

LION TAMER

For the first time in 20 years, MAN has launched a completely new generation of its TG series trucks, the flagship of which is its TGX tractor. The result of extensive customer consultation is a truck with a radically changed interior and aerodynamically updated exterior, reports Lucy Radley

Most eye-catching of all the changes in MAN's new TGX tractor is an 8% improvement in fuel consumption over its predecessor fitted with the Euro VI-C engine. A good chunk of that saving comes from the fact the new range is fitted with MAN's Euro VI-D engine, which was launched last year. The unit it has chosen to compare is the 12.4-litre, six-cylinder D26, available with 424, 464 and 503bhp producing 2,200, 2,400 and 2,600Nm of torque, respectively.

The improvement in efficiency comes, we're told, from a combination of optimised combustion chamber geometry with enhanced compression characteristics, a reduced exhaust gas recirculation, a new, leak-free injection system with a high nozzle flow rate, comprehensive measures to reduce internal friction and the reduction of gas exchange loss. It's also 70kg lighter than the Euro VI-C engine it has replaced, with single-stage turbocharging and airless AdBlue injection. But all of that is old news (albeit only from spring 2019), so we'll leave the engine talk there.

Next on the list is a new drive axle for 44-tonne operation weighing 30kg less, and available with the 'particularly long'

ratio of 2.31 as well as 2.53, 2.71 and 2.85. A hypoid axle with the final drive optimised for efficiency, it also has an improved oil supply system to reduce friction.

From an aerodynamic perspective, the most obvious change is to the mirror cases, the subject of much driver complaint on previous models due to their size. The mirrors on the new TGX are narrower, with a reduced frontal surface, and mounted further back to improve visibility, an aim in which it succeeds.

The front grille area looks far more closed-in than before, but this is an illusion - it actually cools the engine more effectively thanks to new wind

guiding elements that target air more efficiently. The bumper has been drawn down, and the new headlights are flat, with daytime running lights and integrated indicators. These are also modular, the same units having been used across the TG range - as well as already being fitted to MAN's buses. There are air ducts on the corners of the bumper which, as well as encouraging smooth airflow in general, direct that air away from the door handles as it passes around the side of the cab.

Behind the windows - the rear portion of which are now purely stylistic, and





not actually windows at all - the familiar five wave contours have been replaced with three aerodomes, far sharper in appearance. These apparently 'resemble the sharp claws of the lion', as well as stabilising the side walls of the cab and reducing vibrations. It also looks unmistakably like a MAN, even at a glance; and the cab shape has changed only in name - XXL, XLX and XL having been replaced by GX, GM and GN.

The final piece in the reduced fuel consumption puzzle is an upgrade to MAN's GPS-guided adaptive cruise control, EfficientCruise, which, among other things, enables the vehicle to roll in neutral far more than previously. This leads us neatly on to some of MAN's other new driver assistance gadgets, which include Turn Assist. Using data from a pair of small radar boxes mounted just behind the front axle, this gives the driver a graduated audible and visual warning via a set of LEDs mounted in the A-pillar, and works up to 30kph. Meanwhile, Lane Change Support activates above 50kph (30mph) and covers both sides of the vehicle with a similar aim.

The new truck generation also comes with MAN's existing assistance features: Lane Return Assist, which is the least intrusive version we've come across

- no ping-ponging within the lane as with some others; ACC Stop & Go; and its expansion, Congestion Assistant, which takes over the driveline in dense traffic, stopping and starting the vehicle as those in front move on. It can be activated up to 40kph, and will then remain engaged up to 60kph.

Of the many improvements to the interior and cockpit area of the TGX, a few stand out. The steering wheel is far smaller than before and the buttons for the cruise control have turned into a toggle switch for set, resume and controlling speed on the left-hand side of the wheel. This worried the author initially as it is most people's non-dominant hand, but driving the vehicle showed it to be a good choice and the whole setup feels far more intuitive.

Also in the cab is MAN's other big development - SmartSelect. Research has led the manufacturer to the conclusion that touchscreen is unsuitable for use in trucks, partly because the eyes are inevitably drawn to where the finger is, therefore away from the road. It can also be difficult to accurately place a finger while bouncing along the road

in an air-suspended seat, so to this end an entirely new input system has been developed. It consists of two stacked wheels and a wrist-rest which can be folded out of the way when not in use (pictured, p16). The lower wheel, when turned, always brings the user back to the main menu, while the smaller, top wheel is used for scrolling through options within each heading. Alternatively, a touchpad on the top of this wheel enables drivers to draw the first letter of, say, a destination for the satnav, or a contact in the digital phone book, to bring these things up more quickly and easily. The author had a good play with this setup and it was, indeed, very easy to use.

These systems are all running on new digital and electronic systems, which MAN has rebuilt from scratch to simplify and future-proof the whole cable harness and computer-based architecture of the truck. As well as having been physically slimmed down, with one main CPU controlling everything, the whole setup has been designed to be application-orientated, so later additions and their software can easily be installed.

The other big news about this system is it will increase the extent to which preventative maintenance can be deployed using the manufacturer's Rio telematics system, and software updates of all kinds will eventually be downloaded remotely rather than the truck needing to visit a dealer.

Rio control boxes have been fitted in vehicles for the UK market as standard for several years now, but their benefits will not be available for a while yet, as there is an existing partnership with third party Microlise. MAN assures us, however, that plans are underway to bring the UK on board soon. **TE**