

t wasn't so very long ago that you could make your new Land Rover quicker by screwing the fuelling up and increasing the boost by making the turbocharger waste gate open later. Useful gains could be experienced at the expense of making black smoke – lots of black smoke.

Fast-forward to the present day where, if you've just dropped £50k for a top-of-the-range Evoque, that rough-and-ready approach just isn't acceptable.

As such, how do you tune the latest generations of clean and efficient Land Rovers without mucking them (or the environment) up?

With difficulty. In the case of the Evoque, its 2.2-litre four-cylinder diesel is already kicking out 187bhp and 420Nm (310 lb ft) of torque. However, if you really know what you're doing, there's room for manoeuvre; room that exists because manufacturers have to err vastly on the side of caution and build in extreme safety parameters.

Pete Bell, he of Land Rover tuner Bell Auto Services, freely admits that if Land Rover didn't detune its motors to accommodate said safety parameters, he wouldn't be in business. Of course, simply pouring more diesel into the engine is only part of the answer. One of the more taxing modern tuning issues is increasing power and maintaining acceptable emissions. This is important with vehicles such as the Evoque, which is fitted with exhaust particle filters – too much soot from extra fuel and they become blocked.

The only proper way to do things is to unravel the engine's brain and change the way it thinks; change the way it burns its diesel.

The challenge Pete set himself was to chase that Land Rover optimum. This involved the use of a sound meter inside the vehicle to make sure that the changes he made didn't damage the driving experience with extra noise.

To assess the results I devised a back-to-back road test followed by performance testing. Firstly, I would drive a stretch of motorway, A-roads and some twisty country lanes. This route would be driven twice in the same vehicle, first with the standard ECU and then with the modified version. To try and make the comparison fair I ignored the semimanual CommandShift override and let the auto box do all the work.

As you'd expect, the Evoque drove beautifully in standard spec, which meant the tuned version had to be good.

Straight from the off it felt more assured and willing than the standard Evoque. Ironically, all the work Pete has done to keep the essential character of the car slightly blunts the sensation of the undoubted extra power and torque. Had he produced a nasty, spiky map, it would no doubt have felt much faster.

Seat-of-the-pants testing is all very well but it can't tell you exactly how much faster the tuned car is: time to use a performance meter to get some proper figures. Each set of tests was carried out using both the standard and remapped ECU to get back-to-back comparisons.

The tuned 0-60mph times were only slightly better than standard, averaging about ½ to ¾ second faster.

'SO HOW DO YOU TUNE THE LATEST GENERATION OF EFFICIENT LAND ROVERS WITHOUT MUCKING THEM UP?'

