their specifications, reliability and solid performance, not to mention competitive price. Omme has adopted the spider-type outriggers on all of its tracked machines and given them incredible leveling capability, possibly the best in the industry. For this reason they are a popular choice for working on inclines - from indoor ski slopes to multi-storey car park ramps. The two Italian producers that manufacture a full product line include Palazzani - the first company



This Palazzani TSJ34-C is being used for the installation of cladding panels in an enclosed courtyard area having been lifted into position by the tower crane.

to introduce an alternative to the Falck Schmidt spider lift - and Platform Basket. In the early days

the Danish company tried to protect its spider outrigger design from copiers. However its patent protection was obviously not all encompassing and could not prevent the classic design being imitated. Today it is widely used on both mini cranes and aerial lifts. Palazzani has been sold in the UK for some time with the largest fleet being owned by Universal Access in London, at one time the official importer. The range is now distributed in the UK by Tracked Access and offers machines from 19 to 48 metres on both tracks and wheels with or without telescopic jibs.



Terrain Scout R21.

Two models have been introduced recently - the Palazzani TSJ30/R with a wheeled chassis and the XTJ42/C which has been added to Tracked Access' rental fleet reflecting the increasing demand for the larger spider machine.



spider lifts

With a 42 metre working height, the XTJ42/C has a telescopic fly boom, variable width tracked chassis, on-board generator and almost 20 metres of outreach.

The other producer is Platform Basket, which since it emerged under new ownership has decided to concentrate more on this type of lift. The company produces a range from 12 metres up to 30 metres and has incorporated some interesting design features, including a cranked outrigger leg, which while not quite offer the leveling ability of an original spider outrigger, it does offer more than a straight leg, particularly when combined with its pivoted track leveling system.

Traditionally spider lifts have been used for cleaning and maintenance particularly in shopping centres and for large atriums. However more and more are being used in facilities maintenance and construction - particularly with the increasing use of large prefabricated panels. The machine's ability to access and work in otherwise impossible situations means that it will always be in demand. Its taken 25 years, but the spider lift may well have broken its 'last resort' image and is now firmly becoming a mainstream option.





# On the right track

Higher Access - based in Ramsbottom near Bury to the north of Manchester is a relatively new company specialising in larger spider platforms. In just two years the company has grown steadily to its current fleet of 25 platforms.

on three machines, two Leo 15GTs and one Leo 23GT."

At this point, they still had not fully researched the market but rapidly built-up a customer database

and organised brochures and mailshots. "Our first few customers told us they liked the fact that the equipment was new, clean, arrived at the specified time, was well-maintained and if there was a problem, was sorted the same day," said Ashburner. "We have tried to maintain this philosophy as we have grown."



Despite its relatively small size, the company is attracting many prestigious clients which it puts down to a combination of excellent service and wide range of modern, well-maintained equipment. Mark Darwin visited self-confessed 'spider platform anorak' and motorbike fanatic Lucy Ashburner to find out more.

Higher Access is a company

punching well above its weight. Slick, professional brochures, the latest spider platforms for almost every



application, knowledgeable staff and good service all give the impression of a much larger company. However the company was started just two years ago by a family of powered access novices.

"My father, Peter, was running a local double glazing business which used scaffold towers and the like, one day he saw a Teupen machine working and immediately spotted its potential," said Ashburner. "He was looking for a business opportunity and I had some money to invest after selling a house, so we ended up visiting Teupen dealer, Ranger Equipment and spent a day playing with a Teupen 15GT. We were both so impressed we spent £130,000





Ashburner runs the rental operation while her father provides the service cover and mum, Ruth, does the accounts. The company is currently looking for two more staff - an office manager to free Ashburner up for customer visits and more selling time, and a driver/engineer to help maintain service levels.

Although a relative novice Ashburner is a self-confessed spider anorak. She has a total 'hands-on' approach and likes to operate and know the machines inside out before hiring them out. "These are quite complicated machines so you can't just drop them off on site like other equipment," she says. "For all non-operated machines we insist that operators have an IPAF card.

