

Innovative trucks

As vulnerable road users and local residents rise up the agenda for operators in urban centres, truck specifications need to evolve. Brian Weatherley reports on two novel adaptations

In the future, operators' trucks will have to be quieter and greener, but also safer – especially when delivering into busy city centres. And they'll need to be more efficient. With that background, DHL vice president Phil Roe and Stephen Martin, head of fleet for the specialist building material distributor SIG, took to the floor to explain their new thinking around trucks.

Roe started by spelling out some of the challenges facing the second biggest vehicle operator in the UK – DHL's fleet stands at 9,000 trucks and 2,000 vans – as well as broader industry. "We need to reduce the amount of

'externality' we place not just on other road users, but also other dwellers," he told delegates.

For Roe, safety has to be top of the list. Why? "It's no longer about minimum standards and legal requirements. It's about how you behave, how you train people and what policies you use for your equipment," he explained. "If safety isn't top of your agenda, and if your employees don't know safety is top of your agenda, you'll regret that."

However, he also predicted further demands for air quality improvements. "The fact that we have improved mpg and reduced emissions through Euro 6 is astonishing, but I don't think it's

going to be enough," he stated, adding that there's also the matter of vehicle noise. "We think noise is the next big agenda item," stated Roe.

CHANGING LANDSCAPE

All of which comes at a time when DHL's loading patterns are changing. "We're seeing loads getting smaller, as well as more frequent and diverse in terms of locations," noted Roe. "And we're seeing delivery lead times shrinking, too, as shippers vie with each other for market share."

So to tackle those far from mutually inclusive demands, at last year's Quiet Cities conference



"Improving direct vision for drivers is paramount"
Stephen Martin

FACT

If safety isn't top of your agenda, and if your employees don't know that it's top of your agenda, you'll regret it

(*Transport Engineer*, February 2015, page 14), DHL unveiled its novel urban concept vehicle (UCV). Based on a 280bhp CNG-powered (compressed natural gas) 4x2 Scania 18-tonne rigid, it featured not only a range of noise abatement technologies but also a low-mounted cab, offering improved all-round driver vision.

Why go down that route? "We wanted to try something safe, clean and quiet. As wonderful as Euro 6 is, a gas engine is a lot cleaner in terms of NOx and particulates," said Roe, adding that providing drivers with enhanced vision was, in part, a response to their requests to avoid information overload with vulnerable road users. So, while the Scania UCV does sport nearside sensors and cameras, its cab's lowered driving position and extra glazing in the passenger door was the right thing to do, he told conference.

What about noise? Roe said there are two key aspects to improving the public's perception of urban delivery vehicles. The first involves training drivers to be more aware of their surroundings. The second is giving them the tools to minimise noise nuisance. "So a lot of DHL's investment went into the back end of the vehicle because that's the

bit that annoys people most. As a result, this vehicle is very quiet."

Summing up, Roe concluded: "For us, safety is the number one priority, but cleaner and quieter have to be done at the same time. We're trying to put our money where our mouth is. We can't yet say that we're making [DHL's UCV] mainstream. But customers are increasingly interested."

What about SIG? Stephen Martin told delegates that on any working day 150 CVs from SIG's 2,000-strong Europe-wide delivery fleet can be found plying London's streets, with junctions offering the greatest safety challenge. Nailing the point, he showed a composite 360° video view around one of SIG's trucks arriving at traffic lights, as caught on cameras fitted to the sides, front and rear. We saw cyclists catching up and passing the vehicle on the near and offside before gathering ahead of the now stationary truck.

Hence SIG's review of its long-held national standard specification for delivery vehicles – even though that already included cameras, sensors and fresnel lenses. "Those are just aids," commented Martin. "They're not direct vision." And for him, improving direct vision for drivers, rather than

adding more devices, was paramount to spotting and avoiding these vulnerable road users.

So in January last year, Martin started considering alternative vehicles for SIG's mainstay 26-tonne 6x2 curtainsider rigid, fitted with a rear-mounted Moffett. "We had to supply the business with the same body, payload and manoeuvrability," said Martin, explaining that, after approaching several manufacturers, he was drawn to "full-vision" cab chassis. "Low-entry cabs have been used heavily in municipal waste collection, but why couldn't they be used on a delivery truck? When we looked into it, there were no reasons. Just that it had never been done."

SAFETY VISION

SIG eventually chose a Mercedes-Benz Econic 6x2 as the basis for its first new-specification urban delivery vehicle, unveiling a fully-bodied version, complete with Moffett truck-mounted forklift, at this year's CLOCS (Construction Logistics and Cyclist Safety) progress event (*Transport Engineer*, April 2015, page 38).

The truck is now earning its living in the SIG fleet, and Martin told delegates that, as well as providing superior vision – about twice that of SIG's standard vehicle – there's a health and safety spinoff, too. The Econic's full-height nearside scissor doors encourage the driver to exit the vehicle on the kerbside, away from passing traffic.

Since then, Martin told his audience, the business has bought into it, not only for the opportunity to make safer deliveries without losing operational flexibility, but also because it demonstrates SIG's proactive approach.

Driver acceptance has been positive, too, he said. "Our driver loves it: you won't get him out of it," said Martin. "It's on the road five days a week ... and it just works."

Stressing that the Econic urban delivery vehicle is more than a one-off (SIG has another currently in-build), Martin concluded: "This is not a gimmick; it's not a show vehicle. It's a working truck. We've sat with the board and they're keen to get more operating within London."

His conclusion: fleet engineers should revisit accepted specifications and realise the potential of readily accessible innovations capable of helping drivers and vulnerable road users alike. ■

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Phil Roe