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MACAN GTS FIRST DRIVE

964 Backdates

A pair of re-engineered 911s show us why the trend for backdating continues to grow...









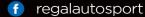
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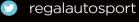
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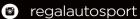
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Ignition



Simon Jackson
Editor y@retro_jackson

or a while the 964 was largely an unloved 911, dividing opinion in much the same way that the first of the water-cooled cars, the 996, does now. Gladly, though, the model has now found its natural place in the Porsche 911 hierarchy, becoming both accepted and cherished in equal measure – today 964s are desirable once more.

That popularify has grown in part due to the model's rather retrospective aesthetics; it's easy to see the lineage of past 911s in the 964, and this means that they lend themselves beautifully to a practice known as 'backdating'. It's a contentious subject for some, but the process essentially involves dressing a car to look older than it is, and it's the answer for those who can't afford the accelerated prices of genuine classic 911s. Ultimately the 964 has become popular with those wishing to drive a 911 that looks old, yet in reality has the underpinnings and mechanical reliability of a more modern iteration.

This issue features a pair of such projects, one being an RSR evocation from Germany (p20), the other a UK-built 964 backdate (p28), and both showcase the interchangeable nature of 911 parts from across the generations. However, as the 964 grows older and more desirable, how long can this concept of rebuilding

them, and others like them, remain a justifiable one (p45)? Perhaps the 964's makeup is best left alone. The case is made for this in our head-to-head feature with another 911 that is growing in popularity, the SC, in this issue too (p36).

For those of you interested in Porsche motorsport history, and I know there are plenty, two of our experts, Karl Ludvigsen and Andrew Frankel, take deep dives into the archives this month to recall some fascinating racing tales. Karl's look into Porsche's involvement in the establishment of Formula Vee in Germany (p91), is just as interesting as Andrew's exclusive research into Solitude – Porsche's Formula One Grand Prix circuit in Stuttgart, a now entirely forgotten venue (p60).

Both make for mesmerising reading for the motorsport buff and reinforce the rich competition history of the Porsche name, something it is once again prioritising with its brand building exploits in modern endurance racing. It's all well and good selling fast production cars, but without the motorsport pedigree and successes to qualify their abilities, a tradition that infuses them with a certain essence of competency, something tends to feel lacking. Thankfully Porsche is a car maker for which this is not a concern. Enjoy the issue.



Contributors



Karl Ludvigsen y @Karlcars

A journalist, author and historian for over 50 years, Karl's book, Excellence was Expected, presents the definitive history of Porsche.

This month: Karl takes a look at how Porsche established Formula Vee motorsport in Germany, and its historical importance



Philip Raby **y** @RabyPorsche

Magazine editor turned Porsche dealer and expert consultant, Phil has been writing about Porsches for 20 years, and driving them for longer.

This month: Phil puts his ear to the ground and takes a look at how the 944 Turbo is faring in the Porsche marketplace.



Andrew Frankel
@Andrew_Frankel

One of the UK's most respected automotive journalists, Andrew writes for Motorsport, Autocar and the national newspapers.

This month: Andrew gets behind the wheel of the new Macan GTS, and recalls Porsche's now forgotten Grand Prix race track in Stuttgart.



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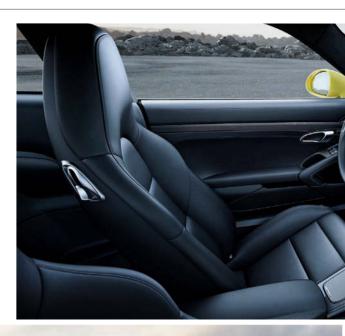
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NEW 991 TURBO REVEALED

Following in the wake of the second-generation 991 Carrera models, Porsche has revealed the new 540hp 911 Turbo and 580hp Turbo S...



Set to make its global debut at the Detroit Motor Show early this month, the new 911 Turbo and Turbo S will be available in Coupé and Convertible guises and offer more power than their predecessors. The 3.8-litre bi-turbo six-cylinder engine in the new 911 Turbo now boasts 540hp, an increase of 20hp over its forebear. The gains are provided by modified cylinder head inlet ports, new injection nozzles and higher fuel pressure.

The new 911 Turbo S now produces 580hp thanks to the use of new turbochargers with larger compressors.

It is able to reach 62mph in just 2.9 seconds, with the Turbo model achieving the same sprint in 3.0 seconds. Their top speeds are an impressive 205mph (Turbo S) and 199mph (Turbo) respectively, yet they can return in the region of 30mpg.

As standard both models receive the Sport Chrono Package (with Mode switch) and the Sport Response button from the new Carrera models, allowing drivers to select one of four dynamic driving modes. Porsche Active Suspension Management (PASM) is also standard on both the Turbo and

Turbo S, and PCCB ceramic brakes come as standard on the Turbo S. The new Turbo models can also be specified with a radar-based lane change assist function and Porsche's nose-lift system, which raises the front axle by 40mm for increased ground clearance.

Both new models feature revised front end styling incorporating LED lighting, while the 991's rear deck lid has also been redesigned from the Carrera models and features sections with longitudinal louvres, and a separate section designed to optimise air flow into the engine. Meanwhile

new 20-inch wheels feature on both models, they're half an inch wider than those on the previous 991 Turbo (9inches at the front, 11.5-inches at the rear), the Turbo S features new sevenspoke, centre-locking alloy wheels.

The new 911 Turbo Coupé is priced from £126,925 (£135,766 Turbo Cabriolet) and the Turbo S Coupé is priced from £145,773 (£154,614 Turbo S Cabriolet). The new models will arrive in UK showrooms at the end of January and we'll get behind the wheel of one to bring you the full lowdown in a forthcoming issue.











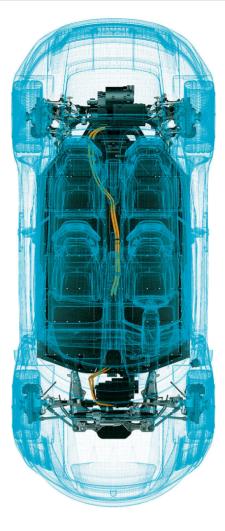


the news











In what it calls "beginning a new chapter in the history of the sports car", Porsche will build its Mission E concept car first premiered at the Frankfurt Motor Show last September. We can expect the new vehicle before the end of the decade. The Mission E concept was a four-door car with four individual seats, which led many to believe it might form a basis of a new

FALKEN 911 GT3 R UP FOR SALE

This particular chassis, which has covered 14,000 kilometres, has been used by Falken since April 2014, but the team has been competing with the 911 GT3 R since 2010.

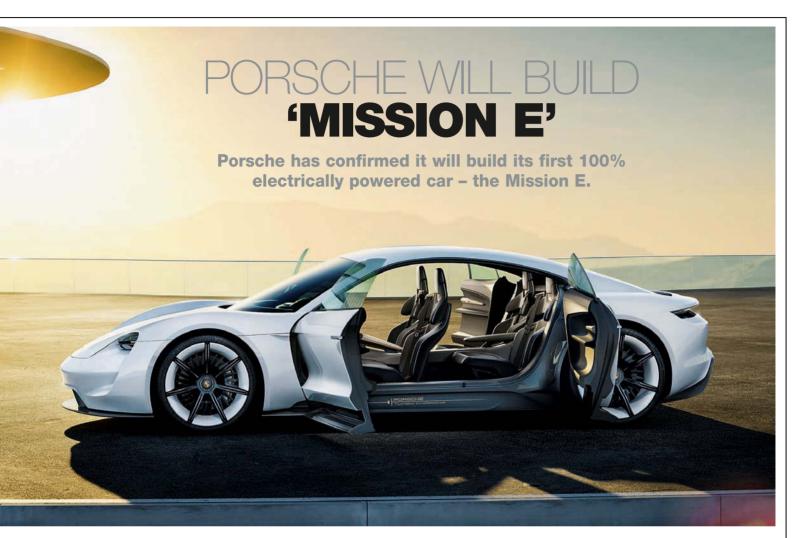
During that time the team achieved a podium finish with the 500hp machine in the 2015 ADAC Zurich 24-Hour race at the Nürburgring. At the wheel drivers Wolf Henzler, Peter Dumbreck, Martin Ragginger and Alexandre Imperatori took on tough competition to secure the third place finish, a further improvement on its impressive top-four finish the previous

year. As well as battling the challenging Nürburgring 24-Hours, the car has also competed in the VLN Endurance Racing Championship, clocking up over 84 hours of race time.

Rather remarkably, the car has been shod with almost 900 Falken tyres each season, either slick, wet or intermediate in nature, which last for around eight laps of the demanding 25-mile Nürburgring circuit. The 997 has accrued four podium finishes in total, completing 553 laps using over 7000 litres of fuel in the process.

The Falken 911 is now for sale on





Panamera. Its powertrain was said to be capable of producing over 600hp, and achieving the 0-to-62mph dash in under 3.5 seconds. Most importantly Porsche claimed it would be capable of a range of more than 500 kilometres, or 310 miles, making it an exceptionally useable prospect.

Charged via an 800-volt charger unit specially developed for the car that is

twice as powerful as today's quickcharge systems, the Mission E's lithium-ion batteries (located within the vehicle floor) can hold enough power to provide 80 percent of maximum range after just 15 minutes of charging time. What's more the car can be inductively charged wirelessly by a coil buried into your garage floor at home. Porsche claims the new model will create more than 1000 new jobs in Stuttgart, and that it will be the result of an investment by Porsche of around €700 million. Over the next few years, a new paint shop and a new assembly plant will be built to incorporate the construction of the Mission E, which is yet to receive an official Porsche model name designation. Porsche's existing engine factory is set to be expanded to

incorporate the production of electric motors, while its existing body shop is also set for enlargement.

Whether or not the Mission E will form the basis of the new Panamera remains to be seen, but its series production does highlight Porsche's commitment to alternative fuels, and makes a future electrically-powered 911 even more likely...

Falken Motorsports is retiring its 997 GT3 R having campaigned the car with a great deal of success in the last five years.



the mobile.de website priced at €500,000. The car made one last trek from its base in Offenbach, Germany to the Essen Motor Show on 27 November to 4 December 2015, where it appeared on Falken's stand. If you're interested in purchasing the 911, visit the website or contact Falken direct.





PORSCHE TESTS MONTOYA AND EVANS IN 919 HYBRID

Having clinched the 2015 titles Porsche got straight back to work with its 919 Hybrid and confirmed its WEC plans for 2016...

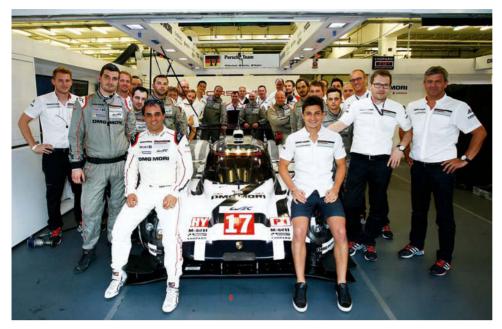
FIA WORLD ENDURANCE CHAMPIONSHIP BAHRAIN DRIVER TEST

Just a day after the final round of the 2015 World Endurance Championship in Bahrain, the Porsche Motorsport crew got back to work. Porsche offered former Formula One star (and two times Indy 500 winner) Juan Pablo Montoya the chance to test its 919 Hybrid, alongside Russian Time GP2 driver Mitch Evans. 21-year-old New Zealander Evans returned to the 919 following an earlier test in Barcelona, and was fresh from victory in the previous day's GP2 race, the feeder series for F1. Like Evans, Montoya was fresh from a single-seater, too. The 40-year-old Columbian lost out on the 2015 IndyCar Driver's Championship to Scott Dixon this summer thanks to double points being awarded in the final round at Sonoma.

Both drivers completed a mixed programme of short runs in the morning and longer runs in the afternoon simulating race and qualifying sessions, using the car of WEC world champions Timo Bernhard, Brendon Hartley and Mark Webber. Evans completed 54 laps in the 919, his fastest was 1:43.60 set during a race simulation, just 1.71 seconds slower than Neel Jani's fastest race lap of 1:41.89 during the Six Hours of Bahrain. Montoya managed 55 laps with a best lap of 1:44.46 in race simulation mode but in qualifying mode he set the fastest lap time of the day: 1:40.86. By way of a











Porsche will contest the WEC series and Le Mans with two 919 Hybrids this year, meaning its winning squad from 2015 is related to the GTE-Pro class in 911 RSRs

comparison Timo Bernhard's pole position lap time during the Bahrain weekend was 1:39.67.

Montoya commented: "The car is amazing. It is currently the most advanced race car on the planet and it is a hell of a toy. I have driven all kinds of cars and this one is a lot of fun. It has a lot of power, is really, really stable and because it is so predictable, it invites you to overdrive it."

Indeed Montoya admitted struggling with overdriving the LMP1 machine before gaining some valuable advice from Mark Webber, who was on hand to guide both the Columbian and Evans through their test day. He was also shocked at being handed a 30-page manual on how to operate the car!

"I knew Fritz Enzinger and Andreas Seidl from my Formula One days and it was great when they invited me to drive the 919 Hybrid," Montoya said. "We don't have any plans for the future, we didn't even talk about it. I came to Bahrain to have fun and drive the hell out of the car and it was great."

Rookie Evans commented on an equally enjoyable test: "It's great to be back in the 919 Hybrid and to enjoy this level of technology. The car benefits a lot from the four-wheel drive under braking and obviously acceleration. The 919 has got a lot of downforce and the way it looks after its tyres is a lot better than in a GP2 car."

Team Principal, Andreas Seidl, said: "Mitch had the experience of the Barcelona test under his belt; Juan Pablo only had a simulator session before and drove the car for the first time. We are very interested in drivers' impressions, especially if it comes to a driver like Juan Pablo who has successfully driven so many different kinds of race car in his career. Both were quickly up to speed and did a good job."

The purpose of the test remains a little muddied. Montoya openly rubbished claims he might compete at Le Mans any time soon. Hulkenberg will be forced to continue his day job for the Force India F1 team due to 2016 F1 and Le Mans fixture clashes. Porsche has also confirmed that it will run two cars again in next season's WEC series and at Le Mans, not three as some had speculated, and its six works drivers, Bernhard, Hartley and Mark Webber, Dumas, Jani and Lieb will pilot them for a third consecutive year. Where this leaves Evans is unclear. Briton Nick Tandy and Earl Bamber have been confirmed for seats in 911 RSRs at Le Mans in the GTE-Pro class. Both Porsche and Audi have been forced to scale back their Le Mans efforts in the wake of VAG's diesel crisis.





STIG BLOMQVIST WINS SAFARI CLASSIC RALLY IN TUTHILL-BUILT 911

A Tuthill-prepared 911 belonging to the Race4Health rally team won the gruelling 2015 East African Safari Classic Rally...

EAST AFRICAN SAFARI CLASSIC RALLY

The 1984 World Rally Champion, Stig Blomqvist, won the 2015 East African Safari Classic Rally in a classic 911-prepared and run by Tuthill Porsche. Blomqvist and co-driver Stéphane Prévot of the Swedish Team Tido Race4Health rally team, hit the front and never looked back. They were one of six Tuthill-built Porsches in the top ten positions.

After taking an early lead on the nine-day, 4000km rally through Kenya and Tanzania, Blomqvist and Prévot dominated. While many other competitors were forced to retire through accidents or mechanical issues, Blomqvist called on his decades of experience to maintain a blistering pace through the East African bush.

After nine tough days of rallying, the Porsche crossed the finish line eight minutes ahead of its closest rival, the 911 of Race4Health team-mates, Swedish touring car ace Richard Göransson and codriver Emil Axelsson. Blomqvist's win was the second time a Tuthill-built 911 has claimed victory on Safari: the first came with the late Björn Waldegård in 2011.

Tuthill team boss, Richard Tuthill, was delighted: "Congratulations to Team Tido on this well-deserved victory. Both leading crews delivered impressive performances. African terrain is as merciless now as it was 50 years ago when this rally first started, so it's a great feeling when a car built by Tuthill crosses the finish line. Seeing so many Tuthill 911s go the fully rally distance is a very proud moment."

Tuthill-built Porsches claimed six of the top ten positions on this year's Safari, with local boys Alastair Cavenagh and co-driver Gavin Laurence coming home first of the Tuthill Porsche team cars in fourth overall. Tanzania's Jayant Shah and co-driver Ravi Chana claimed seventh position, while the British pairings of Richard Jackson/Ryan Champion and Steve Troman/Calvin Cooledge came home eighth and ninth respectively.

Outside the top ten, a magnificent drive by Safari first-timer, Gilberto Sandretto, with co-driver Fabrizia Pons brought the Italian pair home in eleventh position, the car still looking nigh-on immaculate at

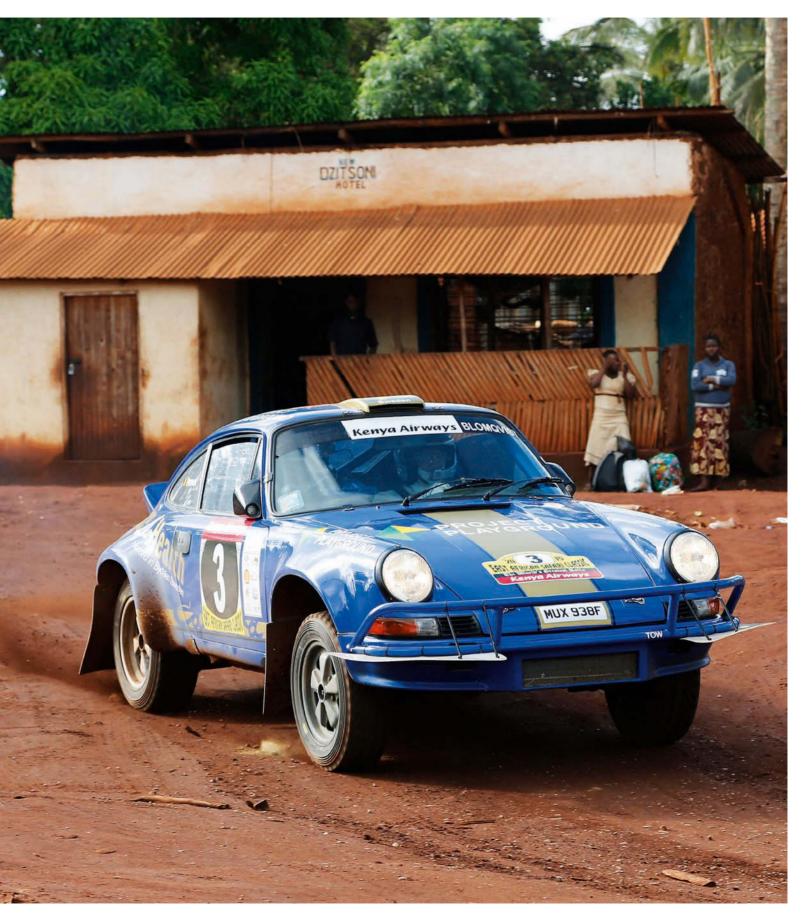
the finish. Running well inside the top ten until an incident on the penultimate stage, Joakim Roman and Jorgen Fornander were classified 25th overall in their Tuthill 911.

Three more Tuthill-prepared Porsche 911s took the chequered flag: the Team Tido Race4Health 911s of David von Schinkel/Per Bjorkman, Christer Johansson/Mattias Adielsson and Roger Samuelsson/Robin Friberg. All enjoyed an eventful Safari, with two cars damaged and the third being driven 60km out of a stage on three wheels by the end of day two. The three cars were repaired by the 80-strong Tuthill team and made it to the finish line in Mombasa.

"This has been an eventful Safari," said Tuthill. "Securing so many top ten positions, along with such an incredible result for Gilberto on his very first Safari, is just reward for our efforts but we won't rest on our laurels. Safari 2017 will soon be upon us and preparations for that will begin as soon as we're home!"







motorsport month



Following a successful link-up in 2015 at Spa (below), in 2016 the Carrera Cup GB will once again meet during a round of the WEC series



CARRERA CUP GB 2016 CALENDAR ANNOUNCED

The 2016 Carrera Cup GB calendar has been confirmed and once again it supports a round of the World Endurance Championship...

CARRERA CUP GB

The Carrera Cup GB Championship will again support a round of the World Endurance Championship in 2016. Following on from the success of the 2015 season's race in support of the WEC cars at Spa-Francorchamps in Belgium, Carrera Cup GB drivers will fall under the watchful eyes of LMP and GT teams, this time at Silverstone when the FIA WEC circus tackles the Northamptonshire track's Grand Prix circuit in April. The move provides a clear link between racing 911s and Porsche's activities at the top levels of motorsport, highlighting a potential route for drivers to reach the top echelons of the sport.

The 2016 Carrera Cup season promises much and is scheduled to be contested over 16 races

during eight weekends. The Championship will once more fulfil its role supporting the British Touring Car Championship at certain rounds, delivering Porsche racing to our TV screens through extensive coverage on ITV4. During visits to Brands Hatch, Oulton Park, Croft, Snetterton, Knockhill, and Silverstone, Carrera Cup GB will run in support of the BTCC in front of total crowds of approximately 370,000 over the duration of the season.

What's more, Carrera Cup GB drivers will also be eligible to participate in the Porsche Mobil 1 Supercup support race at the British Grand Prix at Silverstone in July, and will qualify for a limited number of guest slots with Carrera Cup France and GT3 Cup Challenge

Benelux in their championship round supporting the WEC at Spa-Francorchamps. Altogether it adds further weight to the already well-respected series.

There will also be a series of improvements to the Carrera Cup GB for 2016. Amongst them is an increase in prize money for the top three finishers in the Professional category, three exclusive, fully-supported in-season tests and an increase in each driver's slick tyre allocation. These additions will work alongside those introduced at the beginning of 2015 – which included the Rookie Class with its £50,000 winner's prize, and the 'Team Cayenne' scheme that rewards teams with two or more drivers with the use of a new Cayenne SUV.





2016 Porsche Carrera Cup GB calendar:

2016 Porsche Carrera Cup GB calendar:	
1-3 April	Brands Hatch (Indy)
15-17 April	WEC Silverstone (GP)
3-5 June	Oulton Park (Island Circuit)
17-19 June	Croft
29-31 July	Snetterton
12-14 August	Knockhill
16-18 September	Silverstone (National)
30 Sept-2 Oct	Brands Hatch (GP)
	1-3 April 15-17 April 3-5 June 17-19 June 29-31 July 12-14 August 16-18 September







Author of 25 Porsche books, Peter has been involved with the brand for 35 years

So Porsche is making an electric sports car? Peter Morgan doesn't think that's such a good idea.

currently topical angle in the world of Porsche is the external pressure to develop low or no emissions cars. Despite the lirony that the quantity of hydrocarbon fuels is set to double in the short term, the pressure to develop new means of getting around seems unstoppable. A lot of that pressure is coming from wealthy individuals or organisations who have made fortunes in other unrelated areas and now believe they can design revolutionary cars that run only on batteries. But to many automobile engineers, it's obvious that entirely battery-driven cars are on a road to nowhere. They might grab headlines because they're allegedly 'clean', but in reality they're flawed as they offer only short range mobility on over-sized mobile phone batteries. These cars are a dead end because they fail to deliver the key USP of the motor car: independence.

I had a ride in an all-electric premium pitched saloon car a while ago. For power, these cars use a big slab of batteries under the floor and have fantastic attention-seeking performance. By that I mean these cars are as good in conversation at dinner parties as any trophy car purchase. In the electric car's case you can talk about accelerating faster than a MotoGP bike, in Mercedes-spec comfort and all without any noise. But my impression was of a soulless machine. As a car the only thing I really liked was the boundary-pushing central display, which will find its way onto every new car in the coming years.

One of the USPs of the electric car is 'zero emissions'. But as any physicist will tell you, the energy in the batteries has to come from somewhere. The environmental cost is simply being moved off the road to somewhere else. Nevertheless, viewed from the driving seat, the big issue with an electric car is range. It's taken over a century of internal combustion development to bring independence to an affordable level for millions of car drivers. Anything



that challenges that independence will need to be as good or better.

The typical range quoted for one currently popular (and presumably new) electric car is 275 miles. Looking past the current public scepticism as to how valid manufacturer-quoted performance figures actually are, that means if you were driving from London to Edinburgh, you'd likely need to factor in two long stops to recharge (as you'd want to go at a reasonable speed). And given it's a glorified mobile phone battery, after two years you'll probably need four charges for the same journey. That's assuming you'll find somewhere to charge up. On a recent stop at the M4 Reading services, I noticed two electric car drivers arguing over the one free charging point.

You cannot go any distance anywhere without a tangle of charging wires and plugs in the boot. This is not an impressive sight, to say nothing of the hassle of having to ask the people you visit if you can top up before leaving – just to be sure you get home. And given the half life problem with the expensive batteries, the residual values of such cars is destined to

plummet after two or three years.

The e-lobby have been given a boost because of the VW diesel emissions scandal, but in reality they simply don't have a commercial automotive technology. The purely electric automobile in its current form will remain a rich person's indulgence, a dinner party discussion topic.

Now the reason I'm majoring on the current disadvantages of purely electric cars is because Porsche announced it is going to build such a vehicle. But I can't help feeling that all it will be making is a Tesla copy to sell to rich buyers who want 'trophy' cars. That isn't very Porsche-minded. If future Porsche sports car drivers cannot achieve both performance and independence — surely the basics of the old company by-line 'driving in its finest form' — it is moving away from its core values.

Given an outlook of, say, 30 years ahead, we have to be looking at car propulsion systems that are not dependent on batteries. If the internal combustion engine cannot be developed for ultra-low (or even no) harmful emissions, the only other emerging primary power source option is the hydrogen fuel cell. The latter is

The purely electric automobile in its current form will remain a rich person's indulgence

where the Japanese giants Honda and Toyota are headed and few seasoned engineers would bet against them, despite all the over-excited hype coming out of California and stock market analysts.

As Clive Śinclair found in the 1980s, there's more to designing a vehicle than just having a good idea. If the inherent concept is flawed, it doesn't matter how much glitz and publicity is heaped on the thing – your customers will always measure value by the pragmatism behind the idea. Drop the notion of an e-car Porsche and keep looking East, not West O

The views of the author are not necessarily shared by the magazine.

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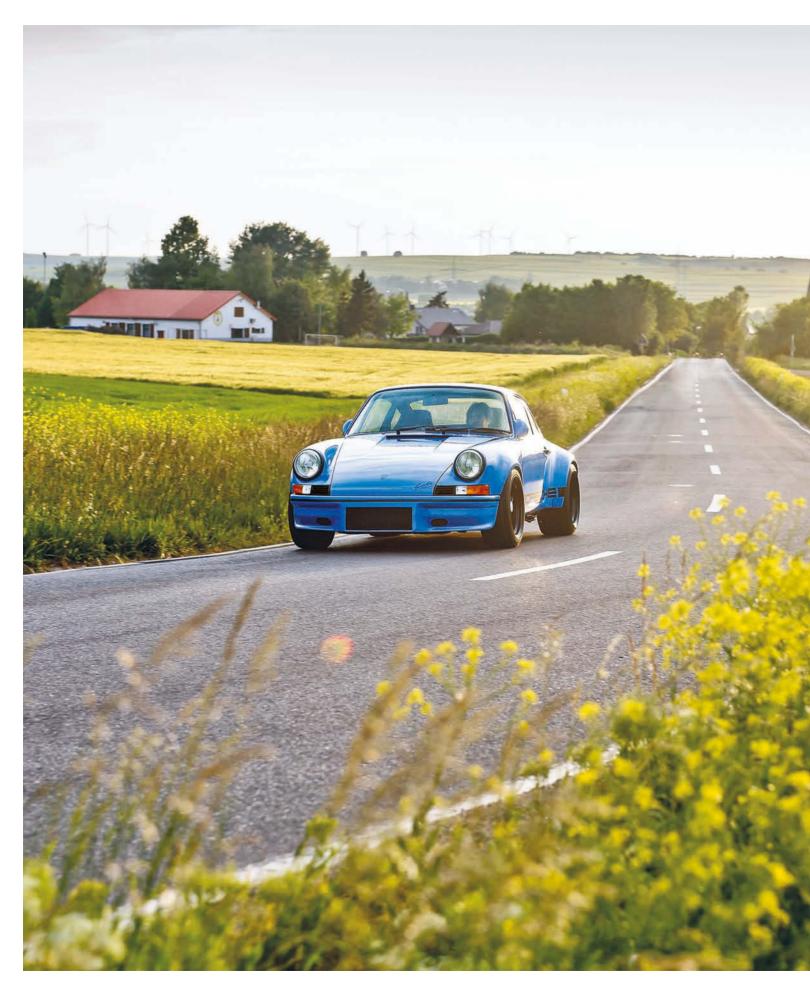
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s there be any hotter property in the Porsche world right now than a classic 911? 2015's wonderful 991 GT3 RS and Cayman GT4 pairing may be rightfully hoarding the majority of the attention at the moment, but step back from those to view the wider world of Porsche and the car that everybody wants, the one that still garners editorial in every page, that continues to excite enthusiasts, racers and collectors alike (sometimes all at the same time) remains the wonderfully pure form of the classic Porsche 911 produced during the '60s and '70s.

This probably explains why, arguably, the next hottest property right now might just be the 'retro modern' Porsche 911 most famously found in the gorgeous shape of California's Singer 911 recreations, but also from our friends at Paul Stephens, whose PSautoart division produces the delightful Speedster we featured in *GT Porsche* back in 2014, whilst Autofarm and 911 Retroworks have their own take on the reimagined classic 911s.

It's an easy trend to understand. Ultra desirable classic 911s are sensational to drive, but frighteningly valuable, which inevitably quells the desire for them to accrue mileage. Their performance may have been state of the art when new, but a 2015 hot hatch would administer a comprehensive kicking to some period Porsches, and there's always a question mark over reliability when contemplating the idea of regularly using a classic Porsche. So how better to resolve the opposing desire for classic styling and an equally classic driving experience combined with modern day performance and reliability? The best idea, then, is to bring the two together, utilising the best of both worlds. Singer may be the most famous exponent of this style, but it certainly wasn't the first, and it won't be the last.

Let me introduce you to the eponymously titled 'Emmerling Porsche'. The story behind the gorgeous RSR evocation you see here dates back

to the Geneva motor show in 1991, and the introduction of the wondrous 964 RS. Heinz Emmerling was intrigued by the first Rennsport 911 in 17 years, and got himself behind the wheel as soon as possible; and just as it had captivated the media, one of the most super focused driver's cars that would satisfy even the most hardened enthusiast, left a lasting impression on Heinz too. A huge fan of the classic 911 look, he soon started dreaming of how fantastic it would be to meld two concepts, using the look of his favourite classic 911 shape, the wonderful 1972 2.8 RSR, with modern componentry. If you're going to create a Porsche homage masterpiece, you may as well choose the best version, of the best version, right?

Of course this would be a challenge fraught with difficulty. The engine and gearbox swap should prove simple enough, but transplanting modern electronics, ABS, chassis components and providing a shell with the requisite stiffness? That would prove a far harder task. So it seemed natural to turn the whole problem 180 degrees, and think about it like this: if it's not possible (or at least, fraught with difficulty) to retrofit the older shell, why not fit the retro look, and a dose of that wonderful classic character, to a later car? So was born the first Emmerling Porsche.

The first car appeared from the Emmerling skunkworks in 1994, it married tuned 964 RS underpinnings with similar 1972 RSR-style bodywork. Dripping with latent aggression it was an absolute weapon; properly quick thanks to its 330hp state of tune and sub-1200 kilogram kerb weight. It was so good that as soon as the opportunity arose, many years later, Emmerling bought it back for his own private collection. 'Our' car is the very latest to roll from the Emmerling production line (although with only a handful of cars produced so far, 'production line' may be stretching it a bit), and has been built to a specification that's a perfect compromise between modernity and usability,





whilst retaining that wonderfully original and characterful feel that's so important to the retro modern ideal.

Beneath the gorgeous blue bodywork lies the monocoque of a 1991 964 Carrera 2 (with 964 RS prices having skyrocketed, it's unlikely there'll be another quite like the first). Again evoking the '72 RSR, new, wider wings were fabricated all-round whilst new inners were created to prevent the ingress of dirt and moisture. Up front, a new spoiler and bumper section were fabricated in fibreglass to save weight. It also contains air intakes for brake cooling and a duct for the engine oil cooler, whilst the hood has been extended to mimic the F model 911. It's attention to detail like this lends depth and an instantly identifiable period look to this car.

But if you're unsure about this car's aesthetic from the front, taking in the period bumpers and sexy curvaceous wheel arches, then you're sure to be in no doubt once you've had a look at the rear three-quarter view. It's perfect, sitting on a wide rear track, tyres barely fitting under its arches that perfectly balance the otherwise dainty proportions of this machine. It looks tough, mean and racy, whilst remaining elegant and simple. The rear lid completes the RSR look with a GRP composite item and an aluminium ducktail so redolent of this era of 911.

Open the featherweight driver's door, and you'll find an interior hewn from the functional school of ergonomics. Devoid of fripperies, there's just the hard points you need, and enough period cues to give a classic feel. Given that the 964's interior harks from an era before Porsche got serious about ergonomics, it doesn't

take much to backdate the inners. Instruments rebuilt to mimic an F series 911, a lovely Alcantara-covered three-spoke Momo Prototipo steering wheel, and ultra light doorcards with simple pulls. Clamped in place by a fixed back bucket seat (which proves superbly comfortable and supportive under hard cornering) the cabin feels like a place to enjoy the work of driving hard, with enough 'luxury' to be usable whenever the mood takes you. The driving position is standard 964, but you're positioned closer to the floor thanks to that sculpted seat. So there's a little pedal offset, the wheel is a fraction further away than ideal but perfectly workable, and the stubby short shift gearstick falls nicely to hand. Ever the 911 characteristic, visibility is superb even from the lower seating position; overall it feels like an ideal place from which to go about the business of fast driving. Which is what we do next...

And it's as gloriously thrilling as you'd hope. It starts in typical 911 style, with the 3.6-litre naturally aspirated engine spinning over quickly and settling to a vibrant idle thanks to the stainless steel manifolds, sports cats and a beautifully wrought exhaust system. With a lightened flywheel and solid tappets, it responds vigorously, the tacho ripping round the dial with every prod of the throttle pedal. In something as light as this (1155kg), 290hp and 273lb ft of torque is plenty, and despite torque peaking at 4200rpm the motor proves extremely drivable.

So it's plenty quick enough, with a rich wave of torque on stream as low as 2000rpm, building nicely to the 6800rpm cut-out. But it's not the performance that really grabs your attention



here, it's the glorious aural entertainment pouring through the bulkhead. Rich, mechanical, smooth and melodious, the noise just makes this gorgeous car an absolute pleasure to drive whether cruising through town, or flat-out across country.

The mid-range evokes that classic flat-six baritone rumble, overlayed with the mechanical thrashings of various cams, chains, and belts, whilst chasing down the redline is hugely rewarding. At a cruise its volume subsides, so it's perfectly usable as an everyday motor – it's a really well judged system.

But you don't spend north of £100k on a retro modern 911 to cruise up and down the motorway, this car deserves great roads to let the magical classic feel come to the fore. Luckily we've happened upon a terrific stretch of black



Rich, mechanical, smooth and melodious, the noise just makes this gorgeous car a pleasure to drive





top just a few kilometres from the Emmerling factory in the countryside west of Frankfurt. It's beautifully surfaced, and packed with some heinous corners. Wide open third and forth gear curves give way to tighter second gear switchbacks, which tempt you to push the tail wide on exit. It'll do nicely.

The look may be very much classic, and the overall feel follows suit, but there's nothing sedate about the specification sheet of this car, or its driving experience. This car sits on adjustable KW coilovers, with anti-roll bars front and rear, whilst the delicious Fuchs-style wheels are wrapped in 225/45 and 265/40 17-inch Hankook rubber. Hefty four-piston callipers grab ventilated discs all-round, and the pedal proves solid with plenty of feel. The suspension is really well-judged too; supple enough to soak up whatever imperfections we encounter, allowing enough body roll to get a feel for the grip levels whilst simultaneously controlling wheel movements in the first compression.

Information streams back through the wheel in typical 911 style, inspiring the confidence to explore the wonderful balance of the chassis, and the rewards are plentiful.

There's a corner on our route, a well-sighted second gear left hander, which distils every element of driving this 911 into one hugely enjoyable moment. Approached from a long straight, you rush up to the bend and drink in the sound on overrun, interrupted by a jab of throttle as forth becomes third, becomes second gear. Trailing the brakes into the apex weights up the front end, so the car turns in keenly, and there's a torrent of information flooding back at you through the wheel as you settle into the corner. Instinctively you get back on the power, as you can feel the front tyres have grip to spare.

As the corner opens out, the RSR shifts its weight onto the outside rear tyre; now at high revs there's a healthy stream of power flooding through the limited-slip differential and there's just the slightest sense of the rear taking on some

attitude. It's not oversteer as such, a gentle unwinding of lock is all that's needed to maintain our trajectory up the road, but it's enormously satisfying. There's such lightness and transparency to the RSR's responses, you feel like you can make it dance to whichever tune you want to play.

I'd argue that one of the reasons for the renaissance in the value of classics is rooted in not just the looks or the rarity, but the driving experience itself. Whilst each new iteration of any modern car becomes faster and more efficient than the one before it, so the pursuit of performance has perhaps left the core driving experience behind somewhat. Thankfully, the industry seems to be waking up to this a little. But for pure driving pleasure, in something relevant to today's congested roads, I'm inclined to wonder if perhaps a retro modern car is the ideal, and if that is so, then perhaps the little known, but utterly sublime Emmerling Porsche is the pick of the bunch \odot



For further information about Emmerling Porsche please email contact@s-ic.com





911 Carrera RS (993 LHD)

Grand Prix White • Black/Grey Dual Tone Leather Bucket Seats • Manual Gearbox 18" Split Rim Wheels • 58,240 km (36,400 miles) • 1995 (N)

£249,995



911 Carrera RS (964 LHD)

Maritime Blue • Triple Tone Leather Bucket Seats • Manual Gearbox • 17" Magnesium Cup Wheels • 93,656 km (58,195 miles) • 1992 (J)

£224.995



911 GT2 (996)

Polar Silver • Black Leather Sport Seats Manual Gearbox • Porsche Ceramic Composite Brakes • Large Carbon Interior Pack • 20,892 miles • 2003 (03)

£144,995



911 Carrera 4 GTS (997 GEN II)

Carrara White • Black Leather Sport Seats • PDK Gearbox • Touchscreen Satellite Navigation • Sport Chrono Pack with Sport Plus • 18,019 miles • 2012 (12)

£64,995



911 Carrera 4 S (997 GEN II)

GT Silver • Black Leather Seats PDK Gearbox • 19" Carrera Sport Wheels Touchscreen Satellite Navigation • 22,643 miles • 2010 (60)

£51,995



911 Carrera 4 (993)

Midnight Blue • Dark Blue Leather Sport Seats • Manual Gearbox • 18" Turbo Wheels • Air Conditioning • VarioRam Engine • 72,490 miles • 1996 (N)

£49,995



911 Carrera 2 S (997 GEN II)

GT Silver • Cocoa Leather Sport Seats • PDK Gearbox • 19" Carrera Sport Wheels • Touchscreen Satellite Navigation • 32,015 miles • 2010 (10)

£47,995



911 Carrera 2 (997 GEN II)

Platinum Silver • Dark Blue Leather Seats PDK Gearbox • 19" Sport Design Wheels Touchscreen Satellite Navigation • 39,089 miles • 2011 (61)

£44,995



Boxster S (981)

Basalt Black • Black Leather Sport Seats Plus • PDK Gearbox • 20" Carrera Classic III Wheels • Touchscreen Satellite Navigation • 14,757 miles • 2013 (13)

£44,995



911 Turbo (996)

Polar Silver • Dark Blue Leather Seats Tiptronic S Gearbox • 18" Turbo II Wheels BOSE Surround Sound System • 61,383 miles • 2002 (02)

£39,995



Boxster Spyder (987)

Carrara White • Black Half Leather Bucket Seats • PDK Gearbox • 19" Spyder Wheels • Touchscreen Satellite Navigation • 42,467 miles • 2010 (10)

£36,995



911 Carrera 4 S (997)

Atlas Grey • Black Leather Seats Manual Gearbox • 19" Carrera S Wheels Satellite Navigation • Porsche Sound Package • 37,432 miles • 2006 (06)

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e and my best friend and business partner, Brett Evans, were watching the episode of *Top Gear* in February 2014 when James May was driving a 911 by Singer. That's what started our obsession with creating a backdate. We ummed and arred, and thought it was going to be a lot of money and work but then we just got to the point where we thought let's do it," confessed Andy Marston.

