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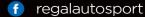
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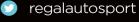
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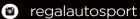
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Ignition



Simon Jackson
Editor y@retro_jackson

f you're new to the world of Porsches then this month's cover feature is a comparison we hope you find both interesting and useful. Undoubtedly the question it poses – '996 or Cayman?' – is a dilemma that will have crossed your mind at some point. Entry into Porsche ownership offers a few routes for those on a budget, but if you want to stick to a contemporary water-cooled, mid- or rear-engined car, then the choices are limited. Good examples of both the Cayman and 996 can currently be picked up for £15,000 to £20,000, yet choosing between them is tricky.

While the Cayman is a more modern prospect, widely acclaimed for its proficient handling characteristics and 997-style interior, ultimately the 996 is a 911, and for some that means it is naturally endowed with a higher status. In reality both cars offer a lot of Porsche for not a lot of money, they can be used daily, and either one is sure to bring a smile to your face on a regular basis. With the prices of 996s continuing to accelerate, and early Caymans seemingly having hit a plateau of late, for now the two have aligned in the classified listings, and so pitting them head-to-head is both relevant and logical for potential purchasers looking

to take their first step on the Porsche ladder. Find out what we thought of both cars on page 20, and discover the financial practicalities of running them on page 30.

Further into the issue Andrew Frankel gets behind the wheel of the new second-generation 991 Turbo to find out how one of the fastest 911s ever built stacks up, page 44. With all the hype surrounding the new turbocharged 911 Carrera, how has Porsche differentiated the two force-induced variants? Surely it will have its work cut out? Now the dust has settled slightly since its reveal, the general consensus on the latest 911 Carrera would seem to be divided. Following initial reports that the car was the best thing since sliced bread, there's been a notable shift in opinion. Colin Goodwin is among the doubters; see his regular column on page 162. It would seem that while the new Carrera is a good car, it struggles to match the awe of its normally aspirated forebears, something our man Frankel was the first to point out. It's another reason to value the opinion of an experienced road tester, such as those who regularly contribute to these pages.



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Andrew Frankel

@Andrew_Frankel

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

This month: Andrew drives the second-generation 991 Turbo in South Africa to discover if Porsche has created another force-induced masterpiece.



Philip Raby **y** @RabyPorsche

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

This month: Phil tackles an important question for first-time Porsche owners: 996 or Cayman? He also takes a spin in a rare X51-powered 993.



Phillip Bingham

@PhillipRBingham

An automotive and motorsport writer for decades, Phil has worked on titles like Motor Trend, Performance Car and Motor Sport.

This month: Phil takes a detailed and fascinating look into the myths, old and new, surrounding James Dean's ill-fated 550 Spyder, nicknamed 'Little Bastard'.

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PORSCHE CONFIRMS FOUR-CYLINDER TURBO POWER FOR NEXT BOXSTER AND CAYMAN

The worst kept secret in Stuttgart is out: the next iterations of Boxster and Cayman will run turbocharged four-cylinder engines, and they'll be called 718s...

We've been reporting it for some time in GT Porsche, but we now have official confirmation from Porsche that the next iterations of Boxster and Cayman will receive turbocharged flat four-cylinder engines. The new models, which are expected to debut in the metal at the Geneva Motor Show in March, will also be given a new model designation: '718'.

The introduction of four-cylinder force-induced Boxer engines will see both the Boxster and Cayman follow in the footsteps of the latest 911 Carrera, which is also powered using turbocharging technology. It is widely believed that the GT versions of the second-generation 991 will remain normally-aspirated, however this is yet to be confirmed, and perhaps more interestingly, it is unclear whether or not the Boxster and Cayman GTS will be powered by four- or six-cylinder engines. We expect the GT4 to remain normally-aspirated.

The new 2016 models, which will

replace the current 981 vehicles this year, will both share the 718 designation – a reference to the Porsche 718 race car of 1957. But tenuous historical links aside, there's another more important change for potential purchasers: in future the Boxster roadster will be positioned at a higher price point than its sibling, the Cayman coupé. This follows the established pricing structure for the 911, whereby the Coupé is more expensive than the Cabriolet variant.

HISTORY OF THE 718

Porsche is keen to push its historical credentials with fast flat four-cylinder engines. It cites both its contemporary activities with the 2.0-litre four-pot motor in the 919 Hybrid, and its victories of the 1950s with the 718, the successor to the legendary 550 Spyder. It's a link dreamt up by marketing departments designed to create a sense of proficiency, but all the same the 718 was a car worthy of the Porsche history annals.



The 718 designation has history for Porsche having been used on one of its most successful racers of the 1950s and 1960s...













PORSCHE GB TO RESTORE EX-LE MANS 924

Porsche Classic Centre Partners will restore a 924 Carrera GT that raced at Le Mans in 1980...



Porsche's classic car restoration arm, Porsche Classic Partners Centres, is to restore a 924 Carrera GT that last turned a wheel in anger 35 years ago. The 924 was part of an international three-car team with each wearing distinctive liveries based on national flags. This particular machine, car two, was the British entry driven by Tony Dron and Andy Rouse (right), the duo finished the 24 hours in 12th place. Having been mothballed in the Porsche Museum in Stuttgart since 1980, the car has now arrived in the UK at the request of Porsche Cars GB, where its restoration will commemorate 40 years of Porsche 'transaxle' cars.

There are four Porsche Classic Partners Centres in the UK (located in Glasgow, Hatfield, Leeds and Swindon) and each location will play a part in the restoration process. Glasgow will work on the suspension, brakes and wheels; Hatfield will take on the gearbox and drivetrain; Leeds will work on the electrics and radiator plumbing; and Swindon will breathe new life into the 924's engine.

Finally, Road and Race Restorations in Manchester (a Porsche Recommended Body Repairer), will complete the project by restoring its bodywork and interior. The Porsche Classic department at the factory will be responsible for supplying all of the parts and technical support required during the rebuild.

It's planned that the restored machine will attend events such as Goodwood Festival of Speed, Silverstone Classic and Classics at the Castle. It will go on display at the Porsche Centres involved in its rebuild.



THE 924 CARRERA GT LE MANS

Taking a 210hp 924 Carrera GT road car as its basis, the 924 Carrera GT Le Mans utilised a production Carrera GT bodyshell, which was stiffened with the addition of a roll-cage, and the exterior bodywork was given new lightweight plastic panels. These improved its aerodynamics and helped shroud wide 11-inch front and 12-inch wide rear wheels. The suspension both front and rear was reworked, with Bilstein gas dampers and the rear torsion bars were supplemented with coil springs. The driveshafts were lifted from the 935, also made of titanium.

Under the bonnet the VW-based 1984cc turbocharged in-line four-cylinder engine was reworked too; the KKK turbocharger was moved to the left of the engine and the intercooler increased in size and moved to the front. Bosch/Kugelfischer mechanical fuel injection replaced the production specification K-Jetronic, and dry-sump lubrication ensured consistent oil supply under racing loads. This raised the power output by 50 percent to 320hp while weight was reduced from 1180kg to 930kg. The car's top speed rose to 180mph and large ventilated and cross-drilled brake discs (taken from the 917) were used to slow the cars after the Mulsanne Straight.







PORSCHE SELLS

RECORD NUMBER OF CARS IN 2015

Porsche is celebrating a successful fiscal year for 2015 thanks to achieving record sales.

Porsche delivered 225,121 vehicles worldwide in the 2015 fiscal year, a new record that exceeds that of 2014's figure (189,849) by 19 percent. Despite being at the end of its generational lifecycle, the first generation 991 recorded an increase over the previous year's 911 sales, up 4 percent with just under 32,000 units sold. That figure is set to rise in 2016, in part thanks to the arrival of the new second-generation 991 models.

Both of Porsche's SUVs posted healthy sales too, more than 80,000 Macan models were delivered in its first full year of availability. It was closely followed by the Cayenne which sold 73,119 units. For both it meant double-digit growth figures. Cayman sales rose by only 1 percent, while the Panamera and Boxster dropped slightly, which Porsche believes is the result of both models' upcoming replacement, it expects growth again during 2016.

China was a leading global market for Porsche in 2015, for the first time it was the strongest market for the brand – Porsche delivered 58,009 vehicles, an increase of 24 percent. The USA was the second biggest market with 51,756 vehicles shifted, a growth of 10 percent. The European market, including the UK, grew by 24 percent with 75,354 vehicles delivered; Germany is the strongest single market within Europe with a total of 28,953 vehicles delivered (up 21 percent).





PORSCHE OPENS ITS FIRST CENTRE FOR CLASSICS

The Netherlands receives the world's first dedicated Porsche Classic Centre, and more are set to follow...



Porsche Classic Centre Gelderland, just outside of Arnhem in the Netherlands is the world's first Porsche Classic Centre. Strictly dedicated to classic Porsches of all ages the site, which opened at the end of last year, offers service, workshop and sales exclusively for the classics, all under one roof. A small number of additional certified Porsche Classic Centres are set to follow around the world.

Classic Porsches are hot property, and with prices still rising fast its little wonder than Porsche has decided to get in on the action. Remarkably more than 70 percent of the vehicles ever produced by Porsche are still running today, and to ensure they receive support Porsche is establishing an

international dealer and service network. There are 100 Centres planned for completion by 2018, they will support early cars in addition to current models and will be certified as Porsche Classic Partners. A complete range of services will be offered, including the supply of 52,000 original spare parts.

Currently there are 24 Porsche Classic Partners around the world; ten in Germany, with the others in Estonia, France, the UK, Italy, Japan, Switzerland, Hungary, South Africa, Thailand and the UAE. Locations where new centres are being developed include Australia, Belgium, Canada and the USA. To find out a little more on Porsche Classic Partners, point your browser at: www.porsche.de/classic.

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PORSCHE PREPARES FOR 2016 IMSA CHAMPIONSHIP

The new 911 GT3 R and 911 GT3 RS will compete in the American and Canadian series once more...

Porsche tested the new 911 RSR and the new 911 GT3 R ahead of the 24 Hours of Daytona, the first race of the 2016 IMSA SportsCar Championship, back in January. The two 911 RSRs fielded by the Porsche North America Works team covered a total of 2672 test kilometres. The aim was to get to grips with new regulations that have been introduced for 2016 for both cars in the GTD class. Porsche is the reigning champion in the GTLM class and some nine Porsche factory drivers (and one Porsche Junior) were involved with the testing at Daytona.

Changeable weather conditions (read fog, rain and sunshine) meant the teams got to put the cars through a good mix of climatic conditions. As is the nature of winter testing, the Works 911 RSR saw

modifications to its aerodynamics though the course of the three-day test, with the angle of its rear wing altered. A modified front spoiler lip and wider side sills were also trialled.

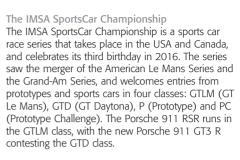
The new 911 GT3 R will be campaigned by customer teams, and it was run for the first time with its new four-litre flat-six DFI engine. Based on the 911 GT3 RS production sports car, built for the GT3 series worldwide, the car was driven by reigning IMSA GT champion, Patrick Pilet, Kévin Estre and Nick Tandy — who has been relegated to the 911 following Porsche's decision to run just two LMP1 cars in 2016's World Endurance Championship. The trio (number 911 car) covered 1229 kilometres while their colleagues Earl Bamber, Frédéric Makowiecki, and Michael Christensen clocked up

1443 kilometres in the second RSR (number 912). Following the Daytona 24 Hours, both cars will take part in the IMSA SportsCar Championship — which includes the Sebring 12-hours and the Petit Le Mans at Road Atlanta. Porsche Works drivers Wolf Henzler, Jörg Bergmeister and Patrick Long, as well as Porsche Junior Sven Müller completed the official Daytona test in the 911 GT3 R run by various customer teams.

Briton, Nick Tandy, said: "It's very exciting to work on the new 911 RSR at this stage. We have new parts in the car that we've already tested elsewhere, but at Daytona we worked on specifics for this track. We especially wanted to find out how the aero performance of the 911 RSR changes with the new parts."



















THE NIGHT OF CHAMPIONS GALA

Those involved with Porsche motorsport gathered together in Germany to celebrate 2015, and look ahead to 2016...

Porsche held its Night of Champions motorsport gala in Weissach, Germany back in December to celebrate its success in the field of motorsport during 2015. The event was both a chance to take stock, but also an opportunity to outline its plans for the 2016 season. Porsche CEO, Dr Oliver Blume, said: "On the race track we have experienced one of the most successful years in our company's history. For 2016, we are placing emphasis on consistency and will again shift up a gear. We will be the only manufacturer to tackle three of the four classes at Le Mans."

The 919 Hybrid will defend its title in the World Endurance Championship, running with the numbers one and two. Porsche's third consecutive year in the WEC series will see it tackle nine rounds of the FIA

championship, and it will do so with a new, revised and refined car. The new look will be unveiled at the WEC Prologue event at the Paul Ricard Circuit, in March. But the big news has really been that two instead of three 919 Hybrids will contest the 24 Hours of Le Mans. Porsche and Audi have agreed to reduce their efforts by one LMP1 racing car each for maximum cost efficiency in the wake of sister company VW's emissions crisis. All six current Works drivers retain their seats but the winning trio of Hülkenberg, Bamber and Tandy do not.

Following successes over a six-year period in 911 GT3 Cup cars competing in Carrera Cup France and the Mobil 1 Supercup, Kévin Estre has been signed as a Porsche factory driver. In 2015, Estre supported the Manthey squad in the 911 RSR at the WEC



round at Spa, and scored third place in the GTE-Pro class with Porsche Junior Sven Müller. Estre becomes the 16th works driver Porsche has under contract for the 2016 season in the LMP1 and GT categories. Estre will join Patrick Pilet and Nick Tandy in one of two additional 911 RSRs that Porsche will field at Le Mans. The second car has been earmarked for Earl Bamber, Frédéric Makowiecki and Jörg Bergmeister.

Porsche will also once again contest both GTE-Pro and GTE-Am categories in 2016. Drivers Richard Lietz and Michael Christensen will defend their title in the GTE-Pro category. They will be supported at Le Mans by Wolf Henzler. Proton Dempsey Racing will field the 911 RSR. American actor Patrick Dempsey continues to follow the WEC races in 2016 as a partner of the team, whenever his filming commitments allow. He will also tackle selected races in the GTE-Am class.

Porsche will also defend its title in the USA with the two 911 RSRs mentioned overleaf competing in the IMSA SportsCar Championship. Porsche will use the new 911 GT3 R for the series, too, which will already be underway by the time you read this. Four teams field five vehicles at the season-opening round. Porsche factory driver Wolf Henzler supports the Alex Job Racing squad. Jörg Bergmeister competes for Park Place Motorsports, with Patrick Long driving for Black Swan Racing. Due to increased demand from customer teams around the world, Porsche has increased production of the 911 GT3 R and has supplied nearly 40 cars for 2016. In addition to all this, Jörg Bergmeister will contest rounds of the Japanese Super GT and Patrick Long will tackle the Pirelli World Challenge for Effort Racing. At the 24-hour race at the Nürburgring, Wolf Henzler will once more compete for the Falken Motorsports squad. The Manthey Racing team will contest the Nürburgring 24 Hours with two new 911 GT3 Rs, each manned by four Works drivers.

Porsche has one eye on the future, too. As part of its youth development scheme 23-year-old German, Sven Müller, and 19-year-old Italian, Matteo Cairoli, will be coached by former Porsche Works driver Sascha Maassen. They will receive €200,000 each to contest another season of the Porsche Mobil 1 Supercup. Two new talents, 19-year-old Norwegian, Dennis Olsen (who will also contest the Carrera Cup Germany) and 21-year-old Frenchman Mathieu Jaminet, will tackle the Mobil 1 Supercup.

At the Night of Champions, Scotsman Ryan Dalziel received the Porsche Cup trophy for being the most successful Porsche privateer in 2015, and was given the keys to a 911 Carrera 4S Cabriolet. Dalziel's successes in the Pirelli World Challenge earned him the prize. Second was Klaus Bachler who received prize money of €30,000. In third, Marco Seefried won €25,000.









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

Welcome to the Pleasuredome... Peter Morgan takes a trip down memory lane with the 924 Turbo.

espite the arrival of social media there's still nothing like meeting an old friend face to face. In the noisy clamour of a busy service shop recently I came across the unmistakable shape of a 924 Turbo, looking very 1980s glam among the modern Boxsters and Carreras. I had a 924 Turbo once and my best memory of it is throwing it around on snow near the Nürburgring to the audio extravaganza that was Frankie Goes to Hollywood.

Now many of you won't have a clue what I am talking about (car or music!), but 30 years ago the 924 Turbo was almost as quick as a regular production 911 Carrera (and certainly nimbler than the SC). In the early 1980s the 924 Turbo was unloved, didn't sell as many as was hoped but nonetheless was developed to within an inch of its life. The factory even raced modified versions at Le Mans. Despite its very niche appeal (okay, it wasn't a 911), the 924 Turbo was a great driver's car.

If you do an online search on the early 924s today, you'll find cars for sale for just a few grand at best and slightly sepia tinted period colour photos of a sports car that understates its appeal. To get the most from this classic Porsche Cinderella you've got to enjoy a three dimensional take on the curves and its remarkable practicality. Most importantly, you've got to throw one about a bit. You'll realise quite quickly that there was quite a lot of thinking put into making this car special.

The 924 was the model Porsche designed for VW and then bought back to sell itself in the mid-1970s, aiming to have a new 'entry-level' sports car to run alongside the proposed 911 replacement: the 928. Those elegant lines, which included a front location for the 2.0-litre VW overhead cam engine, were penned by a young Harm Lagaay at Style Porsche.

The 924 sold well through the late

1970s (it was the first Porsche to hit 100,000 cars sold) and this despite only having 125hp. Nevertheless, the idea of a new vehicle generation at Porsche stalled and the plan to have the 928 and 924 replace the 911 by the early 1980s didn't happen. Porsche's hardcore customers largely turned their backs on the new models. But that didn't stop the engineers from

taking the 924 concept to its limits.

The launch of the 924 Turbo (now known as the Series 1) in August 1978 took the front engined car's performance to another level. The much

"To leave a corner fast you had to be on throttle almost before you were turning in"

improved Series 2 arrived in August 1980. These later cars are the ones to have, with DME and improved oil circulation for the under-cooled turbo. It's 177hp took you to 143mph and 0-62mph in 7.7 seconds (the 911SC managed 140mph and 7.0 seconds from its 188hp). A 924 Turbo could leave the tail-happy 'elfers' for dead on

a track such as Brands or Castle Combe.

I had two regular 924s before getting a Series 2 Turbo sometime in 1983. The following January we drove it across France to a trade show in Milan (and took it on the track at Monza after the few staff had gone home!). On the way back, we thought it would be fun to drive up to the Nürburgring. It's only when you look at the map you realise that the 'Ring is some considerable way north of a line drawn between Milan and Calais! By the time we reached the Eifel mountains we found ourselves in a blizzard and all the roads were covered in a full winter's worth of snow and ice. But the Turbo was in its element.

It was so well balanced on the slippery roads and was a real blast to drive because of the huge turbo lag — to leave a corner fast you had to be on throttle almost before you were turning in. The handling balance was down to the rear mounted five-speed gearbox, which gave the car a near ideal 53% front/47% rear weight distribution. It just went where it was pointed, even on snow.

We never did get to the 'Ring but that drive sold me on the hidden qualities of Porsche's first generation water-cooled four-cylinder. Soon after the Turbo, the 924 was given full Porsche credentials in the form of a 150hp version of the new 944 engine, but by then the 'narrow body' look appeared outdated compared to the racy lines of the 944.

Despite the enormous production volumes sold, today any 924 is a very rare sight. Most have gone to the breakers. But 35 years on, this is a classic Porsche that still looks good – particularly in the period solid colours and contrasting black spoilers. It may not have been Porsche's finest but those that survive are gaining traction in the classic market.

In the modern workshop it wasn't out of place at all, even if the background music was Coldplay and not Frankie O



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



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Porsche 911 (997) 3.6 Turbo Convertible Tiptronic 2008/08, 28,400 miles, Special Order Fountain Blue, Engine Size 3596, PCM - Sat Nav with Phone, Sport Chrono Pack Plus, Electric Memory Adaptive Sports Seats, Aluminium Look Seat Backs, Heated Seats, Cruise Control' Side Skirts, Park Distance Control





Porsche 911 (997) 3.8 Carrera 4S Coupe 2006/06, 41,200 miles, Seal Grey, Engine Size 3824, Black Leather, PCM - Sat Nav, Sport Chrono Pack Plus, PSE - Porsche Sports Exhaust, BOSE Sound System, Sports Seats, Aluminium Handbrake and Gearlever, Porsche Empossed Headrests.



Porsche Cayman 2.9 Coupe Gen II 20011/61, 26,300 miles, Guards Red, Engine Size 2893, Black Leather, Park Distance Control, Sports Steering Wheel, Rear Wiper, PSM, On-Board Computer, Climate Control



Porsche Cayenne GTS 4.8 V8 Tiptronic 2008/08, 79,400 miles, Basalt Black, Engine Size 4806, Black Leather/Alcantara, PCM 3 - Touch Screen Sat Nav, Bluetooth Phone Prep, Air, Suspension, BOSE Surround Sound System, Electric Memory Seats with Lumbar Support, Park Distance Control Front and Rear 221,900





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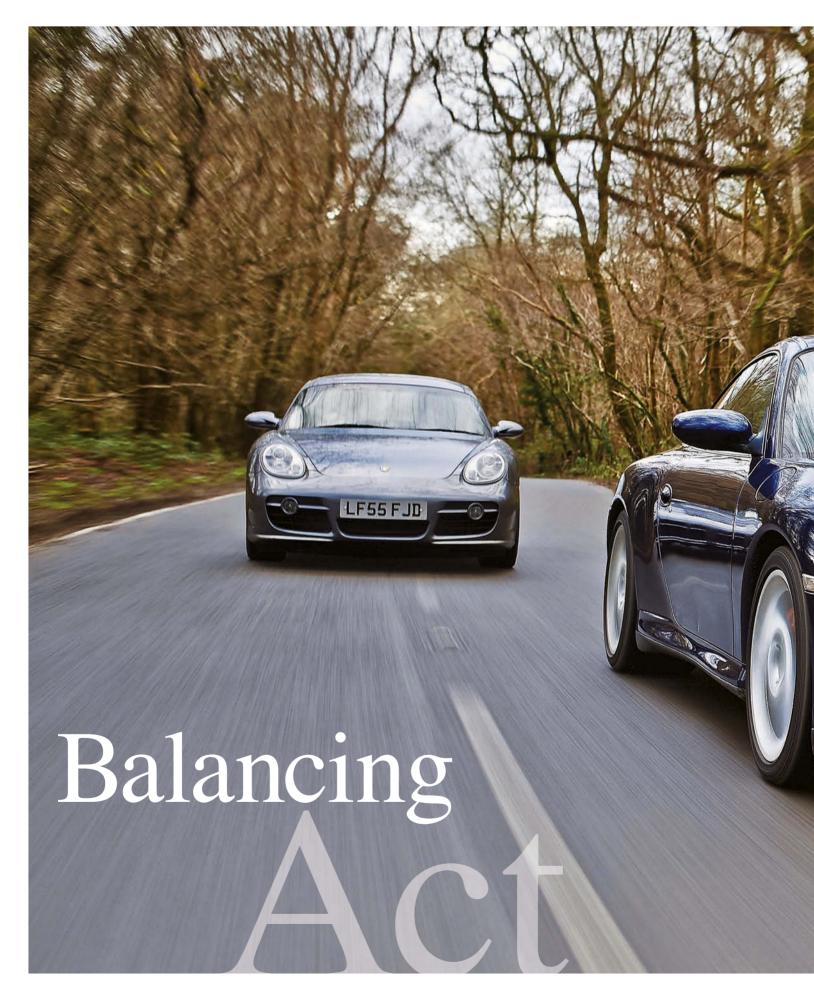


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f history had turned out slightly differently, the 911 would have been a mid-engined car. You see, Ferdinand Porsche senior, who started a motoring design bureau in the 1930s, was a big fan of the rear-engined layout, as it put the engine out of the way to give more space for passengers and luggage; plus, putting the weighty engine over the back wheels helped traction. His most famous creation was the Volkswagen Beetle, designed in the 1930s to be Adolf Hitler's 'People's Car' and, as we all know, this was rear-engined for those very reasons. However, his son Ferry Porsche, who also worked at the company, liked to dabble with racing designs and realised at an early age that putting the engine in the middle of the car with the gearbox behind and the weight evenly distributed between the front and rear wheels made for better handling and he created some very competitive racing machines.

