

# Premier Cru

As well as making some fine wines Alpina also produces some rather good motor cars and its B7 Bi-Turbo has to be one of its best creations to date

Words: Bob Harper Photography: Max Earey





You could be forgiven for thinking that BMW had made life a little easier for Alpina by opting to fit twin turbos to the 750i, the base for Alpina's latest über-cruiser. With the E65 generation B7 (along with the B5 and B6) Alpina had to develop the supercharger system that hiked power to over the 500hp mark but with the new car already being turbocharged all Alpina would need to do was up the boost, slap on some trademark alloys and aerodynamic addenda and the job's a good 'un. However, as we should know by now, Alpina definitely operates on the 'if a job's worth doing, it's worth doing well' school of thought and there's a hell of a lot more to the new B7 Bi-Turbo than meets the eye.

And as I join the Autobahn I can feel all that Alpina fettled goodness coursing through the B7's veins. Pootling around the outskirts of Buchloe it's a paragon of understated smooth-riding cruiser, with just a hint of V8 menace at initial start-up to remind you that this is a thoroughly reworked machine. On the move with gentle throttle inputs all is as calm and refined as you'd expect from a nigh on £100,000 7 Series, but light the blue touch paper and all hell breaks loose.

Snapper Earey is following in a B3 Bi-Turbo, itself no slouch, but even I'm astonished by how quickly it turns into a speck in the mirror of the B7. Quick just doesn't cover it. Introduce the loud pedal to the carpet and the two-tonne B7 simply launches itself at the horizon with a ferocity that just shouldn't be possible in such a large machine. If I'd been driving it at night I really wouldn't have been surprised if the lights outside the car had taken on a Star Trek-esque warp drive demeanour. It's a carefully thought-out blend of speed, the sensation of speed and just enough V8 grunt to keep the inner enthusiast happy.

The B7's unrelenting thrust is, naturally enough, down to its engine and while it shares the same basic architecture as the BMW unit on which it's based, there's been a hell of a lot of work involved in creating a V8 whose figures are, in typical Alpina fashion, wildly conservative. Claimed output is 507hp at 5500rpm while torque is a prodigious 516lb ft available across a 3000 to 4750rpm rev band. You can bet your bottom dollar that the B7's V8 will produce these numbers on the hottest day of the year in Death Valley, so on a cool Bavarian morning they feel like a hell of a lot more. It doesn't take a rocket scientist to realise that there's more to the engine than Alpina's figures would suggest, as despite weighing in at the best part of 100 kilos more than the previous generation machine it will accelerate to 62mph from a standstill in 4.7 seconds instead of

4.9. A standing kilometre time of 22.9 seconds is the same as the M5 Touring a machine that, according to the stats, has the same power output yet weighs over 150 kilos less and has a smaller frontal area to contend with. It seems that Alpina is being overly conservative with its figures as it doesn't wish to bite the hand that feeds it, given the company's very close relationship with BMW, and that perhaps the B7's V8 may well be right up there (or beyond) what BMW claims for the X5 and X6 M's similar powerplant.

So, while the block and head may look virtually identical to the 750i's V8 and share the same capacity, they hide Mahle pistons and while the twin-turbos are installed in the same location they have been specially designed by Alpina in conjunction with Honeywell-Garrett with 44mm vanes for additional boost.

A huge proportion of the B7's development budget was swallowed up by a need to make cooling as efficient as possible and as a result the three bespoke Behr intercoolers that nestle behind the reworked front spoiler are 35 per cent bigger than those fitted to the 750i. To give you an idea of the lengths Alpina went to to ensure optimum cooling it discovered during wind tunnel testing that at a certain speed a venturi effect in front of the block was causing air to be sucked back out of the kidney grilles which was having a major effect on aerodynamic efficiency. Thus it redesigned the plastic vanes behind the kidneys, the tooling for which cost a cool €70,000!

The result of all the engine work is a unit that's not only immensely powerful and torque rich while being cultured and refined when you want it to be with a bit of an animalistic dark side when you indulge in some full throttle tomfoolery, but one that's also remarkably efficient, parsimonious and clean. Naturally enough it's EU5 compliant and has a CO2 output of just 286g/km (that's less than a 2005 X3 2.5i!) but it's the combined economy of 23.7mpg that's the amazing feat. On the extra urban cycle it's claimed to do 32.8mpg and while we didn't manage to match those figures, being less indulgent with the throttle pedal would have seen us come close. For a two-tonner with over 500bhp that's quite remarkable.

