# Spiders gaining traction



The results from our survey of the tree care sector in last month's issue of Cranes & Access highlighted how spider lifts are the platform of choice for arborists. In the following pages we take a look at the latest spider lift products and features on the market to see why they are proving so popular. We also speak with CMC's UK distributor Tracked Spider Sales and UK rental company Spiderlift.

### **High-risk application**

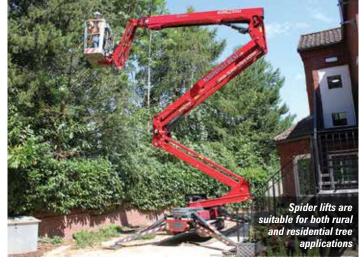
Trying to find good reliable 'arb specific' incident statistics proved difficult, however it became increasingly clear that the forestry and agriculture sectors have one of the highest - if not the highest - per capita death rates, while the incident rate is anywhere from three to 18 times higher than the 'all industry' rates.

Much is being done to address this and in general numbers are improving in most places, with the increased use of powered access playing its part. There is certainly a growing pressure to use a platform in place of climbing, and in many countries risk assessments will often require a reason why powered access has not been used. Growing regulations, such as the highly unpopular double roping systems in the UK, and an increase in the number of diseased trees that are unsafe to climb are other factors aiding its adoption.

The growing prevalence of Ash Dieback in Europe is just one of the rapidly growing diseases, that in the UK alone could kill off or substantially weaken more than 150 million mature ash trees. Many of these are also located in parks, alongside roads, railways and footpaths etc... causing concern for public safety. And given how quickly they can become unstable there are suggestions that climbing ash trees will no longer be an option.

### Why spiders?

The spider lift market is unusual in that sales to end users exceed sales to rental companies. This is no coincidence given that spider lifts are most widely used by arborists and residential applications, such as property maintenance. Their appeal comes from the fact that they offer the best working height and outreach in relation to their weight and stowed/transport dimensions. Take a self-propelled boom lift for example - one that offers a 20 metre working height will weigh anything from six and 10 tonnes, whereas a 20 metre spider lift is often less than three tonnes. In most countries this allows them to be transported on a standard two axle



trailer behind a 4x4, pick-up truck or van etc... with a standard licence.

Their light weight combined with a rubber tracked chassis, which offers low ground bearing pressures and greater traction, is good for both challenging ground conditions and delicate flooring such as paving stones and lawns. They also benefit from having exceptionally narrow overall transport widths, allowing them to pass through doors, gates, and between trees, but perhaps the most important feature - the one that gives them their name - are the spider leg outriggers, allowing them to set up on steep slopes and spread their weight over a wider

### What to look for

While a lot of work has been done to promote powered access and the benefits of spider lifts in the tree sector, very little guidance is available to help users determine which spider lifts or attachments are best suited for tree work.

With more than 30 manufacturers and hundreds of models to choose from, it is easy see why end users struggle to find the most suitable model. The vast majority have been designed to cover as wide a range of applications as possible, both indoor and outdoor, from tree work and construction, to cleaning and retail maintenance. Few are specifically designed for



The use of access platforms is advised in place of climbing in many countries





Multitel's SMX 250 is proving popu with a 25 metre working height and a total weight of just 2,600kg

a constant stream of heavy duty work and abuse that the tree care or utility sector typically doles out, such as traversing boggy fields, dense forests and tracking through streams or being struck by falling limbs or tools etc... Historically manufacturers such as Teupen, Platform Basket, Ommelift, CMC, and Hinowa have developed models for this type of activity and done well in these sectors.

Most arborists when asked say they want a platform that offers the greatest working height and outreach while - in Europe at least - weighing less than three tonnes. If these are your priorities Multitel's SMX 250 tops the low GVW working height charts at 25 metres and offers an 11.8 metre outreach while weighing just 2,700kg. For those after up & over reach Cela's 25 metre DT25 spider lift, with its four section lower telescopic boom and a three section upper boom, offers a maximum outreach of 12 metres with an up and over height





of 14 metres. Its boom configuration also allows a tree worker to access the tree canopy from above if required. Features include automatic outrigger set up and stow functions and dual position - top or pedestal platform mounting points, which the company claims reduces the chance of it fouling in the tree canopy. Weighing 2,950kg it requires lightweight skeleton trailer.

