



TOYOTA 2.2 D-4D AVENSIS

by Tunit

Toyota's Avensis has carved a fine reputation for quality, refinement, and dependability, but the original 2.0-litre 114bhp D-4D engine left something to be desired in performance terms, with a rather weighty 1,450kg body to lug around. This shortcoming was recently eliminated by the offering of a new 2.2 litre D-4D engine offering 148bhp and 229 lb ft of torque – an uplift of some thirty per cent in power, which drops the 0-60mph time from 11.4 seconds to 9.3 seconds and turns it into a pretty swift performer – and a quieter one, with improved noise suppression in various key areas.

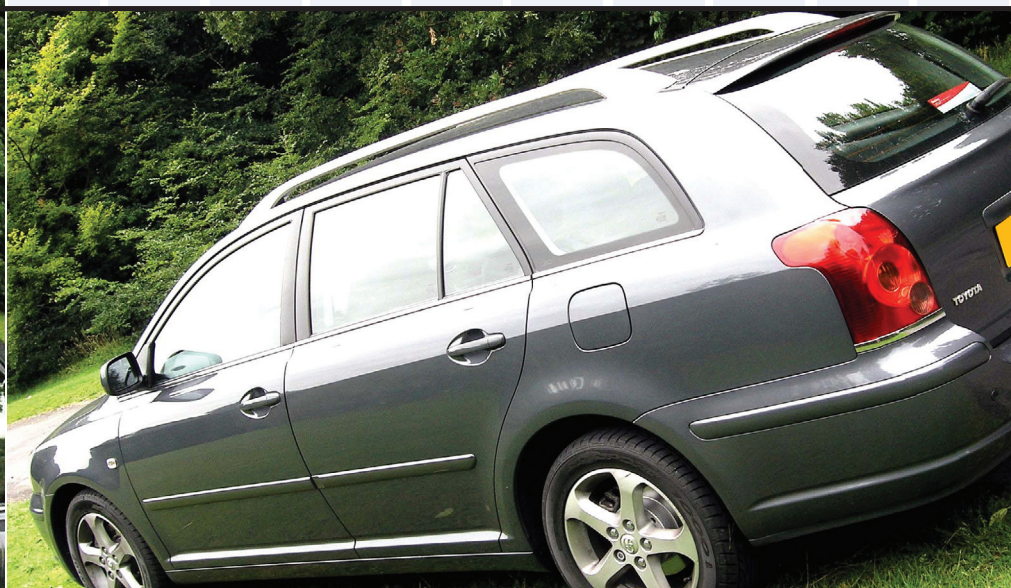
Tempted by the prospect of even more of a good thing, Tunit soon got its hands on a new 2.2 D-4D Tourer estate and I was invited to the Chorley, Lancashire HQ to view the tuning procedure and then sample the finished product. I started by taking the standard car for



a good long spin, having not previously driven an Avensis with this new engine, so that I would have a baseline for my later test of the Tunit-modified car.

The all-aluminium 2.2 litre engine is of the latest common rail generation that in many ways delivers the best benefits of diesel power, but with much of the smoothness and

refinement of a good petrol engine. You're seldom aware of any diesel clatter and the power delivery is seamless, with no sudden surge of torque – simply an impressive shove from just above 1,000rpm right through to 4,000rpm, with in-gear flexibility that means much of the work can be done in fifth and sixth gears, right down to quite low speeds. I was



without any evident vices or shortcomings. Acceleration from rest and in the gears was noticeably sharper and, with the torque now exceeding the peak figure of the standard engine all the way from 2,100rpm to 3,800rpm, this was in no way a peaky performer. All the flexibility of the standard engine was there, but in spades, and there was in fact little temptation, or need, to explore the upper ranges of the engine speed band to indulge in some pretty swift motoring. In fact the Avensis was evidently now a 0-60mph in around eight seconds car, putting it pretty well on par with the BMW 525d, and a bit quicker than a Mercedes C270 CDI. But how does the owner rate the car now?

really quite impressed by both the improved performance and general refinement of the car, which also seemed more agile and responsive – probably as a result of both its added zest and some significant tweaking of chassis and steering settings.

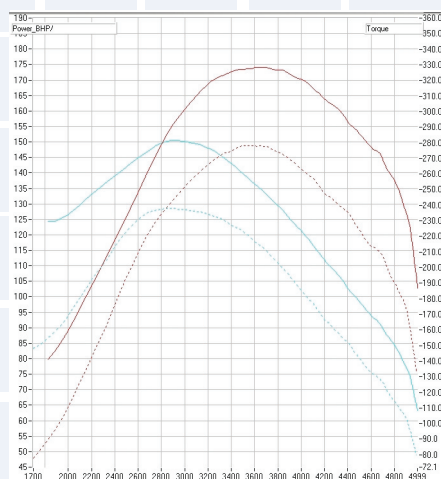
So, back in the Tunit workshop, with the Avensis now set up on the rolling-road dynamometer, the fitting of the Tunit conversion was a very swift process – and one that might be undertaken by any owner who is

It usually doesn't take many yards of motoring to notice the difference that a Tunit conversion makes and it was no different with the Avensis. Even with a modest push on the accelerator, the improved take-off out of the first urban roundabout was noticeable. Out on the open road the step up between the Tunit-modified car and the standard 2.2 D-4D seemed about the same as between the 114bhp 2.0-litre engine and the unmodified 148bhp 2.2 motor. So the swift standard car had indeed now become something of a real performer, and one



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competent in DIY. Connections into the standard wiring harness are simple and swift, (see picture) and the Tunit can then be conveniently and accessibly secured in the engine compartment. Next job was to record some figures for the engine in standard tune, and the results were right on the button – 148bhp at 3,600rpm, and peak torque of 238 lb ft at 2,850rpm – as close to specification as makes no difference, although the torque did not appear to spread right down to 2,000rpm, as per the factory figures.



“Amazing!” “And the fuel consumption just hasn't changed! Bags of torque right through the rev range to 5,000rpm.” I think that he sounds a pretty impressed man! Like all Tunit conversions, for details of which call 01257 274100, or in their web site on www.tunit.co.uk, it costs just a modest £470 inclusive, comes with a guarantee of satisfaction and, whatever your diesel, there's bound to be a conversion for your car in the Tunit range!

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THE FINAL TWEAK

The Tunit technicians then made a number of dynamometer runs, exploring the scope of the easy adjustability of the Tunit conversion, and the power and torque figures steadily rose well beyond 160bhp and onwards with no problems, or any black exhaust smoke evident. With the satisfaction of knowing that yet more was actually in hand, the Tunit boys settled for a final figure of 174bhp at just over 3,600rpm, and a peak torque that was now up to a very meaty 282 lb ft. Now 174bhp is no mean figure itself, but that 282 lb ft is more torque than a Vauxhall 3.0 CDTi V6 produces in the Signum, and very little short of the 177bhp and 295 lb ft of the 2.5 litre six in the BMW 525d. So, as you might imagine, these figures offered every expectation of the Avensis now being a pretty swift performer!



With 282 lb ft, the Avensis outpulls the 3.0 V6 Signum.



For details on this, and a complete range of conversions to all current diesel engines, call Tunit on 01257 274100, or visit their web site www.tunit.co.uk for a further insight into their product range.