

Shift perception

Mercedes-Benz is embracing dual-clutch technology on its commercial vehicles with the Duonic, discovers Ian Norwell

At its international launch, the new Fuso Canter, from Daimler Trucks, was sporting a revised cab, modified chassis and an innovative transmission. The three-litre Fiat Powertrain engine remains, using EGR (exhaust gas recirculation) with a DPF (diesel particulate filter) and offering 125bhp and 150bhp versions, but taking on the extra cleaning power of SCR (selective catalytic reduction) and AdBlue in the 7.5 tonne chassis at 175bhp.

Looking at the transmission is particularly interesting: while automated manual gearboxes are now common on the heavy brigade, this lightweight takes on the mantle with a new Fuso-designed and manufactured dual clutch, six-speed item. Mitsubishi is claiming a 'first' here in the truck business and it is the biggest news with the new Canter – which claims to combine the drivability of an auto, with no torque interruption between shifts, while avoiding the fluid coupling fuel losses.

Life-long clutch

Just as impressive, however, is the OEM's declaration that the 'minimal wear' clutches are designed to last the life of the vehicle. Bearing in mind that this light truck drops squarely into the non-vocational licence bracket, we'll be interested to see a three-year-old specimen at the end of 2014 to find out how it's fared.

Similar to the VW DSG system, it uses two wet clutches that handle three ratios each with first, third and fifth, and second, fourth and sixth being shared between the pair. With any gear engaged, the subsequent ratio has already been pre-selected by the other clutch and is ready for use: hence the lack of torque interruption. If this system does what it says on the case, it will combine the best of a slush box and a manual, not only from a driver's

viewpoint, but also from the fleet engineer's.

The 'Duonic' box will be standard on the 7.5 tonne chassis in the UK and an option on all other models. The premium has yet to be confirmed, but it's expected to be between €1,700 and €2,500 at list. With no clutches to replace and the ease of use, this light truck is worth serious consideration. The alternative is Fuso's own five-speed manual, which replaces the existing ZF box.

This aside, chassis need bodies and peripherals, and Martin Schmidt, Fuso Europe's bodybuilder manager, outlines the choices. "There are three PTOs, with or without flange at 31kW and 62kW, and, with a standard 12V system, a 24V transformer is an option that can be fitted to supply bodies that need the appropriate feed," he explains.

Various alternators are also available to cope with any extra demand. Weight reductions on a chassis that was already a very lightweight item could raise some eyebrows, but we are pleased to report that it has not been done by reducing the thickness of the frame steel.

With the competition including the Nissan Cabstar, Isuzu and Iveco Daily, Fuso's upgrades and innovations will increase the competitive heat in that lightweight short-haul sector. The major issue for this truck is probably one of perception, but those operators who do choose to look closely enough will find a better truck than they might have been expecting. **TE**



Gear changes in the new Fuso Canter will be performed by a new dual-clutch, six-speed transmission