Having used Pro-9 for an update project around 20 years ago, Andy decided to see if the Porsche specialist still existed: "I had once bought an old 911T and asked Pro-9's owner Simon to update it to look like a 993. I was so impressed with his level of expertise and quality of work, Brett and I Google'd him to see if he still existed. Fortunately he did, so we went down to his workshop in Redditch and told him what we wanted to do. He discussed with us what we wanted to use it for, how we wanted it to drive and our budget, and suggested a 964 would be a good starting point."

As luck would have it, Simon knew of a perfect car for the pair. He picks up the story: "I knew of a guy that had stripped a 1989 narrow-body 964 four or five years ago and never got round to doing anything with it. It had no interior or

panels, and while it came with a matching numbers engine and transmission, the former required a rebuild. It was literally a rolling shell and a box of parts. But it was the right car for the right money. Some people pay £30k for a mint car and then we rip it apart; this one at least deserved to have something better done to it."

Andy had never even seen the car running but he had complete faith in Simon. "It was a bit of a basket case but I'm used to that having recently done a lot of complete nut and bolt restorations from bare shells. Brett and I had foresight and Simon knew that it was a decent car; it was just feeling a bit sorry for itself.

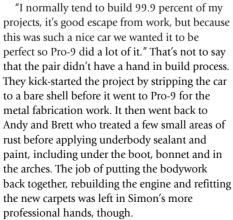




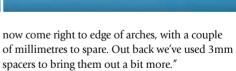
Pro-9 has added a wealth of choice parts to this car in order to create a real custom blend, one suggestive of various past eras of 911 evolution...





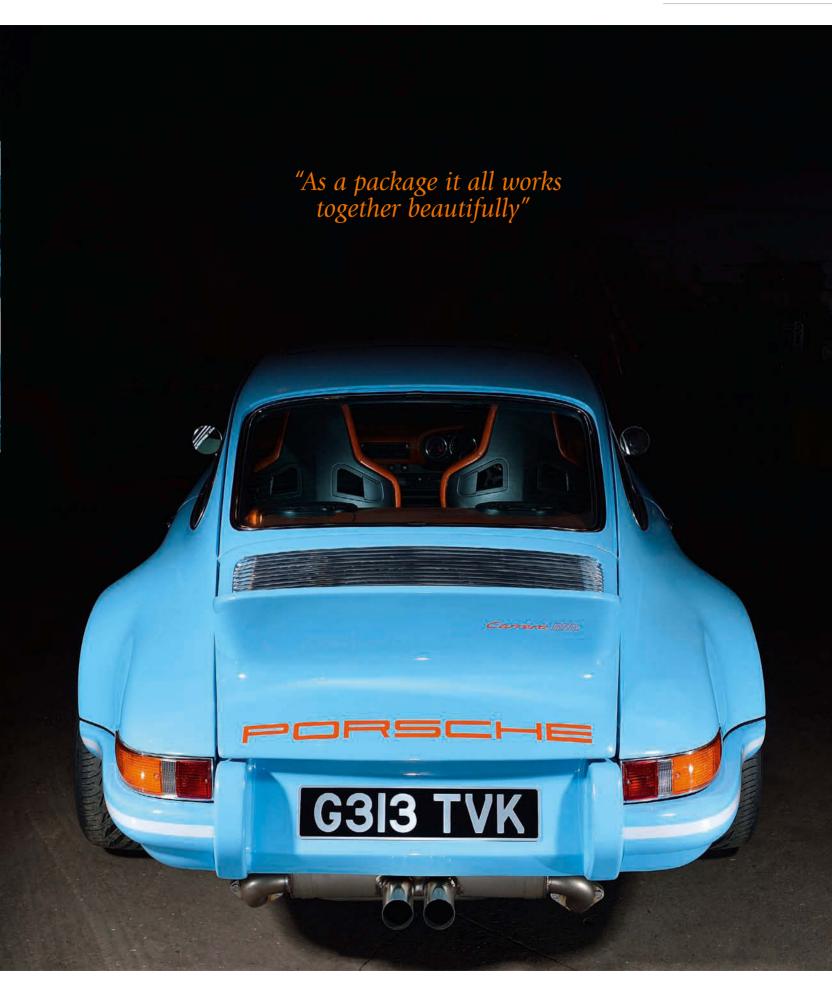


"The only frustrating part of the project was when I cocked up the measurements for the front wheels," confesses Andy. "Fortunately, the guys at Image were happy to change the width and I was able to get slightly narrower tyres. The wheels



The end result is nothing short of stunning, such is Simon's obsession for perfection. He explains how it was all done: "We grafted wider arches in metal on the back. On the front we used new pre-70 wings and Turbo arches, and modified and lengthened them to perfect the bulging 2.8 RSR-look. We custom-made the front bumper to fit the new long bonnet and fitted our own fibreglass RS rear bumper and ducktail spoiler as the original items cost an extortionate amount."

It was then sent off to the paintshop to be resprayed in Gulf blue with Gulf orange graphics. "At first we were unsure of the colour but with the Porsche decals and the centres of the Fuchsstyle wheels body colour-coded it just looked amazing. In fact, the whole project is a bit like





that: everything individually doesn't work but as a package it all works together beautifully," exclaims Andy.

Inside the 964 received period-correct cord carpet, as well as a dash topped with tan leather to match the doorcards and seats which, believe it or not, has been lifted from a Ford Focus RS modified to fit by Andy. "I wanted something different. I didn't want the 964 seats but similarly I didn't want Seventies seats as they're uncomfortable. All backdates look so similar – our objective was to create a modern car with a retro style, and I've had really good feedback on the seats."

When it came to the heart of the car they weren't looking for big power and, as such, the engine is perfectly matched to the chassis. "It had new head studs and rings and all the usual

overhaul parts you'd rebuild an engine with. We also fitted RS camshafts, Hayward and Scott equal length headers with our own custommade rear silencers, and a Steve Wong chip," explains Simon.

Whilst it's not been dyno'd, Andy believes the car is producing around 280hp – a modest increase for a 3.6 engine in a 964 that's as light as possible for a road-going variant. "There's always the temptation to go for more power, with a turbo'd engine or supercharger, but it doesn't need it. It feels like you're going a million miles an hour at 70mph anyway," laughs Andy.

Suspension was tweaked with a set of Bilstein PS10s and everything was polybushed but while the callipers have been refurbished and fitted with new pads and a set of discs all-round they've not been upgraded. Andy explains:

"Simon advised against it. Given the weight we stripped out of the car he said it would be pointless, and he was right. Without the heavy standard bumpers and aluminium carriers, various bits of trim and the original seats it's made it so much more responsive."

The car was already fitted with a factory limited-slip differential, which was a bonus, and together with an RS flywheel and clutch to take the drive to the wheels the car now pulls a lot better from lower revs. All of the gearbox bearings, chain linkage and oil were also replaced, and in the rear a billet aluminium universal joint was made to get rid of the play.

So, how different does the car feel to drive now? "The day we completed it, I jumped in it to get it to MoT station and I was absolutely shocked. There were no bangs or rattles, which



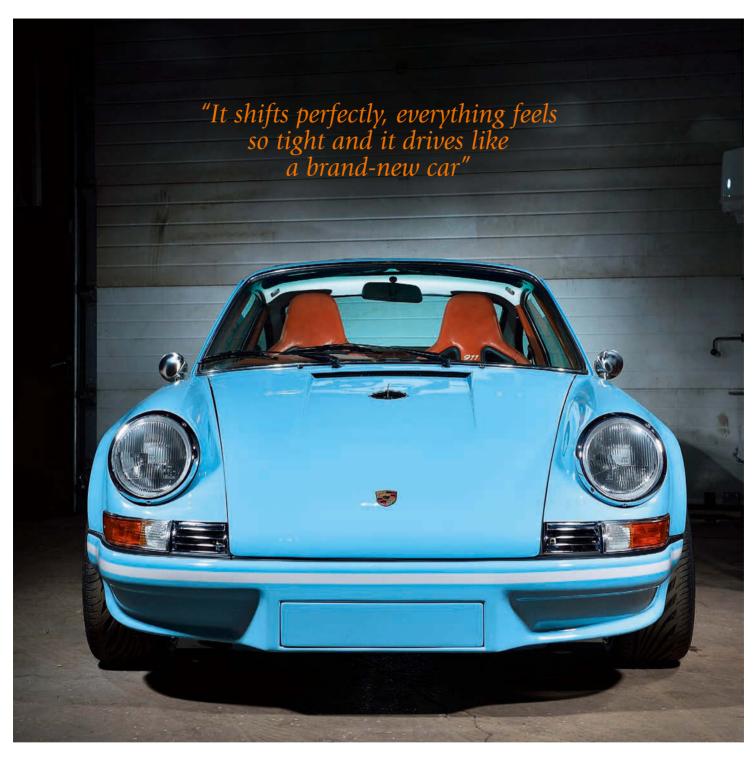


for a 1990 car is astonishing. It shifts perfectly, everything feels so tight and it drives like a brand-new car. Brett was waiting for me when I returned and asked, 'what's it like?' and my exact words were 'oh my god'. He was equally pleased, it's just a car that makes you feel great. You could use it every day."

Whilst we didn't get to experience it from the driver's seat, we did get to the see the effect it had on those it passed. The sound of the exhaust alone catches everyone's attention, alerting them to the presence of a rolling retro masterpiece. Fortunately, it's not so loud from the inside after the boys applied sound deadening to the floors, doors, rear arches and just about every nook and cranny. They also upgraded the stereo – although we prefer the soundtrack of the flat-six.

In retrospect there's nothing that Andy says he





would have done differently with this project. "We achieved what we set out to do in a relatively short space of time. I think that's because we've planned it better than other projects, and also because Simon has been a leading light. He was exactly the same when I dealt with him 20 years ago – which is why I went back to him. He was completely forthcoming with advice and offered to do as little or as much as we wanted."

And how was it for Simon? "Andy and Brett are so easy to work for. They listen to the advice that you give them and, as a result, it's one of the best 964s we've ever driven. It's got good power and response from the camshafts and good pick-

up from the flywheel. Sometimes these cars don't drive as well as they look but this one has come out really well. We've done six or seven of these 964s but this is the first one that's come along that's different. Everyone that's seen it in the workshop comments on it; it's just one of those cars. It sounds great, it looks great, it's just an awesome car," reveals Simon.

Ever since Andy was a kid, he dreamed of driving a Porsche. By 19 years old he had his first, a 924, before going on to own 911s of varying generations; this one is different, though. "It's definitely a keeper," he states. "It's one of those cars, if we sold it, we would only end up doing

another one and we wouldn't change anything anyway. To do it now would cost us more money, too, with the price of a base 964 having gone up by around 20 percent and it's certainly not going to go down in value."

He's spot-on; 964 values amongst all air-cooled Porsches have been rising at an unprecedented rate over the last few years or so – a time when presumably Porsche enthusiasts woke up to the wonders of classic 911 styling and modern technology. Enhance and improve upon both of those things and you're surely onto a winner. We wonder if James May has any idea of what he is partly responsible for creating? O



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Undesirables

Once among the less desirable air-cooled Porsches, the SC and 964 have now become sought-after entry-level 911s. They do, however, offer quite different ownership prospects.

Story: Simon Jackson Photography: Gus Gregory

here are myriad choices when it comes to purchasing an air-cooled Porsche 911, for a great many that selection is sure to be limited by cost. But no matter your budget, there's no escaping the fact that air-cooled 911s are commanding a premium these days, yet as demand stays high, happily so it seems supply remains abundant. This is good news.

However, it does not make the selection process any easier as potential buyers evaluate their wants versus their needs, and pitch their budget against a range of other factors, such as running costs and appreciation in value. If you are in the market for an air-cooled 911 you might feel at times as if you're negotiating a minefield of possible pitfalls, but there are still several options in the market place that provide a rewarding ownership prospect as well as retaining their value without costing an arm and a leg to maintain.

Having survived a period of being cast aside as 'undesirable', both the 911 SC and 964 have appreciated considerably over recent months and years. They have finally arrived at a place where their values have converged, making the toss up between the pair a very realistic and common comparison. But as with most things Porsche, this appraisal is not a black-and-white clear-cut decision to undertake, as these two iterations of 911 are quite divergent in what they offer the owner and driver.

Time then, strictly in the name consumer research you understand, to get the two variants together to see what gives, and our friends at 4 Star Classics just so happened to have one of each, both on the market for £40,000.

911 SC

The SC is really a watershed model in the ultimate 911 timeline, for it was the variant that kept the story alive for the large part. Prior to the arrival of the model, Porsche had been developing a 911 replacement in the form of the cars we now know as the 924 and 928. Ernst Fuhrmann, Porsche's chief towards the end of the 1970s, was facing a difficult decision as the existing 911 grew longer in the tooth, yet its sales remained pretty consistent, with the press and public still raving about it in equal measure.

Fuhrmann was between a rock and a hard place. History records that he and his team of engineering experts feared that the 911 could not live with the increasingly stringent standard of '70s/'80s safety and emissions regulations as required by governments the world over.

But behind the scenes a bitter political power struggle grew up around Fuhrmann and the Porsche family for whom he worked, the former wishing for recognition for his careful steer of the company through some difficult times, the Porsche and Piëch families not wishing to relinquish control of the company's activities. The relationship deteriorated rapidly and caught between the two powerful parties was their baby – the 911. It's safe to say there wasn't much love lost between the pair, and little surprise that a divorce was on the cards; Fuhrmann was not much longer for his role at Porsche, replaced in the early 1980s by new CEO, Peter Schultz.

Schultz is often cited as being the man who 'saved the 911', but in many respects he merely inherited a product which was selling well (in fact it was still Porsche's best-selling model), and he logically decided it would be silly to stop offering

This particular SC has been well looked after during its lifetime, but buyer beware, there are plenty of less fortunate examples around...





it for purchase. One of the first rules of business is surely to give your customers what they want, so the 911 had to stay – for the time being at least. And which iteration of 911 had caused this about turn for Porsche's plans? The SC of course.

For 1978 Porsche had opted to replace the previous 911 iterations, entitled '911' and 'Carrera', with one single variant – the SC (discounting the 930 as a standalone model for the sake of argument here). The new 'Super Carrera' ran a 3.0-litre normally aspirated engine and from the factory came in both Coupé and Targa bodystyles, the first ever 911 Cabriolet didn't arrive until 1983. The SC used as its basis the preceding Carrera model's shell, and while there were improvements over that model they were not revolutionary ones. For the period it was a rather thirsty old girl, largely the result of meeting those aforementioned emissions regulations.

As a result the SC came in two states of tune, with USA and RoW (Rest of the World) versions, and they were separated by differences to their exhaust emission control and air injection systems. There were subtle changes made to the SC throughout its lifetime, but with the whirlwind of uncertainty surrounding the 911 at the time, the car's development was ultimately limited. That 3.0-litre engine, running a fresh

crankshaft, ignition system, Bosch K-Jetronic fuel injection (mated to a five-speed 915 gearbox) boasted 180hp in 1978. That rose to 188hp in 1980, and then subsequently 204hp in 1981. Mechanically speaking the SC was similar to the Carrera model before it, yet despite losing out in overall horsepower, a few tweaks made the driving experience quite different. On paper the SC had lost 20 horsepower over its forebear, but in reality these mechanical changes and further tweaks to the engine's setup, such as advancing the timing, resulted in more grunt lower down the rev range, providing a typical 911 drive. And it is that drive that we're here to experience today.

Although naturally it's not the oldest 911 around, driving an SC always delivers a back-to-basics drive. It retains enough of the older 911 feel and the original car's purity, to feel like a true classic 911, yet it has enough Seventies and Eighties era influence in its DNA to make it one of the most useable and reliable classic iterations too. This particular car is a 1980 model. It has spent the majority of its life in Northern Ireland and has covered a low 88,000 miles in that time. The Guards red paintwork, and (now) polished 16-inch Fuchs wheels and window trim, mean this SC looks good, and thanks to Bilstein suspension front and rear, it sits well too with a

stance slightly lower than standard. Inside, this car's condition continues to impress, and that's an overriding feel that is carried through as soon as you get out on the road.

Having spent a number of years in the shadows of earlier cars, there are a few SCs out there that didn't receive the levels of TLC they deserved, and as a result they feel a little tired to drive through lack of regular maintenance, something to be aware of if you're car hunting. Happily this isn't one of them. There's plenty of grunt from the 930-derived 2993cc engine, some will find it's actually nicer to use through the rev range than the later 3.2, in many respects feeling very eager.

Surprisingly for an SC with this 'box, the five-speed is a pleasure to operate, shifting slickly through the gears and not crunching its way about the place – it is gratifying if you're positive and precise with it. It handles well too, this car, potentially thanks to that uprated Bilstein gear underneath and the brakes do a decent job of bringing the car to halt (relatively speaking for a 1980s SC you understand), in combination with fresh Pirelli P6000s all-round the chassis setup belies this car's age – this SC has clearly been well looked after during its lifetime and the driving experience rewards as a result.

We're on the public roads here so provoking it



to do something silly would be, well, silly, but even when pressing on the SC offers a compliant ride which never feels as if it may bite. You can be safe in the knowledge that if pushed, you'll find a smidge of understeer and then progressive oversteer – the SC typically offers a nice balance.

964

Designing a new 911 can't be easy, but during the mid- to late-1980s Porsche faced that challenge, the 964 was beginning to take shape. Having dispatched Fuhrmann, the Porsche and Piëch families once more took a controlling interest in the firm, this time in the design of the new 911. The new car would feature an all-new body but so far as its design went, the board ruled that it would strictly remain recognisable as a 911.

Unlike previous iterations, Porsche made an effort to present a unified body for the new car, a shell common to all variants, and one of those versions would be the first four-wheel-drive 911, the Carrera 4 – it would take onboard a few key lessons learnt from the 959 project. Indeed the underpinnings of the 964 were where the really big changes to the 911 occurred, the suspension system coming in for much debate and design focus in particular. But all told less than 15 percent of the 964 hailed from its predecessor –



The SC's interior very much screams of its period, yet it's still typical 'classic 911' in its architecture





The 964 has aged well, today it offers enough of the 911's historical lineage yet also boasts modernity

and those parts were the visible elements on the whole. But Porsche had not gone far enough from an economical business perspective, and in reality the 964's different variants shared too few parts with one another to assist in keeping production costs minimised, the Carrera 4 shared little commonality for example with its two-wheel drive siblings.

This was a cultural problem at Porsche during the period, one amplified through its strict ethos of putting engineering excellence above all else including, it seemed, any real manufacturing common sense. Helmuth Bott, Porsche's then research and development chief (and the man responsible for the 959), was a big influencing factor at Weissach at the time and largely the driving force behind this method of working. Rightly or wrongly it was he who incurred the wrath of the families this time around, forced into early retirement just before the 964 eventually came to market.

But had Bott really dropped the ball with the 964? You could argue that the new car received a mixed reaction, one that perpetuated through to modern times, but ultimately in creating an allnew 911 Bott had landed himself an exciting yet rather thankless task that was bound to divide





opinion no matter what the outcome. And the 964 did just that. There were essentially three different styles available; rear-drive, all-wheel drive Carrera 4, and the Turbo cars, and there were also three distinct bodies too; Coupé, Targa and Cabriolet. The big news away from the chassis, though, was the new larger capacity flatsix in the Carrera, coming in 3.6-litre guise it produced 250hp with 228lb ft torque. There were a plethora of new electronics now too, some designed to aid the driver, others used to run the increasingly complex mechanical side of things. You could also specify an automatic version of the 964 too, this time with a new solution to the previous Sportomatic 'box Porsche had used. While the new option stopped short of aping the pioneering PDK unit used for racing in the 959, born collaboratively with transmission specialist ZF and Audi, Porsche opted for a new system that it termed 'Tiptronic'.

The 964's divisive nature met with both positive and negative reaction when new – road testers at the time felt the car offered a vastly improved drive over its predecessor, yet some argued that it didn't feel like a 911 from behind the wheel. Others criticised the Carrera 2's handling characteristics, finding it too skittish,

perhaps overpowered, instead preferring the all-wheel drive variant. Indeed with the Carrera 4, the 911's fearsome reputation for snapping into a pendulum effect had seemingly been tamed, and this was a cause for celebration in some critic's eyes, a sign of the 911 being sanitised and losing its edge for others. But whichever way you sliced this progress, the 964's job of reinventing the 911 for the modern world was complete, total production exceeded 57,000 examples.

Today the 964 has fully emerged from a period of darkness whereby many Porsche enthusiasts systematically overlooked it. Like certain examples of its forebears it has now joined the echelons of being ranked as a rather timeless 911. Similarly to the SC it appears alongside in our pictures, the 964 is now a viable entry-level 911 that manages to bridge the gap between true 'classic' 911s and the car's more modern iterations. The car you see here is a 1991 Carrera 4, interestingly up for sale at the same price as the SC we've just stepped out of, and yet it's quite a different 911. For starters, although Bott and his team at the time did their utmost to make it look like a 911, it's very unique in a direct comparison with the aforementioned SC. In a nutshell it simply feels more modern, it's easy to see how

road testers back in period struggled to see it as a 911, yet today with contemporary retrospective eyes it feels very much like one.

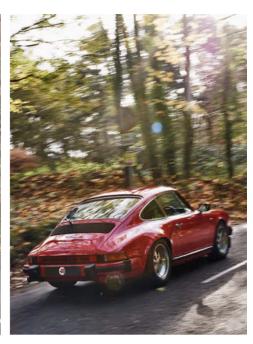
This stroke of modernity might be a good thing for some people, indeed if you've only ever been used to driving modern cars, by which I mean post-1990s machinery with electric this and ABS that, then the 964 makes for a familiar friend. Its classic looks are partnered with a rather contemporary driving experience, it doesn't ask the driver to work too hard as older variants of 911 can. All 964s feel very Germanic; they're well built, solid and hardy cars so far as their touch points go, so interacting with them is a reassuring process, but don't be fooled, all those modern innovations need to be looked after lest they pick up temperamental faults. This particular example has covered just 53,000 miles and is free from any niggling issues.

Out on the road the 964 feels far more powerful than the book figures would have you believe, indeed the usable performance it offers far and away exceeds that of the SC here. The beautifully weighted power steering system ensures inputs into the wheel are effortless, yet while the handling characteristics of the car are assured and enjoyable, there's an element of









communication missing from that delivered by the SC. This car encourages the driver to push on, partly through its beautifully torquey engine, partly though the offering of plentiful levels of grip and the resulting composure of its body – it all delivers a keen balance that promotes both driving fun and usability. In this C4 variant you feel somewhat invincible, yet at the same time well aware that it's the all-wheel drive system that's largely saving the rear end from overtaking the front. This car feels sturdy and dependable, and its manageable dimensions (compared with newer 911s) lends a feeling of nimbleness that's hard to beat in an air-cooled 911.

CONCLUSION

Either of these 911s should appreciate in value inline with one another, so let's park the investment argument here for once. Choosing between this pair is moreover a question of what you want from a 911, and what you plan to use it for. The SC presents a more charming and classic 911 for your consideration, yet it is one that is likely to require a more mechanically sympathetic owner, perhaps one who doesn't mind getting his or her hands dirty from time to time and who might be happy to accept the foibles of an older Porsche. I would say the SC is also increasingly not a car for those wishing to push the envelope of its performance at every given opportunity, if you want a fast 911 for arduous work then the 964 wins here.

Where the 964 also wins is in the usability stakes, this is a car you can still use every day if you so wish, and while some of the more hardcore out there would use an SC in this manner, there's no escaping the fact that it's an

older car and therefore less user-friendly for modern daily driving in certain practical respects. With that usability from the 964, though, comes a slight air of detachment in the driving experience, but that's one you get with most modern vehicles. Ultimately the 964's drive is a rewarding one, but it's not as involved as that offered by the SC – blame evolution for that. And then there are the more advanced technical aspects to consider, ones which require a watchful eye and which could arguably result in higher running costs.

As a comparative guide Independent Porsche specialist RPM Technik states that a typical 12,000-mile service (using genuine Porsche parts and inclusive of labour) would cost £507.51 for a 3.0-litre SC, £608.34 for a 964 Carrera (2 or 4). A standard clutch kit for an SC would be £820, and for the 964 that would be more like £1020 (Carrera 2), or £1215 (Carrera 4).

These two 911s hail from different eras and represent quite distinct yet important periods in the evolution of the model. Despite their difficult upbringings, and the unique driving experiences they offer, both are likely to provide a rewarding ownership prospect, which you choose is ultimately a question of personal preference. Whether you require the truly classic 911 look and feel of an older car, in which case the SC is your perfect pairing, or whether you hanker after the usability of a more modern Porsche, if so then you can't go far wrong with a 964. Either way, today neither of these 911s could be labelled as undesirable... \bigcirc

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The Imitation Game



Using a 964 as the basis of a 'backdate' or 'evocation' 911 project has become popular. But as these cars grow older and their values rise, does this remain a justifiable option?

Story: Simon Jackson Photography: Various

vocation, recreation, reimagined, re-engineered, retro modern. Whichever term you feel most comfortable with, the concept of remixing a 911 to appear like something it is not, most commonly an older model, doesn't seem to be fading away. In fact, as prices of early 911s continue to accelerate, so too does the appetite for creating a bespoke hybrid build which combines modern with classic Porsche using the bones of a newer car to create the feel of an old one. We've seen our fair share of custom creations emerging from private owners' garages, but arguably it's the work of the independent specialists in this field that seem to be making the biggest waves.

Of those independents, California-based outfit Singer Vehicle Design, fronted by ex-pat Rob Dickinson, has undeniably received the most exposure. But we've also seen cars emerging from UK-based specialist PS Autoart (part of Paul Stephens in Essex), and in this very issue you'll have already spotted Redditch-based



Pro-9's latest 911 backdate project (p28).

By no means are these firms jumping on the bandwagon – most of them have been at it longer than Singer, but there's a potential problem with all of this. As a basis for these backdate projects, the 911 SC and later 964 Carrera are the most popular donor 911s to come under the knife, yet as they increase in value and desirability in their original factory guises, at what point does pulling one apart begin to register as unacceptable Porsche sacrilege and financial suicide? There are a few schools of thought on this, and there's no denying it's a hot topic...

BACKDATES

Singer Vehicle Design is a name that has become well respected in Porsche circles, even by some big names under the brand's employment in Stuttgart. It paints itself as a restoration, tuning and modification specialist, but there's really an over-arcing and far neater description available: Singer can make your Porsche 911 dreams come

true. The essence of a Singer car is that 'anything is possible', and it won't have escaped you that the firm prides itself on attention to detail.

Singer has nailed an ability to transcend being pigeon-holed as merely a 'tuner', side stepping any negative connotations that term may convey. In short Singer wants us to view its work as a celebration of Porsche and the 911, and to see its cars as preservation and personalisation projects; respectful, sympathetic homages to the 911's original formula. But original these creations are not, which is really the whole point and the reason Singer's privileged clients are prepared to pay around £300,000 to own one of its reimagined machines.

Boil down the essence of what Singer does though and you'll discover the concept is not new to anyone with a knowledge of the modified car scene. What is new is the way in which the outfit has managed to showcase its highly polished end products to a mainstream audience; an audience that has not been exposed



Singer has made modifiying 911s cool, and perhaps more importantly acceptable. But what it does will be not be unfamilar to those with a knolwedge of modified cars...

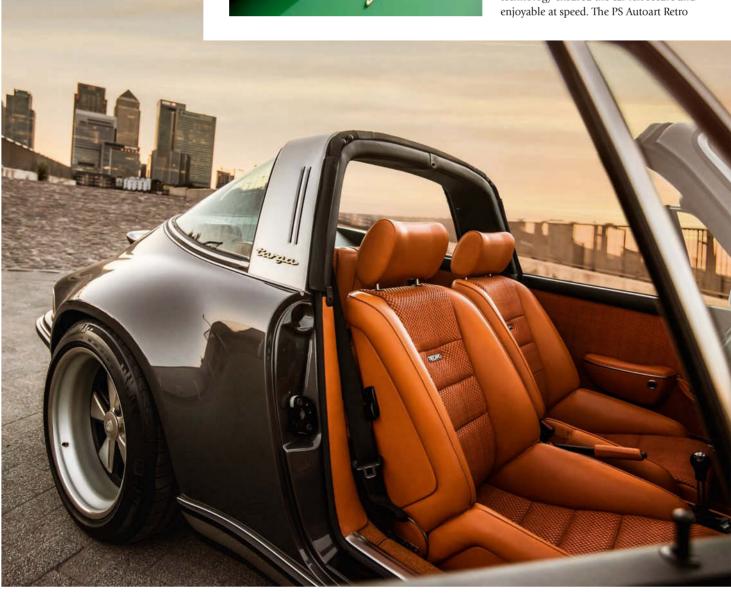


to builds of this level before. That, if nothing else, is to be congratulated.

Closer to home, PS Autoart, an offshoot of Porsche specialist Paul Stephens, has been building 911s in the same vein as Singer since 2005. Back in our September 2009 issue we featured two PS Autoart offerings, one based on an SC termed the 'Classic' and the other, the 'Retro', based on a 964 and inspired by the factory RS cars. In case your maths is as bad as mine that makes the 'Retro' build seven years old now, and credit to PS Autoart's prowess, it still looks good today.

By its very nature the Retro was designed to be wilder than its 'Classic' stable-mate, and therefore revisiting it today presents a more modified machine, one wearing larger wheels to accommodate larger brakes, and a reworked interior to create a hybridisation of classic meets modern. Oh, and under the rear deck lid there's a meaty bored and stroked engine mixing Carrera RS with GT2 parts to pull a 330hp punch.

As a package the Retro didn't cut any corners, a seam-welded chassis aided structural rigidity, while contemporary suspension and damping technology ensured the car felt secure and



delivered the spirit of a newer performanceorientated 911, with the pleasing aesthetics of an older car, and it did so without looking like a Frankenstein creation. A Porsche enthusiast might be able to see through this car's camouflage, but it's safe to say your average Joe on the street could not – that was this car's USP.

EVOCATIONS

For whatever reason evocations have always been less accepted than backdates on the Porsche scene. Yet the two concepts are not a million miles apart; both are pretending to be something they're not. However, where a backdate champions originality and personal touches centred around the end user, an evocation is more about aping an original series production Porsche and pulling the wool over our eyes. The evocation's goal is to convince us that it's a model from further up the food chain, a backdate is more concerned with presenting a reimagined and re-engineered package – unlike an evocation it's not trying to look like a car from the factory.

Whatever your viewpoint on these 'replicas', many enthusiasts are now priced out of the market when it comes to purchasing a genuine

halo model 911 - think in particular of a GT series car from practically any era. So building a look-a-like using a lesser model becomes an attractive option. And, of the air-cooled 911s, the 964 has always proved a popular basis for modification, its RS version being the car most people wish to imitate, for obvious reasons. This means we tend to see a lot of 964 RS evocations, created for a damn sight less than the current £150,000 (plus) real ones are changing hands for now. Of all the RS variants of 911, you could say the specification differences between that of the 964 Carrera and its RS cousin were not poles apart. This means creating your own version from a standard Carrera is not within the realms of fantasy. Despite this people still seem to get it wrong, plus over the past five years or so obtaining a good, clean Carrera 2 (which is the ideal model to start with) has become far harder.

Any evocation may well come in for some serious work during its transformation, but for the most part we tend to see very few that receive the same level of workmanship as the aforementioned backdated projects. Perhaps that explains why they don't generally receive the same level of respect on the Porsche scene? If

UK-based PS Autoart has been creating backdated 911s since 2005, and it's not the only firm out there reengineering 911s to look 'retro'...







The PS Autoart Retro delivered the spirit of a newer 911, with the pleasing aesthetics of an older car



there is a plus point in favour of the less resolved evocations, then surely it's that they can be retuned to their factory standard specification more easily?

CONCLUSION

As 964 prices rise and the insatiable desire to own one of the last air-cooled 911s amplifies, so the idea of tearing one apart to create a backdate or evocation project becomes a stickier subject. Ultimately it becomes far harder to justify sacrificing a car for alteration if it is of greater worth and more sought-after in original trim. Despite these modified projects often being sympathetic and retaining a certain level of authenticity, the vast majority of the Porsche world does crave originality. Some therefore will find tackling a project of this nature difficult to justify these days, which in a way is sad, as seeing creativity crushed is not something that most of us want to play witness to. But the question of whether or not creating these reborn 911s is right or wrong is academic, those with their names on the logbook will do as they wish and all power to them O

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Simon has worked across several automotive publications over the past decade

Simon Jackson attempts to resolve his own mind on the concept of backdating...

have mentioned here before that I previously worked on modified car magazines, so I guess you could argue that I'm more qualified than some to pass comment on cars that break away from their standard specification. When the subject of a modified Porsche arises I always feel like I've got a decent insight into what some may see as a rather bewildering practice and somewhat murky scene. And on the rare occasion that such machines appear in the pages of GT Porsche, then at times I'm left feeling like I should justify their inclusion, but why? I think it's because of my background that I feel protective of those innovative and tasteful projects that truly deserve column inches and applause, but I am also quick to dismiss those that I see as being of less substance and pandering to trendy 'of the moment' fads. Strangely the concept of backdating a Porsche, which this issue is largely dedicated to, leaves me with a foot in each camp.

Don't get me wrong, I completely understand why people might wish to create the illusion of an older Porsche using a far newer one as its basis. there are numerous reasons why this is a fantastic and sensible idea. The obvious ones are the levels of performance and reliability a newer model may bring; a 964 for argument's sake is more likely to be structurally and mechanically sounder than a classic 911T. Let's not forget that it's probably also going to be easier and cheaper to find a good 964 base car too, and that part of the beauty of the 911 is that all the parts from its different generations are largely interchangeable (within reason) so backdating one is doable.

But I can also see the flip side here. Porsche enthusiasts on the whole crave originality, and although these folk tend to focus their attentions on the older generations of Porsche cars, like 1960s and 1970s 911s for example, there is

also a huge audience for factory fresh contemporary cars too, including the likes of the 964. Does stripping any Porsche of its originality serve as sacrilege? Some will tell you it does.

As the prices of older cars rise and the desire for these cars to be wholly original grows too, so the concept of modifying one becomes tougher to accept. It's easier and justifiable to track down a newer 911 that's in more plentiful supply for example, and rework this as you see fit then it is to redesign a true classic.

Playing a devil's advocate, the problem is that at some point the more modern cars will also become rare and sought-after in original guise too, so is it ever justifiable to tear any car apart for a recreation/ reimagining/evocation or backdate project? Use whichever term you see fit, because ultimately they all involve altering a car from its factory design and rebuilding it within a set of parameters decided upon by an owner or specialist in

the field. These are personal builds, which it is the owner's prerogative to create. Like it or not if your name is on the logbook you can do what you want to your car, and no one can stop you.

Some might just say that this a selfish viewpoint, and that you should consider yourself merely a custodian of a Porsche, in particular a 911. Perhaps those people should take a detailed look at the two cars on the cover of this issue. Both are indicative of the high standard of builds emerging on the scene of late, and they present a strong argument for why this process is more considered and classy than some outside the

loop might initially presume.

I guess what I'm trying to say here is that I see both arguments for and against the concept of backdating, and I personally feel a little stuck in the middle ground as to where my heart really lies with the idea. Given my background I'm in favour of the concept of modified cars if they're executed correctly. I just wonder whether, in the not too distant future, we'll be looking at some of the less resolved of these Porsche backdate builds with the same levels of distain that we now reserve for those period perfect cars cut up and body kitted in the '80s and '90s all in the name of fashion O

"Does stripping any Porsche of its originality serve as sacrilege? Some will tell you it does..."



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944 project

I have just purchased the white 944 (G605 WLH) owned by Chris Knapman and run in *GT Porsche's Long Termers* section back in 2006 and 2007. She is still running but is looking a bit sorry for herself now I'm afraid. I am going to bring the car back to its former glory and wondered if you might be interested in any photos of the car as it is now and as the work progresses?

David Burrell, email

Hi David, We contacted Chris and he was delighted to hear that the car is still running. We'd very much like to see how the car sits today and do keep us posted with the progress of your renovation. **GT**

The backdate debate

In response to the statement in your November '15 issue, "the prices of early cars has left 911 enthusiasts with little choice but to backdate", I would counter: the price of 'later' air-cooled cars does not really justify cutting them

up any longer either, does it?

Jasper Maters, Twitter

An interesting counter point. We'd love to hear people's thoughts through the usual channels... **GT**





Have Your Say

Send your letters to: Your Writes, GT Porsche, Unity Media plc Becket House, Vestry Road, Sevenoaks, Kent, TN14 5EJ Email: gtpurelyporsche@unity-media.com I read with interest Andrew Frankel's road test of the new turbocharged 911 in the January issue. I have to say I'm a non-believer in the concept, and I was interested to see Andrew's honest appraisal of the car; it's the first I've read that seemed not to simply shower the car with praise.

I'm sure it drives well but I can't help but bemoan the loss of the raucous normally aspirated Carrera engine.

John Harper, email

Again, we'd love to hear other people's thoughts on this through the usual channels... **GT**



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Point of Entry

Porsche's entry-level Boxster is far from a compromise, and for now it still has a flat-six motor. For £350 per month you could be driving one...

Story and photography: Simon Jackson

ccording to the Office for National Statistics the average UK household spends £250 per month on recreational entertainment (on demand TV, theatre trips, the cinema etc). Meanwhile the average London household spends over £200 per month solely on eating out and takeaways, and the rest of the UK isn't far behind the capital's monthly tally. In essence that's potentially £450 per month blown on frivolous 'fun' and fast food, and for that money you could be driving a brand new Porsche Boxster - which is both fun and fast. At £39,553 the Boxster 2.7 is currently the cheapest new Porsche, but you'd be wrong to assume that makes it inferior to the rest of Porsche's midengined range, or indeed to its existing sibling models further up the food chain from Stuttgart's favoured sports car firm. What's more, with the assistance of Porsche Financial Services, an external lease firm, or your friendly bank manager, you could get behind the wheel of a brand spanking new one for around £350 per month - which seems like a bargain when you really stop to think about it.

In a world of GTS, Spyder and GT variants of Porsche, it's very easy to fall into the trap of presuming that the firm's lesser models are just that: lesser accomplished models. In reality, though, modern Porsches are all unequivocally excellent at what they do, and amongst them is the 'base' specification Boxster, which in part thanks to its (for the time being) flat-six 265hp 2.7-litre motor producing 206lb ft torque and beautifully balanced chassis, serves to provide a drive that obliterates that presented by most other £40,000 cars on our roads. As the cheapest admission ticket to Porsche ownership, the Boxster 2.7 serves as Porsche's shop window, it's

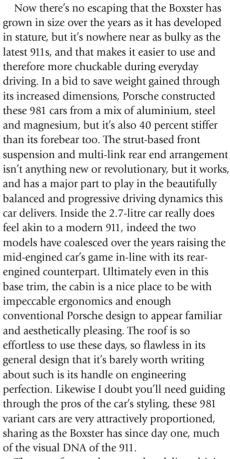
a mannequin in a fancy dress, and as such it offers more than just a small taste of what the car maker is all about these days. Admittedly the performance of the 2.7-litre engined car won't set your world on fire if you're used to frying bigger fish, 0-62 miles per hour is chalked up in 5.8-seconds if you're driving the six-speed manual, quicker if you splash more cash on a seven-speed PDK-equipped version. And the top speed is 164mph regardless of whether you've got a stick shift or not. The peak of the car's torque joins the party between 4500 and 6500rpm, so there are faster roadsters out there, but just telling you the facts and figures doesn't even begin to communicate half this car's story.

Since its inception in 1996, the Boxster has evolved to become a bread-and-butter part of the Porsche family. With the advent of the very latest 981-generation of cars, the Boxster (along with its chassis sharing coupé sibling the Cayman) is now as accomplished a sports car in its own right as the 911. It's available today with three distinct power trains; 2.7, 3.4 and a 3.8 Carrera S motor in the Spyder model, and it's probably a safe bet that for most the 3436cc engine would be the natural selection. But, while it's fair to say that the other two larger capacity engines bring with them more horsepower, torque and a quicker 0-62mph time, the base specification 2.7-litre car by its very nature uses much of the same componentry and certainly the same chassis makeup to ensure it's just as much fun to drive. The problem for Porsche and the gain for us as drivers is that its policy of sharing components across the Boxster range, and the general Porsche parts department as a whole, means that the entry-level Boxster gets many of the trick bits from its bigger brothers sometimes even the 911.









