

LUSTY ITALIAN

There's nothing quite like an Italian car to stir the senses, and there's something in the Italian nature that always demands and produces power units that respond excitingly and willingly to the right foot. And you can always add to that exhilarating noises that further build on the excitement and a total driving experience that's captured by the word inevitable word 'brío'. Think Fiat, think Alfa Romeo, think Ferrari, Lamborghini and Maserati – with double-overhead cam fours, wailing V6s, and V12s. But this is all hardly the stuff that would make us think of diesel power, with its presumed handicaps of chronic bronchitis, a strictly limited power band, and a soundtrack from a documentary movie on vintage tractors. No way, you might think. But turbo power and then common rail changed all that. In 1999 Alfa Romeo launched their pioneering common rail five-cylinder 2.4 JTD engine in the 156 Saloon and Sportwagon and it really shattered the traditional diesel mould. Coming from traditions of the double overhead camshafts, stratospheric red lines, and thrashing valves that are inevitably associated with Alfa petrol power, it was even more of a surprise. Its 136bhp and 224 lb.ft of torque were impressive enough on paper, but even more so were the classic Italian trademarks of overtly sporting character, free-revving eagerness, and all the right noises. It broke totally new ground for diesel power – and in the process laid down markers for its competitors and the base principles of the hitherto unknown 'performance diesel.'



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work. If it's done correctly, and skillfully, then there's no downside and a good engine can be made to perform even better in all departments. That was the target at Tunit HQ when enthusiastic local Alfa Romeo agent Caledonia of Preston offered a 156 2.4 JTD Veloce to the Bromley boys for their own special brand of Red Bull treatment. The first tasks were to sample and assess the standard car and then lay down some baseline figures for engine output on the Tunit rolling road dynamometer. There's little reason find fault with the factory car as the power unit delivers just about everything that the paper figures promise. There's a subdued, slightly throbby nature to the engine note at low speeds that grows into a delightful growl as you demand more power and the free-revving nature of the motor still surprises. Of course it's a 'five', which means that there are 25 per cent more firing pulses at a given engine speed than a 'four', and that means that 4,000rpm sounds like 5,000rpm to the four-cylinder-familiar ear, and all the more delightful for that,

as the tachometer needle climbs with few inhibitions towards 5,000rpm. Low down there's maybe a touch of bronchitis below 1,600rpm, beyond which the engine then picks up cleanly and with increasing urgency. But it's a tractable unit by any standards and it delivers mid-range torque and top end power that easily disposes of middle-of-the-road dawdlers in just about any sensible gear. Very impressive – and not too easy to better, one might think!

CHANGING LANES

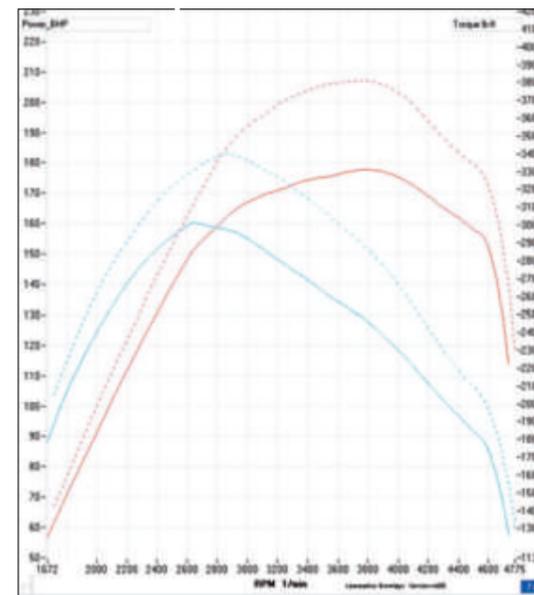
Back on the rolling road, the standard power unit clocked 178bhp and 207 lb ft of torque – fairly impressive figures for a car with few miles under its belt, with the torque figure six per cent over specification. Very few minutes later – the fitment of the Tunit box is extremely swift, involving simple plug-and-play under bonnet connections – the 156 was ready and waiting to show what talents it had been hiding. As with all Tunit conversions, there's an in-built adjustability of the power boost and Tunit MD Mike Bromley started with

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Power and torque are not only increased but also cleaner.

some intuitively selected settings that produced something a little short of 200bhp, along with a healthy torque boost. The exhaust was totally clean and free of black smoke, showing that there was still excess air to burn more fuel – and that there was surely more to come yet. After a few more runs, the giant cooling fan was brought into action as engine temperature climbed and the intercooler began to struggle. This is one of the problems of accurate static dynamometer power measurement and it's essential to allow the engine to produce full power by replicating the air-cooling that it would be enjoying on the open road.

A few more dyno runs later (including one that just went too far and lightly blackened the exhaust) and Tunit were just about ready to settle for the 200bhp plus that was then evident. But it's at this point that experience and a little more persistence can optimise outputs and road performance, and after two or three more runs marginally better settings were found which gave us the cleanest power curve and the best overall compromise.

The final figures came out at an impressive 207bhp and 340 lb.ft, (representing an overall performance boost of around 15 per cent, suggesting that a similar proportion would be knocked off the key performance figures. We didn't have time or the opportunity to take any of these, but we'd bet on something around 6.5 seconds for 0-60mph, and under four seconds and five seconds respectively for 30-50mph in fourth and 50-70mph in fifth. Pretty stunning numbers – and more than a match for a 204bhp BMW 330d that costs another £7K on the road, even with the modest £400 + VAT cost of the Tunit conversion.

ON THE ROAD

Out on the road in the converted car the immediate impressions were of a clearly detectable added smoothness to the engine, and noticeably improved low down response. The 156 picked up cleanly from ridiculously low engine speeds and, when you're not in a hurry, it's quite possible to meander along smoothly with as little as 1,400rpm on the tachometer, knowing that there's instant urge available for modest overtaking challenges. Higher up the engine speed range there's an undoubted slug of extra urge and again an added smoothness, together with even better breathing that sees the needle spin round the tachometer with astonishing freedom, delivering fearsome acceleration when it's needed – or even just for fun! You just don't want to go home in this car! In fact the lucky guy at Caledonia who does get to go home in this car came back later to say that he wondered if it was even a bit too quick for him! So just what more can you say – except that it's very easy to drop the power and torque boost down a bit with the instant adjustability of any Tunit conversion, and equally easy to drop the car back to standard tune if you should feel that perhaps another family member would be less likely to get into any form of trouble without quite so much performance available.

To read about this and many other equally exciting Tunit diesel (and petrol) conversions, go to www.tunit.co.uk or contact Tunit HQ on 01257 274100 for more details and location of the nearest agent in their nationwide network.

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