So when, after the end of the Second World War, Ferry's thoughts turned to designing a sports car, he didn't think twice about adopting a mid-engined layout. The result, dubbed type 356-001, was a beautifully sleek roadster with a long, low rear deck covering a lightweight spaceframe chassis and Volkswagen running gear (the original plan was to sell the design to VW rather than market the car as a 'Porsche').

It worked well, too, with handling that far surpassed what the little 25hp flat-four engine could throw at it. It wasn't practical, though, both in terms of usability – it was strictly a two-seater with little luggage space – or, with its complex spaceframe, mass production. With Porsche senior looking sternly over his shoulder, young Ferry literally went back to the drawing board and reworked his design. Next out of the





The Cayman looks petite and lithe without an ounce of fat

old Austrian sawmill that was the company's headquarters came 356-002, which was different to the first 356 in pretty much all but name.

This new prototype had a simpler (but not as light) welded sheet steel floorpan in place of a spaceframe and – crucially – the engine was now located at the back of the car, behind the gearbox, making room for a rather handy pair of small rear seats. It was an about-turn that paved the way for the production Porsche 356 which, in turn, evolved into the larger 911 which we all know and love today. The legendary sports car that, famously, has the engine in the 'wrong place'.

Despite the success of the 911 over the years, Porsche continued to dabble with mid-engined cars. Back in the late 1960s, it introduced the entry-level 914, a distinctly boxy, Volkswagen-powered, Targa-roofed sports car which proved popular in the USA but less so in Europe, despite its surefooted handling. Then, in 1997, came Porsche's next mid-engined offering, the open-top Boxster, which was also an entry-level car, taking the place of the front-engined 968. This then led to the Cayman of 2005 which was essentially a Boxster coupé; the stiffer steel-roofed shell allowing firmer, more sporty suspension settings.

Ten years on, the Cayman has been through three incarnations and has become a well-established part of the Porsche family. It has, though, come into conflict with its big brother, the 911, with buyers of used Porsches wondering which to choose – the mid-engined Cayman or the 911. Nowhere is this dilemma more apparent than in the £15,000 to £20,000 marketplace. In this price bracket, you have your pick of good early Caymans, good late 996s or not so good early 997s. We'd always pick decent examples



over poor ones, so for the purposes of this article we've brought together a 2002 996 Carrera 4S and a 2006 Cayman S. Both lovely cars, both full of Porsche DNA but, at the same time, each with its own distinctive characteristics.

The 996 Carrera 4S is a true 911 with its 3.6litre flat-six engine hanging out behind the rear wheels. However, as the badge suggests, it adds four-wheel drive into the mix, plus wider rear bodywork borrowed from the Turbo of the day.

The Cayman S, on the other hand, has its engine mounted amidship. It is, though, essentially the same water-cooled flat-six as in the 996, albeit with a smaller capacity of 3.4-litres - a step up from the entry-level Cayman which was 2.7-litre.

Put the two cars side-by-side and the 996 looks noticeably larger, especially from the rear. However, get out a tape measure and you'll be surprised to find that the 4S is only a few

millimetres longer and wider than the Cayman. Whatever, it's an imposing machine, the Carrera 4S, with its wide arches and that wonderful fullwidth rear reflector - Porsche 911 backsides don't get much better than this. The front, meanwhile, is just as purposeful with its massive Turbo-style air intakes. Some people moan about the 996 headlamps but we like them and they have stood the test of time well.

In comparison, the Cayman looks petite and lithe without an ounce of fat. Its rear is narrow vet beautifully formed, with the rear wings tautly stretched over the wheels, like a cheetah ready to pounce, whereas the beefy Carrera 4S is more of a stampeding buffalo.

While a cheetah sits quietly and discreetly, you can't avoid a buffalo's presence, and so it's with these two Porsches. The Cayman doesn't impose and you'd hardly notice it covertly passing you

on the road. There's a real sense of occasion with the 996, on the other hand, with its intakes and bulbous rear. It's a car that screams 'look at me'. whereas the Cayman quietly purrs its intent. In fact, this is particularly true of the two cars we have here today because the 996 is fitted with the factory switchable Sports exhaust - press a button and the exhaust note becomes noticeably more burblier and slightly louder. In comparison, the Cayman has the exhaust note akin to a Dyson; but nothing that a decent aftermarket system couldn't put right.

Inside, the story is different. The 996's cockpit is a wonderful cacophony of sweeping curves which mirror the car's exterior, while the Cayman's is more angular and Germanic. The 996 has been accused of having a cheap cabin but we disagree and actually prefer it to the Cayman's; despite the latter being four years











has a rear hatch). But of course, Porsches shouldn't just be about luggage carrying (unless they're Cayennes, maybe) but rather about driving and here, too, our two machines offer quite different experiences.

At risk of stretching our animal analogy to the limit, the 996 drives like a charging buffalo, with bags of power and torque. Okay, the Carrera 4S doesn't have the outright grunt of the Turbo on which it's modelled but it's certainly not lacking, with 320hp and 273lb ft of torque, it's a fast car and takes no prisoners.

The Cayman's 3.4-litre powerplant, meanwhile, produces 295hp and 250 lb ft. Considering the Cayman is some 150kg lighter than the 4S, thanks in part to its lack of rear seats and better use of lightweight materials, you'd think they'd perform very similarly. And on paper they do, each with a 0-62mph time of 5.1 seconds, and a top speed of 174mph for the 996 with the Cayman just 3mph behind. In reality, mind, they are surprisingly different. The 996 engine is torquier and lazier, while the Cayman's just wants to rev - and it needs to rev to get into the power band. That makes it a lot of fun and you just want spend your time exploring the redline in a way that the 996 just doesn't encourage you to do. And, chasing the 996 in the Cayman, we do get left behind - whatever the figures say, the Carrera is the faster car. The Cayman is best described as nippy - and we don't mean that in a derogatory way - whereas the 996 is more brutal in terms of power delivery and acceleration. We're back to the buffalo and cheetah again.

There's another animal to consider here – the elephant in the room that is engine placement. What difference is there between the rear-engined 996 and the mid-engined Cayman in terms of

handling? As we hinted at the start of the article, the 911 has often been accused of having its engine 'in the wrong place' and, in theory at least, it's not logical to hang a heavy engine out of the back of a high-performance car. Read some of the folklore about the 911 and you would be forgiven for thinking that its engine placement is a mistake, with tales of cars spinning off out of control. The reality, though, is quite different. Sure, the very first 911s could be a bit hairy on the limit if you didn't treat them with respect but were still great-handling cars for their day. Over the years, Porsche worked hard to tame the 911's handling and, by the time of the 996, it was an extremely well-sorted machine indeed.

One great advantage of a rear-mounted engine is that a lot of weight is above the back wheels which, coupled with the car squatting down under acceleration, ensures superb traction off-the-line, and helps rear grip during cornering. It also improves heavy braking in a straight line, when weight is flung to the front as the 911 maintains more mass over the back wheels – the 911's legendary braking ability isn't just about big discs and callipers.

This is all very well until you upset the balance during cornering by reducing power suddenly – by lifting off the throttle or, even worse, braking – which leads to a transfer of weight to the front of the car and lets the heavy rear swing free which, in a worst-case scenario, can cause the car to spin. The solution is to avoid harsh changes mid-corner – the old adage slow in, fast out, is particularly good advice with 911s. Accelerate out of the corner and the car will knuckle down and push you through it.

This reaction to throttle changes can be used to your advantage, to help steer the car through a

corner. After you've initiated the turn with the steering wheel, lifting off the throttle slightly will encourage the car to turn more, while more throttle will reduce the turn. The key word here is 'slightly' – more than any other car, a 911 rewards subtle inputs, and the wonderfully precise and light (because there's so little weight at the front) steering lets you feel just what is happening. Get it right in the 996 and it's immensely satisfying. Get it wrong, and you won't have to worry much because the four-wheel drive and PSM (Porsche Stability Management) of the Carrera 4S will keep you out of trouble unless you're being stupid.

Surely, though, the Cayman's more neutral front/rear balance will ensure it handles better than the 996? Well, it all depends what you mean by better. The mid-engined car corners remarkably neutrally without any fuss, almost as if it's in a PlayStation game, and is far less sensitive to changes in throttle input – which is both a good and a bad thing. Good in that less experienced drivers can thrash around

bends at high speed, bad in that you don't have that same joy of feeling the balance subtly change with your right foot. That said, the Cayman is still immense fun. Its steering is quick and precise, it's incredibly obedient around corners, and it feels a smaller, nippier (that word again) and, well, more of a sports car. And that, surely, is the crux of the matter.

The little Cayman is a true sports coupé – almost a modern MGB GT in its execution – combining reasonable comfort with a very chuckable and fun driving experience. The 996 Carrera 4S, on the other hand, feels rather more grown-up and perhaps more of a grand-tourer than an out-and-out sports car. It doesn't encourage you to drive it hard in the same way that the Cayman does, but once you do make the effort to do so, you are rewarded with a unique and exciting experience, combined with a capable and rapid cross-continent cruiser.

Someone once said that a Cayman inspires confidence, whereas a 996 demands confidence. Wise words and certainly true

when you are pushing the cars to the limit on a race track. For road use, though, the Cayman and the 996 Carrera 4S are both extremely useable everyday cars and each will reward their owner in different but equally satisfying ways. And you certainly shouldn't be scared of a modern 911's handling.

Which would we take? It's a tough question and one we don't have a simple answer to. The Cayman seems the logical choice – it's cheaper, newer, easier to drive fast, lots of fun and very much the sportier, driver's choice. On the other hand, the 996 Carrera 4S has power, presence, rarity and rear seats in its favour; not to mention the unique driving experience that the rear engine offers. Oh, and being a 911, it's a motoring legend, something that the Cayman has yet to attain.

The great news is that we do actually have such a choice. If history had turned out slightly differently, we'd have had just a mid-engined 911 and nothing else. Thank goodness for parental involvement! ○













Purchasing a 996 Carrera or Cayman is only half the financial story. With the help of independent Porsche specialist, RPM Technik, we delve into the practicalities involved in running each...

Story: Simon Jackson Photography: Various

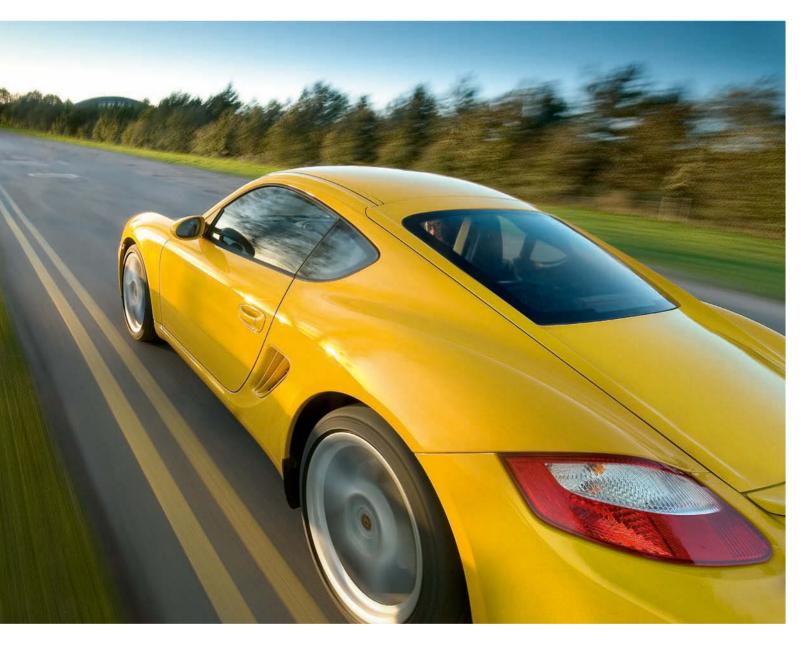
s you've seen in the preceding pages, there has never been a better time to dive into modern Porsche ownership. Thanks to the first of the watercooled 911s, the 996, and the first-generation Cayman 987, Porsche's mid-engined success story, with £15,000 to £20,000 in your pocket you're spoilt for choice. But having made your selection, swallowing that initial purchase price is only half the story, anyone on a budget (and let's presume most are) will be equally concerned with the costs involved in running these cars. After all, they may be affordable now, but they're still Porsches, and with that prestige badge come inherent overheads, or so you might think. Darren Anderson, commercial director at independent Porsche specialist, RPM Technik, helped us get to the bottom of real life everyday costs involved in running one of these cars.

First things first, we were interested in which he

feels makes for the better investment: "The 987 Cayman is a superb handling machine which paved the way for the current crop of Caymans (981) to be one of the stars of the contemporary Porsche line-up. They are great machines to live with daily, as a weekend warrior or even to modify into a hardcore track weapon." Darren told us. "The 996 Carrera is an interesting machine; they're lighter than their predecessor but with more power and arguably sharper handling if kept in top condition. However, for years now they've been undeservedly overlooked which has suppressed values. They are now rightly starting to have their time in the limelight and we cannot get enough of them."

So, where would Darren put his money? "I think both cars financially hit their bottom about a year ago. The 996 3.4s are well and truly now on the up but with Caymans remaining stable, the 996 takes the honours here," Darren



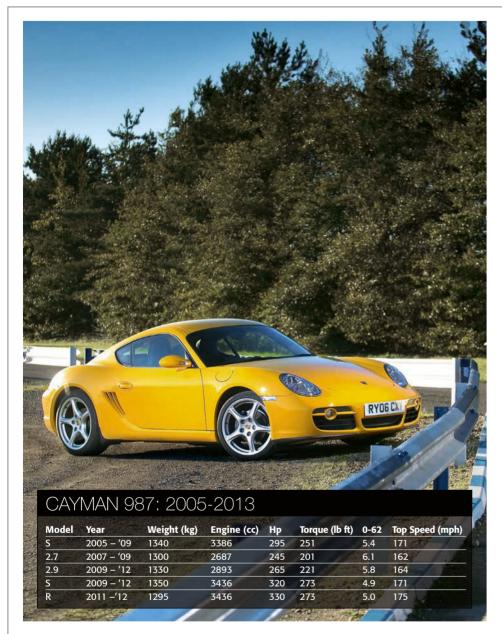


explained. "However, with the earliest 996s now being nearly 20 years old, their running costs can be fairly heroic if they have been poorly maintained, whereas the Cayman is a pretty safe car to run from a cost point of view. For us the 996 would get the vote due to the fact that it feels a bit more special, with plenty of scope for modification - they can be moulded into a very satisfying but unassuming Porsche."

So, which 996 Carrera model offers the best specification in RPM's view? "The purest form is best, so an early 3.4-litre without traction control (these still have cable throttle linkages too), nonsunroof, MO30 chassis with a factory LSD. Personally, the crazier the colour the better too!"

What are the things to look for? "As with any

Porsche, a full service history, ideally with a main dealer or respected specialists, is a must. The 996 gained notoriety for engine dramas so an engine health check (boroscope and assessment) would be sensible. Other than that suspension can be expensive if it hasn't been mainland correctly, causing the car to feel sloppy. IMS upgrades are a no-brainier for peace



CAYMAN 987 (2005-2013)

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 flatsix 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 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, 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 fivespeed Tiptronic S available as option. Steel springs and gas dampers standard, PASM optional; 2009: 2009 model year - all-new flatsix 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 diff turns it into a genuine 911 alternative. Mild redesign includes new bumpers and head and tail-lamps. PCM3 is available with touch-screen 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.







of mind too. Otherwise just make sure it's used regularly and be mindful of corrosion on the underbody components, some of these cars are old now and many still have originals parts."

And, of the Cayman? "Values for the early Caymans seem to be so close between a 2.7 and a 3.4 that you may as well search out a 3.4 S with as many toys as you can find for your budget –

this will make it easier to move on come resale time. For me, personally, an S with 17-inch wheels, a manual gearbox, PASM, Chrono pack, and sports seats would be perfect." Are there any areas that should concern potential Cayman purchasers? "We have seen a fair few S models with bore scoring issues which are frighteningly expensive to remedy, so our advice would be to

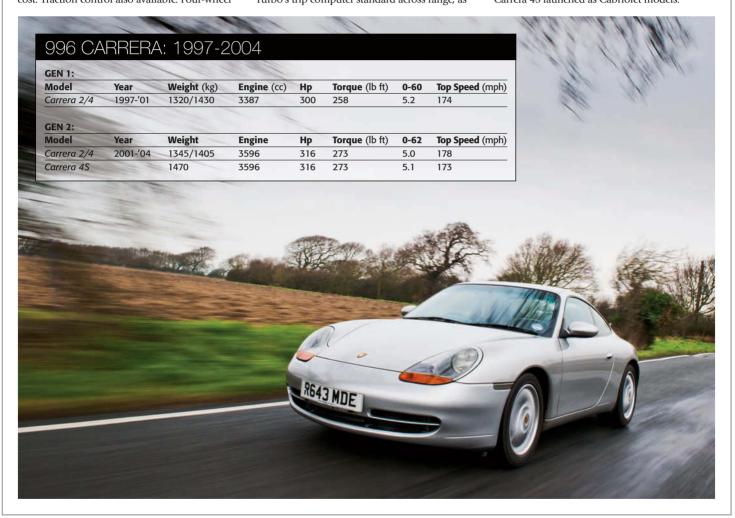
get a specialist to carry out the necessary checks. Plenty of Caymans have seen track work, as such checking for accident damage is a must. The workshop has seen a fair few with broken springs and leaking PASM dampers, neither are too painful on the financial front but essential given that the handling is this car's feature highlight. Otherwise just the usual wear and tear items that,

996 CARRERA (1997-2005)

1997-1998: 1998 model year – wheelbase (mm): 2350 length/width (mm): 4430: all-new water-cooled, 3.4-litre VarioCam six-cylinder '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). New 996 – 2001-2005: 2002MY: second-generation 996 introduced. Engine capacity grows to 3.6-litres, power increase to 316hp. Turbo's trip computer standard across range, as

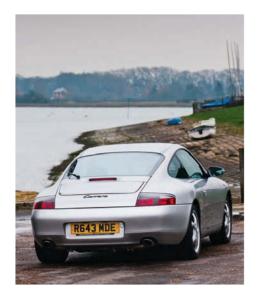
are Turbo headlights. Cup holders fitted for first time. New Carrera 4S introduced with Turbo brakes, suspension and wide-body. 996 Targa model launched with retractable sliding glass roof. 996 2003 to 2004: 2003MY: Turbo and Carrera 4S launched as Cabriolet models.











if left, can accumulate into a hefty service bill

values of either the 996 or Cayman falling or rising drastically in the near future? "The 996s

Lastly, we wondered, did Darren foresee the

are already on the rise whilst the Cayman seems

to have hit its level and is remaining stable. I can

see the values of good quality 996s carrying on

Technik's help we've broken down some of the costs involved in running either a 996 or

Whichever your preference, with RPM

Cayman, listing the work the Hertfordshire-

price servicing plans. These prices serve as a

based specialist undertakes as part of its fixed

guide for anyone calculating their expenditure as

a new Porsche owner, but should (of course) not

be taken as gospel as each car is different, and its inherent issues can be diverse. Our advice, as

always, is to begin with the best base car that you

possibly can, have it checked by professionals in

the field, such as RPM Technik, and to keep on

top of its maintenance. Then you should receive

no nasty shocks and all that is left to do is to

enjoy Porsche ownership O

should they all be required at once."

upward, and deservedly so."

CAYMAN 987 3.4 S SERVICING

60k comico:

Plug in and read out fault memory

Check all lights, levels, washers and wiper blades

RPM TECHNIK FIXED PRICE SERVICING:

Check all electrical devices

Lubricate locks and hinges

Change oil

Change pollen filter

Check brake wear

Check underside of vehicle for fluid leaks and rubbing

Check belt

Check radiator vents for debris and remove

Check all brake and fuel lines, Tectyl all metal ones

Check driveshafts and CV boots

Check all suspension and steering joints

Check all tyres and pressures including spare

Test drive

Wash and vacuum

Change spark plugs

Change drive belt

£565.49

120k service

(as 60k service with addition of):

Manual transmission change oil Tiptronic oil and filter

£682.55 (Manual) £794.14 (PDK)

Brakes: (Genuine Porsche parts)

Brake Fluid Change (every two years) *£77.00*

Brake pads – front/rear £207.18 / £172.12

Discs and pads front/rear

£544.48 / £449.60

Clutch kits:

Complete clutch kit

£886.51

996 C2 SERVICING

48k service:

Plug in and read out fault memory

Check all lights, levels, washers and wiper blades

Check all electrical devices

Lubricate locks and hinges

Change oil and filter

Check underside of vehicle for fluid leaks and rubbing

Check belt

Check radiator vents for debris and remove

Change pollen filter

Check all brake and fuel lines, Tectyl all metal ones

Check driveshafts and CV boots

Check all suspension and steering joints

Check all tyres and pressures including spare

Test drive

Wash and vacuum

Complimentary one-litre top up of Mobil 1 0W 40

Replace fuel filter (Up to '01 only)

Replace poly rib belt

Change spark plugs – all except MY '00 (Y)

£620.13 (> '00) £478.05 ('00-'01) £605.79 ('01 >)

96k service (as 48k service with addition of)

Manual gearbox oil Auto gearbox oil and filter

£703.28 (Manual > '00)

£532.31 (Manual '00-01)

£689.35 (Manual '01 >)

£807.32 (Tiptronic > '00) £698.78 (Tiptronic '00-01)

£840.82 (Tiptronic '01 >)

Brakes: (Genuine Porsche parts)

Brake fluid change (every two years) £77.00

£77.00

Brake pads – front/rear *£204.55/£174.62*

Discs and pads front/ear £525.73/£466.30

Clutch Kits

Complete clutch kit

£835.38

IMS upgrade

Replaced with LN Engineering's upgraded bearing Single or dual row bearing

Price shown is cost when installed at the same time as a clutch replacement

£690.78

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RACE HISTORY OF 917-004 (prior to chassis number 017)

1969AprilFIA (CSI) Homologation and registration.MayPreparation for the Nürburgring 1000km.

June Nürburgring 1000km.

June

Drivers: Frank Gardner and David Piper.

Result: 8th overall. This was the second race for a 917. However, as the first race for the new car was at Spa (where the car had mechanical failure on the first lap), 004 is considered the first 917 to go the distance and

finish a race in its entirety. Stability testing at Hockenheim.

Driver: Herbert Linge.

November Conversion to full 917K bodywork.
December Preparation and delivery to J.W

Automotive Engineering.

1970 March Preparation for BOAC 1000km

race at Brands Hatch.

April BOAC 1000km race at Brands Hatch.

Drivers: Jo Siffert and Brian Redman.

April Original chassis 917-004 returned to Porsche

to be repaired and renumbered as chassis 017.





A special era in the history of the Porsche 917 stems from a private conversation held between

racing programme for 1970 and 1971. Now there were several reasons behind the invitation. Foremost was the ability of the Slough-based team to consistently win against newer cars backed by better funded teams. Case in point being that the Gulf Oil-backed JWAE outfit was using what many considered an obsolete car against current competition in its Ford GT40, and it was still beating them. Wyer replied that he would take the matter up with Gulf Oil, who was more circumspect as to what could be gained by joining with Porsche. When the 917 was shown at the Geneva show a week earlier, Wyer had clearly seen the future of sports car racing. In his own words: "Porsche had, typically, done it first, and at a stroke every other car was out of date." In addition, he pointed out, in the direct Wyer manner, that he could offer no prospect that would be able to beat it.

while there was a basic agreement and understanding between Wyer and Porsche, there was still a full season of racing ahead. The high points for both organisations were JWAE once again claiming the 24 Hours of Le Mans with its 'obsolete' GT40, and Porsche winning the World Championship of Manufacturers using a combination of 908s and early model 917s. The final contracts were signed in August. The

Porsche team manager, Rico Steinemann,

agreement called for Porsche to supply JWAE with seven complete 917s over the course of the 1970 season. The first of those was chassis 917-004. A pro-forma invoice dated 5 December, 1969 confirms this, with its actual delivery to Slough occurring three days later. 917-009 was to later join 004 in January, while 013, 014 and 015 were prepared and collected from Porsche for shipping to Daytona. Chassis 917-016 was shipped to JWAE in March of 1970 with chassis 017 being held in reserve at Zuffenhausen with the possibility of being built up as a new car for Le Mans.