There are few modern cars that deliver driving pleasure in the same way as a contemporary Porsche Boxster. You can probably quickly name the vehicles that might come close, but it's likely that they won't be wearing a badge of such prestige like the car you see here. You rarely notice a lack of power with this 2.7-litre car, for the way in which it provides its acceleration and mid-range punch seems to mean you're constantly advancing at a rate of knots that fits



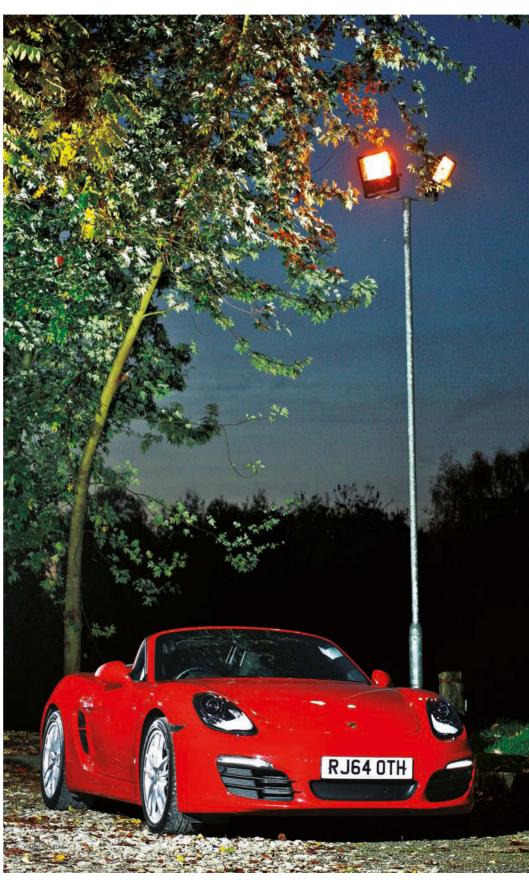


blissfully with the car underneath you. Forget about choosing the PDK transmission in this entry-level car, it's a £2000 option and the sixspeed manual is perfectly matched to the rest of the car and a treat to use - evidence of how Porsche has cleaned up its act with manual gearboxes. In combination with these factors the chassis is exquisite, balanced to perfection with more grip than you're ever likely to need yet, once again under the right conditions, it's playful enough to provide a pliant pinch of progressive slip angle when pushed - its gentle rack encourages corrections, and is never intimidating. It provides a true sports car drive in an age when the genre has become somewhat muddied. Oh and scuttle shake is a swear word so far as this car is concerned; that sharp, strong chassis just doesn't seem to have any.

This essence of purity and composure also means you need not worry about optioning Porsche Active Suspension Management (PASM) at £971, or Porsche Torque Vectoring (PIV) at £890, and you definitely don't need PCCB Ceramics at a cost of £4977 – sometimes a recipe doesn't call for further spice. And it's an idea to leave it sat on the staggered five-spoke 8x18- and 9x18-inch wheels (wrapped in 235/45 and 265/45 section tyres) too, if you value a level of ride comfort rarely available in a sports car.

Following the less-is-more rule of thumb with the options list as above, and provided you're happy with the colour choices of red, yellow, black or white (with a black, navy, red or brown convertible roof), then you'll largely see an invoice in front of you for a £39,553 Boxster. Or more likely these days, a monthly bill for around £350, which means you could potentially drive and insure one for around £400 per month. Because you don't need different interior trim, do you? And navigation (PCM is a £2141 option) is for the kind of people who spend £250 per





Porsche Financial Services offer a range of finance options across all models and the bones of a typical representative example for the Boxster 2.7 is shown below. There are also lease deals available on the Boxster 2.7 and business users can take advantage of particularly discounted prices per month.

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Porsche Boxster 2.7 over 36 months on a 10.000mile-per-annum agreement, at representative APR of 7.2 percent with a deposit contribution of £1500:

TOTAL DEPOSIT:

£9900 (including £1500 deposit contribution)

35 MONTHLY PAYMENTS OF: £355.87 TOTAL AMOUNT PAYABLE BY CUSTOMER:

£44,228.10

Visit www.porsche.com/uk/models/boxster /boxster/finance/ for full example details

BUSINESS CAR LEASING DEAL

Porsche Boxster 2.7 with nine months up front, then 47 monthly payments, on an 8000-mile-perannum agreement:

INITIAL PAYMENT: £3540.33 **ADDITIONAL FEES:** £300

47 MONTHLY PAYMENTS OF: £393.37 (Ex VAT)

Example quote obtained through www.contracthireandleasing.com

month on their way to miscellaneous leisure activities whilst eating too many takeaways, right?

Over the last 20 years the Boxster has grown up. Don't believe the critics, it always was an accomplished and exciting Porsche, and today it feels closer than ever before to the 911. Yet, despite this turn of modernity and increased presence, the Boxster manages to offer quite a different driving experience to a contemporary 911, arguably one that harks back to slightly simpler times. It's partly the result of its size,

power and overall vibe, but there are other intangible elements at play here too I suspect.

Early this year Porsche will unveil its 718 fourcylinder Boxster and Cayman cars with the arrival of the face-lifted 981 cars. These will be turbocharged, falling in line with the latest 911 Carrera range. This step change will also probably mean that these new cars will form the basis of a new 'entry-level' Boxster, which means there will no longer be the option of getting on to the Porsche carousel at ground level with a

These 19-inch wheels look smart and ensure a comfortable ride at the same time...





melodious flat-six engined version of this midengined machine. Of course it will be a shame, but that's the price of progress.

For now at least that's not the case, you can still walk into an Official Porsche Centre and drive away with a sub-£40,000 Boxster with a six-cylinder engine, a three-year warranty, and the ability to thrill like a true, traditional Porsche sports car. In theory all you'll need to forego in order to afford one is a few trips to the cinema and that habitual weekend takeaway O





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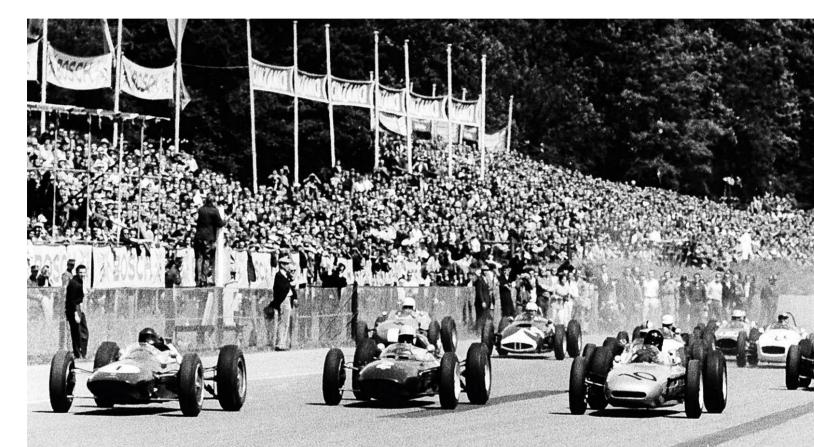
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Time in SOLLITUDE



The Solitude Grand Prix took place at Porsche's home race circuit, an entirely forgotten venue in Stuttgart that has fallen into the mists of time...

Story: Andrew Frankel Photography: Porsche Archive

magine there was a place that held Formula
One Grands Prix in the 1960s. That this
place was in Europe, in Germany no less,
and that on race days 300,000 fans would
flock to the track side to see the greatest
drivers of the era – Jim Clark, Stirling Moss,
John Surtees, Jack Brabham, Dan Gurney and
so on battle it out for victory. You'd have heard
of it. Right? Well maybe and maybe not.

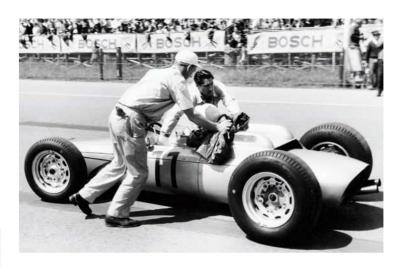
What does the Solitude Grand Prix mean to you? To me, it is one of the most beautiful venues ever to hold a motor race, all the more romantic and mysterious now that its name has faded entirely into the mists of time and because its life started within the imposing

grounds of the 18th century Schloss Solitude castle from which it derives its name. But the reason I am writing about it here is its location, just to the south of Stuttgart and therefore as close to a home race circuit as Porsche ever came. And when Porsches came to race here, as we shall see, they did so with distinction.

First, however, we must wind back a little to the chance meeting of two men spectating at a race meeting held at Solitude in 1925. Solitude had been a competitive motorsports venue since 1903 when it was just a hillclimb up the drive to the castle gates. By 1925 however a monstrous 14 mile lap had been devised (not that much shorter than the Nürburgring was, even then) that had gained itself the reputation of being the German Targa Florio.

That day, one Dr Richard Voelter, the-then advertising director of the Stuttgart-based Daimler Motor Company, invited a chum of his along to see the racing. And while they were there, Voelter introduced said friend to Daimler's already very highly regarded technical director. And that is how and where, many years before they worked together, Adolf Hitler and Ferdinand Porsche first became acquainted.

For reasons unknown, the meeting left a lasting impression on Herr Hitler. We know this because eight years later in 1933, Ferdinand Porsche was granted an audience with the one- time lance





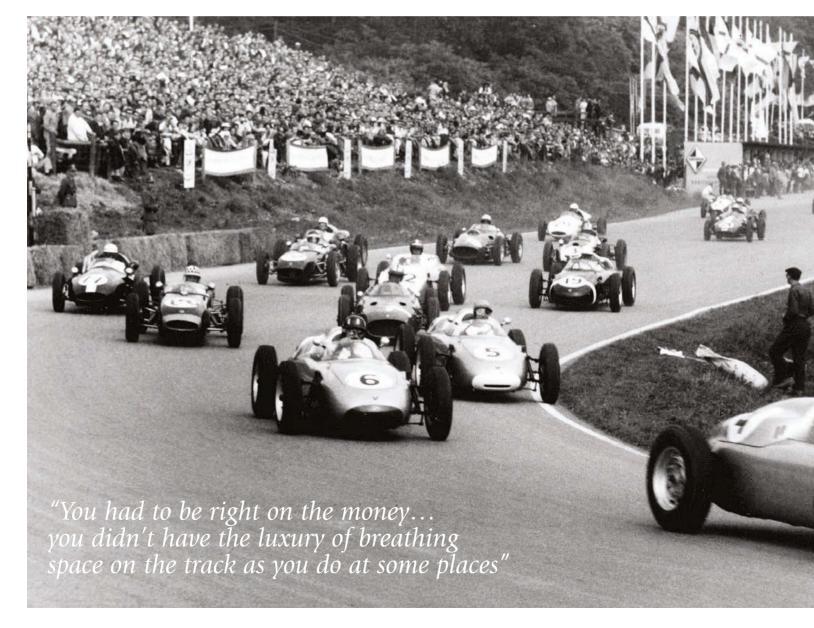












Far left: The Porsche Club of America at Solitude in 1960. Below: (from left) Hans Herrmann, Ferry Porsche and his son Peter Porsche at Solitude, 1961











corporal who was now Reich Chancellor of Germany. According to Ferry Porsche's autobiography (*We at Porsche*): "What surprised my father most was Hitler's memory, for during the friendly reception he said, 'I remember you well, Herr Doktor. We met at Solitude in 1925...""

Without that earlier meeting Ferdinand may have been accorded an altogether more frosty reception and the clear inference to be drawn from this book is that the impression Porsche made that day was one of the deciding factors in Hitler splitting the money he was about to give Mercedes-Benz to design a world-beating race car with Auto Union instead. And having got that gig from Hitler and set about building the extraordinary mid-engined V16 Auto Unions, Ferdinand Porsche's next commission would be rather more important even than that. It was for a car known as the Type 1, but better known to you and me as the Volkswagen Beetle.

As Ferry put it: "He had never forgotten the meeting with my father at Solitude eight years before, brief and casual though it had been." You could at least argue therefore, that without Solitude the most advanced racing car of its era and one of the best-selling cars of all time would never have been built...

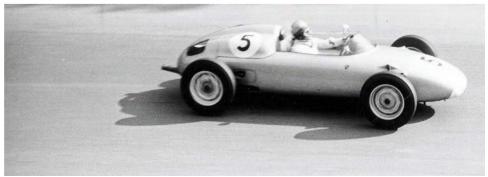
By 1935 the circuit at Solitude had been

abbreviated to the 7.1-mile lap it would retain until its closure 30 years later. If you go there today, you will find one of those road circuits like Rouen in northern France (where Gurney and Porsche won the latter's only World Championship Grand Prix) and the original Spa where all you can do as you drive around is let your mind gently boggle at the fact that anyone thought it was ever a good idea to race here.

The circuit has it all: gradient, 18 corners of varying radii and, when it goes wrong, an unlimited number of trees around which to wrap your car. Look at photographs of cars racing there and you'll notice too the complete absence of even the most rudimentary safety features: if you came off the track there was usually just a narrow grass verge followed by a steep bank into which you car could be buried. Somehow get beyond that, and all that awaited you was woodwork.

Dan Gurney was one of just five men to win a Formula One race at Solitude and described its challenge thus: "You had to be right on the money there... you didn't have the luxury of breathing space anywhere on the track as you do at some places. It took a lot of concentration and it was easy to make a serious mistake."

Look at the circuit layout and it's not hard to see what he means. The track snakes devilishly in



Below: Joakim Bonnier in the Porsche Type 718/2 at the Grand Prix of Solitude, 1961 Below middle: Daimler-Benz at Solitude, year unknown









and out of the woods, up and down hill until you reach the straight, and even that is far from straight. Innes Ireland, another one of the five, thought it: "The most beautiful of circuits, and could be described as a miniature Nürburgring. It has many corners, ups and downs and runs through beautiful wooded country."

Formula racing for cars did not arrive at Solitude until 1960. That year the Solitude Grand Prix was held to Formula Two regulations and Porsche must have been anticipating a decent result: its 718/2 F2 car was proving to be a mightily competitive proposition despite the fact that beneath the skin it was little more than a 1950s RSK sports car with new bodywork and a central driving position. It entered a total of five cars into the race on what *MotorSport* magazine described as "Porsche's own proving ground". Ranged against them were two factory Ferraris, three factory Lotuses and sundry private Coopers that were not to figure in the final reckoning.

It was superb race, *MotorSport* reporting: "For once this had been real motor racing with the first seven cars all going as fast as they knew how

for the whole race, and if this to be a foretaste of 1961 Grand Prix racing [where F2 regs would be adopted for F1], then no-one is going to be disappointed." Four of the five Porsches were in that first seven, but none of them was actually first. An absolutely epic battle between two German drivers, Wolfgang von Trips and Hans Herrmann had finally been resolved two laps from home with von Trips' Ferrari victorious and Herrmann, Jo Bonnier, Graham Hill and Dan Gurney filling every space from second to fifth in their Porsches. Some idea of the challenge of Solitude was provided by Gurney who felt moved to comment after the race: "I've never driven so hard in my life, just for fifth place."

Porsche should have won again in 1961 and it required Innes Ireland to drive what he went on to describe as the greatest race of his life to deny it. It was a 25-lap race and he had led, just, in his Lotus 21 for 24 of them, fighting continually to keep the Porsches of Bonnier and Gurney behind him. In his estimation the Porsche had more horsepower and a better chassis, while the Lotus had only secret 'green spot' Dunlop race tyres up its sleeve.

But as they started the last lap the power of the Porsche finally told and Bonnier drafted past Ireland on the straight to take the lead: Porsche appeared to be about to win its first ever Formula One race. Ireland, however, had other ideas about that and was driving in such a way his boss Colin Chapman was moved to remark: "Either Innes is going to win, or we'll never see him again."

Ireland made his move at the last possible second at the last corner before the pit straight, slithering down the road, largely on the grass. Afterwards he would write: "It was panic stations all right and my poor Lotus didn't know which way to turn as I locked up the wheels and slewed about in the most alarming manner."

Bonnier, convinced he was about to be collected by Ireland's accident braked harder than he otherwise might in order to avoid an apparently out-of-control Lotus. At the crucial moment however, and you sense as much by chance as arrangement, the Lotus happened to be pointing in the right direction, Ireland somehow rounded it up, nailed the throttle and got over the line with Bonnier's front wheels level with his



Below top: Gurney with Bonnier (right) in '62 Below: Porsche invited drivers, journalists and friends to a meal prior to the '61 race, a diesel Porsche tractor was used as transport



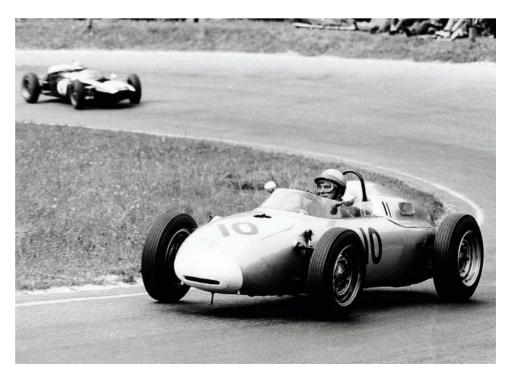




rears. The gap was 0.1sec with Gurney's Porsche just two further tenths behind. Bonnier had got pole position, Gurney the fastest lap, but for Porsche, it had to wait one more year for the win.

Sadly and for most of its duration, the 1962 Solitude Grand Prix lacked the excitement of the two previous editions. Dan Gurney, fresh from claiming that first Porsche GP win at Rouen was back behind the wheel of Porsche's first and to date only purpose-built Formula One car, the 804, while Bonnier had its sister car. The battle should have been with Jim Clark's supercompetitive Lotus 25 but it was somewhat offsong that day, and the crowd was even to be denied the fight between the two Porsches because Bonnier's car had a broken exhaust and was slightly down on power as a result.

So Gurney, having got in front, stayed there until quite unexpectedly on lap 17, the heavens opened and cars started flying off the circuit as if the surface had actually frozen. Gurney, having just set the lap record at 108mph (in a 1.5-litre car on skinny tyres, which is close to unimaginable around there) found himself









skating along the grass and lucky indeed not to damage his car. Trevor Taylor lost control of his Lotus and reported back to the pits towing 20 yards of someone's else's fence while even Jim Clark was unable to deal with the conditions on worn tyres and crashed out of the race.

This allowed Gurney to win the race at a canter, with Bonnier a couple of minutes behind having not put a foot wrong all afternoon. It was a Porsche one, two on home soil just a few miles from the factory in a Formula One Grand Prix, and today almost no-one remembers it.

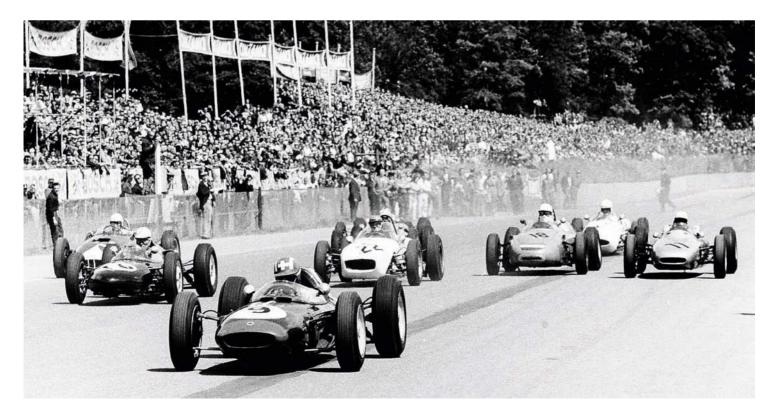
But the only real difference between Solitude and the Grands Prix that took place at the Nürburgring and Hockenheim was not the quality of the cars or drivers, for in all cases they were the best the world could muster, but that Solitude lacked World Championship status.

The Solitude Grand Prix continued for three more years but without Porsche which had concluded Formula One was not the way to go and ceased all factory involvement, leaving just the odd privateer to squabble over the minor placings. And after the 1965 event, all racing

ceased at Solitude forever - even then it was seen as too dangerous, which given some of the lethal circuits at which they were prepared to race (Rouen, Spa, Monza, the Nürburgring - gives you some idea of just how scary this place is.

Go there today and you'd have no idea that cars ever raced through those forests 50 years ago. The old control tower is still there as, in the distance, is the looming presence of Schloss Solitude. But that's about it. Not much of a memento to one of Europe's finest, most challenging but now entirely forgotten race tracks O

"[It was] the most beautiful of circuits, and could be described as a miniature Nürburgring"





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SPEED

This Porsche racer holds the 356 speed record at the Kalahari Speedweek, South Africa's equivalent to Bonneville.

Story: Johann Venter Photography: Michael Schmucker

ne-hundred-and-fifty-seven kilometres per hour may not sound like much but when you consider that this is a 55-year-old car with a 75hp engine trying to find traction on a dusty desert plain, it is quite remarkable. Not only that but it did pip a rather rare 356 Speedster - of which approximately only 40 right-hand drives were ever made. Owner Wernher Hartzenberg explains: "We developed the 356 as we went along. There was never a predetermined vision. In fact, at the first Speedweek in 2012 we taped the wheel arches closed with duct tape. We started by taping up all the gaps and openings on the body, and then decided to take it one step further and taped closed the wheel arches to give

it a streamlined effect, as was the case with 356s competing at Le Mans in the early 1950s."

This 1960 356B originally came from Canada. It was found by Wernher and his dad Ludwig 17 years ago as a rolling chassis in Witbank, part of the Highveld in the province of Mpumalanga, South Africa. A widow was selling three 356s. The Hartzenbergs chose the best items from a scattered parts bin and proceeded to reassemble the chassis which had already been coated in Ivory white. All that was left of the engine, however, was the casing – until a VW Beach Buggy was stumbled upon housing a 912 lump in its rear. The engine was transplanted into the 356 which completed the assembly and then it was left to stand until 2009, as Wernher had set off on

a world exploration. The first leg of his expedition meant driving his '59 VW Kombi through Africa, then Europe and finally on to Norway.

Wernher finally landed in the US where he stayed on, coaching tennis for a couple of years. On his return to South Africa he took the 356 for a spirited jaunt to blow off the cobwebs and nearly blew off the wheels. The car had hardly been driven since it had been put back together and apparently the wheel nuts hadn't been tightened very well. Although no fixed plans had been made to race the car, Ludwig had the vision to have Perspex side windows fitted and the engine lid replaced with a fibreglass unit with louvers replicating the racing 356 Carrera with the four-cam motor. The Carrera lid is made

FREAK



from aluminium, though. This was done by close friend Anton Dekker, owner of Exclusive Conversions. The rest of the car remained fairly standard with a torsion bar suspension setup, double trailing arms in the front, and a floating axle at the rear. The steering is of the wear-andgear type, which came into play after '57. The most fundamental difference is obviously the engine which comes from the aforementioned 912. However, the engine used in the 912 is in fact a SC 1600, Type 616 lifted from the 356C and slightly detuned from 95 to 90hp to allow for smoother running. The Hartzenbergs, however, ditched the Solex carbs setup for 40mm Weber IDF fuel feeders. The fuel tank was also replaced with a new 40-litre tank, fabricated

by Kare in the same fashion as the original.

Wernher started using the 356 as his daily drive and it became somewhat of a workhorse as he drove it round loaded to the hilt with tools and parts. You see Wernher was working on numerous 356 and early 911 restoration projects simultaneously; indeed the Hartzenbergs are prominent figures in the Porsche scene in South Africa, with the father and son owning 15 Porsches between them. Wernher had also started documenting the early history of Porsche in South Africa, including the racing history, so when the 356 was not filled with tools and spares it was loaded with camera equipment and a rather special passenger: his faithful Giant Schnauzer, appropriately named Butzi, who

occupied the space where the passenger seat used to be.

Fast forward to September 2012: the inaugural Speedweek was held at Hakskeenpan (salt pan) in the Kalahari Desert, in the Northern Cape. Hailed as South Africa's Bonneville, it is a Mecca for South African petrolheads. What gave even more credence to the event was the fact that the Bloodhound team has identified Hakskeenpan as the location where a new world land speed record will be attempted in October 2016. It was inevitable that South Africa, with such a rich motorsport history, would have its own festival of speed. The need and desire for speed has been such that cars have been racing against the clock and each other ever since the advent of the



motorcar. Places like Daytona Beach, Ormond Beach, Pendine Sands, Lake Eyre and Black Rock Desert are synonymous with land speed records but none more so than Bonneville Salt Flats... and soon Hakskeenpan.

Wernher was part of the team that organised and assisted with the running of the first Speedweek. It was a massive undertaking to put the event together in the middle of nowhere, with no electricity or running water, so everything had to be shipped in for the event (tents, portable toilets, electric generators etc). And so for ten days Hakskeenpan became a motoring nirvana for South African petrolheads, living out of tents, where 'French showers' were the order of the day and, of course, the sound, sight and smell of cars and bikes of all shapes, sizes and capacity vying to set a record time. The only things missing were the drugs, sex and rock 'n' roll.

Tomfoolery aside, Wernher had his hands full literally a week prior to Speedweek as another engine was installed into the 356. The 912 motor had developed a leak and was replaced with a 356 75hp 1600cc engine. This replacement engine was from a 356 project that the Hartzenbergs were working on. This particular 356 had been standing for 30 years and, even more surprising, the engine had just been dumped next to the car. The engine was given a tune-up and summarily driven down to Speedweek in the Northern Cape and back, covering a distance of 2100km. As Wernher puts



it: "That can either be considered very impressive or plain down stupid." By then the unique livery had been applied, the number 59 paying homage to his first car (a '59 Beetle) and his '59 VW Kombi in which he crossed Africa and parts of Europe. The remaining decals are of all those who helped put the racer together and include Anton Dekker from Exclusive Conversions, Michael Schmucker of Studio 88 Photography (who has been documenting the history of the car with his camera), as well as the Aircooled Wonders logo.

Aircooled Wonders is Wernher's website which he is using to document a Porsche and VW/Beetle history in South Africa. The 'go-faster' stripes were applied days before leaving for Speedweek. The stripes hark back to the '50s when different Porsche racing teams applied different colour stripes to help distinguish one team from the other. The colours chosen are the Aircooled Wonders' blue, with the orange lending it that Gulf livery feel. Wernher elaborates on his reasoning: "The car was developed over a period of time, and it is still being developed. What you see was never a specific intention, it is a slow progression. The aim is largely to make it look like a periodcorrect racer, the way they looked back in the '50s racing at Le Mans. In those days you could drive to the track, remove the spare wheel and tools and go racing. I am a firm believer that the 356 should be driven to the track and not trailered."



The 356 is at home in its current state of tune and actively takes in part in South Africa's vibrant automotive scene







Once you drive a good 356 you'll want one for the rest of your life...

Don't let the racing graphics fool you, this 356 is largely standard yet it is able to provide a raw and exciting driving experience that truly belies its age



Porsche had developed a streamline 356 racer known as the Type 514SL (more commonly known as Type 356SL) and in order to facilitate better aerodynamics the wheel arches were covered with spats. Porsche had drawn from its experience experimenting with the Type 64 streamliner, technically the very first Porsche. In Porsche's first outing to Le Mans in 1951, Auguste Veuillet and Edmond Mouche drove their streamliner to a class win and were placed 20th overall. A year later Helmut Polensky and Walter Schluter won the gruelling Liège-Rome-Liège rally, criss-crossing dangerous mountain passes in the Alps to secure victory in their 356. That same year the duo won the Alpine mountain rally. The 356 was not only raced in Europe and the Americas; thanks to Lindsay Saker Motors, a Volkswagen dealership which became the Porsche concessionaire in South Africa in the early 1950s, the Porsche legacy continued in South Africa. Local Johannesburg businessman and racing driver Ian Fraser-Jones, affectionately known as 'Frones', was the first to race a Porsche in South Africa, albeit a 550 RS Spyder, at the Union Day Handicap at the Grand Central Circuit on 31 May 1958. Later that year Frones partnered with Tony Ferguson in a 356 Speedster for the inaugural South African Nine-Hour event, held at the Grand Central Circuit on 15 November 1958, which they won. Not only were 356 Speedsters raced in South Africa but

also further north in the then Rhodesia (known as Zimbabwe today), Mozambique, Angola and as far east on the African continent as Kenya.

Worth noting is that a 356 Speedster took second place in the Nine-Hour in 1958, which was featured in the March 2015 of *GT Porsche*. It was campaigned by legendary South African racing driver Sarel van der Merwe's father. Sarel himself raced for Porsche achieving a third place with the team at Le Mans in 1984 in a 956 and that same year he won the IMSA 24-Hour at Daytona.

By the time Wernher was on his way to Speedweek in 2012 the 356 had been fitted with seats fashioned after the 356 Speeder racing seats. After a momentous journey of over a 1000km to Hakskeenpan, Wernher shares his impressions of his first experience out in the desert: "The track is a seven kilometre stretch of salt pan. The biggest challenge is that the surface tends to break up on certain sections. The 356 was inclined to move around quite a bit but there is sufficient space so you have plenty of time to correct. The traps are set at the five kilometre mark, so for the first three kilometres I just settled into a rhythm and then built up speed. From four kilometres I was flatout. My only competition that year was a stunning 1958 356 Speedster in right-hand drive, owned by Eugene Gouws. He achieved 150km/h. I did about seven runs over the ten

days. The best speed I could achieve was 157km/h – which is the record that still stands for a 356. I reckon that my coupé is more aerodynamic, and therefore I could manage a higher speed. At one stage Eugene was contemplating lowering his windscreen."

Wernher returned to the Bohemian motoring oasis in the desert in 2013, this time round equipped with fibreglass spats which had been fabricated by Anton Dekker. His competition came from the well-known and highly respected Porsche mechanic and restorer Tim Abbot and his brother Anthony in their 356A. The brothers were separated by a mere 4km/h, Tim setting a time of 154km/h, with Anthony trailing at 150km/h. Although the 356 had been trailered down to spare the engine, Wernher could do no better than to match Anthony Abbot at 150km/h.

There was great anticipation and excitement for the 2014 Speedweek as the initial 912 engine that did duty in the 356 had been rebuilt. Again Wernher, with his trusted friend Michael Schmucker (the photographer who captured the images for the Porsche history which Wernher is compiling), drove down with him. Wernher is at pains to point out: "It's just that much fun to drive, driving there is half the experience and it's a great adventure. It needs to be driven!" Unfortunately it was not meant to be as the engine seized before a time could be recorded.



Sadly in 2015 the event was cancelled but there is great optimism for 2016, as Bloodhound is set to attempt its world land speed record, thus projecting Hakskeenpan on to the world stage, ultimately creating enough sponsorship interest to ensure that Speedweek takes place. This, however, did not prevent Wernher and Michael from venturing to the George Old Car Show in the 356, to the Western Cape on the beautiful Garden Route and then onto Cape Town to capture more classic Porsche history... oh, the life of a Porsche aficionado! Wernher tries to make it sound as if it was all hard work: "The back of the 356 was literally loaded to the roof with camera equipment, the front stowage with barely enough space for a change of scants. Sarel van der Merwe again played a staring roll in this assignment."

Now that we are properly acquainted with the 356, let's find out what it can do around a track. Red Star Raceway is our location for putting the 356 through its paces. It's located just outside the small farming town of Delmas in Mpumalanga province, about 60 kilometers outside of Johannesburg. It is a fairly new track, opening in

2010. The surface is extremely smooth and superbly maintained. It is a technical track that demands your attention. It's 4.2 kilometres long has 13 turns (of which five are hairpins). There are four straights. It has been designed in such a way that you can encounter it from either a clockwise or anti-clockwise direction.

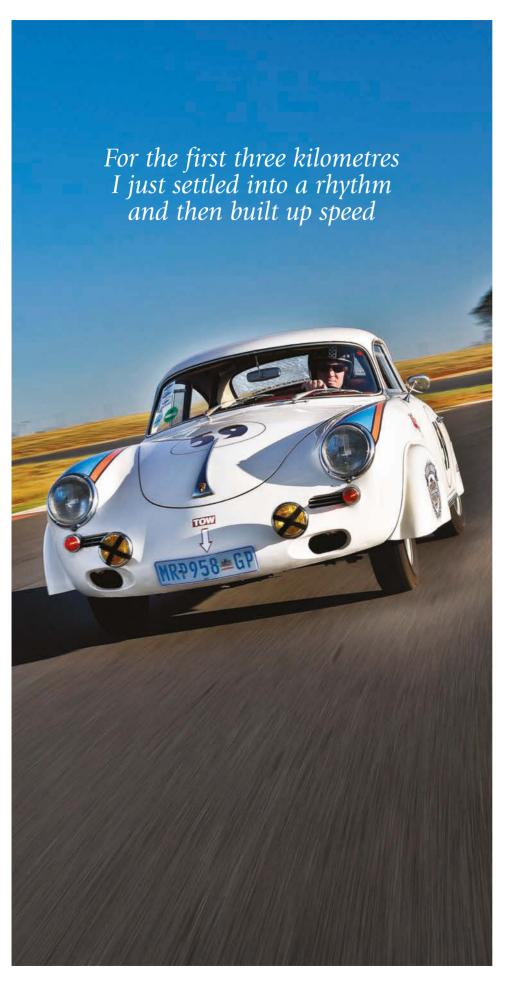
Considered more of a bikers' track it has, however, gained popularity among four wheelers in the last two years.

Safety first... so I am glad to see that half a roll-cage is mounted behind the front seats. The second thing that I notice is that the pedals are placed in a more neutral position: in the centre – not leaning to the extreme left or right in the footwell. The steering is largely proportioned, typical of cars of this era. One swing at the ignition and the engine barks to life. The whine from the engine permeates through the spartan cabin and there is no denying that the motor sounds more like a Beetle than a flat-six. I read in a prominent motoring mag that once you drive a good 356 you'll want one for the rest of your life...

Going in a clockwise direction on the track the first hairpin after the pit straight is suddenly

sprung upon you; maybe it is the contour of the Tarmac but it is rather unexpected. There is an immediate need to shift into second to halt the momentum and an even greater need to stamp onto the brakes – hard.

In both instances the 356 seems to be up to the task at hand. The synchromesh four-speed still feels very precise and although there is some travel in the brake pedal it is not hitting the bulkhead. Shift back into third and the whine from the motor starts to increase until it hits a threshold and then seems to din out. You soon forget about the whine as the straight comes to an abrupt end in the form of another hairpin not so easily caught out this time. The Vredestein 165/80 15-inch tyres, although on the skinny side, provide sufficient grip to keep things tidy on this twisty narrow track. The 356 is beautifully balanced, the four-pot being lighter than the flat-six and positioned further back in the engine bay. The 356 is a featherweight compared to modern 911s, making it easier to lean into the corners with gusto as the track becomes more familiar. The steering is light and precise and the feedback is great. Under these





smooth conditions one would not expect any less. Second and third are the order of the day, with the occasional fourth gear on the longer straights. With each lap confidence grows: ever later on the brakes and harder into the corners. At some point it does however become evident that the back end is starting to slide. It's unbelievable that one can have this much fun in a 55-year-old 356 that is basically standard. It is a rather pure driving experience uninterrupted by modern electronics and driving aids. So the scribe in that periodical was absolutely right: once you have driven a good one you will be plagued for life wanting one.

Before we depart from our day of euphoria in the sun, I check with Wernher about his future plans for the 356: "I am considering replacing the gearbox with one that has shorter gear ratios, which will be better suited for the track. I'll continue racing it in the historic racing series and have been invited by the organisers of the Simola Hillclimb in Knysna (on the Garden Route in the Western Cape) to come and have some fun. And if Speedweek happens next year I will definitely be there, hoping to achieve at least 160km/h." \odot

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UTILITYROOM

The Macan SUV has joined the GTS range, meaning you can now buy a GTS version of every new Porsche. Could this be the one to have? Andrew Frankel finds out...

Story: Andrew Frankel Photography: Porsche



orsche didn't need another reason to draw customers towards the Macan, but it provided one anyway. With all the inevitability of night following day, Porsche has added a GTS model to the Macan range, meaning at last the GTS versions are now available on every Porsche in the portfolio.

Happily at the car's launch in Tenerife, Porsche didn't feel the need as it has in the past to wheel out the original GTS, the 904 GTS of the mid-1960s. Perhaps even Porsche could see that a 50

year old featherweight mid-engined racing car does have nothing more than badge in common with a high and heavy SUV weighing at least three times as much. But a GTS it is and, for those concerned about such things, the tenth car so branded, including not only the 904 but GTS versions of 924 and 928.

As you might expect, it sits in the range above the Macan S and below the Macan Turbo. It uses as its basis the same 3.0-litre V6 twin-turbo engine found in the Macan S, but comes with an additional 20hp to bring its total to 360hp, courtesy of a freer-flowing inlet manifold, reduced back pressure in the exhausts and an increase in turbo boost from 1.0 to a still modest 1.2bar. In hierarchy terms, this still places it far closer to the Macan S than it does the Turbo which features a 3.6-litre engine and 400hp output. However, when this same engine is used in the Cayenne it stops being a Turbo (though it still has turbos) and becomes another GTS, albeit with 40hp more even than the Macan Turbo.



Confused? Me too, and it's my job to understand this stuff. Such are the perils of tasking the same engine to do different jobs in different cars.

But back to the Macan-take-on-the-GTS theme. The engine not only has more power, but more torque too, enough to lop a couple of tenths off the 0-62mph time, which is now completed in a fleeting 5.2 seconds. And had Porsche left it at that you might conclude that the GTS was nothing other than a bit more than an S and a bit less than a Turbo. Porsche, however, says otherwise and, as it has with other GTS models, claims this to be the most sporting car in the range, if by no means the most swift. To support the claim it points to its lowered (by 10mm), stiffened suspension and the fact that not only is PASM active suspension management standard, it has a bespoke tune, more sporting in nature than that of even the Turbo. There is also a standard sports exhaust.

Visually you'll find what is now a familiar GTS treatment applied to the Macan, mostly involving the word 'black'. Its front and rear aprons and roof spoiler have black accents, while the bespoke 20-inch wheels, the backgrounds of the headlamps, smoked rear lights and the quad

tailpipes are all, you guessed it, black. As expected inside there are special sports seats, partly upholstered in Alcantara with GTS logos on their headrests to go with those already on the kickplates and tachometer.

So there are no surprises at all, at least on paper. Indeed if we'd sat down with a blank sheet of paper and drew upon our collective knowledge of existing Macans and other GTS-specification Porsches, you and I could have predicted what elements the Macan GTS would comprise, and we'd have come as close as really makes very little difference indeed. It would have been nice for the GTS to have had at least once rabbit under its hat, one feature to raise the eyebrows of the Porschebuying public and provide the impression that this was not an entirely colour-by-numbers Macan; but so wildly successful has the Macan been for Porsche, it clearly feels no need whatever to vary a proven formula.

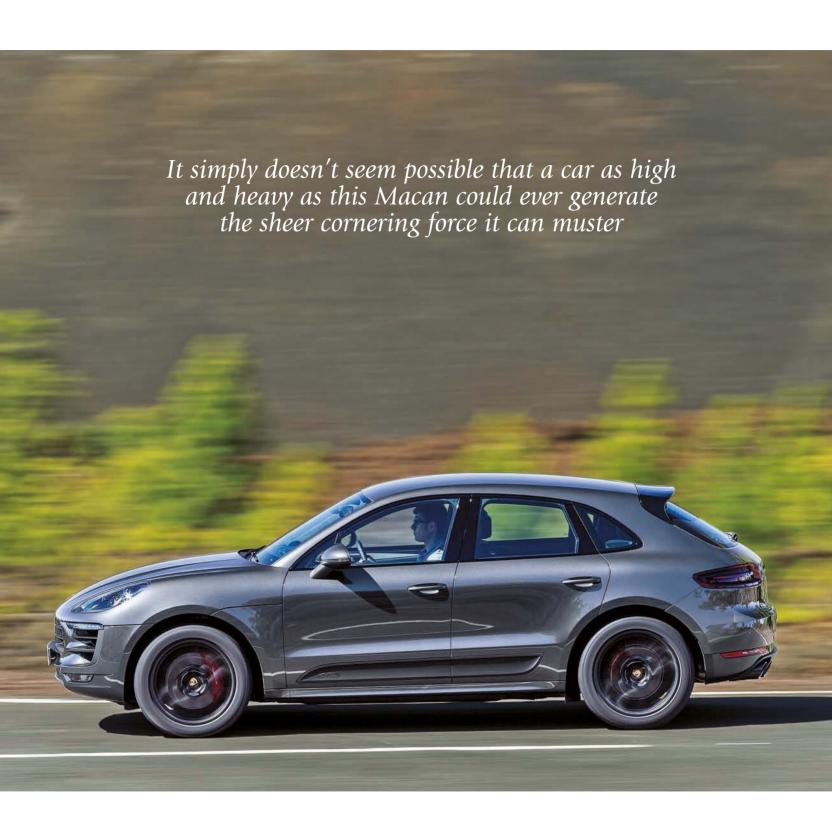
I've not always gone for the GTS look. I think it suits the 911 very well, but for some reason the Boxster and Cayman less so. But I really like how it visually lifts the Macan even further above the rest of the plush mid-sized SUV rabble. Macan

aside, these are uniformly dull cars to drive and I appreciate the way the look of the GTS celebrates the fact that it is different, an SUV you might actually choose to drive for no reason other than you can.

