

# The FH reborn

Volvo's new FH Euro 6-compliant premium truck was unveiled last month with more than the usual pizzazz. John Challen reports from the launch event in Sweden

**T**he premium truck market has another contender – the latest incarnation of Volvo's FH. 'Built with the driver in mind, and the focus on improving the operator's profitability,' runs Volvo's slogan – so will the newcomer live up to its promise?

To qualify this claim, the manufacturer is suggesting that a 10% improvement in fuel economy is possible, compared with the outgoing model, achieved through several developments spanning the engine, gearbox and also the suspension – as well as new vehicle monitoring technology. For an average truck, it could save up to 4,100 litres of fuel a year, says Volvo.

Half of those fuel savings, say the Swedes, can be achieved through the FH's new I-See technology, software that uses GPS to store transmission sensor information about road gradients, after they have been driven. "The next time the truck uses the same route, I-See operates the accelerator, gears and brakes to ensure that progress is as economical as possible," explains Claes Nilsson, president of Volvo Truck.

Leading up to the hill, the FH stays in the highest usable gear, before releasing the throttle at the top, and subsequently using kinetic energy to get over the brow. On the downhill section, the system selects neutral; engine braking eliminating any issue of exceeding the speed limit. Volvo says that the hardware has the ability to store data on 4,000 hills and that information is based on energy consumed, as opposed to the gradient or length of the hill.

Fuel savings are also dependent on the use of the new

I-Torque powertrain, now featuring Volvo's Euro 6 engine, which debuts in late 2013 and is promising to cut fuel by up to 4%. Based on the D13 Euro 5 engine, which has also been carried over, the new engine features EGR (exhaust gas recirculation), as well as SCR (selective catalytic reduction), using technology previously adopted on Volvo's US and Japanese engines.

## Dual-clutch power

As the name suggests, the emphasis is on increasing torque, and the new engine boasts a maximum of 2,800Nm between 900 and 1,150bhp. However, with such a narrow power band, engineers realised that mating the engine to a manual 'box, or even the current I-Shift unit, wouldn't be viable. The solution? I-Shift II, featuring dual-clutch technology. "With the dual-clutch system, there is no torque interruption during gear changes," explains Astrid Drewsen, product manager for I-Torque. And she adds that, as well as delivering faster acceleration, the engine also offers noise and fuel economy improvements.

Beyond that, FH has also been influenced by developments in other vehicle sectors – not least in its underpinnings, where an independent front suspension, coupled to a rack and pinion steering set-up, is being introduced. Providing better handling, driver comfort and safety, this is its first airing for heavy trucks.

However, UK operators shouldn't get too excited yet, as the technology is currently only available in left-hand drive, due to the angle and positioning of the steering rack. A right-hand version is under development and is expected in three years' time, when it will cost around £4,500.

But there's more: operational aspects have not been ignored, with Volvo claiming 100% uptime through a new electronic infrastructure. Linking to the truck via GSM, telematics remotely monitor the vehicle, including components such as brakes, clutch and battery. "Now that the workshop can 'see' the wear to a component, it will allow operators to avoid unnecessary visits to the workshop," states Christian Gustavsson, service manager at Volvo. **TE**