Prior to starting Higher Access, Ashburner was a store manager for B&Q in Bolton but was fed-up with not 'having a life'. "Hours may be longer in the access industry and it is more stressful but it is worth it because it is ours," she says. "I love it, its brilliant."

As the company has grown the range of equipment has expanded. "The Teupen machines are undoubtedly the best built machines on the market, " she says, "but they are



The CTE Z20E used for the Guttering Servicing company.

expensive and there are gaps in the range. It is all about having the right machine for the job. I have probably looked at and tried every spider machine available in the UK so the machines we offer suit all applications and pockets."

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Higher Access now has two Omme units - a 2200 and a 2600 - which she says are fast, solid and workmanlike - popular with builders and tree surgeons and thanks to a lower purchase price, have lower rental rates. The company is also experimenting with a small number of non spider platforms in order to offer a wider service to existing customers, these include JLG 3246ES scissors and a CTE Z20E truck mounted platform.

Ashburner admits to a lack of tolerance with suppliers who let her down. She says that she was disappointed when the CTE Z20E arrived five months late and in the wrong colour and was therefore very reluctant to even look at the company's 13.5 metre and 17 metre spider lifts. She is though very glad she did. "The working envelope of the 17 metre CS170 is fantastic, particularly low down where it has four to five metres outreach," she said. "Its small footprint is also impressive." Three more CTE lifts are currently on order, a 13.5 metre and two 17 metre machines - scheduled for February and March delivery.



The truck mounted platform is kept very busy.

The company is also on the verge of ordering some 12,19 and 20ft scissor lifts but intends to remain a spider platform specialist. "We are currently talking with Ranger about a 50 metre Leo 50 GT, currently the highest spider platform available," says Ashburner.

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### spider lifts

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### spider lifts



"This will hopefully be added to the fleet later in the year and although it is a huge investment for us I think it's the right step as a spider specialist."

Based to the north of Manchester just off the M66 motorway, the company services the North of England, concerns about service quality limits rentals further afield, although it says that the equipment it has is very reliable.

"The Teupen machines had a few niggles - mainly electrical - in the first months but once sorted are very reliable," says Ashburner. "The Omme machines have been totally problem free, but not being articulated do not have the up and over capability but do have great outreach."

### So what does Higher Access look for in a spider platform?

"Build quality, stability and ease of use are the three main areas that we focus on," she says. "All platforms on hire have to be built to last and cope with the general abuse meted out on site. They have to be easy to operate and be stable throughout the working envelope. If it takes me a while to work out the controls, just image how difficult it is for occasional hirers. If the machine feels unstable we will not have it in the fleet."

"Spider platforms are becoming more popular but some will only use them when all else fails, they are viewed as the last resort rather than an option," said Ashburner. "We recently had a painting company who rang us regarding a painting contract above a stairwell in large corporate offices in Leeds. They had already tried three self propelled booms but in the process had knocked a door off its hinges, damaged a pane of glass and broken several floor tiles. We supplied a Teupen GT23 which drove straight into the building and in six hours had completed the job with no damage. The hire rate is probably double that of the self propelled, but the job was done quickly, efficiently and without damage. And had they come to us first the job would have been done cheaper as well."

#### So what would be the ideal machine?

"One manufacturer did ask us to help them with ideas for a new project, from our point of view, the ideal machine would be an articulated unit with a working height of 30 metres, weighing less than five tonnes at a reasonable price."

The company has also started a Gutter Servicing company using its 20 metre truck mounted CTE Z20E. Although only publicised through its website, since the end of October it has had two months solid work. "It utilises existing equipment and we can offer a competitive half and day rate," says Ashburner.

#### And what of the future?

By remaining a specialist and avoiding direct competition it obtains work from the big rental companies. "Future plans include opening another depot and doubling the size of the fleet over the next three years." "We have now sorted out the working hours to a sensible level so I don't need to do too many long weekends which leaves time for my new hobby - riding a motorbike. I passed my test a few months ago but would like to replace my Honda VFR 400 with a Ducati 749 in the spring - for track days and to tour round Europe. With Lucy Ashburner in the driving seat I'm sure it will have to get used to life in the fast lane.