Serious preparation on 917-004 and 917-016 was well underway at Slough come March, with the upcoming 1000km race at Brands Hatch to be held on 12 April. A letter from JWAE, received at Porsche on 2 April 1970, requested a number of new parts to bring 004 up-to-date. These were promptly shipped out to Slough in time for the car to be ready to race. The BOAC 1000km race at Brands Hatch featured the best of competitors, along with some of the worst the English weather could muster in the form of howling wind and driving rain. Qualifying for 004 and 016 delivered mixed results, but all that changed come the actual race. The driver pairings were Pedro Rodriguez and Leo Kinnunen in chassis number 016, and the great Jo Siffert and Brian Redman aboard chassis number 004. Both 917s started on narrower wheels with Firestone rain tyres, and the duo both ran four-speed transmissions. Rodriguez had a phenomenal race in the heavy rain, and car 016 went on to the overall victory. The 004 machine had a troublesome start with Siffert suffering a flat left rear tyre while out on the circuit and losing valuable time attempting to drag it back to the pits. He rejoined the race in third place and according to JWAE's chief engineer, John Horsman, "the car had been alternating between second and third place and was ready to win if Pedro faltered". However it all came to an end on lap 177. Brian Redman was at the wheel of 004 when he was hit from behind by Chris Amon's Ferrari 512S, effectively ending his race.

Upon returning to the JWAE workshops after the race it was determined that although the damage to the chassis of 004 was not significant, due to the upcoming race schedule it would be advantageous to return it to Porsche and replace it with chassis number 017. This replacement chassis was picked up by JWAE from Zuffenhausen on 26 April 1970 and delivered to the workshops at Slough for immediate assembly. In order to maintain the validity of the carnet that had been issued for 917-004, the chassis tag from the damaged chassis was removed and welded in place on the new chassis (017), thus 004 would continue in service. The damaged 004, now with the identity of 017 for paperwork purposes only was

for paperwork purposes only, was returned to Porsche and eventually repaired later that winter and subsequently put into storage.

put into storage. In 1975, the chassis known internally as 004/017 was sold to Alan Hamilton of Hamiltons - the official importer of Porsche vehicles in Australia. The man was not only a racer but also a collector of Porsche race cars, having owned several 908s, and having purchased a 917/30 (chassis 004) directly from the factory. The purchase of an original 917K was almost an afterthought. Eventually Hamilton sold the chassis to a racing friend, Pat Burke, who located and purchased many of the parts needed for assembly. In 1989, after years of being in various states of partial assembly, 004/017 found its way to David Piper. Piper, who had amassed a sizeable amount of spare parts for the 917, completed the car in Gulf colours and added the short vertical fin tail section used in 1971. He was very familiar with the car, since he raced 004 in 1969 at its first race: the Nürburgring 1000km. Piper and codriver Frank Gardner took eighth place, and thanks to this finish chassis 004 is considered to

In 2004, the completed and running car was being offered for sale by Fiskens of Kensington, and a deal was made by principal Gregor Fisken with Stephane Ratel of the SRO Motorsports Group. Ratel has impeccable credentials having been one of the founders of the BPR Series, which later became the FIA GT Championship. Ratel had his friend and former partner in the BPR, Jurgen Barth, visited Fiskens and inspect chassis 004/017 prior to purchase.

Ratel had planned to

run the 917 in historic events but simply

Below: Chassis 004 was raced by Jo Siffert and Brian Redman in the BOAC 1000km at Brands Hatch in 1970...





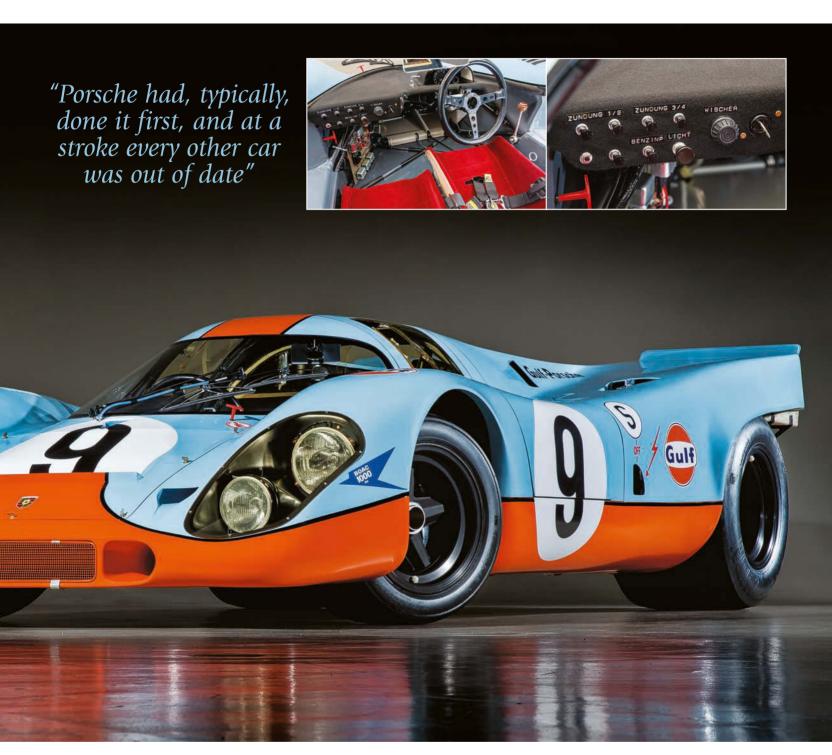
be the first 917 to finish a race in its entirety.

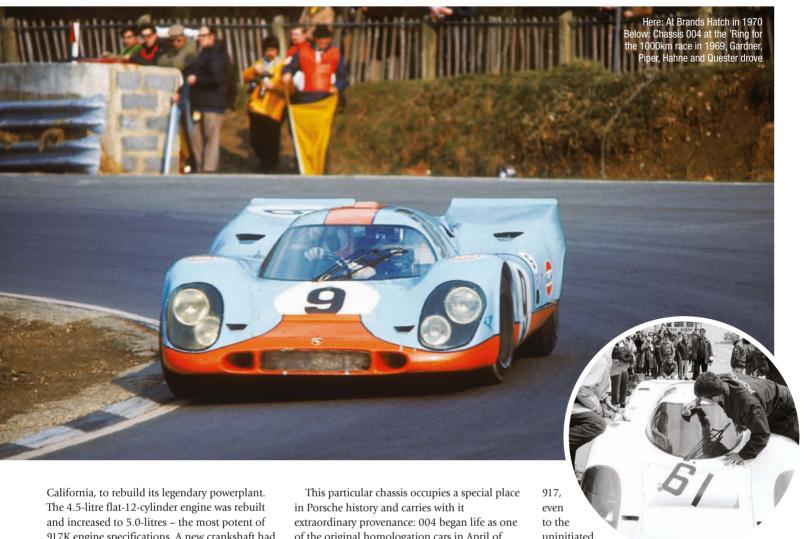
did not have the time to participate, and the car then found its way to Miguel Amaral in Portugal. Amaral had his own impressive stable of current and vintage race cars, and raced 004/017 on the great circuits of Europe on numerous occasions. In 2008, Amaral decided to send the car to California for restoration under the guidance of noted Porsche historian Kerry Morse. The car was delivered to Porsche Motorsport North America for disassembly of its drivetrain and electrics, but unfortunately the project suffered a series of delays and setbacks – not an unusual occurrence with a difficult, high-end restoration of this type. In 2011, at Rennsport IV, the subject of chassis

004/017 came up between Kerry Morse and Bruce Canepa. Having pursued this specific 917 in the past, and with interest still high in purchasing it, Canepa and Morse worked out a deal. In December of 2011, chassis 004/017 was delivered to the Canepa facility in Scotts Valley, and a full inventory of its parts was undertaken. Canepa's goal was to restore the car to its Gulf-liveried, 'Brands Hatch' configuration. Once the scope of the project was fully realised it was decided to bring together a team of the finest experts to complete the car. Normally all the work would have been executed in-house at Canepa, but with a dozen high-level restorations

already underway, including another 917, Bruce decided to send the body and chassis of car 004/017 to Kevin Jeannette of Gunnar Racing in West Palm Beach, Florida. Gunnar, like Canepa, is well-known for its extensive and thorough restorations of Porsche competition vehicles. Having owned and raced one of Gunnar's 917 restorations, Bruce knew that the company had the experience, expertise and quality that would meet his standards for a world-class restoration.

While the craftsmen at Gunnar began the twoyear process of completely restoring every aspect of the 917's body and chassis, the Canepa team engaged Ed Pink Racing Engines in Van Nuys,





California, to rebuild its legendary powerplant. The 4.5-litre flat-12-cylinder engine was rebuilt and increased to 5.0-litres – the most potent of 917K engine specifications. A new crankshaft had to be manufactured to accomplish the build, and Canepa gave this task to the craftsmen at Crosthwaite & Gardner in the UK – a company known for its precision machine work on vintage race cars. Finally having sourced a new set of 5.0-litre Mahle pistons and cylinders, the intricate engine build was complete. The rare Type 920 four-speed gearbox was entrusted to Dieter Inzenhofer (of Andial fame) for a complete rebuild, too.

The Canepa project team spent long hours making sure all the elements going into chassis 004/017 were absolutely correct. Working with a cadre of speciality parts suppliers, and using up plenty of favours, part by part the 917 came together. For example, the headlights (new old stock and still in their Porsche boxes) came from Kevin Jeanette's personal parts stash. Kerry Morse assisted with the build, too, contributing his vast knowledge, and access to his sizable personal collection of period parts. From the smallest bolt, to the intricate aluminium chassis, every element of the 917 was scrutinised and vetted. The goal was to execute the most accurate restoration of a 917 to date, and thanks to the hard work of the team of experts involved that goal was accomplished, as you can see in our pictures here.

This particular chassis occupies a special place in Porsche history and carries with it extraordinary provenance: 004 began life as one of the original homologation cars in April of 1969. It is one of the few examples to be raced in 1969. And it is the first 917 to go the distance and finish a race in its entirety. Even with that stellar pedigree, it really comes down to the fact that 004 was, and is, a legitimate J.W Automotive Engineering 917K. That iconic livery on a

917, even to the uninitiated, represents the pinnacle of the 917K's racing efforts. 917s are truly rare beasts, and especially ones that can irrefutably wear the soulstirring Gulf colours of blue and orange with legitimate pride •







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Only when first gear has been dispatched and the wheel and road speed are once more the same does the instinctive, animal core of your mind acknowledge the false alarm and







turns off the warning sirens in your head. Only then does it feel fast: absurdly, incredibly, apocalyptically fast.

Owners of current Turbo S models probably don't sit in silent contemplation over their Monday morning cornflakes lamenting the fact that their 560hp car isn't just a trifle faster. Of all the ways in which they might choose to modify their car, I'd be prepared to wager that adding a further 20hp would not be that high up the list. But it's got it anyway, so now its motor is fully 100hp stronger than was the 997 Turbo when it was launched ten years ago. And while at the time we were all impressed that this was the first 911 to hit 62mph from rest in under four seconds, now we have the first to do it in under three. While that's just a single second's gain, it's also a 25 percent increase in pace, which feels not one whit less staggering than it sounds.

Followers of 911 engine developments should note that, unlike lesser versions of the second generation 991, the Turbo and Turbo S retain the engine used in the old car. Indeed it is little altered. Both the Turbo and Turbo S get a

completely new injection system which raised fuel pressure from 140 to 200bar and sprays it into the engine via new injectors, but otherwise the most significant change is that the Turbo S gets bigger compressors for its Borg Warner turbos, the first time there has been a hardware difference between Turbo and Turbo S engines. There's also now a nifty device fitted that momentarily maintains boost pressure when you lift off the throttle so should you quickly reapply the power, lag is kept to a minimum.

But this is also likely to be the motor's last laugh: Achleitner was quite candid about the fact that financial considerations lay behind the decision not to provide the Turbo and Turbo S with versions of the all-new twin-turbo motor now found in the Carrera and Carrera S. The new engine under development has a larger capacity than the current 3.0-litres, but will not make its debut until the next generation of all-new 911 breaks cover, probably in around three years time.

Retaining the old engine also means the PDK gearbox has survived unchanged save for the reversal of the sequential shift pattern, so that it now finally and correctly changes down rather than up when you push the lever forward. Even an 8mph increase in top speed to a monumental 205mph (198mph for the Turbo) has not required revised gearing. Interestingly however, while the torque of the turbo motor has risen, that of the





Turbo S has been maintained at 553lb ft of torque. When I asked Achleitner why, his response was a masterclass in talking around the subject but I think it's already at the safe limit of the gearbox's torque handling capability.

On the chassis side, the Turbo S remains a delight for acronym fetishists. It has PSM, PASM, PTV, PCCB, PDCC, PAA and PTM and those are just the ones I can remember. What you need to know is that the dampers have been modified to provide a greater range of ride and handling options.

Visually you'll most easily tell a Gen-2 Turbo or Turbo S from the earlier car by the longitudinal vents on its tail spoiler, but there are also new aprons with redesigned inlets front and rear, new wheels and lights and, inside, a 918-style wheel and Porsche's new, good but not great infotainment system.

One of the aspects I have enjoyed most about 911 Turbos of the last ten years or so is the incongruity of their performance. These are not bewinged monsters like a GT3 RS yet now and because of all that power, the Turbo S is the quicker car around the Nürburgring. So if you strap yourself into a supercharged Ariel Atom with no screen, doors, windows or anything else and with your backside half an inch off the deck, you instinctively brace yourself for action. The Turbo S is the reverse. Its interior is sober, perhaps even to the point of being slightly staid. Fire it up and there's no angry bark, just a veiled woofle quieter by far than that of even a new turbo Carrera engine with over 200 fewer horsepower. Drive it gently and you'll be impressed as ever by the comfort of the ride, and its refinement.

Then, when a gap appears in the traffic ahead, it will take off faster than all bar a tiny handful of other cars and just one Porsche – the 918 Spyder. And the faster you go, the more impressive it becomes. On the 900 metre straight of the reborn Kyalami circuit outside Johannesburg I saw 155mph before electing to return my gaze to the track lest I missed a braking point. It was probably doing 160mph before those immense ceramic discs simply shed 100mph like you or I might shrug off a coat. And if you held it at 100mph then accelerated hard, it gained speed like most conventionally quick cars do from rest.

But this is not a natural environment for the car. It's not gained any weight, but at an unladen 1600kg, it's still a heavy car and remarkably so given it weighs almost 100kg more than a standard Carrera. Its wider track, fatter tyres and more sophisticated suspension can still summon up massive grip, but the car lacks the kind of accuracy you'd find on any GT-series 911 and the balance too: it understeers on the power and oversteers dramatically if you don't balance the car properly on entry. It's all good natured stuff, but the sense of too much mass is being given rather more to do than it would choose is inescapable.

On the road it is a very different creature and almost





It will take off faster than all bar a handful of cars and just one Porsche – the 918 Spyder





Its punch leads you to wonder not whether you should overtake the car in front, but why you should not...

certainly the most effective allweather continent-crusher yet conceived. Here it just feels more effortless than ever, its punch leading you to wonder not whether you *should* overtake the car in front, but why on earth you *should not*. Your TED (Time Exposed to Danger) is comically small.

Ever since the 993 generation of 911 Turbo gained twin puffers and allwheel drive, these cars have not been the machine to fall for in an instant, as you might a GT3. For all their speed, these are not showy, heart-on-sleeve kinds of vehicles. They need long journeys before they'll get right under your skin and while time precluded any such adventure in the car, I know the breed enough for the same to be true here. Once you've got over the implausible performance (you'll never actually get used to it), what remains can for a time seem to be a mere device, an immensely fast machine tool for doing a specific job to a very high standard, but a machine tool nonetheless. Only after the hours have melted into days and days into weeks does it become easy to appreciate the bewildering breadth of talent these cars put at your disposal.

So whether you are talking about the car or its uprated engine, the same observation applies: it is the same, but more so. If you like the sound of that, the reality is one you'll likely love \bigcirc



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your 'writes

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Star Letter

GT4: Profiteering?

It's common knowledge that getting your hands on a GT4 was nearly impossible thanks to the small numbers initially coming into the UK. Porsche dealers were vetting clients prior to accepting their orders to ensure they were not profiteers purchasing the cars merely to sell them on for a quick buck. Why, then, are there so many 'as new' GT4s on the market priced £40,000 above their retail value?

David, email

That is a good question David... but, are these cars actually selling for their asking prices? **GT**

Mental Arithmetic

On page 41 of the Spyder article, the weight difference between old and new is stated as '115 kilogrammes' despite the



respective weights being quoted in the article as 1275kg and 1315kg. Having received respectable marks in maths, I am confused. I am sending this, in part, to reassure you that what your print is actually read in some detail.

Joseph Carastro IV, USA

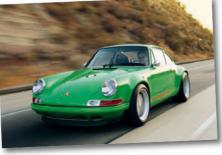
Hi Joseph, you have indeed reassured us! Clearly we have made a mistake in that article. To confirm, the 981 Spyder weighs 1315kg (DIN), a 40kg difference to its 987 forebear. **GT**



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





Hi Ronald, that's not an easy question to answer as we're sure you'll appreciate! RUF has the heritage, Singer the reputation and Club Auto Sport has the appeal of being something that little bit different. What do you think, loyal readers? GT





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£119,995



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£44,995



911 Carrera 2 S (997 GEN II)

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911 Turbo (996)

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orsche is a market-leading car
manufacturer in numerous respects, but
you could argue that it hasn't existed
on the cutting edge of car
connectivity – until now. As one of the
first car makers to introduce an Apple Watch
app, Porsche Car Connect (PCC) users are now
able to monitor their car through a simple flick
of the wrist.

The PCC system is not new, but having full integration with the popular Apple Watch is, and it's not the only way in which Porsche has moved its in-car technology onwards of late. The new Porsche Communication Management (PCM) system, debuted in the second-generation 911 Carrera, is more advanced and intuitive than ever before, working just like a smartphone.

APPLE WATCH

Now, it would be unlikely that you would have an Apple Watch and not an iPhone to accompany it, but to get the PCC system to work on your wristwatch you must have the app on your phone too. The pair of devices communicate with one another via Bluetooth, the phone talking to the car through your network no matter your distance from it, then relaying the information to your Apple Watch. It might sound like something from *Dick Tracy*, but these advents have quickly moved from science fiction to fact.

From this system you have access to the 'My Car' menu, which allows you to view information such as recent driving data (fuel consumption, average speed), but also current fuel level, range, and tyre pressures. Importantly there are also security benefits too. You can check if the doors (and roof) are closed and locked, and whether or not the mirrors are folded, if they are not you can rectify the situation from your Watch.

Ever lost your car in a crowded car park? Go on, admit it. The app can guide you to your car through the Apple Watch, selecting the shortest route to it, and it can also flash the car's headlights or sound the horn for the same reason – especially handy in a dark car park. Furthermore, if your car is fitted with a Porsche Vehicle Tracking System (PVTS), then the app can work in conjunction with it to report a theft to the authorities and it notifies the owner on

Porsche has recently upped its game when it comes to state-of-the-art car connectivity, chiefly with its new Apple Watch app and latest PCM system...

STAY

their Watch immediately too.

In a similar vein, if others use your car, the app is able to notify the owner if the car exceeds a designated speed, or roams outside a predetermined geographical area. If the car detects an accident (and the same applies in a breakdown), it relays this together with the car's co-ordinates to the emergency centre.

Porsche plug-in hybrid drivers can benefit further, with information relayed on remaining charge, and charging status if the vehicle is connected to a power source. What's more, the car can be programmed to reach full charging capacity at a desired time, ready for the battle to work for example, and it can match this with its climate control settings ensuring the cabin has arrived at the perfect temperature at a desired time. This is sure to be welcome on an extremely cold or warm day.

PVTS and PCC are standard issue on all second-generation 991 models, and they can be specified when ordering on the Panamera, Macan and Cayenne, but it's worth noting you cannot retrofit these systems.

The Apple Watch and PCC systems can be used in eight countries, and the app is available as a free download via the Apple App Store. PCC also works with Android devices.







Debuted on the second-gen 991 Carrera, the latest PCM system will soon find its way into all new Porsche models. It moves the PCM concept on thanks to an intuitive operating system modelled on smartphone technology. Like before, the PCM pairs with your mobile via Bluetooth or WiFi, yet Porsche claims the process has now been sped up. Apple CarPlay is available for the first time, and lets users of the iPhone 5S onwards use apps through the PCM system, though it's a system most other car manufacturers have beaten Porsche to the integration of already.

At the heart of the new PCM is the seven-inch touch-screen, which now responds to users in a far more proactive fashion. Swiping, scrolling and tapping is utilised in the same way as on your smartphone, as well as pinching and even rotating. The system detects when your finger is approaching the screen and at times pre-empts your requirements, for example it will show music controls in audio mode and map controls in navigation mode. Talking of the navigation system, it too has been refreshed.

Porsche's navigation system was not the greatest in the world, but the firm's engineers have attempted to address any shortcomings with this latest iteration of the PCM system. Now users are able to write an address directly onto the screen, as if using a pen and paper, and during this process the system will make informed assumptions as to your destination and offer suggestions. Tapping the screen accepts these suggestions, and in the same fashion routes and points of interest can be accepted you can even search for points of interest online.

New Google Earth and Street View integration make things even more useable too. Indeed the new online integration is perhaps where the new

PCM succeeds best. Live traffic information is provided with real time updates. In the same way as your smartphone, the system achieves this by picking up on the radio frequencies emitted from other vehicles. And of course there is also the PCC system, which allows users to send information from their smartphone's Porsche app directly to the car. This is useful for addresses, but the car can also display the phone's calendar, play music stored on it or stream music from online sources. There's also the other added

benefits we've already mentioned. All told, Porsche has raised its connectivity game of late, which has brought it neatly into line with its rival modern car makers, and Porsche Connect exceeded others at the same time. All this has ensured that Porsche's onboard infotainment and communication systems are now sharper and more useful than ever before. Visit www.porsche.com/connect Pictures for more information O Settings vastly improved

The Apple Watch app can communicate with the new PCM system, showing information such as remaining

fuel levels and tyre pressures. You can also send

data to the PCM such as addresses and music...

New online elements have ensured several functions are

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Simon has worked across several automotive publications over the past decade

Simon Jackson wonders if the classic Porsche market has created a vicious circle...

thought I'd shook it, but my addiction to scouring eBay and the various classic car trading sites always resurfaces eventually, and searching for classic Porsches accounts for a large percentage of my focus. Keeping an eye on eBay, the auction house websites, forum classifieds and Auto Trader ensures I've got a pretty good idea of what cars are currently trading hands for, and ultimately serves to highlight current trends on the Porsche scene. Unfortunately, financially speaking, I'm not in a position to invest in a potential project at present, but that doesn't stop me looking..

When it comes to 911s we all know that they're still appreciating in value,

and that unscrupulous traders are using the buoyancy of the current market to get rid of some decidedly questionable prospects, all in the name of a making a quick profit. Trigger-happy purchasers may get their fingers burnt here further down the line should they drop a wad of cash on a lemon, but the '911 effect' is also, for the first time, properly rubbing off on other classic Porsches.

Early front-engined models, such as the 924, have gained plenty of weight in the classifieds of late, so too the mid-engined 914, in the UK at least. It seems you typically can't find a 914 for under £10,000 these days, and yet you can still pick them up in the US

for under £5000, even after the cost of importing them to our little island that leaves a decent profit in the car for those firms who do that kind of thing for a living. Of course there's nothing stopping a private buyer importing a car themselves, and some do, but the perceived hassle serves to put people off on the whole.

Traders are well within their rights to sell cars for whatever they see fit, and nine times out of ten the market dictates a car's value to a point perhaps the Porsche scene itself is therefore to blame for the current inflation in prices? Perhaps it's all a 'bubble' that's set to burst? Somehow I can't see it myself, especially if we're

talking about 911s. I did get a bit riledup recently though when I had my eye on a particular 914 going to sale through one of the popular auction houses with a reasonable reserve.

The 1970 car was a US-import yet had been in the UK for five years, benefited from low mileage, previous (recent) restoration work and a fresh MoT. It was marketed with a reasonable estimate of around £8000-£10,000, and come auction day it sold for £8700 including the buyer's premium. Story of my life, but I should've bid on it – I guess if you snooze, you lose. One week later the very same car was advertised by a trader on eBay for sale at £15,000. I might be wrong but it seems unlikely that a substantial amount of work had been done to the vehicle in that short timeframe to justify the £6000 price increase. Naturally the seller is quite within their rights to advertise the car for whatever price they see fit, but to me it just smacked of yet another greedy car dealer trying to make a quick buck from a vehicle wearing a Porsche badge, taking advantage of the current marketplace.

