



WIDEN YOUR HORIZON

One of the major design requirements for a spider lift is being narrow enough to travel through a standard door frame. At less than 800mm wide it allows the machine to work in tight indoor spaces or travel through a residential building to the rear. However, it also results in a lift with a high centre of gravity which is inherently unstable when travelling on even slightly uneven ground or when loading/unloading.

But what if you don't intend to work indoors - for example if you work in tree care, or the electrical/power distribution sector? Having a narrow spider lift is not really desirable and the complication of a telescopic chassis not required. This is particularly true when travelling a long distance over rough, undulating ground to get to the point of work.

Finnish aerial work platform manufacturer Leguan has been producing access equipment, particularly spider lifts for the past 35 years, and has now dedicated its production to a range of four machines including its 13.5 metre 135 Neo with its narrow chassis, and three of the newer All Terrain models - the 19.7 metre Leguan 195, the 22.5 metre Leguan 225 and the recently launched 26.5 metre Leguan 265 - all with a track width of 1.25 metres.

The new 265, its largest, has competitive performance with a 26.5 metre working height, 250kg maximum platform capacity, 13.6 metres of outreach with an up & over height of 10 metres and is relatively compact with a 6.89 metre overall length with basket - 6.24 metres without - while weighing 3,920kg. However, it has been designed specifically for outdoor work environments such as tree care and construction, combining a low centre of gravity, a high profile track system giving unrivalled ground clearance and 45 percent gradeability. All these add up to a very stable machine allowing the operator to travel safely in the basket across rough terrain. However, as well as its off road driving

performance the machine has a rapid set up along with quick boom movements. Leguan claims it is the fastest 27 metre spider on the market taking just 90 seconds to reach its maximum working height, two to four times faster than some of its competitors.

"Operators can start work immediately without any manual pre-operation tasks such as adjusting outriggers, widening tracks, placing mats or lifting the boom," says Leguan's recently appointed marketing manager, Juuso Valtakari. "Just step onto the platform, attach a safety harness and start working. With a market leading drive speed of 3.1kph, the Leguan moves between work areas faster. You simply get more done in less time."

All three Leguan All Terrain spider lifts feature a 'Home function' which can return the boom from its maximum height to transport position in 55 to 90 seconds depending on the model. This feature is also compatible with the battery operated backup emergency lowering system.

SPEED MACHINE

The reason behind its boom speed is, says Valtakari, due to its EDX (Efficiency-Driven Experience) operating system which uses advanced electronic valve technology allowing perfect multi-function operation. Leguan uses an 'intelligent and self learning operating system' that means the system has optimal distribution between all boom functions allowing movements to be controlled safely, precisely and simultaneously, even at high speeds.



135 Neo on trailer





The launch of the Leguan 265 was live streamed around the world

Valtakari adds: "This approach uses extrapolation, mathematical models and live calibration to deliver efficient, real-time compensation between hydraulic chambers resulting in an efficient and self-learning system which operates within a closed loop, where sensors measure and cross reference actual movements and adjust on the go to meet the operator's desired actions. It dynamically optimises speed and acceleration based on the working area - whether the operator is near the centre or at maximum outreach. This means that it operates smoothly and precisely at the fastest possible speed within strict safety standards giving operators fine control and immediate joystick feedback."

FLAGSHIP MODEL

All Leguan All Terrain models feature a unified design including identical user interface and a high level of component standardisation. Like the other models in the range the 265 features a protected boom structure which houses all sensors, hydraulic hoses and other critical components, along with an automatic levelling system.

A BIT OF HISTORY

Founded in Tampere, Finland in 1990, Leguan is part of the Avant Group which includes the Avant wheeled loaders and the recently added battery producer Avant Power. Leguan is the oldest company in the group, it was set up the year before Avant Tecno by Ari Kiiski and Risto Käkelä, the father of the current Avant Group president Jani Käkelä who took over from him as chief executive in 2021.

Vice president of sales & marketing Jori Mylläri said: "From the beginning Leguan built aerial work platforms starting with simple push around lifts for the indoor market. However, it saw bigger opportunities with the spider lift and its game changing four wheel drive skid steer chassis introduced in 1994, based on a design by Risto Käkelä. This range has been the mainstay over many years. The machines gained success not only in Finland but in Norway and Germany and then later in Australia and the USA."

"In 2000 the company launched the Leguan 125 with 12.5 metres working height and excellent off road capabilities which became very popular with French construction companies. Nordic rental companies were also investing in spider lift fleets at that time adding the 125, and even arborists in Florida working on palm trees created a big

demand for the product. In the Australian outback the 125 became an essential lift for the electricity supply companies, all of which helped sell more than 1,500 units globally - a great achievement considering how small the spider lift market was at that time."