The Bi-Turbo V8 is hooked up to a modified ZF 6HP26 Tü six-speed automatic transmission that's similar to the one used in the previous generation B7. The gearsets come from a variety of sources but the smoothness of the resulting gearchange can't be faulted, and when you're on a charge it'll seamlessly swap ratios in a couple of hundred milliseconds with hardly an interruption in power delivery. In an ideal world Alpina likes to use as many off-the-shelf BMW components as possible to keep costs down, but



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## BMW ALPINA B7 BI-TURBO

**ENGINE:** V8, Bi-Turbo

**CAPACITY:** 4395cc

**MAX POWER:** 507hp (373kW) @ 5500rpm

**MAX TORQUE:** 516lb ft (700Nm) @ 3000-4750rpm

**0-62MPH:** 4.7 seconds

**WEIGHT:** 2040kg

**STANDING KILOMETRE:** 22.9 seconds

**TOP SPEED:** 174mph (280km/h)

**ECONOMY:** 23.7mpg

**EMISSIONS:** 286g/km

**PRICE:** £95,900

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after extensive testing it was found that none of BMW's gearboxes could cope with the mighty Bi-Turbo. It's rumoured that one standard BMW gearbox that was tried didn't manage a lap of the Nordschliefe before being turned into a casing full of swarf!

The B7 Bi-Turbo's performance shouldn't really come as a surprise – a 750i's rapid and the Alpina has an extra 100hp to play with – but power is nothing without control so Buchloe's boffins set about tackling the suspension setup of the B7 to make sure that it was as capable of playing comfortable waffer, outside lane 'Bahn stormer and back road blaster depending on your mood. Like the 750i the B7 comes with Dynamic Damping Control and Dynamic Drive (active roll stabilisation) but the systems have been completely recalibrated to suit Alpina's requirements. There are hardware changes too, with shorter and uniquely calibrated springs made by Eibach to Alpina's spec lowering the front and rear of the car by 15 and 10mm respectively. Other suspension components have been replaced with a careful combination of items available from the BMW parts bin and camber, caster, and rolling radius are all different on the B7 than on a 750i and the result is a machine with less tendency to understeer than a factory BMW.

Alpina spent a long time working on the algorithms for the Dynamic Damping control and like the BMW system there are four settings; Comfort, Normal, Sport and Sport Plus. Not only do these settings have an effect on ride quality, but can also alter power steering assistance and throttle response. In Comfort mode we found the B7 to be a little too floaty – much like the standard Seven in this respect. However, given that many B7s will be sold in parts of the world where there are some pretty rotten roads this setting is clearly aimed at those buyers. Normal and Sport are the settings of choice though, the former for tootling around with passengers on board, Sport for when the roads allow for a bit more entertainment.



In the latter mode body roll is kept well in check and there's a pleasing weightier feel to the steering which allows you to more accurately guide the big Seven in the direction you want it to go. You're still aware that this is a big, heavy beast though, and the car's sheer bulk will be the slowing factor on smaller back roads rather than any chassis shortcomings. Keeping pace with our B3 Bi-Turbo camera car on some tighter roads was a challenge, although the shortest of well-sighted sections soon saw the B7's large nostrils attempting to ingest the rump of the B3!

Where the B7 scores significantly over the standard Seven is in its ride quality, thanks in part to the reworked suspension settings, but in the main due to the non-run-flat Michelins. They might be massive at 21-inches (245/35 fronts and 285/30 rears) but they offer more compliance in their sidewalls than the BMW fare, and the B7 rides remarkably well and also suffers less from road noise being transmitted into the cockpit as a result, especially on the autobahn. The new take on the Classic wheels also really suit the car, especially when the milled flat sections at the outer edge of each of the 20 spokes catch the sun.

If one were looking for a downside to the B7 and lived in Germany then you could be forgiven for feeling a little disappointed that the Bi-Turbo is the first of Alpina's Sevens to have a limited top speed. 'Just' 174mph. There's no doubt that given its head the new B7 would outrun its predecessor (which was unfettered), but the weight gained on the F01 7 Series when compared to its E65 forefather means that as a safety precaution the new car's speed has been capped. It's EU law that any new car must be capable of running for 20 minutes at its top speed and at its maximum gross vehicle weight as it left the factory and for the B7 this would have meant over 2.6 tonnes running somewhere north of 200mph. It was a tough call for Alpina as it could have significantly raised tyre pressures – and you'd be looking at another 10-15psi – to allow for an unfettered top speed but that would have seriously compromised the wonderfully supple ride that its suspension engineers had strived so hard for. In most countries it's purely academic, but in Germany Alpina reckons it knows of around 20 owners of the previous generation B7 who regularly exercise their beasts at 300km/h who have reservations about getting the new car with its inferior tarmac-shredding ability. So, 'only' 174mph for the B7 Bi-Turbo, but boy, do you get there fast!

After much faffing about in the foothills of the Alps Earey finally finds somewhere that he's happy to take

pictures which gives me a chance to take in all the neat detailing of the B7. It's certainly handsome and the lowered ride height combined with the monster wheels give the car an aggressive stance. The front spoiler may have eschewed Alpina tradition but its air intakes are all functional, allowing air to go where it's needed. The rear spoiler was also naturally the result of much work in the wind tunnel and the Alpina aerodynamic components result in a reduction in lift of 30 and 15 per cent front and rear respectively. The quad exhausts that emerge through the rear valance (itself designed to assist cooling air flow to the differential) are the icing on the cake and not only look good but produce a delicious woofle at idle. Even the Alpina script on the front spoiler is made from regenerative material that will resist stone chipping, and it's this sort of attention to detail which really sets Alpina apart from other small scale manufacturers.

