



Hartge H3-3.5 Complete Conversion Basis 335d



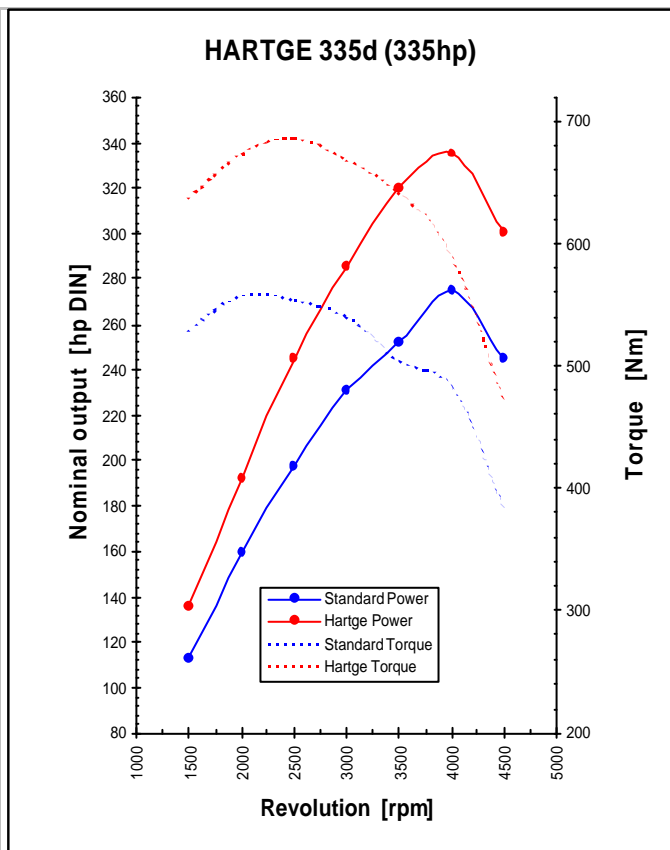
The New BMW 335cd is recognised as a superior sporting saloon. Real world performance is the name of the game with BMWs award winning biturbo diesel. Hartge endow this engine with a further significant step in power, using up to the minute engine management software.

In gear acceleration is transformed to a level that can only be described as incredible. Even the latest M3 struggles to maintain contact until wholly illegal road speeds are involved.

Birds are proud, therefore, to announce the first fully developed tuning package for this car. Development of this engine was started before BMW released the car into the public domain, and the all-important engineering and durability testing has been completed in record time.

Moreover, there is little doubt that whilst BMW have endowed the car with superb dynamics, there remain significant margins where performance can be improved. We have co-ordinated all of the necessary equipment and expertise to transform the braking, handling, traction and ride quality, so that the driver is able to fully communicate with the chassis, and truly elevating the dynamics to provide the real ultimate driving experience.

All technical work is undertaken at Birds facility in Uxbridge, near Heathrow, with new engine management maps individually programmed and transmitted from the factory. All conversions are properly guaranteed for both performance and longevity. Only the best will do, and only available from Birds, The UK's Premier Tuning Company.



Underlining our place at the cutting edge of tuning technology, all complete conversions carry comprehensive warranties of 24 months, without mileage limitation.

Kevin Bird Garages Limited

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BMW



Mercedes



Mini



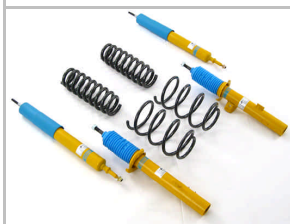
Interiors

The complete conversion consists of the following items. We will be pleased to revise specifications and pricing to your individual requirements.

Engine	S3-3.5 335hp Engine Conversion
Exhaust	Sport Exhaust, Four Outlets
Limited Slip Differential	Quaife ATB with 70% bias ratio
Suspension	Sport Suspension
Stabilisers	Anti-Roll Stabilisers
Wheels & Tyres	19" Classic 2 Wheel & Tyre Set
Interior Accessories	



Sport Rear Silencers are not part of the engine conversion, but manufactured in lightweight stainless steel, they improve the aural quality of the exhaust, and whilst they still meet the criteria of the European D4 noise limits, the tonal change improves the sound to a deep rumble. Most rear silencers are available with dual round or oval tailpipes. An export version is also available for a slightly louder and more aggressive sound



Sport Suspension - The suspension features springs that are stiffer than standard, yielding benefits in both roll and cornering poise. Ride quality is paramount, and for this reason, the adoption of gas shock absorbers and rising rate springs achieve an impressive balance, even with 20" wheels. An optional adjustable suspension is available, adjustable for ride height and rebound and bump settings. All of our systems feature expert set-up for UK road conditions.



Stabilisers - anti-roll stabilisers allow the chassis balance to be trimmed to a drivers' taste. Fast driving will immediately note the prevalent under-steer inherent in the standard BMW chassis. As a consequence Hartge provide significantly more rear stiffness than the front, biasing away from understeer



Quaife ATB diff - ATB differentials increase the torque presented at the tyre contact patch with the road, which increases the force exerted on the road, which, in turn, increases the rate of acceleration. In low grip situations, the standard 335 "open" diff. allows one wheel to spin, triggering the traction control and limiting the engine power. The ATB diff prevents the wheel with the least grip from spinning, traction control is therefore not triggered, and the car accelerates to its true potential.



Optional Sport Brakes - 356 x 32mm curved vane ventilated and grooved discs for the front axle, featuring low weight alloy hubs, with an unique floating rotor system to prevent vibration and fade. Six piston alloy calipers for reduced weight and mighty stopping power. The feel and progression of these brakes allow fierce braking right up to the point of ABS actuation, both in the wet and dry. Fully protected against corrosion, and they work from cold right up to circuit temperatures. Rear Brakes to match are available as an option.

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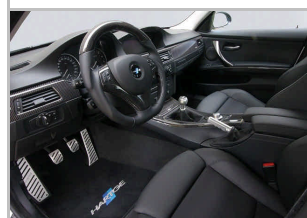
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Hartge Classic 2 Wheels and Tyres- The new Hartge Classic 2 in 19" is our recommendation for the E90 series chassis. The dimensions 8.0 & 9.0x19 with 225/35 & 255/30 Continental tyres have been specially selected for their quiet running, impeccable wet road traction, and impressive speed rating. All of the benefits of the Hartge Classic, with the added advantage of radial spokes which integrate with the outer rim, making the wheel appear larger than their nominal dimensions, but retaining the ride quality required for everyday use.



Optional Hartge Classic Wheels and Tyres- The set is fully compatible with all of the factory traction, dynamic stability and puncture protection systems, and ride quality has been maintained by careful design and attention to installed weight of the wheel and tyre assembly. Fully compatible with any of the standard equipment, and of course with all Hartge equipment. Hartge wheels sets come with Pirelli or Continental high performance tyres which eliminate the uncomfortable ride of the standard run-flat units. Available dimensions from 17" to 20"



Optional Carbon Fibre interior- A complete set of Carbon fibre accents to replace the wooden or aluminium standard trim panels. Parts involved are dash trims (3), gear lever console, door handles and decorative strips on front and rear doors. Carbon fibre door mirror covers and exterior detailing will soon be available.



Interior Accessories - Interior detailing, including aluminium alloy pedals, footrests, handbrake levers and gear lever knobs, and optional bespoke carbon fibre trims complete any conversion to the tastes of the individual.