

# Hybrids on charge

Alternative drives carry too many downsides to have yet hit the mainstream for truck buyers. Is this about to change? Ian Norwell went to the UK launch of Daimler's light hybrid truck

Commercial vehicles powered by electricity, either wholly or in part, don't make many transport engineers' interest gauges twitch. The batteries are too heavy and expensive, and plugging them in is inconvenient and just moves the carbon problem to the power station. But, while diesel looks like remaining the fuel that powers heavy trucks for years to come, there are lower weight categories that can use hybrids.

In August 2008, Daimler's truck division set up a trial with 7.5 tonne chassis in London to put the technology into workplaces. It chose the Fuso brand and its established Canter 7C15 light truck at Euro 5, which had been developed as a parallel hybrid for the Japanese market. Ten chassis, divided between eight UK logistics companies, have now covered 470,000 operational kilometres, and Daimler is now claiming a potential for up to 23% savings in fuel and CO<sub>2</sub>.

The base power unit is a conventional turbocharged four-cylinder, 3-litre, 150bhp diesel engine, with EGR (exhaust gas recirculation) and a particle filter. It operates in parallel with a 40kW electric motor/generator that provides up to an additional 200Nm, available instantly. Braking is regenerative and drivers should quickly get acquainted with using its retardation, where normally they would simply be on overrun, with minimal engine braking.

## Impressive performance

As for the body/payload allowance, the hybrid motor and batteries add 170kg, leaving a very practical 5,000kg, which Daimler claims is class-leading. And the truck is also the first to bring a dual-clutch assembly to commercial vehicles, with Fuso's Duonic six-speed transmission, which gives unbroken torque and power in an automated box.

The logistics companies that added the trial hybrids to their working fleets were sufficiently varied to offer a wide range of urban operation. Amey, DHL, Hill Hire, Ringway, Royal Mail, Scottish and Southern, Tesco, and TNT all took trial vehicles. Jim York, head of engineering special projects at DHL, comments: "I was impressed: it drives very well; it's uncomplicated; and everything appears to work as it should. The fact that the system captures waste braking energy has to be of some benefit."

But it's not going green for the sake of it. As York puts it: "To positively influence our carbon footprint is one of our major goals in transportation. But the future hybrid technology has to have a business case."

Sam Whittaker, director for truck sales and marketing at Mercedes-Benz UK, which supports the Fuso Canter via its

dealer network, declares: "This is the first commercially viable hybrid truck in the UK." And despite previous candidates – including Mercedes' own Atego 12 tonner and DAF's LF hybrid – attracting little or no interest, even when offered on a lease to avoid the crippling high chassis costs, this truck may break that cycle.

It will fit into established light truck fleets without special treatment. It also suits contract hire, with its R&M element. But, equally, if an operator with its own workshops wants to take them onto its own maintenance schedules, that's not an issue, says Pius Dettling, head of sales and marketing for Fuso Europe. "Some straightforward awareness training relating to the electrical components would be required, but it is in all other respects a simple light diesel truck," he insists.

None of the technology is new, but the real step forward from Daimler is bringing the chassis to the market at an affordable price. A regular Canter 7.5 tonner is listed at around £24,000, while the Hybrid is being offered as a chassis sale, not a lease, for an additional £7,200.

With the potential fuel savings and a battery warranty of 10 years to support the second user, these hybrid Canter trucks might just have crossed the credibility divide that has hitherto haunted this technology. If not, it's the closest anyone has come so far. **TE**

