



# HEAVY LIGHT COMMERCIALS

It's amazing what you can do with a Sprinter. Steve Banner reports from the Mercedes-Benz TecForum event, in Hamburg, Germany, on the scale of engineering innovations

Operators in need of a vehicle with more off-road capability and carrying capacity than a 4x4 pick-up, but who don't require - or can't afford - a Unimog, may wish to consider a 6x6 Sprinter among few other choices. A conversion by Germany's Oberaigner and available through the Mercedes van and truck network in the UK - Rossetts is playing a lead role - it was one of the stars at Mercedes-Benz TecForum, in Hamburg, Germany, which showcased 40 conversions based on light CVs.

Light is perhaps a misnomer for the Oberaigner Sprinter. Equipped with permanent all-wheel drive, it grosses at 7.0 tonnes and offers a payload capacity of up to 4.0 tonnes plus a 7.0-tonne towing capability. Four differential locks are also fitted as standard - a fifth, cross-wise, is available as an option on the

front axle. And a patented asymmetric double-pendulum suspension controls torsional stress on the vehicle's frame. It also helps with rear wheels grip, thanks to its wheel travel, says Oberaigner.

## DRIVE BY WIRE

Tackling a different sector of the conversions market, and based not far from Stuttgart, Paravan was demonstrating Space Drive II. This vehicle allows people with severe disabilities to drive something the size of a Sprinter minibus, with drive-by-wire joysticks positioned to the left and right of the steering wheel. Between them, they control the steering, the accelerator pedal and the brakes.

But while most converters at TecForum are based on the other side of the Channel, Hull-based Paneltex was making its presence felt with one of the temperature-controlled home delivery

vehicles it produced for Ocado. Based on a 3.5-tonne Sprinter 313 CDI, this light truck offers a healthy 1,240kg gross payload capacity.

"We've achieved that by shaving kilos off wherever we can, including removing the passenger seat and the glove box lid," comments group sales director Dave Evenett. Paneltex would like to get the payload up to 1,275kg, he adds, but it's a never-ending battle, given periodic increases in unladen weight asserted by changing regulations. Opting for the Euro 6 engine option in a 3.5-tonner adds 34kg, for example, while the seven-speed 7G-Tronic automatic box favoured by home delivery retailers tacks on a further 18kg.

What about Mercedes' own bodies? In the UK, the German giant is one of the few mainstream light commercial manufacturers that does not offer a range of ready-bodied chassis through its dealer network. The only model listed on its website that falls into this category is a Sprinter dropside. That could be about to change, suggests van product executive Adam Pointer. "We're



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demanding VanSolution accolade, although that number is set to grow, says Mercedes. Their conversions are sold through dealers, with a single invoice covering both the conversion and the base vehicle. "With a single-invoice transaction, we conduct an extensive examination to ensure that the entire vehicle fulfils our brand and warranty promise," explains Peter Strobach, head of the Mercedes-Benz Bodybuilder Centre in Germany. Its 40 employees provide technical advice to bodybuilders and Mercedes dealers.

Worldwide, around 50% of all newly-registered Sprinters are the subject of some sort of conversion. For Vito, the figure is approximately 25% while for Citan it is roughly 20%.

#### **SPECIALIST TRUCKS**

TecForum 2015 hosted one or two highly-specialised conversions that could have a global appeal in the current political climate, but would fall outside the remit of a one-stop programme. They included a mobile X-ray machine, designed to detect migrants hiding in trucks and installed in a 5.0-tonne Sprinter, along with its own generator and monitoring screen.

Sourced from American Science & Engineering, it produces a focused beam a few millimetres wide and emitting a low radiation dose. All the Sprinter driver needs to do to spot stowaways is to drive slowly past the truck with the machine switched on.

The opportunities afforded by lightweight mini tractors were also not neglected. FGS, of Hohenfels, Germany, displayed a crew-cab Sprinter converted into a tractor. It was coupled to one of its CLC (City Liner Car) tandem-axle swan neck semi-trailers. Fitted with a hydraulic ramp, this trailer is 8.4m long, has a 3.3-tonne payload capacity and can be used to transport broken down cars, camper vans and light commercials. The entire

combination grosses at sub 7.0 tonnes.

Emergency services vehicles were also present in force, and included a 516 CDI Sprinter ambulance built by WAS, of Lower Saxony, with a built-in SanSafe disinfection system. Two jets on the ceiling spray a fine mist of disinfectant to eliminate pathogens from the treatment room.

As for Mercedes itself, the manufacturer used the TecForum to unveil a petrol-powered 1.2-litre 114bhp Euro 6 Citan 112, fitted with an optional 6G-DCT dual-clutch gearbox. This can be used in either automatic or manual mode. The newcomer is due in UK dealerships in the first quarter of 2016.

The transmission features two separate clutches: one for even-numbered and the other for odd-numbered gears. During driving, the next gear is pre-selected, so shifting is fast as it takes only fractions of a second for one clutch to open and the other to close. And a short test drive confirmed that this six-speed box slips smoothly and almost imperceptibly from one set of gears to the next without the slightest hint of jerkiness.

Mercedes executives were unable, however, to say whether or not the gearbox will also be available with a diesel engine. Some operators may take the view that this doesn't matter too much. They may also observe that the combination of petrol power and the 6G-DCT creates a perfectly viable compact urban delivery van, given the current diesel-hostile climate.

On this point, Mercedes says that Citan – the product of a joint venture with Renault – is achieving Euro 6 with its 1.5-litre diesels through unspecified internal modifications to the engine and the use of a storage-type NOx catalytic converter. There has been no need to resort to SCR (selective catalytic reduction), it adds; and that means no AdBlue top-ups. [TE](#)

seriously investigating the possibility of launching a one-stop shop conversion programme," he states.

Tipper, dropsides and box-bodied and Luton chassis will inevitably be at its core and British bodybuilders will play a key role, suggests Pointer. "We probably won't include refrigerated conversions though, because customer requirements differ so much," he adds.

Any such scheme is likely to be heavily influenced by one already in place in Europe. This has seen some 200 specialised converters appointed as VanPartners after complying with standards involving everything from build quality to product liability, set out by the manufacturer.

Only 10 have achieved the more