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t's been years since we witnessed such excitement over a new 911 Targa. Sure, the sliding-glass design inaugurated on the 993 showed Porsche's innovative ingenuity to combat dwindling sales of the 964, but after the placid reactions to the 996 and 997 iterations, the 991 has undoubtedly returned the concept to form.

Perhaps coincidentally, the 'C' pillar is gone again and that classic roof bar is back after a 2l-year hiatus, and as we showcased when revealing the new design back in issue 110, this open-top 911 appears all the better for it. Our trip out to Bari to sample the new Targa (I know, they missed a trick in not holding the launch in Sicily, didn't they?) didn't disappoint, and there's far more to the 991 Targa than its cultivated appearance, as you'll discover from our first drive beginning on page 18.

In case you needed reminding of Zuffenhausen's historical affliction with the concept, we have a beautiful road trip with

"The 991 Targa has undoubtedly returned the concept to form" the short wheelbase, long-bonnet classic that kick-started Porsche's open-top legacy with the 911 Targa to complement.

Elsewhere, kudos must go to Total 911 subscriber and new 996 owner Mike Pendlebury for having the sheer gall to go where many others would not for his recent Porsche purchase. As you'll read in the brilliant feature beginning on page 58, Mike rounded off last year by undertaking a seven-hour round trip to buy a perilously cheap 996 Carrera with a frightful 170,000 miles displayed on the odometer.

The first water-cooled generation of 9ll is frequently berated by those hiding behind computer keyboards as the car to avoid, but fast-forward five months, and Mike's car hasn't missed a beat, and should serve as a bastion of hope to the 996 for those who'd like a relatively inexpensive foray into 9ll ownership. I look forward to hearing from Mike again once his Carrera has passed the 200,000-mile mark – watch this space!



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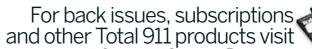
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Latest news, key dates, star products and race results from the world of Porsche



Porsche to replace 991 GT3 engines

Zuffenhausen identifies cause of engine failure after month-long investigation

orsche has announced that it is to replace the engine units in all 785 of the 991 GT3s delivered so far after finding the cause of the powerplant failures that led to two cars (one in Italy, one in Switzerland) catching fire.

According to Porsche's official press release, "the engine damage resulted from a loosened screw joint on the connecting rod." In the cases of the two fires, one of the conrods became loose, causing damage to the crankcase of the two engines. This in turn led to oil leaking onto hot components and igniting. It has not been confirmed whether the loosened screw is the conrod big-end or small-end bolt.

Rather than being recalled to the factory in Zuffenhausen, all 785 cars so far delivered will now be recovered to their local Porsche Centre (if not already collected during the inspection period), where a new engine unit with optimised connecting rod bolts will be fitted.

Porsche GB's Product Affairs Manager, Nick Perry, said that Stuttgart's decision to replace the units in their entirety is "much more straightforward than to strip everything down and then rebuild it." The engine replacement process will also "eliminate any further possibility of any supplementary

circumstances arising by minimising the intensity of the labour required".

While Porsche's decision is believed to be the more cost-effective method for rectifying the 991 GT3's engine problems, the recall programme is still likely to bear large financial implications for Porsche AG. However, Porsche are quick to point out it "doesn't put a price on our customers' safety or the engineering reputation of our company.'

As well as the 785 cars delivered worldwide, all new 991 GT3s currently in construction will be fitted with the new-specification engine. Porsche would not confirm if the new engines were already under construction in Germany. However, they explained that, "now we are moving forward to implement the engine-replacement programme, it can be anticipated that this engine building is where the efforts are now being focused." Porsche have reassured Total 911 that customers will be informed of the next steps as soon as possible.

Rumours of engine difficulties with recently delivered GT3s first surfaced at the beginning of February, and were shortly followed by reports of two cars catching fire. Porsche quickly moved to investigate the problems, issuing a stop-driving

memo on 20 February before embarking on an intensive month-long investigation process. Be sure to check Total911.com for further 991 GT3 updates as they break.



April - May

Places are still available on this official Porsche trip, starting and ending in Monte Carlo.

991 Targa arrival **May**

The first new 911 Targas are expected to land in showrooms. RM Auction Monaco 10 May

One of just four surviving 959 prototypes is the standout Porsche entry.

PCA driver training 28-29 May

Taking place at Watkins Glen, this is available to all Porsche Club of America members.

Nordschleife trackday 3 June

For €840 (£705) you can experience the full Nordschleife circuit.

Goodwood Festival of Speed 26-29 June

This year is 'Addicted to Winning – The Unbeatable Champions of Motor Sport'.







Porsche Experience Centre Silverstone to expand

Total 911 can reveal extensive work is currently in progress to vastly expand the Porsche Experience Centre at Silverstone UK

Groundwork at the venue is well under way, with the work due to be completed before the British Grand Prix on 4-6 July. The expansion of the site's facilities is the first major reworking of the Experience Centre since its initial opening some six years ago in November 2008.

The major development to the Silverstone PEC will be the extension of the 'handling circuit'. Currently around one kilometre long, the main handling circuit will be doubled in length, with the additional turns extending south towards Stowe Corner on the Grand Prix circuit proper. This will provide the Experience Centre with the ability to run two handling circuits concurrently. Alternatively, the two loops can be joined

together to provide a more expansive circuit that will still retain the B-road character of the current track.

With the increased track capacity, Porsche expects visitor numbers to follow a similar upward trend. To cater for this increase, the west concourse that houses the Porsche Restaurant will be expanded with an additional prefabricated structure, providing greater space for customers and their guests.

In brief



Headrest Mount

In the UK, many trackday organisers have started to remove drivers' on-board camera systems, saying that they are not solidly mounted. The Headrest Mount alleviates this problem by physically attaching your on-board camera to your car's headrest mounts.

The Headrest Mount uses the industry-standard tripod thread, enabling compatibility with a ride range of camera systems, while the four-axis movement makes finding the ideal viewpoint a certainty.

Made of anodised aluminium and stainless steel, the mount requires no tools to fit, and is approved for all Gold Track and MSV trackdays. Prices for the standard kit start at £120. For more information, head to www.headrestmount.co.uk.



SharkWerks 991 GT3 exhaust

Last issue brought you SharkWerks' phenomenal 997 GT3 RS 4.1. Now, the Californian tuners with the prolific parts output have produced a new Sport Exhaust for the 991 GT3.

Deciding that the new GT3 sounded too docile, the CAD-designed system utilises SharkWerks' Muffler Bypass System to reduce mass and improve the aural experience. By replacing the GT3's centre silencer, it saves 7.3kg (16lbs).

Installation takes around an hour, without the need for rear bumper removal. The bolt-on exhaust installs into the factory location, so it's fully reversible. Priced at \$1,500 (£910), learn more at www.sharkwerks.com.

2.7 RS Lightweight breaks auction record



A 1973 Porsche 911 Carrera RS Lightweight has sold for \$1,402,500 (£847,200) at Gooding & Company's annual Amelia Island auction, breaking the world record price for the iconic 2.7-litre Carrera RS.

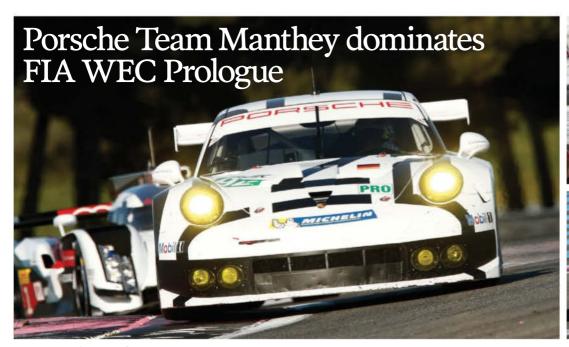
The matching-numbers Lightweight, one of just 240 ever built, was listed with a guide price of between \$900,000 and \$1,100,000. However, in front of a high-spending auction house, the 210hp 911 – finished in the famous blue-on-Grand Prix white – exceeded all expectations, as bidding finished nearly 30 per cent above Gooding's highest estimate.



Denoted by the order code M471, the RS Lightweight was one of the second series of cars commissioned after the first 500 Carrera RSs sold out weeks after its Paris Auto Show debut. Kept mechanically original, its condition makes it eligible for numerous Concours d'Elegance events.

As the first Porsche lot of the night, the 2.7-litre Carrera RS wasn't the only Zuffenhausen offering to climb into seven figures, as a 1988 959 Sport closed on \$1,100,000, and the 1968 24 Hours of Daytona-winning 907 Langheck sold for \$3,630,000, the biggest sale of the auction.

911 in Motorsport The latest news and results from racing series around the globe







Works 911 RSR tops every session it takes part in at Paul Ricard test

orsche's preparations for the 2014 FIA World Endurance Championship were boosted during the official 'Prologue' test at the Circuit Paul Ricard after the factory Porsche Team Manthey outfit topped every session that it took part in.

Set in the Friday afternoon session, the 2014 Porsche 911 RSR lapped the 3.6-mile circuit in 1:58.041s with new works driver Frédéric Makowiecki. This put the sole RSR present 0.236 seconds ahead of their closest GTE-Pro class challenger, the number 71 AF Corse Ferrari 458.

Up to that point, Austrian Porsche racer Richard Lietz had set the benchmark time, producing a

lap of 1:58.080s in the Friday morning session. Saturday saw Marco Holzer, a new addition to the factory team for 2014, top the timesheets in the number 92 RSR. Although his time of 1:58.329s was slower than those of his teammates, Saturday's track conditions meant times from all the runners were down.

While Makowiecki, Lietz and Holzer were the only Team Manthey drivers present at the test, Porsche will continue to field two RSRs in the FIA WEC. The second RSR, running number 91, will be piloted by Jörg Bergmeister and Patrick Pilet, with Total 911 columnist Nick Tandy joining them at Silverstone and Le Mans.

The Prologue test also marked the public track debut of the Porsche 919 Hybrid LMP1 racer. After rumours of staff reshuffles and technical problems, the car showed impressive speed and reliability to set the fastest overall time of the entire test.

"We made huge progress. In my opinion, the Prologue was even better than we expected it to be beforehand," explained driver Romain Dumas, "But the expectations from the outside world are enormous." Mark Webber echoed his sentiments: "Smooth running was a well-deserved reward and a good tonic for the guys after a long week," said the Australian. "Every day we run we find more areas to improve, which is very encouraging."

Trackspeed announce British GT line up

Top Porsche squad Trackspeed Racing return to the British GT Championship in 2014 with their pair of Porsche 997 GT3 Rs hoping to reclaim the team title they held for three consecutive seasons between 2010 and 2012. With Motorbase moving to Aston Martin, Trackspeed will be left as the sole Porsche entrant in this year's championship.

Returning for a second season in one of the team's 911s is the pairing of Phil Keen and Jon Minshaw. Last season, the duo won the opening race at Oulton Park on their way to 14th in the final drivers' standings. However, this year Keen believes that all that's needed in 2014 is a bit of luck.

"I think we've made $\stackrel{-}{\text{good}}$ progress with the cars over the winter and found a few things that will help us this year," Minshaw's pro-rated partner explained. "We had a lot of bad luck last year, some created by ourselves and some that was out of our control, so our aim has to be to stay out of trouble and score points at every round."

The second Trackspeed will be fielded for the pairing of Warren Hughes and Jody Firth. While both are new to David Ashburn's team, the duo are no strangers to one another, having raced together at Le Mans and the European Le Mans Series. Their previous successes mean

that championship organisers the SRO have mandated that the pairing's Porsche must run with 75 kilograms of ballast as a Balance of Performance measure.



Motor racing in 2014

May

FIA WEC Spa Francorchamps 3-4 May

This is the last chance for all the teams to get some running in before Le Mans.

Carrera Cup GB Thruxton 3-4 May

Josh Webster continues his Carrera Cup campaign at the ultra-fast Hampshire circuit.

Tudor USCC Laguna Seca 3-4 May

Porsche North America Racing will be in action as Nick Tandy looks for another US victory.

Porsche Supercup Barcelona 9-11 May

Ben Barker begins his second Supercup season at the Circuit de Catalunya.

Blancpain GT Series Brands Hatch 17-18 May

The Kent circuit plays host to the new-for-2014 Blancpain Sprint Series.

Total 911's racing columnists







The Supercup driver: Ben Barker

This month I've been out testing with my new Supercup team, Verva Lechner Racing, ahead

of the championship's first round in May. We had two days at the Circuit de Catalunya in Barcelona, and it was really good. I'm getting on well with the team, especially my engineer Mario, and there's lots of banter, which is vital in a race team. It's good fun, but then we are very serious about the job in hand.

I don't like to compare it too much to Bleekemolen, as they did a great job of helping me

It's been a busy month for Ben, with his first Supercup test and a last-minute appearance at Brands Hatch

get experience of all the tracks, but I'm at the next level now, and I need to be pushed the extra mile.

All in all, the test was really successful. I ended up fourth after being first for much of the first day. I never dropped outside the top four, showing that with the track constantly changing, we read the conditions well. Even so, if we went out at the very end I think we could have been a bit guicker.

Having Kuba [Giermaziak] is going to help. He's a nice guy and we work together well. We drove each other's cars to back-to-back the setups, and there

has been lots of feedback. We were trying lots of different setups in short, three-lap runs to get on top of the new Michelin tyre, but we are definitely still pushing for the championship.

My Supercup pace was definitely helped by getting invited to race at the opening round of the Carrera Cup GB. It was all a bit last minute, but that's motor racing. It turned out really well, with two wins and a new lap record. Hopefully more opportunities like that will crop up throughout the season, as it all helps.



The Carrera Cup driver: **Josh Webster**

In Formula One, you often hear drivers talking about having to 'analyse data'. To most people it's not really

clear what this means. For me, though, having used it in Formula Renault and GP3, I understand it pretty well, which is just as well, as it's vitally important.

Around the car there are various sensors that provide us with a range of readings, such as throttle and brake traces, steering input, wheel speed and G-force load. All of these show up as different-coloured lines on a gridded graph, allowing us to compare different laps (to see what works and what doesn't) and different drivers.

After each session I sit down with my driving coach, James Sutton (an ex-Carrera Cup GB champion) to go through these traces to see where I can improve, as I am still getting used to the new car and the driving style it requires. For example, the wheels' speed can show that you are gaining time on the way into a corner, but losing a lot on the exit. Therefore, you can see that you are going in too fast. Similarly, I can compare it to my teammate's trace [Michael Meadows] and it will show me if he is carrying more speed through a corner.

You may have heard racers talking about it, but here Josh demystifies data



For me, though, the most important trace on the graph is the braking, as this is where a lot of time is gained. Understanding it helps get you into each corner in an efficient manner.

It has become such a routine for me now. I'm really surprised when people spend £1,300 on a set of new tyres, but I don't look at their data. You can learn so much from it, and it is a fundamental part of being a modern racing driver, especially as 90 per cent of the time, due to my lack of GT experience, finding the speed is down to me rather than the car.

Carrera Cup roundup



Carrera Cup GB

won both races at Brands Hatch as the new season got underway. Michael Meadows took full points with two seconds as Josh Webster finished third and fourth on his debut.



Carrera Cup Australia

Warren Luff extended his points advantage to 46 after achieving two victories in Melbourne. Steven Richards won the opening encounter at the Australian Grand Prix support event.



Carrera Cup Asia

It was a good start to 2014

for Earl Bamber as the Supercup driver opened his Carrera Cup Asia title defence with a lights-to-flag victory in Kuala Lumpur. Martin Ragginger finished second, with Alexandre Imperatori third.



The factory driver: Nick Tandy gives his views from beyond the pit wall



Race weekend as a Porsche factory driver

This issue, Nick offers Total 911 readers a look at the technical side of a USCC meeting

n my earlier career, when I was driving for myself in my own cars, racing was a simpler affair: turn up, unload, practice, race, load up, go home. As a modern-day factory driver, we tend to do a little bit more, both at the race weekend and in the run-up to the meeting itself. For example, at Long Beach we had an event at the local Porsche Centre on the Wednesday before we got into the meeting proper. However, once into the race weekend, the technical side of things is also an incredibly involving process.

One aspect of our job is to know each circuit from a driver's perspective well before we've even seen the place (for Long Beach I was running hundreds of laps on my simulator and studying on-board footage for a long time before I got on the plane). But at most of the circuits throughout the year we will also do a track walk and inspection (unless, like Sebring, we have been there testing before). This involves the drivers and race engineers getting together to analyse the track surface, cambers and curbs, and discuss how we would approach the circuit from a driver's point of view. This gives both sides the chance to talk and better understand what the drivers are after when they're in the car.

10-15 minutes after each practice session, we get the whole technical side from both cars together in the engineering truck for a debrief. There are people from the Porsche powertrain department, Michelin's technicians and the team management, as well as the drivers, race engineers, chief mechanics and strategists. This is where we go through any problems that the cars or team may have encountered before focusing on the next question: how do we move the performance forward on both cars throughout the weekend? After this, we split off into the crews of each car to discuss the practice session in detail, as often during practice the two cars are running different programmes.

The one time we don't have a debriefing is after the race. They're long weekends, so hopefully after the podium ceremony we pack up and go. The first thing the crew wants to do is get the cars and trucks packed up and get back to their families.

Once we've got back home, we do a general debrief checklist sheet in which we can sit down and analyse everything that happened over the race weekend. This is sent to Porsche North America and Porsche AG to help the RSR project move forward throughout the season.



Although practice debriefing is done as a group, Nick says each car will often have different programmes

"For Long Beach I was preparing on my simulator for a couple of hours each day"



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Porsche 991 Carrera S 1:18 £70 Porsche don't do things by halves. Therefore, it is no surprise that die-cast kings Minichamps were chosen by Porsche to create their Driver's Selection models. The German specialists never cease to amaze with their quality, with this 1:18-scale 991 Carrera S being no exception. The detail is incredible, right down to the working steering and Sports Chrono clock – a worthy addition to any desk. shop.porsche.com/uk





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Here's the best photos we've tweeted this month:

Our new website is live! Check it out & tweet us your feedback, we'd love to see your thoughts on www.total911.com

PORSCHE 911





Win a Meguiar's Gold Class Car Care Kit

Summer is now upon on us, with the evenings staying lighter and the weather staying drier. Therefore, there is no better time to start preparing your car for the sunshine. To help give your car a full clean, **Total 911** is giving you the opportunity to win a limited-edition Meguiar's Gold Class Car Care Kit worth £24.99.

Meguiar's are known throughout the world for their premium car care products, and this excellent kit is no exception, full of their exceptional Gold Class fare that is ideal for ensuring your car looks its best during the summer months. The kit offered to our readers contains four of Meguiar's staple products, with 473ml bottles of Gold Class Car Wash, Quik Wax and Perfect Clarity Glass Cleaner. On top of this is a 710ml bottle of Quik Detailer, ideal for removing contaminants and leaving a perfectly slick paint finish.

Whether your car is always perfectly preened or could do with a little extra attention, the Gold Class Car Care Kit is an excellent edition to your cleaning bag. To be in with a chance of winning this brilliant selection, just answer the following question:

What is the volume of the Quik Detailer bottle included in the Meguiar's Gold Class Car Care Kit?

Send your answer, along with your name and address, to competitions@ total911.com with 'Meguiars' in the subject line before the closing date of 21 May 2014.

Letter of the month

Write to or email us with your Porsche opinions and the author of the letter of the month will receive a complimentary copy of the special **Total 911 Collection Volume 2** bookazine worth £9.99!



An old friend returns

Dear Sir.

After purchasing a 924 and a 944 in the Eighties, marriage, two great step kids and a new baby put paid to my prospects for Porsche ownership for many years. Then, in 2009 I got the itch that wouldn't go away, so I ordered a 997 Gen2, and thus began my 911 story. Unfortunately, after experiencing a few issues, my local Porsche garage took the car back, and I went down the new Cayenne route, supplied at a substantial discount to show good will.

The trouble was that the 911 itch would not go away, so I decided to go down the air-cooled route for my second purchase. A 993 C2S was the first one at the back end of 2011, and I was hooked.

This was exchanged a year later for an amazing, two-owner, low-mileage

993 Turbo from Paragon: a brilliant drive. The trouble was that the Turbo was so clean and good that I tried to find a really solid and driveable 964 C2 that I didn't need to be so careful with. I tested a couple, but most seemed pretty poor in comparison to my Turbo, so I sat and waited with my ear to the ground.

In the end, John Boggiano's 964 (which has featured in many **Total 911** articles) turned up for sale. JB was fanatical about this 964, as evidenced by its amazing history. There aren't many 964s that you can buy and find something like £80,000 of bills with!

The car has been a delight, and I have carried on the JB tradition, taking the car to the next level via a suspension rebuild, full glassout respray, colour change and

engine detail. I keep in touch with John, and he loves what I have done with his treasured car.

These air-cooled cars are now in my blood, so with a recently completed new garage, I'm looking for something special to complement the other two.

Best regards,

Stephen J Percival, via email

Yours is an incredible Porsche story, and it's great to read that John's 964 has gone to a good home. Enjoy the third 911 to your stable, whatever it may be.



Dear Sir

I wonder if you have ever written any features on the coach-built Porsches of the Seventies and Eighties (such as the BB Auto Exclusive)? It's a very interesting topic that you don't hear much about. Here's my 1976 Carrera 3 as an example.

Thank you,

Vaughn Grubb, via email

It's not something we've featured so far in **Total 911**. However, if there is enough interest in these unusual Porsches then we may just have to look into it. Does anybody else own one of these 911s? That's now a win for each works car (911 & 912) after the first 2 races of USCC this year. Congrats @PorscheNAracing



This is the view all Carrera Cup racers will have in 2014. The 991 GT3's paddle shift action is incredibly easy.



A childhood dream realised

My best friend and I have been dreaming about owning a Porsche since we were young, as here in Portugal we have good roads, good food and the perfect climate in which to enjoy such a car.

My friend managed to buy a classic Porsche 912, and I was beginning to think that I would never get one. However, I was finally able to offer myself the best 32nd birthday present: a 964. This was a dream come true, as this was the Porsche that I'd dreamt about since being a teenager

When I bought it, maybe my passion took over because, although the interior and body was good, the engine was a little poor, as I found out after 2,000 kilometres when I required a full rebuild.

This was three years ago, and since then I have not looked back, using the car for countless journeys around Portugal, in the process discovering more and more of my wonderful country's roads and gastronomy. I am truly living the legend.

Best regards,

José Arcadinho, via email



Portugal has some fine routes to offer the driving enthusiast, and there's no better way to explore these roads than in the 911 you've long sought after - even if the costly engine rebuild may have induced a small wobble in confidence! We don't have any space in our Living the Legend section at present, although we always welcome hearing from those who are enjoying the full 911 experience.





editorial@total911.com

Dear Sir,

I've recently purchased a Porsche 996 Carrera 2S (Gen2), and although it has a solid service history, I know that these cars are susceptible to the dreaded IMS failure. There have been no signs so far that anything is amiss other than a little bit of oil use over the last 5,000 miles that I've done.

What should I look out for if an IMS problem was to arise, and is there anything I can do (bar a full engine-out IMS update) to prevent a premature failure? Best wishes.

Colin Prowley, via email

Autofarm are well-versed in the 996's IMS problems. Here is the view of Matt Cheshire, their engine technician: "First of all, there are a lot of scare stories on the internet. Many cars have no issue at all and continue to be enjoyed by their owners. However, the warnings of an IMS bearing failure are minimal.

"Tell-tale signs such as small metal particles in the oil filter mean that damage is already done. You could buy warning systems, but it is far better to replace the bearing before disintegration begins. It's a gearbox-out job to fit and best to do when changing the clutch. Alternatively, it is possible to fit the later big bearing IMS (which does mean an engine strip).

"Another issue to consider is D-chunking, where the cylinder liners crack and potentially disintegrate. Cracking



is less frequent in later cars, but the longer-stroke 3.6 and 3.8-litre 996 (and 997 Gen1) engines are more prone to piston damage and bore scoring. The causes are not fully confirmed, but we suspect issues with the cooling system and inadvertent excessive throttle use when not fully warmed up, as it's mainly confined to the later engines with the fly-by-wire throttle.

"Increased oil consumption and smoking, especially from the nearside exhaust bank, could be tell-tale signs of bore issues. Warming the car properly and working it hard when warm seem to reduce issues, though.

"Autofarm offers Silsleeve as a solution. All six cylinders receive Nikasil-treated bores and a more secure mounting of liner to block with the aim of eliminating the risk of uneven wear and cracking."



Imagine Publishing Ltd Richmond House 33 Richmond Hill Bournemouth, Dorset, BH2 6EZ ₹ +44 (0) 1202 586200 www.imagine-publishing.co.uk www.total911.com www.greatdigitalmags.com

Magazine team

Editor Lee Sibley

lee.sibley@imagine-publishing.co.uk **☎** 01202 586291

Staff Writer Josh Barnett **Designer Steven Mumby**

Sub Editor Steve Wright

In-house Photographer James Sheppard

Senior Art Editor Helen Harris

Head of Publishing Aaron Asadi Head of Design Ross Andrews Contributors

Contributors
Richard Aucock, Sven Burchartz, Kris Clewell, Ray
Chandler, Antony Fraser, Maxie Islam, Ben James,
Wilhelm Lutjeharms, Tony McGuiness, Andy Morgan,
Joel Newman, Sean Parr, Ali Cusick, Ben Przekop, Daniel
Pullen, Gina Purcell, Chris Randall, Matt Robinson, Glen
Smale, Rob Till, Johnny Tipler, Magnus Walker, Chris
Wallbank, Neill Watson, Steve Halll

Cover image

orsche AG

Advertising
Digital or printed media packs are available on request
Advertising Director Matthew Balch
10202586437

matthew.balch@imagine-publishing.co.uk

#Bead of Sales Hang Deretz

☐ 01202 586442
hang.deretz@imagine-publishing.co.uk

Advertising Manager Alex Carnegie 201202 586430

alex.carnegie@imagine-publishing.co.uk

International

ble for licensing. Contact the International department to discuss partnership opportunities **Head of International Licensing** Cathy Blackman

☎ +44 (0) 1202 586401 licensing@imagine-publishing.co.uk

Subscriptions
Head of Subscriptions Gill Lambert
email 911subs@servicehelpline.co.uk
UK: ☎ 0844 249 0463

Overseas: \$\frac{\pi}{2}\$ +441795 414 886 13 Issue subscription UK - £52.65 13 Issue subscription Europe - £60.0 13 Issue subscription ROW - £70.00

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Head of Circulation Darren Pearce
☎ 01202 586200

Production
Production Director Jane Hawkins
© 01202 586200

Founders Group Managing Director

Damian Butt **Group Finance & Commercial Director**

Steven Boyd

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-991TARGA-FIRST DRIVE

Porsche reinvents the classic shape for the 21st Century and gives us the finest open-top 991 yet







o here we are, back where blue-skies 9ll motoring all began. This is the Targa reborn, Porsche very evidently stung by criticism of the 993-997 era models bearing the Florio road race-inspired nameplate, which at face value were little more than Carreras with sliding panoramic sunroofs. For the 99l iteration, Zuffenhausen has taken inspiration from the very car that initiated the Targa family line, and the new model is all the better for it.

As a **Total 911** reader, you may know why the Targa was created: due to the fear of a potential ban on fully open convertibles in the US, the development of the car's distinctive rollover hoop came first, and the wraparound rear screen later to sidestep such draconian laws, with the ill-fated American legislation never materialising despite the Targa fan base demanding that the car carry on

regardless. The 'proper' 911 Cabriolet didn't actually appear until 1982, but even that didn't sound the death knell for the Targa, as it soldiered on into its subsequent 964 guise before evolving into the unpopular glass-roofed version in the 993 era.

You may be wondering why Porsche is bothering to offer two discrete convertible models in the current era, as well as why neither of them features a metal roof – a proven choice among many other manufacturers. But here's the thing: heritage is a big thing for us 911 fans, and it would seem that it means a lot to Porsche, too. When pressed on the matter, a senior Porsche official said there were two primary reasons to revive the classic Targa shape: one, the company has finally resolved the issues with the complex folding roof mechanism; and two, the Coupe 911s now have the option of large sunroofs for the first time, rendering the 993-997 Targa formula redundant.