When it comes to power options, a rugged diesel engine is preferred, although there is definitely a shift towards hybrid models which adds battery power for the boom functions alongside the grunt of the diesel. This not only reduces fuel costs and emissions, but is also almost noise free operation, allowing for better communication between those in the platform and those on the ground, while being preferred on urban or parkland settings.

### **Designed for** the environment

What arborists rarely ask for when choosing a spider lift is whether it will be suitable for the environmental is it being used in. Russell Woodward of Tracked Spider Sales (TSS), the CMC distributor in



the UK, explains: "Arborists come to me saying 'I want to go as high as I possibly can with as much outreach as possible'. What they never consider is that they need a machine that has been designed to be used in your environment. This is important because they aren't cleaning windows, or changing out light bulbs on nice flat ground, they are pushing the machines to the limits and often given them an absolute hammering."

Italian manufacturer CMC is one of a several that offers arb-specific models. It introduced its first model - a 19 metre S19HD - several years ago and has extended the range to include four models with working



CMC offers a range of spider lifts which have been designed with arborists in mind

heights of 19, 22, 25 and 28 metres. TSS only took delivery of the UK's first HD model in January but claims to have already sold 50 units to arborists and is now looking to build on this success with a £1 million stock order for more HD units along with other models in the company's range.

Woodward says: "The previous CMC distributor focused on the standard 15 and 19 metre general purpose models, but after bringing the 22 metre S22HD into the UK at the start of the year we now can't get them built quick enough. I worry about the people that are buying general purpose spider lifts which do not have features specifically suited for arb work. Don't get me wrong, they make it work, but they are buying powered access thinking it's going to be safer, but if they don't buy the correct machine all they are doing is moving that risk from one thing to another. After all the hard work the HSE and governing bodies are putting into getting arborists to use powered access, I am concerned that spider lifts are being mis-sold, and if an accident were to happen it could be disastrous for the industry which, although growing rapidly, is still very much in its infancy."

Manufacturer	Model	Working height		Maximum outreach	Up & over height	Weight	Dimensions (LxHxW) *	Max. Travel Speeds	Max. slope levelling	Gradeability
Cela	Spyder 25	25m	230kg	12m with 100kg	14m	2,950kg	4.31m x 1.98 x 800mm	1.5kmh	16.5°	23%
CMC	S22HD	21.6m	230kg	12.5m with 80kg	6m	2,917kg	5.6 x 1.98 x 900mm	2kmh	17º	31%
CTE	Traccess 200	20m	250kg	8.5m with 250kg	9m	2,782kg	4.28 x 1.99 x 780mm	1.5kmh	14º	25%
Easy Lift	R210	21.2m	200kg	12m with 80kg	6.1m	3,000kg	5.65 x 1.93 x 890mm	2kmh	20°	30%
Hinowa	Lightlift 20.10	20.1m	230kg	9.7m with 230kg	8.5m	2,940kg	4.39 x 1.99 x 795mm	2.5kmh	15°	28.7%
Imer	IM R 19 SA	19m	230kg	9.3m with 90kg	5.5m	2,435kg	4.63 x 1.99 x 794mm	2.4kmh	12º	25%
Leguan	190	19m	230kg	9.8m with 120kg	7.4m	2,660kg	4.44 x 2.01 x 1250mm	5.2kmh	12º	40%
Multitel	SMX250	25.2m	250kg	11.6m with 80kg	11.8m	2,700kg	4.87 x 1.92 x 980mm	2.4kmh	14º	25%
Ommelift	18.40 RXJ	18.3m	200kg	10.5m with 200kg	6.m	2,980kg	4.85 x 1.99 x 790mm	1.4kmh	12º	30%
Palazanni	TZX 250	25m	200kg	10.6m with 120kg	11.8m	2,660kg	5.05 x 1.92 x 980mm	2.4kmh	11º	23%
Platform Basket	20.95	19.4m	250kg	9.5m with 250kg	7m	2,800kg	4.87 x 1.99 x 780mm	2.5kmh	17°	36%
Teupen	Leo 21GT	21m	250kg	12m with 250kg	9.4m	3,000kg	5.05 x 1.99 x 980mm	2kmh	19°	30%

