



CHANGE for

Above: Volvo's FMX tridem in action. This configuration ought to be much more popular with UK operators

Volvo has now completed the Euro 6 truck range revival it began a year ago, with New FH. Brian Weatherley reports from Sweden on improvements over the past 12 months

Since unveiling its New FH tractor unit a year ago, Volvo has been busy launching Euro 6 versions of its FL and FE middleweights, and the FM and FMX heavies, too. Time, then, for Transport Engineer to visit Sweden and try its latest Euro 6 trucks. And the verdict: there is much to attract both drivers and fleet engineers – with the odd caveat.

Starting with the FL middleweight, available at 12, 14, 16 and 18-tonnes gvw, externally it's gained a face-lifted cab with similar front-end styling to big brother FH. That includes the raised iron marquee logo, which raised eyebrows over the lack of space for livery below the windscreen. FL's new three-piece front bumper also now features sensible steel corner-pieces, which should be easy to replace. So why Volvo's designers should place optional fog-lights in the same corner bumper assembly, where they're most vulnerable to kerb strikes, is hard to

understand. And not content with doing it on FL, they've repeated it on FE.

Although the FL's 2.1m wide cab shell is shared with fellow Volvo Group members Renault (on the Midlum) and DAF (on LF), Volvo says its version has additional reinforcement to pass the tougher Swedish impact standards. Extra reinforcing has been applied to the seat anchorage points and seat frame, too. Other safety measures include optional lower door glass panels (on either side) for increased driver vision. Indeed, Volvo claims that FL has "the safest cab in its class". Moreover, ESP (electronic stability program) becomes standard on both FL and FE – well ahead of the European Safety Directive.

High-tech choices

Underneath the FL cab is a choice of two new four- and six-cylinder Euro 6 common-rail engines, sharing the same bore and stroke (the previous Euro 5 D7

Below left: Volvo FM with the Globetrotter cab
Below right: Volvo FE 6x2 as an RCV



engine, from Deutz, has been dropped). The four-pot D5 (restricted to the 12-tonne FL chassis) is rated at 210 and 240bhp, with 800 and 900Nm of torque, respectively. The larger-capacity D8 six (available on all FL chassis) comes at 250 and 280bhp, with torque of 950 and 1,050Nm. Both of these employ a combination of cooled EGR (exhaust gas recirculation), VGT (variable-geometry turbocharging), SCR (selective catalytic reduction) and DPF (diesel particulate filter) to meet the tighter emissions. Fuel consumption is the same as previous Euro 5 models.

comes to residuals. That said, on the road the 12-tonne FL512 with the 240bhp D5 diesel delivered fairly brisk acceleration with the I-Sync box. However, what a four-cylinder engine can't do is deliver the engine braking of a six-pot, particularly when the former only has a butterfly valve, while the latter has a Jake Brake. Descending hills with the 250bhp six-cylinder FL812 at 12 tonnes brought that point home.

The two-pedal, six-speed I-Sync box might not be as smooth or intelligent as Volvo's own I-Shift, but it will certainly be appreciated by delivery drivers. The

the BEATER

FL chassis with the D5 engine come with either a manual six-speed or I-Sync – basically the ZF unit, but with a bolt-on automated gear shift. D8 chassis have the same choice, plus a nine-speed manual or Allison auto. The previous Euro 5 chassis frame is carried over, as are the available wheelbases. But, by fitting 17.5in wheels and tyres to the new FL 12-tonner, its cab height has been reduced by 50mm. Likewise, a 12-tonne FL, with the smaller four-cylinder engine, low-weight axles and 17.5in wheels, is 500kg lighter than the equivalent six-cylinder, with 19.5in wheels.

Drive dilemma

With 17.5in wheels fitted to the FL, getting in and out of the cab is easy, aided by excellent steps, while the latest high-back seats, with integrated belts, are very comfortable. Fleets should also appreciate the tougher seat material. And the FL dash has a makeover, with clearer instrumentation.

While UK buyers have long embraced four-cylinder engines in 7.5-tonners, it will be interesting to see if they're equally sanguine about a 12-tonner when there's an alternative six-pot – not least when it

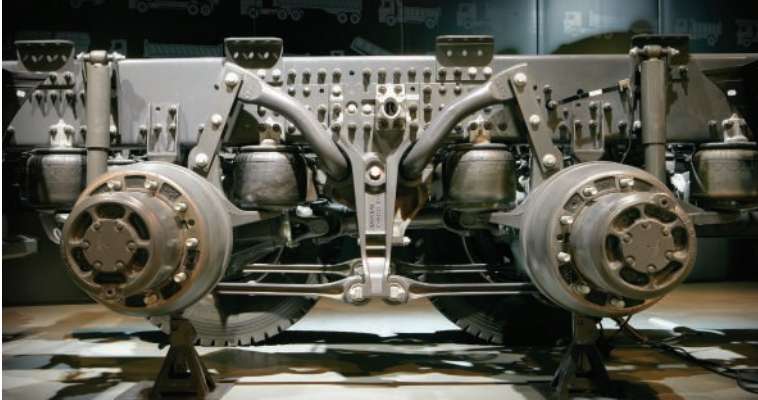
only problem: the control lever is somewhat hidden by the steering wheel and, when you make a manual change, the I-Sync box remains in 'manual' mode. So the driver has to re-select auto. Given that delivery drivers have plenty to do, Volvo should look to revise the I-Sync's software, so that it reverts to 'auto'.