The roof, of course, is a real show-stopper. No longer do you have to manually fiddle about folding up bits of canvas like on older versions; now, you just press one button, and 19 seconds later you have open-top motoring. Okay, so you can't do it on the move – like you can at speeds of up to 31mph in its Cabriolet cousin – but with such intricate kinetics on display that's no bad thing.

Powered by the same two motors that fold away the Cabriolet's hood, the whole rollover hoop and rear screen moves up in the air and drops back over the 9ll's rump before the roof folds itself slightly. There's a structural panel bow at the rear of the hood, and the folding point is just in front of that. It moves back into place behind the rear seats – yes, the Targa is still a 2+2, like the Coupe and Cabriolet 9lls – and then the rear structure glides back into place. It's pure theatre, and adds to the Targa's mystique without having turned a wheel.







The 991 Targa must be stationary for the roof to operate. Parking sensors in the rear bumper will determine if the glass rear section has enough room to manouvre outwards



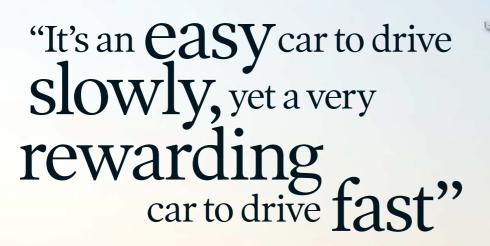


Model	991 Targa 4S
Year	(2014)
Engine	
Capacity	3,800cc
Compression ratio	12.5:1
Maximum power	400hp @ 7,400rpm
Maximum torque	440Nm @ 5,600rpm
Transmission	Seven-speed Doppelkupplung (PDK) with steering wheel-mounted paddleshift; Porsche Torque Vectoring (PTV) with mechanical rear-axle differential lock; controlled rear-axle differential lock by DK PTV Plus
Suspension Front	Spring strut axle (MacPherson type, Porsche optimised) with wheels independently suspended by wishbones: longitudinal links and spring struts; cylindrical coil springs with internal vibration dampers; electromechanical power steering; coil springs and antiroll bar
Rear	Multi-link suspension with wheels independently suspended on five links; cylindrical coil springs with Porsche Active Suspension Management (PASM); electronically controlled vibration dampers; two manually selectable damping programmes
Wheels & tyres	
Front	8.5x20-inch alloys, 245/35 ZR20 tyres
Rear	11x20-inch alloys, 305/30 ZR20 tyres
Dimensions	
Length	4,491mm
Width	1,852mm (1,978mm including exterior mirrors)
Weight	1,575kg (manual 1,555kg)
Performance 0-62mph Top speed	4.8 secs manual; 4.6 secs PDK; 4.4 secs PDK with Sport Plus and optional Sport Chrono package 183mph (184mph manual)
Top speed	100mp/(104mp//manda/)









991 Targa options

Starting at £86,281, the 3.4-litre, 350hp Targa 4 comes with a leather interior, sports seats, seven-speed manual transmission, 19-inch alloy wheels, automatic climate control, bi-Xenon headlights, a seven-inch colour touchscreen with satellite navigation, digital radio and MP3 connectivity, Porsche Stability Management (PSM), Porsche Traction Management (PTM) all-wheel drive and a three-year warranty.

The 4S adds 20-inch alloys, Porsche Active Suspension Management (PASM) and Porsche Torque Vectoring (PTV) with a rear limited-slip differential – plus, of course, the extra 50hp and 50Nm of the 3.8-litre engine.

Among the options, the Porsche Carbon Ceramic Braking (PCCB) system will be available for those odd Targa owners who are planning to take it on track, as well as lightweight sport shell seats, while more apposite additions for its target market will be the two sound system choices – the first upgrade from the nine-speaker CDR-31 standard kit is a Bose Surround System with 12 speakers, a class-D amp with eight channels and an output of 445 watts. Go all out, and you can have a Burmester 800w monster, with 12 individually controlled loudspeakers, a 300w amp with 12 channels and an active body-in-white subwoofer with a 140mm diaphragm.

Although it's the top-spec model, and thus equipped would easily cross the £100,000 threshold, we'd plump for a Targa 4S fitted with the PDK and Sport Chrono package. Avoid the PCCB, and perhaps treat yourself to one of the stereo upgrades.

S@G0 4157

Visually, the new Targa is sensational to behold, even better in the metal than it is in pictures. It suits a good strong colour like Amaranth red (as in our pictures), or perhaps Sapphire blue. The stainless steel bar wears some lovely little nods to the 1967 original, such as the three gills on the sides and the same Targa badge at its base. The wraparound rear screen is made of two layers of semi-tempered lightweight safety glass, with the heating elements incorporated throughout for all-round visibility. As a striking design feature that draws your eye, it's a major success.

To complement its four-wheel drive, the Targa again features the wide rear body of all four-wheel-drive 911s, plus the striking red light strip linking the rear clusters. The interior is familiar, but that's a big plus, because the 991's cabin is exemplary, with a great driving position and ideal citing of all the major controls. This means that as nice as the Cabriolet is, the Targa immediately trumps it on curb appeal, which is surely going to be a key sales driver for this modish open-top.

Mechanically, the Targa shares a lot with the Carrera 4 and 4S Cabriolet models. Porsche has naturally adapted the damper settings to compensate for the extra 40 kilograms the Targa carries over equivalent Cabriolet models, which is accounted for by the rear screen and its lack of C-pillars. The Targa also benefits from rebound buffer springs on the rear, which the Cabriolet does not possess. The Targa is 15 per cent stiffer in torsion than the Cabriolet (15,000Nm per degree versus just over 13,000Nm) thanks to that roof structure, the most pleasing outcome being that it drives almost as well as the twice-as-rigid Carreras, let alone the Cabriolet.



Blessing it with Porsche Traction Management (PTM), all-wheel drive was an inspired move. In its presentations, Porsche said the Targa was supposed to represent a blend of the best of everything the 911 can do, and by giving it some clawing power at the front, it helps make the 4S a real all-rounder. It's composed at cruising speeds, both in a straight line and on corners, with no scuttle shake present and a real ability to cushion out the worst imperfections in the surface. Body movement on the springs is kept to a minimum, making for a firm but pleasant half-throttle ride. Also, with the roof up it is hugely

civilised, exhibiting close to Coupe levels of wind noise and general refinement.

Start pressing on, and the Targa's case doesn't fall apart. Provided you allow it some leeway for being the heaviest of all 991s, it remains a startlingly good machine near and on the limit. Switch it up into Sport Plus mode (thanks to the Sport Chrono option) with traction control turned off, and it will clamp itself to dry tarmac in a manner that's every bit as capable as a Carrera 4. There is some understeer if you're ham-fisted on entry, and if you trail-brake into a curve, the 3.8's weight will make its displeasure at such antics known. But set the



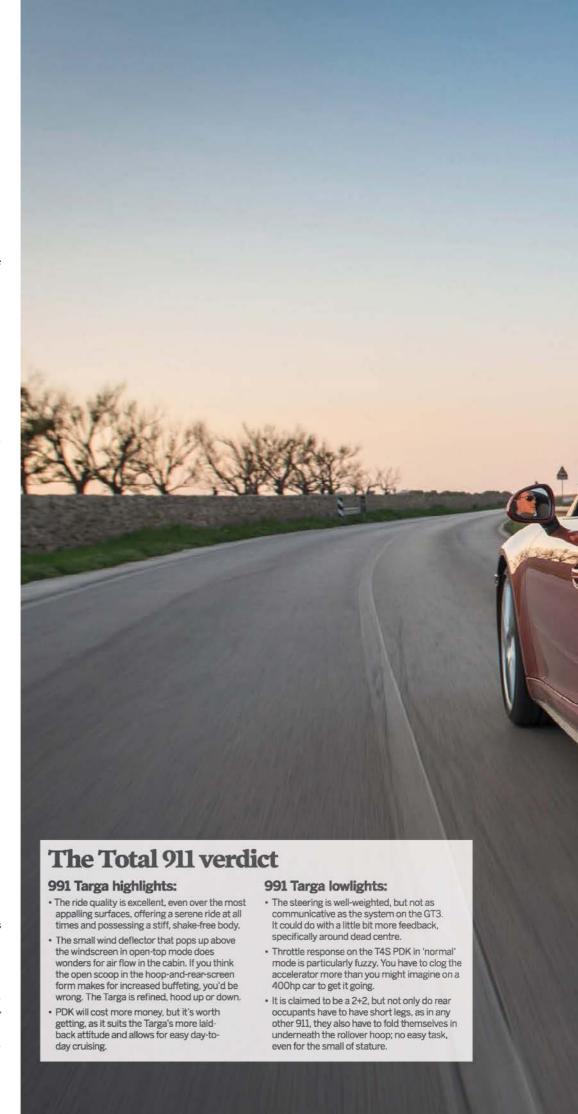
car up properly for a bend, and it will track round the quickest line without excessive body roll or a feeling of lots of weight up high. It's hard to unstick the back when there's no surface water, but as that's a PTM-equipped Porsche trait, I'm not holding it against the Targa.

Whether the chassis damping is in normal or the more dynamic state, the Targa maintains control of its body at all times. This makes it more dependable and trustworthy than its glamorous exterior might at first lead you to believe, and coupled to the fast-acting PDK transmission and a decent set of brakes (PCCB will be an option, but we can't envisage it being necessary for road use, which is surely what all Targas will only ever see), it makes the Targa a brutal point-to-point weapon, with accusations of it being a 991 poser immediately thrown out of the fancy open roof.

The biggest issue with its dynamic suite is once again the electromechanical steering. Linked to PTM and the 4S's 20-inch wheels with wide rubber, there's weight in the system that is lacking in a Carrera 2, but it still has an annoying dead spot around the centre, and doesn't always accurately convey the attitude of the front wheels. It's better in tighter turns and at speed, when it dials down the assistance, and it's very precise too, giving the Targa an eager front end. But if we could just have the GT3's setup across the 991 range we'd be even happier than we already are.

As for other foibles, there are a few. In normal mode, the throttle response is almost infuriatingly woolly, which equates to the car needing some fairly hefty right-foot inputs to kick the PDK (in automatic mode) down a few ratios and summon up peak power - the Sport throttle mapping should be standard, as it's hardly overly sharp and spiky; in fact, it's beautifully crisp. Moreover, like any 3.8-litre 911, the engine only really comes alive beyond 5,000rpm, upon which it delivers an epic soundtrack. It has plenty of torque, but doesn't always feel as ballistic as some of the performance stats might suggest. However, these niggles are really only pertinent to the odd times you request maximum performance from the Targa when it is in its most docile mode. The overall prognosis would be that it's an easy car to drive slowly, yet a very rewarding car to drive fast.

In the two decades since we last saw the idiosyncratic profile of the 964 Targa, the 991 revitalises the classic shape in a truly 21st-Century manner. It might not be the sharpest 911 to drive, but it's more than entertaining enough, and bestows on its occupants a feel-good factor that would be the envy of some cars costing half as much again. Porsche says that over the decades, Targas have accounted for roughly one in ten 911s sold worldwide, but it hopes the new model can improve that statistic. On first impressions, there's absolutely no reason why it shouldn't. It is wonderful to see the 'proper' Targa back, and even more so that it is a truly worthwhile addition to the 991 range.



"It is wonderful to see the 'proper' Targa back"









t is interesting how the perception of a car can increase or decrease its value according to the way the world sees it. Over the past few decades, scarcely any hardcore enthusiasts have really sat up and taken note when Porsche revealed its latest Targa, be it the sliding-glass contingent of 993, 996 and 997 models or even the earlier 964. Much of that preconception has disappeared with the launch of the new 991 Targa – and although there are reservations as to the fluidity of the roof design and its kinetics, a rekindling of classic styling means that the new Targa certainly looks the part.

As we discovered in the preceding feature, the new Targa's more classic-orientated design harks back to the days of the original Targa with the thick, shiny roll-over bar. This isn't the first contemporary throwback to the first 91ls rolling out of Zuffenhausen, of course: the 991'50 Jahre' (as featured in issue 112 of **Total 911**) showcased many interior and exterior cues to the Sixties models, while the 997 Sport Classic previously followed a similar design remit for the 250 owners lucky enough to get their hands on one. They're all superb modern imitations of classic greats, but just how good were the originals to begin with? This was a question I was keen to ask as I met up with the owner of this 1968 91lS Targa.

owner of this 1968 911S Targa.

This '68 example has the optional front fog lamps that pull your focus towards the low stance of the car. I walked towards the rear, and immediately noticed the gold 'Porsche' and '911S' badging, which stood in perfect contrast to the silver exterior of this early Targa.

On a near-perfect sunny day outside Johannesburg, the first thing we did was remove the Targa roof. The owner has two different tops for the car: the original unit is the sturdy vinyl top fold-up roof, while the non-standard roof is a one-piece unit. As Zuffenhausen intended, both of these removable roofs can fit one at a time in the front luggage compartment.

Our mystery owner purchased the Targa ten years ago when he was 22. The car is mechanically sound, but the usual suspects demanded attention, including the rubbers, seat trim and exterior paintwork. No expense was spared in the light restoration of the l60bhp Targa, with parts such as the chequered cloth seats coming courtesy of RUF in Germany. The factory 6x15-inch Fuchs wheels are refurbished with immaculate lips and a silver centre section, in line with the car's vibrant exterior hue.

Johannesburg and its surrounding areas have little in the way of exciting driving routes; the area is largely flat, with the highest peaks situated

on the slopes of disused mines. However, a route close to Krugersdorp proves to be the perfect place in which to get acquainted with this Targa. Although the quality of the tarmac isn't perfect (actually no worse than a Swiss mountain pass), the short straights are connected by tight hairpins. I'm relishing the drive: despite this 91l's open-top facet, the faster, fuel-injected S model represented the pinnacle of the 91l of the time, and the potency of the S did not go unnoticed here, featuring in the past in the Krugersdorp Hill Climb, the local Porsche clubs being among the contenders.

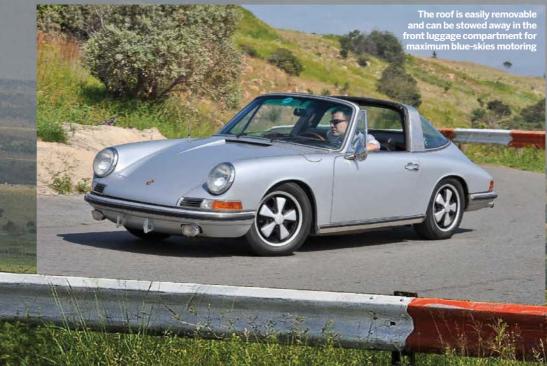
The proportions of this short wheelbase model still look purposeful, even after 48 years. While the 911 has grown with each respective generation, the compact nature of these early models remains truly inviting. Having seen the latest Targa, I'm pleased to say that the models really complement each other in terms of appearance, especially with that wide metal roll-over bar. Thanks to this very model, we have almost become accustomed to seeing it on a 911, and enthusiasts will be grateful for that.

From the back, the engine lid runs perfectly parallel towards the wide rear window. That allencompassing glass window curves downwards and meets the rear wings in a design element that is unique to the Targa. At the front, just













behind the A-pillars is a small window that can be opened from the inside for extra ventilation – the perfect solution for the model that, in respect of its removable roof, doesn't have air conditioning.

Unlike the later 91ls, here you simply depress the outward-pointing button on the handle to open the door. Owing to the smaller size of this classic in comparison to today's examples, you have to first slide your right leg into the footwell before you jostle yourself for position on the seat – do it the wrong way round by sitting down first, and you won't be able to swing your right leg in under the wooden steering wheel if you're of an average leg height or more! I can say with experience that the taller you are, the more religiously you need to follow this manoeuvre to so much as enter a pre-impact bumper 91l.

Sitting inside the classic sports car, the soft seat surprised me; you sit lower than I originally thought when I first investigated the cabin. To the left of the steering wheel (this is a left-hand-drive car) is the ignition slot, as well as the organ stop for the headlights. To the right are the other stops for the heater, fog lamps, emergency lights and fan.

The handbrake is situated between the seats, as is customary on anything pre-991, while a small lever to the left manages the engine's idle speed – a perfect solution while manoeuvring the car at low speeds for photography or warming up the engine on a cold day.

Turn the key, and the engine starts with a little help from the throttle. You're immediately left in no doubt that it's a flat six sitting behind you, and from the menacing growl emanating from the engine and exhaust, you could easily be mistaken for thinking this has a larger capacity engine than the humble 2.0-litre displacement.

If you're used to driving old 911s, the heavy steering feel wouldn't bother you. If not, the wood wheel is so large that it gives you enough leverage to easily turn the wheel, even while parking.

Engaging the dog-leg first gear with the 901 gearbox, the lever needs a simple push to the left, and then down. After a few slow turns and with the S Targa now warmed up, I begin to push the engine further up the rev range. Each time I'm astonished at how effortlessly the engine revs. Did I expect anything else? Probably not. However, as this was the first 2.0-litre 911 engine I have experienced, I somehow expected the engine to feel lazier. Obviously, it doesn't have that strong top end of the later 2.2-litre S, but while the 2.2's sweet spot arrives after 5,000rpm, the 2.0-litre comes in at around 4,000rpm. The 2.0-litre engine isn't happy below 2,000rpm, but once you've passed that mark it picks up pace with ease. At 4,000rpm, the engine and exhaust deepens to a more inviting soundtrack, and happily you still have over 2,000rpm to enjoy before your left foot needs to shuffle over to the clutch. The slightly softer chassis doesn't really affect the driving experience - until, of course, you start to push the car to nine or ten tenths.

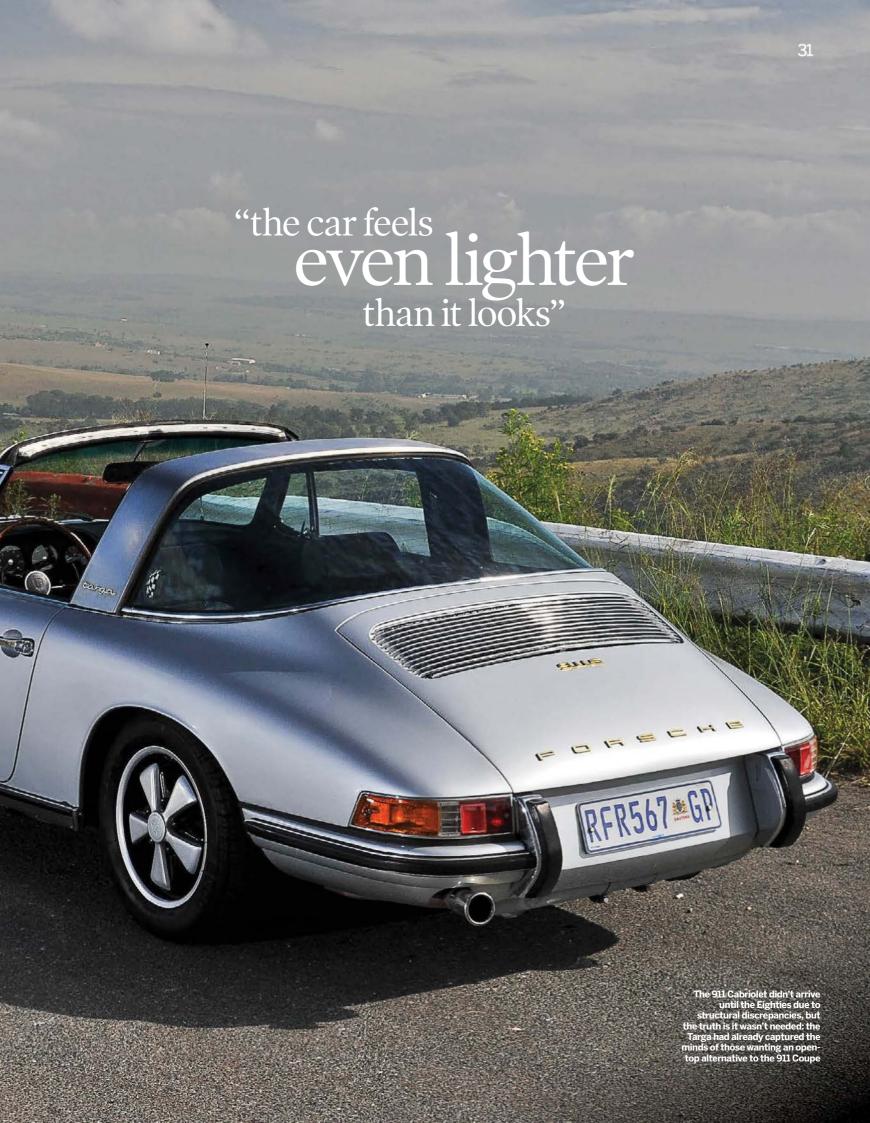
Despite the classic 911's petite appearance, the car feels even lighter than it looks, and you can tackle corners with healthy enthusiasm. Turn-in is sharper than you thought necessary, and the car responds with some body lean, albeit less than you would expect from such an old car. Since there



Targa roof repairs

The classic Targa roof is a relatively complicated item, and if neglected it is likely that at some stage it will need to be refurbished. The actual mechanism is stronger and sturdier than you might think, though. UK Porsche specialist Paul Stephens confirms that it is indeed possible to have such a roof repaired or refurbished to include the complete replacement of all the soft materials. Most classic Targas have now had their original Targa tops replaced, with a more durable Mohair fabric now run over the factory framework.

One thing to look out for on the roof when investigating a potential Targa purchase is the state of the metal. The softer materials and rubbers can always be replaced, but if the metal and pins are badly damaged then more work will be required. Also, keep in mind that over the years, gaps will get bigger and materials weaker. In the UK, owing to the weather, it is understandable why a Targa is not as sought after as a Coupe, but in certain parts of Europe, the USA or South Africa, it may be more enjoyable to own.



isn't enough power to lose any real traction, you soon realise that you can get back on the power as early as possible. Keep the revs high as you exit the corner, and the small tyres push you out with ease. After only a short while attacking this twisty road in the sun, I began to wonder why some enthusiasts still disregard Targas. I'll admit that prior to this test I was one of them, but this experience has changed my outlook.

Since you are seated so low in the cabin, the top of the windscreen and the roll-over bar are surprisingly high above your head. Even at 60-70mph there is little wind buffeting in the cabin.

Any breeze that enters through the open top or small side windows is just enough to remind you that you aren't driving a fixed-roof Coupe. Even better, the owner and I were still able to continue a civilised conversation as we pushed the S on. Sure, the seemingly complicated roof might put some potential buyers off – if it doesn't work correctly, it will lead to a lot of wind noise, and leaks are almost guaranteed – but in fair weather this ticks all the boxes that a classic 911 should.

The 911 I'm driving is currently used every single week, and has won time trials in its class at local Porsche club events. "For a Sunday car, I

think the Targa offers a more rounded package than a Coupe," says our mystery owner. After just five hours with the car on the highway, on a historical hill climb and in the passenger seat, I have to agree. "When I get back from a holiday, the first thing I do is jump in the car and take it for a drive," he adds.

Only 925 of these S Targas were built, making it rather sought after as a classic 911. Many will agree that the 911 Coupe is a car that can be enjoyed by its owner on many roads and on most days. But if you have to take a passenger along, a Targa will put a smile on both your faces.



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-991 C2S HEAD-TO-HEAD-MANUALVS PDK

It's an oft-debated topic: which is the better transmission for a new 911, seven-speed manual or PDK? Total 911 explores them both on road and track

Written by Lee Sibley & Josh Barnett Photography by Alisdair Cusick









Despite my relative youth, when it comes to driving I like to think I fall firmly into the 'traditionalist' category; a recent car purchase sees me driving around in something bereft of power steering, anti-locking brakes or any form of electronic driver control. Therefore, as our day gets underway at Porsche GB's headquarters in Reading, I'm happy for Lee to take the manual 991 Carrera C2S first, confident that I won't need any further convincing of the analogue sports car's charms.

The dual carriageway journey towards the Porsche Experience Centre at Silverstone vindicates my decision, as the Racing yellow PDK variant proves unremarkable and I remain indifferent towards the concept, although the largely uneventful stretches of tarmac wouldn't show the manual off to its best either.

Arriving at the Porsche Experience Centre, I decide to start with the PDK 911; despite racing at



Silverstone numerous times, I've never driven the one-kilometre PEC circuit before, and while I tell Lee that it's because the PDK car is already set up with my driving position, the reality is that I've chosen it first because I want to get to grips with the tarmac before really enjoying myself in my preferred choice: the manual.

After taking a few laps to acclimatise to the short circuit, with my instructor – ex-British GT racer Ben McLoughlin – showing me the best lines to take, I begin to push on, exploring the limits of the latest-iteration Porsche 9ll in the dry for the very first time.

The undulating and twisting nature of the PEC circuit leaves you constantly working behind the wheel, fighting the car through adverse cambers and curving braking zones. However, with the PDK in 'manual' mode, optional Sport Plus turned on and the paddles behind the Sport Design wheel, I feel in full control. The downhill, curving braking



zone for the tight left-hander at turn three could catch out the unwary, but with both my hands staying on the steering wheel and my feet focusing solely on slowing 1,415 kilograms of 991 Carrera 2S, I'm not daunted.

With the PDK, I can be fully focused on hitting my apexes, braking deep into the corners to negate the classic 9ll understeer and carrying more speed than I thought was possible from a Carrera on road-specific tyres. Then, at the end of my 15-minute run, I try the PDK's party trick: launch control. With PSM both on and then off, the car's electronic system helps you perform perfect racing starts with a minimum of fuss.

Stepping into the manual C2S, I'm still grinning like a maniac from the experience of the PDK, yet at the same time I'm nervous. I'm not sure that the silver car can hold a candle to that level of speed or enjoyment, and after a few laps I'm vindicated. The manual car proves a handful in





turn three; I have to brake earlier to compensate, and some of my gear choices feel compromised. Where I was able to short shift in the PDK, I'm hitting the limiter in the manual, as I just don't have time to change.

The seven-speed gearbox proves less than user-friendly at times, as I struggle while jumping at speed across the gate from second to third, such is the lever's narrow throw. This manual feels more agricultural. But as I acclimatise, I warm to the experience. I begin to feel in sync with the mechanics, but step out afterwards thinking that I never truly found its potential in the same way as I did in the PDK car.

However, most Porsche 911s will only be pushed to their limits like that for a fraction of their lifetime. On everyday country roads, with more time to think and plan, I love the manual, finding more enjoyment in the increased involvement offered by the gearbox, and I simply adore the drop in sound as



the revs momentarily die between upshifts before beginning another crescendo.

At these relatively slower speeds the PDK feels like overkill, with the pause between pulling the paddle and engaging the gear becoming annoying, even if I would otherwise be engaged in all manner of hand-and-foot gymnastics in the manual. Even on more mundane roads, the ability to play with the manual's gears appeals to my inner child, blipping the throttle on down changes to hear that gorgeous flat-six shriek. The morning's track test feels a world away as the manual tugs ever harder at my heartstrings. This car represents the true 911 experience, living in the moment and enjoying the sensations of just driving.

Then, we reach a bustling Buckingham, and all rose-tinted thoughts are shunted from my mind as my left leg is called on to constantly prevent the engine from stalling. Despite being 'just' a Carrera, the pedal is heavy, and I'm envious as Lee negotiates



the thrall sweat-free in the PDK car. But is a 911 meant to be enjoyed in the confines of a town?

PDK makes a huge amount of sense. The difference in performance levels between the two on the track was night and day, with the PDK leaving my facial muscles fatigued from sustaining such a grin. In town it's effortless, allowing you to enjoy the luxury fittings of a 911's interior, and on long runs the incredibly intelligent auto mode (combined with the coast feature) makes it more fuel-efficient. "When people first thought of automatic gearboxes, PDK is what they imagined," Ali, our photographer, says to me as I have one last go in the bright yellow machine.