You could argue that the car was undervalued by the auction house, and that I've got a case of the soar grapes. Maybe that's true to an extent but my main gripe is that there are many, many Porsches now being snapped up as investments by the wealthy, and this naturally pushes a whole bunch of enthusiasts out of the market. Worse of all is the fact that these people are not using these cars, rather they are sitting on them as nest eggs, waiting for them to appreciate in value to a certain level before they sell them on for a profit, and that's all rather sad.

A Porsche should not be a museum piece, it should be used as originally intended. The trouble is that as values rise, so too does the risk of damaging a rather expensive piece of Stuttgart machinery, annihilating its worth – it's all a rather vicious circle... \bigcirc



"Come auction day it sold for £8700... one week later the very same car was advertised by a trader for sale at £15,000"

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

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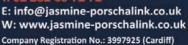






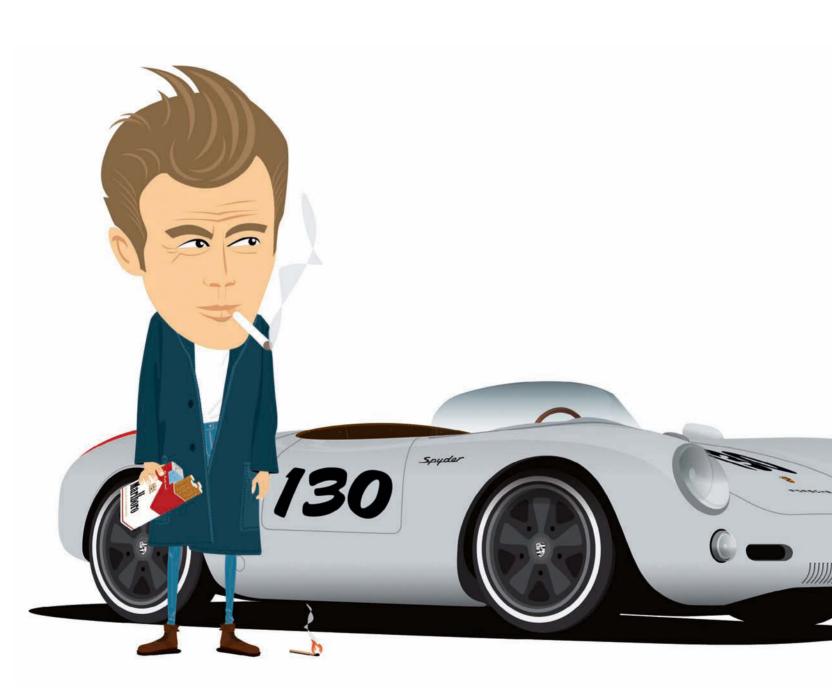
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James Dean's

Little Bastard'

The world's most famous Porsche, the ill-fated 550 Spyder of iconic movie star James Dean, was recently claimed to be hidden away in Washington state. But what's the truth about this car's whereabouts and the dark myths surrounding it?

Story: Phillip Bingham Photography: Corbis, Gus Gregory Illustration: Kjetil Simonsen

ittle Bastard', the Porsche 550 Spyder in which Hollywood legend James Dean lost his life, is back in the news. The most iconic of all Porsches, and perhaps the most infamous of all cars anywhere in the world, has resurfaced in TV news bulletins across America following suggestions that a \$1 million reward for finding the mangled vehicle is closer to being claimed. This reignites controversies about the Spyder's likely whereabouts and whether the car exercises a curse, sometimes fatally, on those who come into close contact with it.

The Spyder's story, like so many associated with Jimmy Dean, has become distorted since that fateful final Friday in September 1955. Over the years the facts have been mixed with rumours, exaggerations, and lies to stir up a cocktail of a story so deliciously entertaining that it is willingly consumed. But what's the truth about this beguiling car? Where might it be hidden, if it is hidden at all? And should anyone who dreams of possessing the Spyder be worried that previous owners of the car and its parts were struck down by serious misfortune?

One certainty about the car is its tragically

appropriate nickname. This was Dean's invention, confirmed in a small workshop in Lynwood, Los Angeles, just four days before his death. It was here, with characteristic disregard for what others might think, that Jimmy asked customiser Dean Jeffries to signwrite 'Little Bastard' in gloss black paint on the car's silver rump. At the same time, the Spyder's bonnet, rear deck lid, and both doors were painted with the number 130, assigned to Dean by the Sports Car Club of America for the road race meeting at Salinas airport in Northern California that coming weekend. Dean might have taken this as a good omen: it contained his lucky number, 3, as had the various numbers he'd affixed to his white Porsche 356 Speedster on the three previous occasions he'd raced.

Dean's 356 Speedster was one of the first to be fitted with the model's more powerful, 70hp 1500cc roller-bearing Super engine, but the Spyder he traded it in for was a quite different proposition, about ten percent lighter and 55 percent more powerful. The dealer who sold him both cars, Johnny von Neumann of Competition Motors in Hollywood, was also an amateur racer. And von Neumann was worried that the 24-year-





Johnny von Neumann of Competition Motors in Hollywood sold Dean the 550 Spyder. It was customiser Dean Jeffries who signwrote the famous 'Little Bastard' script on the car at Dean's request, and painted the number 130 on to the car, assigned to it by the Sports Car Club of America for the upcoming race meeting at Salinas. Dean would never make the race...

old actor – who was famous now, following the appearance that March of his first big-screen role in *East of Eden*, and who had just completed filming his third movie, *Giant* – wasn't ready for the Spyder. For this reason, von Neumann insisted that his Porsche factory-trained mechanic, Rolf Wütherich, should service Dean's 550 Spyder and attend the races with him.

Wütherich suggested that Dean should drive, rather than trailer, the 550 Spyder on the 300-mile journey from LA to Salinas, to break-in the engine and gearbox and to acclimatise himself to the car's behaviour at speed. The 28-year-old German would ride shotgun. In the hours immediately before their journey, Wütherich presented Dean with an enamelled Nürburgring badge he'd received at the circuit's 1000 kilometres race the previous year as a Porsche factory mechanic. Wütherich attached the badge by rivets to the Spyder's front fender just in front of the driver's door, a final touch to his painstakingly methodical preparation of the car.

In spite of Wütherich's fastidiousness, however, Little Bastard set out for Salinas on Friday 30 September with imperfections. The driver's-side front indicator was without any glass cover and near this there was a slight crease in the bodywork. In getting to know the car since

collecting it nine days earlier, hustling it through the twists and turns of 21-mile Mulholland Drive on the ridge of the Hollywood Hills, Dean had experienced some kind of minor accident. This was not without precedent – unexplained light damage had also appeared, on more than one occasion, on his 356 Speedster.

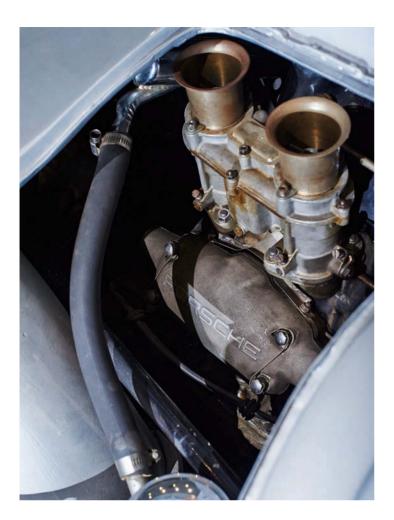
If this unsettled Wütherich in the morning before the drive north, he hid his nerves well – unlike Dean, whose last hours at Competition Motors were spent pacing backwards and forwards, restlessly running a hand through his tussled hair, drawing on one cigarette after another. During all this time with Wütherich, Dean avoided making any mention of the warning he'd been given not to drive the Spyder for the sake of his own safety.

This ominous premonition was made by British actor Alec Guinness, who by chance had gone to Jimmy's favourite restaurant, Villa Capri in Hollywood, on the evening of Friday 23 September (although years later Guinness mistakenly remembered this as a Thursday). After Dean had introduced himself to Guinness, he was eager to show off his new pride and joy. Guinness later recalled: "There in the courtyard of this restaurant was some little silver very smart thing. Some strange thing came over me, some

almost different voice, and I said, 'look, I must say something: Please do not get into this car, because if you do' – and I looked at my watch – 'if you get into that car at all, it's now Thursday 10 o'clock at night, and by 10 o'clock next Thursday you'll be dead.'" A friend of Dean's, Lew Bracker, also witnessed Guinness repeat his plea in the restaurant: "Jimmy, do not drive this car."

Within the week, it had happened. In the parched and yellowed valley near the tiny settlement of Cholame in San Luis Obispo County, where a Y-junction brings together Highway 466 and Highway 41, the big blunt nose of a black-and-white 1950 Ford Custom sedan rammed the left (driver's) side of the slender silver Porsche. The Porsche was launched into the air before slamming down onto scrubland to the right of the road. The violence of the collision ejected Wütherich from the car. Dean's bucket seat, torn from its fixings, was also thrown out, but his broken and unconscious body remained in the cockpit of the mangled wreck, his left foot trapped by the clutch and brake pedals.

The driver of the Ford, 23-year-old college student Donald Turnupseed, was considered by eye witnesses to have been driving above the speed limit as he headed east on Route 466. He'd crossed the road's centre-line to overtake





One certainty about the car is its tragically appropriate nickname...

two cars and steered back into his own lane only shortly before making the left turn towards Route 41 across Dean's path. Turnupseed's indecision after belatedly seeing the Porsche – braking hard and skidding as he pointed the Ford left across the Porsche's bows, then getting back hard on the gas as if attempting to accelerate out of the way, then braking and skidding again – would have made his intentions impossible for Dean to read.

Dean, heading westwards on 466, was also driving fast – one witness told police he "might



Dean lost his life in September 1955 having been hit at a junction by a Ford sedan. The wreckage of the Spyder later became part of a road safety campaign tour, displayed across America, before being stolen and vanishing in 1960...



A colourful catalogue of myths emerged from Little Bastard's subsequent travels...



Above: The 550 Spyder, with its lightweight mid-engined design, was Porsche's first proper racer. By 1955, when Dean died, 65 cars had been built for road and race use



Styled by Erwin Komenda, its engine by Ernst Fuhrmann, the 550 Spyder was bred for competition. It went through a raft of upgrades during its time, in 1956 the 550A claimed Porsche's first overall win at the Targa Florio. It is a Porsche icon

have been racing a black foreign sports car which had passed us a few minutes before." This was probably a dark blue Mercedes-Benz 300SL Gullwing, also heading to the Salinas races. Dean had chatted with the Merc's occupants, Bruce Kessler and Lance Reventlow, in a pause at Blackwell's Corner gas station about half-an-hour before. Dean had also made another stop earlier that afternoon, just south of Bakersfield, when a California Highway Patrol officer waved him down to issue a ticket for exceeding 65mph in a 55 zone. A district attorney later calculated that Dean had driven the next 108 miles to the junction at Cholame in one-and-a-quarter hours, an average of 85 to 90mph. On two-lane black top, that's going some. Turnupseed, who walked away from his battered Ford with a bloodied nose, refused ever to talk publicly about the accident. He died in 1995 of lung cancer at the age of 63.

Wütherich survived being thrown from the Spyder, but the subsequent troubles in his life encouraged believers in a Little Bastard curse. After surgery he returned to Competition Motors, but von Neumann let him go and he went back to Porsche's racing department in Stuttgart. The high point of Wütherich's career was navigating the Porsche 904 GTS of factory driver Eugen Böhringer to second place in the



Some parts from Dean's Spyder were salvaged and went on to breed superstitious myths. The car itself, having been in the hands of Hollywood car customiser George Barris, disappeared, but the tales of its whereabouts live on. Recently a \$1 million offer was mooted for the car, and one man's story places it in a building in Washington state...

1965 Monte Carlo Rally. But Wütherich reportedly descended into alcoholism, his behaviour increasingly erratic, and after being fired by Porsche he moved from one job to another. One evening in July 1981, driving home from a bar, 53-year-old Wütherich lost control of his car and smashed into a house. Like Dean, he was pinned in the wreckage, and like Dean he died. For believers in the Little Bastard curse, there's plenty more circumstantial evidence, and over the decades much of this has been repeated without question. But little stands up to scrutiny.

Not least there's the mystery of Little Bastard itself. Hollywood car customiser George Barris, who came into possession of the Spyder's wreck in 1956, loaned it to the National Safety Council as the ghoulish centrepiece of a tour promoting safer driving. During 1960 the wreck was being returned from Florida to California on the back of a truck when, according to Barris, it was stolen without trace. It hasn't been seen since. In 2005, the Volo Auto Museum in Chicago publicly offered to buy Little Bastard's wreck for \$1 million from whoever had it. The museum was duly presented with almost every imaginable claim about the car. It's in Japan. It's buried in a swamp. It's hanging on the wall of a house as a piece of art. Then last year a man named Shaun

Reilly revealed that he had witnessed, as a child, the twisted remains of the Spyder being hidden behind a false wall inside a building in Bellingham, Washington. According to the museum, Reilly told and retold his story with such convincing detail that he agreed to take a polygraph test, and this he passed. But Reilly has no rights to the building or the car, so if he wants a share of the \$1 million he has some tricky negotiating to do – if this isn't just another publicity-seeking fantasy, and if the Spyder's mangled remains weren't simply discarded when Barris had no further use for them.

The most valuable parts of Little Bastard, the engine and drivetrain, were salvaged from the carcass in 1955 and incorporated in the cars of hobby racers William Eschrich and Troy McHenry. The terrible consequence, according to the myth, was Eschrich getting seriously injured and McHenry getting killed in the same race. The truth? Eschrich, who had placed the Porsche's engine in a Lotus Mark IX which he named a 'Potus,' crashed out of the lead of a race at Pomona in October 1956 in which McHenry did indeed crash fatally. But Eschrich was uninjured and McHenry's Porsche Spyder wasn't at that time using any parts from Dean's car.

A colourful catalogue of myths also emerged

from Little Bastard's subsequent travels promoting road safety. A fire broke out in a garage storing the wreck. Two tyres transferred from the Porsche to another car blew out simultaneously, causing the car to crash. A thief was halted in his attempts to steal the Spyder's steering wheel when he tore open his arm. The car fell off its plinth at a high school safety display and broke a student's hip. The car slipped off a trailer and broke a mechanic's leg. A truck carrying the wrecked Porsche veered out of control, throwing clear both the car and the truck driver, only for the car to land on the driver and crush him to death. Though this last story is the most elaborate and unlikely, all these tales have despite their worldwide repetition - been disproven. These stories can be traced back to things said and written by movie-car customiser George Barris, who in true Hollywood style had a great flair for self-publicity.

So we are left, then, with the bare truth: that the stories about Little Bastard, like the legend of Jimmy Dean, will probably never die. And that if anyone ever did find this particular Porsche TYP 550 Spyder, chassis number 550-0055, originally registered to Mr James Dean of 14611 Sutton Street, Sherman Oaks, California, they could name their price \bigcirc





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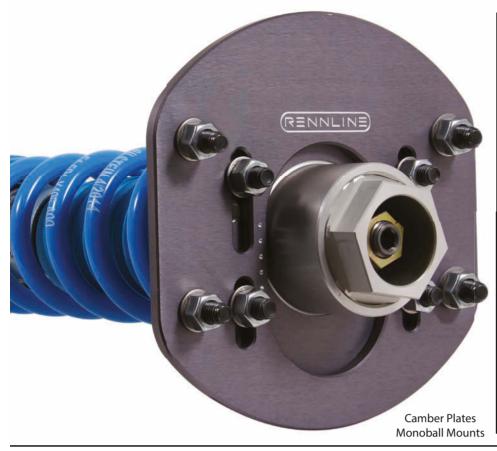
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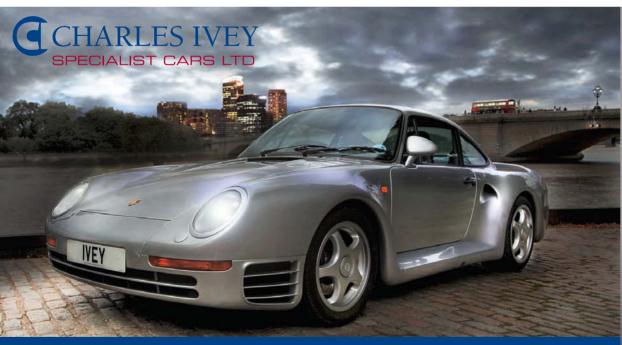


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X-RATED

We sample a 993 Carrera 4S with the rare X51 3.8-litre engine conversion...

Story: Philip Raby Photographs: Anthony Fraser







hat would you pay to tickle the power of a 993 engine from 285hp to 300hp – a modest 15hp hike? Back in the mid 1990s, Porsche offered a factory upgrade that did just this, by dint of increasing the engine's capacity from 3600cc to 3746cc (which was somewhat optimistically called 3.8-litres) thanks to an increase in cylinder bore from 100mm to 102mm. If you asked for this X51 option, as it was called, when you ordered your 993 new, the cost in the UK would have been around £8000. A lot of money now and even more back then.

However, imagine taking your nearly new 3.6-litre 993 back to Porsche and demanding they upgrade the engine to X51 specification, also known as WLS 1 (Werks-leistungssteigerung which translates to Factory Performance Tuning). Factor in the time involved and you'd surely be looking at least 50 percent more than if you'd spec'd it new, so around £12,000. That's a lot of money for a modest boost in power but, surprisingly, it was an official Porsche Tequipment upgrade that dealers offered, calling it the Performance Kit Exclusive.

That is exactly what a previous owner of this lovely Iris blue 1996 993 Carrera 4S had done to

his pride and joy. Back in 1999, when the car had done 29,000 miles, it was taken to the local Porsche Centre, where the engine was removed and shipped all the way to Stuttgart to be stripped down and rebuilt as a 3.8-litre unit. It was a hefty job, with a long list of new parts including larger cylinders and pistons, six new cylinder heads, camshafts, intake manifold, exhaust system, uprated ECU, gaskets and myriad of other components.

It does seem an awful lot of expense and hassle to gain 15hp and a small boost in torque from 250lb ft at 5250rpm to 262lb ft at 5400rpm and you have to ask yourself why the

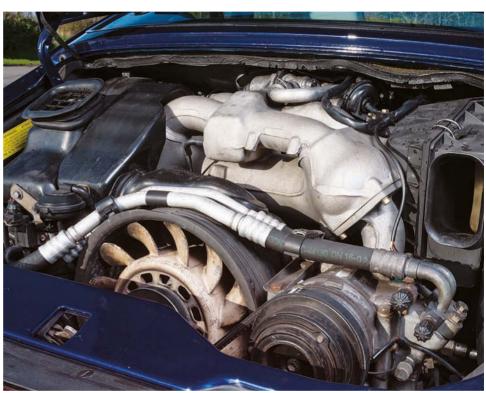




X POWER

The 993 Turbo was also offered with a power upgrade, called X50. This boosted the output from 408hp to an impressive 450hp.

That same figure was offered when the 996 Turbo was fitted with an X50 Powerkit – a 30hp increase. Later, this Powerkit was incorporated as standard into the 996 Turbo S.



Once you've driven a 3.8, a standard 993 engine will forever be a disappointment

owner chose to go down such a route. However, on the road, the change is surprisingly noticeable. The exhaust note is subtly different with a more purposeful burble, while the extra torque allows you to bumble along in high gear to an even greater extent than is usual with a 993. However, to do so would be to completely miss the point of the 3.8-litre upgrade. Drop down a gear or two and get the revs over 5000rpm, and you will begin to really appreciate what this extravagant upgrade has done. Compared to a standard 993's, the engine feels more alive and eager to please. It loves to rev and, although the extra power isn't a lot, it is

noticeable, with some useful additional midrange torque thrown in to boot. Once you've driven a 3.8, a standard 993 engine will forever be a bit of a disappointment.

Combining this engine with the Carrera 4S is a winning combination. Unlike its wide-bodied sister, the rear-wheel drive Carrera S, the 4S features not only the Turbo bodywork, but also Turbo suspension and brakes. It is, effectively then, a 993 Turbo in all but engine – this example has even got the optional Turbo rear spoiler – so the extra power marries perfectly with the uprated chassis. Cynics will argue that 15hp is barely enough to compensate for the

added weight of the wider bodywork but, in reality, the increased mid-range power and torque, plus the engine's willingness to rev, gives the 3.8-litre Carrera 4S a unique character that makes it more fun than a 3.6-litre and – dare we say it – possibly more useable than a Turbo, despite not having the outright power.

Does this, then, make the X51-powered Carrera 4S a softened 993 Carrera RS? That's a good question and, at first sight, you'd reply in the affirmative. Dig deeper, though, and you will find that the X51 engine certainly has, with its capacity of 3746cc and output of 300hp, a lot in common with the 993 RS engine and, as you'd



expect, they share many components.

However, they are not exactly the same. The RS has different camshafts and valves, for starters, plus a lightweight crank pulley; even the pistons and rings are not a direct match. The result is that the true race-derived RS engine is even more free-revving and cammy. With that in mind, then, we like to think of the X51 as more of an 'RS Light' with all the home comforts that a Carrera 4S offers, such as a full leather interior (with rear seats), air-conditioning, sunroof and a decent sound system. Furthermore, the Turbospec suspension is softer and more compliant than that of an RS which makes the Carrera 4S more usable on uneven UK roads, where a hard-sprung car can easily be thrown off

track midway through a corner.

This car, being a 1996 example, has the later M64.21 VarioRam engine. However, an X51 upgrade was also offered for the earlier M64.05 non-VarioRam 993 engine. In this case, power was raised from 270hp to 285hp. Incidentally, a handful of these earlier cars were fitted instead with a Porsche Motorsport Weissach 3.8-litre upgrade with mechanical (rather than the usual hydraulic) tappets , which was closer to the RS engine and which produced 299hp and 195lb ft of torque. A very rare machine, indeed.

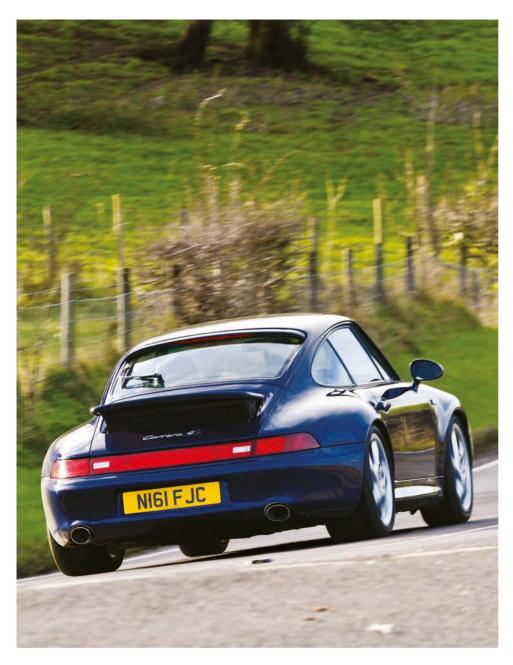
Today, this 3.8-litre 993 remains a rare and interesting piece of Porsche history. It hails from a time when the company's engineers weren't driven by economics – we would bet that the

Today, this 3.8-litre 993 remains an interesting piece of Porsche history









£8000 price tag of the X51 engine option, pricey as it was, still didn't cover the cost of developing and implementing it. That's why later X51 upgrades relied on rather more mundane but more cost-effective changes to the cylinder heads and ECUs rather than a full-blown increase in cylinder capacity. And, if we're honest, any Porsche tuner worth his salt could easily squeeze an extra 15hp or more from a standard 3.6-litre 993 by simply improving the breathing and reprogramming the electronics.

Very few UK cars were so-endowed; we know of just one Carrera S, plus four or five 4Ss and the odd narrow-bodied car with the X51 engine. It was, though, more common in mainland Europe, with X51-powered 993s appearing on the market now and again. Incidentally, it wasn't offered for cars sold in the USA. We suspect that 993s, such as this one, which had the X51 engine retrofitted after purchase, are even rarer, as it would have been such an expensive job.

It's because it's so rare and so ridiculous, not to mention the fact it's such a joy to drive, that we love the idea of a 3.8-litre 993. Porsches should never be about rational thinking and being sensible, and this original X51 car was anything but. And for that, it should most certainly be applauded ○

It's because it's so rare and so ridiculous that we love the idea of a 3.8-litre 993

POWER STRUGGLES

There's been some confusion over the years about Porsche's X51 engine upgrades, with some people even claiming that the option was never offered for the 993. We can categorically say it was. On cars that were so-endowed at the factory, the 'X51' option code can be found on the VIL (Vehicle Identification Label) inside the service manual and on the inside of the luggage compartment lid (993 and 996 only). If, on the other hand, the conversion was retrofitted, as with this example, then you have to rely on the car's history file, as there is no physical evidence on the engine itself – no rakish '3.8' stickers to give the game away - so it's possible that there are people driving around in X51-powered 993s blissfully unaware of how rare their cars are.