The company then entered a new product sector with the 80SX skid steer mounted scissor lift, shown at Bauma in 2007. Unfortunately, it did not catch on, perhaps because it was a bit too radical for the market at that time, so the company concentrated on developing its spider lifts. In 2017 the 190 was introduced with fast set up speeds. The next generation came in 2019, with the 135 Neo which Leguan says is "still considered the world's most user friendly spider lift with its modern safety features and one handed joystick control."

2020 saw explosive growth into new markets with export sales growing six fold. The 22.5



The 80SX skid steer mounted scissor lift, was shown at Bauma in 2007

metre 225 was launched in 2022, introducing the company's All Terrain series. Its smaller sibling, the 19.5 metres 195 made it debut at last year at Platformers' Days in Germany, and then this year, the launch 26.5 metre Leguan 265. There may be a larger lift in the offing, possibly a 28 to 30 metre unit or even larger, in order cover the top end of the tree care and construction applications.

RECENT TRANSFORMATION

"Over the past few years Leguan has undergone a transformation with a new energy within the company," says Jani Käkelä. "Last December was the best ever invoicing month, 77 percent up on 2023 and 27 percent more than our previous best."

"2024 was a difficult year for many lift manufacturers however Leguan has done better than the average in terms of growth. The spider lift is still a niche product, but there is still a lot we can do in terms of revenues and unit production. Our aim is to be global leader in the spider lift market, and I think we can get there."

A major part of the recent transformation was the appointment of managing director Esa Vuorela in 2021 who sharpened the focus of the company.



Leguan MD Esa Vuorela (L) and VP sales and marketing Jori Mylläri at the recent launch of the 265

"The 225 was already in development and we were asking customers and dealers what new lifts they wanted - now we have the 195 and 265," he said. "Our distributors have played a major part in the recent growth. Avant has subsidiaries in Germany, the UK and USA which deal with both Avant and Leguan as well as Brazil which is currently just Avant Tecno. The USA is our



265 - levelled on uneven ground



Current spider lift production is about 300 units per year

biggest market with 12 dealers in 30 locations and continues to grow as we appoint more Leguan only dealers such as in Texas. The main demand for Avant Tecno products and Leguan spider lifts in North America comes from the tree care and landscaping contractors. North America has a tradition of using big bucket trucks and climbing for tree work, but we are selling to the increasing number of companies moving away from this. With the addition of the 265 our machines now cover about 70 percent of the market up from about 50 percent before."

In Germany more than 50 percent of sales come from arborists but in the Nordic countries arborist demand is very small - people tend to cut their own trees and don't want to pay for professionals, so the market comes from roof construction, property maintenance, façade cleaning and painting. Painters in the US don't want to invest in professional machinery and prefer to use scaffolding or something that is cheaper."

COMPANY FIGURES

Leguan's revenue is around €20 million with, it says a decent profit, but its target over the next few years is reach €30 million and then €50 million.

"We are currently producing about 300 units a

year, and aim to increase this to about 500 units," says Vuorela. "We are not driven by the number of units sold but concentrate on growing each year - this year we will grow by at least 25 percent."

"Costs have risen over the past few years, but we have been able to maintain our pricing structure when others have increased theirs, and our price includes a specification with many standard features that others have as options, so that makes us more competitive. Manufacturing in Finland is more expensive, however Tampere is a centre for heavy industry, manufacturing and home to companies making some of the world's biggest mining equipment, stone crushers and forestry equipment, which creates a hub of good suppliers. There is also a lot of automation expertise in the region, which is why Bronto and Scanclimber are based here. The first light bulb in Northern Europe was lit in a factory in Tampere which shows how industrially advanced it is."

THE MEASURE OF SUCCESS?

"We measure success by how happy our customers are," says Mylläri. "In North America there are end users buying from dealers 1,000 miles away and are unhappy because they cannot get support. We aim to sell in an area around the dealer and hope to have at least one dealer in



The 265 at the launch in Finland

every state before too long. We have turned away many sales because they are too far away for our dealers to support them properly. You have to have a dealer within an hour's drive."

"Training the dealers is critical and that the main reason for the Leguan Academy which brings all the training materials online in one place - basic training, basic service, troubleshooting as well as advanced training materials for the local distributors and dealers. This is the key to our growth in North America rather than simply creating lots of leads. You have to take care of your customers in the market."

"However, our main USP is the EDX - no one can copy the system as all code and software are designed inhouse. EDX machines are also far more economical than older machines as the engine runs at lower optimised rpm when, resulting in better fuel consumption and reduced emissions."

In Denmark and Australia, we have many more enquiries about noise - I think this may be a bigger factor than engine emissions. We already use electric control valves, so it is almost an electric machine. Distribution is key, 80 percent of dealers have been with us since the 1990s. We are also looking towards the Asian markets and have just opened a new distribution channel in Singapore. We have been in Australia a long time - we have sold more than 300 lifts there since 1997."

"We do not have a long, proud history but in the last five years the company and product line has been transformed, and we are now going in the right direction and that is up." ■



Factory outside



The 265 has a 13.6m outreach