I'm inclined to agree. As an overall package, the PDK car outperformed the manual in every area. But contrary to all logic, I'm badgering Lee for the keys to the manual as our day comes to an end, the thrill of the traditional driving experience proving too irresistable for me.







I'm not against manual transmission, and in all but a few scenarios I prefer the concept over an automatic or semi-automatic contemporary. In fact, my own sports Coupe has a manual gearbox (in preference to the semi-auto option) with six forward gears, and I delight in the sensation of controlling how its 343bhp is transmitted to the rear wheels exclusively via my own driving intelligence.

I've always found manual transmission on a Porsche 911 to be a key part of its sporting charisma through the generations, and I've revelled in the direct and positive throw between gears in the model's five and then six-speed 'boxes – something the 991's seven-speed setup just can't live up to.

Starting my test in the manual, its shortcomings are showcased as I negotiate the traffic-laden public roads across Oxfordshire en route to Silverstone. Forced by my environment to flit between gears quickly and often, it doesn't take long before I find the process laborious and, on occasion, tricky.

Despite the relatively short throw, having gears one, three, five and seven up top, plus reverse, presents a headache, and in situ there are isolated occasions when on disengaging seventh, the shifter will slip at the gate into third instead of fifth, resulting in the car lurching uncomfortably forward. It feels like the gears are heavily springloaded between third and fourth, so anything less than a precise switch across the gate can mean you're entering a lottery as to what gear you'll subsequently engage with. While the long 'overdrive' seventh gear is aimed at improving the 91ls fuel economy, that extra gear proves one too many in a manual envrionment.

Crawling through busy towns also highlights how heavy the clutch pedal is for a non-GT 911 (although admittedly it's nowhere near as heavy as, say, a 997.2 GT3 RS, which I found comprehensively unfathomable on slow public roads by comparison). On more rural roads free of other vehicles, the

manual does offer a chance for some creative freedom behind the wheel, and here I'm in my element as I engage in 'Sport' mode and hold on to third gear well past that mesmerising flat-six howl emitted at 6,000rpm. Despite my earlier assertion as to the manual's vague gear selection at the higher end, the gears don't feel so clumsy between second, third and fourth, which is all that's required under spirited driving while remaining on the right side of the UK speed limit. I'm having fun keeping the revs high through the country roads, yet the yellow peril of the PDK-equipped Carrera S piloted by Josh remains a permanent fixture in my rear-view mirror. He remains unshakeable, but judging by his flat expression he's not having as much fun as I am.

Track time follows, and though I'm no stranger to the circuit at the UK's only PEC, I know I'm not getting the best out of the Porsche in the manual. This gearbox would excel on a bigger circuit, but on this smaller, technical track, being so aggressive









with the gear shifter while maintaining neat steering inputs is tough. Granted, the rev-matching feature in 'Sport Plus' mode aids the car's balance when changing gears, but I find this largely superfluous: if you're going to choose a manual transmission but not do all the pedalwork yourself, you're gravely missing the point. There's a lot to do, then, and I find myself craving a PDK-clad 911.

Swapping peddles for paddles, I climb into the Racing yellow 991 Carrera S with Porsche's Doppelkupplung to continue my circuit thrash, and I'm immediately faster. With more focus on my lines and keeping the weight of the car balanced, exerting more speed from the 991 is effortless. PDK is intelligent: there's a host of different mapping options on my side (this system stretches beyond the ring-fenced parameters of 'Sport' and 'Sport Plus'), and so PDK compliments my driving in the main, selecting the right gear to match my throttle application, and mass torque is always available.

PDK is as responsive as it is intelligent, too, and on harsh braking before the tight right-hander for the last corner, for example, the system effortlessly skips down the gears in an instant, crucially without jerking and upsetting the balance of the Porsche for cornering. When I tried this on the road with the manual gearbox, remember, I had the car jumping forward after finding the wrong gear.

Buoyed by a confidence to fully exert the car in this track environment, I'm now trail-braking later into the sweeping corners at the far end of the circuit, hitting the apexes and then exiting the corner with considerably more pace. The simple 'pull' of the gear change paddle behind the Sport wheel gives a quick gear change when necessary, and my worries about jumping across the gate in the manual are a distant memory. I become more precise with my driving, seeking to tidy the smallest details as I eek the tenths off my lap time.

On the road, PDK is just as durable, allowing

me to consume the road in comfort, though the ECU's insistence on fuel saving means you'll often find the Porsche coasting in a high gear, so a quick kick-down on the accelerator pedal is necessary to jump down a couple of gears before being able to accelerate quickly. All things considered, it's a small price to pay for saving my left thigh from a clutch-orientated workout.

Both transmissions have their merits and pitfalls. There's no hiding against the argument that PDK makes for a passive experience when about town, but then again, when has driving in urban areas ever been classed as exhilarating? Meanwhile, in a track environment, PDK proves a catalyst for beautifully fluid driving, and you'll become xenorated by the 991's capability to carry speed.

The manual gearbox would be great fun on a long, fast track, but otherwise the total freedom of gear selection is offset by a clumsy and at times unpredictable gearbox. PDK for me.



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The definitive history

From its inception in 993 form, the ferocious GT2 has added another fascinating layer to the 911 legend. Total 911 examines the lifespan of the 'Widowmaker'

Written by Chris Randall Photography by Porsche AG



T2. Fairly anonymous characters in isolation, but very special indeed when applied to the rump of a 911 – special enough, in fact, to have Porschephiles dribbling with anticipation at their very mention. It's a moniker that stemmed from Porsche's desire to homologate the 911 for racing, and has since gone some way to creating a legacy of being the most ferocious Porsche 911 to grace the public road.

The introduction of the 993 was already something of a sea-change in the 911's evolution compared to the outgoing 964, and it would also be the first sports car to sport the GT2 badge. First sold in 1995, what you had here was a thinly disguised racer that took the already phenomenal Turbo model, junked the four-wheel-drive hardware, added yet more power and was then put on a weight diet. The result was a twin-turbocharged and intercooled motor that, shorn of its catalytic

convertors, managed a heady 430hp and 540Nm of torque. Performance figures varied depending on the source, but think 190mph and a four-second dash to 60mph, and you'd be close; terrifyingly quick in a car that was as raw as 91ls came. Make no mistake, the GT2 took skill and concentration to get the best from.

The rest of the mechanical specification was equally tasty, the GT2 receiving the gearbox and brakes from the Turbo and tweaked suspension that made more use of solid bushings and added adjustability. But it was the exterior that perhaps drew the most gasps at launch, Porsche ditching any pretence of subtlety. Adorning the new car was a body kit that verged on the brutal, adding a ground-scraping front air dam, a bi-plane rear spoiler (the biggest seen on a 911 at the time) and bolted-on wheel arch extensions that barely covered the broad Speedline alloys. The aforementioned weight-loss programme shed more than 200





The view most people got of the 993 GT2. The vast rear wing was the biggest fitted to a 911 at the time

The GT2 in motorsport



Historically, Porsche is no stranger to pitching turbocharged 911s into competition, the most famous of which are the 934s and 935s of the Seventies and Eighties. However, by the mid-Nineties, Weissach turned its attention to the GT2 (above left)



before unveiling the GT1 (centre) to compete in the FIA's top class of the time. GT2s still feature privately in motor racing, with Jeff Zwart's assault at Pikes Peak in his 997 GT2 RS in 2011 perhaps being the most notable.

kilograms compared to the Turbo, the GT2 tipping the scales at 1,290 kilograms thanks to the rearwheel-drive layout, a body that used aluminium for the front bonnet and doors, thinner side and rear glass and a pared-back interior. Just 57 were made in order to homologate the car for racing, with only seven in right-hand drive, accompanied by a UK asking price of £135,000. Road cars they may have been, but this was a 911 produced with the race track firmly in mind.

Overwhelmed by the response, Porsche wasn't going to miss the opportunity to keep momentum going, and duly launched the 996 GT2 in 2001. Just 129 examples found their way to the UK, and watercooling aside, the engine recipe was much the same, taking the twin-turbocharged 3.6-litre engine and giving it larger KKK24 blowers and increasing the boost pressure to 13.5psi. An advanced Bosch Motronic management system and 'VarioCam Plus' variable valve timing resulted in a heady 462bhp, and once again the GT2 would be driven by the rear wheels only through a six-speed manual gearbox that had been improved over the 993 model, and a

limited-slip differential. What was missing was any form of electronic safety net, though drivers would likely have been reassured by the presence of the awesomely effective yet expensive PCCB carbonceramic brakes, the 996 GT2 being the first Porsche to receive them as standard.

The basic suspension layout was carried over from the regular 996, although lowered by 20mm and with a wide range of adjustability for that perfect setup. Where the latest model did depart from the 993 was the styling, Porsche opting instead to equip the GT2 with an aerodynamic package that may have been unique, but was now far better integrated into the overall design - purposeful certainly, but far less like it had just taken a wrong turn out of the pit lane. The company had by now also recognised the benefits of offering the GT2 in two distinct packages: Clubsport and Comfort. Owners that wanted a further focus on the GT2's track ability could plump for the former, complete with roll cage, six-point harnesses, fire extinguisher and flame-retardant trim for the Recaro bucket

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OVERWHELMED BY
THEIR RESPONSE,
PORSCHE WASN'T
GOING TO MISS THE
OPPORTUNITY TO KEEP
MOMENTUM GOING,
AND DULY LAUNCHED
THE 996 GT2 IN 2001



Still very much at home on the race track, the design of the 996 GT2 took on a more aggressive look than the 996 GT3



For those who preferred to sample the epic performance and ability on offer from a more luxurious vantage point, Comfort offered a more leather-clad approach to the interior, as well as a greater number of electric motors and niceties such as air-conditioning and various infotainment options. One thing that can't be avoided with the 996 version is the nickname it attracted: the 'Widowmaker'. A combination of peaky power delivery and lack of electronic driver aids were to blame, and Porsche naturally were less than impressed, but it shouldn't be allowed to define what was a mightily effective driver's tool and one of the finest 911s in terms of performance.

The revised model that appeared in 2003 boasted 483bhp courtesy of tweaks to the turbos and Motronic mapping, new 18-inch wheels and greater suspension adjustability, while exterior changes including a re-profiled front bumper/air dam and the option of extra carbon parts. Improved

equipment levels and some new paint colours rounded things off.

In 2007, the GT2 format would follow over into 997 Genl guise with the release of the 997 GT2. Once again, the Turbo provided the basis for the new model - sans four-wheel drive, naturally - although output had now increased to an astonishing 530bhp and 680Nm of torque. In essence, the 3.6-litre engine featured the more advanced 'VarioCam Plus' valve timing system, as well as Variable Turbine Geometry for the twin blowers, both systems contributing substantially to improved low-end torque and thus more linear power delivery. Much like the 996, the 997 GT2's styling was purposeful rather than outrageous, the key changes to the bodywork amounting to larger air intakes in the front spoiler, intakes incorporated into the rear wings to feed air to the intercoolers, an engine lid fashioned from glass-fibre reinforced plastic, and a new rear apron.

In fact, Porsche appeared to have taken a more mature approach to the GT2 as a whole. Rather less austere than previous versions, the 997 instead offered a much wider range of technology to buyers, including Porsche Active Suspension Management (PASM) and Porsche Stability Management (PSM) as standard. The one-piece 19-inch wheels even came fitted with tyre-pressure monitoring, while the PCM communications package was standard-fit – anathema, perhaps, to those who admired the rawness of the 993, but it was a welcome development for those wanting a supercar that could be used every day. There was still a choice of Clubsport or Comfort trims, but this was a more accessible and civilised way of going very fast.

However, for those that still craved the raw and peerless driving experience that had become synonymous with the GT2 moniker, Porsche launched a lighter and more track-focused GT2 that hadn't been seen since the original 993 some 15





997 GT2 Drivetrain

We're getting used to spiralling power figures from supercars, but back in 2007, extracting 530bhp from 3.6 litres was - and still is - an impressive achievement when you consider the GT2 can claim to be used on a daily basis. The heart of the flat six was an alloy crankcase with Nikasil-coated cylinder bores that contained forged aluminium pistons and forged connecting rods, attached to a crank with eight main bearings. VarioCam Plus - controlled by Bosch's Motronic 7.8.1 management system - controlled both variable valve timing and lift, and there was a new 'expansion' intake manifold that reduced air temperatures compared to 'resonance' systems, improving ignition and combustion.

There was also dry-sump lubrication with no fewer than nine separate pumps and a rear exhaust silencer fashioned from titanium that produced less back pressure. Rear-wheel drive only, of course, the GT2 featured a launch control system for the first time, the driver just having to bury the throttle and wait for 0.9-bar boost to appear on the display before side-stepping the

clutch. There were also revised ratios for the six-speed manual 'box and a limitedslip differential that altered the locking effect depending on whether you were cornering under nower or braking







years earlier: the 997 GT2 RS. Based on the Gen2 997, only 500 were made, and the Rennsport GT2 was instantly marked out by bodywork that was liberally scattered with carbon fibre, the lightweight material used for the front compartment lid, various air intakes and parts of the rear spoiler. Even the mudflaps could be specified in carbon! The front wings were 26mm wider to allow for the fitment of wider tyres and greater toe angle, and the RS had gone on a crash diet that shaved a further 70 kilograms from the already lithe GT2.

Further contributing to the saved weight was the use of plastic for the engine cover and the rear and side windows, aluminium in parts of the suspension rather than steel and the fitment of a lithium-ion battery that saved ten kilograms over a regular item. Clubsport spec with attendant roll cage and fire extinguisher was standard – although even this could be ditched to save yet more weight – while the interior featured carbonshelled seats weighing just ten kilograms each, little in the way of luxury conveniences and minimal soundproofing. PCCB brakes were standard, fronted by centre-lock wheels, and while the PSM system was standard, the stability

and traction control elements could be switched off completely in two stages. You might have needed bravery to touch that particular button, but it was a clear indicator of Porsche's thinking with the RS.

Of course, Weissach hadn't ignored the engine either, utilising the same unit as the GT2, but increasing power and torque to 620bhp and 700Nm respectively. It drove the rear wheels through a single-mass flywheel and lightened six-speed manual 'box with revised ratios. The result? A claimed top speed of 205mph with 60mph reached in less than 3.5 seconds and 124mph in less than ten. These are epic numbers in anyone's book, and the absolute pinnacle of the GT2 line so far.

So will there be a 99l wearing the GT2 badge? **Total 911** has seen GT2-esque prototypes in testing at the Nürburgring last year, but despite this, Porsche claims that a GT2 isn't in the current model plans, and remains tight-lipped amid rumours that the 997 GT2 RS will remain the everlasting zenith of the 911 GT2. Regardless of the future, the history and legacy of the GT2 is already assured as the most ferocious road-going model to leave the Stuttgart factory.

GT2 LINE-UP

993 GT2 1995-96

With wild looks and power channelled through the rea wheels only, the 993 was exciting and challenging in equal measure

996 GT2 2001-03

The looks may have been toned down a touch, but the lack of driver aids meant the 996 was as

996 GT2 G2

At 462bhp, the original hardly lacked power, but Porsche tweaked the turbos and Motronic mapping to achieve an extra 21bbp.

997 GT2

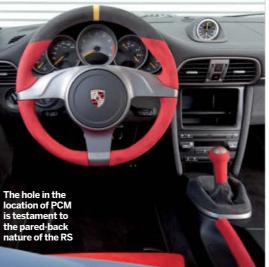
It may have been stuffed with acronyms like PASM and PSM, but with 530bhp to call on it was even faster

997 GT2 RS 2010

The ultimate GT2, with 620bhp and a 200mph+ top speed. Dramatic weight-saving measures and plenty of carbon fibra were key features.

The GT2 RS was recognisable thanks to the liberal application of carbon









A former McLaren F1 and Porsche WSC driver, John Watson's favourite racing legacy is his beloved 2.7-litre RS, owned from new since 1973

Written by Johnny Tipler Photography by Antony Fraser

ohn Watson is up front about his lifelong passion for Porsches. A works driver in 962s in the Eighties, his climb through the racing hierarchy took him from club racer and Formula 2 privateer to Fl team leader and Grand Prix winner, with a final decade piloting sports prototypes. Today, John is an Fl pundit, high on the media hit list as the go-to man for pithy comments on everything from safety issues to regulation changes. But we're missing the main trick here: for the last 40 years, he has owned the same 91l. Not just any 91l; a 2.7-litre Carrera RS, bought in 1974 from his race team owners, Hexagon of Highgate, whose Fl Brabham he drove.

He'd hankered after a Porsche since spectating, aged nine, at the 1955 RAC Tourist Trophy. Held at Dundrod circuit, this was a seven-mile amalgam of county lanes on the moors to the west of his native Belfast. "The TT was an important international world championship event," Watson explains. "There were Mercedes-Benz, Ferrari, Maserati, Jaguar, Lotus, Porsche, Cooper-Climax and all the top-name drivers, but it was the Porsche 550 Spyder that captivated me; the purity of the design is timeless, and it was the little guys against the big guys. These Porsches were metronomic, and by the time you got to the end of the 24 hours some of them were in the top ten, maybe the top six." In fact,

the Carroll Shelby/Masten Gregory/Huschke von Hanstein 550 Spyder placed ninth in the '55 TT.

It also helped that Watson's father was a car dealer, and a resident 356 fuelled the passion, as the man himself explains: "So I became a Porsche enthusiast, and my dream was to drive a 550 Spyder or an RSK, the Porsche racing cars of the late Fifties, but if I had a favourite Porsche it would be the 356B Carrera-Abarth GTL from the early Sixties; they are lovely, just beautiful."

Thus emboldened, in 1963 Watson began racing an Austin-Healey Sprite to good effect in Irish club

Watson's career highlights

- 'Wattie' Became hooked on Porsche aged nine, watching the 1955 RAC Tourist Trophy race held at the Dundrod circuit in Northern Ireland.
- He started club racing in 1963 with an Austin-Healey Sprite.
- The Northern Irishman then entered the European F2 Championship with Brabham BT30.
- Watson made his F1 debut at the 1973 British Grand Prix, Silverstone, driving a Brabham-Cosworth BT42.
- His first Grand Prix win came at the Osterreichring in the 1976 Austrian GP, driving for Penske.
- With five wins from 154 GPs, Watson's last F1 victory was the 1983 US GP West at Long Beach, California.
- Wattie then won the 1984 Fuji WSC 1,000km with Stefan Bellof in Rothmans Porsche 962C.
- His final WSC race was the 1990 24 Hours of Le Mans, placing 11th in Richard Lloyd's Porsche 962C.

events, and by 1970 he'd graduated to the European Formula 2 Championship with his Brabham BT30. Back then, his buddies were fellow Bognor-based drivers Derek Bell and David Purley, who weren't exactly rivals on track – because they raced in different formulae – but sparring partners on the squash and tennis courts.

Watson had only two bad accidents in his 30-year race career, suffering broken limbs in an F2 crash on Rouen's fast road circuit, and in '73 at Brands Hatch's Race of Champions when he fractured a leg after his F1 Brabham BT42's throttle stuck open and crashed. Undaunted, he was back to make his Grand Prix debut at that year's Silverstone, but ended up being sidelined by a fuelling issue. Retained by Paul Michaels' Hexagon of Highgate car dealership to drive the Brabham in 1974, John completed his first F1 season with a highest placing of fourth in Austria. It was during this period that he acquired the 2.7-litre RS, and it went with him when he transferred to Team Surtees for 1975.

A frustrating season drew to a close with oneoff drives for Team Lotus (alongside legendary super-Swede Ronnie Peterson) and the CitiBank Penske team, who had just lost ace driver Mark Donohue, having tragically passed away after striking a safety fence post at the Osterreichring. The slick American outfit duly hired Watson



for 1976, and brought him his first GP win in Austria in the PC4. But there was an amusing trade-off: up to this point he'd sported a luxuriant beard, and a wager on the race result with clean-cut team boss Roger Penske incurred a close shave of the hirsute kind, and the Irishman's trademark beard was summarily banished.

It was back to Brabhams for 1977, Watson driving the Alfa Romeo flat 12-powered BT-45/46 for the works Martini squad, but when team leader Carlos Pace died in an air crash, the Irishman stepped up as team leader, placing second in the French GP at Dijon. Three podiums followed in '78 when his teammate was Niki Lauda, and for '79 he took James Hunt's place at McLaren beside Alain Prost in the M28/29. The Seventies had been a great era for McLaren, with Fl World titles for Emerson Fittipaldi and Hunt, but the Teddy Mayer-managed era was drawing to a close amid a plethora of mechanical failures, and although Watson was occasionally in the points, there was but a single podium finish. The incoming Ron Dennis regime revitalised the McLaren team, and Watson thrived at the wheel of the new John Barnard-designed MP4, winning at Silverstone in 1981, with podiums at Jarama, Dijon and Montreal. His teammate that year was Andrea de Cesaris, but for 1982 he was rejoined by Lauda, who was his amiable companion for the following year as well.

Watson holds the former McLaren CEO in high esteem: "Ron [Dennis] was adopting an approach that was different to anyone else in Fl: there is no such thing as bad luck or good luck. Luck is something that is tangible and that you can control.

In effect, you make your own luck, but primarily it was in relation to reliability, which in the Seventies was a hit-and-miss affair, so what Ron set out to achieve was to remove the bad-luck factor, which meant having the finance available to ensure you could put new parts on a race car rather than recycled parts, and that applied not just to the mechanics of the car; it applied to the drivers, team members and the facilities in the work place."

That philosophy blossomed: in '82 there were wins at Zolder and on the streets of Detroit, and podiums at Rio, Montreal and Las Vegas. The title battle went down to the wire: Watson could have been champion, but at the final race, held in the Caesar's Palace car park, Michele Alboreto came first, Watson claimed second – from the back of the grid again – but Keke Rosberg finished fifth, gaining just enough points to lift the crown.

Watson's final Fl season was in 1983, marked by a win in the US GP West at Long Beach. He started the race 22nd on the grid, passing car after car to take the victory. It was some achievement, but John believes overtaking ability is inherent: "In my day, overtaking was a skill you learned and developed," he recalls, "made easier because the cars didn't have the same level of aerodynamics they have today, and consequently the braking efficiency was nowhere near where it is nowadays, so you could do things in my era which would be virtually impossible these days. I could judge speed and distance pretty well, particularly coming into a braking zone, and when you're overtaking somebody you brake later than you would do on your own, and you then compromise the car you're

overtaking by gathering your car up in a way that makes sure he isn't able to come back.

Watson continues: "You needed to be assertive, and not fall into the trap of getting caught behind a car for three or four laps, because you lose your momentum. It's not a matter of, 'I might overtake here', it's a case of, 'I am overtaking you now!' And quite often the driver in that position will yield; your first strike is the one that really sets the ground rules: 'get out of my way, I am coming through', and once you develop that sort of reputation people think, 'Oh no, here he comes,' so you create your own legend."

John's F1 career drew to a close in 1983, having lost out in negotiations with McLaren over his retainer to the upcoming Alain Prost. "Alain had been fired by Renault, but he represented the future, and they could get him at a bargain-basement price," Watson says, sounding a tad rueful. There was a single comeback GP at Brands Hatch in 1985, placing seventh for McLaren, which is not bad after a two-year lay-off, but in the meantime he'd stepped into the Rothmans Porsche squad, driving 962s alongside Stefan Bellof, most notably taking victory at Fuji in 1984. "Because the McLaren's TAG turbo engine was built by Porsche, I got to speak to people in the Rothmans Porsche Group C team, and Sean Roberts fixed it for me to drive when they were running a third car or, for example, when Derek Bell was doing an IMSA round that clashed with a Group C WSC race.

"In 1984, the development of the PDK race gearbox was taking place, and a car was entered at Imola and then the Nürburgring a couple of















weeks later, but the PDK gearbox wasn't perfect, so they withdrew the car in the end. However, I did the Spa I,000km with Vern Schuppan, and then the penultimate round at Fuji with Stefan Bellof. That was an interesting insight into a young guy who was unbelievable in a 956 or a 962, and the team loved him, especially Klaus Bischof [now the Porsche Rolling Museum manager], who ran that car. They were friends as well as team members, and when you get a kid who is extending the potential of a car to the limits like Stefan did – and on some occasions exceeded the limits – that's what teams love. They love to see equipment being driven to a new threshold, and that's what Stefan did. Derek couldn't do it, [Jacky] Ickx and [Jochen] Mass couldn't, but Bellof did."

Tragically, Bellof, then the reigning WSC champion, died at Spa the following September. Codriving with this budding star in his championshipwinning year provided Watson with a niche in the Porsche works team. "In '85, I drove the third 962 with Al Holbert and Vern at Le Mans, but that was more like a Mobil Economy Run, and the race was won by [Klaus] Ludwig, [Paolo] Barilla and [John] Winter in Reinhold Joest's Porsche. They must have been inventing the bloody fuel, because that car did things economy-wise the factory Porsches certainly weren't doing!"

No great fan of long-distance racing – "they're 22 hours too long!" he quips – Watson also did WSC events for Jaguar, handling the Group 44 XJR-5 at Le Mans in 1984, the Silk-Cut XJR-8 in '87 (placing second in the WSC rankings with Jan Lammers)

and the XJR-9LM in '88, switching to TOM's Toyota with the 89C-V in '89. His swansong enduro in 1990 was the Richard Lloyd Racing Porsche 962C, in which he finished 11th at Le Mans. it seems Watson's hat is still in the Porsche camp, too: "I hope the 919 wins Le Mans in 2014, and I hope they beat Audi, as well as Toyota and Nissan, because I want to see a Porsche winning again. But I would like to see Le Mans become what it was in its infancy, which in the Thirties was a race for roadgoing production cars."

Away from the cockpit of a race car, Watson wouldn't be far from a race paddock, overseeing his Silverstone-based Performance Driving School or commentating for TV stations like Eurosport, Sky Sports and the BBC on Fl, GTl and the BTCC. Along with top-drawer racers John Surtees and Derek Bell, Watson was also awarded the MBE. These days, though, he's more likely to be found on the lakeside, casting a line and teasing some great fish from the water.

The single constant in the past 40 years though has been that lovely black 2.7-litre RS. The 911 was a demonstrator at Hexagon of Highgate, and his Ford Granada was a trade-in. He won't reveal what he paid for it, though: "That's for me to know and nobody else, but it was appropriate to the value of the car at that time. It's a 911 RS Touring, with sunshine roof and electric windows, and I've done 42,000 miles in the car in 40 years.

"It's essentially the same as I bought it, still with the original stickers in the window. It's still got the 15-inch Fuchs wheels and ducktail spoiler,

Fl: Irish racing greats

Irish F1 drivers are uncommon – how many can you name? As well as John Watson, Northern Ireland has produced Martin Donnelly, Eddie Irvine, Kenny Acheson and Damien Magee, with Tommy Byrne, Derek Daly and David Kennedy coming from Eire.



and the most important thing is to keep it as close as possible to its original specification. It's fitted with 195/65 front tyres because I couldn't find 185/70 15s like the original Pirelli CN36s, although I understand that Pirelli are making a 185/70 15-inch P6000, so I'm going to get a set of those to bring back that little bit of originality. You get a nice ride on a tyre with that depth of sidewall; one of the benefits is that they give better compliance with the tyre action. I fitted Dunlops in '76 and they were a massive improvement, but as fantastic as the car is, it's modern tyres that make these really brilliant."

He's scrupulous about acquiring genuine Porsche parts, too. "These cars are a work in progress, and every year there is something that needs attention, and now there are certain parts of the bodywork that need attending to. I only want to use factory Porsche parts; I know that you are paying through the nose and I know there are other proprietary parts made by the same manufacturer that makes the Porsche parts, but it doesn't come in a Porsche box. For example, two years ago the electric window mechanism on the driver's side failed, and the available part from Porsche was for a later model, which meant you had to get a later model window mechanism and motor, so I went to see a very good friend in Stuttgart – Rolf Sprenger, an ex-

Weissach employee – and I said, 'Rolf, can you find me a window mechanism for a powered window for my car?' and he found one. So I went to great expense for something which no one will ever see.