There's promise in that exhaust note too. It's been a while coming, but Porsche is finally getting the hang of making its turbo engines sound decent. And while it's true the sound of this twin-turbo V6 matches in no way that of the 4.8-litre normally aspirated V8 that was until last year used in the Cayenne GTS, its voice is sharp, strong and laden with promise.

It's fast too. So fast in fact that it's worth remembering that the original Porsche Cayenne Turbo S had a twin-turbo V8 engine half as large again as this, that used twice as much fuel and yet accelerated to 62mph not one tenth quicker than the Macan GTS. Such is the pace of progress over a period of just nine years...

True, the GTS still feels like a slightly more concentrated version of the Macan S rather than a mildly diluted Macan Turbo, but aided by the quick-shifting PDK transmission, the GTS still accrues speed at a rate those unfamiliar with the







Porsche way of doing SUVs will find utterly revelatory. But the real test of the car, where it will either prove Porsche's argument that it's more than just another step on the Macan ladder, comes in the corners. And here I have to tell you, it is something close to extraordinary given the kind of car it is.

We have to qualify what its chassis can do because by the standards of, say, any Boxster that's ever been built, it can't do very much. But by the standards of two-tonne SUVs (the GTS weighs in at a very substantial 1940kg), its abilities beggar belief. At first it simply doesn't seem possible that a car as high and heavy as this Macan could ever generate the sheer cornering force it can muster. You find yourself abandoning your conservative approach to each upcoming bend for something altogether more carefree and exuberant. And the Macan deals with it as if you were driving around a long term car park. So you raise the effort levels again and really flick the car into the corner. And as you steer so it turns without fuss or drama onto precisely the line you had intended. Only when you try to forget now much mass there is to control and start driving like it was a proper

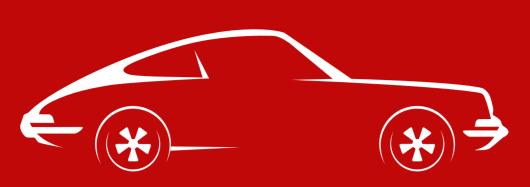
sports car are you reminded that though there are many wonderful and unusual things that Porsche chassis engineers can do, defying the laws of physics is not yet among them.

Yet even when it does start to lose grip, at speeds you feel would see any other SUV rolled into a ball in the adjacent field, it does so gently and almost playfully. If you have the car in sport mode, it allows you to regain your original trajectory with no more than a slight lift of the throttle, inspiring such confidence that while in any lesser SUV the adhesion limit is something to be avoided, in the Macan it can be approached with confidence and even exploited. It is this that distinguishes it from any other remotely similar car.

Of course other Macans will do similar things and possibly offer superior ride quality in return, though without driving one on the same roads and in the same conditions I'd not want to say for certain. What I can say is that the GTS has not forgotten its primary role in life, which is carrying families from one place to the next, not skidding about on its door handles. The ride remains excellent and refinement at a constant speed as good as you could hope for one so high.

Is it, then, an automatic choice over a Macan S? Not to me. Yes it has that additional horsepower, standard PASM and Turbo brakes, but if these items don't matter and you don't lust after the GTS looks, you might want to save yourself the money, which is substantial. At £55,188 it is closer in price to the Turbo than the S, but the Turbo offers a really significant boost in both power and torque that anyone would notice. So if you just want a Macan, an S is better value – especially as you can choose PASM and the sports exhaust as options – and the Turbo is the ultimate, at least until Porsche introduces the Macan Turbo S, presumably with the 440hp engine already in the Cayenne GTS.

However if you don't care about the numbers and are the kind of person who'd drive a Cayman if it weren't for the family at home, if your role as a parent means you need an SUV but your desires as a driver require that SUV to be the most responsive and enjoyable that kind of car can be, then the GTS is unquestionable for you. Because not only is it as good a family car as any other Macan, as a thing to get in and drive, right now it is the most enjoyable SUV money can buy O



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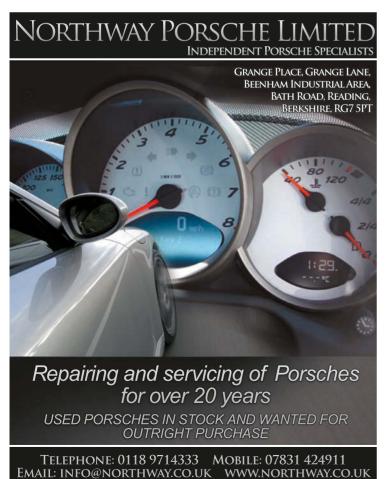
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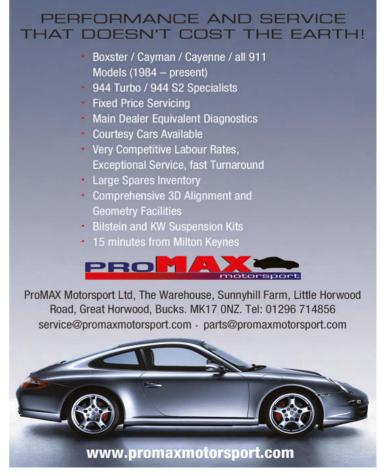
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Used Race Parts

/ears ago it was relatively easy to snag a used race car part; all you had to do was be in the right place at the right time and collect up parts following a timely shunt of some kind. Hopping over a barrier at a track 30-40 years ago and collecting broken bits from the gravel trap, or loitering around a forest rally stage in order to collect a memento wasn't the health and safety nightmare it is today. And of course, it was far less frowned upon. Today, getting hold of a race used car part

can be a bit more problematic, but it can supply an enormously enjoyable piece for display purposes. Framing an ex-competition part, hanging it on your wall or simply popping it on the shelf can make for a pleasant display, and it's all the better if you can have it signed by a relevant driver. That might even make it worth a few quid.

There are a number of websites dedicated to purchasing high-end motorsport parts, the only slightly dubious point is whether or not they can be trusted to have come across them through legitimate channels. You'll have to make a judgement call on that one. If you can come by a used race Porsche part you may well have been relieved of a few quid, but you'll likely have scored a fantastic piece for the wall at your office or home \bigcirc

Spark.of Centus

Dutch specialist TwinSpark Racing and Engineering is making waves on the European classic Porsche scene. We paid it a visit to discover why.

Story: Simon Jackson Photography: Simon Jackson and TwinSpark Racing



here's a quiet and attractive street in
Oegstgeest, a town not far south of
Amsterdam, where something special is
occurring. You wouldn't know it, not
from the austere and unassuming façade
of a garage building just off the main drag in this
typically Dutch haunt, but look a little closer
and you'll be pleasantly surprised.

The only real giveaway to what lies inside is a little orange squiggle on a set of grey roller doors, it's the logo of TwinSpark Racing, designed to look like a winding set of switchback roads, and it provides a clue about this exciting Porsche specialist. Park up, knock on the side door, and you will be granted access to a dreamland for European classic Porsche enthusiasts. They'll make you a decent cup of coffee too.

Established in 2009, TwinSpark Racing is the brainchild of founders Leonard Stolk and Lex Proper, a pair of grass roots Porsche fanatics through-and-through. The duo have been racing classic Porsches for time immemorial, in fact the TwinSpark premises is home to a trophy room packed with victory cups and plaques from historic race meetings. Many were earned from their local circuit, Zandvoort, which is just up the road as it happens, others are inscribed with

iconic track names like Brands Hatch, Hockenheim and all the other major European racing venues you might care to mention. Over time Leonard and Lex have become synonymous with the Dutch Porsche competition scene, and word of their prowess has spread across the European racing circuit. There's an old adage in motorsport: if you can't beat them, join them, and that's exactly what happened.

Leonard and Lex gradually became the 'go to' guys for classic 911 race preparation advice and help, and this naturally evolved into a business concept. Having set up shop, recruiting business manager and fellow Porsche enthusiast Leon van Ommen along the way, TwinSpark Racing began selling high quality performance parts for classic Porsche cars to enthusiasts and specialists across Europe. But there's more to this story than a warehouse full of aftermarket parts for street or track use - much more. Leonard and Lex did not become so revered at what they do by chance, and while they're not afraid to wield a spanner in anger (they are both natural engineers at heart) they believe in using the best people to perform the best standard of work. In short they both like to do things properly, which has directly translated to their cars, and it's an ethos

that has stayed with them to become routine in TwinSpark's workmanship. This means that any engineering job completed in-house, of which there are plenty, is conducted with the utmost attention to detail and exacting standards fit for a Formula One team.

Indeed, in one corner of TwinSpark's immaculate HQ you'll find an ultra clean room, and it's here, in the capable hands of a dedicated and highly trained team, that some of Europe's finest Porsche engine and gearbox building takes place. The team here have become experts in the field of 901 and 915 gearbox revisions, they're not the cheapest option out there by their own admittance, but the expression 'you get what you pay for' has never been more apt. In fact this is the only place in Europe able to restore your gearbox housing to its original specification, and there are huge benefits when you get down to the nitty gritty of repairing its internals too, TwinSpark has become an expert in this field. If the microscopic accuracy of measurement (to the MU) and highly engineered exclusive inhouse remedies for decades-old Porsche gearbox issues don't convince you of the merits of its services, then the detailed customary reporting documentation delivered to each customer





TwinSpark's showroom is just part of its impressive premises, which offers services covering everything from gearbox rebuilds to full bespoke car builds...



covering the health of every aspect of their 'box is sure to seal the deal.

Further to its exclusive services, TwinSpark can provide all custom gear ratios, together with crown and pinion ratios. It even has a bunch of completely restored gearboxes on the shelf ready for exchange or purchase, handy if you own a race car with a blown 'box and want to get back out on track in a jiffy. This is an exclusive operation in every sense, and one that prides itself on transparency, honesty and the accuracy of its work. It does all this with a friendly demeanour that makes the customer feel an integral part of the team. Every job and customer is treated with these habitual principles; being afforded the team's first-hand depth of knowledge and its full attention. This level of service extends beyond TwinSpark's gearbox builds, too, in the same efficiently-organised and clinical room, TwinSpark also builds up full short block engines using the same exacting standards.

Glance through the window into the main workshop and you'll spot where those engines are built up further and offered into their partner vehicles. During our visit there was a 911 up on one of the ramps undergoing work, kept company by a pair of gorgeous classic Maseratis.







"TwinSpark's goal is to build fun cars with great parts, from detail-obsessed suppliers"

It's in here, too, that plenty of additional work goes on, as TwinSpark also supplies all the parts necessary for bespoke car builds, and occasionally the team create entire Porsche builds cars (typically backdate projects and RSR evocations) always of the highest order. Thanks to affiliations with WEVO, EB body panels, Zuffenhaus brakes and other key revered aftermarket specialists, TwinSpark is also able to create your dream 911 by cherry-picking the finest parts on the market. Those parts might be off-the-shelf, or they might be unique bespoke items, such as rich, textured interior retrims, but whatever takes your fancy TwinSpark can cater for it. If you're really, really serious about this kind of thing, TwinSpark is a Singer partner for the Benelux region (Belgium, the Netherlands, and Luxembourg) - it's quite the endorsement from Rob Dickinson's L.A outfit.

Now, TwinSpark's custom car builds are usually built to order, but the firm also regularly offers vehicles for sale too. These are always

unique hot rods or rare original cars, and there's a showroom for them bathed in light where they reside alongside Leonard and Lex's race cars. The showroom itself is the latest addition to the premises, which happens to double up as a club house for the R Gruppe Europe crew, the invitation-only classic Porsche car club. TwinSpark officially opened this part of its site in 2015 and has already hosted various 'cars and coffee' style events. Come summer 2016, it is likely to feature as part of a road route stop for Porsche drivers tackling the mountain passes of the French Alps and beyond.

It's a tough job to summerise what TwinSpark can do for its customers, because it can essentially cater for all, be they purists, racers or those who get their kicks from tweaking Porsches. At the same time this place is not trying to be 'all things to all men', or a 'jack of all trades, master of none', moreover it's one of the most exciting, forward-thinking and friendly modern Porsche businesses we've encountered.

And what is perhaps vitally important is that it's run by a bunch of guys who are more interested in providing a first-class level of service and imparting engineering excellence than making a quick buck. It sounds rather like the building blocks of a certain German car company we all know and love, wouldn't you say?

"TwinSpark's goal is to build fun cars with great parts, from detail-obsessed suppliers all over the world," Leon told us. "As we find these unique product designers and manufacturers, we sell their tried, tested and trusted product line-up to other Porsche enthusiasts."

Previously, you may not have thought of Holland as your first port of call for your classic Porsche needs, but we are very confident that is set to change as TwinSpark puts Oegstgeest firmly on the map. Make sure you pay these chaps a visit to see their expertise for yourself – you won't be disappointed. Oh, and when you do, take a word of advice: try the coffee, it's as good as the cars... \bigcirc





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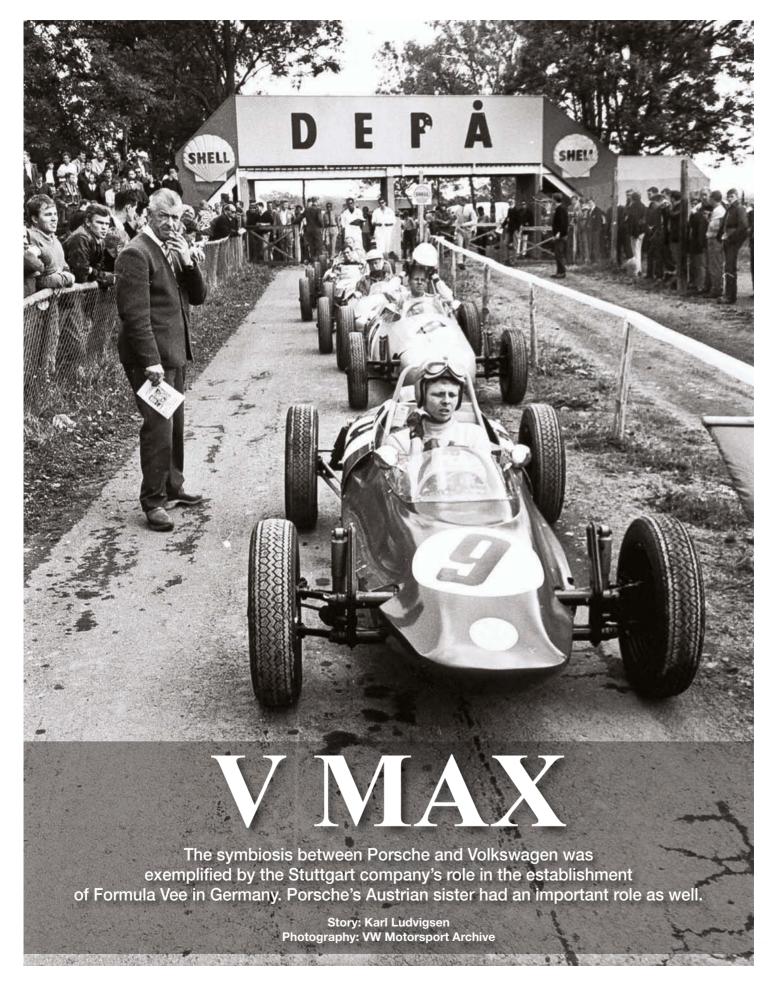
THE RACING LINE

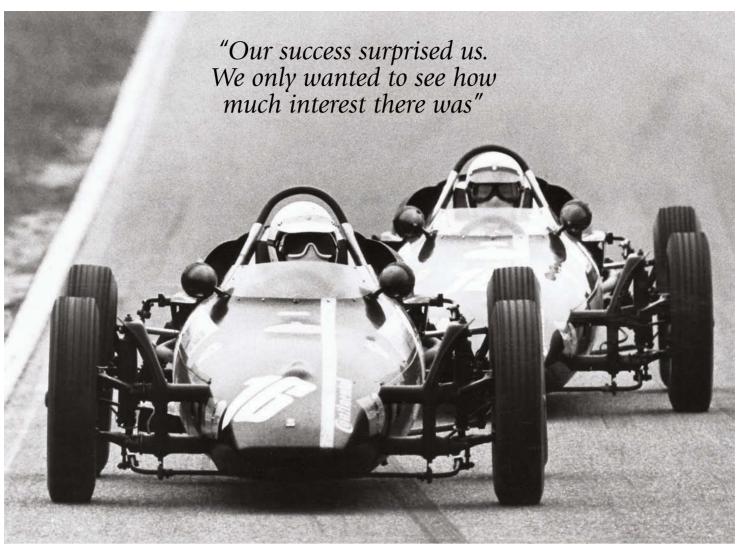


C7 RAPIDE CHRONOMETER – LIMITED EDITION

Made in Switzerland / Worldwide limited edition of only 500 pieces / ETA 251.264 COSC with 1/10ths second split-timing / 42mm marine-grade, stainless steel case with aluminium tachymeter bezel / Anti-reflective sapphire crystal / Premium quality Italian leather strap and Bader deployment

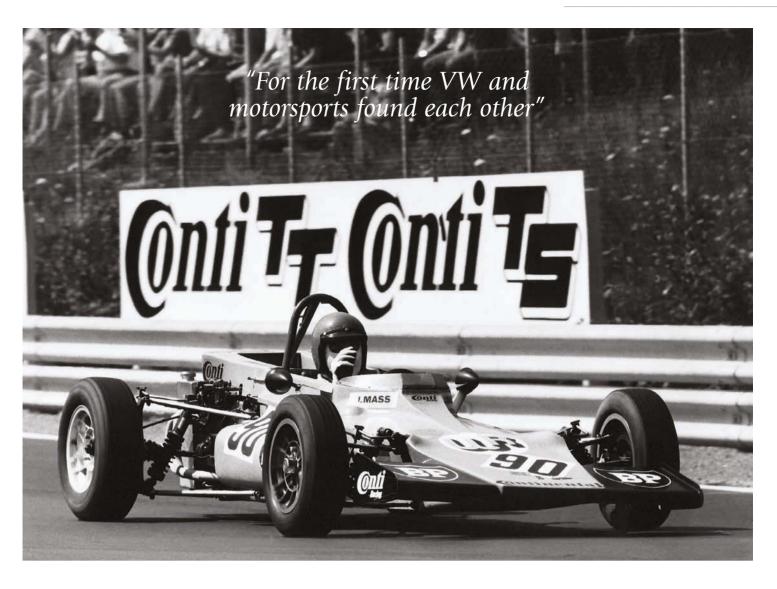






hat failure is an orphan and success has many fathers is a well-known axiom. It was never truer than in the instance of Formula Vee's launch in Europe, in which Porsche played a major role. This racing class, based on the extensive use of nearstandard VW drivetrain and suspension, had its origins in sunny Florida. Another category served as the cradle for Formula Vee. In 1959 Formula Junior was all the rage, a class for single-seaters that used standard 1.1-litre engines but allowed more design freedom otherwise. Enthusiast Hubert Brundage decided that this would suit VW's flat-four so he commissioned Turin's Enrico Nardi to fashion a Formula Junior from Volkswagen raw material. As Brumos was America's south-eastern distributor for Porsche and VW, this was right up Brundage's street. The result didn't measure up to Brundage's hopes, though. The air-cooled VW couldn't cope with the Fiat fours that powered the early Juniors. However a retired air force colonel, George M. Smith, saw promise in the concept. His vision was of a one-make category for cars akin to





sailing's 'Star' boat class, which gained a reputation as the poor man's racing yacht. A VW-based single-seater, Smith thought, could serve the same purpose in motor racing.

After competing with the Nardi-built car through 1961 Smith sparked the establishment of Florida's Formcar Constructors Inc. to produce such cars in series. By the end of that year several were racing. In 1963 more were campaigned, showing the merits of this simple but effective concept, and in 1964 the Sports Car Club of America ran the first Formula Vee National Championship. Rules were set that allowed any maker to produce Vees to a strict set of guidelines. By 1965 some 700 Formula Vee single-seaters were introducing Americans to the fun of open-wheeled racing. In these natal years of Formula Vee, Carl Hahn headed Volkswagen of America. He witnessed with fascination the growth of this new class based on his Beetles. "During an Easter holiday in the Bahamas," said Hahn, "my wife and I enthusiastically drove Vees... though not in races."

Soon Hahn, a success in America, was recalled

to Wolfsburg to take over sales for VW. "Back in Germany," he recalled, "the idea soon arose to bring this popular form of motorsport from the USA to the European continent." He approached his chief, Heinrich Nordhoff, with the idea. "Nordhoff gave me his permission," added Hahn, "with a budget of DM100,000.

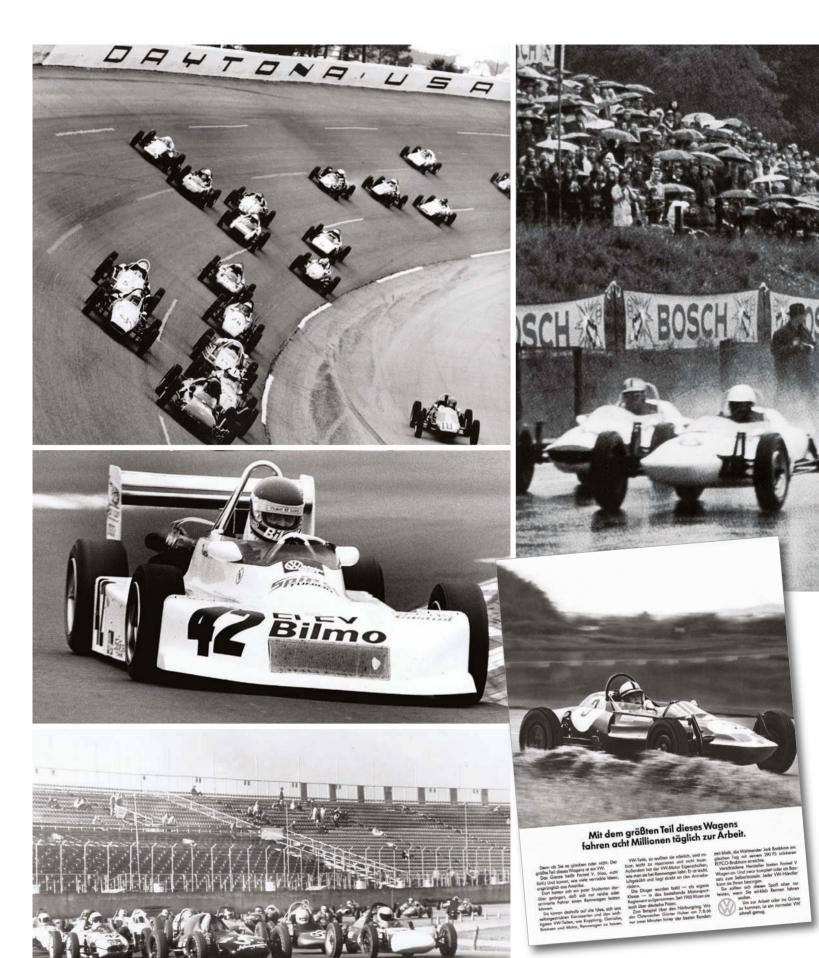
"With the help of Ferry Porsche and Porsche racing director Huschke von Hanstein, a good friend," Carl Hahn continued, "overnight the cost-effective Formula Vee racing car became numerically the world's biggest racing car category. There were 2500 of them. Volkswagen couldn't lose."

Von Hanstein recollected the sequence of events differently. He was president of the ONS, Germany's highest motorsports authority. In this post he said: "I was concerned because in Germany, unlike in neighbouring countries, very little was being done for future generations in motorsport. When I saw a small, affordable racing car at one of our American dealers I became quite excited by its prospects. It consisted of a race car body sprung by VW suspension

components." This would have been during a visit to Brumos in the course of a Porsche entry at Sebring. In Huschke's telling of the story he returned to Stuttgart and, "attempted to convince Ferry Porsche to establish such a racing series in Germany. It would give a tremendous PR boost to motorsport and, of course, for Porsche. Ferry was sceptical at first, because the cars used VW components."

In the von Hanstein version he then took his idea to Carl Hahn while the latter was still in his VW of America chair. Getting Hahn's assent to his scheme, Huschke arranged for the VW man to meet with himself and Ferry during his next trip to Germany. In that meeting, said Huschke, Ferry was won over and the European Vee project was approved. Any reservations that Ferry had were certainly eased by the application of Hahn's 100,000 Deutschmarks, equivalent at the time to \$25,000.

Early in 1965 Porsche imported ten kits, both Beach and Formcar designs, and installed VW powertrains to launch this accessible form of racing in the Beetle's native land. Von Hanstein's



Above left, top: Formula V in Daytona, 1969. Above left, middle: The Formula Super V March of Kennerth Persson in 1981. Left: A field of cars from 1967





Numerous future F1 stars cut their teeth in Vees, amongst them Rindt, Lauda and Keke Rosberg, seen here in 1973

modus operandi was to take the show on the road, putting on short demonstration races in key cities with invitations to local hotshots to try these odd-looking racers. Then the first fleet was placed at the disposal of the big clubs, the AvD

and ADAC, without charge to give 'Formel Vau' a running start. The first serious races, held that summer of 1965, had the desired effect.

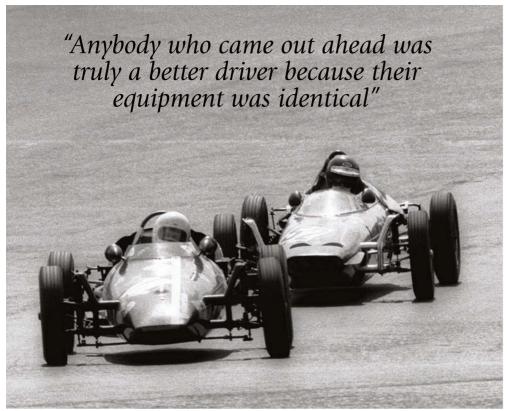
"Our success surprised us," admitted von Hanstein. "We only wanted to see how much interest there was and whether companies could be found to build the cars. The matter took off on its own. In short order several clever young men had built their own tiny racers based on the American examples."

With Huschke in charge at the ONS it took no time at all for 'Formel Vau' rules to be drawn up and approved. While American Vees had 1.2-litre engines, the European rules catered for the VW's 1.3-litre version since that was the more common capacity in the Old World. For the class's first two years in Germany it was supported at each event by two Porsche engineers. They checked the cars for safety and rules conformity before and after each race and provided technical advice.

"Anton Konrad, Volkswagen PR chief, was manager of this racing series," Carl Hahn related.

"He found enthusiastic support from our main dealers and importers. This broke the ice. For the first time VW and motorsports found each other." VW's direct support continued until 1976, after which it bowed out and left its development to private hands. Other categories had been added such as Super Vee, in 1971, to accommodate 1.6-litre engines and more sophisticated chassis designs.

At Leonberg, near Stuttgart, Fuchs produced a 'Formel Vau' that was exceptionally trim. Near Bonn another company got into the act with its Gepard Vee. Added to the ranks from early 1968 was McNamara Racing, at Lenggries at the foot of the Bavarian Alps. Sounding anything but German, McNamara was established by an American Midwesterner who caught the racing bug while with the US army in Germany and decided to build cars of his own. "We couldn't buy what we wanted," said Francis McNamara, whose 'Sebring' Vees were highly successful. The goateed McNamara went on to produce cars for higher categories up to Formula 2 and,







surprisingly, an Indianapolis racer designed by Jo Karasek, a former Porsche engineer. Just as they had in Germany, the cheeky Vees sparked strong motorsports participation in Austria by that nation's VW importer, Porsche Salzburg. There Ferry's sister Louise Piëch and her son Ernst Piëch took up the new category with verve. Austro and Bergmann produced Vees making Austria a leading source of the new racers. At Salzburg Paul Schwanz specialised in engine preparation for the formula.

A key actor in both versions of the story of Formula Vee's launch in Europe, Porsche's Huschke von Hanstein could be proud of what he'd achieved. The cars, he enthused, were "dirt cheap and you could take them to races on a lightweight trailer. Interested hobbyists could buy

the appropriate parts directly from VW. Then it was only a question of their own skill and aesthetic sense for what body they dropped on the frame. Tyres, suspension, transmission and engine were identical for all competitors and easily checked by the organisers. In Formula Vee anybody who came out ahead of his competitors was truly a better driver because their equipment was identical."

That Vees provided a suitable training ground for talent was verified by the results. Von Hanstein's aim of a step up the ladder for his home-based talent was achieved. From the Vee ranks came leading German drivers including Jochen Mass, Harald Ertl and Klaus Niedzwiedz. Austrian stars in the category were future world champions Jochen Rindt and Niki

Lauda as well as Helmut Marko, today the éminence grise of Red Bull Racing. Champions Emerson Fittipaldi—who produced Vees in Brazil—and Nelson Piquet also cut their teeth driving these racers.

"For me the circle closed in 1990," said Carl Hahn, without whose support and subsidy the European breakthrough might never have happened. "That's when we honoured Michael Schumacher for his Golf-powered German championship in Formula 3." With a little help from Porsche, Volkswagen had indeed broken the ice to go on to success in motorsport. The Vee also sparked the competition activity of Porsche Salzburg, whose backing of major enduranceracing entries was key to the success of the immortal 917 \bigcirc







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Porsche 911 (991) "2S" 3.8 pdk 14,000 miles, (13 - 2013), White with red



20,000 miles, (12 - 2012), Platinum with black/grey leather£62 £62 000



911 (997) Turbo 3.8 pdk "Gen 2" 22,000 miles, (10 - 2010), White with black



Porsche 911 (997) "4S" 3.8 "Gen 2" pdk 27,000 miles, (59 - 2009), Basalt black



Porsche 911 (997) "2S" 3.8 "Gen 2" pdk 37,000 miles, (60 - 2010), Atlas grey with black leather£47,000



Porsche 911 (997) "4S" 3.8 "Gen 2" pdk 37,000 miles, (58 - 2008), Midnight blu ..£46,000 black leather



42,000 miles, (09 - 2009), Silver with black



Porsche 911 (997) "2S" 3.8 "Gen 2" pdk 36,000 miles, (09 - 2009), Aqua blue with ocean blue leather ..£45.000



35,000 miles, (09 - 2009), Basalt black with ..£45,000 black leather



Porsche 911 (997) "4S" 3.8 "Gen 2" pdl black leather



Porsche 911 (997) "2S" 3.8 "Gen 2" pdk 35,000 miles, (58 - 2008), Basalt black with terracotta leather£42,000



Porsche 911 (997) "2S" 3.8 "Gen 2" pdk 51,000 miles, (09 - 2009), Silver with blac .£42.000



Porsche Cayenne 3.0 diesel tip 37,000 miles, (62 - 2012), Umber grey with £42,000

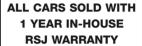




Porsche Cayenne 3.0 diesel tip 34,000 miles, (62 - 2012), Umber grey with black leather£42,000



Porsche Panamera "4S" 4.8 pdk 19,000 miles, (59 - 2009), Silver with black



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Porsche 911 (997) "2S" 3.8 "Gen 2" 51,000 miles, (58 - 2008), GT Silver w



Porsche 911 (997) Targa "4S" 3.8 tip 38,000 miles, (08 - 2008), Basalt black



Porsche Cayenne 3.0 diesel tip 34,000 miles, (61 - 2011), White with black



PORSCHES WANTED (2003 TO 2012)







ot porsche retrospective

ONE YEAR AGO JAN 2015



birthday a year ago, looking a how this performance bargain stacked up today. Well it seemed. We said: "Overtakes that would have seemed chancy in an ordinary sports car were embarrassingly easy in the Turbo."

Staying with the 996 theme, Andrew Frankel got behind the wheel of the fearsome GT2, seeing if a mildly modified example tickled his fancy, reporting: "You drive it fast and hard or there is simply no point in getting it out of the garage."

We also took a look at the 996's replacement, the 997 Carrera and the 914, and recalled when Porsche entered an open wheel sports car into Formula Two, and examined its first year in WEC.

FIVE YEARS AGO JAN 2011



alf a decade back we got our first taste of the 997 GTS, one of the most revered modern 911s. And we thought the swansong for the 997 was probably the best 911 to date.

Our cover feature saw us gather together Porsche's most 'basic' of cars on sale at the time; the Boxster 2.9, Cayman 2.9 and 997 Carrera 3.6 and we asked: 'Do you need an RS, Spyder or R to have fun in a Carrera, Boxster or Cayman?' – the answer was a resounding 'no'.

Further into the issue we looked at the essentials when buying a 968, took a look at what the Carrera Cup GB had to offer at the time, and took a Cayman S on Australia's most famous hillclimb – the Mount Buller Sprint...

TEN YEARS AGO JAN 2006



en years ago we asked a question many people are still pondering: is a Cayman S as good as a 996? The debate was intense, and we ended up siding with the 911, sort of, but at the time they were both the same price as new, so it was not an easy call.

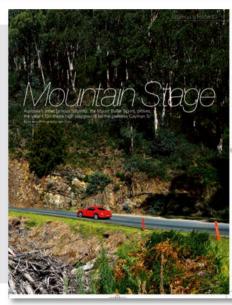
Elsewhere, regular contributor Colin Goodwin met with Norbert Singer, reporting: "Like most talented engineers Singer was an expert at reading the rules and spotting opportunities."

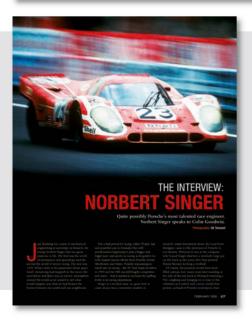
We also got the chance to crawl all over the last Works 956 to be built by Porsche, chassis 010, we said: "Chassis 010 represents a major part of the most successful story in motorsport history. Porsches don't get any better than this."













RACING MODELS_WP 16/12/2014 17:06 Page 1



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long-term fleet

Our Long-Term team explain the trials and tribulations of running a Porsche in the real world ...

Matt Biggs - 1981 911 SC

The SC is tatty but it was exceedingly cheap for an air-cooled 911 so Matt couldn't resist. Still learning the ways of the 911, Matt's still not sure how to drive the car properly but it looks and sounds fantastic and was great fun on its first track outing – he's looking forward to more.

Twitter: @PawnSacrifice

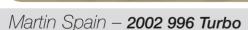


Jack Wood - 2010 997 GTS

Purchased in November 2014 the GTS was something of an impulse buy. The Meteor grey Carrera 2 started life as a demonstrator at Swindon Porsche and is fully-loaded with extras. So far it is living up to the hype and has been a pleasure to use.

Twitter: @Jackkwood





After an extensive search for the perfect 997 Carrera 2S, Martin was "seduced by the boost" and ended up with a 996 Turbo. Purchased in April 2014 as a weekend and occasional track day car. Other than the outrageous performance, it is the famous Turbo script on the rear that he loves.

Twitter: @MartinSpain



Ryan Stewart - 2007 987 Cayman S

Priced out of the 911 market, Ryan decided a Cayman was the next best option. He purchased his 987 S in August 2015 with a view to putting it to work on track. The car runs PASM and a Porsche Sports exhaust, but for weight purposes there are no additional frivolities.



Matt Biggs - **1986 924 S**

A project bought unseen for £400 as a non-runner. Replacement engine, SPAX coilovers and 968 ARBs, a home-made quicker steering conversion and race seats already fitted. Plenty of track days, a rally in France and a trip to Le Mans to see Porsche's return all under its belt.

Twitter: @PawnSacrifice



Jack Wood - 2004 996 GT3

Bought in April 2012 from a reputable Porsche specialist, it was pressed into immediate service as a combined daily driver and track car. Now a third car, the GT3 has been resprayed with the latest self-healing paint protection film by PaintShield and mechanically overhauled.

Twitter: @Jackkwood



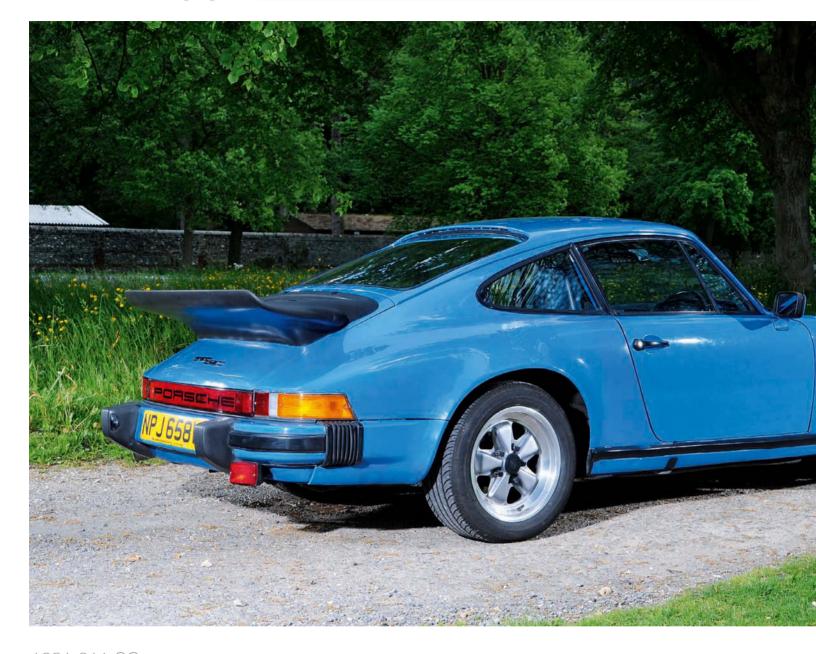
Rob Richardson - 1978 911 SC

Rob's an old hand when it comes to tinkering with classic cars, and has even owned and modified a 924 in his time. Having hankered after a classic 911 he's finally tracked down his perfect project. Expect to see this '78 911 SC being given the 'Richardson touch' over the coming months...

Twitter: @Racereightysix



long-term fleet



1981 911 SC

have recently been thinking that I have too many cars. That, of course, is utter nonsense; what I have a shortage of is both time and money. Particularly the latter. If I had plenty of money, then I would be able to send the cars away and have them fully maintained and brought back to life elsewhere. Particularly with the SC, where I need a good deal of work doing to the body alone, and that won't be cheap! I suspect a few of you are nodding (or possibly burning this page before your other half reads it). I think as a publication it might be an idea to create some sort of code for

discussing fiscal matters in print? We need a cipher.

Having the cars fully maintained is great but I rather enjoy the work myself. I enjoy getting my hands dirty, metaphorically speaking; I wear those little blue surgical gloves. But with old Porsches and, I suspect, new ones, there are plenty of specialist tools needed to do certain jobs properly — and they are not cheap! Not to mention the parts that I need to buy to replace bits, now and then, when I have done something wrong. I am sure that there are some cost efficiencies but the margin may not be as great as one might suspect. And

then there is the time. At the moment I am trying to balance maintaining the cars with fixing the house and raking up millions of leaves! To be honest, nothing is getting done properly. I think that is the same with the cars, too, setting the Boxster aside. The money that I have spent on the SC or the 924 in the last 12 months would have allowed me more funds to do a bunch of jobs on the other car.

But when it comes down to it, I love the 924 S. It is a great car and a lot of fun to throw around without worrying too much about pranging it or not having enough power on track. The Boxster, well, I need that to get to

and from work and for visiting clients. That leaves the SC, and to be frank, I cannot believe that I was lucky enough to get the deal that I did, and that I actually own an air-cooled 911. It's just too brilliant to sell.

