Cayman **bites back**

It's no secret that the Cayman can handle more power, but can it handle a turbo conversion and a 911 Turbo-rivalling 500bhp? Specialist Parr reckons so and has built this car to prove it. We reckon they're right

Words: Adam Towler Photography: Michael Ward

It's small, it's orange, it makes a sound that creates follicle havoc on the nape, and it might just be the most exciting thing I've driven all year. Say hello to every die-hard 911 driver's worst nightmare: it's a 500bhp Cayman.

Go-faster Caymans, which seem to have taken off in the USA and elsewhere – and which are gathering in number over here now, too – greatly intrigue some of us at this publication, just as they have an ability to wind up certain sections of the Porsche faithful. We'll leave the usual debates be for now, and concentrate instead on the car in question, for it doesn't take long in the presence of this machine for it to be commandeering your thoughts.

There are four main routes to increasing Cayman performance, and understanding this matrix of possibilities is key to appreciating the ethos of this particular car. Route one sees you increasing the capacity of the standard 3.4 'S' engine, a modification path that applied to the 3.7-litre Cayman S from Autofarm, a car that we were so enamoured with in the February 09 issue of this magazine. Obviously, it maintains its integrity by keeping the original engine *in situ*, and you can work with what you've got without subjecting yourself to the uncertainty and added expense of finding a new unit.

Second, you can swap the standard engine for an M97 flat-six from a 997, with clear gains in power and torque. Of course, you've got to find a new engine in the first place, and be sure that it's in good nick before you start – none of which comes cheap.

The third route is the option that probably rests on the lips of most enthusiasts before they understand the technicalities of the Cayman: why not simply fit a GT3 engine and be done with it? Of course, in many ways this seems like the ideal situation, and the very prospect of Porsche's finest slotted into its mid-engined coupé is a mouth-watering one. Sadly, it's a very rarely used solution because of the costs involved: the classic 'Metzger' GT3 engine takes its drive to the gearbox from the opposite end of the block compared to all the mainstream water-cooled flat-sixes, and fabricating a set-up to work with it is very expensive. GT3 engines aren't exactly two a penny, either...

That leaves one further option: forced induction. On face value this looks like a very expensive idea, but that's where Porsche specialist Parr would disagree, and where it comes in with this new conversion kit. You may well have heard of this servicing and motorsports company based in Crawley, near Gatwick, not only for its regular maintenance work on mainly water-cooled Porsches, and its partnership with German tuning firm Cargraphic, but also because it is the Porsche factory's official technical partner for the Carrera Cup in the UK.

The company was approached by our owner in question – already one of its clients with a heavily-modified 996 Turbo – to assist in developing a Cayman that had the firepower to really exploit on road and track the benign balance of the mid-engined layout. Having considered the options listed above, and with an eye on the bhp per pound ratio, Parr settled on the turbocharger route, and set about honing this kit for the UK market.

It's a light-pressure installation – very important, as we shall see in a moment – with a large, single turbo blowing lightly at around 0.34bar, and air provided via a water-to-air intercooler. Larger fuel injectors supply the super unleaded, and there's a new intake plenum, air filter and airbox, plus modifications to the inlet manifold.

Heat, and the management thereof is, as you might

expect, a large factor to contend with on a car such as this. Parr runs a third, central radiator in the nose – an item usually fitted to cars with Tiptronic gearboxes from the factory – to cool the intercooler charge, which means those subtle but no less delectable GT3 vents cut into the front bumper are very much there for a reason. An additional oil scavenge pump helps to keep the turbocharger cool, as does its location to the left, below and behind the engine, where a stream of fresh air can reach it.

Of course, all of the above is relatively easy to fit; what you may be wondering is what goes on inside the engine. The answer, surprisingly, is nothing. Electronic tuning specialist REVO remaps the ECU, and there's a new exhaust from the headers back, but not one of the internals is touched.

Now, it can be difficult to remain confident in the long-term reliability of Porsche's mainstream water-cooled cars when the web forums contain plenty of distressing tales, so the prospect of upping the ante considerably with a large turbo bolted on may sound like a scary one to you. Initially, it did to me, if I'm honest.