"Likewise, the amber indicator lights had begun to fade, so I got some new ones from Porsche in the Porsche box. I try to keep the car original in every way possible, to know that it's as it was the day it left Stuttgart in '73." The number plate (discarded for our shots) is also original: "That was the number of the car when I bought it, and you're still allowed to wear black and silver plates on a car of that vintage today."

The low mileage doesn't reflect the RSs early usage under Watson: "I did quite a number of trips in the car in '74, driving to events in Europe, and I quite enjoyed pounding up and down the autobahns. I remember sitting in a line of cars at 120mph, just nose to tail, literally, when the autobahns were fully de-restricted. I know that doesn't sound especially exciting, but you don't get to do that today, mile after mile. They're not dead straight, and some of them have quite challenging curves," he reminisces.

It's clear when we go for a drive on the Oxfordshire back roads that Watson loves his RS: he warms it thoroughly before we head off, going from first to third gear until the transmission's hot.

But once out on the back doubles he's not averse to opening it up, using all the revs and pressing on like he means business. It's a real pleasure to be in the company of a top-line racer handling his very own 911 with the ease of long association. With that in mind, I promise to call him in ten years time.

RS maintenance Log

It's a cosseted car, and although the front offside corner had to be rebuilt after someone pulled out in front of Mr Watson, there's never been a mechanical issue. "The engine did come out once in 1990 when I moved from Bognor. I took the car to Porsche GB and said, 'Look, would you take the engine and gearbox out, take it apart, just check it and make sure it's fine, put it back together again,' and it didn't need anything; it was just that the engine had been in the car for that period of time. Since then it's only ever been maintained and serviced up at Autofarm, and it's part of their extended family of RSs," Watson says.

The ex-racer is a stickler for original equipment, too: "I know that at some time both heat exchangers will need to be replaced, but I want the Porsche ones in that brown box with red writing on it, and it's important to me to try and maintain the car as best as possible. Thank God, Stuttgart has woken up and smelt the coffee and realised that there are lots of people who want to buy 911s of every vintage and fit original Porsche panels, so they are now retro manufacturing, and I think there are a range of body panels in the lighter gauge available for the RSs coming through. I just want my car to be a time capsule."



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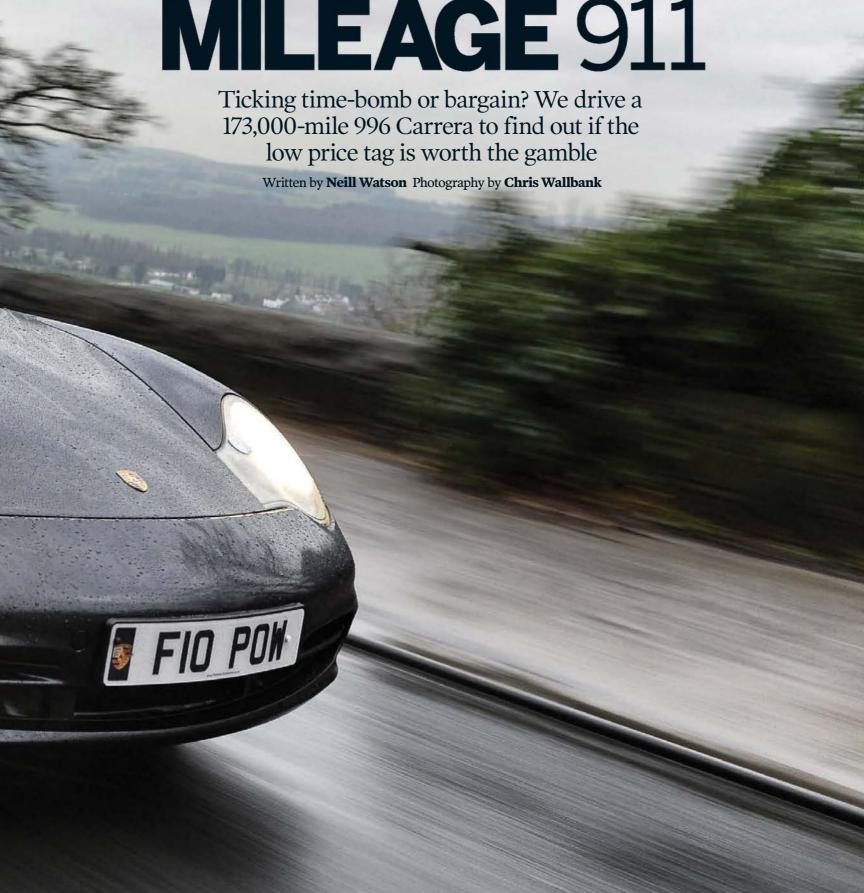
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THE HIGH MILEAGE 911





croll down to the Porsche 996 section on any car forum, and you won't find much love. Catastrophic engine failures, water leaks, poor build quality and the underlying notion of 'if it's not aircooled, it's not a real 9ll' prevails. Admittedly, I've been guilty of displaying this attitude on occasion. Buy a sub-£10,000 996, and if anything goes wrong then your car's a write-off, surely? £7,000 rebuilds and horror stories abound. Stay well clear; buy an Audi TT or M3, we often hear.

Against that aroma of disappointment, the whiff of expelled coolant and that unmistakable smell of hot, dead engines, it would take a little courage to buy a 996. So when you hear of someone who has purchased a 996 Porsche with over 170,000 miles on the clock, eyebrows are bound to rise. A skillful buy, or a hand grenade with the pin removed? You know it's going to go off; you just don't know when. It's worth a drive on a wet Monday morning through the swimming pool that was the M62 to Manchester to find out more, if only to point and laugh.

Michael Pendlebury's purchase flies in the face of conventional car-buying wisdom. He should know better, as he's no stranger to buying performance cars, having owned a whole string of vehicles with the potential for big bills. But he did everything wrong - at least in theory. Firstly, he bought the first car he saw, doing so pretty much blind from a seller over 200 miles away in Scotland who didn't seem to know much about the car. There were no pictures in the advert or carefully crafted sales pitch from its owner; just the briefest of implausible descriptions, including "170,000 miles, full Porsche main dealer service history." That last phrase was the trigger; somebody must have loved this car. "There was something about talking to the lady selling it that made me do it. Everyone says 'reluctant sale', but I believed her. 'I've never sold a car before, I don't want to sell this one' was also far more believable that the usual telephone patter," says Michael. He wired a deposit of £200 and set off a few days later.

In Scotland, he met a lady who loved her Porsche, and indeed she didn't want to sell it, but circumstances made it necessary. "It was nice to meet such a genuine person, not someone trying an amateur sales pitch, hiding faults and so forth. The service book was there, all stamped with the official ink, and the car drove just fine," Michael adds. She was also very open about some body repairs to the car, needing a new headlight and some panel beating after an indiscretion on a greasy road. But all was done at OPC Glasgow. There was a minor wobble, however, when Michael asked for any old bills and invoices. 'I may have shredded those last year when I had a clear out. Are they important?" came the reply. Nonetheless, the tell-tale stamps of care and attention were there in the book, and a few days later, true to the seller's word, a complete set of crisp duplicate invoices arrived in the post courtesy of Porsche Centre Glasgow.

The drive home saw Michael watching temperature gauges and listening for any signs of impending doom. Each change in road surface set a new high in levels of paranoia, but the car survived the trip. This was last September, and as we sit here in the comfort of his living room, the rain lashing hard outside, Michael's purchase is getting my brain ticking. Over a hot mug of tea, we study the documentation. Just for a moment, suspend the figure of 173,000 miles from your mind and look at the bigger picture. This car has had one owner

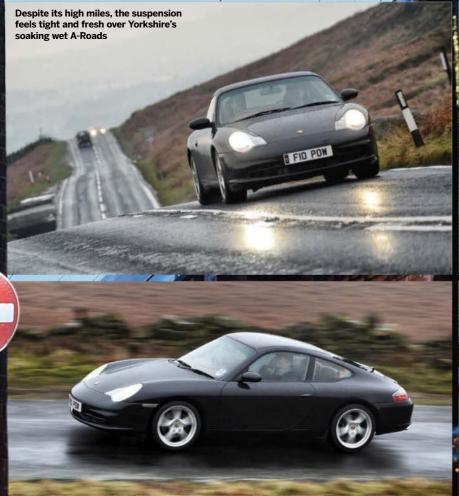
















ever since it was 18 months old – a ten-year span – and has been maintained at the same Porsche main dealer ever since.

Studying the timeline, it has covered a consistent 16,000 miles per year. The lady drove the car in her work, covering lots of motorway miles. This means that the car's 3.6-litre engine spent most of its mileage sitting on a constant throttle setting of around 3,500rpm, with no trackdays or city streets; just cruising along, doing its thing. That's good, as inactivity kills cars, rots exhausts and makes oil seals deteriorate. Short city journeys stop oils fully warming and fills them with petrol contaminants from the warm-up cycle that never get burned away, reducing the oil's effectiveness.

Additionally, the transmission in this car is a Tiptronic. Whatever your views on the gearbox, you cannot deny that this adds consistency to the gear changes, removing the possibility of a missed shift or roughly handled clutch. Tiptronics tend not to go wrong, and the invoices all show routine maintenance and small items of work. There's no horror stories though; just the odd bush replaced, an oil seal, brake pads and discs, as well as lots of fluids and lubricant, which is all very predictable and reassuring. The final significant thing is that it's the 2002 3.6-litre engine, which is generally considered to be fairly trouble-free in relation to the early 996s.

But 173,000 miles is still a large distance, and even with the best will in the world, they don't make them like they used to. The 996 doesn't have that solid, machined 'click' to the door handle as you open the doors that makes you smile like the early cars. Moreover, plastic door handles don't make that noise; as the door swings shut, there's no 'thunk' that makes you think you'd have lost your fingers entirely had they been there. This is something that did indeed change with the end of the 993. I've driven a lot of 996 Porsches, and that machined-from-solid feeling just isn't there.

So as we splash through puddles over to the garage and the door rolls up and over, what am I expecting? Well, it's certainly shiny. Michael spent a Sunday afternoon at work, and that coat of wax polish is about to be tested. It's gleaming black with no swirls in the paint under the fluorescent lights of the garage. The Carrera alloys show a little weathering and heat discolouration, along with the odd scuff, but nothing serious. Opening the door, I'm pleasantly surprised at what I find. That Savanna interior is easier on the eye than I recall, the ruffled leather showing very little sign of wear, even on the side bolsters. The usual suspects for displaying wear, such as the steering wheel and pedals, are in remarkably good shape too. In fact, the primary evidence of age is around

the centre console and areas surrounding the navigation system and cigar lighter, where bunches of keys, iPhone chargers and other items tend to have an impact. There are chips on the finish here that Michael is in the process of sorting out, but certainly nothing especially bad. I take a moment to peer underneath at the engine and gearbox, which is bone-dry and clean as a whistle.

At the front, the main issue is the face-lifted Turbo headlights. The previous owner's accident repair bill included a new headlight, meaning it now has the rather odd look of a brand new headlight on one side, with the opposite one being 12 years old and cloudy. An indication here of the car's original cost, the unit is £1,600, so Michael is looking at alternatives. The paintwork had a few light scratches that were polished out, with the only other defect I can spot being a small area of corrosion at the bottom of the left front wing. We head for the local petrol station and fuel up. From the passenger seat, there are no squeaks, rattles, looseness or that general tiredness you often get in a car nearing the twilight of its life. We swap places and head out to a more rural spot for photos, and what can I say? Everything works. It doesn't feel down on power, with soggy, tired suspension and a clunky steering rack. In fact, it feels on the button, and I'm beginning to enjoy the drive.

We arrive at the location for Chris' photos. Cracking open the door, you can hear a slight chuffing from the left-hand exhaust bank. "That started on Friday, I've already had it looked at," says Michael. It doesn't sound serious, but it is the beginning of an exhaust repair that's inevitably going to be needed. So what else has he spent money on since September? "The most expensive things have been two rear tyres at £254 for the pair, and a faulty ABS sensor that was £100. It uses a small amount of oil and a tiny bit of coolant sometimes, but the only other things have been bits like some new alloy wheel crests at £20, plus I had the suspension geometry checked for £68."

Michael is methodical in his costs, as he has now developed a cunning plan. He's running his 996 for three years, the objective being to see if it's possible to run this car for the cost of the depreciation of a small family car. He's taken a figure of £3,000 based on a Dacia Sandero, which gives him £83 per month, excluding fuel and insurance on a car that's to be his regular daily driver. A brave plan or a risk-taking fool? In my view, this car has a lot going for it, mainly the care lavished by its previous owner and its pattern of regular use. Like any older prestige car, you must remember that you're inheriting the

running costs of a car that was originally in excess of £55,000, so do what Michael has done and have a plan B in the form of a biscuit tin to fund any issues that come along, and whatever you do, don't put all of your budget into your initial outlay. Major failures? Well yes, they're certainly possible, and as the financial investment industry is fond of telling us, it all depends on your attitude to risk.

Take a good look at this car: it's the future of Porsche ownership for the enthusiast on a budget who wants to be driving a 911. There was a time not long ago when up to £10,000 would get you a fairly nice 964 – not a superstar, but a perfectly usable car with a verifiable history and a shoebox full of bills. The same was true of the Impact Bumper G Series. It may not have been in Guards red with black Fuchs and a whaletail, but it was achievable. The activities of various movers and shakers in the aircooled Porsche world have pushed prices upwards in both the UK and US. The 964, 993 and G Series are all far north of £30,000 now. It's something I have views on, but that's another story.

So if, like me, you're frustrated with getting within range of a budget Porsche 911, only to see them leap away from you, what's the plan? This will sound odd, but a 996 like this one is the future.

Your checklist for buying a high-mileage 911

Mike's story shows you shouldn't immediately be put off purchasing a 911 with more than six figures on the odometer. Here's a checklist of the most important factors to consider when inspecting a high-mileage 996 example, courtesy of independent UK specialists Paragon Porsche (www.paragongb.com):

- Service history and condition: Generally on a car with huge miles, a lot of the components will have been replaced like the starter motor, alternator and water pump for water-cooled 911s so you can generally get hold of a good car, even though they may have done big miles. Check these have been done.
- Accident damage: A lot can happen over the course of 100,000 miles. Has the car been involved in any accidents or scrapes?
- Suspension: This is worth checking for clonks and rattles, as the lower suspension arms can wear, but again, a well-sorted car will have generally had these replaced.
- RMS and intermediate shaft seals: These will have more than likely been done by now, but it's worth double-checking to make sure.
- Interior: 996s don't wear particularly well inside, so it's worth inspecting the interior condition. The condition can largely depend on who has previously owned it, of course, and we have seen high-mileage cars that still look fresh inside.









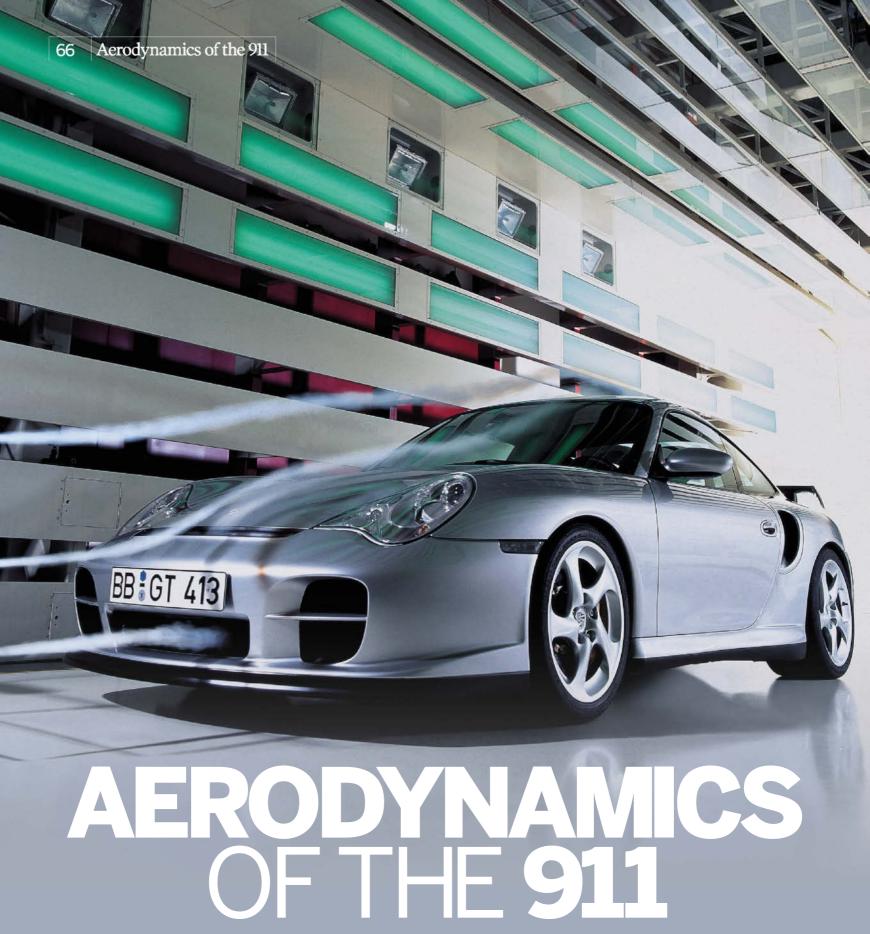


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In the second of our two-part investigation, Total 911 examines the evolution of aerodynamic technology from the 964 onwards

Written by **Glen Smale** Photography by **Porsche AG**

big step forward in aerodynamics was made with the introduction of the Type 964 model in the late Eighties. It was decided at the time to retain the 9ll's basic shape yet aim for almost zero lift at the front and rear ends. The aero goal was reached through a 'ground effect' underbody and electronically extendable rear spoiler, and the resultant Carrera 4 was the most aerodynamically efficient 9ll model to date.

30 years after the 911 was first introduced to the public, the all-new Type 993 was revealed at the Frankfurt Motor Show. The body was unmistakably new and different; in fact, the only panel on the 993 that remained unchanged from its predecessor was the roof. The 911 had been putting on the inches from birth, but Porsche were merely reacting to market demands by incorporating a growing list of extra features into the 911. The car's subsequent increase in width had a negative effect on the overall drag, but the 993 was aerodynamically a vastly superior vehicle, with a curvacious body and raked-back headlights.

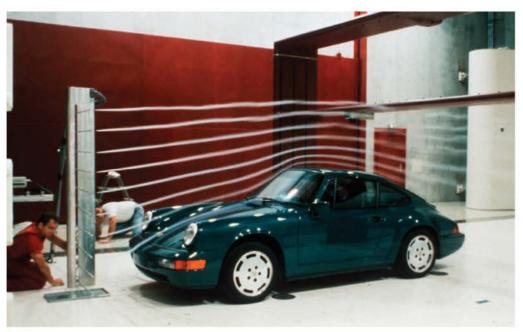
An ultra-low drag coefficient is not the ultimate goal for all aerodynamicists, as a Cd of less than 0.3 can generate prohibitively high lift forces. Another reason for a slightly higher drag coefficient on very fast cars is their greater need for cooling air, but these were just some of the problems that the designers of Porsche's new water-cooled Type 996 were faced with in 1998. The introduction of the 997 in 2004 saw an improvement over the former model, the drag coefficient dropping to just 0.28 and the lift coefficient in turn falling even closer to zero. Much work went into developing the underbody

Porsche Active Aerodynamics (PAA)

Fixed aerodynamic aids are just that: fixed, so when Porsche introduced its Porsche Active Aerodynamics (PAA) on the new 991 Turbo model, the development eliminated the need for compromise in this area. Comprising a unique combination of a front spoiler – extendable in multiple stages – and a rear slotted wing that is adjustable in both height and attack angle, the car can adapt its aerodynamic setup to the current driving situation. This makes it the first Porsche 911 that can switch back and forth between different aerodynamic modes.

PAA controls the front spoiler and rear wing in three basic modes. At the start, both are fully retracted, allowing a greater approach angle than in the previous model, minimising the risk of damaging the front lip on steep ramps or curbs. Above 120kph, the PAA system switches automatically to the Speed setting in which the two outer segments of the three-part front spoiler are extended. This diverts more air around the body, which reduces aerodynamic lift at the front axle. At the same time, the rear wing is extended 25mm upwards.

In Performance mode, the middle section of the front spoiler is also extended. Even more air is diverted around the vehicle, creating a low-pressure zone behind the spoiler. Simultaneously, the rear wing is extended to a height of 75mm and angled forward seven degrees. At 300kph in Performance mode, the 991 Turbo hunkers down, generating 132kg of downforce, but the PAA automatically switches back to the base setting when the car's speed drops back below 80kph.



The 964 with substantially revised bodywork over its predecessor goes through aero testing in the wind tunnel in 1987



Air flow is analysed on the 996 Turbo's rear wing with PAA



The aero properties of the disguised 997 are tested in '03







Wind tunnels are essential for understanding the flow of air around a car when in motion. Through the generations, these studies have helped refine the shape of the 911 silhouette to create faster and more efficient models than ever

section between the nose of the car and the front suspension, and for Gen2s a full underfloor cover helped reduce drag and aided the car's ground effect capabilities. The Carrera S had an even better drag coefficient thanks to its 10mm lowered suspension hunkering the car closer to the floor.

Developed partly in response to a need for improved stability, the engine in the 991 sat further forward in its 100mm-longer chassis. But without altering the overall body width in the Type 991, Porsche's designers developed a new 911 Carrera shape with an ideal height-to-width ratio. The exterior was completely redesigned, with not a single line or radius left unchanged, but unlike in previous models, the rear spoiler was no longer integrated in the engine lid; rather, it was a separate wing component that sat further back. On the 991 Turbo, the completely new enlarged, variable spoiler will extend to different heights and even angles for the first time as part of the most aerodynamically efficient 911 setup yet.

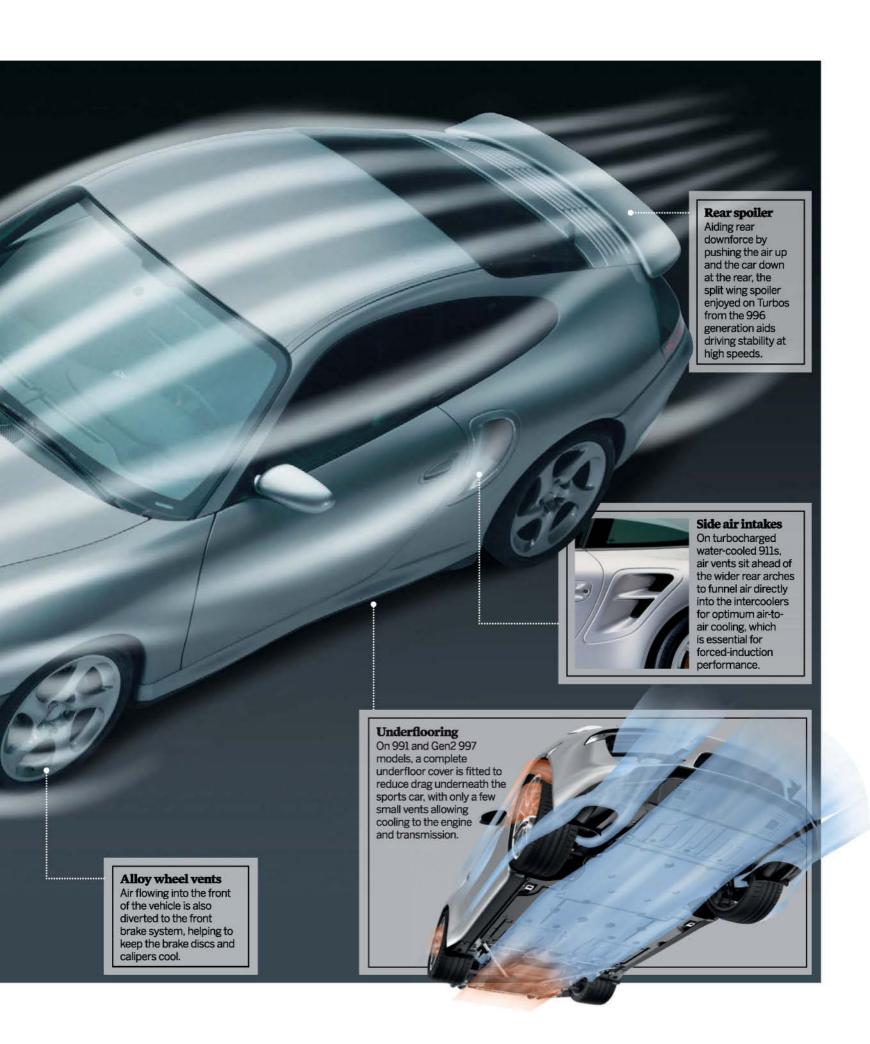


Testing in the wind tunnel helps illustrate the effectiveness of the front air vent's downforce in dispelling air over the top of the GT3 RS...



...while the ducktail and huge adjustable rear wing aids downforce at the back of the 450hp Rennsport 997







PROTOTYPE

Many ST replicas focus simply on the aesthetic qualities of this rare 911. However, with this recreation, Autofarm aims to produce the full Seventies competition experience Written by **Josh Barnett** Photography by **Daniel Pullen**



ess than a week before I jumped into the blood-orange missile you see here, I was unsure if my test drive would happen. This is because the 9ll on these pages is a work in progress that prior to my time behind the wheel wasn't ready for public consumption. However, the team at specialists Autofarm readied the car in time for me to blast down some Oxfordshire country lanes – and what an experience it was.

As you may have noticed, this is no normal pre-impact bumper Porsche; this is a re-creation of the incredibly rare 911 ST. Produced between 1970 and 1971, only 33 genuine ST examples were built in period. Moreover, rather than a complete production car, the ST was actually a package offered by Weissach to turn your 911S into a competition machine. STs competed with considerable success in stage rallying and circuit racing, proffering victories in the FIA's Group 4



class at such iconic locations as Daytona, Monte Carlo and the Nürburgring.

With its motorsport pedigree and gorgeous looks, the ST has garnered its fair share of admirers and imitators. The late-Seventies 911 SC is one of the most popular donor cars for such a build, with the long-nose conversion proving relatively simple and the SC's engine friendly to tuning. Despite this, many of these builds focus on replicating the aesthetic appeal of the ST while maintaining the SC's ability to function as a first-class road car.

Not so with this 1970 911 ST replica. Set up by Josh Sadler in 1973, Autofarm has built a reputation as one of the best 911 restorers in the business. Sadler himself is a font of knowledge when it comes to the technical side, so it is therefore no surprise that this recreation aims to keep firmly on the side of period correctness. The donor car is a 1970 model year 911S, meaning that the base car is from the same year as many original STs. As replicas go, this is about as close to the real thing as you can get.

Taking accident-damaged or written-off Porsches and restoring them to their former glory (and sometimes more) is an Autofarm speciality; it's how they started in the business. This ST build is a case in point, although this particular 911S is perhaps a more intriguing base car than many of the company's previous projects.

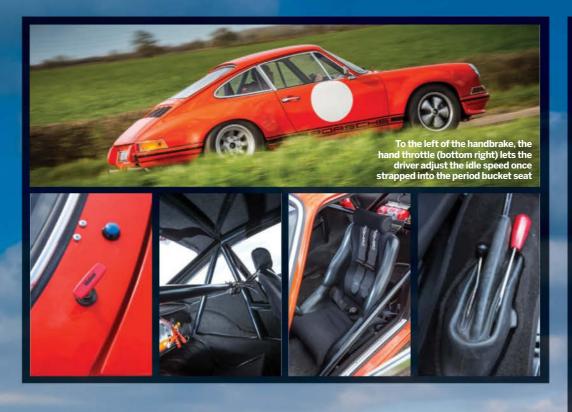
Originally registered at Porsche's Stuttgart factory in July 1969, chassis number 11 030 0012 was thought to be a prototype 2.2-litre 911S. Kept by the manufacturer for two years, the car was fitted with

a 2.2-litre 911T engine before passing through a succession of German owners. It was then imported into the UK in December 1977 with the registration number VRC 911S. On 30 March 1979, Autofarm purchased the car, which had been damaged in the intervening 15 months, storing it until 2008.