<sup>\*</sup> Platform removed



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As to which features he thinks are particularly suited for tree care, he says: "It important to make sure you have good ground clearance and long tracks - if they are too short they are more prone to tipping over or nose diving on undulating ground. Having wider or extendable tracks also gives you better stability when tracking. You also want a durable platform made from solid steel, a protected underside and to make sure all wires, cables and cat-track are protected within the boom, otherwise when you track over the scrub or telescope through the canopy you run the risk of damaging the machine. Finally you want to make sure the outriggers can level up on the terrain where arborist tend to use them, which are often much more extreme than with other industries."

### New on the market

### **Hydraulic CMCs**

CMC has taken a back to basics approach with a three model range of fully hydraulic spider lifts in the form of the S13F, S15F and S18F with working heights of 13, 15 and 18 metres respectively. Woodward says: "Not only does the new range cost less to build - but they are also so simple and easy to use, maintain and repair - especially for engineers with basic knowledge of these machines. For a hire fleet, its back to good old fashioned fully hydraulic stuff which you can almost hit it with a hammer again!"

### CTE steps up game

Well known for its range of truck mounted platforms, CTE has recently been working on its spider lift range. Its latest 20 metre Traccess 200 joins a four model range which is set to see 16 and 27 metre models added in the new year. A dual sigma type riser, two section telescopic boom and jib offers up to 8.5 metres of outreach with an unrestricted 250kg platform capacity. Features include a fully enclosed boom, extendable tracks and double drive speeds.

CTE's Craig Rooke says: "For many years CTE has successfully sold 3.5 tonne truck mounts to arborists but it never really had a strong understanding of the spider lift market, so they were never really pushed. One of my aims was to develop the line and we now have five models that will really appeal for tree work and are all towable on a trailer under the magic 3.5 tonnes. The standout model so far has been the T200 with its unrestricted basket capacity and a powerful engine - both were requests from the arb industry along with knowledgeable support."

### **Double articulated Imer**

Last month Imer added the 15.1 metre IM R15 DA articulated spider lift to its line-up. The model is the first in its range with a dual sigma type riser, in this case, topped by a two section telescopic boom and articulated jib. Maximum outreach



is seven metres at an up & over height of seven metres with an unrestricted platform capacity of 230kg. Power comes from a choice of petrol/gas or diesel engines plus a 230 volt AC drive motor for indoor work. It offers an overall width of 799mm with hydraulically extending tracks and a working footprint of 3.1 by 2.9 metres. The outriggers can auto level on slopes of up to 12 degrees while total weight comes in at just over two tonnes.

### 20.95 starts strong

Launched at bauma last year, Platform Basket began shipping its new 19.4 metre Spider 20.95 spider lift earlier this year and is already proving popular with arborists. The 20.95 offers an outreach of 9.5 metres at an up & over height of seven metres with a 250kg platform capacity. Features include width and height adjustable tracks, a 1.8 metre jib, 180 degrees of platform rotation and the ability to self-level on slopes of up to 17 degrees. All hoses and cables are contained within the heavy duty steel boom to protect them from any falling debris. It also comes with radio remote controls as well as automatic outrigger set-up and boom stow functions.

One of the first customers in the

UK was Lawrence Thompson of Thompson Tree Services, who said: "We originally looked at several spider lifts on the market, some of which offered slightly more outreach but with a reduced platform capacity. The problem is that by the time one of our guys is loaded with his kit and chainsaw he is already well over 100kg. On top of this, the 20.95's boom movements felt a lot more steady and controlled than the other models."

