



Beefy Bouncer

After a definite improvement with the Freelander's Beemer-engined Td4, Victor Harman assesses the results of Bromleys' magic in the BMW 320d



Bromleys' Tunit module is quickly fitted to 3-Series diesel and produces amazing results

2.0-litre engine produced 154bhp in 'standard' form. Final figure was a stupendous 195bhp!



Performance now not only surpasses expectations but also that available from the vastly more costly 330d

320d totally transformed after inexpensive modification, with 45mpg within easy reach with a little care



We were deeply impressed by a previous Bromley Tuning conversion (issue 167) of a Td4-engined Land Rover Freelander, even if a reader subsequently wrote in expressing doubts regarding the validity of the figures, which were taken from a state-of-the-art four-wheel-drive dynamometer. So we were even more interested than usual to see what Bromleys could come up with on a model-year 2002 150bhp BMW 320d, whose engine shares the same fundamentals as the chunky Freelander, albeit with more power as standard.

As usual, the fitting of the 'Tunit' module took little more than 30 minutes, and after a short run with Boss Mike Bromley at the wheel to sample the engine in standard form, we took off to the rolling road for some test figures. It was a hot day, and we therefore needed to use a powerful cooling fan to ensure both a plentiful supply of cool intake air and the

validity of our recorded power figures.

With the Bromley unit disabled, the power output clocked at 154.2bhp at around 3,750rpm – a touch higher than the 150bhp factory specification (and at a somewhat lower engine speed) for a car probably in its prime, with 6,000-odd miles on the odometer.

But with the Tunit enabled, a truly impressive 195.2bhp made itself apparent, again at a pretty modest 3,700rpm, even though the engine revved freely to nearly 4,500rpm before becoming a little breathless. That's a meaty 26% improvement, and it represents a 30% increase over the 150bhp standard output.

Due to a glitch we were unable to record torque figures, but our calculated figures show approximately 235-240 lb ft available on a plateau from some 2,200-3,000rpm as standard, with a leap to 280-285 lb ft over a similar engine speed band with the aid of the Bromley module. This conflicts a little with claimed

factory figures of 243 lb ft at 1,750-2,000rpm, and highlights the only real criticism of this fine power unit – the relative lack of punch below 2,000rpm, duly noted in our road test in issue 163.

But such nitpicking is barely relevant on the road, when the car is driven as befits a BMW, and a swift run round the Lancashire lanes showed what a potent machine a Bromley-tuned 320d is. Not that the standard car is any slouch, but it's quite apparent that, with a power-to-weight ratio 13% superior to that of the standard 184bhp 330d, the Bromley-converted car is going to be pretty swift transport, and indeed, such was the case.

Carrying 100kg or so less weight over the front wheels probably results in even better-balanced handling than the 330d's, both having been significantly improved by the steering and suspension modifications which came at the same time as the introduction of the 150bhp common-rail engine.

So for the modest sum of £400 +VAT, as against the £4,000-odd extra cost of a 330d six compared with the four-pot 320d, one stands a decent chance of being able to embarrass any owner of the former. Of course, it will never sound as good though. Despite which, maybe this is the best of both worlds - under power the 320d is damned near as smooth as many a six, and as is usual with Bromley conversions, one will probably continue to enjoy the 45mpg plus fuel economy potential of the standard car.

If only you could do something about that strangely skewed 3 Series driving position... and if only young Bromley himself would drive a little more slowly!

For further details on this, and a full range of similar diesel conversion units, see the Bromley website www.bromleystuning.com, or contact sales@bromleystuning.com, or phone **01257 274100**.