The rebuilding process has been part restoration, part recreation, with a large dose of resurrection thrown in. The result is a work-in-progress that, when finished, will comply with the FIA's Appendix K regulations, a set of technical rules designed to ensure that historic racing cars aiming to race in FIA-sanctioned events are built to the original specification they would have used in period.

Before I go into the technical minutiae, though, take a minute to look at it. Has a better-looking 911 ever been built? The lower ride height, flared and rolled rear arches, the dual exhaust, the nine-inch wide Minilites on the rear; it's achingly gorgeous, with a presence belying its age and small stature – at least by modern standards.

Talking of those Minilites, it may look odd having mismatched wheels, but it is in fact something that happened during the ST's lifespan in 1970-71. Rumour has it that Weissach struggled to provide 9x15-inch Fuchs rims in the ST kit due to a production problem at the German wheel manufacturer. Therefore, with its already-proven motorsport credentials, the magnesium wheels were chosen as rolling stock for the rear. It created an iconic look – one that has been copied countless times on many a hot-rod build.



Model	911 ST replica
Year	(1970)
Engine	
Capacity	2,808cc
Compression ratio	10.5:1
Maximum power	280bhp (estimate)
Maximum torque	unknown
Transmission	Five-speed 915 gearbox; rear-wheel drive
Suspension	
Front	Independent; MacPherson struts with brace; lower wishbone; torsion bar; antiroll bar
Rear	Independent; trailing arm; torsion bar; antiroll bar
Wheels & tyres	
Front	7x15-inch Fuchs; 205/60/R15 tyres
Rear	9x15-inch Minilites; 225/60/R15 tyres
Dimensions	
Length	4,163mm
Width	1,610mm
Weight	930kg (original homologation spec)
Performance	
0-62mph	5.0 secs depending on gearing setup
Top speed	155mph depending on gearing setup



"It's achingly gorgeous, with a presence belying its age and small stature"



On top of the obvious aesthetic changes, the conversion from 911S road car to 911ST has meant that Autofarm has performed a comprehensive overhaul of every aspect of the sportscar, bringing it in line with the stipulated FIA regulations.

The ST uses competition-spec Bilstein dampers, with uprated torsion bars and bushings, while at the front the seven-inch Fuchs require 27mm spacers to meet the track requirements. All four corners are stopped using vented discs, with the fronts benefiting from cooling ducts to prevent fade during prolonged heavy use.

The body has been strengthened, with a weldedin six-point roll cage featuring prominently inside. The front and rear bumpers are made of fibreglass to save weight, while the front bonnet is a fibreglass and balsa wood affair. Underneath, an original, foam-filled, 100-litre fuel tank with a screw-on centre filler cap is housed. Mass is further reduced from the deck lid, which is made from aluminium, and the side and rear-window glass have been replaced with polycarbonate items.

Exchanging keys with Sadler is a surprisingly brief affair, as he simply hands me the fob and

explains that if the car stops in traffic it is most likely because of the race camshaft. "Just turn it over and it should restart," he says matter-of-factly.

Normally I would hop straight in and get on with it. However, after clambering into the driver's seat on the left-hand side of the 911, I take a moment to soak it all in and get my bearings. Dead ahead of me is the 10,000 rpm rev counter (a standard feature in many a competition 911). Just in front of it, mounted to the shaft of the original 380mm Sport steering wheel, is a red shift light, with another red warning light mounted in place of the clock, reducing the ubiquitous five-dial dashboard to just four pods.

The interior is similarly stripped down, with just a single Scheel bucket seat (yet another period feature) and a smattering of lightweight interior trim and carpet. The semi-matte black finish is slightly imposing, but as I strap myself in with the four-point race harness, I realise that is nothing compared to the bark of the engine behind me. I turn the key and let the fuel pump prime itself for a few seconds. Next, my left hand turns the fob further to the right, and the peaceful spring day that enshrines us is annihilated by the sound of six air-cooled cylinders, fed by down-draft 46IDA Webers, bursting into life.

The Porsche 911R

Of the early racing 911s, the ST is perhaps the most evocative. However, it was not the first thoroughbred motorsport machine to roll off of the Weissach factory line. That honour falls to the even more elusive 911R, a model developed by Ferdinand Piëch in 1967.

Four prototypes were built initially, featuring fibreglass panels and plexiglass windows (that made it through the ST three years later). The weight-saving regime was comprehensive, with mechanic Rolf Wütherich creating a machine that could precisely drill holes through almost any sheet of metal, be it body panel or pedal.

The end result was a car weighing in at a sprightly 800 kilograms – a full 230 kilograms lighter than the standard 911S on which it was based. 21 production examples were

commissioned. However, they were never homologated for use in the FIA's sports car classes. The 911R was therefore forced to compete with prototypes like the Ford GT40s, which dominated the sport during the late Sixties.

It wasn't until 1969 that the 911R achieved the victory its meticulous creation deserved. On that year's Tour de France Automobile, a 911R driven by Gérard Larousse and co-driver Maurice Géline outshone their rivals on the narrow and twisting road and hill-climb courses that made up the multi-day competition. Larousse also won that year's Tour de Corse in the car. However, the end was already upon the 911R after Porsche ceased production 12 months prior to Larousse's win. Instead, Weissach began to focus on the next motorsport chapter: the ST.



After years around race engines up and down the UK, I tend to think that I am immune to even the most startling start-ups. Cosworth DFVs, Matra V12s, NASCAR V8s – I've heard them all, but I've never experienced an engine charge into life with as much ferocity and anger. Inadvertently, the corners of my mouth curl skywards, and a schoolboy-like giggle follows. This is what I live for.

Thanks to its origins as a factory prototype, the FIA don't currently recognise the base car's chassis number. As such, the more intricate details have yet to be finalised, meaning that the engine is currently a 2.8-litre unit, rather than the 2,247cc powerplant that STs would have run during the 1970/71 season. This has left gear-shifting duties down to a 915, rather than the 911, gearbox.

Initially, the later 915 gearbox feels non-compliant, with a stiff engagement into the gears. However, as the oil warms up, the movement into each competition ratio becomes more amenable. Despite this, I can understand why people laud the G50 unit. Jumping across the gate is a leap of faith, with fourth feeling slightly off-centre from third, and don't expect me to find second first time when coming down from third! Maybe it was just my lack of experience with the 915 (or lack of talent

in adapting), but it is was one of the most difficult gearboxes I have ever used.

By contrast, the clutch is incredible – heavy without being laborious and providing incredible feel. Not once did I come close to stalling. By contrast, the clutch on the 99l Carrera S I drove home later pales in comparison.

But who cares about the gearbox when you have that flat six over the rear wheels? The aforementioned fuel pump was causing a large hesitation between about 3,000 and 4,500rpm, but I knew this before I left the farmyard that houses Autofarm's 2.7 RS-filled sheds. To me, it didn't matter. If anything, the car's foibles (the hesitation, the squeaking front antiroll bar and the gear knob that came off in my hand on one downchange) helped to complete the perfect scene in my mind.

On the fantastic sweeping and cambered lanes I was this ST's test driver, clearing out the cobwebs ahead of its debut season. The Seventies have always been my favourite racing era, and now, inside my mind, I was living my dream.

With its 205/55 front tyres, turn-in was superb, yet despite the wide rubber, the steering itself is surprisingly light, and possibly lacking a modicum of ultimate feel. While 'old-school' 9lls are feared

for their lift-off oversteer, Autofarm's ST displayed more of that classic understeering character on the road, thanks no doubt to the ludicrous 235/60 rear tyres and limited-slip differential set to 40 per cent.

All this helped the car to carry speed, though. You could ping into corners and use the understeer to scrub speed before utilising the tremendous rear grip to shove yourself towards the horizon on the exit of the bends – and that horizon started to arrive very suddenly once the engine hesitation cleared over 5,000rpm.

The roar was akin to standing in the middle of a thunder cloud, with your senses continually pelted thanks to the skittering of gravel through the arches – a legacy of the ST's underseal and soundproofing removal. Even on the over-run, the 2.8-litre powerplant hadn't finished making its thoughts known as it popped unburnt fuel. Snarling and spitting, this 911 is Porsche and dragon combined. It's a fearsome beast that takes taming from both the driver and mechanic's point of view.

Once the teething troubles have been negotiated, it will be a truly astonishing 911. I just hope I get the chance to have another go once it's been given a clean bill of health, as the level of enjoyment it provided was simply immeasurable.

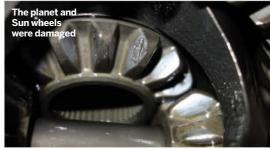
Legend Living the Control of the Co

Our band of contributors from around the world share their real-life experiences with their Porsche 911s









1999 996 Carrera 4



London, UK

Date acquired: December 2011

couple of months back, I penned an article about the issues surrounding 996 gearboxes. Unfortunately, there's a reason why I am so well versed in the pitfalls of the G96 Getrag gearbox: my own has been playing hardball, and this research was initially aimed at establishing how it could be fixed without getting an exchange unit from Porsche, which costs nearly £7,000!

The symptoms were two-fold; second gear was harder to engage, and the gearbox was whining in every gear. At that point I decided enough was enough, as the sounds originating from the gearbox were giving me headaches on long journeys.

Thankfully, I discovered Knutsford-based Sports and Classic, the go-to people when you're in my predicament. Michael, the head honcho, had already told me that he suspected the noise was due to a defunct pinion shaft support bearing, and with an odometer in six figures it did seem likely.

As I mentioned previously, my early 996 would have had a bearing manufactured in Brazil, which are the root cause of gearbox growl for 996s manufactured before 2001.

Michael also informed me that as the noise had been present for at least 20,000 miles, it was likely that the chips of metal from the bearing would keep causing damage. Michael mentioned that over 90 per cent of pinion bearing failures result in further damage to the differential planet and sun wheels. If that wasn't enough, the needle roller bearings that support the gears on the shaft may have also been damaged due to debris in the gearbox oil.

To be sure, Michael would need to open my gearbox and have a look, first by removing and stripping the G96. First impressions – a build-up of debris from the disintegrated bearings on the gearbox magnet – weren't great, and the pinion shaft bearing was also damaged. Subsequently, the loose fragments had caused extensive damage to the differential planet and sun

wheels. Moreover, the ball bearings were showing signs of wear. It's no wonder my gearbox was screaming like a touring car!

Michael would have to replace the pinion and main input shaft support bearings, differential planet and sun wheels, crown wheel retaining bolts, and the first and second gear selector hubs, as well as fully rebuild the second gear.

I also instructed him to replace the rear main seal and intermediate shaft seal, which were both leaking. Michael told me that this sort of work would only take a couple of days to complete, and at less than 30 per cent of the price of an exchange unit.

The interference press fit of the output shaft was tight, requiring a 50-ton press to get the gears off. Fast-forward and you will note the rebuilt output shaft, which has been security sealed. This theme continues after the torquing and security sealing of the differential and rebuilt gear cluster installed in the gearbox casing.

Now, the gearbox feels like new. It's great

Damage had also extended to the output shaft bearing, too



to see a company that is willing to show just what a job like this entails. I was also impressed by their approach to locking and sealing; not only does it give me the confidence to know if anything has been tampered with, but it also highlighted the confidence Sports and Classic have in rebuilding otherwise perilously damaged G96 gearboxes.

There is no more invasive noise or difficulty going into second gear – only the peace of mind that comes with knowing that if I choose to sell this car, the new owner will get a vehicle with no stone unturned!

It cost me £2,500, which while significant was the difference between my car being unsaleable and staying on the road! Not surprising considering the money I've spent, but still, it's been a learning curve.

With a rebuilt gearbox, new suspension and brakes, upgraded QuickSilver exhausts, carbon induction, fresh rubber, geometry and a new flywheel and clutch, there's not much left I can do!

1978 911 SC



Magnus Walker Los Angeles, USA

Date acquired: November 2013

ast month, my wife Karen and I headed down to Florida, ostensibly to attend the Amelia Island concourse and annual Porsche dinner, but also to take in the sights, check out a few of the auctions and meet some friends. Naturally, our first stop was the world-famous Brumos Porsche dealership in Jacksonville, which we enjoyed immensely, and the whole team was super friendly.

The next day we were given a drive in the new 991 Turbo by none other than Hurley Haywood, and later I was taken on a tour of the Brumos Museum. It's steeped in racing history, and on this evidence is a must-visit for any Brumos/Porsche fan out there.

The highlight of the whole trip occurred on our last day just a few hours before we left. I was lucky enough to have met Bill Amos a few days earlier, who offered me a drive in his Brumos B-59 – one of five cars that had been built by Brumos to commemorate Hurley Haywood's five Daytona victories.

Power had been increased to 406hp on these cars, which also received the famous red-and-blue striped livery. All five are six-speed manuals, and proved to be excellent to drive around the Florida roads.

My buddy Frazer Spowart was also on hand to shoot a little video and capture my memorable moments behind the wheel of what is a truly great car.







2007 911 GT3



Ben Przekop Georgia, USA

Date acquired: November 2011



carved a perfect arc around the left-hand curve they call Turn 15 at Atlanta Motorsports Park (AMP), having reached the maximum speed possible before turning right onto the front straight, where I kept it floored until the last instant before braking hard for the tight left-hander at turn one. Before hitting the brakes, I glanced at the speedometer, and saw that I had hit my goal: 125mph. "Yes!" I yelled to myself, "Gotcha!"

This Hermann Tilke-designed track is situated an hour north of Atlanta in the hilly country town of Dawsonville. It bills itself as a motorsports country club, and on this sunny spring Saturday in late March I was enjoying a full day on the track as a





guest of AMP's CEO Jeremy Porter, an enthusiastic and knowledgeable car guy. Since my PCA chapter will be hosting a DE there in May, I had called Jeremy to inquire about their track's reportedly stringent noise restrictions, and whether I could test my GT3 to ensure I could run on the track. He suggested I spend a full day there to get comfortable with the layout, and offered at the same time to check my car's noise level. It was an offer I couldn't refuse!

In the event, I did need to install some exhaust inserts that toned down my GMG exhaust to an acceptable range without any apparent loss of horsepower or torque – at least none I could feel – during that nearly perfect final lap.

1961 356 T5B; 1973 911E; 1974 2.7 MFI; 1975 Carrera MFI race car; 1995 993 RS Clubsport; 2012 991 Carrera S



Sven Burchartz Victoria, Australia

Dates acquired: Various

can't understand why I keep reading about how rubbish the 991 steering is, as it's not; it's great. Things have moved on since unassisted rack and pinion, the smell of glue and horse hair seat stuffing. Were it otherwise, we'd all still be driving a 356.

Don't get me wrong, my '73 E feels great. The wheel moves with the camber and weights up on turn-in given its caster settings. So does the 991; it just happens to do it faster.

At or near the limit in the 991, the rear squirms for traction as the car's sensors say, "I'm taking over for a minute." So if we're talking communication, the signals come from loads of sources: lateral and longitudinal movement, pressure on your upper torso, sides of your legs, and yes, your hands and fingertips.

Refinement doesn't equal a lack of feel or character. I'm often accused of being a quasi-Luddite, but I also know that Porsche never makes a worse car than the one that came before. It's a context thing; I don't get all misty-eyed when I jump out of the 356 into the 991 and think, "I wish this thing smelt of fuel and gear oil, and boy do I miss the wind noise around the A piller. And these brakes! Give me the single-circuit drums any day."

Now that I've had my rant, I'll update you on a couple of enhancements I've made. First, I fitted Techart shift paddles to the 991. I have the multi-function steering wheel, as I use PCM while visiting clients. The standard setup uses sliding switches that are, basically, not good. Also, they interfere with the fingertip feel as I'm going down the high street.

The fitting was a bit fiddly, and does involve the cutting of a couple of wires so that in the end the left paddle is for down shifts and the right for upshifts. I was a





bit apprehensive about whether I would use them, but now I have the results are great. I previously just left the car in 'D' and let the gearbox do the shifting. Since fitting, I use the paddles almost full-time on the upshifts, and mostly let it do its own thing on the way down.

This is as a result of fitting an Akrapovic exhaust, which has two settings: mildly restrained and truly ridiculous. I'd like to say that I got it to take advantage of the claimed 25bhp gain in the mid-range, but the sound of the standard system left me a bit cold. Too many race exhausts over the years have skewed my taste.

Yes, in standard form the sound symposer gives you some induction noise, and there is a very subtle crackle on deceleration, but really? I did some research, and the next



thing I knew I was handing over card details to my supplier.

The mid-range torque gain is handy, and between 4,500 and 6,500 feels noticeably stronger. The big issue on some aftermarket mufflers is that they drone at highway speeds. Not this one. Until you give it some Jandal (Google it), it's as quiet as a standard system.

Fitting it was a doddle according to the guys that do the work on my cars, and the consensus was that they had never seen a more beautifully made system than the Akrapovic. The thought that had gone into the design was clear, and that was just the packaging. I saw it pre-fitting, and it is truly a work of art. The quality of the materials, the folds, the bends and welds – everything is perfect.

2006 997.1 Carrera 4S



Maxie Islam Stevenage, UK

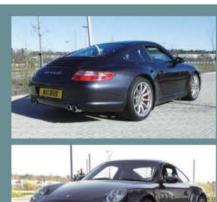
Date acquired: August 2010

t has been a quite month as far as the 997 is concerned. I have bought a couple of items for the car, the first being a leather steering wheel cover. Ever since I purcased it, I have complained about the lack of grip on the thin, multi-function steering wheel. Even though it is finished off in smooth leather, it doesn't grip as nicely as my thicker 996 wheel, so instead I opted for perforated black leather. If it looks good then I will report on it in my next entry.

Secondly, I have acquired a dashboard camera, which I admit to having picked up the idea for from the 911uk.com forum. Ever weary of other drivers hitting me, I potentially stand as being accused of

being the 'Porsche driver who was going too fast'. For my own protection (and that of my car insurance excess), I am awaiting delivery of the camera so I can hook up and make it stare out of the front windscreen. I shall, of course, report further on this in the future.

As for driving the car itself, I went down to Mercedes-Benz World in Weybridge, Surrey – well, it would be rude not to! While I was there, I took a few artistic shots in a location adjacent to the Mercedes building, positioning the car at various angles and took shots, high and low. All in all it was a nice day out, full of interesting stuff and lots of cars to see in action – I







2005 996.2 GT3



Ben James Kent, UK

Date acquired:

aving fitted Yokohama ADO8Rs, another trackday at Brands Hatch was in order. On our first outing there, the car felt strange over the bumpy parts of the track; there was a skittish feeling around the last corner, and it felt floaty down the straight. It didn't inspire confidence at all.

We pulled into the pits, got all of the wheels off and inspected the suspension components. After checking the locking rings on the coilovers, antiroll bars and other fixings, we increased the tyre pressures and went to see how the car felt with this change.

There wasn't as much skittishness as before, but the floaty feeling remained. We

discussed the situation, concurring that everything looked safe, so we may as well continue the trackday.

Since the only things that had changed since we were last there were the tyres, we decided that might have been where the problems were. However, it could also be that one or more of the dampers are worn, and since the sidewalls are so much stiffer on the new Yokohamas, the dampers are getting worked harder. Chris at Center Gravity did mention that the dampers would be due a refurb this year, so we'll be paying him another visit soon – I'll let you know how we get on. If the car still feels the same, we'll most likely move back to PS2s!





1982 SC Targa Sean Parr Harpenden, UK

Date acquired:November 2013

n my first couple of instalments, I spent a lot of time talking about problems and little about the excitement of driving one of the world's truly great cars. Here, I'll try to rectify that.

The 911 is one of those cars that you find yourself taking the long route wherever you go. I know that actress Sofia Helin, who plays Saga Noren in Danish detective drama *The Bridge* (in which, as I discussed last issue, she drives this very car) complains that it's a love/hate car, but I just love it; the foibles of that 915 gearbox and the fact that you can't be anything other than completely awake and focused while driving. It's an experience unlike anything I have ever had.

I find myself looking for excuses to drive it – not that I have to try too hard. So I've booked myself on a weekend in Montlhéry with the Impact Bumpers guys for a weekend of driving in France in April, including time on the

I've also replaced the huge Turbo tea tray for a smaller and lighter fibreglass ducktail, resplendent in a 2.4 grille, which is very cool, but will soon be changed to a 2.7 one. The biggest problem with the duck was matching the colour. My paint guy (Steve at Trade Werx in Harpenden) went to huge effort to get the colour right. It's perfect, but doesn't highlight how much the original paint has faded. I've also added an M&K sports exhaust, which has a delicious propensity to crackle and pop on the overrun.

I've cut three kilograms from the back end, which has made a big difference. It's in with Steve Winter at Jaz as we speak for a full service, and I am finally getting around to sorting out the ride height and getting the suspension set up!

1972 911T



Kris Clewell Minneapolis, USA

Date acquired: February 2012



hat I noticed most about rebuilding the long block is the amount of cleaning that's necessary – I went through about two gallons of brake cleaner and several packages of my wife's scrubbing pads. While I was doing this, the engine tin, intake manifolds, valve covers and hardware were being restored.

The flat-six engine has around 100,000 o-rings, many in places that can't be reached without tearing down the engine. First, I assembled the crankshaft and rods, then waited for the cylinder heads to come back. The one with the bent valve also had a broken valve guide boss, so I had a new head delivered from Headwerks in Minneapolis.





I found a set of low-mileage cylinders, and fitted them over the JE pistons. Engine Builder Supply in the US was integral in helping me decide what to buy, answering all my questions. I went with a set of cams that are similar to what the 964 runs.

I also looked for an oil cooler. Since my car didn't come with a factory cooler, I had to source 1972-only lines or make something. I found some factory lines on eBay, had the oil filter housing machined to take a thermostat and fitted it up to a euro brass oil cooler.

Assembly went smoothly. More missing clamps set me back some time, but I was in no rush. With the engine complete, all that was left was to slip the engine in and turn the key. Right?





1989 964 Carrera 4 Gina Purcell

aving endured my heater unit repeatedly failing during the last five years, the time had come to get Wolfi's heater fixed.

to repair the control unit, as I didn't concentrating on the rear blower motor need to leave Wolfi with him, giving him This was late November.

a willing ECU specialist, but located dispatched again – together with a pile of faulty heater units Neil had lying around – for the second company to raid for parts if required. During this time, the focus had shifted to the various flaps and servos behind the dashboard. Neil was

been returned, and everything worked perfectly - for a while. If it was switched function for a further 30 minutes at a time. All very confusing, but the evidence still pointed at the control unit. There was

sending it abroad I don't know, but I'm delighted I did. And hats off, too, to Neil





2003 996 Turbo



Ray Chandler Surrey, UK

Date acquired: August 2011

recently met up with my friend Tom, a receptionist at my local Porsche independent garage, who took me to the workshop to show me a Cayenne 4.5-litre engine. Upon removing the inlet manifold, we saw that the water feed pipes from the pump had perished, and coolant was spraying around the engine.

Not so lucky was the owner of a 911 (996) 4S. The exhaust gas from cylinders four, five and six had been swapped across the car to the near-side exhaust, accompanied by an increase in the engine's oil consumption. Where an occasional top-up was needed before, now it required a weekly one.

The first task was a compression test, followed by a cylinder bore inspection. The evidence was clear, with the cylinder six bore

showing terminal damage to the liner and piston. The cylinder liners on these engines use Nikasil, which electroplates a thin layer of nickel and silicon carbide-based material onto the aluminium casting. The nickel, which comes to the surface as a deposit, is rubbed away by the piston, leaving it to run on the super-hard silicone carbide layer.

Tom believes this happens due to inadequate cooling of the engine's rear, as it is the furthest away from the water pump and close to a heat exchanger. His advice was to check the colour of the exhaust stubs and, if buying a 996, look out for low oil levels and suspiciously clean exhaust stubs.

So the findings mean an engine removal, strip down and new cast-iron liner. The cost is going to be - with VAT - over £9,000.



1979 930 3.3



Richard Klevenhusen Rio de Janeiro, Brazil

Date acquired: May 2012

have noticed the admiration my 930 awakens in people. For instance, I arranged a meeting with two friends to show them my 930, and 16 others came, all mentioning their dream of owning a 930.

Even the 3.3-litre 930 has become highly valued - in January, a 930 was sold for \$150,000 in Brazil (due to high taxes, imported goods cost more in Brazil than elsewhere).

The same trend is happening in the USA. There are several other

sports cars from other brands, but none have achieved the same status as the first Porsche 911 Turbo. Those who have been lucky enough to invest in their childhood dream are also starting to be rewarded financially.



2005 997 Carrera S



Leeds, UK

Date acquired:

■ his month, I was invited to the Porsche **Experience Centre** at Silverstone - not to drive 911s, but Cayenne diesels! I thought this might be a bit dull compared to my last visit driving the 981 Boxster - but I was surprised at how fun it was.

The 4.0-litre diesel model was Chris Wallbank by no means slow, going from 0-62mph in just 5.7 seconds. There was little body roll, and November 2012 the torque was unbelievable in a straight line. In the kick plates

section the Cayenne came into its own, being hard to lose control of thanks to its winter tyre setup.

All in all, it's an impressive vehicle. If I'm in the market for a 4x4 circa £70,000 then I know what I'll be buying!

2010 997.2 Turbo



Tony McGuiness San Diego, USA

Date acquired: February 2010

ne of the benefits of owning a 911 in San Diego is belonging to the local Porsche Club. Not only is it active socially; four times a year it offers challenging driving tours for its members.

Keith Verlague, the owner of a rare Fly yellow 911 RS America, is the Vice President of Porsche Club of San Diego. Along with all his other duties, he creates and leads driving tours throughout the region.

Recently, Keith asked me to join him and three others to participate in a dry run of the course. I chose to take my 2010 997 Gen2 Turbo, since my GT3 RS needs new tyres.

Our goal was to drive the 111-mile course in the estimated time of three hours and four minutes. We were joined by Oliver Michaels in his 1991 964 Carrera 2: Peter Carides in another rare 964 RS America, and Mike Brown arrived in his white 996 2001 Turbo.

After discussing the route and safety check, Keith led us towards the city of Escondido, after which we made our way into the back roads of Valley Centre and past the San Diego Wild Animal Park. We then continued towards Palomar Mountain Road, which Total 911 readers might recall as a 'Great Road' in issue 111.



During a brief stop, it came to our attention that Mike's Turbo was leaking oil and belching smoke, and sadly he was unable to continue. With Oliver taking over from Keith as group leader, we descended past Lake Henshaw, where we encountered some narrow and twisty roads with significant elevation changes.

Due to a drought, the roads have built up oil residue in many places. Thanks to recent rainfall, we also faced scattered puddles. Southern California roads in general don't do well in rain, so we were kept on our toes.

Sweeping through the town of Ramona, over the 15 freeway and past Lake Hodges, the tour came to an end at Hernandez Hideaway Restaurant. It was evident that Keith had set the tour up nicely, presenting challenges to the highly skilled driver yet allowed the novice to enjoy it too.

The roads in San Diego seem like they were built for the 911. If you ever find yourself here, check the Porsche Club of San Diego's calendar; I can assure you that the variety of roads will be the most thrilling you will ever experience.

cargraphic













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exagon Modern Classics owner
Paul Michaels is a car enthusiast
with ideals as purist as the models
he trades. Porsche 911s? He focuses
on air-cooled where he can.
Condition and provenance? The best he can find.
Not the best he can afford; if paying extra for the
right car is the only way to source it then that's
what he does, because condition really is all that
matters here.