### **Fully electric Hinowa**

Hinowa has a strong reputation within the tree sector, particularly over 20 metres, however its latest model takes on the other end of the range. The all new 13 metre TC13S has become the world's first all electric telescopic spider lift on the market. Powered by Hinowa's well proven lithium-ion battery pack, it features a three section boom, topped by an articulated jib, while offering up to 6.4 metres of outreach with 230kg unrestricted platform capacity. Total weight is 2,050kg while its outrigger footprint is 3.1 by 2.8 metres. A narrow outrigger version - TC13N - with a 2.9 by 2.4 metre footprint is also available but with a reduced one person, 136kg platform capacity. It also comes in slightly lighter at 1,900kg.



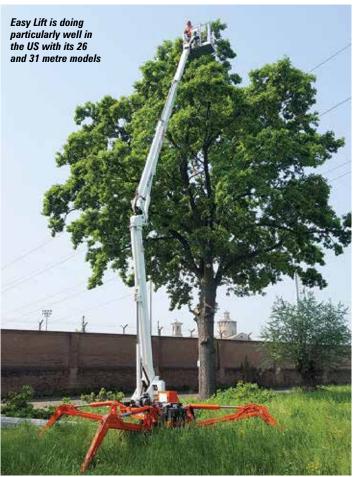




Mounted on a direct electric drive tracked chassis with permanent magnet motors capable of coping with wet, muddy and dusty ground conditions, the company claims it is four times more efficient than its traditional hydraulic drive systems. The TC13S can last up to five hours on a single change, features either 110V or 230V onboard chargers and can be charged whilst working. First deliveries are about to begin, so it is perhaps a little early to know how it might cope with the demanding requirements of the arb sector, not to mention distance from a power outlet, but it certainly has a number of features which make it ideal for residential/urban applications.

### **US** market strong

In the US, sales of spider lifts have been very strong for a number of years and is frequently the largest market for a number of manufacturers such as Platform Basket and CMC. It is also far less restrictive in term of towing limits, resulting in a tendency towards spider lifts with working heights from 22 to 31 metres. Other manufacturers, such as Ommelift have also done well, while many have appointed distributors this year as they look to capitalise on the maturing market. Palazzani is moving in with the appointment of Spimerica, while Ruthmann acquired Bluelift and Falcon dealer





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ReachMaster and Leguan began working with Avant Tecno USA.

Leguan in particular is looking to replicate its success in the Nordic market, with the updated 19 metre Leguan 190 spider lift – which will also be available in Europe next year. Leguan Lifts export manager Jori Mylläri, said: "Before expanding the sales in the USA we made an extensive market study on the requirements of arborist users in USA and worldwide, leading to the facelifted Leguan 190."

The 190 features a dual sigma type riser, a three section telescopic boom and articulating jib. Maximum outreach is 9.8 metres with 120kg capacity, nine metres with 160kg and 8.3 metres with the maximum platform capacity of 230kg – all with an up & over height of 7.4 metres. It has an overall stowed length of 4.44 metres, a width of 1.25 metres and a total weight of 2,660kg.

A noticeable difference of Leguan models is its high centre track design, Mylläri explains: "The higher track design not only helps to provide the best ground clearance on the market but also allows the operator to go over objects smoother than with a low track design. This is due to the track wheel size, which are almost double those on conventional tracks. Another reason is that it allows faster drive speeds, and safe and steady travel with the operator in the platform. For this reason, there is no need to jump in and out of the basket when moving the lift to a new location."

New features specifically suited to the arb sector include increased protection for control levers, hoses and booms and a chassis mounted service display providing operator guidance, troubleshooting and after sales support. Steel plates have also been added under and at each end of the chassis for ground protection.



The higher track design on Leguan spiders provides faster and smoother drive capabilities.

### Insulated models

One of the leading causes of injuries and fatalities in the USA comes from contact with overhead power lines, which are often hidden among the foliage. While US truck mounted lift manufacturers such as Altec, Elliot **Equipment and Terex Utilities have** provided a full suite of insulated platforms for the utility market, it has only been in recent years that larger tree contractors have begun to look at this. The result is that insulated spider lifts are very rare even though Platform Basket and its US dealer Tracked Lifts developed the 18 metre insulated PB18.90.46. as long ago as 2012. However, three new products have joined the fray this year from Ommelift, Teupen and Chinese manufacturer Goman, while CMC will also launch a model in the coming months.

