

he likes of MAN, DAF and Volvo played their cards relatively early with their Euro 6 offerings, leaving Renault Trucks free to present the results of a complete range overhaul – seven years in the making – last month. Parent company Volvo commented at the launch that it has invested €2 billion in Renault Trucks for the development of this new selection of vehicles, which cover long-distance, construction and distribution operations.

First, the company has adopted a new naming strategy: ranges are now designated T (long-distance), C and K (light-and heavy-duty construction) and D (Distribution). A further 2m-wide cab model (currently referred to as F91G) is being developed with Nissan to service the 3.5- to 7.5-tonne market, but that won't appear in the UK until late 2014.

Renault describes its new T tractor units as combining the outgoing Premium's efficiency and low fuel consumption with the Magnum's comfort and prestige in a single modular vehicle. You get an all-new 2.5 metre wide cab that's not only refined and spacious, but also offers practical extras, such as a storage compartment accessible from inside and outside the vehicle, a wider door opening angle, cornering lights and a multiadjustable steering wheel. It's also claimed to be 5% better on fuel consumption than the outgoing model. More later.

As for the C and K ranges, the former is available in two cab widths and is aimed at conventional tipping operations, but with comfort more typical of longer-distance vehicles. Payload is

quoted at 22.8 tonnes for an 8×4, and you're looking at good pulling power and obstacle clearance. Renault's K, meanwhile, takes that to the next level, with a distinctive cab, greater impact resistance and a gvw up to 50 tonnes with gcw to 120 tonnes. While the C trucks get Renault's Optitrack hydrostatic traction on the front axle, for temporary extra pulling power, the K range includes conventional all-wheel drive versions. Also, Renault makes much of its simplified body mounting options, claimed to cut delivery times by 20%. Oh, and a neat step on the cab-side for drivers to check their loads.

## Worth the weight

Moving on to the D range, although based on the outgoing chassis cabs, there are now three versions. The base D covers 10–18 tonnes; D-Wide takes that to 16–26 tonnes; while D Access provides the low-entry cab format in 18–26 tonne variants. In fact, Renault claims that, between them, these cater for more than 100 configurations, and adds that bodybuilders can access all vehicle data via a web portal to improve the efficiency of body mounting. And, by the way, Optidriver automatic transmissions are now standard throughout.

It's clearly been a big undertaking. In total, 5,000 engineers spent over five million hours testing the new truck range, which has covered 10 million on-road kilometres. Discussions with operators and customers played a big part, too.

As predicted (April 2013, Transport Engineer), the engines



have much in common with those used by parent Volvo. At the bottom end are new 5- and 8-litre engines, the former at 240bhp claiming to be the most powerful four-cylinder on the market. Renault hopes that this small but capable engine will help operators in terms of productivity, thanks to the extra payload capacity. "Both engines are 35% quieter than the outgoing models," states Nigel Butler, commercial director at Renault Trucks. "But while torque is on a par with the Euro 5 engines, the 8-litre develops power much sooner, with maximum torque coming in at 950rpm."

These smaller engines are destined for the D and lower end of the C range. Joining them are 11- and 13-litre engines – in essence the D11 and D13 blocks from Volvo, but with different characteristics, for the upper C, K and T trucks. "We wanted a flat torque curve to maximise fuel economy," says Butler. "This pushed us towards a non-EGR (exhaust gas recirculation) unit."

In the Renaults, the 11-litre offers power outputs of 380, 430 and 460bhp, and torque between 1,800 and 2,200Nm. The larger 13-litre motor puts out 440, 480 and 520bhp, with up to 2,550Nm available in the most powerful variant. These engines feature SCR (selective catalytic reduction). "There is an element of EGR, but it is just a few shots in the process of the vehicle warming up," explains Butler, who confirms that EGR is used in the 5- and 8-litre engines. "There is a distinct difference between these engines, so we don't suffer the weight penalties of EGR at the top end."

That said, fewer than 50% of the components are common

between the Volvo and Renault truck brands. With an all-new cab, the T range tractor units, for example, are much more than a mere re-skin of the Volvo FH. "Major parts, such as the braking system and chassis frame, are Volvo Group parts, but the cab shell pressings are unique to Renault. And, while it might look like an identical ECU, the programming inside is specific to Renault," argues Butler.

Also specific to Renault is a new air management EACU (Electronic Air Control Unit). This filters and dries compressed air, adjusts air pressure and controls the air compressor. By disengaging the latter and starting the energy-saving system when pressure is optimum, the system helps improve fuel economy. And there's a variable flow steering pump for much the same reason. Additionally, Renault argues that maintenance has been simplified by separating the electrical harness path from the vehicle hydraulics.

Beyond that, Butler says that brand positioning was important when creating Renault's new truck range, acknowledging that, previously, the company has not always got everything right. Renault, he says, has now looked more carefully at its market. "From an operator perspective there are regional, national and international hauliers. We've designed a product that fits into the middle segment – with a 2.5m-wide cab and Recaro seats for extra comfort, while trying to maximise fuel efficiency," he asserts.

So don't expect a to see a Renault T tractor unit with a 700bhp power plant or an equivalent of Volvo's I-See predictive transmission. The focus, says Butler, is on options that help save fuel and money, without too many frills. "Our package of options includes soft cruise control, auto-shutdown, and optimised gearshift patterns," he confirms.



As for the rest, Renault claims that a 12% improvement in drag coefficient helps cut fuel consumption by 5%. This aerodynamic benefit has been achieved by the design and shape of the T cab, which now measures 2.3m-wide at the front, extending to 2.5m at the back, so allowing a better flow of air around the vehicle. Redesigned side fairings and fuel tanks, and the integration of a 12° rake on the front windscreen, also contribute to the economy figures.

Comfort is also improved with the wider body and upgraded specification. "You might pay more for it, but when you look at it from a total cost of ownership perspective, we believe it will be comparable to, or better than, Euro 5," comments Butler. And he adds that trucks ordered before the end of the year get a special maintenance package – two years' free R&M.  $\blacksquare$