The X51 upgrade first appeared in 1994, on the first-generation 993 (see main text) and

continued with the later VarioRam 993. It was marketed as the Performance Kit Exclusive and was unique in that it offered an increase in capacity.

It wasn't until 1999 that an X51 option became available for the watercooled 996 engine. Renamed Powerkit, it increased the power of the 3.4-litre engine by 20hp to 320hp, while the torque figure remained unchanged at 258lb ft. Unlike the 993, the capacity didn't change but, instead, the extra power was released by modifying the induction and exhaust systems, revising the cylinder heads, fitting reprofiled camshafts and reprogramming the ECU. A similar upgrade was offered for the later 3.6-litre 996; in this case, power went from 320hp to 345hp at 6800rpm but, again, torque remained unchanged at 273lb ft. Incidentally, the 40th

Anniversary 996 of 2003 was fitted with an X51 engine – a rare 911 that's worth seeking out for this reason alone.

With the original 997, the X51 Powerkit was only available for the 3.8-litre S engine and was similar in execution to that of the 996. The upgrade took the power from 355hp to 381hp, with torque rising from 295lb ft to 306lb ft.

The Gen 2 997 Carrera S and 4S, which had all-new engines, were also available with a Powerkit which upped the power from 385hp to 408hp (the same as the 993 Turbo!), while torque remains unchanged at 310lb ft.

The first-generation 991 Carrera S and 4S could be specified with a Powerkit that boosted output by 30hp to 430hp. It consists of reworked and polished cylinder heads, revised camshafts, and a variable resonance intake system.

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DELIVERY ROM

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Story: Simon Jackson Photography: Gus Gregory

f you've been lucky enough to purchase a brand-new Porsche then you'll likely have experienced first-hand the theatre of a handover procedure at your local Official Porsche Centre (OPC). For those who haven't, perhaps you've voyeuristically witnessed this practice from afar at a dealership, via the safety of the parts counter or coffee station where your spying might go unnoticed...

Different Centres go about things in different ways but on the whole the idea is to make taking delivery of a new Porsche as special and memorable as possible. To that end your factory-fresh vehicle is usually parked in the showroom prior to your arrival on the pre-arranged day, carefully draped in a floating silk that is subsequently whipped away by the sales staff to reveal the car in all its glory. It's a welcome splash of pantomime in what might otherwise play-out as a rather humdrum transaction. But

have you ever wondered what a new car goes through before it is carefully rolled into position that day? You may well have considered how a Porsche vehicle is put together at factory level but what about the carefully dictated steps it must map following its arrival at your local dealership in the UK? Indeed, the Pre-Delivery Inspection (PDI) is one of the most important tests any Porsche must pass during its lifetime, and Porsche Centre East London allowed us to be a fly-on-the-wall to see exactly what goes on...

Peter Bonner's official job title is 'Diagnostic Technician – Gold standard', and he's been working at Porsche Centre East London since 2002. It's Peter's job today to put a brand-new Cayman GT4 through its PDI before the new owner takes delivery of it in two days time. That new owner happens to be *GT Porsche* regular, Neil Plumpton, who has added to his enviable Porsche collection with the latest vehicle to

emerge from Porsche's Motorsport department. Neil, Peter and Centre Principal, Ivan Howell, have all very kindly allowed us to observe the birth of this new car, and it's a far more involved process than you might first think.

Peter's first job is to drive the GT4 into the Centre's pristine workshop and position it in his dedicated workstation. First he logs the car on Porsche's computer database, activating what is called the PDI 'job card' and beginning a process that typically takes around two to three hours to complete. Peter's initial step is to cross-reference the car with the digital information system on screen to see if there are any open workshop campaigns active for the vehicle. There may have been, for example, a recall issued or correction stipulated by the factory since the car left Germany. If so, now is the time to find that out so as not to delay the upcoming handover. It's also vital at this stage to ensure the vehicle's identity information is consistent across the board - on the vehicle itself, on the Porsche computer system, and on the registration documents and manuals. Now Peter can begin to unwrap some of the layers of protective plastic material from the GT4's key areas. The plastic

covers on the wheels, windows, doors, and seats look dramatic but they're only there to avoid any unwanted harm during transit.

Next Peter gets the car in the air on his ramp and begins to detach its various transport locks. These are numerous but primarily consist of blocks positioned in the front springs designed to keep the car sitting as high as physically possible for ease of loading and offloading during transport. For the same reason, and to avoid unnecessary scuffing, most of the protruding plastic parts, such as the chin spoiler and, in the case of our Cayman, air ducting, arrive unfitted, stowed inside the car during transport. These are now offered into place along with the car's new numberplates, which are created by the dealership itself. Peter drills the holes for the numberplates using a template. The car's bumpers come pre-drilled from the factory so Peter simply lines everything up correctly. Any numberplate holders and plastic scoops that feed the brakes with cool air are also offered onto the car at this point, each having been carefully transported within the boot space in heavy-duty plastic bags displaying the car's unique identity information on them via bar

coding technology. Affixing these parts onto the car together with any optional extras the new owner may have specified is next on the agenda. In Neil's case this includes (but isn't limited to) the GT4's optional fire extinguisher system and harnesses, the fitting of which is around a fivehour job (and one we won't be covering here in this particular feature). Importantly Peter ensures the wheels and tyres are correctly mounted on the car, checking torque levels meet those predetermined by Porsche HQ. In fact, he goes even further, ensuring the wheel caps and bolts line up directly with the air valves around the perimeter of the wheel. He also removes any stones from the car's tyre treads. It's our first real taste of the ultimate pride that Porsche technicians take in their work. Peter takes great pleasure in all of these processes, working methodically through them.

As you would expect, a detailed visual inspection of all aspects of the car takes place. Peter checks for any fluid leaks, exterior and interior damage, and the overall finish of the paintwork, plastics and glass. Each area must be perfect. Likewise all fluid levels are checked and topped-up as required. All fluid lines (brake

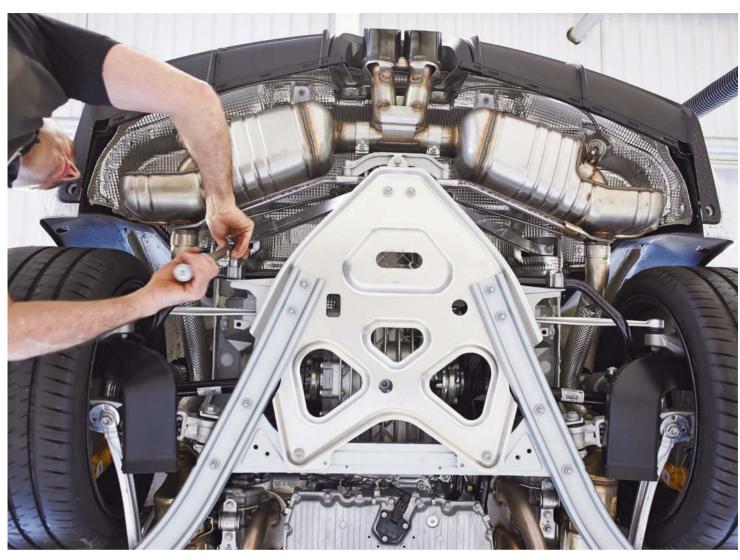












lines, for example) are checked with a fine-tooth comb, and any moving parts - from the fuel filler cap to doors and windows are checked for operation. The technician will even ensure that things like headlamp washer jets are clear from debris, angled correctly and therefore performing their job effectively. None of this involves a cursory glance. Technicians do not rush this process. Indeed, testers will often double or triple check these areas for functionality and ease of operation. No stone is left unturned. During the process Peter is also able to check the operation of things like headlights, warning indicators, and the car's horn and alarm system. Incidentally, the tyre pressures are also lowered, as they're set high for added ground clearance during transportation.

During transit the Cayman's 'brain' and battery have been kept in 'sleep mode'; they must now be awoken. Peter hooks the car to an external battery source to maintain its power levels, and he then connects his laptop to the car to activate its systems by waking up 'the gateway'. Here a virtual handover log is created; for all intents and purposes this is an electronic diary that guides the tester through the necessary procedures and checks off each subsequent stage



















using in-built software. The gateway talks to all the electronic systems on the car, coaxing each in turn from its slumber. The PCM system is booted-up and all the electrical systems follow. On our GT4 that means everything from the airbags to the speed limiter function, the tyre pressure monitoring system down to the illuminated door sills. All the functions on the instrument cluster also spring into life, and the technician sets the car's service intervals and codes the cluster to ensure it displays the correct language (English in our case), units and measurements for that specific country. Peter erases any fault codes that might crop up, investigating each one with a forensic approach before rebooting that individual system once more. However, it's rare to see any and they're nearly always a false alarm by all accounts. Peter goes the extra mile here again when adjusting the car's default parameters and settings, even ensuring the iPod connection works by docking his own device with the car and setting the radio stations as he sees fit (he even tweaks the audio balance to a level he deems as satisfactory). Peter must also check that any keys supplied with the vehicle are functional. We have two for Neil's car and Peter checks that both retain all of the



information he has coded. And we really do mean all of it, even down to the seat memory and climate control temperature presets being identical between the two fobs!

Only now is the vehicle ready for its first testdrive. As you might expect, there is another checklist of pointers to work through during the car's first tour on UK roads. Primarily Peter now checks the basic functions of the car. Of course his main task is to ensure each element operates correctly, from the pedals to the air conditioning, ParkAssist function to cruise control. But Peter's short test-drive is no joyride, rather a vital part of the PDI process during which he is kept busy checking for any unusual behaviour, such as vibrations, noise and general anomalies with the car's driving characteristics. Once he is happy, and in the case of our GT4 he was very much so, the car is returned to the workshop and he once more connects it to his laptop to check all of its systems remain fully functional now the car is up to optimum temperatures, once more wiping the car's memory to ensure it comes to its first owner completely fresh with every meter zero'd (bar the primary odometer). A final check is performed before the car is sent to Porsche

Centre East London's own valeting bays to be meticulously cleaned (not that it is particularly dirty!) and prepared for its official handover in the showroom at a later date.

Far from involving a cursory glance over the car and a quick blast up the road as some may presume, the PDI is an important first step in any Porsche's life. It's clear from our time observing Peter and the rest of the Porsche Centre East London staff, that great care and astonishing attention to detail is undertaken during the preparation of each new Porsche to roll through its workshops. Peter and his colleagues are a credit to the modern Porsche brand and go some way to showcasing precisely why Porsche is such a highly regarded car company compared to its rivals. Witnessing Neil's car blossom into a fully-fledged roadgoing machine was an eye-opener, providing us with a whole new appreciation for Porsche main dealer levels of service. We may not all be lucky enough to take delivery of a new Porsche, but witnessing this GT4's first steps served to reassure that what goes on behind closed workshops doors is as in-depth and professional as whatever we might observe at the Porsche factory, or on the showroom floor O

Astonishing attention-to-detail is undertaken during the preparation of each new Porsche



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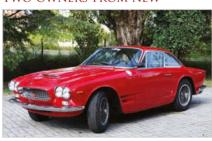
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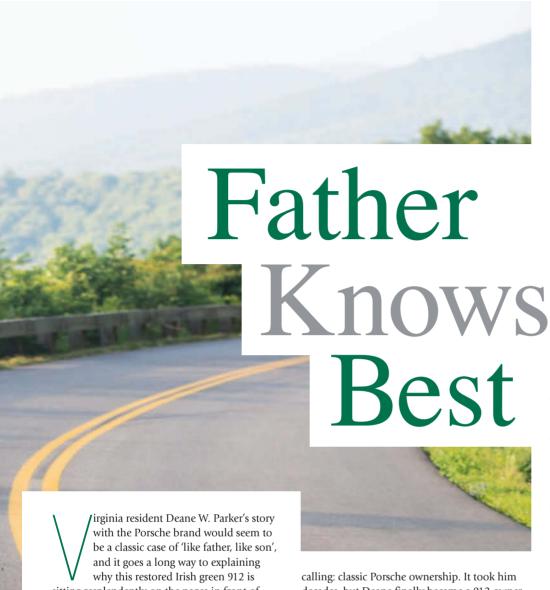


Signed Prints

eriod automotive prints tend to look their best if they're given the right treatment, and usually that means mounting them in a frame for display purposes. Signed prints are more appealing still and can be quite sought after by collectors and enthusiasts. Many come up for sale through the regular auction houses, so it's well worth browsing through the section of the car auction catalogue that's devoted to automobilia as these often hide some real gems. It's also possible to pick up a picture at an event where you'll find a brace of traders with various options

on their stands, but buyer beware, these will usually wear inflated prices. Feel free to haggle, and never underestimate the benefits of going in for the kill right at the end of said event, it's likely a trader would rather sell a print and pocket the cash than take it back home with them. Happy hunting \bigcirc





with the Porsche brand would seem to be a classic case of 'like father, like son', and it goes a long way to explaining why this restored Irish green 912 is sitting resplendently on the pages in front of you. Deane picks up the story himself: "My first association with Porsches was when my father purchased a 1963 356. It was painted dark blue and my dad ordered it for European delivery, my sister and her new husband picked it up at the factory," we're told. "In 1967 dad was transferred to Belgium by way of Scotland and he traded the 356 for a Bahamas yellow 912, again for European delivery. Dad kept the 912 for around 20 years before selling it to a family friend." Whether Deane knew it or not, the Porsche seed had been sewn within him.

A travelling army man himself, in the mid-1960s Deane worked his way through a Honda 600 convertible, a 1957 MG-A coupé and a 1967 MGB GT, before realising his true sports car calling: classic Porsche ownership. It took him decades, but Deane finally became a 912 owner around six years ago: "It's a 1969 car, and was presented as a 'no rust, no accident, one owner car' – that was only partially true!" Deane explained. "The car had no visible damage, and to the untrained eye it appeared to have not been in an accident."

During his hunt for a 912 project, Deane became aware of the work of Virgina-based Porsche specialist, Lüfteknic, and the rest, as they say, is history. "I am on good terms with the local Porsche dealer having purchased a Cayman S back in 2008," Deane said. "While I was in the process of purchasing my 912 I asked the folks at the dealership if there was a good quality Porsche restoration shop in the area, and the only shop they referred me to was Lüfteknic. This proved to be the best advice I received!"

Taking this valuable advice onboard, the car went to Lüfteknic for the work to begin, as Lüfteknic's own Robert Overholser recalled: "We Decades after his father owned one, Deane W. Parker has breathed new life into his own 912 Coupé – with the help of Virginia Porsche specialist, Lüfteknic.

Story: Simon Jackson Photography: Josh Brown

received the car in rolling shape, but it was in need of a full restoration: it needed bodywork and the paint restored in its original colour, interior refurbishment, and a complete mechanical overhaul. Every part on the car was stripped to its core and then restored."

Lüfteknic, an independent specialist catering for classic and modern Porsches, standard and modified, began to undertake a full mechanical and aesthetic restoration of the car, from the ground up. Despite Deane's analysis of its condition, Robert tells us that the base car was in fairly good nick, relative to some of the other more rusty examples that the team at Lüfteknic have seen during their time. As a result, relatively minimal metal work was required and the team were able to retain a great deal of the car's original parts, reconditioning and reusing wherever possible.

"The sheet metal repairs consisted of replacing the front suspension pans, it's a very common repair for early 900 series cars," Robert recalled. "Everything was done to keep the vehicle as original and period-correct as possible – those were Deane's wishes."

The chassis itself was stripped, cleaned and







in another nod to improving the car's driveability it oversaw the addition of a mild Norris camshaft installation.

912 it meant swapping out the US-specification heater and engine tinwork, and replacing it with a European setup. If I had only talked with Lüfteknic first I would have saved a lot of money!" Bowing to Deane's desires though, Lüfteknic dutifully rebuilt the engine with a European specification heater and exhaust system to accommodate the rare eBay find.

As this car is an early 1969 model it came equipped with a cast 901 five-speed gearbox. The Lüfteknic team had this rebuilt too, with new bearings, synchros and gaskets throughout. The original gear ratios were retained, the axles replaced with new GKN items, and the flywheel balanced with new SACHS clutch components.

Likewise the brakes were reworked with a combination of original and brand-new uprated parts. The callipers were overhauled with new sleeves and bores, the pistons were remade in stainless steel and the housings powdercoated. New brake lines and hoses were run throughout the car, led by a new ATE master cylinder. The front discs were replaced with new items, but the guys were able to rescue the rear items as they remained serviceable after being blasted and repainted. They're now clamped by original fitment Porsche pads all-round.

As you might imagine, the 912's interior was in need of a complete rework as well. For this, Lüfteknic turned to Autos International for any upholstery work. The front seats were refreshed with pretty houndstooth inserts, a new headliner and carpet set was fitted too, and genuine Porsche door panel pockets installed. The car's gauges were cleaned, restored and recalibrated by North Hollywood Speedometers, while all the





hand and pedal touch points were serviced with new bushings, cables and seals. Deane found a Porsche enthusiast who was reproducing original-style cloth part number tags, and through another contact at Porsche Classics he found a shop in Germany to re-webb his seat belts - a shoe repair shop in Charlottesville of all places sewed the tags into the car. Oh, and brand-new rubber seals and trim were replaced stem to stern. It was a real international affair. and no stone was left unturned. With the shell refinished in its original colour of Irish green, all the chrome work replated as required inside and out, and the few accessories Deane desired (front foglights and bumper bars) added, the was car finally sat proud on its 4.5x15-inch Stoddard steel wheels shod with 165 section Michelin tyres. It's safe to say Deane's 912 was now looking immaculate.

All this work was completed in late summer 2014, and since that time Deane has driven the car to numerous local events, and has even made a trip to Florida for the 2015 Porsche Parade in French Lick, Indiana. We're reliably informed that the car drives as nicely as it looks. What's more, the 912 was chosen to represent the 1969 model year at said annual Porsche Parade as part of the Porsche Club of America's 60th anniversary celebrations. Despite not being restored with concours events in mind, or even being prepared professionally for the event, Deane entered the car into the RS03F restoration class (for 1969 to 1973 911/912 cars) out of interest to see how it would fare. The 912 placed an impressive third in the competitive category, high enough



to receive the bronze 'Weissach Award' for achievement through the points it accrued from the judges. We think Deane might now have the concours bug: "In the future I will show the car locally at central Virginia Porsche concours shows, and at the annual Porsche Club of America Porsche Parade. This year the Parade will be held at the Vermont resort, Jay Peak in June," Deane told us. But all this doesn't mean that Deane's going to be afraid to use the car: "As the weather improves, I'll take it out and exercise it, but my hope it that each time it is judged in achieves a high score and the recognition it deserves."

The restoration of this 912 and the plaudits it has received speak volumes for the work of Lüfteknic, and for Deane's commitment to making this classic Porsche the best it could possibly have been without sacrificing the ethos of the original car. It would seem Deane has thoroughly enjoyed the process too: "I have met a fun group of folks with whom I share common feelings about having fun with our Porsches, old or new," he said. "I could not have placed my 912 in more capable hands!" It would seem that Deane's father's yellow 912 has a lot to answer for... ○



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Further Education

The Porsche Sport Driving School's one-day Precision training course enables you to explore the full potential of its vehicles on the Silverstone Circuit with one-on-one expert coaching.

Story: Simon Jackson Photography: Gus Gregory



orsche's UK Experience Centre, situated alongside the Hangar Straight at Silverstone, has been around since 2008. Since that time the brand has expanded its concept globally. Last year it opened equivalent versions in Leipzig, Le Mans, and at its new US base of operations in Atlanta. Ground has been broken on two further sites set to open in 2016, too: one in Los Angeles and the other in Shanghai, adjacent to the International Circuit used by Formula One.

These venues uniquely differ from one another, but all share common themes and the very same purpose: to effectively demonstrate the full potential of Porsche vehicles.

The Silverstone Porsche Experience Centre (PEC) has played host to some 40,000 drives over the last eight years, and the success of that first venue established an effective formula that Porsche has followed during the development of its comparable sister Centres around the world. Silverstone's key elements – the Handling

Circuit, Kick Plate, Ice Hill, Low Friction and Off-Road circuits – comprise around three miles of track split into independent areas offering a mix of configurations and surface conditions designed to replicate certain scenarios. It's the same story in France, the USA and China. Leipzig is a little different. Here you'll find a Handling Circuit featuring 11 corners mimicking famous turns from race circuits around the world all in miniature, including the Bus Stop Chicane from Spa-Francorchamps, Laguna Seca's Corkscrew,

Monza's Parabolica, Nürburgring's Carousel, and even Monte Carlo's Loews Hairpin (now called the Grand Hotel Hairpin) – the slowest corner on the Formula One calendar.

Each individual environment has been tailored to provide Porsche's guests with the ability to focus on a specific type of driving. On the Kick Plate a hydraulic plate set in the road 'kicks' the car's rear axle left or right to induce oversteer as it passes across it. The driver is then able to practice counter-steering and improve his or her reactions in safe surroundings without fear of bending precious metal. The same principle is true of the Low Friction sections of track and, of course, the off-road course that presents its own set of muddy challenges. In order to make best use of these facilities Porsche has designed a range of different courses for which it provides the cars. Courses range from short and sweet 90minute Porsche Driving Experience taster sessions (from £295) to advanced Porsche Sport Driving School 'Master' coaching.

The Porsche Sport Driving School sits towards the top of this educational tree, comprising six elements. Two of these are 90-minute experiences each costing £175: ClassicDrive is for owners of pre-2006 Porsches, while OpenDrive offers a rare opportunity to take your own (non-Porsche) car on track. Both incorporate interactive classroom sessions, Porsche Driving Consultant guidance and refreshments on-site. Loosely following on from one-another (and therefore designed to be tackled in sequence), the other four include the half-day Warm-Up training session (£350), the full-day Precision course (£760), the two-day Performance course (£1250), and the Master course, a two-day affair for advanced participants (POA). We tackled the single day Precision course, for which you are able to use your own











Porsche, or hire one from the Centre itself at additional cost. We had a Cayman GT4 at our disposal so it would've been rude not to make use of it, right?

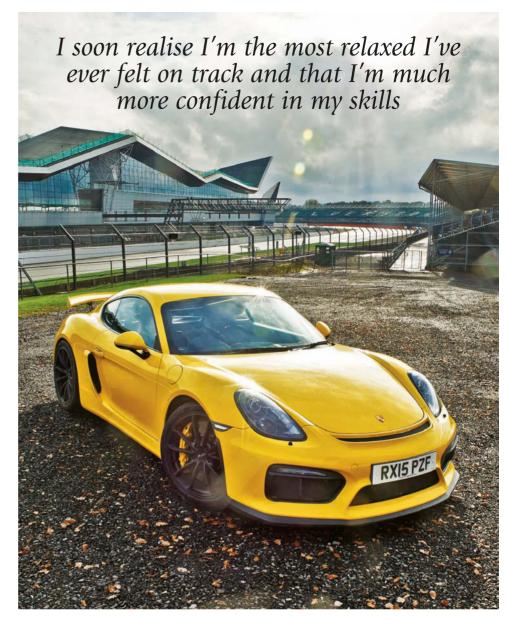
The Precision course includes breakfast, lunch and afternoon tea, so the day starts around 8:30am in the excellent Porsche Experience Centre restaurant on the first floor for morning sustenance. Here you're duty bound to tuck into the delicious culinary delights on offer (in fact we highly recommend you do), and it's here that your very own Porsche Driving Consultant for the day introduces him or herself. I've visited Silverstone's PEC a few times now and I'm yet to see a weak link in the Porsche team. I'm consistently blown away by the calibre of driving professionals working there. One of them is Richard Attwood, of Le Mans race victory at the wheel of a Porsche 917 in 1970 fame... seriously! Your friendly instructor, whoever they might be, immediately allays any anxiety about the day ahead and gets to know a little about you, your experience level and, more importantly, what you



want to get out of the day in a relaxed and informal manner. Ultimately each of the Precision sessions are geared around you and what you want to get out of them. All you need to do is discuss this with your instructor. It's your day. Our instructor, Barry Horne, won the inaugural Carrera Cup GB series in 2003, regularly competes in the PEC's own 1965 911 race car, and last year stood in for Alex Martin in the British Touring Car Championship for two rounds in a Team Parker Racing-run Ford Focus. Like all of the Consultants here, Barry is not only highly qualified, he's also a relaxed, amiable and fun instructor.