Building on the success of its 25 and 27 metre models in the US, Ommelift has introduced the 46kV insulated 2650 iRX-46kV spider lift. Designed for working close to power lines it features Waco fibre glass boom sections and a single person bucket rated to Category C level insulation. It offers a working height of 26.5 metres, an unrestricted outreach of 12.2 metres with 136kg platform capacity and an up and over height of 13 metres. Thanks to its dual sigma style dual riser and two section boom it is also able to provide vertical wall tracking which is ideal for pruning. Features also include extendable tracks, a diesel/ battery hybrid power pack with engine generated re-charge, and the ability to set up on side slopes as steep as 21.8 degrees/40 percent.

Ommelift managing director Axel Thøgersen said: "Our new 2650 iRX-46kV is extending the use of spider lifts within the tree care business. Adding the option to work closer to power lines — with the advantages that gives in terms of affecting the power supply while performing tree care along power lines where traditional truck mounted isolated platforms are unable to reach."

Teupen launched its 28 metre 46kV Leo 86SiC early this year alongside its 34 metre 34GTplus and 39 metre 39GTplus. The Leo 86SiC offers 23 metres of outreach with an 80kg platform and 14.7 metre with its maximum 200kg capacity.

Goman has unveiled its 18 metre

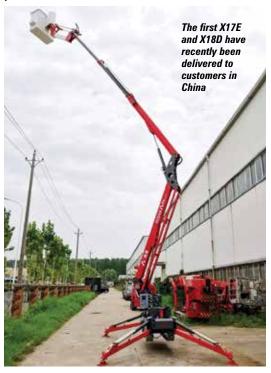




10kV X18D and its 17 metre 46kV X17E spider lifts. The X18D features a long riser/lower boom, a three section telescopic boom made of hot dip galvanised steel sections, topped by a fibreglass articulating jib and a fibreglass two man platform. The machine offers a 200kg platform capacity and up to 7.2 metres of outreach.

The hydraulically adjustable tracks extend from 766mm to 1.15 metres while also increasing the ground clearance and overall height by 134mm. Overall weight is 2,380kg. Geared more towards utility companies with 46kV insulation, the 17 metre X17E offers a maximum 9.8 metres outreach with a 230kg platform capacity, transport length is 7.2 metres, with an overall width of 890mm and 3,800kg GVW.







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### Spiderlift on the up

When it comes to spider lift pioneers, Peter and Lucy Ashburner of Higher Access have to be strong contenders. Established in 2006, the two of them spent the next 10 years expanding their fleet until it was the largest in Europe, helping promote the concept and put the product on the map along the way. The company was eventually purchased by UK rental group Vp in 2016 and unfortunately both Peter, and more recently Lucy, have now left the industry. One company that is hoping to carve out its own path is UK's Spiderlift - formerly MBS Access. We sat down with coowner Ben Dobson to find out how the company has evolved from a grounds maintenance company into the largest independent spider lift rental company in the UK.

"When we started out the only other independent spider lift company was Higher Access," said Dobson. "Baker Access had just sold up and I remember thinking whether the market was big enough for two specialist companies to compete. We didn't have the reputation, budget or infrastructure that Higher



Access had, but we had the belief we could make it work."

The business was established in 2006 when Martyn Bass purchased five Teupen spider lifts originally for his grounds and tree care business - MBS Grounds Maintenance - but later also on a rehire basis. Over time, as demand for spider lifts began to increase, it reached a point where the constant rehire of spider lifts was detracting from Bass' core business, so in 2014 Bass and Dobson formally set up MBS Access as a stand alone company.





Dobson explains: "The timing of MBS Access proved to be very fortuitous. I had been responsible for the spider lift division at Facelift and was put in touch with Martin early on to rehire his spider lifts. In 2014 Facelift made the decision not to focus on spider lifts anymore however and almost to the day I had a call from Martyn saying he would be unable to rehire his spider lifts as he needed to concentrate on his maintenance company. Spotting an opportunity which could work for both of us, we got together, and MBS Access was born."

