



**Haydock
Park**

**May 13th &
14th 2015**

Don't miss the UK's number one lifting event

the only specialist equipment event for the UK and Ireland

If you buy, use or have a professional interest in Access Equipment, Working at Height, Mobile Cranes, Tower Cranes and Loader Cranes, not to mention Telehandlers then register now for the UK and Ireland's event for lifting professionals – Vertikal Days.

See the latest equipment and services, meet the experts and enjoy a day of networking, deal-making and socialising.

**email the Vertikal Team at
info@vertikaldays.net
UK Office +44 (0) 8448 155900**

www.vertikaldays.net

**Vertikal
days**

Special vehicle mounted lifts

The truck mounted lift was almost certainly the original type of powered access equipment, dating back to the tower wagons of the 1920s or earlier, and can be found in every country, even where powered access has yet to make an impact. Their design has been driven by demand from utility companies, fire departments and local authorities for lighting and tree trimming applications before being adopted by rental companies for more general working at height. But for as long as they have existed there have been owners and operators wanting to modify or create one-offs able to carry out a specific task rather than buying an 'off the shelf' solution.

What constitutes a special vehicle mounted lift? Well for this feature we will look at lifts that are either a variation on an accepted and long-run machine or truly unique. With modern manufacturing and set up costs, not to mention the engineering and testing resources, larger manufacturers will generally require at least a short production run for a product to be economically viable. However there are companies that will literally design and build one machine.

Companies such as France-Elevateur and Custers are good examples of manufacturers able and willing to build one-offs, but other companies including Time Versalift, XTrux/Comet, Cumberland Platforms and most companies that specialise in mounting platforms on chassis



Street lighting maintenance – 1929 Swedish style



The Custers Taurus 265-12.5E offers a working height of up to 12.5m



An early London bus mounted platform carrying out overhead cable repairs

are also capable. Time Versalift says it generally needs a production run of around 50 units before it starts designing but this will vary from manufacturer to manufacturer.

À la Française

A good example would be to start with a machine shown by Flavigny Sur Moselle based France-Elevateur at Apex earlier this year. The 105 PTO/2 was one of seven sold to Kummeler + Matter designed and built to work on the overhead catenary power lines of the Swiss tram system. With a 10 metre working height, the main fully rotational large platform (almost the length and width of the truck) is raised by a vertical telescopic mast - not dissimilar to the old tower wagons - and has two additional baskets mounted on either side of the platform on slewing telescopic jibs providing an amazing array of work positions for up to five people. The truck - a Mercedes Econic - can also be driven from the platform, allowing work to be carried out much quicker and without a separate driver. The truck itself which is full of electronic wizardry costs over €300,000 and so the whole unit needs to be ideally suited to the task to be cost effective.

The 105 PTO/2 is itself a special variation of France-Elevateur's PTO - Plateforme, Telescopique,

Orientable (telescopic rotating platform) - truck mount which has a large scissor like platform mounted on the top of a two or three axle truck with custom body. France-Elevateur also offers an articulated main mast version as well as many other specialist vehicle mounted access lifts for railways and live line working.

Founded in 1984 as Ibis Van with eight staff the company has had an interesting development expanding through acquisition and organic growth. First acquisition was International Ibis after it filed for bankruptcy. By 1987 the brand Eurelev Lift France was created with products bearing the France



France-Elevateur 105 PTO/2 designed for overhead catenary power lines of the Swiss tram system

specialist vehicle mounts **C&A**

Van Lift name. Over the next few years growth was steady with factory space increasing from 1,200 to 3,600 square metres with production up to 120 machines a year. By 1998 this had increased to 5,400 square metres and 150 machines, the company was then chosen by France Telecom to supply a new 10 metre working height, one person boom lift.