"Our difference is the effort we put in to finding the absolute best. These aren't the cheapest Porsches in the marketplace, but they should be some of the finest," says Paul, who is particularly eager to track down the real rarities: limited-series cars or ones that were built in meagre numbers. "They're not making any more of them; their values and desirability can only go one way," he adds.

Strangely, although the prices Paul charges guarantees the cars will be immaculate, condition is perhaps less important here than it is at the lower end. "The cheaper it is, the more important it is to find the best," he explains. "You can't spend more to make a poor car as nice as a good one – spending £4,000 on a £9,000 car won't make it as appealing as a well-sourced £13,000 one." Paul's stock, naturally, will be the well-sourced end.

But when it comes to buying them, it can be easier said than done. "We sometimes find that the nicest cars are the hardest to buy: owners take

a lot of convincing to part with them. They don't necessarily need to sell them in order to buy their next car, as they are generally people who are already very well off." Luckily, they're business people too, so will respond to a tempting business transaction, but this is still far from distress selling. See it more like antique dealing – requiring patience, intelligence and peerless contacts.

Paul certainly has the contacts. He's been in the trade since 1963, and Hexagon Modern Classic business partner Jonathan Franklin has been involved in the business for more than a decade. "Paul's a great guy," says Jonathan, away from earshot. "He's a genuine enthusiast, he loves the cars he trades, and you should see his own collection," regarding talk of a 60-car compound full of exotica somewhere in London.

"He has some amazing contacts. I don't think there's a rare 911 of great provenance that Paul doesn't already know about. Besides, he's sold many of them, several times over for some," says Jonathan. Paul later agrees: "I've been in the trade all my life. I know enough people to 'tip me the wink' on the cars I should be looking at."

The Hexagon brand has been selling new and used cars for almost 50 years now. For years, Hexagon was a BMW main dealer, but it was also an official Porsche main dealer back in the Seventies. Today, Paul has focused Hexagon on two specialist areas: Hexagon Classics, based in

Kensington, and the more recent Hexagon Modern Classics, located in North London.

"It works quite simply," explains Paul. "Classics is for the really high-end cars, the six and seven-figure machines. Modern Classics is – and this is a general rule of thumb – for newer cars costing less than £100,000." It's not a firm rule, but it helps guide both businesses. It's the Modern Classics division that Paul is focusing on with air-cooled 91ls – again, this isn't written in stone, but it's generally where the emphasis lies.

This is partly down to the marketplace for 91ls, explains Paul. "There are more low-mileage Ferraris than Porsches, for example, because people have always bought Porsches as a workhorse. A Ferrari? It's almost guaranteed not to be a first car, so almost every one you see for sale is a low-mileage example for its year.

"Porsches, in contrast, have generally all worked hard. Six-figure mileages are not uncommon. The new ones in particular are so bulletproof and reliable that people almost without thinking start using them daily, clocking up the mileage. This is why the Porsche marketplace really values two things: air cooling and low mileages. That's where the really valuable and collectable Porsches are."

The showroom stock reflects this, containing, among other things, a 1-of-50 930 Turbo LE for £120,000; a 1989 Speedster in right-hand drive with just 9,000 miles on the clock, also for £120,000,











"Our difference is the effort we put in to finding the absolute best. These Porsche 911s are some of the finest"

and an amazing, no-expense-spared 964 3.8-litre RS recreation for £199,995. The £90,000 993 Turbo is also impressive, and there's plenty more besides.

But for all his love of air-cooled 911s, Paul also can't resist a genuine enthusiast bargain. He has a 996 Turbo, for example, that's up at £30,000. Why did he break his own rule? "Because the 996, and the Turbo in particular, is an absolute bargain right now. People listen to the man in the pub: 'you don't want to buy one of these, they're weak and unreliable', they say. Nonsense. They may cost a bit more to run than an air-cooled car, but by supercar standards it's still not big bucks. And they're still Porsches, so still have that in-built integrity.

"All this pub chat has depressed values, but they will come around. The 356 came around, and in ten years time so too will the 996. It may never be worth as much as a 993 or 997, but it's still a Porsche, and thus will still grow in time."

Jonathan is right: Paul is an enthusiast, a great guy to talk with, passionate, approachable and friendly. The Hexagon site itself reflects this, being refreshing before you even set foot in it. It's relatively easy to get to, located about five minutes from the North Circular, and you can park with ease once you're there – both real luxuries given its central location. Paul's office is right outside, and chances are he'll greet you. If he's not there, stepping into the modern-look reception presents plenty of Hexagon history thanks to some fascinating posters (spot the racing stars).

But it's the cars that are the centrepiece, and take centre stage in the building. It's not a soulless showroom, as Paul has filled this with plenty of Hexagon memorabilia. The array of stock is incredible, amounting to well over £1 million worth, and the standards of preparation are incredible.

Hexagon Modern Classics is undergoing redevelopment too, despite being such a fresh headquarters. There's a new showroom for classic BMWs being built – leaving the main showroom free for the air-cooled Porsches – and Paul is also putting the finishing touches to an on-site photo studio. There's a huge vehicle preparation area –

Company profile

• Owner: Paul Michaels

• Founded: 1963 (Hexagon Classics: 2013)

• Location: South Kensington and North London

• Rarest 911 sold: 1974 RS 3.0-litre

• Most common 911 sold: 993 Turbo

 Most expensive 911 sold: 993 GT2 ("We have just acquired two cars that will break our own most expensive record – a one-of-two RHD 964 RS 3.8 and a one-of-51 964 RSR")

 Interesting fact about the business: Hexagon Racing entered F1 in 1972, with one John Watson (see interview) scoring six points overall

Contact

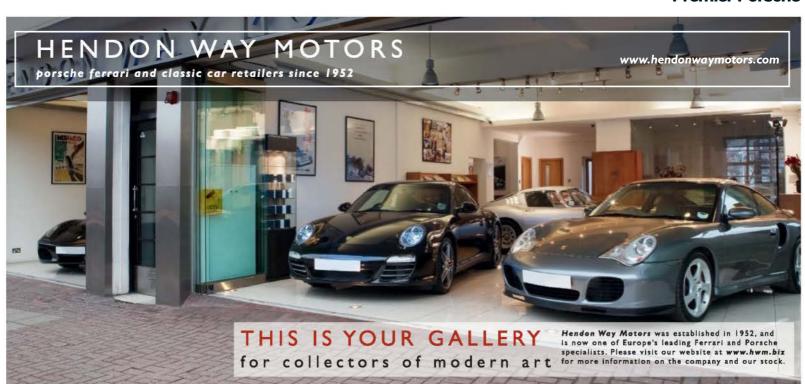
Website: www.hexagonmodernclassics.com

• **Telephone:** +44(0)208 3485151



"each car takes three full days to valet and detail to my standards," says Paul – and there's also a workshop for fettling classic 911s.

Paul is even on the lookout for a new member of the team: the man who ran the Hexagon Racing team in the Seventies – and amazingly, spent a year on the Fl circuit – is looking for an air-cooled 9ll expert. As dream jobs for Porsche fans go, this has to take some beating.



PORSCHE 997 - TURBO, C2S, C2

2012 - 991 C2S PDK COUPE (GUARDS RED) 14,000 Miles
3.8L, Black Leather Interior, PDK Gearbox, PSM, PASM, PCM, Sat Nav, BOSE Sound
System, Sports Exhausts, Embossed Leather Headrests And Wheel Crests, Porsche
Vehicle Tracking System, Bi-Xenon Headlights, 20" Alloy Wheels, Porsche Warranty.

2009 - 997 TURBO CABRIOLET MAN (BASALT BLACK) 27,000 Miles Full Black Leather Interior, PSM, PCM, Sat Nav, BOSE-CD Changer, White Dials, Spo Exhaust, Chrono Package Plus, Multi Function Steering Wheel, Xenon Headlights, 19' Gen II Turbo Alloys, Full Porsche Service History.

2008 - 997 TURBO CAB TIP S (MACADAMIA BROWN) 34,000 Miles Macadamia Metallic, Sand Beige Full Leather Interior, Sport Chrono Pack, PCCB Porsche Ceramic Composite Brakes, BOSE Sound System, PSM, PASM, PCM, Sat Nav, Porsche VTS System, Xenon Headights, 19" Turbo Alloy Wheels, Only 2 Previous Owners, Full Porsche Service History, Recent Major Service.

2007/56 - 997 TURBO COUPE TIP (ATLAS GREY) 43,000 Miles
Sports Chrono, PASM Active Suspension, PSM, PCM, Sat Nav, White Dials, Porsche
Crested Headrest, Climate Control, Traction Control, Rear Parking Sensors, 19" Turbo Alloy Wheels, Full Porsche Service History.

2009/58 - 997 C2S COUPE PDK (GEN II) (MIDNIGHT BLUE) 32,000 Miles Full Grey Leather Interior, PDK Gearbox, Sports Chrono Plus, BOSE Sound System, Sports Mode, PSM, PASM, PCM, Sat Nav, White Dials, 19" Turbo S Alloy Wheels, Xenon Headlights, Full Porsche Service History.

2006 - 997 C2S CABRIOLET TIP (SILVER) 22,000 Miles
Full Metropole Blue Leather Interior, PSM, PASM, PCM, Sat Nav, White Dials, 19° Carrera
S Alloy Wheels, Xenon Headlights, Original Wind Deflector, Full Porsche Service History.

2006/55 - 997 C2S COUPE TIP (ARCTIC SILVER) 33,000 Miles Black Leather Interior, PSM, PCM, Sat Nav, BOSE Sound System, CD Changer, Multi Function Steering Wheel, White Dials, Sports Exhaust, Climate Control, Xenon Headlights, Sunroof, 19" Carrera S Alloy Wheels, Full Porsche Service History.

2007 - 997 C2 COUPE MANUAL (BASALT BLACK) 32,000 Miles Black Leather Interior, PSM, PCM, Sat Nav, CD Changer, BOSE Sound System, White Dials, Climate Control, Rear Park Assist, Xenon Headlights, Full Porsche Service History.

2005/54 - 997 C2S COUPE TIP (ARCTIC SILVER) 59,000 Miles Grey Leather Interior, PSM, PCM, Telephone, Computer, BOSE Sound System, CD Changer, Sunroof, 19" Carrera S Alloy Wheels, Rear Park Assist, Full Service History.

PORSCHE 996 - GT3, TURBO, C4S

2004 - 996 GT3 (ATLAS GREY) 30,000 Miles
Comfort Specification, Full Black Leather Interior, Porsche Crested Sport Bucket Seats,
Guards Red Seat Belt, Porsche CD Player And Radio, 18" GT3 Alloy Wheels With
Coloured Crested Wheel Centres, On-Board Computer, Only 2 Owners From New,
Recently Fitted Tyres, Full Porsche Service History.

2004 - 996 TURBO CABRIOLET TIP (BASALT BLACK) 53,000 Miles Full Black Leather Interior, PSM, PCM, Sat Nav, Cruise Control, BOSE Sound Syst Climate Control, Xenon Headlights, 19" 997 Turbo Diamond Cut Alloy Wheels, New All Around, Full Porsche Service History.

2004 - 996 TURBO CABRIOLET TIP (BASALT BLACK) 67,000 Miles Full Black Leather Interior, PSM, PCM, Sat Nav, Cruise Control, BOSE Sound System, Climate Control, 19" 997 Turbo Diamond Cut Alloy Wheels, Xenon Headlights, New Tyres All Around, Full Porsche Service History.

2004 - 996 TURBO COUPE TIP S (ATLAS GREY) 53,000 Miles
Full Black Leather Interior, PSM, PCM, Sat Nav With Full Set Of DVDs For Europe, BOSE
Sound System, Cruise Control, Rear Parking Sensors, 18" Turbo Alloys With A Set Of
New Tyres, Full Porsche Service History.

2005 - 996 C4S CABRIOLET TIP (MIDNIGHT BLUE) 63,000 Mile Dark Navy Blue Leather Interior, PSM, PCM, Sat Nav, Telephone, Memory Seat Changer, Climate Control, 18" Alloy Wheels, Full Service History.

PORSCHE 993 - TURBO, C2, TARGA, CARRERA

1998 - 993 TURBO "S" COUPE MANUAL (SPEED YELLOW) 60,000 Miles Black Leather/Carbon Fibre Interior, Litronic Lights, Sports Seats, Electric Seats, Electric Mirrors, Yellow Dials, Porsche Radio and Single CD Changer, Yellow Seat Beltis, Sunroof, Rear Wiper, Yellow Catilipers, 18" Turbo S Alloy Wheels, Full Service History.

1995 - 993 TURBO COUPE MANUAL (ARENA RED) 31,000 Miles Grey Leather Interior, Wood Package, Electric Sunroof, Sports Seats, Cruise Control, Uprated Becker CD Player, Bluetooth, Speakers, Sat Nav, 18" Turbo Alloy Wheels, Official

1996 - 993 C2 COUPE TIP (ARENA RED) 73,000 Miles
Black Leather Interior, Part Electric Sports Seats, Sony Radio Player, Sunroof, Climate
Control, 17" Alloy Wheels, Full Main Dealer And Porsche Specialist Service History.

1994 - 993 CARRERA COUPE TIP (BLACK METALLIC) 73,000 Miles Black Leather Interior, Kenwood CD Player And Radio, Sunroof, Rear Wiper, Electric Windows/ Mirror, Factory Fitted Alarm System, 17" Alloy Wheels, Full Main Dealer And Porsche Specialist Service History.

1994 - 993 C2 COUPE TIP (BLACK) 92,000 Miles
Plack Leather Interior, Uprated Becker Radio System, 17"Alloy Wheels, Central Locking Black Leather Interior, Uprated Becker Radio System, 17"Alloy Wheels, Central Locking With Immobiliser, Full Service History, Extremely Comprehensive Service History. (Spare Key, Old MOTs And Tax Discs, Original Manuals, etc)

1994 - 993 C2 COUPE TIP (BLACK) 99,000 Miles

1994 - 993 C2 COUPE TIP (BLACK) 99,000 Miles

2015 - 2 Marble Grey Leather Interior, Sunroof, Becker Radio, Elect Porsche And Specialist Service History (Just Been Service

1987 - 930 TURBO COUPE MAN (BLACK METALLIC) 140,000 Mil Deep Plum Leather Interior, 3.3L Engine, KKK27 Turbo, Alcantara Headliner, Full Cli Control, Upgraded High End Sound System, Upgraded Bi-Xenon Lights, Original 16' Fuchs Alloys With New Continental M1 Tyres, Full Service History With Invoices And Photographs Documenting The Full Restoration. Concours Condition Throughout.

1989 - 911 CARRERA 3.2 CABRIOLET (G50 GEARBOX) 124,000 Miles Iris Blue Metallic, Full Beige Interior, Manual Gearbox, Matching Numbers Example, Matching Dark Blue Hood, Fully Electric Softtop, Period Correct Fuchs Alloy Wheels, Comprehensive Service History, 10 Years With The Same Owner.

1984 - 911 3.2 COUPE SPORT (BLUE METALLIC) 72,000 Miles Black Leather Interior, Manual, Sunroof, Electric Mirror/Window, Factory Fitted Air Conditioning, Factory Fitted Alarm System, Fully Documented Service History, Rust Free, Accident Free And Finance Free.

PORSCHE BOXSTER S

2006 - BOXSTER (987) 2.7L TIP (BASALT BLACK) 30,000 Miles Full Black Leather Interior, PSM, BOSE Sound System, CD Changer, Full Leather Seats Willedin Advantage and Heating, Xenon Headilights, 197 Carrera S Alloy Wheels, Full Official Porsche Service History, Two Previous Owners Only.

PORSCHE PANAMERA

2010 - PANAMERA 4 TIP (CARBON GREY) 25,000 Miles
4.5L V8 Engine, BOSE Sound System, Sat Nav, PCM Unit, Active Suspension, Parking
Sensors Front and Rear, Heated Seats, Multi Function Steering Wheel, Xenon Headlights,
22" Alloy Wheels With New Tyres, Foldable Tow Hook, Very Good Service History, One
Previous Keeper.

FERRARI - MODELS FROM 1967 +

2006 - F430 SPIDER V8 MANUAL (TITANIUM SILVER) 28,000 Miles i Speed Manual, Titanium Silver Exterior, Rosso Leather Interior, Carbon Fibre Trim errari Stereo With A Telephone Module, Manettino With Sports And Track Settings, Ilimate Control, Ferrari Crested Headrests. Full Ferrari Service History.

2008 - FERRARI 612 SCAGLIETTI COUPE (NERO BLACK) 11,000 Miles

Full Nero Black Leather Interior, HGTC Package, Sports Exhaust, Ferrari Ceramic Brakes, Second Generation Sat Nav. I/Pod Connection, USB Connection, CD Changer, Enhanced Sound System (BOSE), Nero Daytona Seats, Tyre Pressure Monitoring System, Xenon Headlights, Climate Control, Tracker System, 19" Modular Alloy Wheels (HGTC Special), Full Ferrari Service History.

2005 - FERRARI F430 SPIDER V8 MAN (NERO BLACK) 18.000 Miles

Crema Leather Daytona Seats With Black Stitching, Ferrari Becker CD Player And Radio, Electric Seats, Carbon Pack, Climate Control, New Ball Joints All Round, 19" Ferrari F430 Alloy Wheels, Full Ferrari Service History, Just Been Serviced.

2003 - 360 SPIDER F1 (GRIGIO SILVER) 28.000 Miles Black Leather Interior, F1 Gear Box, ASR, Challenge Grill, Climate Control, CD Changer, 19" Ferrari Alloy Wheels, Full Ferrari Service History, Two Previous Keepers.

1998 - 550 MARANELLO COUPE MANUAL (SILVER) 53,000 Miles Navy Leather Interior, Sat Nav With DVD, ASR Sports Mode, Elect Radio And 6 CD Changer, Climate Control, Ferrari Service History.

1996 - F355 SPIDER MANUAL (GIALLO MODENA) 28,000 Miles

Giallo Modena Yellow, Full Nero Black Interior, Optional Sports Mode, Electric Seats, Electric Hood, Tonnau Cover, Air Conditioning, 18° Ferrari 355 Alloys, Full Service History, Recently Serviced, This Car Has Been Known To Us For A Period Of 5 Years.

1973 - DAYTONA 365 GTB/4 RHD (ROSSO RED) 38,000 Miles

Black/Red Leather Interior Red Carpets, Climate Control, "Ferrari Classiche", Full Continuous History, Superb Provenance, 3 Owners From New.

1967 - 275 GTB/4 MANUAL LHD (ARGENTO SILVER) 59,000 Miles Full Black Leather Interior, Detailed Restoration History, Original Build Sheets, Sales Invoice, Tool Kit, Wallet, Hand Books, Numerous Concourse And Awards Winner, Engine Rebuilt By Ferrar in Johannesburg 26,000 KMS Ago, Comprehensive Photos Showing The Repaint And Work Done By Ferrari, Exceptional Condition Throughout.

CLASSICS - AC, PORSCHE, JAGUAR, BENTLEY, PGO, LAMBORGHINI, MERCEDES

1991 - AC COBRA LIGHTWEIGHT (BLACK METALLIC) 5,000 Miles 1 Of 26 RHD Lightweights, Black Leather, Black Metallic Coachwork With White Stripes Full Black Leather Interior, Absolutely Stunning Condition, Very Rare With Approximately Only 26 Vehicles Manufactured.

1964 - PORSCHE 356 SUPER 90 COUPE LHD (SIGNAL RED)

1600cc Signal Red Coachwork, Soft Beige Leather Interior, Left Hand Drive, 4 Speed Manual, Recent Restoration To Concours Standard, Eligible For Many European Ever 1962 - JAGUAR 3.8 MARK II AUTOMATIC LHD (BLACK) 16,478 Miles

Automatic Black Coachwork, Red Leather Interior, Power Assisted Steering, Wire Whee Recent Restoration To Virtually Concours Standard. 1962 - JAGUAR 'E' TYPE ROADSTER 3.8 (OPALESCENT SILVER BLUE)

Black Leather Seats With Navy Blue Carpets, Series 1, Refurbished By One Of The UK's Most Renowned E-Type Specialists, Restored To Concours Level, Manual, Aluminium Centre Console, Soft Top, Chromed Wire Wheels, Restoration Work Fully Documented.

1936 - BENTLEY 4 1/4 PILLARLESS COUPE (MIDNIGHT BLUE) Grey Leather Gurney Nutting Coachwork, 1 Owner In 40 Years, Extensive History, A True Classic Completely Original Throughout And Has Been Exhibited At Luois Vuitton Concours D'Elegance In Paris 2003. Sunroof Produced By Gurney Nutting, Chassis Completely Original Throughout.

1935 - BENTLEY DERBY 3.8L SALOON

1993 - BENILET JENENT 3.0. SALCOIN
A True Classic. Completely Original Throughout and With a Very Well Documented
History, Saloon, 3792cc, Petrol, 2-Avke Rigid Body, Chassis Frame no: B51EJ, Engine no:
P3BP, Date Of First Registration: 30.08.1935, Had A Bare Chassis Restoration, Rebuilt To
The Highest Standard. The Restoration Took Over 5 Years.

2008/57 - LAMBORGHINI GALLARDO SPYDER (BLACK) 21,000 Miles Interior In Nero Leather With Yellow Stitching, 19" Lamborghini Crested Alloys With Yellow Callipers, Satellite Navigation, Fully Electric Seats With Lamborghini Crests And Yellow Piping, Tracker Fitted, Bi-Yenon Lights, Full Official Lamborghini Service History, Recently Serviced, New Lamborghini Continental Tyres Fitted, An Immaculate Example.





PORSCHE

Datafile

Definitive facts and figures for every 911 model from 1963 – present

Welcome to the Total 911 data file. the definitive verdict to assist you in the world of 911s. All data here has been compiled, where possible, from Porsche's own figures. The cars are organised in rows according to release date beginning with the very first model, the 901 in 1963, right up to today's latest 991. Many models were available in Coupe, Targa and Cabriolet forms, with the option of automatic transmission. Data here has been provided from the Coupe variants unless stated.

Ratings: ****

Each model is rated according to performance, handling, appearance $and \, desirability. \, Doyou \, agree? \, Tell \, us$ your thoughts: editorial@total911.com.



You'll be lucky to see one on the road.

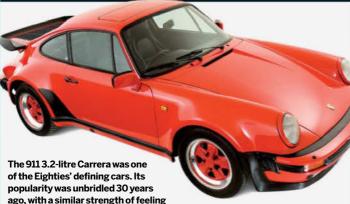


Provides agenerous dose of 911 foryourmoney



An ideal first 911 - affordable and

Sales debate: Where next for the 3.2 Carrera?



ago, with a similar strength of feeling exhibited today. However, the classic car market doesn't always reward cars that were sold in large numbers in period. Jonathan Franklin, General Manager of Hexagon Modern Classics, explains what the future holds for this Eighties icon.

"At the moment, the 3.2 is an affordable way into the modern classic world," Franklin explains. However, he doesn't believe it will stay that way for long, "The air-cooled values, as everyone knows, are on fire, and as the rarer models get out of the man off the street's reach, it's going to come down the food chain and the old Carrera Sports will benefit." Despite his bias as a 3.2 owner, this leads Franklin to assert the 3.2 Carrera as "possibly the best

investment that anyone could buy at the moment "

As well as a natural progression towards the 'cheaper' models, Franklin believes that 3.2-litre Carrera values are benefiting from a decline in the number of well-maintained examples. "A lot of the good cars have gone anyway. The old G50 gearboxed cars are quite rare nowadays, and they're gradually disappearing." This trend is exacerbated by a growing export interest in the cars, Franklin remarks, causing 3.2 Carrera values to "double in value in the last three years."

With Franklin believing that this rise in values will be felt more on rarer variants. like the Supersport and Clubsport, now is the time to consider a 3.2 Carrera

911 2.0-litre



1963-67



Γhe 911 that started it all off exactly 50 years ago when the prototype appeared in 1963, this is the car that set the style for all 911s to follow. Developed

to eventually replace the $3\overline{5}6$, the 911 was an all-new design that was undoubtedly a better all-round drive than its predecessor

Capacity: 1,991cc Compression ratio: 9.8:1 Maximum power: 130bhp @ 6,100rpm Maximum torque: 149Nm @ 5 200rpm Brakes: Front: 282mm discs; Rear: 290mm discs Wheels & tyres: Front: 15x4.5.J. 165HR (15x5.5.J. 185HR from 1967); Rear: 15x4.5J, 165HR Length: 4,163mm Weight: 1.075kg 0-60mph: 7.9 sec



911S

(O and A series) 1966-68



Porsche soon started off something that would continue to be popular throughout the 911's history: producing more powerful variants. The first of these was

the 911S (for Super), which had a higher compression engine and twin Weber 40IDS carburettors.

Compression ratio: 9.8:1 Maximum power: 160bhp @ 6,800rpm Maximum torque: 180Nm@5 200rpm Brakes: Front: 282mm discs; Rear: 290mm discs Wheels & tyres: Front: 15x4.5.J. 165HR (15x5.5.J. 185HR from 1967); Rear: 15x4.5J, 165HR Length: 4.163mm Weight: 1.075kg 0-60mph: 7.9 sec

RATING:

911E

1969-71



Top speed: 152mph

The C series saw an increase engine capacity to 2,195cc Other minor improvements made to the engine included revised cylinder heads, larger valves and stronger connecting

rods. In 1970 the D series cars had hot-zinc coated undersides and other minor changes

Capacity: 2.195cc Compression ratio: 9.1:1 Maximum power: 155bhp @ 6.200rpm Maximum torque: 191Nm @ 4,500rpm Brakes: Front: 282mm discs; Rear: 290mm discs Wheels & tyres: Front: 15x6J, 185VR; Rear: 15x6J, 185VR Length: 4,163mm

Width: 1.610mm Weight: 1,020kg 0-60mph: 7.5 sec Top speed: 137mph

911S



1973

911S

1969-71



Top speed: 152mph

An upgrade in engine size from 1,991cc to 2,195 gave the 911S a useful 10bhp hike in power to 180bhp. Unlike the 911E, though, the S didn't gain such an improvement in low-down

power and torque, so you had to keep the revs up to get the full benefit of the extra horsepower

Capacity: 2.195cc Compression ratio: 9.8:1 Maximum power: 180bhp @ 6.500rpm Maximum torque: 199Nm @ 5,200rpm Brakes: Front: 282mm discs; Rear: 290mm discs Wheels & tyres: Front: 15x6J, 185HR; Rear: 15x6J, Length: 4,163mm Width 1.610mm Weight: 1,020kg 0-60mph: 6.6 sec **RATING:** Top speed: 155mph

1973



For the F series, the 190bhp 911S followed the same upgrades as the 911E, the most significant being the deletion of the external oil-

filler flap in the right-hand rear wing. It also adopted black trim around the front and rear lights and black front quarter grilles

Capacity: 2.341cc Compression ratio: 8.5:1 Maximum power: 190bhp @ 6,500rpm Maximum torque: 216Nm @ 5.200rpm Brakes: Front: 282mm discs; Rear: 290mm discs Wheels & tyres: Front: 15x6J, 185VR; Rear: 15x6J, Length: 4.163mm Width: 1,610mm Weight: 1.050kg 0-60mph: 6.6 sec



911T

US-bound F series 911Ts were the first 911s to have Bosch K-Jetronic fuel injection. This was fundamentally mechanical with some electronic sensors. It

gave precise injections of fuel as required, in the process keeping emissions down and improving economy

Capacity: 2,341cc Compression ratio: 8.0:1 Maximum power: 165bhp @ 6,200rpm Maximum torque: 206Nm@4.500rpm Brakes: Front: 282mm discs; Rear: 290mm discs Wheels & tyres: Front: 15x6J, 185VR; Rear: 15x6J, Length: 4,163mm Width: 1,610mm Weight: 1,050kg 0-60mph: 7.0 sec (est) **RATING:**

911 Carrera 2.7

1974-75



Top speed: 144mnh

From 1974, Porsche used the Carrera name on its range-topping 911. The 911 Carrera used essentially the same 2.7-litre, 210bhp engine as

the previous year's RS for all markets except the USA. In 1975 it was available with an optional new whaletail spoiler

Capacity: 2.687cc Compression ratio: 8.5:1 Maximum power: 210bhp @ 6,300rpm Maximum torque: 255Nm @ 5,100rpm Brakes: Front: 282mm discs: Rear: 290mm discs Wheels & tyres: Front: 15x6J, 185VR; Rear: 15x7J, 215VR

Length: 4,291mm Width: 1,610mm Weight: 1,075kg 0-60mph: 6.1 sec Top speed: 149mph

RATING:

911 Carrera 3.0

Top speed: 140mph (est)

1976-77



Not sold in the US, the Carrera 3.0 was basically the sammordel or " only fitted with a new 2,994cc engine, which was essentially that from the 911 Turbo. This

engine, with the addition of some minor changes, continued to power the 911 until 1989.

