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Is 45 the new 32m in aerial appliances?

For many decades “32m” or thereabouts has been the go-to working height for aerial appliances, especially in the UK and Ireland, but in recent years a trend to larger and especially more versatile solutions has emerged with a growing interest in 45m. **Steve Hodgetts**, head of Bronto Skylift Sales and Training at Angloco, looks at what is driving the trend to more versatile aerials.

Is 45 the new 32m in aerial appliances?

With ever increasing pressures on budgets, the justification and scrutiny a new aerial appliance continues to face as a “special” means it must work even harder than ever to earn its keep. It is therefore essential to maximise its utility and versatility over what will almost certainly be a 20-year or more frontline operational life, before perhaps being refurbished, retained or put into use elsewhere long after that. Maybe that exceptionally long asset life has even been the source of some long-held misconceptions. As technological progress over such a timeframe has been (and no doubt will continue to be) very significant, users may be unaware of new options and form judgements of likely capabilities based on existing appliances. “Clunky and slow” the latest ALPs are not, with realistic rescue at height simulations showing that if there is a time difference with a TTL its measured in seconds not minutes. The range of possible applications has also similarly progressed and diversified and a simple “like-for-like” replacement is to be discouraged to get the best value long-term value.

Global Leader

Bronto Skylift is a global leader in the supply of truck-mounted hydraulic platforms with over 7,000 units across more than 120 countries delivered over the past 50 years. They design and manufacture appliances for rescue and firefighting and industrial access applications. The product range currently includes around 50 models with a range from 17 to 112 metres working height. The designs’ advanced modularity also allows for numerous client-specific modifications to better suit operational needs. Angloco further enhance the range’s utility by providing locally designed and constructed bodywork, bespoke stowage and a host of other fitted options. Angloco and Bronto Skylift’s cooperation goes back for well over 30 years with Angloco acting as the exclusive distributor and



Narrow, hilly streets are a common feature of many UK towns and cities and the F45XR has unsurpassed levelling capability with long stroke, variable jacking allowing operation on slopes up to 14 degrees

support partner for fire and rescue in the UK and Ireland and a few selected territories elsewhere. Partly as a result of this long history, Angloco is undoubtedly the UK’s most experienced supplier and supporter of aerial appliances with over 200 units (including ALPs, CARPs, HRETs and TTLs) supplied to date. Most of these vehicles are still on the run and receiving service support from Angloco on at least an annual basis.

Whilst Bronto Skylift has offered compact units over 40 metres on rear steer three axle vehicles for a very long time, uptake in this market had been slow with many customers simply replacing older appliances with new of similar capabilities. Perhaps misconceptions about increased operating height leading to increased vehicle overall size and weight was a major barrier. Whilst in principle it is true that appliances with greater working heights require larger chassis to carry them, it is important to recognise that this is a stepwise increase. Typically, 32 up to 45m and everything in between all fit on similar three axle, rear steer chassis. With a 45m ALP being the current industry maximum before needing to move to a longer four axle vehicle.

Manoeuvrability and ability to access properties has also been raised as concern but with rear steer the three axle F45XR Bronto actually has a smaller turning circle than even a traditional two axle 32m ALP or TTL. Importantly it does so without any front or rear overhang from the chassis and with no “elbow” sticking out at the rear, manoeuvring and operating in narrow streets is much easier. Overall



The spacious 500kg capacity cage features 60° slewing, 250kg fold down platform and can be fitted with a rescue winch and a host of other options

length (transport) of the F45XR is less than 10m which is only around a metre and half longer than a typical full-sized UK pumping appliance. Low bridges are also less of a concern than first imagined with an overall height of less than 3.6m when stowed being achievable depending on chassis selection. A rule-of-thumb we often talk about is if the refuse collection vehicle gets into a site for the bins, so can we. However, to be more precise and optimally locate the appliance we suggest customers consider the standard available options of a Bronto laser range finder and a Loadman to assess the ground's bearing capabilities.