By 2001 production had climbed to 400 machines a year and it was a supplier to SNCF - the French national rail company - providing lifts to maintain overhead catenary lines. The rail business increased in 2004 with the opening of a 900 square metre production facility for the 4'AXE road/rail maintenance vehicle. Two years later it acquired French company Thouvenot Lift and created the current holding company MT Trading. Long-term supply contracts with EDF followed together with further expansion. Today annual production is 600 machines and with the take-over of CTE France (it has an 80 percent stake) it is also involved in the distribution of CTE, Paus and Unic mini cranes.

Over the past year the company has produced many new specialist products, the latest in live line work is the 17 metre 172 TBI with 135 degree 33 kV insulated jib allowing live line working with hot sticks, insulated gloves or bare hand. Mounted on a 4x4 hydrostatic chassis it can work on live lines up to 225 kV and 400 kW and is ANSI/SIA 92.2 category A equivalent. Developed in partnership with SERECT the first unit was sold to RTE following two and a half years development and testing.

The insulated boom is made from

a fibreglass tube covered with silicone forming fins which is said to improve external dielectric qualities when raining. To maintain its internal dielectric qualities, booms are sealed against particle penetration and filled with a low pressure inert gas monitored by pressure switches. Internal humidity is dried and checked inside sealed bowls.

Another example is the truck mount delivered to the Fréjus tunnel between France and Italy. Delivered to SFRTF - the company that runs and maintains the 13 kilometre long tunnel - the platform is mounted on a 10 tonne Renault truck and features a sigma type lift mechanism with an eight metre working height, 500kg platform capacity and 1.5 metres of lateral extension. Power sources include both engine and battery electric, which is used for working inside the tunnel. The unit can travel at speeds of up to five kph with the platform in the elevated position and can level up to 15 percent end to end and five percent side to side. It also features an enclosed workshop and chassis mounted storage boxes.

A Dutch perspective

The other major European manufacturer of specialist, tailor-made access equipment is Netherlands-based Custers Hydraulica. As well as powered



France-Elevateur's Fréjus tunnel platform with 8m working height and 500kg platform capacity

access platforms the company also provides access solutions in the aviation sector.

Custers is a very old company dating back more than 100 years to 1901. From its earliest days until the 1960s it was a steel and construction company. However in 1962 it entered into an agreement with Unicom in Weert which resulted in the production of its first truck mounted platform.

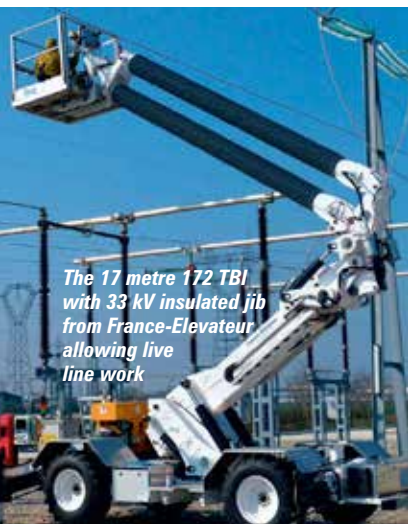
The next 18 years saw a period of being part of various groups starting in 1977 when it became

The smallest Custers – a 10 metre tracked boom lift



part of SGB, which was acquired by Mowlem. During the 1980s it expanded its platform range to include trailer mounted lifts. During that time Custers acquired the MEC distribution for Europe, further expanding its access range. Also around this time it started to manufacture aluminium scaffold towers, a business which has grown enormously. By 1995 Custers had moved back into private hands through an MBO. Its main facility in Venray, Holland was officially opened in 1999 and manufactures powered platforms and aluminium scaffolds.

Custers has an extensive range of truck mounted platforms from 12 to 26 metres as well as a 10 metre tracked boom lift. Largest is the recently added Taurus 330-26, a special truck mount designed for the City of Maastricht for tree trimming work. Mounted on a two axle truck that requires a Type C licence, it has a 26 metre working height, 330kg platform capacity, 380 degrees slew and an outreach of 20 metres. All cables and cylinders are routed internally in the four section boom to protect them from damage



The 17 metre 172 TBI with 33 kV insulated jib from France-Elevateur allowing live line work



A truck mounted scissor platform from Custers



A Custers hybrid truck mount

particularly with tree trimming work. Stabilisers can deploy within the vehicle width or extend.