I've no complaints with FL's low-speed handling, though. Volvo's test track includes an area called 'Truck Town' – a maze constructed from containers and cones. The box-bodied 5.0m wheelbase FL rigids I drove had no trouble weaving through the corridors, with commendable precision. I also like FL's mirrors, with the wide-angle lens mounted at the top of slim support arms. A decent gap between it and the main mirror allows you to see through.

Moving on to FE (available at gross weights from 18–26 tonnes gw), aside from its new-look family front end, the good news is that it gains Volvo's I-Shift auto (as in FM and FH) as an option, instead of a six- or nine-speed manual or Allison auto. Equipped with the D8 engine, rated at 250, 280 and 320bhp (950, 1,050 or 1,200Nm torque), an FE with I-Shift is said to be 2% more fuel efficient than the previous Euro 5 FE fitted with a manual box.

Below: Volvo FL 4x2s as skiploader and flatbed in Volvo's Truck Town





Above: the FMX suspension, now available with Volvo's Dynamic Steering (VDS)

I-Shift remains one of the smoothest, fastest-shifting autos I've experienced and, in the 18 and 26-tonne FE, it provides excellent driveability, especially in town. I would question whether operators will want 12-speeds on an 18-tonner, but I doubt it will be an issue for drivers. On the road, the 280bhp FE 4x2 rigid with a box-body proved to be a very competent machine with a big-truck feel and quiet interior.

However, by far the most impressive FE is the 320hp FE 6x2 TR rear-steer, with a three-man cab and refuse body on the back. The rear-steer axle meant it went anywhere the 18-tonner could, thanks to an even tighter turning circle and excellent slow-speed control from I-Shift. While a six-speed Allison box is still a favourite with UK bin men, I can imagine I-Shift winning over on domestic collection work.

Smart steering

Meanwhile, the biggest talking point on both FM and FMX is Volvo's Dynamic Steering (VDS). A precision electric motor is attached to the steering shaft and works with the hydraulic power-steering pump. The motor delivers up to 25Nm of torque to the steering shaft and makes up to 2,000 adjustments per second, giving a precise feel. VDS has been designed to deliver exceptional directional stability at high speeds and to reduce steering loads at low speeds, even on heavily-loaded trucks.

On the road, it more than matches that theory. Whether in an FMX tipper or FM tractor, it offers truly finger-tip control, allowing a driver to turn the wheel with ease. On an artic, there's none of the straight-line see-sawing found on some other trucks, while turning on tight junctions and mini roundabouts is effortless. Driving off-road, VDS isolates the driver from any kick-back or shock travelling up from the wheels. It's also smoothly self-canting.

But this does beg two questions. How long before Volvo comes under pressure to make VDS standard on all its models, especially FL and FE? And what effect do VDS's ultra-rapid steering movements have on tyre wear?

That said, FM's road manners have been improved, with revisions to its front axle geometry and

location of the dampers, while the rear anti-roll bar has been moved forward of the air-suspended drive axle to give less chassis distortion and better control. Volvo has also reduced the tare of the Euro 6 FM11, which now weighs 75kg less than a Euro 5 – despite the Euro 6 emissions system adding 73kg.

On FMX, there's also a new air-suspended back bogie, said to offer good stability for tipper work. In the 8x4 Tridem I drove, which was loaded to 32 tonnes, the off-road handling and manoeuvrability were excellent. Frankly, I can't understand why more UK operators aren't tempted by the Tridem chassis.

Among the many revisions to the interior of the face-lifted FM cab are dash-mounted, push-button controls for I-Shift, in place of the gear-selector lever by the seat (which remains optional). Placing the controls in the dash acts as a disincentive to fiddle. You can still select gears (and hold them), but, with the buttons at arm's length, I can see drivers simply pressing 'A' and leaving I-Shift to it. Incidentally, the seat-mounted I-Shift control remains standard on FMX tippers where more driver intervention is likely.

Having driven FM with the 420bhp 11-litre Euro 6 engine at 40 tonnes, I can see it being popular with drivers working in distribution fleets and supermarkets, while the 450bhp rating will be well on top of 44-tonne work. Unfortunately, Volvo has not carried over the excellent FH mirrors onto FM, which has larger surrounds and close-mounted mirrors that create a blind-spot, certainly at tight junctions and roundabouts.

Better news for fleet accountants is that new FM's fuel consumption is "on a par with Euro 5". And, by specifying the latest I-See predictive cruise control, additional savings of up to 5% can be achieved, while the arrival next year of the 460bhp I-Torque engine offers further claimed savings up to 4%. Volvo's Telematics Gateway also allows workshops to monitor the truck's service condition while it's out on the road.

According to Volvo Trucks' boss Claes Nilsson: "The recent year has been one of the most intense and exciting periods in our history." I'd say it's been time well spent. **TE**



Right: Volvo FM, with updated dashboard