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### spider lifts

Make /Model	Max	Max	tranport	working outrigger	Max basket	Weight
Dhuglift (11)/4 E	working ht	outreach	size lxwxh	spread Ixw	cap kg	kg
Bluelift C12/6.5	12.00	6.50	4.15 X U.78" X 2.00 4.15 x 0.78* x 2.15	2.00 X 2.00 3 00 x 3 00	200	1500
Bluelift C12/6.5HB	12.00	6.50	4.15 x 0.78* x 2.00	2 60 x 2 60	200	1920
Bluelift C16/5.8	16.00	5.80	5.00 x 1.10 x 2.00	2.50 x 2.50	200	2050
Bluelift C18/8	18.00	8.30	5.05 x 1.1 x 2.00	2.65 x 2.65	200	2350
Bluelift C21/11	21.00	11.00	5.30 x 1.1 x 2.25	4.00 x 4.00 max	200	3700
Bluelift SA16 compact	16.00	8.30	4.37 x 0.78* x 2.00	3.00 x 3.00	200	2150
Cela Spyder 120	12.20	6.80	3.83 x 0.90 x 1.98		200	
Cela Spyder 150 Cela Spyder 230 (S)	15.00	8.50	4.80 X 1.20 X 2.05 6.00 x 1.30 x 2.10		200	
Cela Spyder 260 (S)	26.00	11.00	6 30 x 1 30 x 2 18		200	4200
Cela Spyder 300 (S)	30.00	16.50	7.37 x 1.50 x 2.33		200	7300
Cela Spyder 380 (S)	38.00	14.00	7.25 x 1.70 x 2.50		200	10000
CTE CS135	13.30	7.00	3.76 x 0.78 x 1.99	2.60 x 2.60	200	1450
CTE CS170	17.00	7.50	4.25 x 0.80 x 2.00	2.83 x 2.85	200	2000
Hinowa Goldlift 14.70	14.00	7.00	3.98 x 0.78 x 1.98	3.00 x 3.00	200	1700
HINOWA GOIDIITT 8.35	8.00	3.50	3.49 X U./6 X 1./5	2.15 X 1.85	120	/50
Hinowa Lightlift 19.65	13.90	6.10	4.02 X 0.79 X 2.07	2.07 X 2.91 2.00 v 2.90	200	2080
Leader Jumper 160	16.00	7.00	4.43 X 0.77 X 1.70	2.07 X 2.07	200	2000
Leguan 110	11.00	5.35	3.85* x 1.12 x 1.70	2.80 x 3.00	200	1450
Leguan 125	12.50	6.30	4.40* x 1.12 x 1.80	3.00 x 3.30	200	1650
Lionlift GS12-07	12.50	6.50	3.90 x 0.89 x 1.98		200	1500
Lionlift GS15-07	15.00	7.00	5.18 x 0.98* x 2.15		200	1900
Lionlift GS15-09	15.00	8.80	4.7/5.4 x 0.90 x 1.95/2.30		200	1900
Lionlift GS18-11 (S)	18.50	10.50	4.80 x 0.90 x 1.98	0.55	200	2600
NITY ID1201	12.20	6.10	3.95 X 1.10 X 1.90	X 3.55	200	1800
Nifty TD1201N	12.20	0.10	3.95 X U./5-1.15 X 1.90	X 3.00	120	2000
Nifty TD90	9.70	5.60	3.00 x 1.05 x 2.10	x 4.40 x 2.10	120	850
Oil & Steel Octopussy 10	10.00	5.00	3 98 x 0 78 x 1 76	2 10 x 2 10	120	1385
Oil & Steel Octopussy 108 twin	10.00	5.00	3.98 x 0.78 x 1.76	2.10 x 2.10	200	1410
Oil & Steel Octopussy 12	12.00	6.80	3.98 x 0.78 x 2.18	2.80 x 2.80	120	1500
Oil & Steel Octopussy 1210 twin	12.00	6.80	3.98 x 0.78 x 1.96	2.50 x 2.50	200	1540
Oil & Steel Octopussy 14	14.00	6.40	4.00 x 0.78 x 2.18	2.80 x 2.80	120	1600
Oil & Steel Octopussy 1412 twin	14.00	6.40	4.00 x 0.78 x 1.96	2.50 x 2.50	200	1630
Oil & Steel Octopussy 1690	15.30	9.00	4.80 X 1.15 X 2.30	3.25 X 3.25	200	2800
Oil & Steel Octopussy 17	17.00	6.80	4.40 x 0.76 x 2.00 4 40 x 0.78 x 2.00	2.50 X 2.50 2.50 x 2.50	200	1900
Oil & Steel Octopussy 2190	21.00	9.00	5 20 x 1 15 x 2 45	3 55 x 3 55	200	3100
Oil & Steel Octopussy 2714 (S)	27.00	14.00	6.45 x 1.65 x 2.16	0100 / 0100	200	6000
Omme 1750	17.20	10.40	5.80 x 1.10 x 1.99	4.25 x 3.45	200	2800
Omme 1930	19.10	10.20	5.90 x 1.10 x 2.07	4.25 x 3.45	200	3150
Omme 1950R	19.30	11.70	6.30 x 1.10 x 1.99	4.25 x 3.45	200	2880
