

# SELF PROPELLED



**UpRight's AB46 has an outreach of 8 metres, aided by a 1.5 metre jib. Pictured are two units supplied by UpRight's Danish distributor, Treffco for the installation of a sun guard on a city centre bank in Aarhus**

Consider the headline of this article and you have the basis of what seems to be the industry trend in terms of the design of the current batch of self propelled booms.

*Cranes & Access* reports

**T**here can be no doubt that *Cranes & Access'* self propelled feature has a particularly rough terrain (RT) feel to it this time around, and it would seem that it is certainly an area that the sector's manufacturers are currently focusing a great deal of attention to. Smooth, uninterrupted mechanical motion combined with the ability to tackle the most unfavourable job site terrain seems to be where the designs are heading. But, as in any industry, a product that offers that little bit more than the competition will often be the one that tempts the buyer or user to part with

## The rough with the smooth

his/her hard earned cash. And looking at the self propelled boom market at the moment, the competition is as stiff as ever among manufacturers.

"Truly new innovations in powered access are rare, particularly ones that give unique cost and productivity benefits to the user", says Shaun Day of Promax Access platform sales. According to Day, however, we are in the midst of one those rare circumstances that has come in the form of the Tadano Faun 'SuperDeck'.

Launched at the recent APEX show

held in Maastricht, The Netherlands, the SuperDeck sees Tadano, primarily known for its cranes, enter the access market for the first time. The unit has been described by some as an 'evolution in European access equipment' and offers huge proportions in terms of its specifications. "This revolutionary machine combines Japanese technology with German manufacturing", says Mark Caves, technical director of Promax Access, responsible for SuperDeck sales to the UK market. "Its 1 tonne capacity, ▶

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**AMP Access recently purchased six Maniaccess 165 ATJ articulating booms**

◀ large deck and advanced safety features, including the unique one lever operation, provides the convenience and productivity of an exceptional scissor lift, but with the manoeuvrability of a boom."

The SuperDeck is available as the 16 metre working height, AC-160SX and AC-210SX tracked versions or the 21 metre working height AW-160SX and AW-210SX wheeled versions. It has over 8 metres<sup>2</sup> of platform deck area capable of 360 degree rotation. Tadano says that simplicity is the key to the SuperDeck's controllability, which is made apparent by a unique '4-way' motion control allowing the operator to move the platform vertically and horizontally with a single lever. Diagonal movements

require the use of a second lever.

As an additional safety precaution, an audible voice warning will warn the operator of any potentially hazardous movements. Tadano says that the SuperDeck suits standard building width bays, reaches over voids, unsound ground or obstructions and is able to lift substantial loads including steelwork, building supplies, cladding panels, lifting equipment plus several operatives.

Specifically aimed at the RT market, UpRight says that its RT self propelled boom range is being very well accepted among the UK's rental companies. RT specifications come as standard on the two articulating boom models, namely the 16 metre AB46RT and the 20.3 metre AB62RT.

The smaller AB46RT unit features a 140 degree, 1.5 metre jib and offers 7.7 metres up-and-over clearance and 7.5 metres maximum working outreach. The combination of its 40 per cent gradeability and 330 millimetre ground clearance reiterates its purpose as a RT machine, as does the ability to raise the jib up to 90 degrees from the horizontal boom while maintaining a high range drive speed. "We have run AB46RTs in our fleet for over two years," says Lee Perry, sales and marketing director at The Platform Company, "and they are out-and-out workhorses – very reliable, rugged and sturdy. They come in for some of the worst abuse of rental hire, being in demand during heavy construction use, but are able to work on regardless."