Capacity: 2.994cc Compression ratio: 8.5:1 Maximum power: 200bhp @ 6,000rpm Maximum torque: 255Nm@ 4,200rpm Brakes: Front: 282mm discs; Rear: 290mm discs Wheels & tyres: Front: 15x6J; Rear: 15x7J, 215VR

Length: 4,291mm Width: 1,610mm Weight: 1,093kg 0-62mph: 6.3 sec Top speed: 145mph



911L

(A series) 1967-68



In 1967, the 911 received its first update with the A-series This coincided with an expansion to the range: the standard car became known as the 911L (Lux) and

sat alongside the high-performance 911S and the entry-level 911T

Capacity: 1.991cc Compression ratio: 9.0:1 Maximum power: 130bhp @ 6,100rpm Maximum torque: 173Nm @ 4 200rpm Brakes: Front: 282mm discs; Rear: 290mm discs Wheels & tyres: Front: 15x5.5J, 185HR; Rear 15x5.5J, 185HR Length: 4.163mm

Weight: 1,075kg **RATING:** 0-60mph: 8.4 sec Top speed: 132mph

911T

(A & B series 1967-68



The entry-level 911T had a 110bhp engine that, to save noney, used cast-iron cylinder heads (as opposed to the Biral aluminium/iron items which gave more efficient cooling)

and carburettors instead of fuel injection. The interior specification was similar to that of the 912

Capacity: 1.991cc Compression ratio: 8.6:1 Maximum power: 110bhp @ 5,800rpm Maximum torque: 156Nm @ 4 200rpm Brakes: Front: 282mm discs; Rear: 290mm discs Wheels & tyres: Front: 15x5.5J, 165HR; Rear: 15x5.5J, 165HR Length: 4.163mm Weight: 1,020kg 0-60mph: 8.8 sec (est)

RATING:

1972

911E

1968-69



In 1968 the 911 received its first significant update, enabling it to evolve into what is known as the B series. Central to the new model line-up was the 911E, which replaced the 911L as the

standard' car. The 'E' stood for 'Einspritz', which is German for injection

Capacity: 1.991cc Compression ratio: 9.1:1 Maximum power: 140bhp @ 6,500rpm Maximum torque: 175Nm @ 4 500rpm Brakes: Front: 282mm discs; Rear: 290mm discs Wheels & tyres: Front: 15x6J, 185VR; Rear: 15x6J, 185VR Length: 4,163mm Width 1,610mm

Weight: 1,020kg 0-60mph: 7.6 sec Top speed: 130mph

RATING:

911S

1968-69



The 911S was updated to B s specification in line with the 911E. Like the E, the more sporty S gained a fuel injection, boosting power to a useful 170bhp. To help cope with the

extra demands this put on the engine, an additional oil cooler was fitted in the front right-hand wing

Capacity: 1.991cc Compression ratio: 9.9:1 Maximum power: 170bhp @ 6,800rpm Maximum torque: 183Nm @ 5 500rpm Brakes: Front: 282mm discs; Rear: 290mm discs Wheels & tyres: Front: 15x6J, 185HR; Rear: 15x6J, Length: 4.163mm

Width: 1,610mm Weight: 995kg 0-60mph: 6.6 sec Top speed: 155mph

RATING:

911T

(C & D series) 1969-71



When the 911E and 911S ncreased their engine capacity to 2.2 litres, their little brother followed suit. Like the 911E, the torque curve was now flatter. in the process making the ca

more driveable. Ventilated discs from the Swere fitted and a five-speed gearbox became standard

Capacity: 2.195cc Compression ratio: 8.6:1 Maximum power: 125bhp @ 5.800rpm Maximum torque: 177Nm@ 4,200rpm Brakes: Front: 282mm discs; Rear: 290mm discs Wheels & tyres: Front: 15x5.5J, 165HR; Rear: 15x5.5J, 165HR Length: 4,163mm Width: 1.610mm Weight: 1,020kg 0-60mph: 7.0 sec (est) **RATING:** Top speed: 123mph

911E



Top speed: 124mph

An increase in engine capacity to 2,341cc was achieved by increasing the stroke from 66mm to 70.4mm while at the same time leaving the oore unchanged. The new 915 transmission was a stronger

unit, making it better suited to the extra power

Capacity: 2.341cc Compression ratio: 8.0:1 Maximum power: 165bhp @ 6,200rpm Maximum torque: 206Nm@ 4,500rpm Brakes: Front: 282mm discs; Rear: 290mm discs Wheels & tyres: Front: 15x6J, 185VR; Rear: 15x6J, 185VR Length: 4,163mm Width: 1.610mm

RATING:

(G, H, I, J series)

1974-77

911T

1972



The entry-level 911T received a boost in engine size to 2,341cc in 1972 to compensate for its ncreased power. However, a lower compression ratio and the inclusion of Zenith 40 TIN

triple-choke carburettors led to the relatively lower power output of 130bhp.

Capacity: 2.341cc Compression ratio: 7.5:1 Maximum power: 130bhp @ 6,200rpm Maximum torque: 196Nm@ 4,000rpm Brakes: Front: 282mm discs; Rear: 290mm discs Wheels & tyres: Front: 15x5.5J, 165VR; Rear: 15x5.5J, 165VR Length: 4,163mm Width: 1.610mm Weight: 1,050kg 0-60mph: 7.6 sec

RATING:

911E

1973



After a number of incidents in which people filled E series 911s with petrol via the external oil-filler, the filler returned to under the engine compartment lid. The 911E

was fitted with a new type of ATS cast-aluminium wheels and had the front spoiler of the 911S

Capacity: 2.341cc Compression ratio: 7.5:1 Maximum power: 130bhp @ 6,200rpm Maximum torque: 196Nm @ 4,000rpm Brakes: Front: 282mm discs; Rear: 290mm discs Wheels & tyres: Front: 15x5.5J, 165VR; Rear: 15x5.5J, 165VR Length: 4,163mm Width: 1.610mm Weight: 1,050kg 0-60mph: 7.6 sec (est) **RATING:** Top speed: 140mph (est)

911

(G, H, I, J series) 1974-77



Capacity: 2,687cc

For 1974, the entry-level car was badged '911' and fitted with a 2.7-litre engine. Bumpers were added to conform to US regulations, and from 1976 all 911s were hot-dip

coated and fitted with 'elephant ear' mirrors

Compression ratio: 8.0:1 Maximum power: 150bhp @ 5,700rpm (165bhp @ 5,800 from 1,976) Maximum torque: 235Nm@ 3,800rpm (235Nm@ 4,000rpm from '76) Brakes: Front: 282mm discs: Rear: 290mm discs Wheels & tyres: Front: 15x6J; Rear: 15x6J, 185VR Length: 4.291mm

Width: 1,610mm Weight: 1,075kg **RATING:** 0-60mph: 8.5 sec Top speed: 130mph

911S



Weight: 1,050kg 0-60mph: 7.5 sec

Top speed: 137mph

For 1974, Porsche realigned its model line-up, and the 911S was no longer the range topping car, but rather a mid-range model comparable to

the previous 911E. It had the same body changes as the base model, and came as standard with 15-inch ATS 'cookie cutter' wheels Capacity: 2.687cc

Compression ratio: 8.5:1 Maximum power: 175bhp @ 5,800rpm Maximum torque: 235Nm @ 4 000rpm Brakes: Front: 282mm discs; Rear: 290mm discs Wheels & tyres: Front: 15x6J, 185VR; Rear: 15x6J, Length: 4.291mm Width: 1,610mm Weight: 1,075kg 0-60mph: 7.0 sec

RATING:

1978-83

ULTRA-RARE MODEL

Top speed: 128mph



1972-73 **Carrera 2.7 RS**

The RS had a 2,681cc engine that developed 210bhp The body was lightened and fitted with flared rea arches and an optional ducktail spoiler. The RS Sport was an ultra-light model, while the Touring car retained some creature comforts.

Capacity: 2,681cc Compression ratio: 8.5:1 Maximum power: 210bhp @ 6,300rpm Maximum torque: 255Nm @ 5,100rpm Brakes: Front: 282mm discs; Rear: 290mm discs Wheels & tyres: Front: 15x6J, 185VR; Rear: 15x7J, 215VR

Length: 4,163mm Width: 1,610mm Weight: 975kg (Sport) 0-60mph: 5.6 sec Top speed: 153mph

RATING:



930 3.0

1975-77



Fitted with a KKK turbocharger, this was the world's first production car to be turbocharged. Flared arches and a whaletail spoiler created a look that would

become legendary. Brakes weren't good on early Turbos, and the four-speed gearbox was standard

Capacity: 2.994cc Compression ratio: 6.5:1 Maximum power: 260bhp @ 5,500rpm Maximum torque: 343Nm @ 4,000rpm Brakes: Front: 282mm discs; Rear: 290mm discs Wheels & tyres: Front: 15x7J, 185/70VR; Rear: 15x8J, 215/60VR Length: 4,291mm Weight: 1,140kg (1,195kg '76) **RATING:** Width: 1,610mm Top speed: 155mph

930 3.3

Top speed: 142mph



Weight: 1,300kg

0-62mph: 5.4 sec

Top speed: 160mph

A larger engine led to an extra 40bhp of power, and an intercooler on top of the ngine led to the adoption of a new 'teatray' spoiler. The brakes were upgraded

with 917 racecar-based items, larger discs and four piston calipers.

Capacity: 3,299cc Compression ratio: 7.0:1 Maximum power: 300bhp @ 5,500rpm Maximum torque: 412Nm@4,000rpm
Brakes: Front: 304mm discs; Rear: 309mm discs Wheels & tyres: Front: 15x7J, 185/70VR; Rear: 15x8J, 215/60VR Length: 4,491mm Width: 1,775mm

RATING:

911 SC WW

Width: 1.626mm



1978-83



From 1978, the SC was the only normally aspirated 911 It was a development of the Carrera 3.0, but the engine produced less power to suit all markets. A Sport option

allowed for the inclusion of front and rear spoilers. 16inch Fuchs alloy wheels, sports seats and dampers.

Capacity: 2.994cc Compression ratio: 8.5:1/8.6:1/9.8:1 Maximum power: 180/188/204bhp @ 5.500rpm Maximum torque: 265/265/267Nm @ 4,300rpm Brakes: Front: 287mm discs; Rear: 295mm discs. Wheels & tyres: Front: 15x6J, 185/70VR; Rear: 15x7J, 215/60VR (16-inch optional) Length: 4,291mm

Weight: 1,160kg (1978 Coupe) **RATING:** 0-62mph: 6.5 sec Top speed: 141mph

930 3.3

1984-89



Top speed: 161mph

A revised engine added more power and torque in 1984, while in 1987 Motronic engine management improved efficiency and emissions

when the car returned to the US market. Perforated brake discs later appeared in 1988, while a five-speed gearbox arrived in 1989.

Capacity: 3,299cc Compression ratio: 7.0:1 Maximum power: 300bhp @ 5,500rpm Maximum torque: 432Nm @ 4,000rpm
Brakes: Front: 304mm discs; Rear: 309mm discs Wheels & tyres: Front: 16x7J, 205/55VR; Rear: 16x9J, 245/45VR Length: 4,491mm Width: 1,775mm Weight: 1,335kg **RATING:** 0-62mph: 5.4 sec



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Carrera 3.2



1984-89



The Carrera 3.2 had almost the same galvanised body as the SC. The engine wa claimed by Porsche to be 80 per cent new, and was the first production 911 motor

to feature an ECU to control the ignition and fuel systems. The Getrag G50 gearbox appeared in 1987.

Capacity: 3,164cc Compression ratio: 10.3:1 Maximum power: 231bhp@5,900rpm Maximum torque: 284Nm@4,800rpm Brakes: Front: 304mm discs; Rear: 309mm discs. Wheels & tyres: Front: 15x7J, 195/65VR; Rear: 15x8J. 215/60VR (16 inches for 1989) Length: 4,291mm Width: 1650mm

Weight: 1,210kg 0-62mph: 5.6 sec Top speed: 148mph

RATING:

Not everyone wanted four-

wheel drive. Reflecting this

traditional 911 experience

and was 100kg lighter, but

looked identical to the Carrera 4. Tiptronic automatic

Brakes: Front: 298mm discs; Rear: 299mm discs Wheels & tyres: Front: 16x6J, 205/55ZR16; Rear:

attitude, the rear-drive Carrera

2 offered an emphatically more

930 LE 🜃



1989



Essentially an SE without a slantnose front, the LE had the same engine, front spoiler, sill extensions and rear air intakes. The fully specced interior and 'Limited Edition' status meant

the LE was initially thought by many to be the last ever 911 Turbo. Of course, that wasn't the case...

Capacity: 3,299cc Compression ratio: 7.0:1 Maximum power: 330bhp @ 5,500rpm Maximum torque: 432Nm @ 4,000rpm Brakes: Front: 304mm discs; Rear: 309mm discs Wheels & tyres: Front: 16x7J, 205/55VR; Rear: 16x9J, 245/45VR Length: 4,491mm Width: 1.775mm Weight: 1,335kg 0-62mph: 4.6 sec



964 Carrera 2

transmission was a new option.

Maximum power: 250bhp @ 6,100rpm Maximum torque: 310Nm @ 4,800rpm

16x8J, 225/50ZR16 (17-inch rims optional)

Compression ratio: 10.3:1

Capacity: 3,600cc

Length: 4,250mm

Width: 1 650mm Weight: 1.350kg

0-62mph: 5.5 s

Top speed: 164mph





Top speed: 173mph

1990-92



This used the revised 964 body shell, extended arches and 'teatray' spoiler. The engine was essentially the 3.3-litre unit from the previous model, but updated to give more power

Brakes were ABS-equipped. 17-inch Cup wheels were a new design, as were the 'teardrop' door mirrors.

Capacity: 3,299cc Compression ratio: 7.0:1 Maximum power: 320bhp @ 5,750rpm Maximum torque: 450Nm @ 4.500rpm Brakes: Front: 322mm discs; Rear: 299mm discs Wheels & tyres: Front: 17x7J, 205/50ZR17; Rear: 17x9J, 255/45ZR17 Length: 4,250mm Width: 1.775mm Weight: 1,470kg 0-62mph: 5.0 sec RATING: Top speed: 169mph

964 Turbo 3.6



The Turbo received an engine based on the 3.6-litre 964 unit, albeit one that had been modified. Distinctive 18-inch split-rim Speedline wheels covered the big-red brake

RATING:

calipers. Suspension was lowered by 20mm (not in the US) and a front strut-brace was fitted.

Capacity: 3,600cc Compression ratio: 7.5:1 Maximum power: 360bhp @ 5,500rpm Maximum torque: 520Nm @ 4,200rpm Brakes: Front: 322mm discs; Rear: 299mm discs. Wheels & tyres: Front: 18x8J with 225/40ZR18 tyres; Rear: 18x10J with 265/35ZR18 tyres Length: 4,250mm Width: 1.775mm Weight: 1,470kg 0-62mph: 4.8 s



964 3.8 RS

1993



Identified by a lightweight Turbo bodyshell, large rear spoiler and 18-inch Speedline wheels. Power came from a new 3.8-litre unit with hot-film air sensor and twin exhaust.

Suspension was RS-derived, while brakes were a mix of RS and Turbo 3.6 items.

Capacity: 3,746cc Compression ratio: 11.6:1 Maximum power: 300bhp @ 6,500rpm Maximum torque: 359Nm @ 5,250rpm Brakes: Front: 322mm discs; Rear: 299mm discs. Wheels & tyres: Front: 18x9J, 235/40ZR; Rear: 18x11J. 285/35ZR Length: 4,250mm Width: 1,775mm Weight: 1,210kg 0-62mph: 4.9 sec



993 Turbo

Top speed: 174mph

1996-98



0-62mph: 4.3 sec Top speed: 180mph

two KKK turbochargers in order to reduce lag. Also, the power went to all four wheels using the Carrera 4's transmission system. Brakes

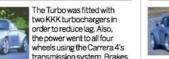
18-inch wheels

Capacity: 3,600cc ssion ratio: 8.0:1 Maximum power: 408bhp@5,750rpm Maximum torque: 540Nm@4,500rpm Brakes: Front: 322mm discs; Rear: 322mm discs Length: 4,245mm Width: 1,795mm Welght: 1,500kg

993 GT2

Top speed: 169mph

1995-96



were distinctive 'big reds' under hollow-spoked

Wheels & tyres: Front: 18x8J, 225/40ZR18; Rear: 18x10J, 285/30ZR18





0-62mph: 3.9 sec Top speed: 189mph

Basically a 911 Turbo, but with reduced equipment. It also included rear-wheel-drive, making it a better track car. The massive front and rear spoilers and bolt-on wheel-

arch extensions give it a distinctive appearance.

Capacity: 3,600cc Compression ratio: 8.0:1 Maximum power: 430bhp@5,750rpm Maximum torque: 540Nm@4,500rpm Brakes: Front: 322mm discs; Rear: 322mm discs eels & tyres: Front: 18x9J, 235/40ZR18; Rear: 18x11 J 285/357R18 Length: 4,245mm Width: 1.855mm Weight: 1,290kg



930 SE 🔢



1986-89



wings fed air to the brakes. The larger turbocharger and four-outlet exhaust gave 30bhp of extra power

Capacity: 3,299cc Compression ratio: 7.0:1 Maximum power: 330bhp @ 5,500rpm Maximum torque: 432Nm @ 4,000rpm Brakes: Front: 304mm discs; Rear: 309mm discs Wheels & tyres: Front: 16x7J, 205/55VR; Rear: 16x9J, 245/45VR Length: 4,491mm Width: 1775mm Weight: 1,335kg 0-62mph: 4.6 sec



3.2 Clubsport

1987-89



Removing the 'luxuries' from the Carrera 3.2 sliced around 40kg off the car's weight. Revised engine management gave a higher rev limit of 6,840 rpm, but Porsche never

claimed there was any increase in power. Suspension uprated and limited-slip differential standard.

Capacity: 3,164cc Compression ratio: 10.3:1 Maximum power: 231bhp@5,900rpm Maximum torque: 284Nm@4,800rpm Wheels & tyres: Front: 15x6J, 195/65VR; Rear: 15x7J, 215/60VR Brakes: Front: 304mm discs: Rear: 309mm discs. Length: 4,291mm Width: 1650mm Weight: 1,170kg



Speedster

1989



Essentially a Carrera 3.2 with a chopped, more steeply racked windscreen and hood and stripped-out interior Most had wide Turbo bodies. Porsche insisted that the

simple hood was not designed to be 100 per cent watertight. 2,065 examples of this model were built.

Capacity: 3,164cc Compression ratio: 10.3:1 Maximum power: 231bhp@5,900rpm Maximum torque: 284Nm@4,800rpm Brakes: Front: 304mm discs: Rear: 309mm discs. is & tyres: Front: 15x7J, 195/65VR; Rear: 15x8 J 215/60VR Length: 4,291mm Width: 1650mm

Weight: 1,210kg RATING: 0-60mph: 5.6 sec Top speed: 148mph

964 Carrera 4

1989-93



0-62mph: 5.7 sec

Top speed: 162mph

Heavily revised bodywork, deformable bumpers over coil-spring suspension and four-wheel-drive marked this radical overhaul of the 911. which Porsche claimed was 87

per cent new. The 3.6-litre engine featured two spark plugs per cylinder and ceramic exhaust port liners.

Capacity: 3,600cc Compression ratio: 10.3:1 Maximum power: 250bhp@6,100rpm Maximum torque: 310Nm@4,800rpm Brakes: Front: 298mm discs; Rear: 299mm discs Wheels & tyres: Front: 16x6J, 205/55ZR16; Rear: 16x8J, 225/50ZR16 (17-inch rims optional) Length: 4,250mm Width: 1.650mm Weight: 1,450kg

RATING:

964 RS

Top speed: 173mph

1991-92



uprated clutch, Suspension was lowered by 40mm and uprated, as were the brakes. Sport and Touring versions were also offered.

Capacity: 3,600cc Compression ratio: 10.3:1 Maximum power: 260bhp @ 6,100rpm Maximum torque: 310Nm @ 4,800rpm Brakes: Front: 322mm discs; Rear: 299mm discs Wheels & tyres: Front: 17x7.5J, 205/50ZR17; Rear: 17x9J, 255/407R17 Length: 4,250mm Width: 1,650mm Weight: 1,230kg (Sport) 0-62mph: 5.2 s RATING: Top speed: 162mph



964 C2 Speedster 1993-94



0-60mph: 5.1 sec

Top speed: 151mph

This combined the 964 bodyshell with the hood and indscreen of the Carrera 3.2 Speedster plus the RS interior. It is thought that Porsche planned to build around 3,000.

but only 936 were made, many in bright colours such as vellow or red with colour-coded wheels

Capacity: 3,600cc Compression ratio: 10.3:1 Maximum power: 250bhp @ 6,100rpm Maximum torque: 310Nm@4,800rpm Brakes: Front: 298mm discs; Rear: 299mm discs Wheels & tyres: Front: 16x6J, 205/55ZR16; Rear: 16x8J, 225/50ZR16 (17-inch rims optional) Length: 4,250mm Width: 1.650mm Weight: 1.340kg 0-62mph: 5.5 se RATING: Top speed: 164mph



1992-93 **964 Turbo S**

Essentially a 911 Turbo, but with 180kg of weight saved. Intakes in the rear arches funnelled air to the brakes, while the engine power was boosted by 61bhp thanks to the larger turbocharger, bigger valves and revised engine management, with the suspension uprated as per the RS. Just 80 examples were built.

Capacity: 3,299cc Compression ratio: 7.0:1 Maximum power: 381bhp @ 6,000rpm Maximum torque: 490Nm @ 4,800rpm Brakes: Front: 322mm discs; Rear: 299mm discs Wheels & tyres: Front: 18x8J, 235/40ZR18; Rear: 18x10J, 265/35ZR18

Length: 4,250mm Width: 1,775mm ght:1,290kg 0-62mph: 4.6 sec Top speed: 180mph



1995-96



993 Carrera

1993-97



Restyled bodywork had sweptback headlamps, curvaceous wings and blended-in bumpers. The engine was revised with hydraulic tappets and hot-film airflow sensor.

plus VarioRam from 1996. All-new multilink rear suspension gave improved handling.

Capacity: 3,600cc Compression ratio: 11.3:1 Maximum power: 272bhp@6,000rpm Maximum torque: 330Nm@5.000rpm Brakes: Front: 304mm discs; Rear: 299mm discs Wheels & tyres: Front: 16x7J, 205/55ZR16; Rear: 16x9J, 245/45ZR16 (17-inch rims optional) Length: 4,245mm Width: 1.735mm Weight: 1,370kg (Coupe) 0-62mph: 5.6s



993 Carrera 4





As per the 993-model Carrera, but with four-wheel-drive. Transmission was half the weight of the previous Carrera 4, and was designed to give the driving experience a more rear-

drive-esque feel. Automatic Brake Differential (ABD) compensated for wheelsoin.

Capacity: 3,600cc Compression ratio: 11.3:1 Maximum power: 272bhp@6,000rpm Maximum torque: 330Nm@5,000rpm Brakes: Front: 304mm discs; Rear: 299mm discs Wheels & tyres: Front: 16x7J, 205/55ZR16; Rear: 16x9J, 245/45ZR16 (17-inch rims optional) Length: 4,245mm Width: 1,735mm Weight: 1,420kg



993 Carrera RS



Had a lightweight body as per RS tradition, but teamed with a 3.8-litre engine, VarioRam intake system and remapped ECU to create 200bhp, fed to the rear wheels only with

suspension and brakes all uprated. It is recognisable by the fixed rear whaletail and large front spoiler.

Capacity: 3,746cc Compression ratio: 11.5:1 Maximum power: 300bhp@6,000rpm Maximum torque: 355Nm@5.400rpm Brakes: Front: 322mm discs; Rear: 299mm discs Wheels & tyres: Front: 18x8J, 225/40ZR18; Rear: 18x10J. 265/35ZR18 Length: 4,245mm Width: 1,735mm Weight: 1,279kg



993 Carrera 4S



The 4S was effectively a Carrera 4 with a Turbo wide bodyshell (albeit lacking a fixed rear spoiler). It also boasted Turbo brakes and suspension, and the 18-inch

1995-96

wheels were aesthetically similar to the equivalent Turbo items.

Capacity: 3,600cc Compression ratio: 11.3:1 Maximum power: 285bhp @ 6,100rpm Maximum torque: 340Nm @ 5,250rpm Brakes: Front: 322mm discs; Rear: 322mm discs Wheels & tyres: Front: 18x8J, 225/40ZR18; Rear: 18x10J. 285/30ZR18 Length: 4,245mm Width: 1.795mm Weight: 1,520kg 0-62mph: 5.3s

RATING:

993 Carrera S

U-62mph: 5.6 sec Top speed: 168mph

1997-98



The features that come with the Carrera Sare similar to the Carrera 4S's, only in rearwheel-drive. Sought after for its superb handling and looks. the split engine cover lid and

wide body give it a distinctive appearance.

Capacity: 3,600cc Compression ratio: 11.3:1 Maximum power: 285bhp@6,100rpm Maximum torque: 340Nm@5,250rpm Brakes: Front: 322mm discs; Rear: 322mm discs Wheels & tyres: Front: 18x8J, 225/40ZR18; Rear: 18x10J, 285/30ZR18 Length: 4,245mm Width: 1.795mm Weight: 1,450kg 0-62mph: 5.4 sec RATING: Top speed: 168mph



993 Turbo S

1

0-62mph: 5.8 se

Top speed: 166mph



The 993 Turbo Swas a fitting final hurrah to the last air cooled 911. With 450bhp for UK models, it was the fastest and most luxurious road going model Stuttgart had

ever produced. Manual only as Tiptronic had not been develop to manage the abundance of torque.

Capacity: 3,600cc Compression ratio: 8.0:1 Maximum power: 450bhp@5,750rpm Maximum torque: 585Nm@4,500rpm Brakes: Front: 320mm discs; Rear: 322mm discs Wheels & tyres: Front: 18x8J, 225/40/18; Rear: 18x10J, 285/30/18 Length: 4,245mm Width: 1,795mm Weight: 1,583kg 0-62mph: 4.1 sec RATING: Top speed: 186mph



Top speed: 174mphy

0-62mph: 5.0 s

Top speed: 172mph



1998-2001



An all-new 911 with larger, restyled bodywork and a 3.4-litre water-cooled engine. The interior was redesigned in order to enable better ergonomic efficiency and allow

for more room. The Carrera was a rear-wheel-drive, entry-level model, ideal for first-time Porsche drivers.

Capacity: 3,387cc Compression ratio: 11.3:1 Maximum power: 300bhp @ 6,800rpm Maximum torque: 350Nm@4,600rpm Brakes: Front: 318mm discs; Rear: 299mm discs Wheels & tyres: Front: 17x7J, 205/50ZR17; Rear: 17x9J, 255/40ZR17 (18-inch rims optional) Length: 4,430mm Width: 1,765mm Weight: 1,320kg 0-62mph: 5.2 sec



996 Carrera 4

Top speed: 168mph

1998-2001



Four-wheel-drive transmission fed only five per cent of powe to front in normal driving, increasing to up to 40 per cent when required. Porsche Stability Management

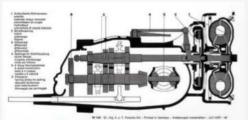
combined traction control, anti-slip control and Automatic Braking Differential.

