

# Shifting attitudes

Are manual gearboxes really heading for extinction? Ian Norwell looked at a pair of DAF eight-wheelers, one with the new 12-speed TraXon AMT gearbox from ZF, and the other with ZF's 16-speed manual, which proved surprisingly compelling

**D**AF's eight-wheelers are a respected and known quantity. Its CF range was thoroughly renewed barely a year ago, so it has a fresh feel to the way it goes about its business. But, unlike chassis offered by some of the big names in this sector, DAF does still offer a choice of AMT or manual gear-shifting. The new CF 8x4 rigid has two executions: a robustly-trimmed 'construction' offering for the so-called 'muckaway' work, and a 'haulage' spec for the sand and aggregates sector.

The CF450 8x4 construction chassis reviewed had a meaningful look to it, with a number of additionally toughened-up components, including

Lexan head and fog lights, a three-piece steel bumper, and a heavy-duty radiator protection plate-cum-hinged step. The latter item only seems useful if you've seen a radiator unnecessarily broken during quarry manoeuvring, so it won the author's vote. There

## THIRD PEDAL IS BACK

While some manufacturers are getting out of manual transmissions, others are getting back in. In a recent test of Scania's new generation P- and L-cabs (see pp19-20), Scania's optional 'Clutch on Demand' system was trialled. This adds a manual clutch pedal to the normal two-pedal Opticruise system. CoD uses an electrically operated screw actuator to feed in the clutch via the third pedal, so drivers can effectively override the Opticruise auto by opening the clutch themselves.

Its introduction follows requests from some customers for a third pedal. The big challenge has been how to get a pedal that's sending an electrical signal to have the same 'feel' as a manually operated clutch. Based on the author's experience reversing with CoD, it works extremely well, and has a good pedal feedback.

*Brian Weatherley*



was an extra step up into the cab, letting the driver know that there was a higher ground clearance available, and reinforcing the beefy demeanour. Getting seated, the nub of this test match appeared: the gearshift.

While Volvo, for example, dropped the manual box option on its FM, FMX and FH ranges in the European markets from September 2017, in the DAF the 16-speed manual is a no-cost option over the standard 12-speed TraXon AMT. The option that does require paying (at £870 list) is a 16-speed TraXon AMT, so all the bases are covered.

Both transmissions have extra abilities when off-highway. The AMT TraXon's off-road dashboard switch fires up traction software that gives an rpm-based shift strategy, with progressive clutch operation and good transient behaviour of the engine. The MX engine brake is used for faster engine-gearbox synchronisation, giving quicker shifting. The manual has a useful off-road feature, too. Clutch protection is optional (£240) for vehicles with the ZF Ecosplit 16-speed gearbox, and it's intended to prevent excessive clutch wear. If the driver attempts to move off in too high a gear, engine torque is limited and a yellow warning is shown on the instrument panel.



Like all new truck engines these days, the MX-11's 10.8 litres performs very well, giving a lot of bang for its buck, and with multi-torque ability. The 12-speed ZF TraXon transmission in the CF410 (402bhp) 'haulage' spec model reviewed performed well on road and off, and apart from a lower ride height than the construction version, it seemed well-suited for tipper work. Off-road in an Oxfordshire quarry, it did all that was asked of it.

Going into the test, the manual faced an uphill battle against the AMT. The latter, and the software that gives it so many different personalities, has become so competent that the market has been voting with its wallet for a number of years. However, all was not as

expected. The 16-speed unit was very smooth and as the morning progressed its charm grew. Having the decision-making on ratios handed back was a positive experience, even if that sounds perverse; it creates a sense of driver involvement in the vehicle's progress. For long-haul tractor operations, the AMT makes good sense, but a day - yes, admittedly just the one - on and off the roads of Oxfordshire was an eye-opener.

Sales figures show that there is still a good chunk of the market that feels that way, too. In the 12 months from February 2017, a period neatly covering its new range's launch in the market, 1,307 XF models were registered, with 85 of those taking the 16-speed manual (6.5%). CFs registered totalled 964, and 164 of those were manuals (17%). Among those CFs, there were 332 8x4 rigid chassis sales, of which 73 (22%) took the manual box.

DAF's press demonstration driver encouraged the author to tackle an unreasonable gradient of loose material in the quarry. We made it to the top in the manual, but not in the AMT. Not a scientific test of course, but an interesting point was made.

The original premise of an AMT was that it gets its shifting right all the time, all day, so is a tough act to follow. However, with the right training and aptitude, there



## USER CHOOSER

Training is becoming an issue for the manual/AMT conundrum. Training schools want to reflect what new drivers will meet in the real world, so they have largely gone over to AMTs to reflect this, especially for C+E entitlement. Licensing entitlement has shifted to accommodate this, too.

Candidates who pass their test today on a truck fitted with an AMT receive full manual entitlement, too. This was driven by the DVSA, as training schools were complaining they couldn't buy the used trucks they wanted with manual shifts.

As well as younger drivers who have no experience of manuals - and don't want any either - there are opposing forces at work. A family-run tipper operator who did not want to be named takes a manual transmission eight-wheeler specifically to keep one of its best drivers on the fleet. So the picture is not as straightforward as it may seem.



may be a driving job out there, with a manual box, that will offer a certain type of driver more job satisfaction than the relatively soporific environment of an auto. Faced with both of these trucks for a week's work, the author would go for the manual. That may be partly the novelty, and yes, a bit of nostalgia, too. But if it makes the job more enjoyable, who can be against it? **TE**