

# Boost your performance with the new BMW 135i, 335i and 535i hybrid twin turbo!



Turbo Dynamics are pleased to announce the release of the new BMW 335i hybrid twin turbos to the worldwide market. After several months of intense development and fine-tuning, we are delighted to be launching the much anticipated Stage 1 upgrade for the BMW 135i, 335i and 535i twin turbos. We estimate that this twin turbo upgrade for the BMW 335i 3.0 Litre N54 petrol engine should achieve a conservative extra 50-60 bhp output with correct mapping.

It all started in 2007, when TD customer Tony Ho was developing the BMW N54 twin-turbo engine into a true high-performance motorsport engine far beyond the already high standards set by BMW from factory. Since then, with the engine totally overhauled, balanced and blueprinted, Tony felt it necessary to turn his attention to the weak link in the power train and commissioned Turbo Dynamics to produce a set of uprated turbos capable of maximising the new-found performance in the engine. The brief was simple - more mid-range power, higher extension into the upper reaches of the rev range, with no discernable increase in low-rev lag. Bulletproof reliability was also an important factor as Tony spends much of his time at the famed Nurburgring.

Tony has been running the MD528 and 529 turbochargers on his BMW 335i for over 4000 miles, with over 75 laps of testing at the Nurburgring along with two full days at Brands Hatch. With bespoke mapping by a renowned race team in Germany, the new turbos helped the car to produce an extra 60bhp and 50lbft with no increase in boost pressure mapping.

Whilst we were busy at Turbo Dynamics, performing the upgrade to these units, Tony commented "Turbo Dynamics are one of the world-leaders in turbo development, building, upgrading and fettling. Their reputation is phenomenal, and if anyone can work some magic on these standard Mitsubishi turbos that are used on the 335i, they can...!" Cheers Tony - we don't like to blow our own trumpet, so it's always nice to hear someone do it for us!

Tony went on to say "...There's no point in changing the turbos, as there'll be fitment issues as well as the need to manufacture custom exhaust manifolds and all sorts. With the improvement in efficiency, durability and performance, there's no reason why I can't get over 500bhp from the engine, if I wanted to. The main limitation will be the injectors and fuel pump. However my intention is not to go crazy on power - I'm very happy with how the car was performing anyway, so to be able to achieve the same but at far lower stress and heat levels is a major achievement."



Tony's concerns that a larger compressor wheel and increased flow rate would result in an increase in turbo lag were put to rest the first time he drove the car with the modified turbos fitted: "Low speed pickup was not really hindered - there seemed to be no appreciable increase in turbo lag. Spool up times seemed very quick - from 1300rpm there was considerable shove, and by 1800rpm the car was pulling very hard. I could wheel-spin easily in 3rd gear just by being aggressive with the throttle."

The proof is in the pudding as they say: "The overall net result was an approximate 65hp increase at the flywheel over stock and torque figures went up by about 50lbft. This was over and above the performance I was already getting from the various engine mods that have been done to my car..." said Tony.

"...The real-world improvement was significant - mid-range pull was stronger, making 4th gear feel like 3rd, and there was a noticeable improvement in top-end power with much less tapering off as the revs climbed towards red-line. The car felt as strong at 5000rpm as it did at 3500rpm, whereas a normally configured engine would start tapering off at 5000rpm, becoming a bit breathless in comparison at 6000rpm.

Fuel economy whilst cruising is totally unaffected, although the consumption increased noticeably when pushing on as the fuel rate is increased to match the rise in air flow. I averaged 28mpg (UK) over the 4000 miles, which is pretty good considering I spent two days at Brands Hatch doing my best to break the turbos!!"

The Stage 1 overhaul costs £750 + VAT per unit and comprises: specially modified replacement compressor wheel, re-profiled compressor cover to suit, lightened and modified exhaust wheel to help reduce backpressure, and full blueprinting.

We also offer the option to purchase complete new MD528 and MD529 units at £1995 + VAT each - these are available to buy online now from our webshop where you can also view the hybrid spec sheets.

For more details visit [www.turbodynamic.co.uk/shop](http://www.turbodynamic.co.uk/shop).