So that is my lot. I am stuck. I appreciate that deciding which Porsche to lavish my attention on is not exactly Sophie's choice but it's a tough call. It is almost as if I need to put one on hold for a while and focus on the other. For the 911 there is some planning needed, a list of priorities for the winter and then for the coming year. With the SC sitting on R888s it probably won't be used a





great deal over winter, unless things perk up a little. Ideally I would like to drop the engine and give it a thorough check over, possibly even look at rebuilding the first gear. I think there are a number of oil leaks that need investigating, although whenever I look at the engine there appears to be bountiful amounts of oil and the garage floor seems dry. There probably are a number of seals that need replacing, and while they are not cheap, it is a job worth doing, for peace of mind. It would give me a chance to retorque some of the engine bolts, too. It would be worth replacing the heat exchangers at the

same time as the existing ones are a little rusty and rattly.

Away from the engine, I really should get the passenger side window fixed, assuming that it is just a problem with the runners and not the regulator. On the driver's side, I should get the doorcard off and have a look at the door speaker as, even with the new stereo in, something isn't right. The bigger issue with that door is where it sits. Over the years it has dropped and the gap at the top is far greater than it should be. I need to get that sorted as I think it could be letting water into the rear footwell. I have looked around the arch and that all seems in order.

Actually, one of the smaller jobs that I would love to do is fix the interior lights. They don't come on at all even though I've tested all the bulbs and they're fine. It will be an infuriating job but one that would no doubt fill the swear jar. Perhaps I will start with that, as it shouldn't cost too much, then move onto the errant headlight and find out why that was cutting out at times.

Also, if I can find a deal I may replace the shocks as I am sure the ride could be a little tighter. And while I am doing that I'll probably also drop the ride height a little because, cool as the SC is, it definitely looks a bit

too much like Tuthill has it set for rallying... although a Tuthill anything would be epic!

I think I need to sort my list out, start with something small and then work my way up. Whatever the plan I need to form it in such a way that the 911 is not off-the-road for any great length of time. I need to get some driving in too, between jobs, otherwise what's the point in having it?

So, I guess, the big question is: will I be sitting here at the end of 2016 pondering the things that I have not done? I think the only big regret will be if I don't get to drive it enough.

Matt Biggs

long-term fleet



The plastic air/oil seperator failed on Ryan's Cayman, a common fault, leading to a trip to Regal Autosport in Southampton for upgrades...



987 CAYMAN S

aving endured a baptism of fire, it was only a matter of time before the Cayman fought back. Since the sodden Bedford track day in November I noticed I'd been having to top up the oil increasingly often. With no signs of smoke or telltale oil patches in the driveway, it left me a little confused as to where all the oil was going. That was until I lifted the engine cover and shined a light on the sticky, black mess lurking below.

It turns out the breather system hasn't enjoyed itself quite as much as I have, deciding that splattering oil all over the top sections of the crankcase and heads would be more fun. Sticking by my mantra of 'break and upgrade' it seemed the perfect time to treat the car to another visit to my favourite Porsche doctor: Regal Autosport.

Upon dropping the sickly Cayman off the guys explained the cause of the issue, which turns out to be very common. On the right-hand side of the engine sits a plastic air/oil separator. This often splits, coating the engine bay in a lovely shade of Mobil 1. Unwilling to accept this visit would be a repair mission only I also plumped for an Evolution Motorsports V-Flow air intake and matching EVOMSit Stage 1 Software. When fitted, the EVOMS Stage 1 should give

an additional 22hp and 22ft lb with improved throttle response and even better drivability, too.

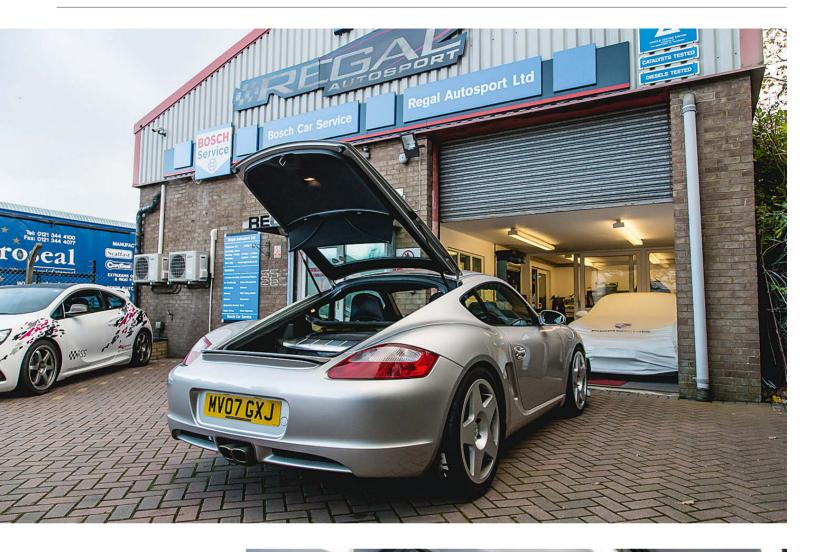
Within 30 minutes of my train journey back to London the team at Regal Autosport text me an image of the Cayman laid bare, with the offending cracked air/oil separator removed. Oil leak fixed and a breather pipe replaced, the Cayman had a clean bill of health to begin tuning. I was almost tempted to convert the car to the Porsche Motorsport oil/air separator, which is a dual chamber unit to help reduce oil consumption under hard use. However, I decided to direct funds towards more power this time around but perhaps later I'll

look to do the conversion, along with a deeper X51 sump.

All UK EVOMSit ECU tuning work is carried out in a dedicated office inhouse at Regal Autosport. Working closely with EVOMSit in Arizona, results are proven and cross checked by both EVOMSit's and Regal Autosport's inhouse dynos. If you're unfamiliar with Evolution Motorsports or EVOMSit you're in for a treat of a Google search, with 1700whp 997 Turbos and 1500whp 997 GT3s only a click away.

In a baseline test before tuning the car made 295hp on-the-nose, a testament to the reliability of Regal's Mustang dyno. It's just a shame the Cayman won't be bothering it's





1000whp capacity any time soon. Back in London and typing away, this update has come too soon to know the outcome of the final power test but one thing's for sure — I'm pretty excited to find out!

Ryan Stewart





long-term fleet





997 GTS

have to admit to not completely thinking this one through. Two days before the GTS was due for its MoT I was skidding my way round what was initially a very wet Anglesey circuit. There to give passenger laps to servicemen and women as well as spectators in exchange for charitable donations at the wonderful Race of Remembrance's Supercar Saturday event, OEX acquitted itself well in the company of some far more expensive and flamboyant machinery. Regardless, the day was a rather humbling experience all-round. Not just getting to meet the amazing men and women of our armed forces that have given so much to their country, many of them suffering with severe PTSD and loss of limbs, but also on a far more materialistic level. When you spend every day driving something like a 911 it's very easy to forget that for some people just sitting in a Porsche is the thing that dreams are made of. Let alone being driven flatout round a race circuit in one. The day certainly helped me find a new appreciation for what I have, both physically, mentally and materially. I'm indeed very blessed. And I certainly cannot recommend highly enough Mission Motorsports Race of



Remembrance event. This was its second year and the turnout was spectacular given the wet North West Wales November weather. Horizontal rain couldn't dampen the soaring spirits of all those involved, though.

But the issue for me was that towards the end of the day the track started to dry, the pace started to lift, and I was literally running back-toback sessions trying to get as many generous punters out on circuit as possible before we had to stop to let the actual race begin. This, combined with a set of Michelin Cup2s that had done several track days and over 10,000 miles meant I was really pushing the envelope of legality towards the end of the day. To my untrained eye, and without any device on hand to either confirm or deny it, the tread depth looked about as borderline as is possible. As I rolled out of the gates of the circuit the heavens opened for what felt like the hundredth time that day and my heart sank at the prospect of making the trek home across the northern coast of Wales in more lashing rain. Standing water and Cup tyres are not supposed to cross paths. But yet again I was mightily impressed by how they performed given the conditions. I made it home alive.





Not wanting to waste my time going through the hassle of an MoT to have it fail on something as basic as tyres I took the car into Bob Farnons in Knutsford first thing Monday morning to ask them to give me a verdict on the recently abused rubber. My initial evaluation turned out to be spot-on. The rear tyres were dead-on the legal limit. Two testers examined the car and deemed it fit to pass test. Just!

What a relief. Given the car was booked in for its test the day after, and that it still has those ridiculously impractical centre lock wheels on each corner, there was no way it was going to get new rubber fitted before the test. Luckily there was enough left to get it though its test and last me a couple of weeks until the replacements are mounted.

Given the turn in the weather and the amount of mud and general detritus on the lanes that make up the morning school run, I've decided to go with some proper winter tyres next. I had been looking for a used set of wheels and winter tyres on eBay but they all seemed a bit overpriced. So in the end I went with tyreleader.co.uk who had a massive selection of rubber in the correct sizing. It is actually a company based in mainland Europe and it ships from Germany and Belgium but its prices and selection

are second-to-none. Definitely worth a quick search at when looking for new boots. So a spanking new set of Michelin Pilot Alpin 4s have been delivered and are due to go on the car in a few days time.

The only other expense this month has been the insurance renewal. After a quick shop around Porsche Insurance returned the most competitive package again. Porscheapproved repairers and a couple of inclusive track days were the real sweeteners, though. And the very reasonable ten percent discount offered by the lovely people at Marsh for simply supplying a lower quote from another insurer also helped considerably. All it takes is a quick search of a comparison site, supply the quote to Marsh and, hey presto, you get your ten percent discount! Can't complain about that one.

The final bit of news for this month is far more exciting than tyres, insurance and MoTs though. I mentioned a couple of months ago that I was expecting something new to be delivered quite soon; a brand new Cayman GT4, of all things.

Well, after a couple of false starts the time has come and it's finally been delivered to my local OPC. Of course, given that myself and my friend who I'm sharing this new car with have been waiting a good nine months for this to arrive, it decides to turn up a couple of days before I fly off to Mexico for some winter sun (of course the forecast is for thunderstorms the entire week we are there). The car has been PDI'd and is being collected in the morning from the OPC to spend a couple of days at Invisifilm in Cheadle having all of the front end and most of the sides and rear arches and scoops covered in Xpel Ultimate self-healing film. I'm a complete convert after having the GT3 done by PaintShield after its respray. This time we are both determined to try and keep this new car in tip-top shape despite the use it's going to be put to. It means we can use it properly without having to worry about annoying stone chips. I think it's definitely something that is worth the outlay just for that extra peace of mind

So more details on the new car next month once we finally get it collected from the dealership and out into open air and daylight so that we can hopefully get some pics that will do it the justice it deserves. Though even the grainy, out-of-focus camera phone pics sent by the dealer fail to make it look anything other than stunning. Just one more week and the wait will be over. It can't come soon enough...

Jack Wood

long-term fleet

Matt has being filming with XCAR and MotorPunk; the results should be very interesting





924 S

oing back many months now, I received an email from Rich at MotorPunk, and it was rather a good one. With, it seems, increasing regularity, the chaps at MotorPunk are making short motoring films for XCAR. The films tend to be more features, with Alex Goy et al tackling the new car reviews. Rich wrote that they were making a film on 'the other Porsches', specifically the front engine coupés (the 924, 944, 968, and 928) and would I be willing to take my 924 S up to Donnington and let them do some filming? I'd also get to hoon around a little for the

camera. Hell yes!

It was going to be interesting as, while I have done a few photoshoots before, for GT Porsche, I've not done any proper filming, and given my interest in making GoPro videos of my various track outings, trips, and occasional 'how to' vids I was keen to see how it is done properly. I was also curious to see how much Rich and Daryl, the chaps making the film, were going to push my car. I have seen motoring forums explode at the mention of a press request to borrow a car for a group test or photoshoot. Hysteria breaks out as everyone seems convinced the journos are

going to wreck the car to get the best shot. Well, from what I've seen, it's nothing like that. Most of the time is spent standing around taking orders from the photographer and when my other 924 S was driven it took some goading to get the journo to push on a bit. That's for a photoshoot. For a video they were going to need to add a little drama, I assumed.

The drama, for me, started a few weeks before the day at Donnington. I was doing a tip run but the damned thing would not start. Curses. I checked the DME relay, popped in a jumper (a sort of hot-wired DME relay that just runs the pump continuously)

and when I heard the pump running I started the car. I went back to using the other cars and let the 924 stand around before going to use it a week or so before the filming. It failed to start. I rechecked the DME, and that did nothing. Recalling a similar problem, I checked the distributor cap and rotor. The cap had black lines across the contacts, I gave it a quick clean up and replaced it, and the car started. The day before my trip to Donnington the car ceased to work, again. I replaced the distributor cap, having remembered that I had one spare, in a packet, somewhere. I left the 924 in the garage overnight and



luckily it started the following morning. I have since had problems with it again. I now believe I need a new gasket to keep the winter damp out.

I arrived at Donny in pretty good time. We were not using the full GP circuit, as I think one of the others was expecting; I had watched the MX-5 film and it was apparent that was not on the full track. Before I start on the next part, I want to be clear: Rich and Daryl from MotorPunk/XCAR are friends; they have seen how I drive the 924 S and are well aware that I am not too precious about it.

As I expected filming began in the Launch Pad building with footage of

the cars and some background, followed by some chatter from the chaps whilst perched on the front of the 924. After that the chaps took the cars out around the short circuit that we were using. It was rather nice hearing the Dansk exhaust on mine, although it was nothing compared to the 928 on which the owner Richard had fitted a custom exhaust (of his own design). The presenters then took it in turns to take out the cars, two each. When Rich took the 924 out he explained that he wasn't going to be throwing it around but just take it easy. I told him to do what felt right and not to worry. When he returned

he was sporting a rather wide smile, and said the car was brilliant fun and he couldn't help but chuck it about a little once he got going, saying how lively the back end was but without being lairy. I think both Rich and Daryl rather took to my car, later they were asking what it takes to make a 924 S handle like that. The answer is simple: SPAX coilovers! Although to be fair, it's probably not that far off in stock form.

Once the guys had done their filming to camera the rest of us got to play. The format was quite simple, they set the camera up on a corner and we were then told to drive at it as fast as we could, most of the time.

The 924 moved around a lot! It was a huge amount of fun on a lovely dry autumn day, too. The 944 Turbo and 968 went well but I was hugely impressed by Richard's willingness to fire the 928 around with gusto. Sadly I have to wait a while for the film to be out, but there is one shot, that if I got it right, is going to look mega! I have a suspicion it played better in my head than it will on film. By the end of the day, as the sun was going down, I was feeling exhausted but very happy indeed. As for which car was the presenters' favourite? You'll have to watch the XCAR film and see...

Matt Biggs

long-term fleet

1978 911 SC

mentioned last month my bump steer kit has arrived and this month I've had chance to fit it. If vou've not come across it before. bump steer is when the car steers itself as the suspension compresses causing the steering wheel to physically jerk in your hand and it makes the car unpredictable and generally unpleasant to drive. It's caused by the tie rod having an unequal arc of travel to the suspension arms. In the case of my 911 (and most other cars) this has been caused by lowering. Effectively, the tie rod is now angled to be higher at the wheel than at the

crossmember. The solution to this is to raise the steering rack with a spacer kit to help align the tie rod to the suspension movement arc and thus remove the bump steer issue. I ordered my kit from Pelican Parts in the States and it was with me in a couple of weeks for the very reasonable sum of £35 (all in, including shipping). Other much fancier solutions exist which provide offset track rod ends but as my car isn't a track car and I'm not looking for tenths of a second while racing the rack spacers should suffice. The use of 'Turbo' tie rods is also recommended in conjunction as they feature ball and

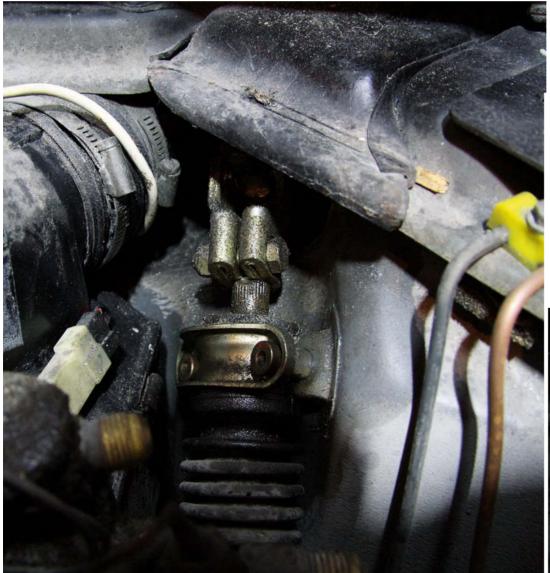
socket joints rather than rubber bushings as fitted to the normal tie rods. This could be another future upgrade but for now I'll see how I get on with this kit and incrementally upgrade the car.

Fitting the kit was easy using the instructions provided and only took about an hour. I raised the car up on axle stands and removed the front wheels. I was then able to remove the protective 'belly pan' shield that covers the fuel pump and brake pipes. Being a later car it was held on with two studs and used the anti-roll bar fixings. Next job was in the luggage compartment: with the carpet

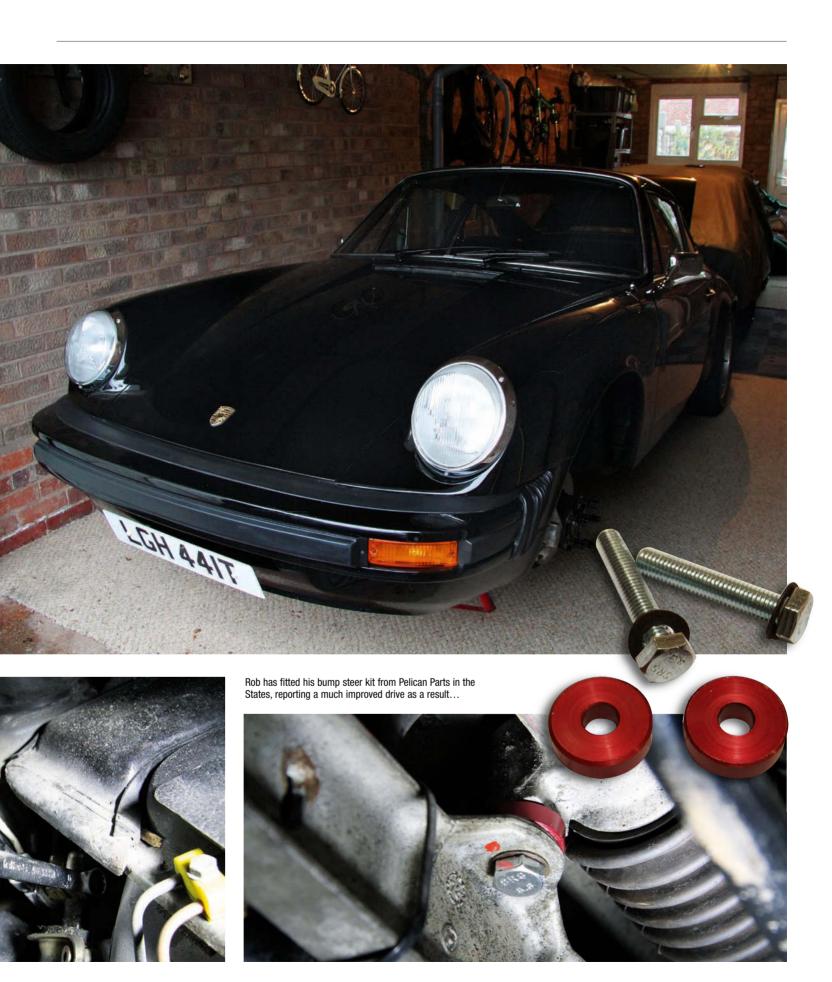
removed there is an access hatch to the steering rack to column joint. This needed to be loosened to allow the rack to slide up as the spacers are fitted; I liberally applied some lubricant to aid this as it didn't look like it's been off in a while. Back under the car the steering rack could now be released by removing the two bolts holding it to the crossmember. It was now possible to use a pry bar to gently lift the rack to give clearance for the spacers and slide them in, being careful not to trap the fuel lines that run above the rack. With the spacers in I fitted the new, longer bolts supplied with the kit, applied a dab of thread lock and torqued them up making sure the rack was centred in the process. Then it was just a case of refitting the belly pan (I gave it a coat of paint, straightened out some dings and used new hardwear), retightening the column joint, putting the carpet back and the wheels on.

I managed to get a dry day so was able to get the car out of the garage for a run around the block to settle it and also check the alternator and fan were working from last month's project. I can report they are! From my limited drive the car felt much better with no jarring of the wheel over bumps but I'll get the tracking done when it comes out for spring and really test it on my favourite roads.

Rob Richardson







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944 Turbo

A Porsche that's rarer than a 911 and boasts a Turbo badge for under £20,000? Yes, it's possible with a 944 Turbo.

friend emailed me recently asking if he should buy a 944 Turbo for £10,000. It had a heady 150,000 miles on the clock but a well-known Porsche specialist had recently done £8000-worth of mechanical work on it, and it had been resprayed by another specialist, who was now selling it privately.

The words 'no' and 'brainer' sprung to mind. Sure, it had done a fair few miles but the 944 engine is a tough unit and, so long as the car has been well maintained – which it obviously had – then the mileage shouldn't be a concern. These days, £10,000 is starting money for a 944 Turbo and the chances are that most at that price will be poor examples requiring work which, inevitably, won't be cheap. Rust, water ingress, scruffy interiors, worn suspension and brakes, oil leaks, failing head gaskets, worn drive belts – the list goes on and many 944 Turbos

haven't been maintained as well as they should in recent years.

Another friend, Mark Wibberley who runs a car care business (More Than Polish: www.morethanpolish.com), has owned his 944 Turbo for 12 years so I chatted to him about values.

"They've been on a rollercoaster ride since I bought mine," says Mark. "I paid £7350 for it when it had 100,000 miles on the clock. Its value then shot up to £10,000 before dropping with the financial crash of 2007 when it went back to the price I paid."

Today, though, prices have gone right up. "It's the old story that people can no longer afford an air-cooled 911 so they are looking around at alternatives," Mark explains. "All 944s are going up in value as demand outstrips supply, and Turbos are particularly rare."

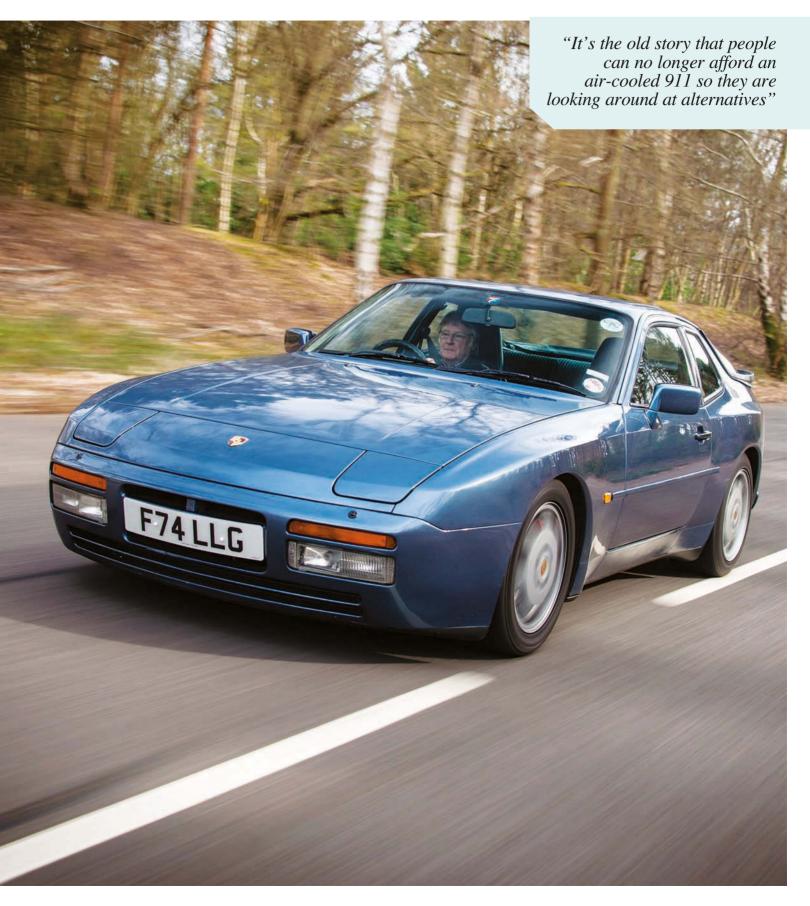
Mark recently helped a friend buy a 944 Turbo and they struggled to find a decent one. "We looked at one for

£13,000 which appeared cosmetically good but, on further investigation, was in a poor state mechanically and needed money spending on it. We finally found one that'd been a Porsche press car so had every imaginable option and in lovely condition with 85,000 miles for £16,000."

The problem with any relatively rare car that suddenly becomes desirable is that poor examples are dragged out of the woodwork as people start to cash in on the demand. Mark heard of a supposed concours example for £18,000 which turned out to be Cat D and a non-runner which was later valued at £5000 on a good day.

So what should you pay for a 944 Turbo in the current market? I've seen the odd one for sale for around £25,000 but Mark reckons sellers are chancing their luck at such high prices: "If it's a super-low mileage example with an impeccable history than *maybe* a 944 Turbo will sell for that figure."





the market place



The problem is, right now at least, there is only a tiny number of people prepared to spend top money on such a car. For that reason, it seems reasonable to assume that the ceiling value for 944 Turbos at the moment is £20,000, and for that figure or less you can find a really nice car.

I spotted a lovely Guards red example with a modest 70,000 miles under its belt for £19,995, while there was a 91,000-mile limited edition Silver Rose for two grand less. Bargain of the day, however, has to go to a black Turbo with a cheeky CanCan red leather interior (not to everyone's taste but I rather like it), a full history and 134,000 miles for just £12,995.

With just five for sale in the UK at the time of writing, it's clear that the 944 Turbo has become a rare beast, especially in good condition. When new, the Turbo was faster and more expensive than the contemporary 911 Carrera 3.2, yet today you'll be paying around twice as much for the latter. And without wanting to knock the wonderful 911, a 944 Turbo is, in many ways, a more practical choice. As well as being cheaper, it has a more modern interior (that so-called oval dash just hasn't dated), more conventional handling (thanks to the front-engine, rear transmission configuration which gives near 50/50 weight distribution), boasts a lifting tailgate and, if you start with a good one, is less expensive to maintain. It's also less common than a 911!

Mark is certainly enthusiastic about his 944 Turbo: "I use it regularly and, last summer, I took my two children in it on a camping trip to France. With three of us and all our gear, we did 550 autoroute miles in a day and I got out feeling as fresh as when I started. The seats are supremely comfortable and it's a great high-





the market place___

speed cruiser. With 180,000 miles on the clock and regular maintenance it's still going strong and I don't expect the engine to need a top-end rebuild until 250,000 miles."

That's the key with a 944 Turbo — as with any Porsche — it needs to be maintained properly, with any issues attended to as they arise. To that end, as Mark has discovered, the car will give long and pleasurable service. When buying, it's better to pay a bit more for a car that's got a documented history proving it's been cherished, rather than one that's been neglected and, as such, could be a money pit.

As for my friend's purchase, well it seems the seller is having cold feet about letting go of his example. Perhaps he's realised just what a good car the 944 Turbo is O







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all you need to know...

Winter tyres

Jesse Crosse dons his warm hat and gloves to decipher what winter tyres are all about...

ince the introduction of seasonal tyres the depths of winter have become a time of reflection for more discerning drivers. 'Was I wise to stick with the summer tyres or should I have invested in winters?' has become a question more people are asking. In the last few years the winter tyre with its specialised compounds and special tread patters has become more

familiar in the UK. In some countries, like Germany, it has been a legal requirement to fit winter tyres in winter months for some years.

First things first, though. We're talking about Porsches here and who in their right mind would take their pride and joy out in snow anyway? That probably depends whether it's a classic or modern sports car or an SUV. If a 991 is your daily then it might be your only option and if it's a Macan or Cayenne, then you're already ahead of the game.

Although there are any number of winter tyre test

videos floating around on YouTube these days, almost exclusively shot on a frozen lake somewhere, the first thing to know about winter tyres is they are not just snow tyres. Winter tyres are designed to work better in very cold conditions, not just ice and snow.

The differences between winter and summer tyres are not marginal either and differences in stopping distances can be measured in metres or tens of metres depending on the conditions and the design of the summer tyre in the comparison. A high performance summer tyre (of the sort you might find on a 911) will usually have a pronounced, unbroken centre band of tread to provide stability and sharp steering response. As a result, the stopping distance on ice or snow could

be worse than that of a general purpose tyre with tread blocks distributed across the centre of the contact path.

However, the winter tyre will always score over any type of summer tyre for a number of reasons and the first has to do with the tread compound. Some winter tyres like the Continental range, have a greater proportion of natural rubber in the tread compound than summer tyres. At the opposite end of the spectrum, a super-high performance tyre may not have any natural rubber in it at all. The natural rubber stays softer in cold conditions and keys into the surface of a cold road, increasing grip. The other major difference, and one which is easy to spot at a glance, is the tread pattern.

Tyre treads are complex things and as computer-aided engineering techniques have improved so has the opportunity to precisely simulate how a tread works when a tyre is rolling over the road surface. Some modern tread patterns have become quite dramatic in their appearance but the



fine detail of tread design is less obvious. One particular feature, the sipe, can be almost unnoticeable because sipes are what on first inspection look like tiny slits in the tread blocks, as if made by the finest of blades.

On a conventional summer tyre the edge of a tread block helps a tyre grip the surface of the road but the number of edges available is limited to the number of blocks on the tread. By introducing sipes which open as they roll beneath the tyre, the tyre designer creates many more sharp edges to grip the surface. On a winter tyre, it's easy to see that the sipes have a different and more complex appearance and are wavy, arranged in tiny squares or in a honeycomb pattern. This type of intricate sipe design is called 'complex' or 'three dimensional' and its purpose is twofold. First, it provides more of those edges to grip the road. Second, the snow gets trapped in the sipes

themselves. This is clearly visible because the sipes show up white — displaying yet more visual drama on the surface of the tyre. It would be easy to dismiss this snow entrapment as showmanship but the reason for it is more significant: snow sticks to snow better than snow sticks to cold wet rubber.

Try a winter tyre in snow and ice and you'll notice a profound difference. A small front-wheel drive car with narrow tyres can make better progress than a large four-wheel drive car or SUV with fat summer tyres. In some cases the latter might make no progress at all, four-wheel drive or not. High performance cars, like all modern Porsches, will always be disadvantaged by wearing wide rubber in snow where a narrow tyre section plays huge dividends by increasing the weight exerted on each square centimetre of the contact patch. That said, switch that

wide rubber from summer to the winter variety and the improvement will still be enormous. It's not all about snow, though, and Continental recommends the use of winter tyres when temperatures fall below 7°C for the improved grip and reduced stopping distances they offer.

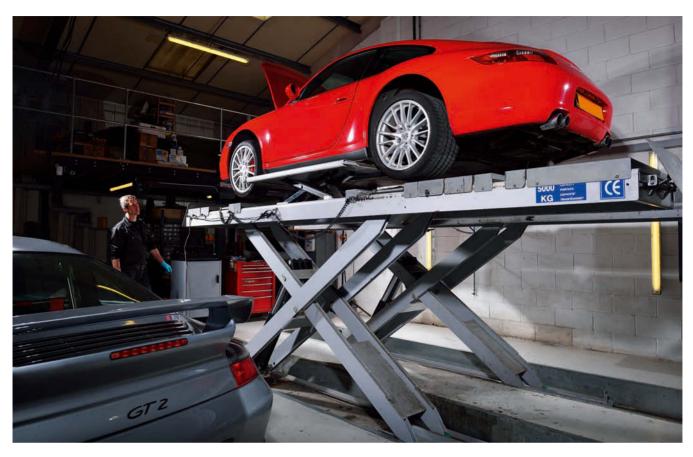
The 'N' mark, or code, denotes an OEM fit tyre that was developed in conjunction with Porsche and meets the criteria its ride and handling engineers require. 'N'-marked winter tyres are available for all Porsches although not necessarily on all winter tyres in a manufacturer's range. For example, Continental offers N-marked TS810 and TS830 but not the latest TS850 at this stage. Michelin has Porsche-fit Pilot Alpins to fit all the sports cars and Latitude Alpin to fit the Cayenne and Macan.

However, the latest Michelin 'semi' winter tyre, the Michelin cross-climate tyre which is intended to do a decent job in both summer and winter conditions, is not designed for high performance cars and, anyway, Michelin still recommends fitting a full winter tyre during winter months.

Winter tyres definitely make a significant improvement to grip and safety, especially in snow, but the down side is increased wear and reduced performance in the summer. That means having two sets of tyres in play and switching them twice a year, but if your Porsche is also your daily driver it could help avoid an expensive repair bill when the temperature plummets O







Geometry: Part Two

In the second instalment of our guide to geometry, Jesse Crosse looks at how to obtain a correct setup on your Porsche.

ast month we looked at the basics of what suspension geometry is and the effect of caster, camber and front wheel alignment. If you are preparing or modifying a car for track days or motorsport use, being able to cope with the basic setup yourself rather than paying somebody else is handy as you may want to make changes more regularly. Tools for the job needn't be expensive and in fact you can set the toe quite easily using a ball of string.

Setting up geometry has to be done on a flat surface, like level concrete. A rough, bumpy driveway won't do. Before you start, jack the car up safely and check there's no play in wheel bearings, suspension or steering joints and if there is, you need to fix that first. Then drive the car around the block to settle the suspension at ride height. Lock the steering wheel in the straight ahead position (try a length of wood and tape or straps) and you're ready to check the alignment.

The principal of setting toe with

string is quite simple but the practice can be fiddly if you don't think it through. Set up two strings either side of the car and parallel to its centreline. You need smooth string, not the hairy garden variety. By measuring in to the front and rear of the wheel rims, you can establish whether the wheels are toeing in or out or are parallel.

The method varies depending on what you have to hand but here's one of the best. Get yourself four axle stands, preferably the sort with tubular uprights punched with holes to take cotter pins. Arrange those out from the four corners of the car with long steel rods passed through the holes (you can buy steel rod online), so there's one rod parallel with the front bumper and the other with the rear.

Now attach the string to the rods with exactly the same spacing on each rod and at wheel centre height. This will ensure the strings are parallel. Slide the rods to and fro so the strings look parallel with the wheels but are not touching them. Around 50mm out from

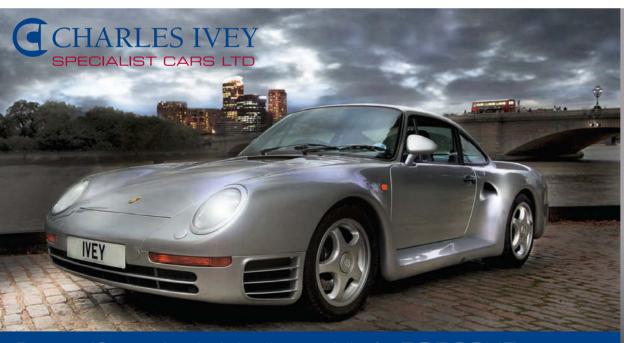
the wheel is comfortable to work with. The next stage is to get the strings parallel with the centreline of the car. Start at one end of the car and measure out from the wheel centre to the string on each side. Then divide the two distances by two and move the rod so each string is that distance from its wheel hub. Now do the same at the other end of the car and the strings are set up. To check the front toe, measure from the string to the front edge of a wheel rim and also to the back edge. The difference (if there is any) gives the toe-in or toe-out. Bear in mind that any quoted toe setting is the sum of left and right, so if you want 2mm toein, that's 1mm each side.

The value can be converted between degrees and millimetres by trigonometry or if your maths is not up to it, there are plenty of online calculators around. When slackening off the track rod end locking nuts, remember to get a spanner on the track rod end as well as the locking nut and also remove any clip or cable tie

on the steering rack gaiter. Actually screwing the track rod to adjust toe can be done with a pair of Mole grips. Having the front wheels sitting on a pair of dished swivel plates will let them rotate easily as you make the adjustment and you'll find those on your favourite auction site for less than £20 a pair.

Using the classic Dunlop gauge is slightly easier and the resolution is higher. Each gauge has two rods which touch the front and rear of the wheel rim. One gauge has an eyepiece and an accurate scale and the other a mirror. Looking down the eyepiece, the user adjusts a scale until a hairline is aligned with a couple of arrows, then reads off the toe-in or toe-out in degrees on a scale. It's a simple system and a very accurate one, which is probably why they are still made and why they fetch so much second-hand. So that's part of what's involved in getting the wheels pointing the right way. Next month, we'll look at adjusting castor and camber O





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CARRERA RS BOOK







How much? £306

Where from? www.tag-books.com

Back in November 1993, two Austrian enthusiasts burst onto the international Porsche book scene with a title that would become the benchmark for super detailed model histories. Their beautifully produced 256 page work was on the sports car that arguably defines Porsche itself – the 1973 Carrera RS. Like the real thing, the book quickly sold out and today, copies change hands between collectors for eye-watering money.

It's no surprise therefore that authors Georg Konradsheim and Thomas Gruber have produced a second edition, except that it's taken them 22 years to do it! With page content increased to 434, it is to all intents and purposes a completely fresh look at the RS viewed from 40 years on. It isn't cheap at €438 (about £306 plus P&P), but there should be no shortage of takers for the 3000 new copies.

Expanding the concept of the original, the new work describes every technical, production, motorsport, marketing and specification aspect of the RS in exhausting depth. The book lists each of the 1580 examples built, giving the car's colour, equipment and interior. There is a detailed chapter on the stillborn 916 that we found nonetheless rather out of place here, but the authors have resisted (correctly) the temptation to refer to any of the later generation RS models.

The treasure to be found in this text is the large amount of new material which, as well as answering any question you might have on the RS, gives an irresistible glimpse of Porsche as a family run company that was challenging the world back in the late 1960s and early 1970s. If you like your history books to major on in-depth research and detail, combined with superb design and production, *Carrera RS* is not to be missed.



CARRERA 2.7 BOOK

How much? \$250 (USD) Where from?

www.parabolicapress.com Carrera 2.7 is one of those Porsche books you just

cannot put down. It is a perfect example of how to write a modern super detailed and beautifully designed text on a specific car. Author Ryan Snodgrass, who looks after the carreramfi.com website in the USA, is a confirmed fan but this work on his favourite model excels in terms of research, writing style, design and the huge amount of contemporary and studio photography. This lavish (\$250 USD) slip-cased book details every aspect of the story behind the first full production 911 Carrera.

The 1974 models were the next step in Zuffenhausen's then-established routine of introducing bi-annual major upgrades to the 911 series. The top-of-therange model had been planned as a 2.7 911S, with the free-revving engine first used on the previous year's RS. However, the new G-series models were much more than that — adopting the required impact absorbing bumpers and a whole new interior. The use of the revered Carrera name upset many purists, but it was an essential gilding to the top production model at a time when Porsche faced stalling sales and possible bankruptcy caused by the 1973-4 OPEC oil embargo. Although not available in the USA, Porsche treated its customers in other markets to a RS-powered thoroughbred. The Carrera 2.7 was the last in the line of pure-bred 911s, before ever more restrictive regulations took the 911 in a different direction.

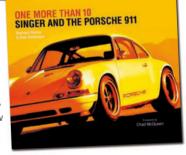
This absorbing book details all the development that led to the final production models and includes fascinating sections on the Sonderwunschen (special wishes) cars, with other sections covering the technical specifications, colours, options, literature, motorsport and even the tools included with the car. It is a fantastic work and an essential for any serious Porsche book collector.

SINGER VEHICLE DESIGN BOOK

How much? \$85

Where from? www.singervehicledesign.com Singer Vehicle Design has released a book detailing its background story. Called *One More Than 10: Singer and the Porsche 911*, the new hardback book is available through the specialist's own website, is presented in a large format and comprises 275 pages. It includes

contributions from the likes of Chad McQueen, Dickie Meaden, Chris Harris and Jay Leno. There will also be 100 special limited edition versions available for \$911, created by the same craftspeople who work on the firm's 911s, using elements and actual materials that match its restorations.