It is also possible that “working height” as a primary focus for selecting these machines actually gets in the way of revealing their true benefits and the idea of “very nice but we don’t need anything that tall here” still persists. Greater working height, with the right design, leads to greater outreach and the flexibility to access difficult to reach areas. Indeed, it is probably worth concentrating on the middle section of the operating envelope to understand the versatility of an aerial appliance. This is where the F45XR really stands out from the crowd with a maximum outreach of 26m this is still nearly 25m at 20m and almost 20m at a height of 40m. However, with a telescopic tip boom giving below ground reach of 9m and up and over reach of 12.5m, even this belies the true capabilities of up-over-down to access operational scenarios no similar appliance can.

Having manoeuvred the F45XR into a previously inaccessible position the list of features and options to enhance its capabilities is now longer than ever. Some are typical of traditional Bronto quality features such as a 3,800 lpm cage monitor fed by a swept curve, continuous 4in waterway for maximum throw range and performance. Other features are step changes thanks to improvements in other technologies. For example, the standard wireless remote control with a range of over 100m can now be enhanced with the addition of a tablet to not only mirror the mounted control screen and all controls but provide an additional screen to display any of the up to five mounted cameras (colour and thermal imaging) from the cage and booms.

It is probably in the cage where most improvements will be noticed over older generations of aerial appliances, which for the worst examples were not much more than a

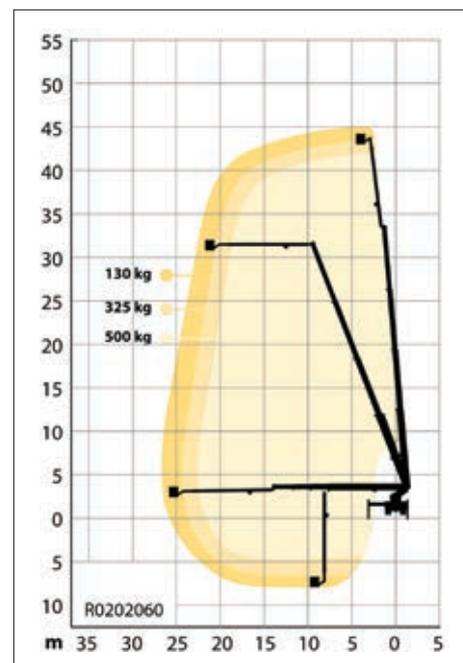
cramped two-person basket on a stick. By contrast, the F45XR's spacious five persons/500 Kg capacity cage is a true workplace and is sometimes described as “like a ballroom” measuring 2.25 x 1.15m. Folding and removable safety bars provide wide, easy access onto the cage for emergency rescue of bariatrics, stretchers, medivac chairs or wheelchairs. Incremental improvements on older Bronto models such as a fold down cage platform with capacity up from 180kg to 250kg, integrated ultrasonic cage collision sensors

and increased cage slewing from 45° to 60° also increase its versatility and easy use in rescue. The cage also serves as the main mounting point for more than 250 standard options and add-ons including the now usual lights and cameras as well as more novel ones such as plug-and-play for hydraulics, cameras, electrics and compact firefighting systems. A cage mounted winch greatly facilitates rescue, rope work/working at height operations. Some longstanding options have gathered surprisingly little interest but remain available such as the B-APE piercing tool, launched at the 2005 Interschutz; the powered piercing tool was developed and patented for penetrating combustible cladding and facades on high-rise buildings.

Simply the F45XR has the most versatility and functionality available on any three axle, 26t aerial appliance and should be top of anyone's shortlist when exploring asset replacement options. However, all the latest innovations and improvements are worth nothing if an appliance is off the run or unsupported. Comfort should be gained from knowing the appliance is supported by the UK's largest team of aerial appliance service engineers. Angloco prides itself on giving service support second to none with genuine 24-7 support and industry leading parts availability and telematics on aerials for 30 years.



A tablet can be integrated into the remote control and serve as an additional control centre and camera display



Even at cage loads up to 500Kg the F45XR keeps an exceptionally broad operating envelope

About the Author:

Steve Hodgetts started at Angloco in 2008 as a service engineer working predominantly on the aerial fleet both on and off-site. Progressing via Bronto training instructor, in 2020 he took on the lead role in Bronto Skylift sales for the UK and Ireland.

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