Omme 2200R	21.80	12.20	6.40 x 1.10 x 0.99	4.25 x 3.45	200	3000
Omme 2600R	25.60	12.60	7.20 x 1.10 x 0.99	4.25 x 3.45	200	3500
Dalazzani Dagano TS I 10	29.70	12.00	8.00 X 1.10 X 1.99 5 70 x 0.09 x 1.09	4.20 X 3.40	200	2050
Palazzani Ragano TS 123	23.00	12.00	5.90 x 0.98-1 30 x 1.98	variable	200	3500
Palazzani Ragano TSJ30	30.00	15.00	6.70 x 1.50 x 2.29	variable	200	6000
Palazzani Ragano TSJ34	34.00	15.00	7.50 x 1.50 x 2.35	variable	200	6500
Palazzani Ragano TSJ39	39.00	16.00	7.75 x 1.50 x 2.42	variable	200	7800
Palazzani Ragano XTJ30 (S)	30.00	14.00	7.50 x 1.50 x 2.35	variable	200	6500
Palazzani Ragano XTJ35 (S)	35.00	16.00	7.75 x 1.50 x 2.42	variable	200	7800
Palazzani Ragano XTJ42 (S)	42.00	17.00	8.20 X 1.37-1.80 X 2.31	Variable	200	10480
Platform Basket Spider 120	49.00	6 50	2 36* x 0 85 x 1 99	2 69 x 2 69	200	1650
Platform Basket Spider 15.75	15.00	8.50	4 25* x 0 78* x 1 93	3 65 x 3 01	200	1850
Platform Basket Spider 150A	15.00	8.70	4.50* x 0.96 x 2.40	3.85 x 3.85	200	2000
Platform Basket Spider 18 (S)	18.00	10.00	4.98* x 0.98 x 1.99	3.66 x 3.66	200	2850
Platform Basket Spider 18.75	18.00	8.50	4.25* x 0.78* x 1.93	3.66 x 3.01	200	2200
Platform Basket Spider 25 (S)	25.00	14.00	6.09 x 1.40 x 2.05	4.80 x 4.00	200	5000
Platform Basket Spider 30 (S)	30.00	14.00	6.76 x 1.40 x 2.08	4.80 x 4.00	200	6200
Socage Navano DA22	22.30	11.50	5.58 X 1.20 X 2.26	** x 2.00	200	2850
Torrain Scout P14 (Italmoc)	10.00	6.50	4.31 X U.79 X 1.99	X 3.00 2 70 x 2 70	200	1600
Terrain Scout R16 (Italmec)	16.00	6.50	4.06 x 0.78 x 1.99	2.70 x 2.70	200	1780
Terrain Scout R19 (Italmec)	19.00	12.00	5.17 x 0.89 x 1.99	3.95 x 3.95	200	2900
Terrain Scout R20 (Italmec)	20.00	11.50	6.10 x 0.89 x 1.97	3.95 x 3.95	200	2950
Terrain Scout R21 (Italmec)	21.00	12.00	5.45 x 0.89 x 1.97	3.95 x 3.95	200	2950
Terrain Scout S160 (Italmec)	16.00	8.00			200	
leupen Leo 12G	12.10	5.60	4./1 x 0./8 x 1.99	2.65	200	1650
Toupon Loo 1901	14.90	0.40 6.0E	5.99 X 0.78 X 1.99	2.00	200	1850
Teupen Leo 1001	18.80	11 30	5.75 x 0.74 x 1.90 5 90 x 1 49 x 1 99	4 19	200	2700
Teupen Leo 22T	22.00	14.50	7.25 x 1.78 x 1.95	4.34 max. 2.61 min	200	2600
Teupen Leo 23GT	23.00	11.20	6.20 x 0.98 x 1.98	4.10 max, 2.30 min	200	3000
Teupen Leo 23T	22.50	11.30	6.10 x 1.49 x 1.98	4.19	200	2900
Teupen Leo 25T	25.00	15.50	7.20 x 1.78 x 1.98	4.34 max, 2.61 min	200	2980
Teupen Leo 26T	26.00	13.00	6.30 x 1.58 x 1.98	4.34 max, 3.0 min	200	3450
leupen Leo 30T	30.00	15.70	7.20 x 1.58 x 1.98	4.34 max, 3.0 min	200	4200
Teupen Leo 361	35.50	15.20	8.10 x 1.58 x 1.98	4.34 max, 3.46 min	200	4800
Northlift Industries Falson ES2000	20.00	13.00	8.30 X 1.58 X 1.98	5.01 max, 3.76 min	200	13400
Worldlift Industries Falcon FS290C	32.00	14 50	6 30 x 1.50 x 2.50	4.00 x 4.00 4.60 x 4.60	200	5450
Worldlift Industries Falcon FS370C	37.00	16.00	8.10 x 1.20 x 2.10	1.00 / 4.00	200	8000
Worldlift Industries Falcon FS420C	42.00	16.00	8.25 x 1.20 x 2.10		200	8700