The company also offers a scissor lift mounted on a 3.5 tonne chassis, with working height, platform capacity and dimensions made to suit the customer's needs. Whatever the size, the truck mounted platform offers rapid movement between operations. Platforms on larger chassis are also offered.

Another 'special' is a work platform oil truck fitted with reservoirs for three different types of oil for aircraft refuelling/lubrication. The system not only supplies each oil speedily and safely but a system developed by Custers also registers the amount of oil dispensed.

If an all-electric truck mount is needed then Custers has the 12 metre Taurus 265-12.5E which uses the Smiths Electric Vehicle Newton truck with lithium power pack to power both chassis and boom. The lift offers an outreach of 7.5 metres and 265kg platform capacity. Total GVW is 10 tonnes and the practical driving range around 100km between charges - enough to carry out jobs within cities.

Danish practicality

Companies that mount booms onto the customer's choice of chassis are also in a very good position to offer 'customised' platforms but most prefer to design and built specialist lifts for the market in general and not for a single client. As mentioned earlier Denmark-based Time

International looks for volumes of around 50 units before it starts to design new platforms, even though it has a wide range of the more unusual machines. An increasing number of manufacturers offer aerial lifts on lightweight chassis, including small vans, trucks and 4x4 pickups. While these

are generally not 'one-offs' they are often short run items. Time International certainly believes in the future of this market. Its new 24 metre VTX-240, mounted on a 3.5 tonne Mercedes Sprinter chassis is aimed at the rental market with two, three stage telescopic booms and a flexible knuckle joint giving 11 metres up and over reach and 12.5 metres outreach. Its latest Mercedes van mount, the ETLO-30-130-F, has a total weight of three tonnes leaving 500kg payload for tools or cargo. This platform can also be driven from the platform with the help of a video screen on the control panel.

At the smaller end of the range Time mounts a 12.1 metre boom with 90 degree jib on the Isuzu D Max 4x4 pickup truck or the VW Amarok. Using the Time Quick Shift system - which allows different attachments to be mounted in the pickup bed - the company offers a nine, 11 or 14 metre platform and a compact furniture lift from Böcker with 200 degrees of slew, allowing it to be set up with the pickup parked parallel to the building. Neither attachment requires outriggers. As it manufactures all the products in house Time is also able to offer full customisation including tool cabinets and storage boxes with its Smartbox lightweight sandwich construction.

Italian flair

An Italian company with new, more unusual access products is Comet and its design arm XTruX Special Equipment. General truck mounted equipment includes tipper bodies, cranes with attachments and demountable bodies. Access equipment includes road/rail platforms, a range of transverse mounted articulated platforms on open or covered pickups and on the back of a tractor.

Two new platforms include the X Trailer - a very compact articulated lift mounted on a single axle trailer - and the Solar which mounts a large rotating platform on the back of a 3.5 tonne chassis with 12 metre working height and 400kg capacity.

The above is just a small glimpse in the specialist vehicle mounted market. Finding the right access solution for a specific



XTRUX which carries out the development work (Co.me.t the sales) has several unusual platforms including this compact trailer unit with just under 12m working height, 4.5m outreach and 200kg.



XTRUX also has this unusual Solar 16 metre truck mount with 400kg capacity and 4.5 metre outreach.

job can be very difficult. However there are plenty of companies out there that are geared up to supply the unusual in small numbers. Everything is possibleit is just a matter of agreeing the price.

Time International has added a hydraulic furniture lift to its range of compatible Quick Shift equipment using a Böcker Simply HD 21-1-5, has a capacity of 250kg and lift height of 21.10 metres.



Time van mount being driven from the basket



A Custers 17 metre platform specifically for tree trimming



A 38 metre Terex Utilities insulated boom from Cumberland Platforms