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Nevertheless, Parr is confident, and adamant that the secret lies in the nature of the turbocharger installation. The low-pressure style of this conversion means that those internals just aren't under anything like the same amount of stress as they would be in a 911 Turbo. This is obvious if we compare the power and torque figures with Porsche's own Turbo figurehead – the aforementioned 997 Turbo (just to be clear, we're using the 3600cc Gen 1 car for these purposes). Our 911 yardstick produces 473bhp at 6000rpm, a fabulous figure by any reckoning, but the key to understanding its character is the torque figure: a colossal 502lb ft developed on a plateau from just 2100rpm all the way to 4000rpm. The Parr Cayman has been tested on a rolling road as producing 480bhp at 7400rpm, but after we drove it with the latest map it was due to be tested again, with close to 500bhp expected on the readout. Torque, however, hits a peak of 370lb ft at 4500rpm, with a curvature on the graph that's much more linear and progressive. Finally, the red line is as high as 7800rpm.

So you see, the torque peak is much lower, developed far higher, but the point at which the power peaks is also far higher – and the engine generally revs a lot more, too. The turbo provides a mighty shove on the Parr car, but even on paper you can see that the character of the base car remains intact. As a further comparison, a Gen 1 Cayman S produces 291bhp at 6250rpm and 251lb ft of torque between 4200–6000rpm. In other words, the Parr car is not just in the class above, it's in a different stratosphere. This could get very exciting.

Every modification we've mentioned so far is included in the basic conversion kit, and Parr is keen to emphasise that the car can be driven away as thus. This particular beauty, on the other hand, has had a little more spent on it, which is obvious the moment you clap eyes on it.

Love or loathe the looks of the Cayman – and it's surprising how much it seems to divide opinion – this car has an ability to look very serious. It's something that's hard to put into words, and the modifications, when viewed singly, don't amount to a great deal. But there's just something about the lowered stance, the slight body enhancements, and the prior knowledge that there are 500 horses ready to go underneath the hatch glass that I find enthralling. You can imagine Porsche Motorsport creating a car like this – and, when viewing it from a low, front three-quarter angle, it exudes competition-grade purposefulness. Although there is no championship that would currently accept it, for some reason it reminds me of classic mid-engined tarmac rally warriors along the lines of the Lancia Stratos and 037. After all, MacPherson struts all-round are ideal, and some large mud flaps with retaining straps would look the business. I'm sorry, I digress...

Anyway, what it does have is a Cargraphic front splitter and rear diffuser, plus a carbon-fibre rear ducktail spoiler, along with the aforementioned GT3 air vent at the front. Progressive-rate Cargraphic springs lower the car by 20mm, and the company also supplies its firmer anti-roll bars. Parr has reset the suspension geometry to its own fast-road settings, increasing the negative camber and altering the castor and toe, while there is a full set of grooved and cross-drilled Cargraphic brake discs (340mm at the front; 325mm on the rear axle), along with Pagid blue pads. This particular car also has the X51 clutch and lightened flywheel conversion, and a Parr short-shift kit to assist the gear change. And last, but not by any means the least, there's a Quaife ATB limited-slip differential.

Inside, the owner has complemented the Alcantara steering wheel and gear shift knob of this 'Sport' limited edition with a gloss black finish on the door handles, dashboard strip, steering-wheel boss, centre console and rear compartment suspension turret 'frame', all of which are viewed from the snug embrace provided by a pair of 996 GT3 leather bucket seats.

While the above is interesting, and the deeper, more menacing engine note at idle certainly grabs your attention, too, what you really need to know is what happens the first time the tacho hits 3001rpm. Prior to that point there's clearly some assistance from the turbo – by 2500rpm the engine is pulling vigorously – but, as the needle sweeps past that figure, a delicious yelp simply fills the cockpit, assaulting the ears and heavily overlaid with the hissing of compressed air. It is a lighter, brighter note than you typically get with a 911, and it heralds the arrival of serious performance – the kind of senior league spinal-compression-into-backrest that gets the blood pumping and the incisors revealed.

Predictably, whereas a 997 Turbo is all about riding (or maybe hanging on sometimes!) a colossal wave of torque and a blur of never-ending gear changes, this Cayman is completely different. The power is smoother, less intimidating, and keeps pouring forth in one long seamless surge virtually all the way to the red line. In practice, that means you can hang on to a gear for much longer if the road suddenly opens out, and it generally provides you with plenty of options.

