

A new SHORT story

There's a new generation of 'urban' artics on the street with innovative trailers that look like meeting the needs of both operators and local authorities alike. Brian Weatherley examines what they offer

Once a popular choice with breweries, due to their manoeuvrability and low deck height, sales of traditional urban trailers – typically measuring around 8.0m in length and with a 6.0m wheelbase – have been steadily declining, as previous users have migrated to alternatives like 26-tonners with a steering rear axle. Yet despite that switch, small urban semis are still being made. At TfL's CLOCS Progress event in March, DAF displayed a neat LF260 FT tractor developed specially for Tradeteam coupled to a 9.0m/6.0m-wheelbase single-axle Don-Bur 'teardrop' trailer.

However, today there's a new breed of urban trailers up to 11.0m long being used by operators tasked with

supplying the ever growing number of high street convenience stores and 'local' supermarkets. Moreover, interest in them comes at the time when metropolitan authorities are progressively focusing their attention on congestion, HGV accessibility and vulnerable road users. Thus, an urban artic's smaller on-road footprint and superior manoeuvrability (compared to a 16.5m equivalent) makes it an obvious candidate for the difficult, and increasingly controlled, job of city distribution.

Cartwright Group's 'Streetwise' trailer, with its dropping centre section, epitomises that new breed – though Lionel Curtis, technical director at the Altrincham-based trailer maker and the man behind Streetwise, says kerbside unloading is hardly a new concept.

"Over the past 20 years, supermarkets have looked at using low-floor buses that would give them access straight on to the kerb," he explains. "I've got a background in low-floor buses so straightaway I understood what they were trying to get at – but the packaging just doesn't work with the actual loads, and it's horribly expensive with a low-floor bus. So an urban trailer is the right way to go."

The ability to place loads at the kerbside makes Streetwise an attractive proposition. And with its centre drop section roughly a third of the length of the load platform, it shifts large loads quickly. Curtis says: "If you use a tail-lift, you go up and down with every pallet, but with the Streetwise it can be up to six pallets at a time. So you've gained 20 minutes straight away." With the majority





of load handling done inside, there's a working-at-height safety gain, too.

Although the original 10-metre single-axle prototype debuted at the 2016 Freight in the City Show, an 11.0m tandem-axle 'Mk II' controlled-temperature version appeared at this year's CV Show, with twin doors on both sides and neat fold-out ramps for kerbside unloading. Developed in conjunction with Kuehne+Nagel and Costa Coffee, it's currently being trialled by K+N for deliveries to Costa's high-street outlets.

Although the 10m and 11m Streetwise urban semis carry 18 and 20 pallets respectively, this kind of urban freight more typically comes in roll-cages. Naturally, loading requires some forethought. On a normal trailer the first drop goes on last, whereas with

Streetwise it sits on the middle section. But with the rear platform of the trailer matching the height of a normal dock, and the centre section raised, Streetwise can be through-loaded conventionally.

An integral construction (for which Cartwright has a patent pending) avoids chassis rails under the lowering centre section. "We've got a framework built into the sides," says Curtis. "The strength is built into the trailer." Hydraulic rams raise and lower the centre load deck.

Having originally envisaged Streetwise for deliveries to convenience stores, Cartwright is finding that their appeal is widening. The technical director says: "We've also had interest from parcel delivery companies about using it not for the last, but the penultimate mile, where they go into a car park, from which their people can deliver the last mile in cars or vans. Then they can take the trailer away again. That way they don't need a sub-depot." Manoeuvrability can be further improved by fitting a self-tracking or command-steer rear axle.

CHANGING ATTITUDES

The trailer's arrival coincides with changing attitudes towards using full-size artics for inner city deliveries. One example is Transdek UK's Duet (short for Double Deck Urban Eco Trailer) that has attracted strong interest from delivery companies since its launch in 2014. In trials with five of the UK's largest convenience chains, Duet's manoeuvrability was tested on some of the tightest-access routes in the country. Driver feedback confirmed Duet was easier to get to certain stores than a rigid. It is available in bodies from 9.0-10.6m long and 4.0-4.3m high.

Managing director Mark Adams reports that leading 3PL Eddie Stobart has become a champion of urban double-decking. He says: "They're already running the Duet trailers on two



PIGGYBACK URBAN

SDC Trailers and Moffett have collaborated on an urban trailer with adjustable design that allows customers to fit any Moffett-style forklift. The 10.6m curtainsider is EN 12642 XL spec, with a rear-steer axle to improve manoeuvring. Designed for 33-tonne operation, the SDC trailer has incorporated multi-deck rings to run in conjunction with an easy access strapping system for load restraint. There is also additional storage provided with two toolboxes fitted to the sideguards for easy access. Following its debut at the September 2017 National Ploughing Championships in Offaly, Ireland, the new Moffett urban trailer will be utilised as a demonstration unit in the UK and Ireland.

of their major retail contracts."