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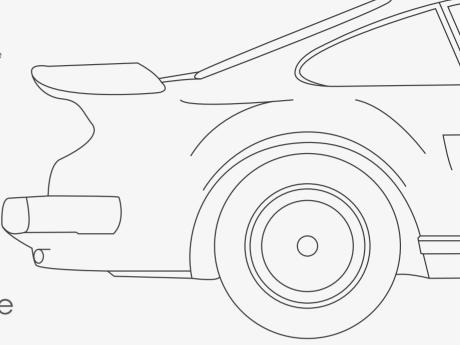
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1:43 BRUMM 550 RS SPYDER

How much? £20.00

Where from? www.racingmodels.com

The Porsche 550/4 Spyder was raced to 18th place at Le Mans in 1955 by Gustave Olivier and Josef Jeser. This model depicts the car in daytime mode; it did not have its headlamps fitted as during the daytime they were removed for extra cooling - a nice detail. Add code 'POR010' to your shopping cart during checkout to receive

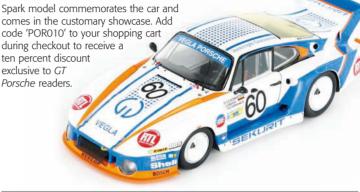
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Where from? www.racingmodels.com The Vegla Racing Team's Porsche 935J, J for Joest, was raced to tenth place at Le Mans in 1981 by Dieter Schornstein and Harald Grohs-Götz von Tschirnhaus. This 1:43 scale Spark model commemorates the car and

during checkout to receive a ten percent discount exclusive to GT



1:43 EBBRO NORISRING 956



How much? £46 Where from?

www.racingmodels.com

The real-life version of this Porsche 718 was raced to sixth place in the 1963 USA Grand Prix by Dutchman Carel Godin de Beaufort. The amiable driver was nicknamed 'Kareltje' by his followers. This stunning Spark model is supplied in a pretty showcase. Add code 'POR010' to your shopping cart during checkout to receive a ten percent discount

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GMÜND COUPÉ/356: 1948 – 1964

Two-door, two+two Coupé, Roadster, Speedster. Rear-mounted four-cylinder air-cooled 'boxer' engine.

This is where the Porsche story begins. After the aluminium prototypes and numerous projects for Volkswagen, Dr Porsche gave the go-ahead for his company to relocate from the converted shed in Gmünd to a rented workshop in Stuttgart (owned, incidentally, by Reutter, the coachbuilder responsible for building the 356 body for Porsche). At the 1949 Geneva Auto Salon Porsche displayed a 356 for the first time, with a coupé and drophead model taking the limelight. A makeshift production line was started in the same year.

The following year the 356 was shown to a meeting of Volkswagen main dealers as well as European and overseas importers who promptly placed orders for 37 cars. The first Stuttgart-built 356 rolled off the production line in Easter 1950.

The 500th Porsche was built on 21 March 1961, with the 1000th model arriving just six months later, and when the last 356 was built in 1964 – a 356C convertible – a total of 76,302 examples had been built.

The arrival of the 356 also signalled Porsche's first forays into motorsport. Dr Porsche's cousin, Herbert Kaes, is thought to be the first to compete in a Porsche car when he took an early 356 and entered it in a race around the streets of Innsbruck, Austria on 11 July, 1948. Kaes and the Porsche won their class, obviously. The first recognised 'factory' victory came in 1951 in the 24 Heures du Mans (where else!) when Porsche's French importer, Auguste Veuillet, convinced Dr Porsche that by entering a car into the twice-round the clock race it would result in a big boost in sales and Porsche's global awareness. Veuillet, along with his co-driver Edmund Mouche, won their class in the 1100cc 356. The rest, as they say, is history.

Today the 356 enjoys the status of a genuine classic car. Collectors and enthusiasts alike have seen that the majority of examples have been meticulously restored and maintained and this is reflected in the values they are reaching on t



356

Dimensions: Wheelbase (mm): 2100 – Length (mm): between 3850 (1950) and 4010 (1959). Width

1948 to 1949: Gmünd Coupés:- the 356's predecessor was first produced in July 1948. The aluminiumbodied Gmünd Coupés used virtually all VW mechanicals from a four-speed gearbox to torsion bar suspension, and, of course, the Beetle-derived 40hp flat-four engine complete with twin Solex downdraught carburettors and 7.0:1 compression ratio. Drum brakes were fitted all-round.

1950: 'Pre-A' 356:- Following the move to Stuttgart, the 356's integral body was made of steel and the design given a higher waistline than Gmünd Coupés, with the distinctive V-shaped roof to accommodate its split-screen. The 1.1-litre engine now produced 40hp and, along with the other engines offered after 1952, was mated with Porsche's own four-speed gearbox. 1951: 1300cc and 1500cc (60hp) engines introduced.

1952: Split-screen front windscreen replaced with single piece window; bumpers mounted higher and further forward from body; rectangular rear taillights replaced with circular items. 1500cc engine loses 5hp but is more refined and was the first engine to feature the 'Alfinger' crankshaft. 1500 S (70hp) engine introduced. Fully synchronised gearbox fitted across the range. 1955: 356A:- New engines and suspension altered. New curved 'V-screen' does away with the need to split the screen, vinyl replaces cloth inside. New dash, combined ignition/starter. New gearbox in 1957. Four Cam Carreras launched at the 1955 Frankfurt Motor Show, these engines were directly derived from racing technology, with GT-denoted models aimed specifically at motorsport. They were dry sumped, had reduced compression ratios and revved much higher. The bodies around them were lightweight, making them very potent on the road for their day. 1959: 356B:- 90hp 1600 introduced for Super 90 which gets 'compensating rear springs' to improve handling. Changes to bumper position, headlamps and numerous interior details. 1961: Larger rear window and engine cover with twin air intakes introduced, electric sliding roof optional; 1600 S engine gets four-ring pistons, S-90 gets modified flywheel. 130hp Carrera 2 announced (introduced in 1962), featuring Porsche-designed disc brakes. 1963: 356C:- Reworked engines, clutch from Super fitted to 75 and 95hp models, disc brakes introduced all-round, rear compensating spring special order only, no external changes but there was a rethink of the interior details. 1964: Porsche takes control of Reutter and 356 C introduced, Roadster dropped from the line-up.

MODEL	MODEL YEAR	WEIGHT	ENGINE cc	Нр	TORQUE (lb ft)	0-62	TOP SPEED (mph)
Gmünd Coupés	1948 to '50	605	1086	35-40	50	23.0	80
'Pre-A' 356							
1100	1950 to '54	745	1086	40	51	23.5	87
1300	1951 to '54	810	1286	44	59	22.0	90
1300A	1954	830	1286	44	51	22.0	90
1300S	1953 to '54	830	1290	60	64	17.0	99
1500	1951 to '52	830	1488	60	75	15.5	105
1500	1953 to '55	830	1488	55	77	16.5	96
1500S	1952 to '55	830	1488	70	80	13.5	108
356A							
1300	1955 to '57	860	1290	44	60	22.0	90
1300S	1955 to '57	900	1290	60	65	17.0	99
1500GS Carrera	1955 to '58	835	1498	100	88	12.0	124
1600	1955 to '59	835	1582	60	81	16.5	99
1600S	1955 to '59	835	1582	75	86	14.5	108
1600GS Carrera	1958 to '59	835	1587	105	89	11.0	124
356B							
1600	1959 to '63	905	1582	60	81	16.5	96
1600S	1959 to '62	925	1582	75	86	15.0	108
1600S	1960 to '63	925	1582	90	89	13.5	112
1600S	1961 to '63	935	1582	75	86	15.0	108
1600GS Carrera C	GT 1959 to '61	890	1588	115	99	10.5	124
Carrera 2	1962 to '64	890	1966	155	144	9.0	124
356C							
1600C	1963 to '65	935	1582	75	89	14	109
1600SC	1963 to '65	935	1582	95	90	13	116
2000GS	1962 to '64	935	1966	130	119	9.0	124

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911 (1964 – 1989)

(Zero) 0-Series - 1963 to 1966: '64 to '66 Model Year - Wheelbase (mm): 2211 Lenath/Width (mm): 4163/1610 – Significant developments: 911 (very briefly 901) first shown at 1963 Frankfurt Motorshow, went on sale in 1964 with six-cylinder 2.0-litre engine. Targa announced in 1965 and goes on sale 12 months later. Weighs 50 kilos more than coupé

MODEL	MODEL YEAR	WEIGHT(kg)	ENGINE (cc)	Нр	TORQUE (lb ft)	0-60*	MPH	
901	1963	1080	1991	130	119	8.5*	131	
911	1964	1040	1991	130	120	8.3*	130	_
911	1965 to '67	1080	1991	130	128	8.3*	130	_

A-Series - 1966 to 1968: 1967 Model Year - Significant developments: 160hp 911S introduced, as are 5.5-in tyres. 911L had vented discs taken from 911S. Four-speed Sportmatic introduced in 1967. All models available as Targa, glass window replaces plastic item from 1968.

MODEL	TRACK	WEIGHT	ENGINE	Нр	TORQUE	0-62	TOP SPEED	
	(f/r mm)	kg	CC		(lb ft)	0-60*	(mph)	
911L	1353/1321	1075	1991	130	130	10.6*	131	
911T	1353/1321	1080	1991	110	116	8.3	124	_
911	1353/1321	1080	1991	130	128	9.1	130	_
9115	1353/1321	1080	1991	160	132	8.0*	137	_

A-Series - 1967 to 1969: 1968/69 Model Year - Significant developments: Wheelbase extended by 57mm to enhance handling, single battery replaced with twin 35amp alternatives in front luggage compartment to keep front end more securely planted and enhance handling. S and E both have mechanical Bosch fuel injection, 911T introduced, 'E' model replaces 'L'.

MODEL	TRACK	WEIGHT	ENGINE	Нр	TORQUE	0-62	TOP SPEED
	(f/r mm)	kg	CC		(lb ft)	0-60*	(mph)
911T	1353/1321	1075	1991	110	115	8.3	124
911E	1353/1321	1020	1991	140	129	8.4	134
911S	1353/1321	995	1991	170	135	8.0*	137

C-Series – 1969 to 1970: 1970 Model Year – **Significant developments:** Increase in bore from 80 to 84mm raises engine capacity to 2.2-litres. Aluminium crankcase replaces magnesium alloy item. 225mm clutch introduced. Sportmatic no longer an option on 911S. Front upper strut attachment points moved forward 14mm.

D-Series - 1970 to 1971: 1971 Model Year - Significant developments: PVC-coated, galvanised underfloor areas introduced. Tweaks to injection and ignition required to meet new European emission

MODEL	TRACK	WEIGHT	ENGINE	Hp	TORQUE	0-62	TOP SPEED	
	(f/r mm)	kg	CC		(lb ft)	0-60*	(mph)	
911T	1362/1343	1020	2195	125	131	9.5	127	
911E	1372/1354	1020	2195	155	141	7.6*	137	_
9115	1372/1354	1020	2195	180	147	70	138	_

E-Series – 1971 to 1972: 1972 Model Year – **Significant developments**: Engine stroke increased to 70.4mm giving 2.4-litre capacity. Compression ratio dropped to allow use of regular petrol. Gearbox uprated to cope with increased torque. External oil filler cap located between door and rear wheel. All models supplied with Fuchs wheels.

F-Series - 1972 to 1973: 1973 Model Year - Wheelbase (mm): 2271 Length/Width (mm): 4127 (RS 4147)/1610 - Significant developments: External oil filler removed due to customer confusion at the petrol pumps. Chin spoiler introduced on S to reduce front end lift (option on T and E) and greater variance in standard wheels. 2.7 Carrera RS is first to be fitted with duck-tail rear wina.

MODEL	TRACK (f/r mm)	WEIGHT kg	ENGINE cc	Нр	TORQUE (lb ft)	0-62 0-60*	TOP SPEED (mph)
911T	1360/1342	1050	2341	130	144	8.1	127
911E	1372/1354	1050	2341	165	151	7.9	138
911S	1372/1354	1050	2341	190	158	6.6	144
Carrera RS	1372/1394	975	2687	210	188	5.8	152

G-Series – 1973 to 1974: 1974 Model Year – Wheelbase (mm): 2271 Length/Width (mm): 4291/1610 (Carrera 1652) – Significant developments: Shock absorbing bumpers introduced as a result of US legislation. Range-topping Carrera model came with 'black look' trim and 210hp.

H-Series - 1974 to 1975: 1975 Model Year - Significant developments: Turbo introduced early '75 with four-speed gearbox and higher spec. Duck-tail replaced by whale-tail on Carrera models. Silver Anniversary model launched, 1063 sold.

MODEL:	TRACK	WEIGHT	ENGINE	Нр	TORQUE	0-62	TOP SPEED
	(f/r mm)	kg	CC		(lb ft)	0-60*	(mph)
911	1360/1342	1075	2687	150	173	7.9*	131
911 S	1360/1342	1075	2687	175	188	6.1*	142
911 Carrera	1372/1354	1120	2687	210	188	6.3	150



911: 1963 — 1989

911: 1963 — 1989

Two-door, two+two Coupé, Convertible and Targa. Rearmounted six-cylinder air-cooled 'boxer' engine, four- and five-speed manual and four-speed Sportmatic gearbox.

For some a real 911 is an air-cooled 911, and some of the greatest examples are from this period. Two of the most iconic 911s ever produced — the 2.7 Carrera RS and 3.0 Turbo — arrived on the scene during this time and Porsche also gave us the sublime 1970 2.2 S. Bosch K-Jetronic fuel injection was introduced (1976) and the first 911 Cabriolets (1983) arrived in showrooms. The 3.2 Carrera fed the Yuppie boom (1983) and the Carrera Club Sport (1988) was the first lightweight 911 special since the original Carrera RS some 15 years earlier.

On its arrival the original 911, or 901 as Porsche had first intended calling it until the French manufacturer Peugeot pointed out that they owned the trademark to model designations with an '0' in the middle, was a huge leap forward from the company's original four-cylinder 356. With its 2.0-litre flat-six, five-speed gearbox, independent suspension and disc brakes the new 2+2 sports car was quickly snapped up when it first appeared at the 1963 Frankfurt Motor Show.

A seemingly continuous development programme saw the 911 evolve at a pace. The Targa model was launched in 1965 in anticipation of US legislation that would ban fully convertible cars (it never happened, but the Targa proved a popular choice with its distinctive brushed stainless steel rollover hoop and zip-out plastic rear window). More power (160hp) and larger wheels (5.5-inches) arrived 12 months later, as did ventilated discs and a four-speed Sportmatic gearbox. The Targa's plastic rear window was replaced with a more conventional glass item in 1968.

The start of the next decade saw the flat-six's capacity

rear window was replaced with a more conventional glass item in 1968.

The start of the next decade saw the flat-six's capacity grow to 2.2-litres and gave us the sublime 2.2 S and a chunky 180hp (190hp in 1973). Measures were also taken to prolong the life of the 911 with PVC and galvanised floors both introduced, and the legendary Fuchs wheels became available across the range.

1973 was the year every 911 aficionado has indelibly inked on their mind: the 2.7 Carrera RS arrived. 975 kilos, 210hp, aluminium bodywork, lightweight glass and the infamous duck-tail spoiler signified the most focused, driver-orientated production 911 to date. Rarer R and S/T racing models had come and gone, but this was the first performance-orientated 911 road car to be sold through the dealer network. A legend was born.

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Not content with blowing the minds of its faithful customers with its first RS road car, Porsche unveiled its concept for a new, more powerful, luxury-orientated version of the 911 at the 1974 Paris Motor Show – the

911 Turbo. With a 3.0-litre flat-six motor and a single KKK With a 3.0-litre flat-six motor and a single KKK turbocharger the new model produced 260hp delivered to the rear wheels via a four-speed manual gearbox. With a 0-62mph time of just 5.5 seconds and a 155mph maximum speed it was the fastest, most powerful Porsche road car to date, and its arrival coincided with the oil crisis. With its flared rear-wheel arches, deeper front and whale-tail rear spoiler it was far from subtle, but Porsche's customers loved it and nearly 3000 were built. In 1978 it gained a bigger, 3.3-litre engine and more power (now 300hp), could crack 160mph and would continue in production until 1989.

Porsche also offered as a 911 Turbo Cabriolet and Targa model from 1987-88, as well as the 330hp 'slant-nose' coupé from 1983 through to 1989. And if you wanted the show without the go you could order Turbo-look Coupés, Cabriolets, Targas and Speedsters. Has there ever been a more blatant example of the excesses of the '80s?



During the 1980s Porsche hit upon a winning formula for its rear-engined sports cars, despite the best attempts by various management boards to try and kill it off.

As engine capacity rose from 2.2-, through 2.4-, 2.7-, 3.0- and finally 3.2-litres, so did the power and performance of the numerous models and variants introduced. The first 911 Cabriolet arrived on the scene in 1983, and before this a whole of host models had come and gone: the 2.4S became the Carrera in 1974 with 2.7-litres and 210hp, and the 3.0 Carrera in '76 with 200hp (US emissions laws had strangled the flat-six a bit). The 3.0 SC arrived in 1978 with a feeble 180hp but redeemed itself in 1981 with the new 3.0 SC arriving with 204hp.

In 1984 Porsche delivered its latest 911: the 3.2 Carrera. With 231hp, a 6.1 second 0-62mph and a 151 mph maximum speed the 911 was back on track. In 1987 the somewhat wayward 915 transmission was replaced with a slick Getrag G50 'box and this generation 911 saw out its final years able to hold its head high and compete with the more youthful opposition.

1432/1500 1140 2993 155 260

I-Series - 1975 to 1976: 1976MY - Significant developments: Bodies now zinc-coated, galvanised steel. Bosch K-Jetronic fitted to all models. Sportmatic now only three-speed, not four.

J-Series - 1976 to 1977:1977MY - Wheelbase (mm): 2271, Length/Width (mm): 4291 (Turbo 4318)/1610 (Carrera 3.0 1652, Turbo 1829) – Significant developments: Sportmatic cars get brake servo assistance. 'Black-look' trim standard on Targas.

MODEL	TRACK	WEIGHT	ENGINE	Нр	TORQUE	0-62	TOP SPEED	
	(f/r mm)	kg	CC		(lb ft)	0-60*	(mph)	
911	1360/1342	1120	2687	165	176	7.8	135	
Carrera 3.0	1372/1354	1075	2994	200	188	6.3	150	
930 Turbo	1432/1500	1195	2993	260	253	6.0*	155	

K and L-Series (the SC) – 1977 to 1979: '78 to '79MY – Significant developments: Super Carrera combined old 911 and Carrera with 3.0-litre engine, all had servo-assisted brakes. Turbo 3.3-litre engine equipped with intercooler and tea-tray spoiler replaces whale-tail. SC (New A-Series) - 1979 to 1980: 1980MY - Significant developments: Revised ignition and camshaft timing results in 188hp SC model. Turbo aets twin-exit exhaust.

MODEL	TRACK	WEIGHT	ENGINE	Нр	TORQUE	0-62	TOP SPEED	
	(f/r mm)	kg	CC		(lb ft)	0-60*	(mph)	
911 SC	1369/1379	1210	2994	188	188	7.0	141	
930 Turbo	1432/1500	1300	3299	300	304	5.1*	162	

SC (New B-Series) - 1980 to 1981: 1981MY - Significant developments: First year of 17-digit international chassis number. SC now runs on 98RON fuel. SC (New C-Series) - 1981 to 1982: 1982MY -Significant developments: Limited edition 'Ferry Porsche' model goes on sale. Tea-tray spoiler option available for SC. SC (New D-Series) - 1982 to 1983: 1983MY - Significant developments: Cabrio rushed into production and launched following successful design study.

MODEL	TRACK	WEIGHT	ENGINE	Нр	TORQUE	0-62	TOP SPEED	
	(f/r mm)	kg	CC		(lb ft)	0-60*	(mph)	
911 SC	1369/1379	1210	2994	204	189	5.7*	146	
930 Turbo	1432/1500	1300	3299	300	304	5.1*	162	

Carrera (New E-Series) – 1983 to 1984: 1984MY – Wheelbase (mm): 2271 Length/Width (mm): 4291 (Turbo 4318)/1610 (Turbo) Significant developments: Carrera replaces SC. Engine capacity climbs to 3164cc, Digital Motor Electronic engine management introduced as was the engine oil-fed chain tensioner. Turbo-look option ads 50 kilos and increases drag.

MODEL	TRACK	WEIGHT	ENGINE	Нр	TORQUE	0-62	TOP SPEED	
	(f/r mm)	kg	CC		(lb ft)	0-60*	(mph)	
911 Carrera	1398/1405	1210	3164	231	209	5.6*	152	
911 SC RS	1398/1405	960	2994	255	184	5.0	159	
930 Turbo	1432/1500	1300	3299	300	319	5.1*	162	

Carrera New F-Series - 1984 to 1985: 1985MY - Significant developments: Carrera available with catalytic converter. Four-spoke steering wheel standard. Carrera New G-Series – 1985 to 1986: 1986MY – Significant developments: Sport seats now a no-cost option. Turbo-look track 1434mm front/1526mm rear. WEIGHT ENGINE TORQUE 0-62 MODEL TRACK Hn TOP SPEED (f/r mm) (lb ft) 0-60* ka CC (mph) 911 Carrera 1398/1405 231 5.6* 1210 3164 209 152

300

319

5.1*

162

3299

Carrera New H-Series - 1986 to 1987: 1987MY - Significant developments: Targa and Cabrio models available with Turbo engine. Slant-nose becomes an option. 915 transmission replaced by Getrag-built G50. Power hood standard on Cabrio. Carrera New J-Series - 1987 to 1988: 1988MY - Significant developments: Celebration anniversary model available. Club Sport model weighed 50 kilos less, blueprinted engine pushed power to around 241hp. Carrera New K-Series - 1988 to 1989: 1989MY - Significant developments: 16-inch wheels now standard. Speedster introduced and available with either Turbo-look or flat-nose bodies

MODEL	TRACK (f/r mm)	WEIGHT kg	ENGINE cc	Нр	TORQUE (lb ft)	0-62 0-60*	TOP SPEED (mph)	
911 Carrera	1398/1405	1210	3164	231	209	5.6*	152	
Club Sport	1398/1405	1160	3164	231	209	5.6*	156	
930 Turbo	1434/1526	1300	3299	300	319	5.1*	162	

964 (1989 – 1993)

1432/1500

1300

930 Turbo

1988 to 1989: 1989MY – Wheelbase (mm): 2271 Length/Width (mm): 4250/1651 – **Significant developments**: Launched in January 1989 with a new flat-six engine, suspension, brakes and numerous body parts, Porsche claim only 13 per cent carry over parts from predecessor. Carrera 4 split torque 31/69 front to rear. All wheel ABS and power steering standard, catalyst introduced. 1989 to 1990: 1990MY - Significant developments: All pre-964 models now deleted. Carrera 2 introduced, Targa and Cabrio available for both Carrera 2 and Carrera 4 models. Tiptronic available on C2. Both Cabrio and Targa 50 kilos heavier than coupé equivalents. 1990 to



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(964): 1989 — 1993

911 (964): 1989 — 1993
Two-door, two+two Coupé, Convertible and Targa. Rearmounted six-cylinder air-cooled 'boxer' engine, rear and four-wheel drive. For a company that had very little left in the piggy bank and suffering from an economic and sales downturn, Porsche's engineers pulled off a remarkable achievement when developing the 964-series 911.

This latest 911 was '87 per cent new' over the model it replaced, and the big news surrounding the 964 was the increased capacity flat-six and the introduction of a four-wheel drive transmission. This resulted in the gearbox and rear final drive having two electronically-controlled wet clutches, limiting slip in both the centre and rear differentials. A torque tube connected the centre and front diffs. The torque split was 31:60 front-to-rear.

Joining the new C4 was a Carrera 2 Coupé, Cabriolet and Targa models, three Turbo variants: 320hp 3.3-litre, 360hp 3.6-litre, and a limited run 381hp Turbo S. The stripped-out 964 RS and limited run 3.8 RS were available from 1992.

Overlooked by many, the 964 offers an affordable entry into classic 911 ownership, although they require regular maintenance and some TLC.



911 (993): 1993 — 1996
Two-door, two+two Coupé, Convertible and Targa. Rearmounted six-cylinder air-cooled 'boxer' engine, rear- and four-wheel drive. Argued by many to be the most beautiful 911 design of all, the 993-series cars are also the best engineered and, for many purists, the pinnacle of the model's achievement.

The last of the air-cooled 911s had it all: pace, grace and, for once, a bit of space. The entry-level Carrera 2 was all you ever really needed, but who could resist the appeal of the Carrera RS or, for the first time, the all-wheel drive, twin-turbocharged Turbo? For the seriously brave there was the GT2 and those after the Turbo look without the go could always opt for the Carrera 2S and 4S.

the GTZ and those after the Turbo look without the go could always opt for the Carrera 2S and 4S.

The 993 also saw the introduction of VarioRam (in 1996). This controlled the length of the engine's induction tracts, and at low and medium engine speeds longer tracts provided a fuller torque curve, while at higher engine speeds the shorter induction length delivered higher peak

1991: 1991MY - Significant developments: Rear drive, 3.3-litre 320hp 964 Turbo introduced complete with 'Cup' design mirrors. 1991 to 1992: 1992MY – Significant developments: Stripped-out Carrera 2 RS launched – the first RS since 2.7 Carrera RS in 1973 – and proves a hit for those who like their 911s raw. 381hp Turbo S model available to order (80 built). 1992 to 1993: 1993MY - Significant developments: Speedster introduced, rear-wheel drive only and based on Cabriolet for US market. 3.6 Turbo production beains in Jan 1993.

MODEL	TRACK	WEIGHT	ENGINE	Нр	TORQUE	0-62	TOP SPEED	
	(f/r mm)	kg	CC		(lb ft)		(mph)	
Carrera 2/4	1379/1374	1350/1450	3600	250	228	5.7	162	
Carrera 2 RS	1379/1380	1250	3600	260	240	5.3	162	
Turbo	1442/1448	1470	3299	320	332	5.0	168	
3.8 RS	1440/1481	1210	3746	300	266	4.9	168	
Turbo 3.6	1442/1448	1470	3600	360	383	4.8	175	

993 (1993 – 1998)

1993 to 1994: 1994 Model Year – Wheelbase (mm): 2272 Length/Width (mm): 4245/1735 (Carrera 4S and Turbo 1795mm) - Significant developments: 993 production begins in Jan 1994. Internal engine upgrades increase power and torque. Multi-link rear suspension is one of the biggest developments in the 911's history and transforms 993 into a more driver friendly sports cars. Four-piston brake callipers standard front and rear. Two- and four-wheel drive offered across the range in either Coupé or Cabriolet quise. 1994 to 1995: 1995MY – Significant developments: Carrera RS introduced as is redesigned, all-wheel drive system for Carrera and Tiptronic S with steering wheel-mounted shift controls for automatic gearbox. New 408hp fourwheel drive, twin-turbocharged 911 Turbo is launched and includes a six-speed gearbox and hollow spoked allov wheels.

MODEL	TRACK	WEIGHT	ENGINE	Нр	TORQUE	0-62	TOP SPEED	
	(f/r mm)	kg	CC		(lb ft)		(mph)	
Carrera 2/4	1405/1444	1370/1420	3600	272	243	5.6/5.3	168/162	
Carrera RS	1413/1452	1270	3746	300	262	5.0	172	
Turbo	1411/1504	1500	3600	408	398	4.5	180	

1995 to 1996: 1996MY – **Significant developments:** VarioCam engines announced and up both power and torque; revolutionary sliding glass-roofed Targa introduced. Lightweight, 430hp, rear-wheel drive, homologation special GT2 launched. It's the most powerful and fastest 911 production road car ever built. 1996 to 1997: 1997MY – Significant developments: 430hp Turbo S offered as run-out model with 450hp factory engine upgrade also available. Turbo-bodied Carrera 2S built alongside Carrera 4S, but two-wheel drive obviously. It's the last rear-wheel drive, air-cooled 911. 1997 to 1998: 1998MY - Significant developments: An end of an era. Production of the all-wheel drive Carrera 4 and Turbo continues until July 1998 but when the last car finally rolls off the production line (a Carrera 4S) it marks the end of air-cooled 911 production after 35 years. The purists aren't happy, but it signifies a new dawn for Porsche.

MODEL	TRACK	WEIGHT	ENGINE	Нр	TORQUE	0-62	TOP SPEED	
	(f/r mm)	kg	CC		(lb ft)		(mph)	
Carrera 2/4	1405/1444	1370/1420	3600	285	251	5.2	172	
Carrera 2S/4S	1411/1504	1450	3600	285	251	5.2	172	
Turbo	1411/1504	1500	3600	408	398	4.5	180	
GT2	1475/1550	1290	3600	430	398	4.0	184	
Turbo S	1411/1504	1500	3600	430	398	4.3	185	

996 (1997 – 2004)

1997 to 1998: 1998 Model Year – Wheelbase (mm): 2350 Length/Width (mm): 4430 (Turbo & GT2 4435)/1765 (Turbo & GT2 1830) - Significant developments: All-new water-cooled, 3.4-litre VarioCam sixcylinder 'boxer' engines. Rear-wheel drive, six-speed manual transmission or five-speed Tiptronic S at extra cost. Traction control also available. Four-wheel drive Carrera 4 introduced at the end of the year along with Porsche Stability Management (PSM). 1998 to 1999: 1999MY - stripped-out, 360hp GT3 introduced. GT1based engine helps create most focused 996 to date. Additional cooling for radiator, gearbox and engine account for extra weight over standard Carrera 2. Available in 'Comfort' or 'Club Sport' trim, breaks Nürburgring Nordschleife lap record for a production car (8mins 03sec). 1999 to 2000: 2000MY – the new 911 Turbo arrives. Twin-turbocharged, water-cooled flat-six with VarioCam Plus develops 416hp through fourwheel drive chassis. First 911 Turbo available with Tiptronic S. 996 - 2000 to 2001: 2001MY - GT2 returns with 462hp, rear-wheel drive, Porsche Ceramic Composite Brakes and no PSM! Breaks production car lap record at the Nordschleife (7min 46sec)

MODEL	TRACK (f/r mm)	WEIGHT kg	ENGINE cc	Нр	TORQUE (lb ft)	0-62 0-60*	TOP SPEED (mph)	
Carrera 2/4	1455/1500	1320/1430	3387	300	258	5.2	174	
GT3	1475/1495	1350	3600	360	273	4.8	188	
Turbo	1465/1522	1549	3600	416	413	4.2	190	
GT2	1485/1520	1440	3600	462	457	4 1	197	

New 996 - 2001 to date: 2002MY - Significant developments: Second-generation 996 introduced. Engine capacity grows to 3.6-litres, power increase to 316hp. Turbo's trip computer standard across range, as are



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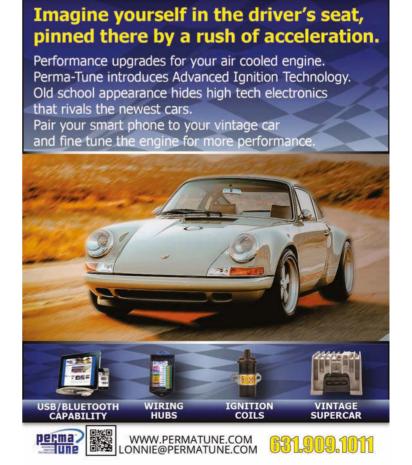














996: 1997 – 2005

996: 1997 — 2005
Two-door, two+two Coupé, Cabriolet and Targa. Rearmounted six-cylinder water-cooled 'boxer' engine. A water-cooled engine in a 911! Whatever next? Once the purists had calmed down, beneath the 996's slightly frumpy looks is one of the greatest cars of our time.

Carrera 2 is all you ever actually need, but the four-wheel drive Carrera 4 and Carrera 48 are unstoppable. The latter, with its Turbo sourced brakes, suspension and bodywork is possibly the best value 911 Porsche has ever built. The 416hp, four-wheel drive Turbo is a contender for the greatest supercar ever built, and swept aside all in its way during its time on the price list. The 462hp GT2 was deemed a tad excessive for most on the road, and didn't enjoy the kudos of its predecessor, nor that of the 911 GT3. This stripped-out 911 was as close to a 911 RS you could get without actually calling it such. One of the most rewarding 911s when it was new, it's still a favourite amongst the purists but subsequent evolutions are better still. GT3 RS was further honed for the track, compromised for the road. The Targa featured the now traditional opening rear glass hatch, while the Cabriolet was perfectly at home in Miami.



997: 2004 — 2012
Two-door, two+two Coupé, Cabriolet and Targa. Rear-mounted 3.6- and 3.8-litre six-cylinder, water-cooled 'boxer' engine. Evolution not revolution, second-generation water-cooled 911 has a hint of 993 look about it. A 321hp Carrera or 355hp Carrera S. PASM as standard on Carrera S. Interior quality improved over 996. Turbo and GT3 models even better than their predecessors, the Turbo model introduces Variable Turbine Geometry and Porsche Traction Managment, the GT3 gets traction control. At 530hp and 204mph, the 997 GT2 is the most powerful and fastest 911 to date.

Managment, the GT3 gets traction control. At 350np and 204mph, the 997 GT2 is the most powerful and fastest 911 to date.

With the introduction of the Gen 2 997 Porsche offers its greenest car to-date. The heavily revised DFI flat-six now has no intermediate shaft, so should prove more reliable. PDK system is a revelation. Model expansion is greater than with any other 911; Porsche offers a Carrera, Targa, Turbo and GT models Porsche plus four special models, too: the GT2 RS, GT3 RS 4.0, Sport Classic and Speedster.

Of the 22 models only four aren't available with PDK (Sport Classic, GT3, GT3 RS, and GT2 RS and GT3 RS RS 4.0-litre), two models are only available with the seven-speed double-clutch unit (Turbo S and Speedster). Only five models are offered with a narrow body (Carrera and Carrera S – coupé and cabriolets – and the GT3) with the rest of the range all using the wider body first introduced with the four-wheel drive models. Twelve Coupés, seven Cabriolets, two Targas and a Speedster body are available. Three different size of brakes are fitted, one of which is made from ceramic composite material, two suspension systems are available (passive and active – PASM), with five different front and rear track widths also used. Four different engines are offered. Final GTS model is the pick of the bunch.

Turbo headlights. Cup holders fitted for first time. New Carrera 4S introduced with Turbo brakes, suspension and wide-body. 996 Targa model launched with retractable sliding glass roof. 996 2003 to 2004: 2003MY -Significant developments: GT3 returns with 381hp while the GT3 RS has the same power but weighs 20 kilos less thanks to carbon fibre body panels and a plastic rear window. Turbo and Carrera 4S launched as a Cabriolet models, GT2 gets power hike to 483hp. 0-62mph time drops to 4.0 seconds, top speed climbs to 198mph. 996 - 2005: 2005MY - Significant developments: The 911 Turbo S makes a return and signals the beginning of the end for the 996. 450hp and PCCB come as standard.

MODEL	TRACK	WEIGHT	ENGINE	нр	TURQUE	0-62	TOP SPEED	
	(f/r mm)	kg	CC		(lb ft)		(mph)	
Carrera 2/4	1465/1500	1345/1405	3596	316	273	5.0	178	
Targa	1465/1500	1415	3596	316	273	5.2	177	
Carrera 4S	1472/1528	1470	3596	316	273	5.1	173	
Turbo	1472/1528	1540	3600	414	413	4.2	190	
Turbo S	1472/1528	1549	3600	450	457	4.1	190	
GT3	1485/1495	1380	3600	381	284	4.5	191	
GT3 RS	1485/1495	1360	3600	381	284	4.4	190	
GT2	1495/1520	1420	3600	483	457	4.0	198	

997 (2004 - 2008)

2004: 2005 Model Year – Wheelbase (mm): 2350; Length/Width (mm): 4427/1808; Height (mm) 1310/1300 (Carrera/Carrera S) - Significant developments: 3.6-litre 321hp, and 3.8-litre 355hp, watercooled flat-six engines for Carrera and Carrera S respectively. New six-speed manual gearbox standard on both models, Porsche Active Suspension Management (PASM) standard on Carrera S – lowers car by 10mm, cost-option on Carrera. 19-inch alloy wheels standard for Carrera S. 2005: 2005MY – Carrera 4 and Carrera 4S launched. Engines as Carrera and Carrera S respectively, rear body widened by 44mm, PSM now equipped with 'pre-filling' brake system to guicken responses. 2006: 911 Turbo and GT3 launched. The former features Variable Turbine Geometry, Porsche Traction Management and 480hp. The third-generation GT3 is the best all-rounder yet. PASM fitted as standard, as is a 415hp 3.6-litre flat-six engine and traction control. 911 Targa 4 and 4S launched based on the wider Carrera 4/4S shell and feature the full length glass sliding roof. GT3 RS launched. Same power as a GT3 but 20 kilos lighter and unique aero pack. 2007: 997 Turbo Cabriolet launched, followed by the new 911 GT2 with 530hp, rearwheel drive, traction and stability control, and launch control. 204mph claimed maximum.

MODEL	TRACK	WEIGHT	ENGINE	Нр	TORQUE	0-60	TOP SPEED	
	(f/r mm)	kg	CC		(lb ft)		(mph)	
Carrera	1486/1529	1395	3596	321	273	5.0	177	
Carrera S (Pkit)	1486/1511	1420	3824	355	295	4.4 (4.4)	182	
Carrera 4	1488/1548	1450	3596	321	273	5.1	174	
Carrera 4S (Pkit)	1488/1548	1475	3824	355	295	4.8 (4.7)	179	
Targa 4	1488/1548	1510	3596	321	273	5.3	174	
Targa 4S	1488/1548	1535	3824	355	295	4.9	179	
GT3	1486/1511	1395	3600	415	298	4.3	192	
Turbo	1490/1548	1585	3600	480	457-501	3.6	192	
GT3 RS	1497/1558	1375	3600	415	298	4.2	192	
GT2	1515/1550	1440	3600	530	501	3.7	204	

997 Gen-2 (2008 – 2012)

2008: 2008MY – Wheelbase (mm): 2350; Lenqth/Width (mm): 4435/1808; Height (mm) 1310/1300 (Carrera/Carrera S) – Significant developments: All new 3.6-litre 345hp and 3.8-litre 385hp, watercooled flat-six engines for Carrera and Carrera S now fitted with Direct Fuel Injection. Six-speed manual gearbox standard on both models and new seven-speed PDK available as option. PASM standard on . Carrera S, cost-option on Carrera. 19-inch alloy wheels standard fitment for Carrera S. Minor styling changes to lights and bumpers. New PCM3, Bluetooth and steering wheels. Carrera 4 and 4S model get reflective light strip across tail and identical updates to two-wheel drive models. Cabriolet models of all variants go on sale with Coupés. PDK-equipped cars two-tenths quicker to 60mph, but 1mph slower on top speed. 2009: 2010 MY - Eagerly awaited Gen-2 997 GT3 is launched with larger capacity 3.8-litre, normally aspirated flat-six. New 911 Turbo quickly follows with all-new 3.8-litre, DFI, twin VTG turbocharged engine, it's the first all-new engine for the 911 Turbo in 35 years. PDK replaces Tiptronic and Porsche offers optional steering wheel mounted paddle-shift controls for the first time. Limited run of 250 Sport Classic models mix Carrera 4 wide-body looks with rear-wheel drive and a 408hp 3.8-litre Powerkit engine. Built by Porsche Exclusive it also features a double-domed roof, ducktail rear spoiler and the return of Porsche's famous Fuchs wheels and PCCB as standard. A bespoke leather interior is also fitted. 911 GT3 RS is announced alongside Sport Classic at Frankfurt. New RS comes with a wider front track, a new aeropack that doubles downforce, a more powerful version of the Mezger 3.8 litre flat-six and a 25kg drop in kerb weight over a regular GT3. Air-con, PCM and leather are all options. **2010:** 2010MY – 530hp Turbo S available as coupé or cabriolet. PDK with paddle-shift, PCCB, dynamic engine mounts, Sport Chrono and Torque Vectoring are standard. Interior features a dual tone leather trim and adaptive sport seats. The 620hp 911 GT2 RS is the most powerful production Porsche ever. Based on the GT3 RS it features further aero tweaks and recalibrated PASM, Traction and Stability systems. 3.6-litre engine is the final swan song for the Mezger flat-six, and is fitted with a single-mass flywheel and a revised charge air intercooler. It's the first Porsche to feature different N-rated tyres on the front and rear axles. Carbon-fibre bonnet – and front wings if you wish - help shed kilos as does plastic rear and rear quarter windows. Only 500 built, and all sold within three-months. To mark its 25th Anniversary Porsche Exclusive builds 356 911 Speedsters. As with the Sport Classic it features the Carrera 4 body with rear-wheel drive running gear and the 408hp Powerkit 3.8-litre motor. PDK-only transmission, PCCB standard and Pure blue paint or white the only colours. Windscreen 72mm lower than standard and roof is a manual-electric mix that hides under a traditional Speedster double bubble engine cover. First Porsche Speedster for 16 years. The final 997 series 911 could possibly be the best. Carrera GTS is available as either coupé of cabriolet and again mixes the Carrera 4 body with rear-drive; 408hp 3.8-litre Powerkit engine does all the work. Six-speed manual or seven-speed PDK both available, PCCB optional. 19-inch RS Spyder design wheels standard, GTs also

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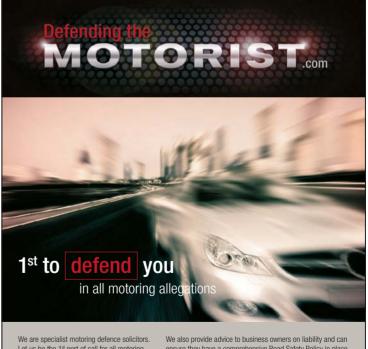
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991 (GEN 1): 2012 — 2015

Two-door Coupé and Cabriolet, water-cooled and direct fuel injected flat-six, rear-engined, rear- and four-wheel drive. Seven-speed manual and PDK gearbox. New, longer wheelbase, new body and design and new interior. The seventh generation of the iconic 911 was as big a step-change from the 997 as the 993 was to the water-cooled 996. The carry-over parts were very few, the changes made were like nothing seen in the last 17 years. The 911 has always innovated and the 991 was no different. There is the new seven-speed manual gearbox, a world first, dynamic chassis control (a first for the 911) and new, electronic power-steering. The latter causing some to declare the 911 as we know it to have passed away. We wouldn't go that far, although the effect it has on the car's character makes the 991 a very different 911 to all that have been before.