### Pump up the volume

Premier league club Tottenham Hotspur FC is planning to upgrade its comprehensive sound system at its White Hart Lane ground in North London. The first phase of the work requires exploratory work to be carried out on one of 16 existing high level bass speakers located around the ground.

Unfortunately, there is very little space around the edge of the pitch to move and set-up a suitable access platform, but specialist hire company MBS Tracked Access of Braintree in Essex felt that, with a bit of planning, it would be possible to negotiate a Teupen machine into a suitable position from which to elevate an engineer to the required 22 metre height.

A 1.58 metre wide Teupen Leo 36T tracked access platform was carefully tracked along the pitch-side pathway to the desired spot and onto a double layer of 25 mm ply sheets to provide maximum surface protection. Then, with some front row seats removed, it was possible to safely position the four stabiliser legs using suitable spreader plates and blocks, after running the machine up a ramp made from sleepers in order to clear the vertical side boarding.

The rubber tracked undercarriage Leo 36T exerts a ground bearing pressure of just 6.4 N per cm making it ideal for traversing soft or delicate surfaces. Once in position, the machine offers a maximum working height of 35.5 metres with an outreach of up to 15.2 metres.

In addition, the Leo 36T features a 'fuzzy logic' control system which provides ultra-smooth movements and high levels of operator confidence which, on the Tottenham job, enabled very precise positioning of the basket to allow the engineer to safely remove the speaker.

d models \*without basket