Depending on specification, Duet has a 22-tonne payload compared to nine tonnes on a typical 18-tonner, accommodating up to 54 roll-cages versus 27 on the latter. "We see the Duet very much as a 'last-mile' delivery option," says Adams. "Its main aim is to reduce reliance on 18- and 26-tonne rigids, which are significantly less efficient. A 10.6-metre Duet can carry up to 100% extra load compared to an 18-tonner and 70% more than a 26-tonne rigid, which means that it can generate savings of over 51% on urban road miles."

Like the Cartwright trailer, Duet is designed for offloading either at the kerbside or in the service yard, Adams says. "Because the majority of convenience stores may not be able

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Darren Holland

to handle a full double-deck trailer delivery, we see this very much as a multi-drop option, where the Duet could act as a kind of mini moving warehouse that keeps a number of smaller stores topped up."

Transdek's own design of twin-sliding 'sash' rear doors removes the health and safety hazards associated with large out-swinging barn doors. Unloading is via the Duet's tail-lift or a low-profile double-deck lift in the store. Independently sprung Tridec tandem stub-axles not only ensure an ultra-low floor height, but also permit loading between the wheel boxes. Following on from the original dry-freight prototype, the current insulated Mk II Duet has a number of modifications.

Adams believes Duet's arrival matches the prevailing mood on urban deliveries among local authorities. "We've had a lot of interest, particularly from TfL, in Duet," he says. And while acknowledging that local authorities are more likely to use regulations or standards to control vehicle deliveries, rather than promote any particular type of vehicle, he's nevertheless adamant: "Once operators start running large

numbers of urban double-deck trailers, and the benefits and safety record are proven, then there might be the opportunity to set new benchmarks for urban transport efficiencies. At the end of the day, that's what it's all about."

GOING UNDERGROUND

Poundland is another major player currently trialling urban double-deckers with an 11.1m prototype developed by Tiger Trailers (see also p28). The step-frame design also features twin Tridec axles, with both steering via a hydraulically-operated command-steer system. Sales director Darren Holland says the decision to go for independent suspension was driven by the need to not only facilitate high street deliveries but also to access shopping centres with underground unloading zones. "So they've got a double-deck vehicle that's only 4.2m high and 11.1m long, but incredibly manoeuvrable. It works very well for them," he says. The fixed-deck trailer uses a tail-lift to load and unload from the rear of the vehicle.

Holland reckons that shorter double-deck trailers like Tiger's Poundland prototype offer the perfect inner city

mix: they've got high carrying capacity, but aren't the length of a standard trailer. He continues: "When you go into an urban area with these trailers, because the rear axles are steering, they follow where you drive - as opposed to a rigid that's trying to cut the corner, or [in which] you need to move into the right lane to turn left. You just don't get that with these urban artics. We are seeing an upturn [of interest] in them, definitely."

UK trailer makers aren't the only ones developing urban semis. Chereau, the French refrigerated trailer manufacturer, offers single and tandem-axle versions of its CityTrailer with its own 'Steering-C' command-steer rear axle (pictured, p20).

In other news, warehousing and logistics company RT Keedwell is currently trialling four 9.7m Montracon tandem-axle urban trailers with rear-steer on its pallet distribution business in the West Country and Scotland. The quartet of short semi-trailers, which have tail-lifts, will run with 4x2 Mercedes Axor tractors. According to the company, the urban artics will offer greater flexibility, better manoeuvrability and higher payloads than a rigid 17-tonner or 26-tonner. [TB](#)

RUNNING CIRCLES AROUND RIGIDS

The superior manoeuvrability of an urban artic versus an 18-tonne rigid is demonstrated in turning circle diagrams created by the 'TOPEC' vehicle specification programme from DAF's sales engineering team. It shows that an urban artic, consisting of a 3.13m wheelbase LF FT.230 4x2 tractor coupled to a single-axle 9.0m urban semi-trailer, left, has an outer radius between walls, known as bumper radius, of 8.73m (dotted blue lines). An equivalent 6.0m wheelbase LF FA.230 4x2 18-tonne rigid with a 9.0m body, right, has a bumper radius two metres more: 10.95m.