Inside it's a delicate amalgam of BMW and Alpina parts. Our test car is equipped with the standard fit, and appropriately named, Comfort seats and the cockpit is swathed in Exclusive Nappa leather with Alpina rhombs on the seats. Naturally this being an Alpina there are a myriad of interior leathers that can be chosen as an option. Subtly illuminated blue B7 logos adorn the sills and the steering wheel is a tactile Lavalina leather item with Switch-Tronic gearchange buttons at the back of the wheel in the nine and three o'clock positions. As the new Seven comes with black panel technology for its dash pod Alpina decided to simply colour the dial faces with its traditional blue hue and in combination with the red needles it works very well indeed. Our car has the Alpina Myrtle wood trim with delicately inset Alpina logos, but if it were my car I think I'd go with the Piano Black trim. And that's part of the joy of ordering something as special and bespoke as a B7, you're not limited to the BMW range of trims and finishes.

Pictures in the bag we can finally head for Buchloe and in typical fashion we're running late; if we're to catch our plane we're going to have to get a wriggle on. The V8 gurgles in anticipation as I dial in Sport mode on the Dynamic Damping Control, shift the gear lever over to engage Switch-Tronic and point the B7's nose northwards. Early evening traffic has thinned and we're fortunate enough to be travelling up a road that's virtually deserted. Once again the B3 behind me rapidly retreats in my rear view mirror as the mighty V8 hauls the B7 forward. No matter what speed or what gear you're in forward momentum is nothing short of astonishing. The red needles on the dials are

a blur as both the rev counter and speedo travel their arcs and each time the redline's reached a tweak on the right hand button seamlessly engages another cog.

Opting for the Sport plus setting here and there allows for some more slip from the rear wheels before the traction control intervenes and at low speeds the DSC flashes demonically as you apply the power. Turn-in is impressive given the weight and speed while grip's phenomenal from the gumball Michelins and the well weighted steering gives more feedback than when in Normal mode. It's still a little on the light side around the straight ahead and does suffer from an occasional kickback when on a particularly rough stretch of road or a bumpy corner but as far as downslides are concerned that's about it.

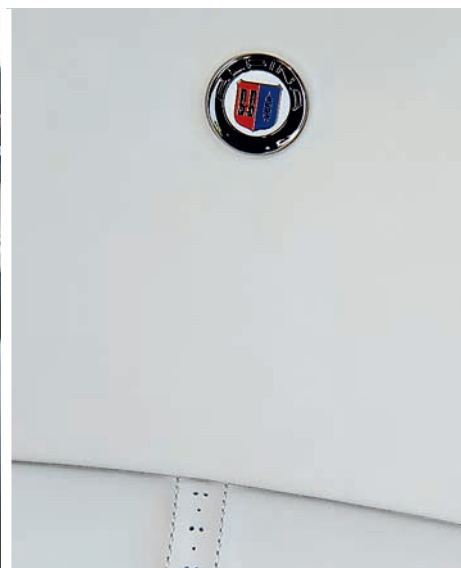
The huge discs – 374mm front and 370mm rear – developed for the 760Li with all the options fitted wash off speed with ease and a well modulated pedal give you every faith in the anchors. The suspension helps here too; as each axle is independently controlled the front shocks will stiffen considerably during heavy braking while the ones at the rear will slacken off to give more control to the rear wheels.

As we join a more trafficked highway the B7 makes light work of picking off slower cars – drop a cog with the Switch-Tronic, or simply floor it and let the torque do the work. It's hard to think of many machines that could keep pace. And all the time the bespoke Boysen exhaust (again made to Alpina's exacting specifications) and the V8 are playing a veritable symphony, ranging from a deep bassy rumble to a higher pitched screaming banshee. It's in no way intrusive, some might say not audible enough, but it always sounds cultured and absolutely unburstable.

As we say our goodbyes at Alpina and get into our A-Class hire car it feels as if someone's replaced its engine with a sewing machine. The B7 sits gently ticking as hot brakes and exhausts cool down, and I can't help but think that the B7 Bi-Turbo is one of Alpina's best achievements. The 750i is an awesome piece of kit in standard form, but Alpina has taken it to a whole new plane. And here's a thought, we suspect this engine will make its way under the bonnet of the next generation B5 and B6 over the next couple of years. If it's this impressive hauling over two-tonnes around what's it going to be like in the lighter 5 and 6 Series shells... I can't wait to find out ●

#### THANKS TO:

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**Web:** [www.das-festspielhaus.de](http://www.das-festspielhaus.de)



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