The more powerful, 400hp 3.8-litre has an epic

all that have been before.

The more powerful, 400hp 3.8-litre has an epic performance reach. For the first time we'd also consider PDK over the manual gearbox, the latter not as slick nor as precise as its predecessor. Although PDK only makes sense with the optional paddleshift controls.

If you opt for either the GT3 or Turbo models PDK is your only option. Porsche claims the double-clutch is not only quicker and more efficient, but it's what the customer wants. The problem many have is that the 911 was the last bastion of the truly wonderful manual gearbox, and now it's gone from the likes of the GT3 and the Turbo it feels like a chapter has closed when we were still left wanting for more.

Advent of GTS models creates a fast road 911 with all the comforts, but in 2015 it's the GT3 RS that blows everyone away. It's one of Prenunger's finest and one of the most track-focused 911s ever created.



991 (GEN 2): 2015 —
The wait is over, the 911 Carrera finally goes turbocharged in the wake of increasingly strict emmisions regulations. It's the biggest step change for the 911 since the shift from air- to water-cooled engines. The face-lift is typically subtle; new bumpers, headlights, rear lamp clusters and vertical slats on the deck lid being the real tell-tale giveaways, there are also revised exhaust tailpipes and a new alloy wheel design.

Four variants appear at first: Carrera Coupé and Coupé S, Cabriolet and Cabriolet S; all run a new 2981cc engine with two small BorgWarner turbochargers. PDK or manual gearboxes are offered. The Carrera versions offer 370hp, the Powerkitted S models 420hp, the Carrera S is the first sub four-second to 60mph 911 Carrera ever, doing it in 3.9-seconds. Carrera 4, Carrera 4S, Targa and Cabrio versions soon follow.

Inside, the 911 falls in line with its siblings with a 918-inspired steering wheel. A new driving mode switch allows the driver to adjust the car's performance, a new Sports Response Button (SRB) shifts the car into a heightened state of readiness for overtaking. Rear axle steering from Turbo and GT3's Nose Lift are Carrera options for the first time. New comfort and convenience features are added inside, too.

feature SportDesign front bumper and deeper sills. Inside is a mix of leather and Alcantara with a new SportDesign wheel also standard. Rear-seats optional. 2011: A 500hp, normally aspirated 4.0-litre flat-six engine, crank lifted straight from a GT3 R. The 4.ORS is extreme. It weighs 1360kg and has aero dynamic add-ons designed for the Nürburgring. It cherry picks the best bits from every 997 before it to produce the ultimate 997 2012: Porsche has time for one last 997 swansong: the Carrera 4GTS. A four-wheel drive version of the Carrera GTS.

MODEL	TRACK	WEIGHT	ENGINE	Нр	TORQUE	0-62*	TOP SPEED	
	(f/r mm)	kg	CC		(lb ft)	6sp/7sp	(mph)	
Carrera	1486/1530	1415	3614	345	285	5.1*/4.2	179	
Carrera S	1486/1516	1425	3800	385	310	4.3*/4.1	187	
Carrera 4	1488/1548	1470	3614	345	285	5.0*	177	
Carrera 4S	1488/1548	1480	3800	385	310	4.7*	184	
Carrera GTS	1488/1548	1420	3800	408	310	4.6/4.2	190/189	
Carrera 4GTS	1488/1548	1480	3800	408	310	4.6	188	
Targa 4	1488/1548	1530	3614	345	285	5.2*	176	
Targa 4S	1488/1548	1540	3800	385	310	4.9*	184	
GT3	1497/1524	1395	3797	435	317	4.0*	194	
GT3 RS	1509/1554	1370	3797	450	317	3.8*	193	
GT3 RS4.0	1509/1554	1360	3996	500	339	3.9	193	
Turbo	1490/1548	1570	3800	500	479	3.6* (3.2**)	194	
Turbo S	1490/1548	1585	3800	530	516	2.9**	195	
GT2 RS	1509/1558	1370	3600	620	516	3.5	205	
Sport Classic	1492/1550	1425	3800	408	310	4.6	187	
Speedster	1492/1550	1540	3800	408	310	4.4	190	

* O-60mph: cars fitted with six-speed manual gearbox; ** cars fitted with Sports Chrono Plus and PDK

991 (2012 - 2015)

2012: 2012 Model Year – Wheelbase (mm): 2450; Length/Width (mm): 4491/1808; Height (mm) 1303/1295 (Carrera/Carrera S) - Significant developments: All new 911s featuring a longer wheelbase, lighter body and more technology than ever. DFI engines carried over from 997, so too is the seven-speed PDK. However, a new seven-speed manual gearbox - based on the PDK - was introduced to replace the six-speed manual. Option of PDCC on a 911 for the first time, dynamic engine mounts and Torque Vectoring. Electric power steering replaced the previous car's hydraulic setup; not one of Porsche's most popular decisions. There was also a new look both inside and out, the new interior regaining the air of quality that some felt had been lacking in more recent 911s. Carrera coupé and cabriolet models were fitted with a 355hp, 3.4-litre engine, Carrera S models with a 400hp 3.8-litre motor. 2013: The Carrera 4 and 4S Coupé and Cabriolet (width: 1852mm) joined the line-up at the end of 2012 as 2013 model year cars. Available with the same engine and gearboxes as the Carrera models, four-wheel drive variants equipped with a multi-plate, electronically-controlled version of Porsche Traction Management. Rear was 44mm wider than the two-wheel drive derivatives. At Geneva Porsche revealed the new 911 GT3. Out went the Mezger 3.6-litre engine and in came a 475hp, 3.8-litre DFI based loosely on the Carrera S's motor. No manual gearbox were offered, instead only a heavily revised PDK unit. Active rear-wheel steering, electric power steering and, for the first time, the GT3's shell was taken from the wider C4. Soon after came the new 911 Turbo. Available as either a 520hp Turbo or 560hp Turbo S, both fitted with a PDK gearbox only. Active rear-wheel steering, torque vectoring, PDDC, dynamic engine mounts all available and, for the first time, the 911 Turbo features active aerodynamics for both the front and rear spoilers. The 911 Turbo's body is also 28mm wider than the Carrera 4 at 1880mm. 2014: Targa model becomes available with highly effective roof system, only available with all-drive layout, specs are similar to Carrera 4 and 4S, added weight for metal roof system the only real difference. GTS models launched: GTS and 4 GTS variants are later followed by Targa GTS, all retain the same 3800cc DFI engine, yet Powerkitted engine provides 430hp, available in two- or all-wheel drive, manual of PDK, Coupé or Cabriolet, shell sourced from wider Carrera 4 regardless of which you buy, bespoke dampers feature, sports exhaust and PASM standard, revised seven-speed manual 'box, black 20" centre lock wheels, GT3 door mirrors a 'comfv' GT3 - it's an instant classic 2015: GT3 RS - A new 4.0-litre version of Porsche's DFI engine producing 500hp, 460Nm torque (around 339lb ft), 0-62 in 3.3 seconds and a top speed of 192mph. A body constructed from aluminium, carbon fibre and magnesium weighing 10kg less than the GT3 (at 1420kg). A staggeringly quick Nordschleife lap time of 7min, 20secs – faster than a Carrera GT. And a devastatingly aggressive aero-led aesthetic. GT3 RS is one of Preuninger's finest. Only available with PDK, the GT3 RS boasts double the downforce of the GT3 with less than a third of its drag-co-efficient. This is unheard of. A new Michelin rubber compound adorns the 9.5x20-inch front wheels and 12.5x21-inch rears providing 20% increased stickiness, with increased spring rates (up 10% over GT3) and a 50-milimetre wider rear axle, the changes between GT3 and GT3 RS are vast. A 'paddle neutral' facility and a 'pit speed' button aid track use. PTV with rear limited-slip differential, PASM active dampers and PSM feature. A Club Sport Package and seats straight from the 918 Spyder have been added inside - Sport Chrono is optional.

MODEL	MODEL	WEIGHT	ENGINE	Нр	TORQUE	0-62	TOP SPEED	
	YEAR	kg	CC		(lb ft)		(mph)	
Carrera	2012	1380	3436	350	287	4.8	179	
Carrera 4	2012	1430	3436	350	287	4.9	175	
Targa 4	2014	1540	3436	350	287	5.2	173	
Carrera S	2012	1395	3800	400	325	4.5	188	
Targa 4S	2014	1515	3800	400	325	4.7	183	
Carrera 4S	2012	1445	3800	400	325	4.5	185	
Carrera GTS	2014	1495	3800	430	325	4.6	188	
Carrera 4 GTS	2014	1515	3800	430	325	4.7	183	
GT3	2014	1430	3799	475	325	3.5	196	
GT3 RS	2015	1420	3996	500	339	3.3	192	
Turbo	2014	1595	3800	520	486	3.4	195	
Turbo S	2014	1605	3800	550	516	3.1	197	



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912: 1965 – 1969: 1975

912: 1965 — 1969; 1975
Two-door Coupé and Targa, rear-engined four-cylinder aircooled 'boxer' engine. 'The poor man's Porsche' was
actually quite expensive, not that this stopped it from
building a strong following, especially in the States.
Sharing the 911's body, the 912 was fitted with a 2.0litre, four-cylinder engine and came with a spartan interior
that saw many of the 911's luxuries ditched. Developed
on a yearly basis, the 912 closely followed the 911 in
terms of new technology and very soon outsold its more
expensive brother, with over 30,000 delivered during its
first production run. Re-introduce in 1975, a further 2000
examples were built including a Targa Variant.



914: 1970 — 1976
Two-door Coupé with mid-mounted four- and six-cylinder air-cooled 'boxer' engines. Built by Karmann, Porsche's original mid-engined roadster was praised for its unrivalled dynamics, although its boxy looks and awkward gearbox were often criticised. The four-cylinder engines were sourced from VW, and the later six-cylinder Porsche units offered significant performance advantages — and even more of a challenge for the 'entertaining' dynamics. Sales were poor throughout the model's six-year lifespan.



924: 1977 <u>- 19</u>88

924: 1977 — 1988

Two-door, two+two Coupé, front-engined, four-cylinder water-cooled engine, rear-wheel drive, five-speed gearbox. The 924 was Porsche's first front-engined sports car and production car fitted with a water-cooled engine. Originally conceived, designed and developed for Volkswagen, it was eventually launched as a Porsche, albeit still powered by a WW/Audi sourced engine. Performance wasn't earth-shattering, but its transaxle configuration provided the balance and handling worthy of the badge.

Continual development saw the 924 improve in the performance stakes, especially so when it received the 2.5-litre engine from the 944. Peak performance, however, came with the Turbo models, which delivered the much needed performance gain, ultimately reaching its peak with the Carrera GT, a homologation requirement in order for Porsche to race the car at Le Mans. A handful of more extreme, lighter Carrera GTS models were also built.

Sadly for the 924, with every evolution came a price increase and the coupé quickly went from the affordable entry level Porsche it set out to be, to becoming an expensive, out-dated car.

991 Gen-2 (2015 –)

2015: 2016MY – Wheelbase (mm): 2450: Lenath/Width (mm): 4499/1808: Heiaht (mm) 1303/1297 (Carrera, Carrera S/Carrera Cabriolet, Carrera Cabriolet S) – Significant developments: All-new 2981cc turbocharged DFI engine with two small BorqWarner turbochargers, seven-speed PDK or seven-speed manual aearboxes offered, the Carrera versions provide 370hp, Powerkitted S models 420hp, Carrera S the first sub four-second 911 Carrera to 60mph at 3.9-seconds (PDK with Sport Chrono), driveability is the big question, torque 332lb ft and 369lb ft respectively, new driving 'Mode' switch provides different driving dynamics, new Sports Response Button shifts the car into a heightened state of readiness for overtaking, for the first time on a Carrera rear axle steering from Turbo is an option, GT3's Nose Lift also available, face-lifted styling is subtle: new bumpers, lights and vertical slats on the deck lid are the real giveaways. There are also revised exhaust tailpipes and a new alloy wheel design – rear wheels now measure 11.5"-wide, overall weight increases, partly due to heavier turbocharged engine, Carrera now weighs 1430kg. All-wheel drive Carrera 4, 4S, Cabriolet 4, Cariolet 4S, Targa 4 and Targa 4S models soon follow. Power and torque identical to Carrera models.

MODEL	MODEL	WEIGHT	ENGINE	Нр	TORQUE	0-62	TOP SPEED	
	YEAR	kg	CC		(lb ft)		(mph)	
Carrera	2015	1430	2981	370	332	4.2	183	
Carrera 4	2015	1480	2981	370	332	4.1	181	
Targa 4	2015	1570	2981	370	332	4.3	179	
Carrera S	2015	1440	2981	420	369	3.9	191	
Carrera 4S	2015	1490	2981	420	369	3.8	189	
Targa 4S	2015	1580	2981	420	369	4.0	188	

912 (1965 – 1969; 1975)

912 - Wheelbase (mm): 2211 (1969 - 2268, 1976 - 2272) Length/Width (mm): 4163 (1976 -4293)/1610. Significant developments: 356C four-cylinder engine, four- or five-speed gearbox, disc brakes, MacPherson front and semi-trailing rear suspension, low-spec interior. 1969: Larger wheelbase and 911 body introduced before production ends for six years. 1975: Re-introduced using the 914's VW 2.0-litre. Heavier than its predecessor, five-speed gearbox fitted as standard.

MODEL	MODEL	WEIGHT	ENGINE	Нр	TORQUE	0-62	TOP SPEED	
	YEAR	kg	CC		(lb ft)		(mph)	
912	1965 to '69	950	1582	90	86	11.6	115	
912E	1975	1132	1971	90	98	13.0	110	

914 (1970 – 1976)

914 - Wheelbase (mm): 2459 - Length/Width (mm): 4050/1650 Significant developments: 1.7-litre VW four-cylinder and de-tuned 911T 2.0-litre six-cylinder engines offered, MacPherson front and rear trailing link suspension, disc brakes all-round, five-speed gearbox and low-spec interior. 1972 - 914-6 dropped due to poor sales. 1973 - 2.0-litre engine becomes an option. 1974 - Bore increase raises displacement to 1795cc.

MODEL	MODEL	WEIGHT	ENGINE	HP	TORQUE	0-62	TOP SPEED	
	YEAR	kg	CC		(lb ft)		(mph)	
914 1.7	1970 to '73	970	1679	76	96	13	108	
914 1.8	1974 to '76	970	1795	72	99	12	110	
914 2.0	1973 to '76	970	1971	95	105	10.5	115	
914/6	1970 to '72	940	1991	110	115	8.2	119	

924 (1977 – 1988)

924 Wheelbase (mm): 2400; Length/Width (mm): 4213/1676; Track front/rear (mm) 1418/1372; Significant developments: Four-cylinder engine, four-speed transaxle gearbox, front MacPherson struts and rear semi-trailing arm suspension, four-stud 5.5x14-inch steel wheels and floating callipers. VW/Audi threespeed auto assembly but with ratios specific to the 924; 1977: Getrag five-speed dog-leg gearbox optional. Rubbing strips added. Martini 924 SE launched; 1978: Bodyshell now hot-dipped zinc-coated. Oval tailpipe introduced; 1979: Separate air blowers improve ventilation; 1980: Five-speed Audi-derived gearbox introduced. Fuel tank capacity raised to 66-litres, second fuel pump fitted. Le Mans SE model offered; 1981: Carrera GT introduced. Kurzhals fuel pump introduced. 50th Jubilee SE model offered; 1982: Carrera GTS introduced. Limited-slip diff an option. Torque converter uprated on auto 'box. Ventilation system upgraded. 911 three-spoke steering wheel now standard; 1983: Turbo's spoiler becomes standard. Front anti-roll bar uprated to 21mm; 1984: 924 gets 944 tilt-slide roof mechanism; 1985: 924 replaced by 924S; 1986: 924S arrives in UK. 2.5-litre engine shared with 944 (as are gearbox, brakes and suspension) but de-tuned; 1987: Rear axle strengthened; 1988: 924 gets 944 engines. Power steering standard. Le Mans SE launched.

MODEL	MODEL	WEIGHT	ENGINE	Нр	TORQUE	0-62	TOP SPEED	
	YEAR	kg	CC		(lb ft)		(mph)	
924	1976 to '78	1080	1984	125	122	9.9	125	
924	1979 to '85	1130	1984	125	122	9.9	125	
924 Turbo	1979 to '81	1180	1984	170	181	7.8	140	
924 Turbo	1982 to '84	1180	1984	177	185	7.7	140	
Carrera GT	1981	1180	1984	210	203	6.9	150	
Carrera GTS	1982	1121	1984	245	247	6.2	155	
924S	1986 to '87	1190	2479	150	144	8.5	134	
924S	1988	1195	2479	160	158	8.2	137	

928 (1978 – 1995)

928 Wheelbase (mm): 2500; Length/Width (mm): 4524/1835; Track front/rear (mm): 1551mm -1552/1530 -1529mm. Significant developments: 1978: 90° V8, five-speed, rear-wheel drive, independent A arms at front, trailing arms at rear, discs all-round, automatic available, luxury interior 1983: Regular 928 and 'S' models replaced with by 928 S2 model; 1987: S4 introduced with 5.0-litre V8 and 316hp; 1989: 928GT loses 44 kilos and gains 14hp. 0-60mph drops below 6.0 seconds; 1993: Final 928 GTS sees V8's capacity grow to 5.4-litres and 350hp.

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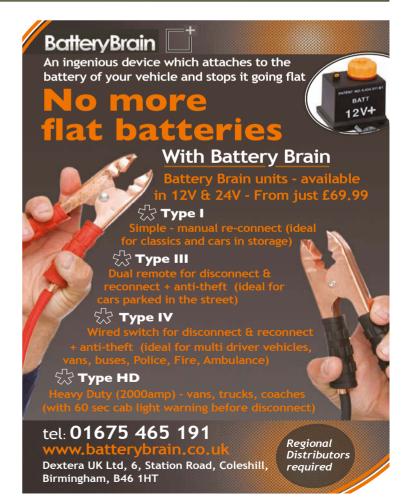
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928: 1978 – 1995

Two-door, two+two Coupé, front-engined, water-cooled V8. Built to succeed the 911, 928 went head-to-head with Jaguar's XJS and Mercedes' SL. V8 engine offered stonking performance and grew to a mighty 5.4-litres and a heady 360hp before stepping aside to allow the 911 to continue its success story. Auto 'box most popular choice, although a manual is the one to go for, and both choices offer intergalactic cruising ability. Dynamically as sharp as any Porsche, the 928's popularity is not without foundation.



944: 1983 — 1991

Two-door, two+two Coupé and Convertible, front-engined, water-cooled. NA and turbocharged. The 944 was an unprecedented success, breaking all sales records and keeping Porsche afloat during the 1980s. The 924's body and turbo suspension formed the basis, but the 944 felt better. Turbo models offer good combination of performance and ability, although the last of the line 16-valve S2 models are probably the better option. If your budget doesn't stretch that far a good 2.7 will do. Cabriolet had sleek looks with Coupé's performance, though loss of rigidity takes shine off the driving experience. Considered to be the perfect introduction to Porsche ownership.



Two-door, two+two Coupé, flat-six, twin-turbocharged water/air-cooled flat-six. 197mph, 4WD, supercar. Based (lightly) around the 911, the 959 was Porsche's homologation special for Group B rallying. A technical tour de force for its time, the 959 boasted all-wheel drive with active torque split-drive, selectable traction settings (dry, wet and snow conditions), electronically-adjustable ride height and damper control, water-cooled cylinder heads and multistage turbocharging, and a 911 evolved composite body providing 'zero-lift'. All 283 959s built cost Porsche more than double the price the customer was as asked to pay



968: 1992 — 1995
Two-door, two+two Coupé and Cabriolet, front-engined, water-cooled. Porsche's last attempt at a front-engined Coupé resulted in its best effort to date. What the 944 derived 3.0-litre four-cylinder engine lacked in character, its chassis — especially in Club Sport spec — soon made up for. Regular car not as sharp as bare-to-the-bone Club Sport or semi-stripped Sport, but all offer one of the best front-engined/rear-drive experiences. Convertible lacks dynamics and looks a little frumpy, while limited edition Turbo S offer 911 levels of performance. Comparatively cheap to buy and run, 968 is one the safest Porsche ownership experiences.

MODEL	MODEL	WEIGHT	ENGINE	Нр	TORQUE	0-62	TOP SPEED	
	YEAR	kg	CC		(lb ft)	0-60*	(mph)	
928	1978 to '82	1490	4474	240	268	7.5*	142	
928 S	1980 to '82	1530	4664	300	284	6.8	146	
928 S2	1983 to '86	1589	4664	310	295	6.5*	155	
928 S4	1987 to '92	1600	4957	316	317	6.0	165	
928 GT	1989 to '91	1566	4957	330	317	5.6	165	
928 GTS	1992 to '95	1600	5397	350	362	5.2	169	

944 (1983 – 1991)

944 Wheelbase (mm): 2400, Length/Width (mm): 4213/1735. Track front/rear (mm): 1472/1451; Significant developments: Body based on the 924 Turbo, as was suspension, but used 2497cc engine. Brakes from the 924 Carrera GT; 1985: New dash, power steering becomes standard. RHD models have left parking wipers. Transmission casing revised. Cast alloy lower wishbones and semi-trailing rear arms standard; 1986: Turbo launched with 2.5-litre engine, gas-filled shocks, anti-roll bars and four-pot brakes. Power steering standard, redesigned interior; 1987: LSD revised, ABS, driver and passenger airbags optional. 944 S 16-valve used gearbox and driveshafts from Turbo; 1988: Turbo SE offered with uprated engine, 7- and 9x16-inch alloys. 944's engine capacity increased to 2.7-litres with larger bore, new block. Celebration SE offered; 1989: 944 gets ABS as standard, discontinued at end of model year. Turbo gets Turbo S engine and new rear spoiler. S2 production begins in Jan 1989, Cab in July; **1990:** S2 Cabrio launched (70kg heavier than Coupé); 1991: Turbo Cab launched, airbags standard on European Turbo models.

MODEL	MODEL YEAR	WEIGHT kg	ENGINE cc	Нр	TORQUE (lb ft)	0-62	TOP SPEED (mph)	
944	1982 to '87	1180	2497	163	151	8.4	131	
944	1988 to '89	1260	2681	165	166	8.4	136	
944 S	1987 to '88	1280	2497	190	170	7.9	142	
944 S2	1989 to '91	1310	2990	211	207	6.9	149	
944 Turbo	1985 to '88	1350	2497	220	243	6.3	152	
944 Turbo	1989 to '91	1350	2497	250	258	5.9	162	
944 Turbo S	1988	1350	2497	250	258	5.7	162	

959 (1988)

959 - Wheelbase (mm): 2272 - Length/Width (mm): 4260/1840 - Significant developments: Air-cooled six-cylinder engine, liquid-cooled heads, four-valves per cylinder, twin turbocharged. All-wheel drive, six-speed qearbox, active split-driver, double wishbone suspension front and rear with adjustable ride height. Aluminium and composite body panels, four shocks per 17-inch wheel, 322 and 308mm discs front/rear. Adjustable ride height and dampers.

MODEL	MODEL	WEIGHT	ENGINE	Нр	TORQUE	0-62	TOP SPEED	
	YEAR	kg	CC		(lb ft)		(mph)	
959	1988	1451	2847	450	370	3.7	197	

968 (1992 – 1995)

968 - Wheelbase (mm): 2400, Length/Width (mm): 4320/1735, Track front/rear (mm): 1477/1451 (1457/1445 with 17" wheels) - Significant developments: 3.0-litre four-cylinder S2-derived engine, S2 suspension, four-pot fixed callipers, ABS and 7- and 8x16-inch alloys; 1993: Lower spec and stripped down Club Sport launched with 7.5x17-inch alloys (front) and 9x17-inch (rear), no driver's airbag and all 'unnecessary' equipment (electric windows, sunroof etc) removed. Turbo S launched with 8-valve Turbo head and 305hp. Similar spec to CS; 1994: 968 Sport introduced with same chassis tweaks as Club Sport but with a number of creature comforts (and weight) reinstated. Standard 968 dropped from line-up, Sport and Club Sport continue for a further 12 months.

MODEL	MODEL	WEIGHT	ENGINE	Нр	TORQUE	0-62	TOP SPEED	
	YEAR	kg	CC		(lb ft)		(mph)	
968	1992 -1994	1370	2990	240	225	6.5	156	
968 Sport	1994 -1995	1400	2990	240	225	6.5	156	
968 Club Sport	1993 -1995	1320	2990	240	225	6.3	160	
968 Turbo S	1993 -1994	1300	2990	305	369	5.0	175	

Boxster 986 (1997 - 2004); 987 (2005 - 2009; 2009 -2013); 981 (2013 –2015)

BOXSTER – Wheelbase (mm): 2400, Length/Width (mm): 4133/1740 Track front/rear (mm): 1465/1528 ('96-'03), 1455/1514 (03-04) - Significant developments: Introduced in 1997 with 2.5 'boxer' engine, fivespeed manual transmission, four-pot callipers front and rear, ABS, dual and side airbags; 1999: Boxster S launched with 3.2-litre version of boxer engine and six-speed gearbox. White dials, titanium-trimmed windows and twin-centre exit exhaust pipes and larger 17-inch alloy wheels only exterior change to distinguish 'S' from standard model. Entry-level Boxster's engine capacity raised from 2.5- to 2.7-litres, resulting in healthy power hike to 220hp. Both models available with five-speed Tiptronic gearbox; 2003: Boxster's first face-lift. Both 2.7 and 3.2S models gain extra 8hp, raising power to 228hp and 252 respectively. S's torque also up by 3lb ft. Front and rear bumpers are new, and the air intakes are improved for both aerodynamics and cooling. New retractable rear spoiler also fitted. Clear indicators, upgraded interiors (cup holders), sportier exhaust note and lighter alloy wheels help differentiate the new from the old.

MODEL	MODEL	WEIGHT	ENGINE	Нр	TORQUE	0-62	TOP SPEED	
	YEAR	kg	CC		(lb ft)		(mph)	
Boxster 2.5	1997 to '99	1260	2480	205	180	7.0	155	
Boxster 2.7	1999 to '02	1260	2687	220	192	6.6	156	
Boxster S	1999 to '02	1295	3197	252	225	5.9	161	
Boxster 2.7	2003 to '04	1275	2687	228	192	6.4	157	
Royster S	2003 to '04	1295	3179	260	228	5.7	164	





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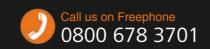
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(986):

BOXSTER (987): 2005 — 2012

Two-door, mid-engined, six-cylinder convertible. The saviour of Porsche after the recession-hit '90s, the Boxster offered true entry-level Porsche ownership. 911-esque looks drew criticism from press (and 911 owners!), but sublime chassis and instant responses more than made up for this. Early straight-line performance worries of original cars now totally forgotten thanks to 2.7 and 3.2 S engines. Boxster S is now serious contender for the only Porsche you'll ever need. Superb chassis dynamics provides Boxster with serious point-to-point ability and rewards are purer for some than current 911s. Image not the strongest, but crucially Boxster stimulates all the right senses and is a real mini-911 with down-to-earth running costs. Eight years after the first car's launch a heavily revised Boxster arrived. Both the 2.7 and 3.2 S feature slightly improved straight-line performance and a new exterior, but the real step forward is in cabin quality, which now mimics the 997's for layout and quality.

With the old Boxster still at the top of the roadster pack, Porsche needed to do little to the driving dynamics to keep the new model fresh. However, like it did with the 997, Porsche has achieved the impossible and made an almost perfect car even greater. S receives Cayman S's 3.4 engine, 2.7 gets 5hp boost.

2010 saw the introduction of the lightest Porsche road car: the Boxster Spyder. Weighing 80kg less than the Boxster S on which it is based it's been on a extreme diet. The electronic hood is replaced by a canvas rain cover saving 21kg. The doors and front luggage lid are aluminium and the interior has been comprehensively stripped with no radio, aircon, cup holders, door pulls and door bins. Even the wheels are lighter. The Boxster was already a dynamic masterpiece, but the Spyder takes things to the next level. Replacing the original Boxster was never going to be an easy task, but in the 981 it appears Porsche managed to do just that.



BOXSTER 981: 2012 —
Two-door, two-seat, mid-engined roadster. 2.7 or 3.4-litre water-cooled flat-six, rear-wheel drive, six-speed manual gearbox fitted as standard, seven—speed PDK double-clutch gearbox available as an option. How do you improve on perfection? In the Boxster's case we're not sure how but we're sure glad they had a go. What, on paper at least, looks like a collection of individual improvements and upgrades amount to a finished product that is one of Porsche's very best road cars.

The Boxster has always been inherently right and in the 981 Porsche improved on its mid-engined dynamics further

981 Porsche improved on its mid-engined dynamics further still allowing you to maximise the performance on offer from either of its flat-six engines. That it also looks more honed and aggressive, has a far greater quality interior and now comes equipped as standard with those little bits of kit that should have always been so, makes for one of the best sports car packages you can buy.

sports car packages you can buy.

The 2.7 needs enthusiasm to extract the most from it and if it was our money we'd go for a 3.4S straight-out-the-box with only a slippy diff the essential extra to take full advantage of the car's sublime chassis.

BOXSTER 987 (2005MY -) Wheelbase (mm): 2415, Length/Width (mm): 4315/1780. Track front/rear (mm): 1490/1534 (2.7), 1486/1528 (3.2S) - Significant developments: 2005: 2.7 and S launched with subtly revamped exterior and new interior. 2.7 gains 12hp over old model, while 3.2-litre ups power by 20hp. Torque is also increased in both cars. PCCB, PASM and Sport Chrono pack are optional extras, variable ratio steering rack standard; **2006:** 2007 Model Year – VarioCam Plus engines from the Cayman and Cayman S replace existing engines; power up to 245hp and 295hp respectively, revised Tiptronic S software; 2009: 2009 Model Year - All-new flat-six engines: 255hp 2.9-litre is new entry model, 310hp 3.4-litre motor with direct-fuel injection for the S. Six-speed manual gearbox standard, seven-speed PDK optional. Limited-slip differential, touchscreen sat-nav and Bluetooth phone are all optional extras. Both models get new front and rear bumpers. 2010: The lightest production Porsche money can buy goes on-sale in the form of the Boxster Spyder. Electric folding roof is replaced with a Lotus Elise style canvas rag, there's a new engine cover, aluminium doors and front luggage compartment lid and the radio, sat-nav and air-con have all been ditched. The standard seats are hip hugging sport bucket items and the doorcards and door pulls are inspired by the 911 GT3 RS. There is even a set of lighter alloy wheels and the ECU map from the Cayman S to extract a further 10hp from the 3.4-litre motor. Six-speed manual is standard, PDK optional with Sport Chrono Plus and Launch Control Porsche claim a 4.8-second 0-62mph time.

MODEL	MODEL	WEIGHT	ENGINE	Нр	TORQUE	0-62	TOP SPEED	
	YEAR	kg	CC		(lb ft)	0-60*	(mph)	
Boxster 2.7	2005 to '07	1295	2687	240	200	6.2	160	
Boxster 3.2S	2005 to '07	1345	3179	280	237	5.5	168	
Boxster 2.7	2007 to '09	1295	2687	245	201	6.1	160	
Boxster 3.4S	2007 to '09	1345	3386	295	251	5.4	169	
Boxster 2.9	2009 to '12	1335	2893	255	214	5.9	163	
Boxster 3.4S	2009 to '12	1355	3436	310	265	5.3	170	
Boxster Spyder	2010 to '12	1275	3436	320	273	5.1	166	

BOXSTER 981 (2012MY -) Wheelbase (mm): 2475, Length/Width (mm): 4374/1801. Track front/rear (mm): 1526/1536 (2.7), 1526/1540 (3.4S) - Significant developments: 2012: Just like the 911 the Boxster came in for a major overhaul in 2012, its first since the original was launched in 1996. A longer wheelbase, lighter, wider track and cleaner, more efficient engines the Boxster had grown into a true thoroughbred. The range now started with a 265hp 2.7-litre engined Boxster, fitted with a six-speed manual as standard or available with the optional seven-speed PDK (which adds 30kg to the kerbweight). The Boxster came with the same transmission options but was powered by a 315hp 3.4-litre engine. PASM is optional on both models, so too are dynamic engine mounts and Porsche Torque Vectoring which also includes a mechanical locking differential. Electromechanical power steering is standard. Wheels sizes range from 18 through to 20s, and the brakes are more powerful, the S borrowing its discs and callipers from the 991 Carrera. An electric parking brake is now standard, PCB still optional. The 981 wears a completely new body and new roof and the interior takes its styling cues from the 991. 2015: Boxster Spyder arrives. Reminiscent of its 987 forebear, the 981 Spyder is a topless GT4 without the input of Weissach: 3.8 911 power, 30kgs lighter than the Boxster GTS, manual only like GT4 - no PDK, 911 Carrera brakes, 918-style steering wheel and seats. Bereft of a radio or air-conditioning system, these can be reinstated at no cost. £15,000 dearer than the old Spyder, but it's the most radical Boxster we've ever seen. At only £4000 cheaper than the GT4, a proper Porsche Motorsport model, though it's only for the hardcore wind-in-the-hair aficionados.

MODEL	MODEL	WEIGHT	ENGINE	Нр	TORQUE	0-62	TOP SPEED	
	YEAR	kg	CC		(lb ft)		(mph)	
Boxster 2.7	2012 -	1310	2706	265	206	5.8	164	
Boxster 3.4S	2012 -	1320	3436	315	265	5.1	173	
Boxster Spyder	2015	1315	3800	375	TBC	4.5	TBC	

Cayman 987 (2005 - 2009; 2009 - 2013), 981 (2013 -)

Cayman S - Wheelbase (mm): 2415, Length/Width (mm): 4315/1801, Track front/rear (mm): 1490/1534 (Cayman), 1486/1528 (Cayman S); 2006 – 3.4-litre water-cooled flat-six is enlarged Boxster S engine with 997 Carrera 2 internals producing 15hp and 14lb ft of torque over the mid-engined roadster. Six-speed manual gearbox is standard with first and second ratios shorter than those found in the Boxster S. Tiptronic S optional, variable rate steering also carried over from Boxster and Carrera models. Boxster S brakes standard fitment, but PCCB optional as is Porsche Active Suspension Management (PASM) and Sports Chrono pack. Body is 100 per cent stiffer than Boxster S, and is as stiff as a 997 Carrera 2 Coupé, Porsche Stability Management (PSM) comes as standard; 2006: 2007 Model Year – Entry-level Porsche coupé receives 2.7-litre flat-six engine fitted with VarioCam Plus technology. Five-speed manual gearbox standard, six-speed manual and five-speed Tiptronic S available as option. Steel springs and gas dampers standard, PASM optional; 2009: 2009 Model Year - All-new flat-six engines with 265hp 2.9 replacing 2.7 engine, with a new 320hp 3.4-litre motor for the S, which also comes with direct-fuel injection as standard. Six-speed manual gearbox standard with seven-speed double clutch PDK an option. Optional limited-slip differential turns it into a genuine 911 alternative. Mild redesign includes new bumpers and head and tail-lamps. PCM3 is available with touchscreen sat-nav and Bluetooth phone capability. 2011: 2011 Model Year - Cayman R introduced; lighter more powerful version of Cayman S with 330hp and 1295kg kerb weight. Aluminium doors and front bonnet, 19-inch wheels and an Alcantara sport interior. First R model in 43 years. Series production car.

MODEL	MODEL YEAR	WEIGHT (kg)) ENGINE (cc)	BHP	TORQUE (lb ft)	0-62	Max Mph	
Cayman S	2005 – '09	1340	3386	295	251	5.4	171	
Cayman 2.7	2007 – '09	1300	2687	245	201	6.1	162	
Cayman 2.9	2009 – '12	1330	2893	265	221	5.8	164	
Cayman S	2009 – '12	1350	3436	320	273	4.9	171	
Cayman R	2011 –′12	1295	3436	330	273	5.0*	175	

*manufacturer's claim

Cayman 981 - Wheelbase (mm): 2475, Length/Width (mm): 4380/1801, Track front/rear (mm): 1526/1536 (Cayman), 1526/1540 (Cayman S); **2013** – 275hp, 2.7-litre and 325hp 3.4-litre DFI flat-six engines. Six-speed manual gearbox standard, seven-speed PDK optional (adds 30kg). New, lighter body and longer wheelbase; electromechanical power steering standard. PASM, Porsche Torque Vectoring and





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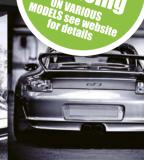
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CAYMAN 987: 2005 — 2013
Two-door, mid-engined, six-cylinder coupé. Its near perfect weight distribution and mid-engined dynamic stability make the Cayman one of the finest drivers' cars ever made. This is something Porsche is acutely aware of, hence the model is not available with a limited-slip differential and, until further notice, we will only see smaller-engined variants of the Cayman to avoid any deflection for the company's headline sports car.

At the end of 2010 Porsche announced the Cayman R at the LA Auto Show. Following a similar development programme as the Boxster Spyder, the Cayman S. Power is up 10hp to 330hp, and the kerb weight drops 55kg to 1295kg. Aluminium for the bonnet and doors and a stripped interior and a smaller fuel tank are all contributing factors to the weight loss.



CAYMAN 981: 2013 –
Two-door, mid-engined, six-cylinder coupé. Like its Boxster sibling the Cayman underwent a thorough overhaul in 2012, which must have been a thankless task for the engineers as the outgoing 987 was deemed one of the best sports cars money could buy.

Once again, though, Porsche's engineers came up trumps and produced a truly sensational car. Still sharing much with the Boxster — wheelbase, engines, gearbox, suspension and steering — the Cayman was finally let of its leash and allowed to show us just what it is capable of. Alert, precise, involving and dynamically astute, the 981 Cayman is one of the purest drivers cars and greatest sports cars to have come out of Stuttgart. It really is that good.

The 2.7-litre car needs working hard to maximise its performance, but the 3.4S is honey sweet providing the perfect blend of performance with precision to make it one of the quickest cross-country cars you can buy. The manual is still the slick six-speed car carried over from the 987 and is still the default option. Even the electric power steering doesn't seem to effect the Cayman like it does the Boxster and Carrera models. Porsche perfection? Possibly.