After breakfast a short classroom session introduces participants, of which there are just a handful, to the PEC's various facilities and the itinerary for the day is mapped out. Without further ado it's straight into your chosen Porsche vehicle with your instructor and, depending on your group allocation for the day, straight outside to the activities. First up for us were a few gentle laps of the Handling Circuit, designed to mimic a challenging country route, with corners and undulations of different types. Barry begins to get an instinctive feel for my driving style, my strengths and weaknesses (of which there are many!) while we gradually build speed into the corners following his guidance on adjustments to line, throttle and brake application. Ultimately I want to feel more confident on track, and Barry uses this as the basis for our day's exploration of what I can do, and what our GT4 is capable of doing. Next we spend some time on the Kick Plate, attacking it and the low grip surface around it at varying speeds from different angles. Our time here is designed to sharpen my reactions to the car breaking away from the rear, and Barry uses it to demonstrate the influence of the car's electronic stability and traction control systems. I'm able to get a feel for the car and to learn what to do, and what not to do, in the event of a slide. I've used the Kick Plate before but never for such an extended period of time. And that's the beauty of the Precision course, there's no rush to move onto the next element of the day.

When both Barry and I are happy we've exhausted our Kick Plate experiments, it's off to the PEC's Low Friction circuit, a bunch of tight knit short bends with a highly polished limestone surface offering very limited grip. This is the perfect environment to provoke, correct and hold oversteer, and we spend a chunk of time here attacking the corners at various speeds. Not only is it enormous fun but it's also an invaluable lesson in how to control the car in a slide, what might provoke it to break traction, how to purposefully induce wheelspin, and how to best reel it back in from the point of a spin. Once more, with no clock watching, we spend a respectable amount of time here and I find it more than a little useful. After all, if I know what to expect should the car slide on track and how best to deal with it, any irrational track-based



anxieties are likely to be softened. Anyway, is that the time? Off for a spot of luncheon in the restaurant we go... Over a bite to eat Barry is keen to discover how I feel the morning session has gone, what we have achieved, if I feel I've progressed, what he feels we could put more emphasis on and, importantly, how the lessons we've covered will translate to the afternoon's activities. Breaking everything down in this way makes the learning process far less daunting and far more rewarding. After lunch our group is guided into the Human Performance module of the course, where we learn about the sports science elements involved in driving, including fitness and nutrition, in the PEC's on-site gym.

Crash helmets on – it's time for the main event. The afternoon is devoted to laps around the Silverstone circuit proper, so we drive the Cayman out of the PEC and round into Silverstone's National pit lane. We're not tackling the full Grand Prix track today, rather we have the shorter National Circuit reserved exclusively

for Porsche use. I must admit, I find this a little disappointing at first but as Barry quickly points out, driving the smaller track gives me a real chance to perfect the correct racing lines and to develop my skills instead of spending the whole session learning the vast F1 course. This will also mean that there'll be more time available to move onto more advanced elements. It makes sense. I quickly discover that his analysis is spot on and that once we begin pounding around the National track (which I find an abruptly more sobering prospect than our time on the various PEC circuits) things start coming together. It's wet, very wet but Barry takes time to ensure I understand the dry lines and braking points for each corner. Once I'm happy I've got them nailed we move onto wet lines, which is a whole different ball game altogether. Learning the wet weather racing lines is a real eye-opener. They're drastically different to how our approach would be in the dry but Barry explains (and then physically demonstrates) how and why they



work so effectively by guiding me to position the car in various different places on the track, with varying approaches and speeds, that demonstrate altering grip levels. I soon realise I'm the most relaxed I've ever felt on track and that thanks to our time spent that morning putting in the groundwork, learning the car's characteristics, eradicating any bad habits, and polishing my ability to hold and correct oversteer slides, I'm much more confident in my skills. I even fire off a cackle during one particularly lairy high speed slide through the intimidating Copse corner, and I gradually grow in confidence at feeding in the power through the deceptively tricky (in the wet!) Woodcote corner that leads onto Silverstone's National Pit Straight (which will be most recognisable as the old start/finish straight to some of you).

We break for the afternoon tea that is waiting for us back at the PEC. It's a chance to take a breather, cool down and, importantly, to deconstruct the previous session's antics with Barry over coffee and cake, before returning to

the National Circuit for one last hurrah. This final session of the day is a chance to put all the pieces from the day together, to incorporate all that Barry has guided me through and to simply practice. Ultimately, as with anything in life, practice makes perfect. When our time is nearly up but before we make our final trip back across the infield to the PEC, I pass the driving duties over to Barry so he can show me how far I still have to go. After all, despite all the progress we have made today unless your surname is Alonso there's nearly always someone around with more driving talent than you, right? In the GT4 it's a real privilege to see Barry get the car working as hard as possible, moving around underneath us, displaying both showboating skills and quick lines through the corners, chasing down a 991 GT3 RS at an astonishing rate with the kind of skill that has won Barry all his silverware over the years. It's a great way to finish a fantastic and educational day.

When driving a Porsche day-to-day rarely do you get the chance to fully explore the limits of

its capabilities - especially on the public roads. Moreover, many folk may not feel completely confident pushing to and beyond the limits of their car's adhesion or they may not fully understand how to exploit the best from a Porsche's beautifully engineered balance. If nothing else, undertaking one of Silverstone's PEC courses can provide you with a whole new level of appreciation for the technological prowess a modern Porsche utilises; those safety net features some will deride for excessive nannying of the driver are far more important and useful than they may realise. Comparative back-to-back runs with them switched on and then off will prove an eye-opener. No matter your level of expertise behind the wheel, gaining further education is always advisable, and a programme such as the Precision course, tailored to your specific requirements, is an ideal place to start. You'll grow your confidence, learn more about your car (or the latest crop of Porsche vehicles), and you are guaranteed to have an enormous amount of fun in the process \circ

Covered.

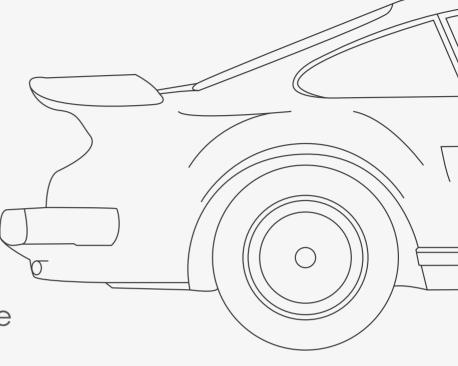
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ot porsche retrospective

ONE YEAR AGO MARCH 2015



he ex-Paddy McNally 911 T/R on our February cover stole the show for us a year ago. The car raced at Le Mans and the Targa Florio in period, and had subsequently been returned to its 1960s spec. With the sound of party poppers still ringing in our ears, we brought together Porsche's 50th anniversary gift to the 911 family, the 991 50 Years Edition, with its equally nostalgic cousin, the 997 Sport Classic, for comparison, finding: "Both of these cars leave you with the feeling that you've just experienced the pinnacle of the 997 an 991 Carrera breed." Last but not least we offered some sage advice on the M96/97 engines, dispelling the widely regarded myth that they are all problematic Porsche powerplants.

FIVE YEARS AGO MARCH 2011



e focused on the stunning 918 RSR, Porsche's 'race lab' creation that boasted 767hp from a 4.2-litre V8 running hybrid power which, five years ago, was the talk of the Detroit Motor Show.

We also took the spectacular Porsche 908 back to its routes at the Nürburgring Nordschleife via Spa-Francorchamps, which was quite the undertaking. We said: "The 908 is like a massive white magnet, pulling people in from all four corners of the paddock and the street outside."

Further into the issue we took a tour of the Porsche Museum's Classic Workshops, and we told you what to look for should you be in the market for a first-generation 997 GT3 RS.

TEN YEARS AGO MARCH 2006



decade ago we got our first drive in the 997 Turbo, in the snow too! We thought the new car was a blast, neatly summarising: "All you need to know is that the beast is back."

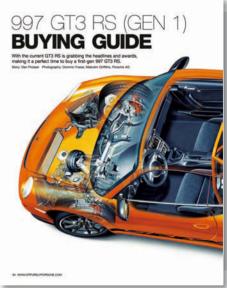
Chris Harris got behind the wheel of the 993 Carrera to explain why he felt it would go down in the history books as a great sports car, stating: "It stands supreme among all other sports cars this, or any other, manufacturer has made." We also got into the driving seat of Cargraphic's latest 'RSC' project, a 997-based RSC 3.8-litre car designed to advance the story of the 997. We said: "As Cargraphic will concede, this car is not meant to be a take on a 997 RS. It has an appeal of its own...."

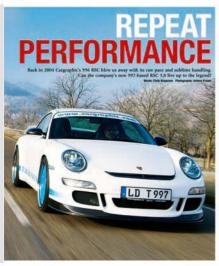




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MACH 2006 23

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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



Martin Spain - 2002 996 Turbo

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

1978 911 SC

ime flies when you're playing 911s. It's been a year since the SC was delivered to me and I've really enjoyed getting to know it and improving it. I'm glad I went down this route, rather than a complete restoration, as it would still be in the garage in bits. Sadly I just don't have the time to play like I used to, though I did make the most of my Christmas holiday to get stuck in with some odd jobs.

Talking of Christmas, one little

present the car got was a 1976 enamel ADAC Rally badge which my brother got me (with a bit of a tipoff; he's not *that* good!). The car is plain black with no badges or logos so it adds a splash of colour and a nod to the good old days when sex was safe, racing was dangerous and my car was still two years away from rolling out of Zuffenhausen!

Anyway, 12 months on and it's time for my insurance renewal. I wanted to get the car valued again as with all the work I've completed and the still rising market I wanted to

make sure it was sufficiently covered. Like last year, I used John Glynn at www.porschevaluations.com.

John has over 30 years experience in the motor trade, has worked as a valuations editor at *Glass's* guide and, most importantly, lives and breathes Porsches (check out www.ferdinandmagazine.com to see first-hand). For just £35 John will provide a comprehensive written valuation of your car that's accepted by all UK insurers. I was happy to receive my valuation confirming the value of the car has gone up

significantly. This is a very good thing but it's made me think: I love this car because it's so useable, easy to work on and live with but it's getting to the point where I'm going to start to worry about where I leave it and what further modifications I do to it. This might actually start to spoil it a bit. On the plus-side the insurance valuation is in so should the worst happen I'll get what it's worth, although that's only money and I'll never get back the time I've put in...

With the anniversary of



ownership comes the annual MoT trip. Ahead of this I wanted to refit the washer bottle as when I bought the car it was zip-tied to the brake booster. I removed it when I tided up under the luggage compartment and fitted all the carpet and never put it back (it only comes out in the dry so has never been an issue). Upon looking for a place to put it I decided to investigate the 'smugglers box'. After a bit of messing around it was clear the A/C blower contained inside it had given up the ghost and as all of the

other A/C system bits had already been deleted this was just dead weight. It had to go and as an added bonus it gave me a perfect home for the washer bottle. The blower was easy to remove. It was just a case of removing the cabin vent pipe and then in the passenger footwell, with the carpet up and footrest out, removing the four screws holding the temperature sensor in. I blocked off all the vents inside the box and gave it a coat of paint to tidy it up and fitted a grommet into the evaporator drain

hole. With that done and dry I was able to mount the washer with a single fixing being careful not to drill into the fuel tank! I extended the exiting wiring harness and ran it along the brake pipes so it could enter the box and not get trapped when the lid was closed. An easy fix and it's kept the luggage compartment looking clean, saved some weight and reinstated those all important (for the MoT and British Summer Time) washers.

So that's all the prep it requires for the MoT. Now I just need to wait

for the weather to improve so I can take it to the test centre. For now it can stay tucked up in the garage but it'll be getting plenty of use later this year. I've already booked it on the Channel Tunnel and it will be on display for Le Mans Classic... maybe the value is just a number and these cars really were built for driving, so I'll just keep enjoying it and try not to think about it too much. After all you can't put a price on the grin you get when you get that flat-six howling!

Rob Richardson









Rob has sorted his washer jets by relocating the SC's reservoir. He's also fitted a period ADAC badge...



long-term fleet



Freshly refinished wheels and a set of harnesses ensure Ryan's Cayman is really starting to look tough...













987 CAYMAN S

ast month brought a mechanical overhaul and added horsepower courtesy of Regal Autosport and EVOMSit, so I've been keen to drive the Cayman as much as possible this month. Taking advantage of the delayed winter, I'm pleased to report that it's now a completely different animal and has a new spring in its step!

Just before Christmas a group of friends and I took to the Welsh hills to settle a longstanding debate: who's car was the most entertaining to drive on UK roads? Some 800 miles later we were grinning from ear to ear but none the wiser. Upon returning home and giving the car a thorough scrub I noticed the Welsh excursion had taken a toll on the wheels and brown brake dust had now become an integral part of the silver finish. With several similar trips planned throughout the year, both at home and abroad, I knew a wheel refurbishment was in order to prevent the car from becoming tatty.

Having called several wheel refurbishment companies I was not convinced anyone could provide a hardy enough finish to my wheels. That was until I found The Wheel Specialist in Fareham. Olly and the team there explained that they were able to refinish my wheels in satin black with an additional, super tough, satin clear-coat in order to protect against baked-on brake dust. They could even seal and coat the wheels with a ceramic protectant for extra peace of mind. Shortly after putting the phone

down I was on my way to Fareham.

Speaking further with Olly I found that there is actually a lot more than meets the eye to wheel refurbishment, or at least in doing it the right way. First the guys stripped my wheels of rubber and checked them for trueness and defects. Thankfully they passed with flying colours and were then submerged in an enviro-stripping tank. This process uses bacteria to safely remove any surface coating from the wheel without influencing the structure of the wheel. After soaking, water is used to remove any softened paint to reveal bare metal. The wheels are then repaired, if required, and given a fine media blast to key the surface ready for paint. The hub mounting faces of the wheels were carefully masked and Olly also masked the bolt seats to ensure even and reliable bolt torque whilst on track.

Next the wheels are heated to ensure all moisture is removed from the metal. It's important at this point that the temperature is closely monitored to ensure the strength of the wheel is not compromised. Next, the desired finish is applied to the wheel and it is allowed to cure. I received my wheels back complete with the tyres remounted and fully balanced—the process couldn't have been simpler!

The Wheel Specialist Fareham is able to turn around single piece wheels in a day, and also tackle magnesium, multi-piece or diamond cut wheels in-house, too. With Porsche diamond cut wheels being particularly susceptible to corrosion, I wasn't surprised to find that TWS Fareham is inundated with Porsche wheels, many from local Porsche dealerships on the south coast. The satin black visually toughens up the Cayman's appearance and takes the car one step closer to achieving a 'mini GT3' theme.

Inside I've also added a pair of beautiful Schroth Racing Profi II-6 harnesses in black. I've always been an admirer of Schroth products and since learning that Porsche supply Schroth harnesses as part of its factory Clubsport package, I knew it had to be Schroth for my own Porsche. To mount the harnesses to the car I've used an RSS (Road Sport Supply) harness bar and OEM 997 GT3 sub bars to mount to the fifth and sixth points.

Fitting the harness bar was an interesting challenge but the result is very OEM looking. The operation of the Schroth harnesses is sublime and the cam lock buckle engages positively. The adjustment buckles are smooth and easy and the shoulder straps pull down intuitively while the lap belts pull up to tighten. Although it's taken some swearing and scuffed knuckles to get them mounted, the Schroth harnesses are more than worth the effort. When it comes to safety equipment I'm of the opinion you should get the very best you can afford and the Scroth Profi II-6 are proving to be some of the highest quality harnesses I've ever come across.

Ryan Stewart

long-term fleet



924 S ell, not to give the game away, but it seems that the loyal, hardworking 924 S has gone from being my most reliable car to something quite different. The problem struck when I was out one Sunday on a trip to a DIY store. The 924 is favourite for this task as the stripped-out track factor makes it ideal for fitting in all manner of household supplies. It's not a bad journey either, involving a romp along some excellent A- and Broads. In recent trips, I must admit, I have eased up a little as in the damp with the SPAX coilovers wound up to the max the car really does feel right up on its tip toes! While that was great for the



filming with XCAR (now Carfection) I fear it has a little too much oversteer, with the potential to back the rear of the car into oncoming traffic. This fear is no doubt the outcome of a teenage dalliance in my mother's RWD Volvo. The trip to the DIY store was a lot of fun; the return journey not so much.

The first of my woes was a loud crack and thud from the rear of the car following a zealous roundabout exit. Fortunately, I was not too far from a layby so I was able to pull over reasonably quickly and inspect for damage. Mercifully it was nothing more than a tub of tile adhesive, having launched itself across the back of the car and cracking the lid open.



Luckily nothing escaped from the tub! I stowed the adhesive in the footwell and eased my pace.

I made it some miles down the road and pulled up at a zebra crossing. It was there that the car stalled. It wasn't poor clutch control, either; the engine just stopped. I tried a few times to restart the engine to no avail. A father/son combo helped me push the car into a bus stop, out of the way of traffic. I left the car for a while and then tried it again. Next up was some Easy Start. I have taken to keeping some in the tool pouch after the 911 engine flooding incident. I gave the air box a good blast of the stuff and the engine attempted to turn before cutting out again; it lasted a number of moments, but nothing that would allow me to move the car.

By this time, having the bonnet open had allowed the engine to cool sufficiently to rule out any hot running issues. Next up, I checked the fuel pump. I popped in the home-made DME jumper relay; the fuel pump was whirring away but the engine still wouldn't catch, at all, unlike with the Easy Start where it turned for a little while, at least. I checked the distributor cap and rotor but all looked good, the dizzy cap was pretty much new. When I tried the starter again I noted that the rev counter wasn't moving. This told

me to check the knock sensor. There are two sensors (the speed sensor and the reference sensor) on the back of the engine and in the top of the bell housing – although I had no idea which was which. The cables both appeared in good nick so I removed the sensors, cleaned them up and replaced them. Sadly this made no difference at all. The knock sensor tells the DME where the crank is, from the flywheel, and therefore which cylinder needs a spark. Without this, no spark.

At this point it was time to call in the RAC, again. Not too far into the future, although sadly after sundown, the chap arrived in his van. I told him my diagnosis, we pretty much went through everything again, so that he could confirm what I was saying, and had done, was correct. It was. For that I felt a little smug, although, ultimately I would have taken being wrong and having the car fixed and under way. Frustratingly because the car is lowered the fixed towing assembly would not fit and allow me to be towed home. Instead I would need a low loader, which meant more waiting

When the recovery truck arrived, I was loaded and returned the final ten miles home. As we were trying to manoeuvre the car onto the drive, out of the way, I thought I would give the engine another try in case this could save us some

effort. Of course, it started. Nothing worse than intermittent faults. It would also render the car unusable until I had a chance to get new sensors and fit them, and that ruined my plans for tip runs!

For a marginal saving I ordered up the Bosch branded sensors, instead of the Porsche originals (that I believe are Bosch anyway). Due to the way that the cables are folded into the box it made fitting a real pain. At one point I managed to drop the 10mm socket that I was using on the sensor bolts. I couldn't get at it and the car was in no position to be jacked, so I decided I'd fit the new sensors and move the car in the hope that the socket would be in the muddy grass under the car. It was not. I loaded the car with cardboard anticipating a tip run. My intention was to drive the car onto the road and if the socket hadn't fallen out then I would jack it up and check the hard way. When I restarted the car there was a distinct, speed-based knocking noise. I immediately parked it up and it stands there now, awaiting further investigation. It has been some days since and I have a horrible feeling that the socket fell into the bell housing and the knocking is it on the flywheel. If not, the head may be coming off. Hopefully I will know, one way of the other, soon. Fingers crossed.

Matt Biggs

Matt's run of luck with the 924 has come to an end, which has resulted in a month of fiddling around under the bonnet





long-term fleet

2002 996 TURBO

ince my last report the Turbo has been in regular weekend use and even served as a daily driver for a week or two while the family car was in for repairs. As a result, I've spent quite a few miles as a passenger in the car, sitting in the back entertaining my young son while my wife handled the driving. I can report that it's perfectly comfortable back there, providing you're no taller than 5'8"! I had about half-an-inch of headroom but otherwise it's not a bad place to sit, provided you don't get annoyed by the road noise from those 295-section rear

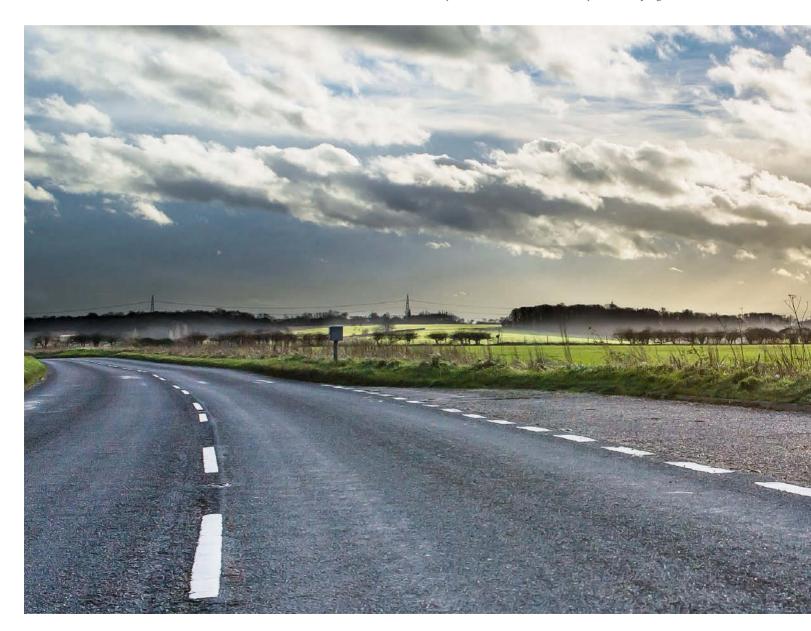
Michelins and the roar from the stainless steel sports exhaust. Fortunately, I'm used to the noise, and it did help to lull Spain Jnr to sleep on a couple of occasions. The 'practical four-seater' line that's often used to sell the prospect of a 911 to our significant others is actually not a complete lie!

It's not all been good news, though. While out on a drive around my local B-roads just before Christmas, the front suspension started making some very worrying clonking noises as I rounded a series of bends. I pulled over and got out to take a quick look under the car and make sure

nothing had fallen off, but in the pouring rain I couldn't really spot anything wrong. After the stop I wasn't able to reproduce the clonking, even with some fairly brutal waggling of the steering wheel to try and upset the suspension. I drove home slowly and carefully and checked the car over again once it was parked on the drive. Nothing seemed to be loose or broken and the noise hasn't returned since, but I'm going to get the technicians at RPM Technik to inspect the suspension while the car is in with them for an oil change.

I've only done around 4000

miles since the oil was last changed but I've decided to get it done anyway. The Porsche handbook says 12,000 miles between oil changes but given that this car is now 13 years old and has done five track days since the last change, it seems like a good idea to get some fresh oil in there and have everything checked over. Much like Jack and his criminallyunderdriven GT3, I believe that over-servicing these cars is a better bet than waiting until the designated distance between services has passed under the wheels. After the big bill from last year I'm hoping that there aren't



any nasty surprises lurking out of sight but I'd rather know now than find out at 140mph on the back straight at Bedford Autodrome.

Along with the suspicious suspension noises, I've also had another intermittent fault show up on the car, this time with the PCM sat nav/entertainment system. While cruising along the motorway, the screen suddenly began to flicker on and off, first quickly and then strobing more slowly. Switching the system off and back on again didn't make any difference, so I turned it off completely and drove home in silence, wondering how much a replacement unit goes for on eBay.

Sadly, the answer to that question is 'a lot'. Mine is a 2002 car which means it has the early 8-bit PCM1 unit fitted, and these can fetch £500+ on eBay. Some digging online found a few threads with others suffering the same issue, and while some companies offer a screen repair service, the cost isn't far off the price of a replacement PCM1 unit anyway.

I've driven the car subsequently with the stereo on and the issue hasn't resurfaced but I'm wary of the PCM system now. I'm not going to replace it until it definitely dies but if the fault does reappear I'm tempted to look at

fitting a modern CarPlay head unit rather than replacing it like-for-like with a used PCM system. It goes against my oft-stated desire to keeping the car looking OEM-spec, but the PCM system is horribly dated and clunky, even when it's working perfectly.

