



Tough act to follow

The latest Actros truck, from Mercedes-Benz, has been built with reliability, economy and driver comfort in mind. John Challen reports from the truck's official launch

The current Mercedes-Benz Actros has sold more than 700,000 units in 15 years, during which time there have been a number of minor revisions to benefit drivers and operators alike. But now the company has ushered in an all-new truck and, while the current model remains on sale until 2013, and the introduction of Euro 6 regulations, Mercedes-Benz hopes that major improvements will be enough to make operators go straight for the new generation.

Mercedes-Benz identified four main areas for development: driving dynamics, profitability, product portfolio and comfort. The targets for driving were defined very early in the five-year testing programme. Back then, the development team went to a Berlin dynamics centre to simulate how different handling characteristics affect the vehicle. As a result, the new Actros promises more direct and precise steering, with greater levels of feedback, as well as a stiffer and wider frame, and a rear axle designed to co-steer, giving extra smoothness.

And there's more: "Even a 40-tonne truck must benchmark safety," comments Georg Wieberg, head of truck product engineering. "We need to be prepared for manoeuvres we don't expect – and one thing that helps us here is the broad torque range of the new engine."

He points to the six cylinder, Euro 6-compliant OM471 (Transport Engineer, May 2011, page 14), available in a range of outputs from 421 to 510bhp. Wieberg explains that 80% of the maximum engine torque (2,100–2,500Nm) is available from 1,000rpm. "Even below this level, the torque is surprisingly high," he maintains. And this extends the useable engine speed range at the bottom end, with a subsequent positive effect on fuel economy. Euro 5 and EEV rated engines complete the line-up with three outputs: 421, 449 and 510bhp.



Fuel consumption is one of the major factors in profit levels with the new Actros. Engine testing reveals that the truck will use less fuel – 6–8% and 3–4% for the Euro 5 and Euro 6 engines respectively – than the current models.

And further benefits will come from the FleetBoard telematics, according to Mercedes-Benz. Now standard on every model, and free to operators for the first four months of ownership, FleetBoard records details of every trip and offers a maintenance management feature. It provides driver analysis, which can, in turn, be used in training to make further fuel savings. Mercedes-Benz believes it is possible to cut costs by 5–15%, using FleetBoard. Factor in R&M contracts claimed to be 5–6% cheaper, and AdBlue savings of 5% (Euro 5 engines) and 40% (Euro 6), and there is plenty of additional scope to cut operational fleet costs.

And there are plenty of truck variants, too. The new Actros will offer three frame heights and 11 wheelbases in 4x2 and 6x2 artic and rigid configurations. Every new part on these trucks has been evaluated in what Mercedes-Benz is calling the most intensive truck test programme ever. That involved six prototype vehicles covering 20 million km and taking in feedback from 638 operators.

Home from home

What about comfort? Jörg Zürn, head of development at Mercedes-Benz trucks, points to improvements inside the new Actros' cab, such as: the separate living area; ergonomic dash, complete with multifunction steering wheel; and a choice of 10.5cm or 12.5cm display, with a clearly defined menu.

"There are 920 litres of space in the cab, but it's aerodynamic design still allows fuel savings to be made," enthuses Zürn. **TE**