CAYENNE: 2014 —
Five-door, front-engined SUV. The changes are subtle for this, the fourth generation Cayenne ahead of the arrival of a completely new model expected in 2017. Five models were made available at launch, very much continuing where the previous version left off: S, Turbo, Diesel, Diesel S, and S E-Hybrid. They now have more power and torque, lower fuel consumption, sharper and cleaner exterior design and increased levels of interior comfort. Visual changes primarily comprise a longer aluminium bonnet, shapelier headlights (now incorporating the daytime running lights in a similar fashion to the Macan) and revised rear styling to match. Adaptive cooling vanes hidden in the front bumpers of the

mechanical locking diff all optional as is the Sport Chrono pack and launch control and a sports exhaust. 18-20-inch wheels available, brakes carried over from the Boxster, including 991 Carrera stoppers for the Cayman S, PCCB optional. New interior as per 981 Boxster making the Cayman a serious alternative to a 911. As with all modern Porsches it is very spec sensitive and in our experience less always amounts to more. 2014: Cayman GTS arrives and finally moves the Cayman story on. 3.6-litre flat-six produces 340hp with 280lb ft torque. The heaviest Cayman to date (1345) is offset by the additional power, the package has been tailored to provide the best possible driving experience. PASM and Sport Chrono with Dynamic Engine Mounts come as standard. Standard GTS alloy wheels are 8 (front) and 9.5 (rear) x20-inch Carrera S rims. A no cost option is Sports suspension lowering the car by -20mm. The one to have. **2015:** The Cayman we'd all been waiting for. 991 Carrera S 3.8-litre flat six, GT3 aluminium suspension and chassis parts, PTV, PSM fitted as standard. Only available with a six-speed manual qearbox, shade lighter than the GTS (1340kg) but the rest of the figures don't do it justice. The 385hp figure is conservative, it feels quicker, 310lb ft toque equate to a 0-62 time 0.2seconds quicker than the GTS. Six-piston calipers (front), four-piston calipers (rear), ventilated discs or optional PCCB. A cut price GT3 and finally a Cayman to give the 911 a run for its money.

MODEL	MODEL YEAR	WEIGHT (kg)	ENGINE (cc)	BHP	TORQUE (lb ft)	0-62*	Max Mph	
Cayman 2.7	2013 -	1310	2706	275	213	5.7	165	
Cayman 3.4S	2013 -	1320	3436	325	272	5.0	175	
Cayman GTS	2014 -	1345	3436	340	280	4.6	177	
Cayman GT4	2015-	1340b	3800	385	310	4.4	183	

*manufacturer's claim

Cayenne (2003 - '07; 2007 - '10; 2010-'13; 2014-)

Cayenne – Wheelbase (mm): 2855, length/width (mm): 4782 (4786 Turbo)/1928, track front/rear (mm): 1655 - 1641/1670 - 1656 (17-20-inch wheels); Introduced in 2003 with choice of normally-aspirated or twin-turbocharged 4.5-litre V8. Six-speed manual gearbox for five- and six-speed Tiptronic S for Turbo (optional on S). Porsche Active Suspension Management (PASM), adjustable ride height, electronic damper control, differential locks, six-pot callipers, 18-inch alloys standard, 19-

and 20-inch optional. Porsche Traction Management, PSM, ABS, ABD and ASR all standard; 2004: Entry-level Cayenne is the first Porsche to sport V6 power. 24-valve engine produces 250hp and 228lb ft, transmitted through a six-speed manual transmission. Steel springs standard, PASM and air suspension optional. V6 is also fitted with smaller brakes; 2006: 2006 Model Year – Cayenne Turbo S gains an extra 72hp, 0-62mph in 5.2 seconds, 167mph and 2355 kilos; 2007: 2007 Model Year – Second generation Cayenne: V6, V8 S and Turbo all get direct fuel injection engines to improve performance, economy and emissions, while face-lift improves the looks. Porsche Dynamic Chassis Control active anti-roll bars available on cars with PASM; 2007: 2008 Model Year - GTS model introduced. Combines Turbo looks with V8 S running gear. Shorter ratios in both manual and Tiptronic gearbox fitted. Turbo brakes standard. New Turbo S model announced. Power up to 550hp, torque to 553lb ft, 174mph and a 0-60mph in 4.3 seconds; 2009 Model Year - Porsche does the dirty and introduces a Cayenne diesel. Three-litre Audi sourced V6 is available in entry-level trim only but comes with six-speed Tiptronic S as standard. 100-litre fuel tank capacity provides over 600 mile range and 30mpg. **2010 Cayenne –** Wheelbase (mm): 2895, length/width (mm): 4846/1939, track front/rear: 1655 (1643 Turbo)/1669 (1657 Turbo); Introduced in 2010 this is the first all-new Cayenne since the original. Bigger in every dimension the new Cayenne's design does an amazing job of disguising the car's larger dimensions and its natural bulk. Engine range is carried over from the previous model but now includes Porsche's very first Hybrid powered vehicle with the Hybrid Drive model which sees a 3.0 supercharged V6 working in parallel with a 47hp electric motor. All but the entry level Cayenne V6 petrol are equipped with a new eight-speed Tiptronic automatic gearbox (the V6 gets a six-speed manual as standard). Porsche has also done away with the original Cayenne's heavy duty four-wheel drive system, replacing the low ratio gearbox with the latest development of Porsche Traction Management with the enhanced electronics of the new Tiptronic S transmission. Diesel and Hybrid models get permanent all-wheel drive, while the others get an active system. PASM, PDCC and PCCB are all optional extra. All Cayenne's also get a new interior based on the design first seen in the Panamera and provides a higher level of quality and refinement that was missing in the outgoing model. 2012: The line-up grows with the introduction of the GTS. Fitted with the same 4.8-litre V8 as the Cayenne S, the GTS engine receives a host of modifications and upgrade that push power to 420hp and torque to 380lb (up 20hp and 11lb ft respectively). Eight-speed Tiptronic S is the only gearbox fitted and the chassis combines steel springs with PASM. Air suspension is an option. The GTS rides 24mm lower than an S, has a wider front and rear track and 20-inch wheels are standard. Front bumper and lights are from the Cayenne Turbo, there is a new lower lip spoiler, side skirts and a bi-plane rear wing. The windows are framed with a black gloss trim. Leather and Alcantara trims the interior. 2013: Two new Cayenne's for the 2013 model year: the S Diesel and the Turbo S. The latter is a bell-and whistles Turbo with the boost wound up and the power increased 50hp to 550hp. Two-tone leather options are standard as is a host of standard equipment that is optional on the Turbo. The S Diesel takes a twin-turbo charged 4.8-litre Audi V8 diesel and creates the best Cayenne we've sampled. The spec is the same as the petrol engined S, but with enough torque to tear-up the book of torque cliches. 2014: Fourth generation Cayenne offers five models at launch continuing where the previous version left off: S, Turbo, Diesel, Diesel S, and S E-Hybrid. More power and torque, lower fuel consumption, sharper and cleaner exterior design and increased levels of interior comfort. Longer aluminium bonnet, headlights incorporate DRL, new 918-style steering wheel. 3.6-litre biturbo replaces V8 petrol engine, it's the same unit found in Macan (420hp and 550Nm torque). S E-Hybrid uses the same drivetrain as Panamera S E-Hybrid, although there are differences - chiefly the batteries which are now more optismised for greater performance.

MODEL	MODEL YEAR	WEIGHT (kg)	ENGINE (cc)	BHP	TORQUE (lb ft)	0-62/60*	MAX MPH	
Cayenne S	2003 to '06	2245	4511	340	310	7.2	150	
Cayenne Turbo	2003 to '06	2355	4511	450	457	5.6	165	
Cayenne	2004 to '06	2160	3189	250	228	9.1	133	
Cayenne Turbo S	2006 to '07	2355	4511	521	531	5.2	167	
Cayenne	2007 to '10	2160	3598	290	283	8.1	141	
Cayenne S	2007 to '10	2225	4806	385	369	6.5*	156	
Cayenne Turbo	2007 to '10	2355	4806	500	516	5.0*	171	
Cayenne GTS	2007 to '10	2225	4806	405	369	6.1	157	
Cayenne Turbo S	2008 to '10	2355	4806	550	553	4.0	174	

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new Cayenne are akin to those used on the 918 Spyder, as is the rollerball-style steering wheel, much like Macan. The biggest news is that the old petrol V8 has been replaced with a 3.6-litre biturbo petrol engine — part of Porsche's downsizing practices. It's the same unit we've seen in the Macan, and with 420hp and 550Nm torque on paper the new Cayenne offers greater performance than its eight-cylinder forebear. But, if you're talking about a petrol Cayenne then it's really all about the Turbo. In the Turbo we get the 4.8-litre bi-turbo V8 engine putting out 520hp with 750Nm of torque; it's fast and capable.

The Diesel and Diesel S should be the best-selling Cayenne models for Porsche in the UK. The Diesel model makes use of the three-litre V6 coupled to the eight-speed Tiptronic. We expect that this will be the more popular choice in the UK, but the Diesel S really is brilliant and worthy of serious consideration despite being an older engine (the only engine which is not Euro 6 compliant) and commanding an £11,572 price premium over the £49,902 for the Cayenne Diesel. The power delivery is refined and almost like a petrol car, arriving low down. What's interesting is that the Diesel S is almost as quick as the Turbo, over £30,000 cheaper, and it's more economical. The first plug-in Hybrid vehicle in the premium SUV segment, the S E-Hybrid uses the same drivetrain as the Panamera S E-Hybrid, although there are differences — chiefly the batteries. Driving requires an altogether new mindset. At £61,434 it's almost exactly the same price as the Diesel S — choosing between them is a question of priorities.



CARRERA GT: 2003 – 2006

Two-door, mid-engined, V10 Roadster. Still born Le Mans racer evolves into the greatest supercar every built. Carbonfibre tub, 612hp V10, 205mph maximum and a birch wood gear knob. Perfection!



PANAMERA: 2009

PANAMERA: 2009 — 2013

Five-door, front-engined, rear-and four-wheel drive saloon-coupé; normally aspirate, turbocharged and supercharged V6 and V8 petrol, diesel and hybrid engines, six-speed manual and seven-speed PDK transmission. The last new Porsche to be launched while Dr. Wendelin Weideking was running the company, the Panamera is Porsche's fourth model line and, according to the company, a car that creates a new class. Powered by either a normally aspirated 4.8-litre V8 or a twin-turbo charged version of the same engine, Panamera is available in rear-wheel drive 'S' guise with a six-speed manual gearbox, or an all-wheel drive 4S or Turbo (both only available with the 7-speed PDK gearbox, which is also an option for the S).

3.6-litre V6 engine added to the line-up in 2010 with rear and four-wheel drive options. Rear-drive model gets six-speed manual as standard, Panamera 4 the seven-speed PDK and PASM suspension. V6 offer all the luxury and comfort of the V8 models. Only a four-seater, the Panamera's interior is the most striking Porsche has designed for decades, and as you'd expect of such a car there is very little in terms of luxury or convenience that has been omitted from the specification or options list.

Panamera range is extended further with the cracking diesel model in 2011, along with the S Hybrid and slightly bonkers Turbo S. The former two are rear-wheel drive only

Cayenne Diesel	2009 to '10	2240	2967	240	405	8.3	133	
Cayenne	2010 – '13	1995	3598	300	295	7.5	143	
Cayenne Diesel	2010 - '13	2100	2967	240	405	7.8	135	
Cayenne S	2010 - '13	2065	4806	400	369	5.9	160	
Cayenne S Hybrid	2010 - '13	2240	2995	380¹	4271	6.5	150	
Cayenne Turbo	2010 - '13	2170	4806	500	516	4.7	172	
Cayenne GTS	2012 - '13	2085	4806	420	379	5.7	162	
Cayenne Turbo S	2013 - '13	2215	4806	550	553	4.5	175	
Cayenne S Diesel	2013 - '13	2195	4134	382	627	5.7	156	
Cayenne	2014 -	2040	3598	300	295	7.7	143	
Cayenne Diesel	2014 -	2110	2967	262	427	7.3	137	
Cayenne S	2014 -	2085	3604	420	405	5.5	160	
Cayenne S Diesel	2014 -	2215	4134	385	626	5.4	156	
Cayenne S E-Hybrid	2014 -	2350	2995	416	324	5.9	150	
Cayenne GTS	2014 -	2110	3604	440	442	5.2	163	
Cayenne Turbo	2014 -	2185	4806	520	553	4.5	173	
Cayenne Turbo S	2014 -	2235	4806	570	590	4.1	176	
1 when combined with electric motor.	* 0-60 mph time							

Porsche Carrera GT (2003 – 2006)

Carrera GT – Wheelbase (mm): 2730, Length/Width (mm): 4613/1921, Track front/rear (mm): 1612/1587 Significant developments: All alloy, 40-valve V10 with titanium conrods, nickel/silicone liners, dry sump lubrication and VarioCam, rewing to 8400rpm. Rear-wheel drive with six-speed manual gearbox. Carbon fibre monocoque with steel crash structures and carbon fibre bodywork. Double wishbone pushrod axles from and rear, 19-inch magnesium alloy wheels, 380mm ceramic composite discs front and rear with six-pot callipers. Built at Leipzig plant in Berlin, in left-hand drive only, over 1260 examples were built between November 2003 and May 2006.

MODEL	MODEL YEAR	WEIGHT (kg)	ENGINE (cc)	BHP	TORQUE (lb ft)	0-62	MAX MPH	
Carrera GT	2003 to '06	1380	5733	612	435	3.9	205	

Panamera: 2009 - 2013: 2014 - To Date

Panamera S, 4S, Turbo - Wheelbase (mm): 2920, Length/Width/Height (mm): 4970/1931/1418, Track front/rear (mm): 1658/1662 (1656/1646 Turbo); 2009 - 2010MY 400hp 4.8-litre water-cooled eightcylinder engine or 500hp 4.8-litre water-cooled twin-turbocharged eight-cylinder engine, DFI and VarioCam Plus with adjustable valve lift; six-speed manual gearbox and rear-wheel drive for S model, seven-speed PDK optional; 4S and Turbo models feature electronically controlled four-wheel drive transmission with PTM and PDK fitted as standard along with Auto Stop-Start. Engines are adapted from Cayenne, PDK transmission is unique to Panamera and differs from the unit in the company's sports cars. Double-wishbone front suspension, multi-link at the rear with PASM standard on all models, self-levelling adaptive air-suspension standard on Turbo. PSM comes as standard featuring: ABS brakes; ASR anti-slip control; MSR engine drag force control; ABD automatic brake differential; Brake Assistant; and a pre-filling of the brake system. PDCC and PCCB optional on all models. 18-inch wheels standard on S and 4S, 19-inch on Turbo; Variable rate steering standard, speed sensitive Servotronic steering optional. All models feature adaptive aerodynamics, with the S and 4S models utilising a two-way spoiler and the Turbo a four-way item. 4S and Turbo get 100-litre fuel tanks, the S has a 80-litre tank. Four individual seats for interior. Eight airbags fitted as standard; bi-xenon headlights standard across the range, adaptive light function for Turbo. Radar-based distance cruise control, four-zone air-conditioning, Porsche Entry & Drive (standard on Turbo) and Burmester High-End Sound system all feature on the options list. Sports Chrono Package Plus also optional and when combined with PDK offers Launch Control function. 2010 - 2010MY The first non-V8 engined Panamera arrives in the form of the 3.6litre V6 petrol model. Panamera V6 . is available a rear or four-wheel drive, the former available with either a six-speed manual or optional seven-speed PDK, the later is PDK only. Engine produced 300hp and 295 lb ft of torque. Standard specification is the same as a V8 engined S model, except for a tyre pressure monitoring system and a PASM suspension, which are optional. 2011 - 2012MY The Panamera Diesel arrives. 3.0-litre V6 turbocharged engine is donated by Audi. Specification on par with a V6 petrol engined Panamera. S Hybrid also added to range. Following the path of the Cayenne S Hybrid, it's fitted with a 3.0-litre supercharged petrol V6 engine connected to a 47hp, 221lb ft electric motor. Energy for the electric motor is stored in batteries fitted under the boot floor charged via the engine and regenerative sources such as braking. Full electric range is 1.2-miles and the electric motors have a 46mph maximum speed. Turbo S also arrives running a pair of turbo-chargers with lighter vanes. Peak power climbs to 550hp. Agate grey exterior paint is exclusive to the model. 2012 - 2012MY Take a Panamera 4S, fit a Porsche Exclusive bodykit and allow the engineers time with its 4.8-litre V8 on a dyno and you get the GTS. Active air intakes, reprofiled camshafts and a revised ECU extract a further 30hp from the bent-eight and an additional 15lb ft of torque. Turbo brakes are standard, as is air suspension and PASM – which is reprogrammed to be tauter. Porsche Sport Chrono Plus is also standard as is the Turbo's four-piece rear spoiler and the 19-inch alloy wheels. The chassis is 10mm lower and there 5mm spacers fitted to the rear axle. 18-way adjustable front seats and a sports steering with paddles are also standard. Four-wheel drive only with the seven-speed PDK.

MODEL	MODEL YEAR	WEIGHT (kg)	ENGINE (cc)	BHP	TORQUE (lb ft)	0-62	Max Mph	
Panamera	2010 - 2013	1730	3605	300	295	6.8	162	
Panamera 4	2010 - 2013	1820	3605	300	295	6.1	159	
Panamera S	2009 - 2013	1770	4806	400	369	5.0	175	
Panamera 4S	2009 - 2013	1860	4806	400	369	4.4	175	
Panamera Turbo	2009 - 2013	1970	4806	500	516*	3.5**	188	
Panamera Diesel	2011 - 2013	1880	2967	250	405	6.8	150	
Panamera GTS	2012 - 2013	1920	4806	430	383	4.5	178	
Panamera S Hybrid	1 2012 – 2013	1980	2995	380	427	6.0	167	
Panamera Turbo S	2012 - 2013	1995	4806	550	553	3.8	190	

^{* 567}lb ft when in Sport Plus Mode when Sport Chrono Package Plus fitted. ** 0-60mph time

2013– 2014MY The gen-2 Panamera gets a new front and rear bumper, new lights and side sills and a range of new engines. The interior is untouched. Out goes the 4.8-litre normally aspirated V8 for the S and 4S



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and come with the conventional eight-speed Tiptronic S gearbox. In early 2012 the range is topped off with the GTS — a breathed on Panamera 4S with more power, a Turbo look and sport inspired interior. It's no GT3 but it's a great way to hustle nearly two tons.



918 SPYDER: 2014 – 2015

918 SPYDER: 2014 — 2015
Two-door, mid-engined, petrol-electic plug-in hybrid. The supercar has evolved into the hypercar, one that combines the thoroughbred engine from an LMP2 race car with the pioneering engineering of electric motors and lightweight(ish) batteries. The 918 signals the beginning of a new dawn for Porsche, one that provides the company with a halo product on which to hang its Cayenne, Panamera, Macan and, potentially 911 hybrids from. To help the 918 along the way its launch coincides with Porsche's return to top flight sports car racing, including Le Mans, with an all-new LMP1 race car. A petrol-electric hybrid race car. The 918 has a lot to deliver, but on the eve of its launch it made an impressive debut with a sensational 6 minute 57 second lap of the Nürburgring Nordschleife.



MACAN: 2014 -

Five-door, front engined, permanent four-wheel drive compact SUV, six-cylinder turbocharged petrol and diesel engines; seven-speed PDK transmission. Built to fullfill Porsche's ambitions to build 200,000 cars by 2018 the Macan is the company's answer to Land Rover's Evoque, BMW's X3 and Mercedes GLA in the premium compact SUV sector. Porsche forcasts to build 50,000 Macans a year and will add to the range with another diesel engine – a four-cylinder this time – a petrol-hybrid and a four-clylinder petrol engine.

The Macan launches with two trim levels, the S and the Turbo. The former is available with either a twin-turbocharged V6 petrol engine or single-turbo diesel V6. The Turbo is fitted with a 3.6-litre twin-turbocharged engine. A Turbo S and GTS trim-line is expected to join the line-up, along with a more basic trim level to sit below the S models; expect this to be offered with a four-cylinder engines, both petrol and diesel. Sitting below the Cayenne in Porsche's SUV line-up, the Macan is lighter by over 100kgs, 16cm shorter in overal length, eight centimetres lower in height and sits on a wheelbase eight centimetres shorter than the Cayennes. The Macan is usefully quicker than its big brother, too, with the petrol S model faster to 62mph than the quickest normally aspirated Cayenne, the GTS. The Macan Turbo's sprinting prowess sits neatly between the Cayenne Turbo and Turbo S. The smaller SUV is also usefully more fuel efficient and cleaner than its big brother, too.

In 2015 the Macan gets a GTS version, joining the other Porsche models in this now established sub brand. GTS sits below the Turbo model with the same three-litre V6 bi-turbo engine as the S model yet this time boasting 360hp. Torque is also increased to 368lb ft and it's lighter than the Turbo model. It is only available with a seven-speed PDK gearbox. The styling falls in line with other GTS models in Porsche's

model. It is only available with a seven-speed PDK gearbox. The styling falls in line with other GTS models in Porsche's range, offering the SportDesign package as standard. Equppied with a PASM chassis that is lowered by 15 millimetres, it sits on matt black 20-inch RS Spyder design alloy wheels.

models and in comes a 3.0-litre biturbo V6 that's more powerful than the V8. Big V8 stays for the GTS and the Turbo, 3.6-litre petrol V6 still props up the range along with 3.0-litre turbo diesel. The big change is to the hybrid model. Now called the S.E-Hybrid, it mates the 3.0-litre supercharaed V6 with an electric motor that's twice as powerful and a battery pack that can store five times the energy. E-Hybrid is also a plug-in hybrid which means you can charge the car while at work, or at home. Other mechanical changes include the dropping of the six-speed manual - it's PDK for all the models bar the Diesel and S E-hybrid, which get the Cayenne's eight-speed Tiptronic. 2015: Panamera Edition - special version available in three styles: Edition, 4 Edition, and Diesel Edition. 4 Edition features all-wheel drive with an electronically map-controlled multi-plate clutch. High-gloss black trim, part-leather upholstery, SportDesign steering wheel. PASM, bixenon headlights with PDLS, Park Assist and Power Steering Plus all standard. China and USA variants receive comfort seating.

MODEL	MODEL YEAR	WEIGHT (kg)	ENGINE (cc)	BHP	TORQUE (lb ft)	0-62	Max Mph	
Panamera Diesel	2013-	1880	2967	250	405	6.8	151	
Panamera	2013-	1770	3605	310	295	6.3	160	
Panamera 4	2013-	1820	3605	300	295	6.1	159	
Panamera S	2013-	1810	2997	420	383	5.1	178	
Panamera 4S	2013-	1870	2997	420	383	4.8	177	
Panamera S E-Hybri	d 2013–	2095	2995	416	435	5.5	167	
Panamera GTS	2013-	1925	4806	440	383	4.4	178	
Panamera Turbo	2013-	1970	4806	520	516	4.1	189	
Panamera Turbo S	2013-	1995	4806	570	553	3.8	192	
Panamera Edition	2015-	TBC	3605	310	TBC	TBC	TBC	
Panamera 4 Edition	2015-	TBC	3605	310	TBC	TBC	TBC	
Panamera Diesel Ed	2015	TBC	2967	300	TBC	TBC	TBC	

918 Spyder (2014 - 2015)

918 Spyder – Wheelbase (mm): 2730, Length/Width (mm): 4643/1940, Track front/rear (mm): 1664/1612 Significant developments: 2013 - 2014MY. 4.6-litre V8 traces its routes back to the 2007 LMP2 RS Spyder racer and runs a seven-speed PDK with drive to the rear. Then there is a 286hp electric motor fitted to the front axle with its own transmission. 918 can be driven by the petrol engine, the electric motor or a combination of the two, which results in 887hp and 944lb ft of torque (the V8 produces 676lb ft on its own). The V8 screams to 9150rpm and produces 132hp/litre. There are five driving modes: E-Power, Hybrid, Sport-Hybrid, Race-Hybrid and Hot Lap, each determines which power source is required. The chassis is a carbon-fibre monocoque, body made from the same material and includes a two-piece Targa roof. PCCB brakes are standard, 20-inch wheels at the front, 21s rear with Michelin Pilot Sport Cup 2 tyres. Available in two trim levels, Spyder and Weissach Package, the latter reduces weight by 41kg - magnesium wheels account for a 14kg saving. Other weight saving includes ceramic wheel bearings, titanium chassis bolts and brake pad supporting plates. Other upgrades include additional aero parts includeing aeroblades positioned behind rear wheels, thinner paint and exposed carbon-fibre. It's a quick Porsche - Nürburgring lap time -6min, 57secs.

MODEL	MODEL YEAR	WEIGHT (kg)	ENGINE (co	c) BHP	TORQUE (lb ft)	0-62	Max Mph	
918 Spyder	2014	1674	4593	608/286	676/944	2.6	214	
918 Spyder Weissac	h 2014	1634	4593	608/286	676/944	2.6	214	

Macan (2014 –)

Macan – Wheelbase (mm): 2807; Length/Width (mm): 4681 (Turbo 4699mm)/1923; Track front/rear (mm): 1655/1651; Weight: 1865kg (S), 1880kg (S Diesel), 1925kg (Turbo): 2013 – 2014MY Built at Leipzig, Two petrol V6 engines, 4-cylinder turbocharged petrol engine, and V6 diesel donated by the VW. Macan S gets 340hp three-litre biturbo V6; Turbo is equipped with 400hp, 3.6-litre biturbo V6. S Diesel fitted with 3.0-litre single turbo V6 diesel engine. PTM four wheel drive running gear, drivetrain essentially rear-wheel drive sending torque load to the front axle when required. PDK as standard – no manual option – 'Off-road mode' can be selcted at speeds of up to 80kmh, this shortens gear ratios to aid traction. Auto Start/Stop standard. S model is fitted with a 65-litre fuel tank, S Diesel a 60-litre tank, the Turbo a 75litre one. Both S models are available to order with optional 75-litre tank. Depending on tyres fitted, S returns between 31 - 32mpg on the combined cycle, Turbo 30.7 - 31.7mpg and S Diesel 44.8 -46.3mpg. Emmissions for the three range from 150 - 157g/km for the S Diesel, 171 - 179g/km for the S and 176 – 184q/km for the Turbo. Steel springs and fixed rate dampers standard on S models, the Turbo comes with PASM as standard. All variants are available with air-suspension with PASM at extra cost, providing an additional 40mm of ground clearance when driving off-road. A Sport button is fitted as standard, PTV Plus is optional, as is Sport Chrono. S models fitted with 350mm front brake discs, the Turbo 360mm, rears are 330mm and 356mm respectively. All Macan models are fitted with different size tyres front-to-rear. Narrower front tyres provide greater steering feel, wider rear tyres for optimum grip. All are fitted with electromechanical power steering. Turbo is fitted with biexnon headlights, S models with halogens. PDLS optional on all models. Three-spoke 918 Spyder-style multi-function steering wheel with paddle shift controls standard. Full length panoramic glass sunroof available, S models trimmed in partial leather and alcantara, a full leather interior a cost option. Macan offers 500 litres of luggage capacity (with the rear seats in upright position up to 1500 litres depending on the configuration). 2015 - Macan GTS added to range sitting between S and Turbo models. Uses the same three-litre V6 biturbo engine as S model with added power, PDK only, SportDesign styling package fitted as standard. New PCM makes its SUV debut in the Macan GTS.

MODEL	MODEL YEAR	WEIGHT (kg)	ENGINE (cc)	BHP	TORQUE (lb ft)	0-62	MAX MPH	
Macan	2014	1770	1984	237	258	6.9	138	
Macan S	2014	1865	2997	340	339	5.4	157	
Macan S Diesel	2014	1880	2967	258	427	6.3	142	
Macan GTS	2015	1895	2997	360	368	5.2	159	
Macan Turbo	2014	1925	3604	400	405	4.8	165	

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MARCH 2015

Cover Story: 911 T/R – a rare Sixties Porsche lives on

Inside: Retro 911s: 997 Sport Classic vs 991 50 Years Edition. 356 Speedster. London Classic Car Show. M96/7 engine technical guide. Cayman GTS vs 914-6. Carrera 6. Panamera GTS first drive.



APRIL 2015

Cover Story: Cayman GTS meets Cayman R Inside: 911 Carrera 2.7 RS Touring. Kremer K3. Cayman GT4 - revealed. 928 retrospective since end of production. 991 GTS first drive. Retromobile, Paris. Tony Dean profile. 964 50 Years Edition. TechArt Boxster.



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Cover Story: 911SCs Inside: First drive: Cayman GT4. 991 GT3 RS – tech details explored. 964 v 911T. John 'Fitz' Fitzpatrick. Cayenne S Diesel roadtrip to Paris. History of the 16-cylinder engine. 356 B Cabriolet restoration. Macan tuning. Market Place: 911 Cabriolet.



ILINE 2015

Cover Story: 911 GT3: 996 v 997 v 991 Inside: 1930s Auto Union. Techno Classica event. 991 GT3 meets Carrera Cup car. Pfaff Tuning 991 GT3 'alternative'. Backdated 964. Le Mans 2015 preview. 944 S2 Cabriolet at 25 years old. New Boxster Spyder. Advanced driving techniques.



JULY 2015

Cover Story: 991 GT3 RS driven Inside: Restored 1969 911S. A '£5k' Boxster: the truth. Ferdinand Piëch retrospective. 911 2.4S. 924 Carrera GTS. Nürburgring 24-Hours. 991 Targa vs classic 911 Targa. Marathon de la Route. Market Place: 996 Turbo.



AUGUST 2015

Cover Story: Restored 911S 2.2 Inside: 993 Carrera RS at 20, Le Mans 2015 full report, 930 Turbo, 936 endurance racer, 924 vs 922 vs 968: affordable frontengined Porsches, Porsche Corrosion, 997 GT3 RS 4.0-litre, Porsche Classic Partner Centres explored



SEPTEMBER 2015

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OCTOBER 2015

Cover Story: Thirty years of 959
Inside: Classic 911s: 2.2 vs 2.4 – which is best? Cayman GT4 takes to the Alps, 996 GT3 RS vs 997 GT3 RS, Olaf Manthey interview, Silverstone Classic, PCGB National Event, Steve Richards profile, 996 CSR Retro, TPC Racing Module tested



NOVEMBER 2015

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DECEMBER 2015

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JANUARY 2016

Cover Story: 2015's greatest Porsches Inside: GT3 RS. Cayman GT4. New 911 Carrera first drive. Boxster Spyders: 981 vs 987. 911 3.0 RS rally car. WSC95 history. 944 Turbo. Designer Harm Lagaaij. Classic Motor Show 2015. Continental tyre test. Rennsport Reunion (part two).

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MODEL BOXSTER	PRICE	ENGINE	POWER	TORQUE	0-62MPH	TOP SPEED	WEIGHT	
Boxster 2.7	£39,553	6cyl/2706cc	265hp	206lb ft	5.8secs	164mph	1330k	
Boxster Black	£46,164	6cyl/2706cc	265hp	206lb ft	5.8secs	164mph	1330k	
Boxster S	£47,858	6cyl/3436cc	315hp	269lb ft	5.1secs	173mph	1340k	
Boxster GTS	£53,872	6cyl/3436cc	330hp	276lb ft	5.0secs	174mph	1345k	
Boxster Spyder	£60,459	6cyl/3800cc	375hp	310lb ft	4.5secs	180mph	1315k	
CAYMAN								
Cayman 2.7	£39,694	6cyl/2706cc	275hp	213lb ft	5.7secs	165mph	1330k	
Caymann Black	£45,989	6cyl/2706cc	275hp	213lb ft	5.7secs	165mph	1330k	
Cayman S	£48,783	6cyl/3436cc	325hp	272lb ft	5.0secs	175mph	1340k	
Cayman GTS	£55,397	6cyl/3436cc	340hp	279lb ft	4.9secs	177mph	1345k	
Cayman GT4	£64,451	6cyl/3800cc	385hp	310lb ft	4.4secs	183mph	1340k	
911 COUPÉ (991)								
New 911 Carréra	£76,412	6cyl/2981cc	370hp	332lb ft	4.2secs	183mph	1430k	
911 Carrera Black	£75,074	6cyl/3436cc	350hp	287lb ft	4.8secs	179mph	1380k	
New 911 Carrera S	£85,857	6cyl/2981cc	420hp	369lb ft	3.9secs	191mph	1440k	
911 Carrera GTS	£91,098	6cyl/3800cc	430hp	325lb ft	4.4secs	190mph	1425k	
New 911 Carrera 4	£81,398	6cyl/2981cc	370hp	332lb ft	4.1secs	181mph	1480k	
911 Carrera 4 Black	£79,309	6cyl/3436cc	350hp	287lb ft	4.9secs	175mph	1430k	
New 911 Targa 4	£90,240	6cyl/2981cc	370hp	332lb ft	4.3secs	179mph	1570k	
New 911 Carrera 4S	£90,843	6cyl/2981cc	420hp	369lb ft	3.8secs	189mph	1490k	
911 Carrera 4 GTS	£95,862	6cyl/3800cc	430hp	325lb ft	4.4secs	188mph	1470	
New 911 Targa 4S	£99,684	6cyl/2981cc	420hp	369lbft	4.0secs	188mph	1580k	
911 Targa 4 GTS	£104,385	6cyl/3800cc	430hp	325lb ft	4.7secs	188mph	1555k	
911 GT3	£100,540	6cyl/3799cc	475hp	325lb ft	3.5secs	196mph	1430	
911 GT3 RS	£131,296	6cyl/3996cc	500hp	339lb ft	3.3secs	192mph	1420	
911 Turbo			520hp	486lb ft	3.4secs	195mph		
911 Turbo S	£120,598 £142,120	6cyl/3800cc 6cyl/3800cc	560hp	516lb ft	3.4secs 3.1secs	195mph	1595l 1605l	
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911 CABRIOLET (991) New 911 Carrera	£85,253	6cyl/2981cc	370hp	332lb ft	4.4secs	181mph	1500	
911 Carrera Black	£81,852	6cyl/3436cc	350hp	287lb ft	5.0secs	177mph	1470	
New 911 Carrera S	£94,698	6cyl/2981cc	420hp	369lb ft	4.2secs	180mph	1520	
911 Carrera GTS	£94,696	6cyl/3800cc	420hp	325lb ft	4.2secs 4.6secs	188mph		
New 911 Carrera 4	£90,240	6cyl/2981cc	370hp	332lb ft	4.3secs	179mph	1495	
911 Carrera 4 Black				287lb ft	5.1secs		1550k	
	£86,125	6cyl/3436cc	350hp			175mph	1500k	
New 911 Carrera 4S	£99,684	6cyl/2981cc	420hp	369lb ft	4.0secs	188mph	1560k	
911 Carrera 4 GTS	£104,385	6cyl/3800cc	430hp	325lb ft	4.7secs	183mph	1515k	
911 Turbo 911 Turbo S	£129,223 £150,897	6cyl/3800cc 6cyl/3800cc	520hp 560hp	486lb ft 516lb ft	3.5secs 3.2secs	195mph 197mph	1665k	
CAYENNE								
Cayenne	£49,576	6cyl/3598cc	300hp	295lb ft	7.7secs	143mph	2040k	
	£50,441		262hp	428lb ft	7.7secs 7.3secs			
Cayenne Diesel		6cyl/2967cc				137mph	2110	
Cayenne S	£60,845	6cyl/3604cc	420hp	406lb ft	5.5secs	160mph	2085k	
Cayenne S Diesel	£62,099	8cyl/4134cc	385hp	627lb ft	5.4secs	156mph	2215k	
Cayenne E-Hybrid	£62,099	6cyl/2995cc	416hp	435lb ft	5.9secs	150mph	2350k	
Cayenne GTS	£72,523	6cyl/3604cc	440hp	443lb ft	5.2secs	163mph	2110	
Cayenne Turbo	£93,574	8cyl/4806cc	520hp	553lb ft	4.5secs	173mph	2185k	
Cayenne Turbo S	£118,455	8cyl/4806cc	570hp	590lb ft	4.1secs	176mph	2235k	
PANAMERA	CCE 222	6. 1/26.27	700	4701 6	6.0	160	1005	
Panamera Diesel	£65,289	6cyl/2967cc	300hp	479lb ft	6.0secs	160mph	1880k	
Panamera	£63,913	6cvl/3605cc	310hp	295lb ft	6.3secs	160mph	1770	
Panamera 4	£67,474	6cyl/3605cc	310hp	295lb ft	6.1 secs	159mph	1820k	
Panamera S V6	£82,439	6cyl/2997cc	420hp	383lb ft	5.1secs	178mph	1810	
Panamera 4S V6	£86,080	6cyl/2997cc	420hp	383lb ft	4.8secs	177mph	1870	
Panamera S E-Hybrid	£84,401	6cyl/2995cc	416hp	435lb ft	5.5secs	167mph	2095	
Panamera GTS	£93,391	8cyl/4806cc	440hp	383lb ft	4.4secs	178mph	1925	
Panamera Turbo	£108,006	8cyl/4806cc	520hp	516lb ft	4.1secs	189mph	1970	
Panamera Turbo S	£131,152	8cyl/4806cc	570hp	553lb ft	3.8secs	192mph	1995	
MACAN								
Macan	£41,578	4cyl/1984cc	237hp	258lb ft	6.9secs	138mph	1770	
Macan S	£44,650	6cyl/2997cc	340hp	339lb ft	5.4secs	157mph	1865k	
Macan S Diesel	£44,636	6cyl/2967cc	258hp	427lb ft	6.3secs	142mph	1880	
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A motoring journalist for over 25 years, Colin has contributed to GT Porsche for a decade

Colin Goodwin wonders why he just can't memorise the masses of Porsche Type numbers...

here are some journalists who have a fantastic head for numbers. Chris 'Monkey' Harris has stored between his ears incredible details about BMW part and option numbers with an ability to remember that a 1985 model year E30 325i Sport has a limited-slip diff as standard. Whatever part of the brain stores this information, mine doesn't have it. I'm not so bad when it comes to people and events. It's unlikely, for example, that I'll ever forget that Jack Brabham won the F1 world championship in 1959/60 and 1966. This week I had the enormous satisfaction of spotting in a Tweet from a Classic F1 site a photograph captioned as Jochen Rindt in a Cooper Maserati at Monaco in 1967. It was actually Richard Attwood in Canada. And I'm pretty good at naming famous and significant Porsche drivers.

Porsche Type numbers, however, enter and leave my brain in the same second. I can remember the important ones, like 956 and 962 or the 964 and 993, but I can't remember the Boxster Type numbers without going into a quiet dark room. And yet although I can't remember these numbers they fascinate me all the same. Especially some of the really obscure ones. I have sat in (but not driven) a Type 954. Any of you know what that is? It's the very limited production 9115C/RS which was a Group B iteration of the SC.

Here's a good one: Type 300. This is listed in the very reliable Excellence Was Expected as a jet engine for the V-1 flying bomb or Doodlebug. I thought the engine was made by aero engine company Argus but presumably the design was subcontracted to Porsche. The Type 137 produced in 1940 was a little bit less violent: it's a wind turbine capable of generating 4500 watts. Porsche ahead of the game again.

The first design to come out of the Porsche design office was the Type 7, a

saloon car designed and developed by Ferry Porsche and called the Wanderer (below). It was launched in 1932 and built by Auto Union. Porsche went on to design many cars as an engineering consultancy including the Type 2108, which was a Lada introduced in 1980.

Look down the Type number list and you'll spot some real treasures. Projects that never came to fruition at the

"Look down the Type number list and you'll spot some real treasures" time but had their day many years later. In 1973 Porsche came up with Type 926 which was a design for an off-road production car. Porsche off-roaders? That'll never happen. Sure enough I can't remember the Type number for the Cayenne. I presume it must have one but I can't remember ever knowing it.

I'm sure you've got better memories than I have but I would say that Porsche's Type numbers only entered the enthusiasts' vocabulary around the time that the 996 was introduced. I don't recall the 964 ever being referred to as such in the Car magazine office when it was launched. I don't remember other journalists using the name either. It was simply called the 'new 911'. Certainly I don't remember anyone mentioning the Type 994, which is what the factory called the 964 Turbo.

I'd love to see some of the Types that never made it into production, particularly those for outside customers. For example Type 2584 was a production-ready 800cc V4 engine made for Harley-Davidson that started life in 1978 decades before Porsche eventually supplied Harley with a watercooled V-twin for the revolutionary (by Harley Davidson standards) V-Rod.

Engines have their own Type numbers and I'm sure 917 obsessives will know that the 912 was the number for the famous flat-12 motor. Interestingly there doesn't seem to be a separate Type number for the turbocharged engines fitted to the 917/10 and 917/30 Can-Am racing cars but there is a number for a experimental four-valve version of the naturally aspirated flat-12. Perhaps there is one. Chris Harris probably knows what it is O



The views of the author are not necessarily shared by the magazine.





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