The bigger brother of the AB46RT, the AB62RT provides an outreach of almost 11 metres at a 9.1 metre pivot height and, according to UpRight, has



**Genie says that its 26.38 metre working height Z80/60 is ideal for working in rough or varied terrain**

up to 1 metre extra working height than other brands in its class. The combination of an oscillating front axle, 19 x 15-14 ply tyres, and a Perkins 704-30 diesel engine all helps to give the machine an impressive 40 per cent gradeability. "We have sold over 150 units into the UK during the past 18 months or so, an indication that it is becoming the preferred 20 metre articulated boom in the UK," says Leigh Sparrow, vice president sales and distribution at UpRight. "The working envelope is truly unmatched, and the chassis width of 2.3 metres together with zero tailswing and compact overall length make for incredible versatility. Add its relatively low transport weight of 10.75 tonnes and you have an unbeatable package." According to Sparrow, major rental companies such as Lavendon have now standardised on the AB62RT as their main 4-wheel drive articulated boom in the 18.3 metre class.

Creeping further up the working height chart is the latest addition to Genie's articulating boom family, the Z-80/60. The unit checks in as the tallest in the range with a working height of up to 26.38 metres in addition to an outreach of up to 18.29 metres and an 8.83 metre up-and-over clearance. Also targeted for RT applications, the Z-80/60 incorporates various drive option combinations, such as 2-wheel drive (30 per cent gradeability) or 4-wheel drive (50 per cent gradeability) and 2-wheel steer or 4-wheel steer, each of which uses Genie's active oscillating axle as standard.

In 4-wheel steer mode, which includes front, rear, crab and co-ordinated steer functions, a minimum outside turning radius of 4.11 metres is achievable, while Genie's "on the fly"



**Tadano Faun's SuperDeck has been described by some as an 'evolution in European access equipment'**



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feature enables the operator to switch steer modes, while the platform is in motion, by pushing a selection button that adjusts the wheel position as the machine is driven. Also incorporated into the Z-80/60's design is Genie's new lift structure, which allows the operator to ascend and descend from the ground up to 24.38 metres with a single function of the primary boom – the lower riser does not need to be lowered to bring the platform to the ground.

Other standard features include non-extendable axles, foam filled tyres and an 1.83 metre jib with 135 degree range of motion – 75 degrees above horizontal and 60 degrees below horizontal. A 2.44 metre steel platform also comes as standard, while a 1.83 metre platform is optional. Both platforms are capable of 160 degree hydraulic rotation.

The company's new Z-60/34 articulating boom has also been the subject of a recent drive system upgrade and now incorporates an active oscillating axle, which adjusts when encountering uneven terrain to maintain 4-wheel tyre contact at all times. The company says that unlike other oscillating axle systems, it functions full-time whether the boom is in the stowed or raised position. The drive system has also increased the unit's gradeability to 40 per cent. Operators can also extend the axles from the basket and only have to drive 1.52 metres to fully extend them.

JLG focused its attention on an innovative boom design that allows for a narrow machine width and low gross vehicle weight on its standard 24.38 metre working height 800S telescopic boom and the 26.21 metre 860SJ articulating jib. Horizontal reach on the 800S stands at 21.64 metres, slighter shorter than the 22.86 metres achievable with the 860JS.

Both units stand on a fixed 2.49 metre wide frame, while the special boom design eliminates the need for extended axles for the operation of the boom lift on congested sites.

JLG says that the 800 Series booms have a total lift cycle from ground to 24.38 metres and return of less than 130 seconds, which the company claims is 40 per cent faster than competing brands. Both machines also include a new Advanced Design Electronic (ADE) control system, which the company says boosts fuel efficiency, improves function control and minimises the number of wires and connections within the machines for effective condition monitoring.

The company also says that its 32 metre working height 1350SJP, launched in the summer, reaches up to 50 per cent more area than competing boom lifts in the same working height class. Access is further improved by its vertically and horizontally manoeuvrable 2.44 metre JibPLUS articulating jib boom. An electronic platform levelling system and swing speed proportioning has also been incorporated



**The soon to be launched 120 AEJ articulated boom from Manitou is just 1.2 metres wide and provides a working height of a 12.2 metres**

into the 1350SJP's design. The new levelling system means that the platform is automatically levelled in relation to gravity, rather than the machine's chassis, so that the operator is also working or driving the platform from a level surface. The swing speed proportioning function ensures a constant platform swing speed as the boom rotates, regardless of the boom radius.