So how fast, then? Well, although we did have our satellite testing gear with us, out of respect to the owner we decided to keep standing starts very much off the menu. In reality, walking the car off the line and then giving it full throttle – with a decent imaginary 0–30mph time pasted to our own results from there to 60mph and beyond – was unsatisfactory, but I think it's fair to say that this car would get to 60mph in the low fours (seconds), and might be faster still. Without the 997 Turbo's tremendous torque, engine weight over the rear axle and four-wheel drive, it's unlikely to be able to quite match its far more expensive stablemate, but in-gear acceleration was also good, sometimes matching the 997 Turbo, sometimes not quite, all depending on revs and gears in the test. And think on this: 80–100mph in third

Tasteful interior touches work well. GT3 Alcantara steering wheel and shift gaiter contrast with the gloss black finish on the door handles and centre console. 996 GT3 buckets provide a snug embrace

The turbo conversion is very much the sum of its parts – and there are plenty of them. Amazingly, though, this is a purely bolt-on conversion, with no internal mods needed. Power is close to 500bhp

You can't argue with that colour! Body mods are tastefully done and come courtesy of Cargraphic

gear takes just 2.6secs, which is always nice.

As you might imagine, a regular flavour Cayman S can't get anywhere near the acceleration times of the Parr car. Outright, we'd expect the turbo car to be on or around three seconds quicker to 100mph from rest, and the added flexibility is a welcome bonus: 40–60mph in fourth gear drops from 4.3 to 3.4secs – or, in other words, a lazy overtake is suddenly made a lot more relaxing!

So there's no doubting the outright performance of this car, and on the road it really is a joy: the power output is so biddable that 500bhp has rarely been so friendly. Even when it rained lightly during the test drive, coating the road in a slippery sheen of moisture, it was possible to drive with real commitment, yet still feel secure and confident in the traction available. The diff is a vital ingredient here, of course, but so is the communication of the Cayman's chassis – you might not have assumed it, but this is a quick car even in unfavourable conditions.

Part of the credit must also go to the chassis modifications for, if I'm honest, they came as something of a pleasant surprise. The last Cayman I drove with a 'tuned' chassis was a disappointment, overly stiff and prone to an aggravated yaw motion over certain road undulations, as if the car was unable to 'breathe' with the surface of the road. This set-up worked well, however, with virtually no discernible loss in ride quality during normal driving, while providing an even more nimble and precise drive at higher speeds. After our test, the car was due to be fitted with a set of lovely Sachs adjustable dampers, so it may be even more impressive now but, as it stood then, the only real downside was a slight pitch to the rear – understandable given the new-found power output – under hard acceleration that introduced a touch of vagueness to the helm for a few moments, but certainly not enough to detract from the driving experience.

In short, everything that's good about the Cayman S seems to have been retained, except that now everything happens an awful lot faster, and one wonders just how effective this car is now going to be on the track. The answer, I'd hazard a guess, is 'very'.

This brings us to the bottom line: the cost. The price of this conversion, up to the point where we started talking about the extras fitted to this particular car, is £11,240 including VAT and fitting. That sounds like a lot of money – enough to buy a tidy old 911 SC, in fact. But there are two points to bear in mind: first, that we're talking about an extra 200-odd horsepower here, elevating the Cayman from being a quick, nimble sports car to something approaching supercar status. And second, if viewed in context with a Porsche of similar performance, Parr's argument does seem to stack up. An early Cayman S can be picked up for around £25,000, so add in the cost of the conversion and you're at a similar price point to an average, fairly early 996 Turbo, and far below the current price of a similarly-aged 997 Turbo.

Pricing structures and modified cars are always going to be a matter of personal taste. But, whatever your views, any car that makes you drop the windows and accelerate hard through the gears at every opportunity has to be a good thing in my book, and this car really had that effect on me. It was the sort of driving experience that you don't want to end, and I spent time afterwards imagining great road routes that would bring out the best in the car. The concept of a highly-powered, mid-engined Porsche usually brings with it a price tag measured in the hundreds of thousands (Carrera GT, 956 and 962, etc), but at least now that dream has been brought a good deal closer. **PW**

A Cayman with close to 500bhp? It's a tantalising prospect for any Cayman owner, and one that Parr has turned into a reality. It will cost you, though. But with early Cayman prices as they are, it could make for an interesting 911 alternative

TECHNICAL SPECIFICATIONS

PORSCHE CAYMAN TURBO

ENGINE:	**Flat-six, 3386cc, turbo**
POWER:	**480–500bhp at 7400rpm**
TORQUE:	**370lb ft at 4500rpm**
0–62MPH:	**4.0secs**
PRICE:	**£11,240 inc VAT (for engine conversion only)**