Since it's the new year and the Turbo has suffered a few niggles, I've decided to put together a list of items that I want to address over the course of 2016, with the aim of keeping the car as cosmetically and mechanically sound as possible. Mechanically there's not much to do other than the aforementioned suspension inspection but there's

quite a few items on the cosmetic list. These range from simple things like replacing all of the scruffy wheel centres with new ones to match the refurbished wheels to getting the left-hand front brake calliper reconditioned and repainted so that it matches the brand-new one on the righthand side of the car. I'd also like sort out two little chips on the right rear wheel arch that have been there since I bought the car. They've been badly touched up by a previous owner so I hope that it doesn't require the entire right rear quarter to be resprayed!

Martin Spain



long-term fleet

1981 911 SC

n writing these reports I hope that they provide readers with some insight into Porsche ownership. And, in the times that my car goes wrong, I hope that my tales of woe can help others avoid similar problems. Last month I had a bit of a problem, nothing to do with the SC but one that took time away from my beloved 911. So, in absence of any real progress of the air-cooled kind, I digress, as I am prone to do, and will write about the 987 Boxster S. I appreciate the Boxster is often discounted by die-hard Porsche enthusiasts but there is definitely a good dose of Stuttgart DNA in that there engine.

I was home the other evening watching one of the *Avengers* films, at around 10:30pm, when there was a knock at the front door. It was pretty wet and miserable out. Upon answering the door I was informed by my neighbour that the lights on my Porsche were on. The fact that I had not used any of the cars for a couple of days was cause for concern.

Outside I could see that the rear of the Boxster was fully lit up. With the car parked in front of the garage I could tell that the headlights were not on. I don't recall the exact turn of events, it was a combination of confusion and investigation. I tried the key in the ignition, turned the light switch, which was in the off position, on and then off again, that made no difference. I went and had a look in the rear boot but there was nothing untoward that I could see. The roof triggered, when I was nowhere near the switch, and by the time I realised what was happening I was too slow to get to the release lever. My slow reactions were followed by too loud bangs and the tonneau cover folding back into place. To stop anything else from going nuts, I disconnected the battery.

Working in the dark, I got my LED inspection lamp to see if I could track down the root cause. I am not sure how I arrived at this, but checking the floor I found that the carpet to the rear of the

footwell was sodden. Remembering a problem Martin had with his 996 Turbo, I went to the passenger's side and put my hand under the seat where there is a biscuit tin-sized cut out underneath. It was filled with water. A brief look and I could see that there were a couple of electronics modules. I wasn't sure how to get the cover off and the modules out so the first point of order was the removal of the water. I used a sponge, pushing it through a gap at the back of the biscuit tin, wringing it out, and then repeating. It was late, and dark, and the whole drying exercise seemed to take forever, but, eventually it was done. I put towels down behind the seats and shut the car up the best I could. With the battery disconnected I couldn't shut the front boot and the driver's window didn't go back up when the door was closed.

Research revealed that this sort of behaviour was not uncommon. There are a couple of drain holes on each side of the roof and if blocked, can cause water to enter the cabin. With the deluge of water and driving winds the past few days it was not difficult to see how the car had become waterlogged. There were a couple of reports of the roof triggering, too. The following morning I needed to remove the passenger seat to get at the modules. The seats are held with a six-pointed bolt but I was able to remove them with a star socket. I got the modules out and into the house so that I could open them up. The module for the parking sensors was not in too bad an order. The module for the lights and everything else was in a slightly worse state. There was a green gunk on the plastic casing and circuit board. Thankfully both cleaned up easily. I wanted to ensure that the electronics were dried fully so I left them to one side for a couple of days; it is best not to dry these circuits artificially, if it can be helped. Before refitting everything to the car I gave the boards a final once over with contact cleaner. With the car reassembled, all

seemed well. Although the roof was, in fact, broken.

When I started the car a message came up on the LCD informing me of a PSM failure. Driving the car for a little while, stopping and then setting off again showed that the fault had cleared. Later that day,

out of a clear junction, I was a little hard with the throttle, causing the PSM to cut in. That was one bonus, the electrics were all sorted at no extra cost.

There was now the matter of the roof. Pushing the switch to raise the cover revealed that the ball



joint caps, on the end of the drive rods, had snapped. I checked online and it is possible to buy the entire drive rods, but on eBay a seller provided just the plastic parts that I needed, at around £25, a little less than the price of one of the complete rods. I put the roof cover

up and was easily able to access the rod. I used blue electrical tape to mark the position of the old one before I removed it. Refitting was easy, the hard part was pushing the plastic cup onto the ball joint. But all is now fixed.

I have, obviously, checked the

drains. There was some debris in there but not so much that it should have been an issue in normal conditions. I believe it was the perfect storm that did for them. Needless to say, drain checking is now a firm part of my cleaning routine – and pouring water down them to ensure they are clear. So not only was that a luckily escape and I am lucky to have the Boxster back in operation but I am now able to get into the garage and get the SC out! So, if you weren't already, start checking those drains on your car!

Matt Biqqs



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the market place by Philip Raby A specialist Porsche dealer and consultant, Philip has been driving and writing about Porsches for over 20 years... @RabyPorsche



996 Carrera 4S

This wide-bodied 996 has seen values and demand rise in the last three years. Is it a classic in the making?

redicting the future is never an exact science unless, perhaps, your name is Nostradamus. Decca Records said that the Beatles had no future; Margaret Thatcher said there'd never be a woman prime minister in her lifetime; Charlie Chaplin believed cinema would never catch on, and this column claimed that the 996 Carrera 4S would drop in value.

That was three years ago, back in 2013, and I put forward a convincing argument, pointing out that the newer 997 was getting cheaper by the day and nipping at the 996 Carrera 45's tail. If you could buy a 997 for £20,000, why would you consider a 996 for similar money? In fact (and this will make you weep), I pointed out that you could pick up a 996 Turbo for as little as £22,000, so people would be eyeing those up as an attractive alternative to a Carrera 4S.

To be fair, in the short term at least, my prediction wasn't too far out and Carrera 4S prices did, for a while, drop to the extent you could pick up a reasonable one for under £20,000 while higher mileage examples were floating around the £15,000 mark. But now those days are long gone, with 996 Carrera 4Ss rarely selling for under £20,000 and lower-mileage examples are now breaking the £30,000 barrier. What has happened?

To find out, we first need to understand what the 996 Carrera 4S is. Effectively, it's a 996 Turbo bodyshell, but without that car's intakes in the rear arches or its back spoiler. Instead of the Turbo engine, it has a standard 3.6-litre Carrera engine, linked to a four-wheel drive system and Turbo suspension and brakes. The icing on the cake is a full-width reflector between the rear lights — a Porsche trademark from 1974 to the introduction of the 996 in 1997 when

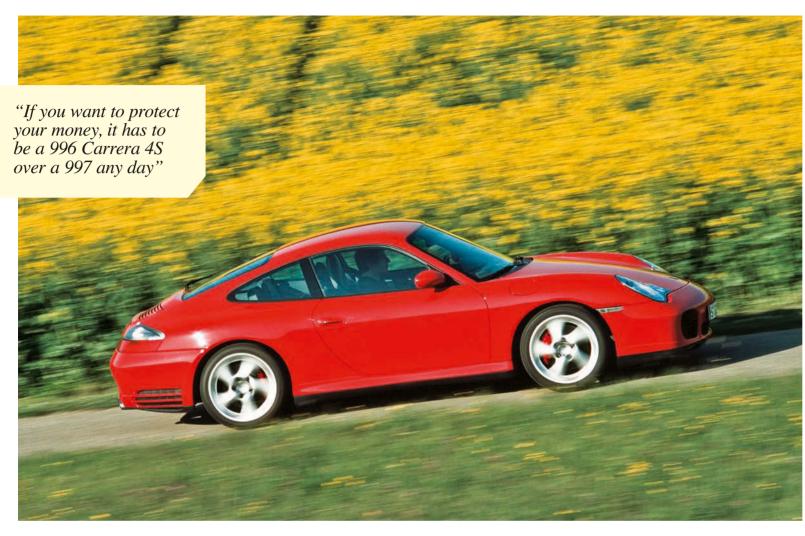
it was dropped. I said it three years ago, and I'll say it again – the 996 Carrera 4S has one of the best-looking Porsche rear ends ever. Some people moan about the 996's appearance but the Carrera 4S is different – it's a well-loved 911

And that's the key – people love the Carrera 4S and want to own one, but there really aren't that many out there. It was an expensive model when new – remember it didn't offer any performance advantage over a standard Carrera 4 but cost substantially more, so not that many were sold. How rare is it? Well, I found 30 for sale at the time of writing, compared with 131 997 Carrera 4Ss. That's more than a hundred more of the newer 911. Widen the 997 search to all variants of Carrera and I got – wait for it – 437 on the market.

So with 997s almost two a penny, it's no wonder that people are seeking out something rarer that will stand out



the market place___



With 996 Turbo prices still growing fast, in many ways the Carrera 4S offers a worthy alternative



in a crowd. Three years ago, a 996 Turbo would have been a nice alternative, with good ones starting at £25,000 but today you're looking at adding at least another £10,000 to that price (that's why you should be weeping). Which makes the similarly bodied Carrera 4S an affordable alternative. Sure, it doesn't have the power of the Turbo, but it's still a fast (and arguably even better looking) machine with the benefit of the superb Turbo brakes and suspension. The latter gives the 4S quite a different feel – in a good way – to the standard narrow-bodied 996.

But you may be thinking, for between £20,000 and £30,000-plus, you could have your choice of decent 997s, with only the ones at the bottom end of the price bracket being potentially iffy. That's a very good point and one that creates a dilemma for buyers. The 997 has youth on its side (although only by a year or so), and boasts a shape that some people prefer (ditto its interior) but its image is marred (unfairly, we should point out) by worries over engine reliability, especially in 3.8-litre guise.

It is, then, down to personal preference. I still get people saying that they don't like the 996's headlamps (although nowhere near as often as I used to – people seem to be warming to them) and if that's the case with you, then a 997 is the way to go. On the other hand, if you simply love the 996 Carrera 4S's rear end – and it has a chunkiness that was unmatched in 997 form – then that's the car for you.

What about values, though? As I showed at the start of this article, no one gets it right every time. However, I believe that it's safe to say that the





the market place___

996 Carrera 4S will at least hold its value over the next year or so and possibly even continue to go up. That is something that can't be said about the 997, simply because of the sheer number that are on the market. So if you want to protect your money, it has to be a 996 Carrera 4S over a 997 any day.

The Carrera 4S has been called a future classic on more than one occasion. I always think that this is a strange phrase and one that is hard to explain. However, in this case, I can see where people are coming from. This wide-bodied 996 has become a car that is being bought by, and driven by, true Porsche enthusiasts; card-carrying PCGB members. The sort of people that, ten years ago, would have opted for a 993. And that has to be a good thing for the model, as it will be cherished and loved for many years to come.

At least, that's my prediction for the future anyway... \bigcirc







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Autonomous cars

Jesse Crosse looks into a pretty hot topic: driverless cars...

riverless cars. Two words which strike terror into the heart of anyone who even remotely enjoys driving a car, let alone a true enthusiast. One of the last brands anyone would expect to be part of the whole driverless car scenario is Porsche, but in the longer term it probably won't have any choice. Porsche is part of the Volkswagen Group for one thing and for another, the need to radically reduce the number of accidents and manage traffic flow is growing fast.

If that sounds like bad news, the good news is this: the term 'driverless cars' is a bit of a red herring and some industry experts prefer the term 'autonomous cars'. Autonomous functions have been available for some time and the number is growing. Even some relatively inexpensive cars today are available with some autonomous features like adaptive cruise control or autonomous emergency braking. Porsche recognises that modern buyers expect all the bells and whistles available in other makes and will continue to offer more autonomous features.

The first step along the road to autonomous cars came in 1996 when Jaguar Cars became the first manufacturer to introduce Adaptive Cruise Control on the XK. Radar-based ACC is still one of the most sophisticated functions in the suite of advanced driver assistance systems developed by Tier 1 suppliers like Bosch but more have joined it since.

Now, there are radar technologies which provide limited emergency braking functions to protect distracted drivers from hitting the car in front. Drowsy driver functions monitor drivers' behaviour to alert them or intervene with the steering if they start dozing off. Automated parking functions, ultrasonic parking

aids, queue assist and side collision warning are all autonomous functions which intervene to protect the driver today. Some, like ACC and Lane Change Assist are already available on Porsches.

In the last couple of years, cameras have joined radar to provide lanekeeping functions which intervene with the steering, provide full 360degree monitoring around the car and crucially, enable autonomous emergency braking (AEB). Last year, research from Euro NCAP revealed a 38 percent reduction in rear-end crashes for new cars fitted with AEB compared to those without it, most of which happened at low speeds. Figures like that can only support the value of greater autonomy in cars. The addition of cameras to advanced driver assistance systems (ADAS) is significant in the move towards full autonomy because the resolution

they provide is so much higher than radar, but a combination of the two can be even more effective.

So modern cars, including Porsches, are already equipped with autonomous functions and the next major step will be full autonomy, where the driver can hand over to the car completely. While the media has been transfixed by the idea that one day a switch will be flipped and steering wheels in cars will disappear, a steady increase in the level of technology is more likely until cars can achieve full autonomy under certain circumstances, like for highway use or for 'self' valet parking.

Despite the hype surrounding 'driverless cars' the idea has been the subject of global research programmes for decades. The biggest ever research programme into driverless cars was the Eureka PROMETHEUS project (PROgramme

for a European Traffic of Highest Efficiency and Unprecedented Safety). This pan-European project ran between 1987 and 1995 and was funded to the tune of €749m. Among other things, it included the first trials of platooning, where cars autonomously hook up nose-to-tail on motorways.

That is still a likely scenario and more achievable today given the relatively slow and clunky computer processing power they had available back then. Connectivity and intelligent transport systems also have a big part to play as autonomous cars will need to communicate with one another and also the infrastructure around them. Several large consortiums comprising car makers, research bodies and government organisations have been working on 'V2V' (vehicleto-vehicle) and 'V2I' (vehicle-toinfrastructure) connectivity technology for well over a decade.

Connectivity provides must-have safety functions that even the most dved-in-the-wool purist would welcome, such as intersection warning and intervention. In this scenario, if a driver of a V2V-equipped car attempts to pull out in front of a similarly equipped oncoming car at a junction, the two cars communicate and autonomously hit the brakes if necessary to avoid a crash. The same system can detect a broken down car around a blind bend, hidden road works, on-coming emergency vehicles, in fact anything that may mean trouble ahead for the driver.

Hop into any new Porsche and the level of connectivity in it is very high, from Bluetooth, GPS and traffic data to the in-car WiFi available in the Panamera, Cayenne and Macan. V2V works using the same wireless technology, so as every year goes by, more and more of the technology needed for full autonomy is appearing in cars anyway.





Work on fully autonomous cars is progressing but it doesn't necessarily mean we'll be robbed of driving pleasure, or that all cars will suddenly become 'driverless'. More likely is a distribution of technologies where you might use your Porsche to drive to the city then switch to a train or driverless pod to journey through the

urban melee. On the way, your car might switch to autonomous mode on a motorway running seamlessly and accident-free with no hold-ups.

When you arrive at the drop-off point, it may head off into the car park autonomously and park itself. Given how boring and frustrating motorway driving is these days and how frustrating it is to find a parking spot, both functions could be more than welcome.

To achieve full autonomy, even more sophisticated features will be needed such as LIDAR, a laser-based technology used on all autonomous prototypes today. However, each LIDAR sensor today costs thousands and cheaper solutions will need to be found before autonomous cars could become commonplace.

So will we really see the autonomous Porsche of the future? Probably, but if the thought still gives you a headache don't worry, it's going to be at least another 20 years before that happens O





Geometry: Part Three

In the final part of our series on suspension geometry we look at camber and caster...

he chassis setup of a car, particularly those with challenging weight distribution (like any 911), is like a huge theoretical jigsaw. All aspects of the geometry interact with one another and if one changes, the chances are it will affect another.

Last month we looked at setting toe with lengths of string or gauges but before you do that, make sure you've made any other adjustments you are planning, like setting the camber angle. Camber is the angle of lean of the wheels when looking from the front or rear of the car. It's important because it affects the way in which the tyre's contact patch sits on the road surface during cornering.

When a car corners it rolls and when it rolls the camber angle of the wheels changes. This usually means the outside wheels lean more toward the outside of the corner and if they reach the point where they pass the vertical, that is called positive camber. In that case, the contact patch, helped by the deformation of the tyre if the car is cornering hard, will begin to lift from

the road on the inside, or at least the load on it will be reduced.

Since the outside tyres are the ones doing most of the work when the car is cornering, grip is significantly reduced and either the whole car, or one end of it, will slide towards the outside of the corner. That means it will begin to understeer or oversteer or, if you have a perfectly balanced car, drift neutrally assuming the driver is not influencing the balance using the throttle.

If a car understeers in the steady state (not jumping on or off the throttle) then increasing negative camber at the front may help. As the car rolls in the corner, an outside wheel with marked negative camber when the car is stationary, will stand upright. In that case, the tyre's contact with the road will be maximised just when you need it most. The caveat to that is what happens in a straight line, especially under braking.

Once above around two degrees negative, load on the inside of the contact patch will begin to be significantly reduced. This can cause nervousness in a straight line and make the car dart from side to side under braking, so beware. If messing around with the camber because it looks cool, remember it can have a detrimental or even dangerous effect if you overdo it.

Camber adjustment is quite simple assuming you've located the adjustment mechanism on the particular car you're working with and have a dead smooth and level surface on which to sit the car.

You can spend a lot or a little on camber/caster gauges but the simplest are steel sticks with a magnetic pad on one end and an adjustable spirit level in the stick. First, calibrate the gauge using a decent builders spirit level then get a rigid length of steel or angle iron (it must be dead straight) and cut it to match the diameter of the rim you want to measure. Hold the steel vertically against the rim, stick the magnetic gauge in the middle of it then read off the angle. When adjusting the camber angle, make sure the suspension is fully settled back to ride height before measuring again and at least roll the car to and fro after

adjustment before rechecking.

Increasing the castor improves straight line stability but also steering effort. Measuring castor is a little trickier than camber but here's one method: sit the front wheels on a pair of turntable pads with accurate steering angle measurement. Turn the steering wheel to get 20 degrees lock and using your camber gauge in the same way and vertical to the floor, set it to zero. Then turn the wheel on 20 degrees lock in the other direction (40 degrees between the two) and measure again. The reading you get is the castor angle.

Tackling suspension geometry isn't for the faint-hearted and the complexity of it varies with the complexity of the suspension setup. The key thing as always, is to be absolutely clear what the implications are. Some later cars are very sensitive to geometry changes so be sure you've done your research before getting stuck in. That said, if you're prepping a stripped-out 968 for a spot of track work or hillclimbing, being able to tinker with the setup yourself will prove invaluable

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C5 MALVERN SLIMLINE SQUARE

How much? From £395

Where from? www.christopherward.co.uk

The C5 Malvern Slimline Square is from Christopher Ward's new streamlined Malvern range. At 37mm square, the watch has been proportionally designed to sit well on every wrist. A Sellita 210-1 movement is housed in a freshly reengineered case and there's a choice of two dial colour options: a blue or matt white finish. The watch is available with a choice of an embossed alligator pattern Italian leather (with CW-motif clasp) strap at £399 or a fine-knit stainless steel Milanese bracelet at £475.



NIKO AROMA DIFFUSER

How much? TBC

Where from? www.madebyzen.com The 'madebyzen' Niko Aroma Diffuser is an air purifier that allows you to enjoy pleasant aromas whilst driving.

The company says that just a few drops added to the portable air purifier will rejuvenate and revitalise, soothing the senses while on the move. It comes with a home and car adapter. It also acts as a humidifier, bringing moisture back to the surrounding air. You'll be able to purchase these from major stockists such as John Lewis, Fenwicks and Neal's Yard, together with selected independent stores.



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Where from? www.racingmodels.com

The Squadra Tartaruga Porsche 907 Lang Heck was driven to second place by the Swiss team of Rico Steinemann and Dieter Spoerry. This fine 1:18 scale Spark model is supplied on a display plinth. Add code POR010 to your shopping cart during checkout to receive a ten percent discount exclusive to *GT Porsche* readers.



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THE PORSCHE 917 OWNERS' WORKSHOP MANUAL

How much? £22.99

Where from? www.haynes.co.uk

The Porsche 917 Owners' Workshop Manual, published by Haynes, celebrates the golden era of sports car racing of the late 1960s and early 1970s. The manual provides an insight into the design, engineering, maintenance and operation of Porsche's legendary Le Mans winner.

It studies the Porsche 917 in all of its guises using photographs and original technical drawings to look under the skin of the 917's anatomy. It also includes word from JWA mechanic, Alan Hearn, who provides a unique new insight into the engineering and operation of the Gulf 917s. Of course, there's plenty more too. ISBN: 9780857337658.



Where from? www.cambridgemotorsport.com

Cambridge Motorsport Parts is now supplying JE pistons for 996 Porsche engines, suitable for mills made from 1997 to 2004. These engines, both 3.4- and 3.6-litres, originally had Nikasil coated bores for which the recognised fix has been replacement with iron liners. The CMP pistons can be supplied for use with either Nikasil or cast iron bores and can be made to the customer's particular specification. The pistons come complete with rings, pins and clips.

KENT CAMS FOR CLASSIC 911 ENGINE

How much? From £640 per pair **Where from?** www.kentcams.com

Kent Cams is now offering new cam profiles for classic air-cooled Porsche 911 engines made between 1965 to 1989 (964). Probably the most popular profile will be the Competition/Sport version for fast road, track days and clubman competitions. However, other profiles, including race applications, are available, all of which are precision ground to the required profile. Kent recommends that the cams are installed by a Porsche engine building specialist and can put customers in touch with their nearest suitable expert. For this reason the cams will only be available from approved Porsche engine specialists.



INFRARED THERMOMETER GUN

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Where from? www.bg-racing.co.uk The B-G Racing Infrared Thermometer Gun is compact, lightweight, and capable of reading temperatures between -50 to 330°C. A laser sight and Celsius/Fahrenheit selection, with readings switchable between Celsius and Fahrenheit at the touch of a button, ensures fast and highly accurate surface temperature readings. This handy bit of kit can be used to measure just about any kind of surface temperature including locating dead engine cylinders, negative heat sources within the cockpit and the measurement of track surface, brake and tyre temperatures.





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PORSCHE BASEBALL CAP

How much? £20

Where from? www.porsche.co.uk/shop

This baseball cap, with the 'Porsche' logo printed in black on the front, is part of Porsche's 911 Collection, which belongs to the official Porsche Driver's Selection. It is made from 96% polyester, 4% elastane and comes in one (adjustable) size and a single colour: black.



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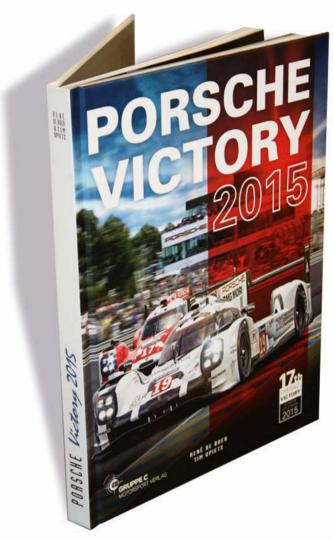
How much? £450

Where from? www.porsche.co.uk/shop

This high-quality briefcase is made from black leather (2/3 grained, 1/3 smooth). It is suitable for a 15-inch laptop, incorporates two fasteners featuring the Porsche logo, and dual front patch pockets. There is a further pocket across the entire length of the back section, and it features a detachable strap with a padded section for the shoulder. The main compartment includes two partitions. It's a classy number, suitable for anyone who wishes to take their Porsche addiction to work with them.







PORSCHE VICTORY 2015

How much? £26.43

Where from? www.gruppec-verlag.de

This hardback book celebrates Porsche's 17th overall win at the Le Mans 24 Hours, which occurred last year. With 192 pages packed with 440 photos, the book is available in English, German and French and includes everything you might want to know about last year's running of the famous race, including a bountiful number of statistics.





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37,000 miles, (58 - 2008), Midnight blue with ..£46.000



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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 black



pebble grey leather



Porsche 911 (997) "2S" 3.8 "Gen 2" pdk 51,000 miles, (58 - 2008), GT Silver with black leather£41,000



Porsche 911 (997) "C2" 3.6 "Gen 2" pdk 28,000 miles, (58 - 2008), Midnight blue with ...**£40,000** ocean blue leather



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Porsche 911 (997) "C2" 3.6 "Gen 2" pdk 53,000 miles, (58 - 2008), Meteor grey with£37,000



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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	Hp	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	_
911S	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	_
9115	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	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	Т
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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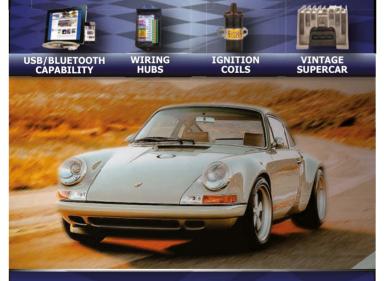


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996: 1997 – 2005

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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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.