Since then the company has expanded the fleet to 45 spider lifts with working heights from 11 to 42 metres. In 2018 the company acquired the Spiderlift trade name from Steve Hadfield, who had used it for his rental company before selling out to Lifterz in 2014 when he became the UK distributor of CMC

Dobson added: "As MBS Access we were lost in a sea of general access rental companies. The Spiderlift brand was always a good name in the industry and it perfectly summed up our business - like Ronseal, we do 'exactly what it says on the tin'. Now if someone finds us they are finding us for the right reasons."

The company is currently enjoying a sustained period of growth, having moved into larger premises close to its original base in Essex earlier this year as well as opening a second depot in Barnsley in order to better service the north of the UK. It is also in the process of adding a further 20 lifts by mid-2021, which will take the fleet up to 65 units.

### **Bolt-on product?**

When asked about full-line access rental companies adding spider lifts to their fleet Dobson said: "A lot of companies are starting to bolt-on spider lift rental to their access businesses - mostly because they are spending a lot of money on rehire. However they often don't realise just how much time and effort that goes into offering spider lifts. It's not a 'drop and run' product like other platforms, the delivery and hand over is completely different, not to mention having to take machines through doorways, drive them up staircases, or dismantle them in order for them to be lifted through a skylight etc..."

### Spiders for arborist

Ever since MBS Grounds Maintenance acquired its first Teupens the company has worked closely with tree surgeons with both learning a great deal from each other.

"When it comes to delivering a machine to the arb sector it is often on the boundary of a property. The first thing we ask is where is it being used and walk the route with the customer. As well as helping them identify various hazards and considerations, we are also able to offer our advice in terms of location and set up to get the most from the machine. We then provide a hand over to the person who will operate the machine before speaking to the rest of the team to ensure they are familiar with emergency lowering procedures - which have to be straight forward. If we struggle to understand how it functions how can we expect others who are less familiar with powered access and who have a hundred other things to concentrate on?"

Dobson still thinks there is a way to go however: "Tree surgeons as an industry are still learning what spiders can do and the correct way of using them. Most will have a tree that's 30ft high so will get 30ft spider lift. What they need to take into consideration however is the drop zone. They will require a much larger machine to prevent logs being dropped onto a platform that is keeping them safe in the air. They also have this idea in their head that they can just climb out of the basket if it goes wrong and it takes a lot of work to inform them that this isn't an option!"

"We often get sent a picture of the tree, but the reality is the tree is just one aspect of the job. The other aspects that arborists need to consider is getting the spider lift to and from the tree. Walking the route, the ground, the set up area, looking for any restrictions or concerns, anything that might be concealed or underground."

### Urban vs rural

"Generally, I class tree surgeons in two categories: urban, which do a lot of residential and parks

etc... and the more commercial tree surgeons which carry out forestry work. Each one will require a different machine. The urban arborist will need a smaller, slim, compact machine to navigate gates, pathways etc... whereas the rural tree surgeon will need one that can safely traverse rough terrain. It might not have restrictions on width as they work in a more open environment.

### Spiders for arb work

"When we buy spider lifts, we always look for a simple to use machine that has a clear process to go from transport mode to setting up and being operational. We also look for features that benefit the customer. Height and width adjustable tracks to offer greater ground clearance and stability over rough terrain. Whether the basket is mounted underneath or flush with the bottom will also ensure it doesn't catch on branches. Same applies for hoses, hydraulics and cat-tracks making sure they are all enclosed. If any of these are exposed these can get caught up in the tree, break the cat-track or



split a hose. Belly pans are also important as sometimes it's not getting on to site that causes problems but when leaving. We have had a few examples when a tree has been cut down and the spider lift has been tracked over the stump, catching the underside and causing all sorts of problems."

### Recommendations

"If I was getting a spider purely for arb work the number of suitable

manufacturers diminishes considerably. Teupen's Leo 23 and Leo 30T are very popular in the tree industry, great ground clearance, very sturdy but the larger models are not always the shortest on the market. CMC has its HD range for tree surgeons as well as its new range of hydraulic models. Platform Basket also has its 18.90 while Hinowa's 20.10 and 26.14 models are solid performers."