Controlling the boom's arc work envelope is achieved by proportional system that manages the platform's movements as it is raised and lowered through a smooth vertical arc as opposed to a 'saw tooth' pattern found on machines with limit switches. An oscillating axle comes as standard along with four-wheel drive, which uses two hydraulic pumps that give the unit a 45 per cent gradeability. The boom also features a proportional control system, which synchronises the unit's wheels and ensures that the maximum drive speed remains proportional to the radius of the turning angle.

The 1350SJP shares the same operational features as the larger 36.5 metre working height 1200SJP in JLG's Ultra Series. Both units can be used with the company's 'Workstation in the Sky' platform additions, comprising the SkyPower package with 7500 watt on board generator, the 250 amp Miller CST 250 welder 'SkyWelder' package and the Miller spectrum 375 CutMate plasma welder 'SkyCutter' package.

In the lower working height classes, Maniaccess has leaned on its RT telescopic handler knowledge in developing its new 120 AETJ electric articulated boom, which the company is planning to introduce by the end of the year. With a ▶



**A special boom design from JLG allowed for a narrow machine width and low gross vehicle weight on its 800 Series platforms**

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◀ width of just 1.2 metres, the platform offers a 12.2 metre working height. When fitted with the '3D' option, the unit's jib gives it a vertical working angle of 140 degrees with horizontal rotation, also of 140 degrees, allowing a working area with an offset of 7 metres over 350 degrees.

The company has also hit the RT articulating boom market with the production of its two-strong 165 range, comprising the 165ATJ and the 165ATJS. The company's telescopic handler range lends identical axles to both platforms along with a powerful 47 HP Perkins engine. The combination of a 44.7 millimetre ground clearance on both models and 400/70-20 tyres boost the range's qualification as RT machines. Other design features include the low level positioning of the hydraulic oil and fuel tanks for easy filling, while the company says that a maximum outreach of 10.4 metres gives the 165 the versatility to fit into the access marketplace between the traditional 15 to 20 metre boom class.

The only difference between the two models is the 4-wheel steer, crab steer and oscillating front axle and continuous turret rotation found on the 165ATJ, compared to the 165ATJS' 2-wheel steer and 360 degree turret rotation.

On customer request, Manitou has also added an on board generator, which allows users to use electric tools in the platform, eliminating the need for electric wires to be plugged to the main electric supply.

A recent order placed by AMP Access saw the delivery of six Manitou 165 ATJ articulating booms (see news November 2002). Commenting on the purchase, Paul Onslow of AMP Access said the 4-wheel drive and all wheel steer facility ensure the 165 ATJ is a highly manoeuvrable platform, ideal for operation on difficult ground conditions and restricted areas. "The unit has a similar outreach performance as higher lift competi-

**JLG says its 32 metre, 1350SJP reaches up to 150 per cent more area than competing boom lifts in the same class**





**The H16 PX from Pinguely-Haulotte is one of two new articulating booms particularly suited to building sites and frame work buildings**



tive makes”, says Onslow, “and a total weight of 8450 kilograms is ideally suited to our transport vehicles”.

Two brand new articulating platforms from Pinguely Haulotte enter the markets for working heights of 16 metres and 18 metres. Following what seems to be an industry pattern at present, both the HA 16 PX and HA 18 PX have been designed to deal with building sites and RT applications. Simultaneous 4-wheel drive and steer has been incorporated into the design of both units, combined with a 40 centimetre ground clearance and a hydraulic differential lock system to give a 50 per cent gradeability and improved all terrain performance.

A 9.2 metre outreach is achievable on the smaller HA 16 PX, while the bigger HA 18 PX offers 10.6 metres. Simultaneous movements of the boom also allow for rapid access to working areas, which receives a further boost by both machines’ 45 second lift speed to full height. Other features include continuous 360 degree turntable rotation, zero tailswing, fly jib motion and 180 degree platform rotation. The two new booms follow the recent launch of Pinguely Haulotte’s low cost 15.45 metre working height HA 15 X, highlighted at the recent APEX exhibition. Next in line for the company will be the launch of its new telescoping and articulating booms at around the 30 metre working height class in time for the Intermat exhibition, being held in Paris next May. Watch this space! ■