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 critics slam it.

The more powerful, 400hp 3.8-litre has an epic performance. For the first time we'd consider PDK over the manual gearbox. But PDK only makes sense with the optional paddleshift controls. If you opt for either the GT3 or Turbo models PDK is your only option. The 911 was the last bastion of the truly wonderful manual gearbox, now it's gone from the likes of the GT3 and the Turbo, it feels like a chapter has closed.

Advent of GTS models creates a fast road 911 with all the comforts but in 2015 it's the GTZ DS that be a comforts but in 2015 it's the GTZ DS that be comforted.

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 911 Carrera goes turbocharged. It's the biggest step change for the 911 since the shift from air- to water-cooled engines. Face-lift is subtle; new bumpers, lights, and vertical slats on the decklid being the real giveaways. 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 0-60mph 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 wheel. New driving mode switch allows adjustment to the car's performance, 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, too.

Following the Carrera models, Porsche reveals the 3.8-litre bi-turbo six-cylinder 540hp 911 Turbo and 580hp Turbo S, available in Coupé and Convertible guises. Power gains are provided by a modified cylinder head and new turbochargers with larger compressors.

Both receive the Sport Chrono (with Mode switch), and the SRB. PASM is standard. PCCB ceramics come are standard on the Turbo S. Each can be specified with a radar-based lane change assist function and Nose Lift. Revised front end styling incorporates LED lighting, rear decklid is also redesigned with longitudinal louvres, and a section designed to optimise air flow into the engine. New, wider, 20-inch wheels feature on both models, the Turbo S features new seven-spoke centre locking alloy wheels.

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 'comfy' 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. New 540hp 911 Turbo and 580hp Turbo S follow, available in Coupé and Convertible quises offering more power than their predecessors. The 3.8-litre bi-turbo six-cylinder engine boasts an increase of 20hp over its forebear, gains are provided by modified cylinder head inlet ports, new injection nozzles and higher fuel pressure. The 911 Turbo S uses new turbochargers with larger compressors, it hits 62mph in 2.9 seconds; Turbo model does the same in 3.0 seconds. The top speeds reach 200mph for the first time: 205mph (Turbo S) and 199mph (Turbo) respectively, yet they can return in the region of 30mpg. Both models receive the Sport Chrono Package (with Mode switch), and the SRB allows drivers to select one of four dynamic driving modes. PASM is standard on both, PCCB ceramics are standard on the Turbo S. A radar-based lane change assist function is an option, as is Nose Lift. Both feature revised front end styling incorporating LED lighting, the rear decklid has also been redesigned featuring longitudinal louvres and a separate section designed to optimise air flow into the engine. New, wider, 20-inch wheels feature on both models, the Turbo S features new seven-spoke centre locking alloys.

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	
Turbo	2016	1595	3800	540	524	3.0	199	
Turbo S	2016	1600	3800	580	553	2.9	205	

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 YEAR	WEIGHT kg	ENGINE cc	Нр	TORQUE (lb ft)	0-62	TOP SPEED (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	Hp	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	



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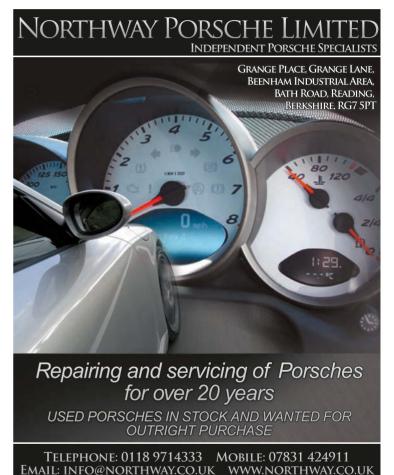
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928: 1978 <u>– 1995</u>

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.

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.

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 (m/m): 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 gearbox, 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





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BOXSTER (986): 1997. 2005 - 201

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 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.

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	Hp	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	
Boxster S	2003 to '04	1295	3179	260	228	5.7	164	

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

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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 R is a lighter, more powerful version of 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

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 (Ib 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 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 gearbox, 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)	RHP	TURQUE (ID 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). PASM, adjustable ride height, electronic damper control, differential locks, six-pot callipers, 18-inch alloys standard, 19- and 20-inch optional. PTM, 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 sixspeed 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 DFI engines to improve performance, economy and emissions, while face-lift improves the looks. PDCC 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: 2009 Model Year – Porsche introduces a Cayenne diesel. Three-litre Audi sourced V6 is available in entry-level trim only 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. 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 get a new eight-speed Tiptronic automatic (V6 gets a six-speed manual as standard). Porsche has also done away with the original heavy duty four-wheel drive system, replacing the low ratio gearbox with the latest development of PTM with the enhanced electronics of new Tiptronic S 'box. Diesel and Hybrid models get permanent all-wheel drive, others get an active system. PASM, PDCC and PCCB are all optional. A new interior is based on that of the Panamera with higher levels of quality and refinement. 2012: The line-up grows with the introduction of the GTS. Fitted with the same 4.8-litre V8 as the Cayenne S, GTS engine receives a host of modifications that push power to 420hp and torque to 380lb (up 20hp and 11lb ft respectively). Eight-speed Tiptronic S is the only gearbox fitted, chassis combines steel springs with PASM. Air 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: The S Diesel and the Turbo S arrive. The latter is a bell-and whistles Turbo with power increased 50hp to 550hp. Two-tone leather options are standard as is a host of equipment that is optional on the Turbo. The S Diesel takes a twinturbo charged 4.8-litre Audi V8 diesel. The spec is the same as the petrol engined S, but with huge torque. 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. New GTS arrives later in the year, it ditches the V8 for the 3.6-litre V6 bi-turbo engine from the Cayenne S. Power increases by 20 hp to 440 hp, torque by 85 Nm to 600 Nm. As standard it has a sports exhaust system, PASM and steel-springs (it sits 24 mm lower), air suspension is optional as is Sport Chrono package.





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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 — 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

Turbo model's front styling, new skirts, arch extensions, and a roof spoiler feature with 20-inch wheels. GTS sports seats in leather/Alcantara upholstery are inside.

MODEL MODEL MPH	YEAR WEIGHT (kg)		ENGINE ((cc) BHP	TORQUE	E (lb ft)	0-62/60*	MAX
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	
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-Hybri	d 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 as standard along with Auto Stop-Start. Engines are adapted from Cayenne, PDK is unique to Panamera and differs from the units in Porsche'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. 18inch 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 3.6-litre 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 produces 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 A Panamera Diesel arrives. 3.0-litre V6 turbocharged engine is donated by Audi. Spec on par with a V6 petrol engined car. S Hybrid also added to range fitted with a 3.0litre supercharged petrol V6 engine and 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, electric motors have a 46mph maximum speed. Turbo S also arrives running a pair of turbos with lighter vanes. Peak power climbs to 550hp. Agate grey exterior paint is exclusive to the model. 2012 – 2012MY GTS arrives with a Porsche Exclusive bodykit and 4.8-litre V8. Active air intakes, reprofiled camshafts and a revised ECU extract a further 30hp from the V8 and an additional 15lb ft of torque. Turbo brakes are standard, as is air suspension and PASM – which is reprogrammed to be tauter. 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 with 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.

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Value : £44K xs£300



Panamera Diesel

Driver Age: 42 No Claims Bonus - 5+

Value : £70K xs£500



Cayenne S Diesel

Driver Age: 40 No Claims Bonus - 5+

Value : £83K xs£750



991 Turbo S

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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 lower 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 range, offering the SportDesign package as standard. Equppied with a PASM chassis that is lowered by 15 millimetres, it sits on m

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 Hybric	2012 – 2013	1980	2995	380	427	6.0	167	
Panamera Turbo S	2012 - 2013	1995	4806	550	553	3.8	190	

* 567lb ft when in Sport Plus Mode when Sport Chrono Package Plus fitted. ** 0-60mph time **2013**– 2014MY The gen-2 Panamera gets new front and rear bumpers, 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 models and in comes a 3.0-litre bi-turbo V6 that's more powerful. Big V8 stays for the GTS and Turbo, 3.6-litre petrol V6 props up the range along with 3.0-litre turbo diesel. Hybrid model now called S E-Hybrid and is a plug-in' it mates the 3.0-litre supercharged V6 with an electric motor that's twice as powerful and a battery pack that can store five times the energy. PDK for all 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 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-Hybrid	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	

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. A 286hp electric motor is fitted to the front axle with its own transmission. 918 can be driven by the petrol engine, the electric motor or a combination of both, this results in 887hp and 944lb ft of torque (V8 produces 676lb ft alone). 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. Chassis is a carbon-fibre monocoque, carbon body 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. Nürburgring lap time: 6min, 57secs. 2015 - The final 918 rolls off the production line.

MODEL	MODEL YEAR	WEIGHT (kg)	ENGINE (cc) BHP	TORQUE (lb ft)	0-62	MAX MPH	
918 Spyder	2014	1674	4593	608/286	676/944	2.6	214	
918 Spyder Weissa	ch 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 - Built at Leipzig, two petrol V6 engines, 4-cylinder turbocharged petrol engine, and V6 diesel donated by 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 to the front axle when required. PDK as standard - no manual - 'Off-road mode' can be selcted at speeds of up to 80kmh, shorter gear ratios aid traction. S model is fitted with a 65-litre fuel tank, S Diesel a 60-litre tank, Turbo a 75-litre one. Both S models available with optional 75-litre tank. Steel springs and fixed rate dampers standard on S models, Turbo comes with PASM as standard. All are available with and PASM at extra cost, providing an additional 40mm of clearance . Sport button fitted as standard, PTV Plus optional, as is Sport Chrono. S models fitted with 350mm front brake discs, 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. Electromechanical power steering all round. Turbo is fitted with bixenon headlights, S with halogens, PDLS optional on all. Three-spoke 918 Spyder-style multi-function steering wheel with paddle shift as standard. Full length panoramic glass sunroof available, S models trimmed in partial leather and alcantara, full leather interior a cost option. 2015 - Macan GTS added to range sitting between S and Turbo. Uses same three-litre V6 biturbo engine as S model with added power, PDK only, SportDesign styling package is fitted as standard. Porsche's new PCM system 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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APRIL 2015

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MAY 2015

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.



JUNE 2015

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IIIIY 2015

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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



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OCTORER 2015

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NOVEMBER 2015

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JANUARY 2016

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FEBRUARY 2016

Cover Story: 964 Backdates Inside: RSR evocation and Pro-9 built 964 C2. 964 vs 911 SC. Boxster 2.7-litre. Formula One in Stuttgart. 356B racer. Macan GTS first drive. TwinSpark Racing profile. Porsche history: Vees. Market Place: 944 Turbo.

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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	1330kg
Boxster Black	£46,164	6cyl/2706cc	265hp	206lb ft	5.8secs	164mph	1330kg
Boxster S	£47,858	6cyl/3436cc	315hp	269lb ft	5.1secs	173mph	1340kg
Boxster GTS Boxster Spyder	£53,872 £60,459	6cyl/3436cc 6cyl/3800cc	330hp 375hp	276lb ft 310lb ft	5.0secs 4.5secs	174mph 180mph	1345kg
boxster spyder	E00,439	6Cy1/36UUCC	375HP	3 1010 11	4.35805	тооппрп	131318
CAYMAN Cayman 2.7	£39,694	6cyl/2706cc	275hp	213lb ft	5.7secs	165mph	1330kg
Caymann Black	£45,989	6cyl/2706cc	275hp	213lb ft	5.7secs	165mph	1330kg
Cayman S	£48,783	6cyl/3436cc	325hp	272lb ft	5.0secs	175mph	1340kg
Cayman GTS	£55,397	6cyl/3436cc	340hp	279lb ft	4.9secs	177mph	1345kg
Cayman GT4	£64,451	6cyl/3800cc	385hp	310lb ft	4.4secs	183mph	1340kg
911 COUPÉ (991)							
New 911 Carrera	£76,412	6cyl/2981cc	370hp	332lb ft	4.2secs	183mph	1430kg
911 Carrera Black	£75,074	6cyl/3436cc	350hp	287lb ft	4.8secs	179mph	1380kg
New 911 Carrera S	£85,857	6cyl/2981cc	420hp	369lb ft	3.9secs	191mph	1440kg
911 Carrera GTS	£91,098	6cyl/3800cc	430hp	325lb ft	4.4secs	190mph	1425kg
New 911 Carrera 4	£81,398	6cyl/2981cc	370hp	332lb ft	4.1secs	181mph	1480kg
911 Carrera 4 Black	£79,309	6cyl/3436cc	350hp	287lb ft	4.9secs	175mph	1430kg
New 911 Targa 4	£90,240	6cyl/2981cc	370hp	332lb ft	4.3secs	179mph	1570kg
New 911 Carrera 4S	£90,843	6cyl/2981cc	420hp	369lb ft	3.8secs	189mph	1490kg
911 Carrera 4 GTS New 911 Targa 4S	£95,862 £99,684	6cyl/3800cc	430hp 420hp	325lb ft 369lbft	4.4secs	188mph 188mph	1470kg
	£104,385	6cyl/2981cc 6cyl/3800cc	4201p 430hp	325lb ft	4.0secs 4.7secs	188mph	1580kg 1555kg
911 Targa 4 GTS 911 GT3	£100,540	6cyl/3799cc	43011p 475hp	325lb ft	3.5secs	196mph	1430kg
911 GT3 RS	£131,296	6cyl/3996cc	500hp	339lb ft	3.3secs	190mph	1420kg
New 911 Turbo	£126,925	6cyl/3800cc	540hp	524lb ft	3.0secs	192mph	1595kg
New 911 Turbo S	£145,773	6cyl/3800cc	580hp	553lb ft	2.9secs	205mph	1600kg
New 911 Iuibo 3	E143,773	0Cy1/3800CC	200115	וו טוכככ	2.35005	203111011	100008
911 CABRIOLET (991) New 911 Carrera	£85,253	6cyl/2981cc	370hp	332lb ft	4.4secs	181mph	1500kg
911 Carrera Black	£81,852	6cyl/3436cc	350hp	287lb ft	5.0secs	177mph	1470kg
New 911 Carrera S	£94,698	6cyl/2981cc	420hp	369lb ft	4.2secs	180mph	1520kg
911 Carrera GTS	£99,602	6cyl/3800cc	430hp	325lb ft	4.6secs	188mph	1495kg
New 911 Carrera 4	£90,240	6cyl/2981cc	370hp	332lb ft	4.3secs	179mph	1550kg
911 Carrera 4 Black	£86,125	6cyl/3436cc	350hp	287lb ft	5.1secs	175mph	1500kg
New 911 Carrera 4S	£99,684	6cyl/2981cc	420hp	369lb ft	4.0secs	188mph	1560kg
911 Carrera 4 GTS	£104,385	6cyl/3800cc	430hp	325lb ft	4.7secs	183mph	1515kg
911 Turbo	£129,223	6cyl/3800cc	520hp	486lb ft	3.5secs	195mph	1665kg
911 Turbo S	£150,897	6cyl/3800cc	560hp	516lb ft	3.2secs	197mph	1675kg
CAYENNE							
Cayenne	£49,576	6cyl/3598cc	300hp	295lb ft	7.7secs	143mph	2040kg
Cayenne Diesel	£50,441	6cyl/2967cc	262hp	428lb ft	7.3secs	137mph	2110kg
Cayenne S	£60,845	6cyl/3604cc	420hp	406lb ft	5.5secs	160mph	2085kg
Cayenne S Diesel	£62,099	8cyl/4134cc	385hp	627lb ft	5.4secs	156mph	2215kg
Cayenne E-Hybrid	£62,099	6cyl/2995cc	416hp	435lb ft	5.9secs	150mph	2350kg
Cayenne GTS	£72,523	6cyl/3604cc	440hp	443lb ft	5.2secs	163mph	2110kg
Cayenne Turbo	£93,574	8cyl/4806cc	520hp	553lb ft	4.5secs	173mph	2185kg
Cayenne Turbo S	£118,455	8cyl/4806cc	570hp	590lb ft	4.1secs	176mph	2235kg
PANAMERA		- 1/	!	.==11. 6			
Panamera Diesel	£65,289	6cyl/2967cc	300hp	479lb ft	6.0secs	160mph	1880kg
Panamera	£63,913	6cvl/3605cc	310hp	295lb ft	6.3secs	160mph	1770kg
Panamera 4	£67,474	6cyl/3605cc	310hp	295lb ft	6.1secs	159mph	1820kg
Panamera S V6	£82,439	6cyl/2997cc	420hp	383lb ft	5.1secs	178mph	1810kg
Panamera 4S V6	£86,080	6cyl/2997cc	420hp	383lb ft	4.8secs	177mph	1870kg
Panamera S E-Hybrid	£84,401	6cyl/2995cc	416hp	435lb ft	5.5secs	167mph	2095kg
Panamera GTS	£93,391	8cyl/4806cc	440hp	383lb ft	4.4secs	178mph	1925kg
Panamera Turbo	£108,006	8cyl/4806cc	520hp	516lb ft	4.1secs	189mph	1970kg
Panamera Turbo S	£131,152	8cyl/4806cc	570hp	553lb ft	3.8secs	192mph	1995kg
MACAN	C41 F70	4ad/1004	2776-	JEOIL #	C 0	170L	1770
Macan C	£41,578	4cyl/1984cc	237hp	258lb ft	6.9secs	138mph	1770kg
Macan S Dissal	£44,650	6cyl/2997cc	340hp	339lb ft	5.4secs	157mph	1865kg
Macan S Diesel	£44,636	6cyl/2967cc	258hp	427lb ft	6.3secs	142mph	1880kg
Macan GTS	£55,188	6cyl/2997cc	360hp	368lb ft	5.2secs	159mph	1895kg
Macan Turbo	£60,994	6cyl/3604cc	400hp	405lb ft	4.8secs	165mph	1925kg
918 SPYDER	0701155	0.1/4507	00.4	0.4411 6	2.6	214	1674
918 Spyder Weissach	€781,155 €853,155	8cyl/4593cc	894hp	944lb ft 944lb ft	2.6secs	214mph	1674kg
918 Spyder Weissach	€853,155	8cyl/4593cc	894hp	944ID II	2.6secs	214mph	1634kg









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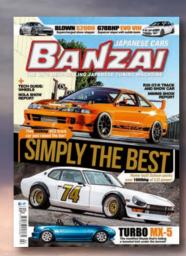
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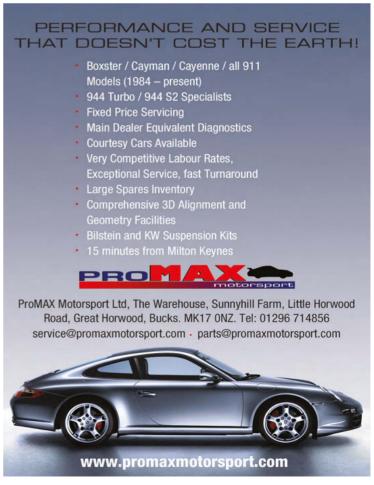
















A motoring journalist for over 25 years, Colin has contributed to GT Porsche for a decade

Colin Goodwin worries that the latest Porsches are losing their character, all in the name of efficiency.

ot without justification, I sometimes get a ribbing for being either a Luddite or trapped in the 1980s but I can't help it if I found watching Senna, Prost and Mansell racing together more exciting than today's F1. Before Christmas I took part in a group test that included the new 911 and before I'd even sat in the Porsche I was taunted for still not having accepted water-cooling. Actually, I got over the loss of air-cooled flat-sixes several years ago.

The adoption of water radiators in the 911 isn't as significant as the fitment of turbochargers to the base models. Adding blowers has significantly changed the character of the engines, giving them a wide spread of torque and taking away the thrill of the engine coming on cam. I've now done a lot of miles in the 911 and have firmed up my opinion. Firstly, I think it's the best looking 911 since the '70s. The minor changes to the rear have absolutely transformed its looks. I had a dark blue straight Carrera for a week, fitted with a manual gearbox and a collection of sensible options. It looked amazing and had all the usability that we love about 911s.

The ride comfort was exceptional and the steering seems to have even

"So the 911's character has been spoilt just so it can pass a meaningless emissions and fuel consumption test.
And it's worse than that..."

more feel and precise reactions and weighting. This could be the best non-GT/RS modern 911 ever. Except for its engine. When I think about my love of cars and things mechanical I can trace it back to a love of the internal combustion engine, starting with the Briggs and Stratton engine fitted to my dad's Suffolk Colt lawnmower. The idea that a bit of liquid, mixed with air and lit by a spark, can produce all this fury has never stopped fascinating me. Mercury two-stroke outboards, aircraft engines, Laverda three-cylinder bike engines, the Cosworth DFV, it's all about engines for me.

The 911 is really all about the engine. A cranky powertrain layout has been refined over decades so that it is possible to carry around this glorious powerplant with less risk of throwing the whole thing into a field.

Last year's Volkswagen cheating fiasco got me thinking. For years we road testers and car critics have been quoting these ridiculous official combined fuel consumption figures knowing, as our readers do, that they are about as realistic as Thunderbirds puppets. But the really annoying thing is that in the real world, a car's fuel consumption has barely improved over the last 25 years. I remember driving a 911 back from the factory in the mid '90s. I went across country and for some reason was driving at a restrained and smooth pace. I was mightily impressed to note that the car had averaged 30mpg. That 2015-built dark blue Carrera with its highly economical twin-turbocharged engine with sophisticated electronics and direct injection averaged 28.9mpg. Probably driven across France on traffic-free roads it would manage to break into the 30s but it wouldn't make the 20year-old 911 look like a gas guzzler.

A colleague who is somewhat anal with his record keeping, has kept fuel consumption figures for every car that he's run as a long term test car over the last 25 years. He's found that across the

board, regardless of the type of car, that fuel consumption figures have barely improved over the decades.

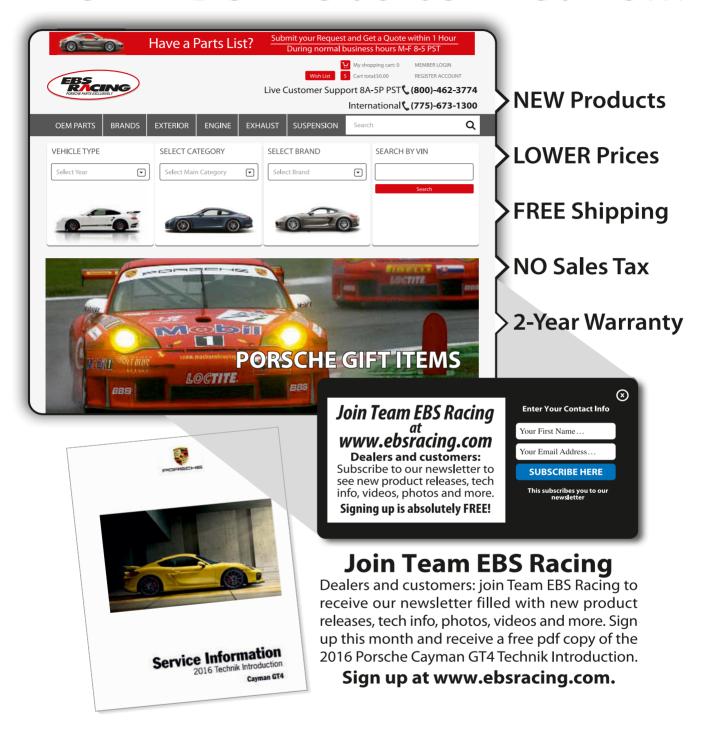
So the 911's character has been spoilt just so it can pass a meaningless emissions and fuel consumption test. And it's worse than that. The reason the Cayman's gearing is so wide and long is so that it can pass these tests, which has spoilt the driving experience. I wrote the other month that I was having a rethink about a four-cylinder turbocharged Boxster and Cayman and that I thought that a lighter engine might make for an amazing driving experience. It turns out that the weight of the turbos (plus plumbing and intercooler) is greater than the two cylinders that had to be removed to fit the blown engine into the cars.

Experience of the new 911 has brought the cynicism back and I now suspect that some of the Cayman's and Boxster's character will have been sacrificed in order to perform better in a discredited and pointless test O



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

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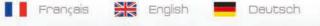


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