Capacity: 3,387cc Compression ratio: 11.3:1 Maximum power: 300bhp@6,800rpm Maximum torque: 350Nm@4,600rpm Brakes: Front: 318mm discs; Rear: 299mm discs Wheels & tyres: Front: 17x7J, 205/50ZR17; Rear: 17x9J, 255/40ZR17 (18-inch rims optional) Length: 4,430mm Width: 1,765mm Weight: 1,375kg 0-62mph: 5.2 sec RATING: Top speed: 174mph



911 technology explained





Sportomatic

Non-manual gearbox choices have played a significant role in the 911's history. We take you through the workings of the first

Technically speaking, Sportomatic was never a true automatic transmission. Unlike the later Tiptronic and PDK units. the four-speed (and later three-speed) gearbox didn't shift between gears itself.

Instead, the Sportomatic gearbox, introduced by Zuffenhausen in 1967 and based on the 905 unit, was effectively a clutchless manual system that allowed the driver to change gears by simply pulling the gear lever through its standard H-pattern movement.

In order to realise this, the gear lever featured a micro-switch that activated whenever the gear knob was depressed slightly. When the gear lever was touched. the switch caused a solenoid to open a pneumatic valve. In turn, this caused a vacuum cylinder to disengage the clutch, allowing the syncromesh gears to be changed before the clutch is reengaged when the gear lever is released.

While this process still required driver input, the Sportomatic gearbox also featured a torque converter

(something found in traditional automatic transmissions) in place of the manual 911's flywheel. This allowed the car to come to a halt without the engine stalling or the driver having to physically engage neutral. Due to the torque converter, there was no mechanical connection between the engine and gearbox. Therefore, a 'Park' mode was added to lock the lay shaft when the car was parked.

Confusingly, Sportomatic gears were labelled 'I' 'D' 'D3' and 'D4' I ('I ow') was similar to a standard first manual 'box's first gear. However, Porsche encouraged using D to pull away unless on a steep incline or in inclement weather. D and D3 (note no D2) were slightly shorter ratios than second and third in a standard unit. while D3 was slightly longer, acting as an overdrive.

The torque converter, which shared the engine's oil supply (increasing the total oil capacity by 2.3 litres), also served as a torque multiplier, allowing Sportomatic 911s to pull away in any of their four gears.

Head to head: Manual V Tiptronic



Although it may sound counter-intuitive, automatic gearboxes have always played a large role in the history of the Porsche 911. From 1990 to 2008, Tiptronic was the system that ruled the roost at Zuffenhausen, and with the introduction of the 996 Turbo, the 'manumatic' gearbox option proved nearly as popular as the traditional manual transmission.

With the Porsche 911 positioned as a true driver's car, a manual gearbox may seem like the obvious choice with its fully integrated driving experience; behind

the wheel you are solely responsible for each shift. However, the much-improved Tiptronic system found on the 996 Turbo was designed to provide the best of both worlds, blending automatic ease with manual performance.

Surely though, when the issue of driving pleasure is raised, the automatic gearbox is found wanting? To find out which transmission came out on top of the pile, pick up a copy of issue 95 from www. imagineshop.co.uk or download it from www.greatdigitalmags.com.

996 GT3

1998-2000



Commonly called the Gen1 GT3, this was a lightweight 996 with a 3.6-litre engine driving the rear wheels. Suspension was lowered by 30mm and brakes uprated.

Available in Clubsport and Comfort guises, 1,890 were built, of which 103 were right-hand-drive

Capacity: 3.600cc Compression ratio: 11.7:1 Maximum power: 360bhp @ 6,300rpm Maximum torque: 370Nm @ 5,100rpm Brakes: Front: 330mm discs; Rear: 330mm discs Wheels & tyres: Front: 18x8J, 225/40ZR18; Rear: 18x10J, 285/30ZR18 Length: 4,430mm Width: 1.765mm

Weight: 1,350kg **RATING:** 0-62mph: 4.8 sec Top speed: 188mph

996 Turbo

2000-05



Distinguished by wide rear arches, air intakes and a deep front spoiler, plus part-fixed, part-retractable rear spoiler. The 3.6-litre engine is different to the naturally aspirated 996

unit and fitted with twin KKK K17 turbochargers and VarioCam Plus. PSM is standard.

Capacity: 3.600cc Compression ratio: 9.4:1 Maximum power: 420bhp @ 6,000rpm Maximum torque: 560Nm @ 2,700 to 4,600rpm Brakes: Front: 330mm discs; Rear: 330mm discs Wheels & tyres: Front: 18x8J, 225/40ZR18; Rear: 18x11J. 295/30ZR18 Length: 4,435mm Width 1 830mm Weight: 1,540kg 0-62mph: 4.2 sec



996 GT2

2001-03

2001-04



A lightweight, Turbobodied 996 with uprated turbocharged engine that produced 460bhp and drove the rear wheels. The suspension was uprated,

while brakes had ceramic discs. Revised ECU later gave extra 21bhp and came with PCCB as standard.

Capacity: 3,600cc Compression ratio: 9.4:1 Maximum power: 462bhp @ 5,700rpm Maximum torque: 620Nm @ 3,500 to 4,500rpm Brakes: Front: 350mm discs: Rear: 350mm discs Wheels & tyres: Front: 18x8.5J, 235/40ZR18; Rear: 18x12.J. 315/30ZR18 Width 1 830mm Weight: 1,440kg 0-62mph: 4.1 sec **RATING:** Top speed: 195mph



Gen2 996 C2





Top speed: 189mph

Face-lifted with Turbo-style headlamps and revised front and rear bumpers. Fitted with the more powerful 3.6-litre engine, VarioCam Plus and other refinements, Manual

and Tiptronic transmission was also improved on. Moreover, the cabin received minor updates

Capacity: 3,596cc Compression ratio: 11.3:1 Maximum power: 320bhp @ 6,800rpm Maximum torque: 370Nm @ 4,250rpm Brakes: Front: 318mm discs; Rear: 299mm discs Wheels & tyres: Front: 17x7J, 205/50ZR17; Rear: 17x9J, 255/40ZR17 (18-inch rims optional) Length: 4,430mm Width: 1.765mm Weight: 1,345kg 0-62mph: 5.0 sec **RATING:** Top speed: 178mph

996 GT3 RS

2004-05



Same 3,600cc engine as in GT3, but with excessive veight saving, offering 280bhp per ton - an improvement of four per cent over the Clubsport version of the 996

GT3. Moreover, it also came with PCCB included as standard. White with side inscriptions in blue or red.

Capacity: 3,600cc Compression ratio: 11.7:1 Maximum power: 381bhp @ 7,400rpm Maximum torque: 385Nm @ 3,500 to 5,000rpm Brakes: Six piston calipers front, four piston rear Wheels & tyres: Front: 18x8.5J, 235/40ZR18; Rear: 18x11J. 295/30ZR18 Length: 4,435mm Width 1 770mm Weight: 1,360kg 0-62mph: 4.4 sec Top speed: 190mph



996 Turbo S



A 911 Turbo with the previously optional 30bhp power upgrade, consisting of larger turbochargers, uprated ntercoolers and revised ECU. The ceramic brakes were

2004-05

standard, and 18-inch alloys finished in GT Metallic Silver paint, in addition to the highly specced interior

Capacity: 3,600cc Compression ratio: 9.4:1 Maximum power: 450bhp @ 5,000rpm Maximum torque: 620Nm @ 3,500 to 4,400rpm Brakes: Front: 350mm discs; Rear: 350mm discs Wheels & tyres: Front: 18x8J, 225/40ZR18; Rear: 18x11 | 295/307R18 Length: 4,435mm Width: 1.830mm Weight: 1,590kg 0-62mph: 4.1 sec Top speed: 191mph **RATING:**



2005-08

997 Carrera 4

2005-08



The Carrera 4 was much like the 997 Carrera, but with drive to all four wheels via a multi-disc viscous coupling that transferred between five and 40 per cent of traction to

the front wheels. It was 44mm wider at the rear than the Carrera in order to allow for wider wheels.

Capacity: 3,596cc Compression ratio: 11.8:1 Maximum power: 325bhp @ 6,800rpm Maximum torque: 370Nm @ 4,250rpm Brakes: Front: 318mm discs; Rear: 299mm discs Wheels & tyres: Front: 18x8J, 235/40ZR18; Rear: 18x11J. 295/35ZR18 Length: 4,427mm Width: 1,852mm Weight: 1,495kg **RATING:** 0-62mph: 5.1 sec Top speed: 174mph



997 Carrera 4S



0-62mph: 4.8 sec Top speed: 179mph

The same 3.8-litre, 355bhp engine as the Carrera S. but coupled with the four-wheeldrive system on the Carrera 4. It also had 44mm wider rear arches to compensate

for the 11-inch wider wheels and helped give a more aggressive look.

Capacity: 3,824cc Compression ratio: 11.8:1 Maximum power: 355bhp @ 6,800rpm Maximum torque: 400Nm @ 4,250rpm Brakes: Front: 330mm discs; Rear: 330mm discs Wheels & tyres: Front: 19x8J, 235/35ZR19; Rear: 19x11J. 295/30ZR19 Length: 4,427mm Width: 1.852mm Weight: 1,550kg



GREAT VALUE GREAT

2001-2005 **996 Carrera 4S**

Basically a Carrera 4 with the Turbo bodyshell, without rear air intakes, and with a full-width rear reflector panel. The suspension and brakes were similar to the Turbo, while wheels were 18-inch items. The interior spec was higher than that of conventional Carrera 4.

Capacity: 3,596cc
Compression ratio: 11.3:1
Maximum power: 320bhp @ 6,800rpm
Maximum torque: 370Nm @ 4,250rpm
Brakes: Front: 330mm discs; Rear: 330mm discs
Wheels & tyres: Front: 18x8J, 225/40ZR18; Rear: 18x11J, 295/30ZR18
Length: 4,435mm

Length: 4,435mm Width: 1,830mm Weight: 1,495kg 0-62mph: 5.0 sec Top speed: 175mph





Gen2 996 C4

2001-04



Face-lifted in line with the rear-drive Carrera, this was the four-wheel-drive incarnation of the aforementioned earlier model. For most people who have experienced it, it drove

a lot like the Carrera and, indeed, there is very little to choose from between them.

Capacity: 3,596cc Compression ratio: 11.3:1

Maximum power: 320bhp @ 6,800rpm Maximum torque: 370Nm @ 4,250rpm Brakes: Front: 318mm discs; Rear: 299mm discs Wheels & tyres: Front: 17x7J, 205/50ZR17; Rear: 17x9J, 255/40ZR17 (18-inch rims optional)

Length: 4,430mm Width: 1,765mm Weight: 1,405kg 0-62mph: 5.3 sec Top speed: 175mph



Gen2 996 GT3

2003-05



Also known as the GT3 Gen2, it was based on the facelifted 996 Carrera, but with new spoilers. The 3.6-litre engine produced 381bhp. Suspension was lowered and

uprated, and ceramic brakes optional. The interior was full-spec unless you opted for the Clubsport.

Capacity: 3,600cc Compression ratio: 11.7:1

Maximum power: 381bhp@7,400rpm Maximum torque: 385Nm@5,000rpm

Brakes: Front: 350mm discs; Rear: 330mm discs Wheels & tyres: Front: 18x8.5J, 235/40ZR18; Rear:

18x11.J, 295/30ZR18 Length: 4,435mm Width: 1,770mm Weight: 1,380kg 0-62mph: 4.5 sec Top speed: 190mph



997 Carrera

2004-08



Fully revised 911 with 993 -influenced bodywork and a new interior. The 3.6-litre engine was like the 996, but refined for more power. Additionally, twin exhaust

tailpipes were coupled with rear-wheel drive via sixspeed Tiptronic transmission.

Maximum power: 325bhp @ 6,800rpm Maximum torque: 370Nm @ 4,250rpm Brakes: Front: 318mm discs; Rear: 299mm discs Wheels & tyres: Front: 18x8J, 235/40ZR18; Rear: 18x10J, 265/40ZR18 Length: 4,427mm Width: 1,808mm Weight: 1,395kg

Capacity: 3,596cc

Compression ratio: 11.8:1

RATING:

997 Carrera S

2004-08



As per the 997 Carrera, but with the more powerful 3.8-litre engine and PASM. 19-inch wheels came as standard, with larger 330mm ventilated discs. It had Quad

exhaust tailpipes, and was available as rear-wheeldrive only.

Capacity: 3,824cc Compression ratio: 11.8:1

Maximum power: 355bhp @ 6,800rpm Maximum torque: 400Nm @ 4,600rpm Brakes: Front: 330mm discs; Rear: 330mm discs Wheels & tyres: Front: 19x8J, 235/35/ZR19; Rear: 19x11 | 295/30/ZR19

Length: 4,427mm Width: 1,808mm Weight: 1,495kg 0-62mph: 4.7 sec Top speed: 182mph

RATING:

997 Turbo

0-62mph: 5.0 sec Top speed: 177mph

2005-10



Weight: 1,585kg

0-62mph: 3.9 sec

Top speed: 193mph

Similar to the 997 Carrera 4S body, but with extra intakes at the front and sides. It essentially had the 996 Turbo engine, but with all-new twin turbos, Variable Turbine

Geometry (VTG) that effectively gave the best of both small and large turbochargers.

Capacity: 3,600cc
Compression ratio: 9.0:1
Maximum power: 480bhp @ 6,000rpm
Maximum torque: 620Nm @ 2,100-4,000rpm
Brakes: Front: 350mm discs; Rear: 350mm discs
Wheels & tyres: Front: 8.5Jx19, 235/35/ZR19; Rear:
11Jx19, 305/30/ZR19
Length: 4,450mm
Width: 1,852mm

RATING:

997 GT3

2006-07



0-62mph: 4.3sec

Top speed: 192mph

Track-focused car based on narrow-bodied Carrera and with reworked 996 GT3 engine. PASM was standard, but reworked to suit the sporting traits. Revs to

8,400rpm, 200rpm higher than 996 GT3. VarioCam was used on the 997 GT3 to improve torque.

Capacity: 3,600cc
Compression ratio: 12.0:1
Maximum power: 415bhp @ 7,600rpm
Maximum torque: 405Nm @ 5,500rpm
Brakes: Front: 380mm discs; Rear: 340mm discs
Wheels & tyres: Front: 19x8.5J, 235/35ZR19; Rear: 19x12.J, 305/30ZR19
Length: 4,445mm
Width: 1,808mm
Weight: 1,395kg



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997 GT3 RS

2006-07

997 GT2

2007-08



The RS was similar to GT3, but with the inclusion of the vider rear bodyshell of the Carrera S. 20kg of weight was saved from the original model thanks to carbon fibre engine

cover and rear wing and plastic rear window, not to mention the relatively lightweight interior.

Capacity: 3,600cc Compression ratio: 12.0:1 Maximum power: 415bhp @ 7,600rpm Maximum torque: 405Nm @ 5,500rpm Brakes: Front: 380mm discs; Rear: 340mm discs Wheels & tyres: Front: 19x8.5J, 235/35ZR19; Rear: 19x12J, 305/30ZR19 Length: 4.445mm

Width: 1,852mm Weight: 1,375kg 0-62mph: 4.2 sec Top speed: 187mph

RATING:



Essentially the 997 Turbo, but with rear-wheel-drive only Also enjoyed a more track orientated suspension and brake setup, with GT3-style interior and extra power at

523bhp. Porsche Stability Management and Porsche Active Suspension Management used.

Capacity: 3,600cc Compression ratio: 9.0:1 Maximum power: 530bhp @ 6,500rpm Maximum torque: 680Nm @ 2.200-4.500rpm Brakes: Front: 380mm discs; Rear: 350mm discs Wheels & tyres: Front: 8.5Jx19, 235/35/ZR19; Rear: 11Jx19, 305/30/ZR19

Length: 4.469mm Width: 1,852mm Weight: 1,440kg 0-62mph: 3.7 sec Top speed: 204mph



2009-13

Gen2 997 GT3

2009-2012



This was updated as per the Carrera, but with a unique front spoiler and rear wing revised PASM, centre-lock wheels and better brakes. An already great car made better

Problems with rear hubs led to a recall for model year

Capacity: 3,800cc Compression ratio: 12.2.:1 Maximum power: 435bhp@7,900rpm Maximum torque: 430Nm@3250rpm Brakes: Front: 380mm discs; Rear: 350mm discs Wheels & tyres: Front: 8.5x19J 235/35 ZR 19 Rear: 12x19J305/30ZR19 Length: 4,460mm Width: 1808mm Weight: 1,395kg 0-62mph: 4.1sec Top speed: 194mph



Gen2 997 Turbo



Basically the same as the original 997 Turbo, but with new LED taillights and driver lights up front. Features larger tailpipes, plus a larger 3.8-litre engine with direct

fuel injection. PDK transmission is optional. Fuel consumption cut by 16 per cent

Capacity: 3,800cc Compression ratio: 9.8:1 Maximum power: 500bhp @ 6,000rpm Maximum torque: 650Nm@1,950-5000rpm Brakes: Front: 350mm discs; Rear: 350mm discs Wheels & tyres: Front: 8.5Jx19, 235/35/ZR19; Rear: 11Jx19. 305/30/ZR19 Width: 1.852mm

Weight: 1,570kg 0-62mph: 3.4 sec Top speed: 194mph



997 C4 GTS

2010-



As Carrera 2997 GTS but slightly heavier with four-whee drive. In either C2 or C4 form, the 997 GTS represented a great saving over optioning up a 997 Carrera counternart

Capacity: 3,800cc Compression ratio: 12.5:1 Maximum power: 402bhp@7,300rpm Maximum torque: 420Nm @ 4,200 - 5,600rpm Brakes: Front: 330mm discs; rear: 330mm discs Wheels & tyres: Front: 8.5.1x19. 235/35/7R19: Rear. 11Jx19, 305/30/ZR19 Length: 4.435mm Width: 1,852mm Weight: 1.555kg 0-62mph: 4.6 sec Top speed: 188mph

RATING:

997 GT2 RS

2010-



with an RS-style lightweight body and interior, plus extra power (620bhp), Instantly recognisable over standard GT2 thanks to lashings of

Capacity: 3,600cc Compression ratio: 9.0:1 Maximum power: 620bhp @ 6.500rpm Maximum torque: 700Nm@2,500-5,500rpm Brakes: Front: 380mm discs; Rear: 350mm discs Wheels & tyres: Front: 9Jx19,245/35ZR19; Rear 12.Jx19.325/30ZR19 Length: 4,460mm Width: 1.852mm Weight: 1,370kg 0-62mph: 3.5 sec Top speed: 205mph



991 Carrera 4

2012-



This model enjoys a wide body, with rear fenders pulled out by 22mm on each side. A maior telltale sign that tells it apart from the Carrera 2 is the connecting rear tale light that

comes as standard. Also features a torque distribution indicator, which keeps you informed on where the car

Capacity: 3,436cc Compression ratio: 12.5:1 Maximum power: 350bhp@7,400rpm Maximum torque: 390Nm@5,600rpm Wheels & tyres: 8.5Jx19235/40ZR19Rear: 11Jx19 295/35 ZR 19 Length: 4.491mm

Width: 1,852mm Weight: 1,450kg 0-62mph: 4.9sec Top speed: 177mph

991 Carrera 4S

0-62mph: 4.5sec

Top speed: 185mph

2012-



las the same wider body styling as the Carrera 4, with a rear connecting tail light coupled to 3.8-litre 400bhp flat six engine. Also features six-piston brake calipers at

front as opposed to four. Seven speed manual or PDK gearbox option available. Bigger wheels than C4 and

Capacity: 3,800cc Compression ratio: 12.5:1 Maximum power: 400bhp @ 7,400rpm Maximum torque: 440Nm@5,600rpm Wheels & tyres: Front: 8.5Jx20,245/35 ZR 20; Rear: 11Jx20, 305/30 ZR 20 Length: 4,491mm Width: 1,852mm Weight: 1,450kg





2008-12

Gen2 997 C2

2008-12



Revised with restyled LED rear lights and front driving ights. M97 engine replaced with a 91 DFI unit, using fewer parts (with no problematic Intermediate Shaft)and

direct-fuel injection to give much-improved economy Seven-speed PDK transmission was a new option.

Capacity: 3,614cc Compression ratio: 12.5:1 Maximum power: 345bhp @ 6,500rpm Maximum torque: 390Nm@4.400rpm Brakes: Front: 330mm discs; Rear: 330mm discs Wheels & tyres: Front: 18x8.J. 235/40ZR18: Rear: 18x10.5J, 265/40ZR18 Length: 4.435mm Width: 1,808mm

Weight: 1,490kg **RATING:** 0-62mph: 4.9 sec Top speed: 180mph

Gen2 997 C2 S

2008-12



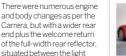
Revised as per the Carrera, but with larger 3.8-litre engine again using fewer components and Direct Fuel Injection. The ngine stroke was reduced from 82.8mm to 77.5mm, while

the bore went up by 3mm to 102mm, in the process reducing the capacity to exactly 3,800cc.

Capacity: 3,800cc Compression ratio: 12.5:1 Maximum power: 385bhp @ 6,500rpm Maximum torque: 420Nm@4.400rpm Brakes: Front: 330mm discs; Rear: 330mm discs Wheels & tyres: Front: 19x8.J. 235/35ZR19: Rear: 19x11J, 295/30ZR19 Length: 4.435mm Width: 1,808mm Weight: 1,500kg **RATING:** 0-62mph: 4.7 sec

Gen2 997 C4





lusters. The new all-wheel drive was appropriated from the 997 Turbo.

Capacity: 3,614cc Compression ratio: 12.5:1 Maximum power: 345bhp @ 6,500rpm Maximum torque: 390Nm@4.400rpm Brakes: Front: 330mm discs; Rear: 330mm discs Wheels & tyres: Front: 18x8.J. 235/40ZR18: Rear: 18x10.5J, 265/40ZR18 Length: 4.435mm Width: 1,852mm Weight: 1,545kg 0-62mph: 5.0 sec

RATING:

Gen2 997 C4S



The bodywork was as per the Carrera 4, but with the arger 3.8-litre engine. Utilised the 997 Turbo's four-wheeldrive, and Porsche Traction Management, Viscous

coupling gives way to electromagnetically controlled multi-plate clutch.

Capacity: 3,800cc Compression ratio: 12.5:1 Maximum power: 385bhp @ 6,500rpm Maximum torque: 420Nm @ 4.400rpm Brakes: Front: 330mm discs; Rear: 330mm discs **Wheels & tyres**: Front: 19x8J, 235/30ZR19; Rear: 19x11J, 295/30ZR19 Length: 4.435mm Width: 1,852mm Weight: 1,555kg

RATING:

Gen2 997 GT3 RS

2009-



Has wider front arches and a larger spoiler. Dynamic engine mounts and PASM are standard. Air con is optional, with no door handles, wheel brace or sound proofing. Had

the lap record for road models at the Nürburgring.

Capacity: 3,800cc Compression ratio: 12 2:1 Maximum power: 450bhp @ 7,900rpm Maximum torque: 430Nm @ 6.750rpm Brakes: Front: 380mm discs; Rear: 380mm discs Wheels & tyres: Front: 9Jx19, 245/35ZR19; Rear: 12Jx19, 325/30ZR19 Length: 4.460mm Weight: 1.370kg 0-62mph: 4.0sec Top speed: 192mph **RATING:**

997 Turbo S

Top speed: 188mph

2011-13



Capacity: 3,800cc

As standard 997 Turbo, but with face-lifted body, more power (530bhp) and higher levels of standard equipment, including PCCB centrelock wheels and ceramic brakes to go with

unique two-tone interior and Sport Chrono Plus.

Compression ratio 9 8:1 Maximum power: 530bhp @ 6,250 - 6,750rpm Maximum torque: 700Nm@2,100 - 4,250rpm Brakes: Front: 380mm discs; Rear: 350mm disc Wheels & tyres: Front: 8.5Jx19, 235/35ZR19; Rear: 11Jx19 on 305/30ZR19 Length: 4.435mm Width: 1,852mm Weight: 1,585kg 0-62mph: 3.3se

Top speed: 195mph

RATING:

997 Sport Classic



Top speed: 176mph

Based on a 3.8-litre, rear wheel-drive Carrera S, but with 44mm wider rear arches Several instances of retro styling including iconic ducktail spoiler and large Fuchs wheels.

Only 250 examples have been sold worldwide.

Capacity: 3,800cc Compression ratio 12 5:1 Maximum power: 408bhp@7,300rpm Maximum torque: 420Nm @ 4200 - 5600rpm Brakes: Front: 350mm discs; Rear: 350mm discs Wheels & tyres: Front: 19x8.5J, 235; Rear: 19x11J,305 Length: 4.435mm Width: 1,852mm Weight: 1,425kg 0-62mph: 4.1sec Top speed: 194mph

RATING:

2011

997 C2 GTS

0-62mph: 4.7 sec

Top speed: 185mph

2010-



eatures the C4's wider rear body and is powered by the 3.8-litre Carrera Sengine with a powerkit producing 25bhp extra. The GTS is laden with Porsche options, including

PASM, sports exhaust and centre-locking alloys

Capacity: 3,800cc Compression ratio 12 5:1 Maximum power: 402bhp @ 7,300rpm Maximum torque: 420Nm @ 4,200 - 5,600rpm Brakes: Front: 330mm discs; Rear: 330mm discs Wheels & tyres: Front: 8.5x19, 235/35/19 Rear: 11x19, 305/30/19 Length: 4.435mm Width: 1,852mm Weight: 1.420kg 0-60mph: 4.6 sec Top speed: 190mph

RATING:

ULTRA RARE MODEL



2010 **997 GT3 RS 4.0**

were produced. The engine was upgraded and Capacity: 3,996cc

Compression ratio:12.6:1 Maximum power: 493bhp @ 8,250rpm Maximum torque: 460Nm @ 5,750rpm Brakes: Front: 380mm discs; Rear: 380mm discs Wheels & tyres: Front: 9Jx19,245/35ZR19; Rear: 12 lx19 325/307R19 Length: 4,460mm Width: 1.852mm Weight: 1,360kg 0-62mph: 3.5 sec





991 Carrera



he first 911 of the newest and latest seventh generation, the Carrera features a 350bhp 3.4-litre engine and takes styling hues from the 993. Completely redesigned

chassis, with lengthened wheelbase reducing overhang of engine weight. Panamera-esque interior Capacity: 3,436cc

Compression ratio: 12.5:1 Maximum power: 350bhp @ 7,400rpm Maximum torque: 390Nm@5.600rpm Brakes: Front: 330mm discs; rear: 330mm discs Wheels & tyres: Front: 8.5.Jx19, 235/40ZR19 Rear: 11Jx19, 285/35ZR19 Length: 4.491mm Width: 1,808mm Weight: 1,380kg 0-62mph: 4.8sed Top speed: 179.6mph

RATING:

991 Carrera S

2011-



Same as Carrera, including seven-speed manual box, but itilising 400bhp from a bigger 3.8-litre engine. Slightly larger front brakes than the standard

Carrera (10mm bigger discs), with MacPherson front axle and multi-link suspension at the rear. Distinctive 'S' badging on rear decklid.

Capacity: 3,800cc Compression ratio: 12.5:1 Maximum power: 400bhp @ 7,400rpm Maximum torque: 440Nm@5.600rpm Brakes: Front: 340mm discs; rear: 330mm discs Wheels & tyres: Front: 8.5.Jx20, 245/35ZR20, Rear: 8.5Jx20, 245/35ZR20 Length: 4.491mm Width: 1,808mm Weight: 1,395kg 0-62mph: 4.5sec Top speed: 188,9mph

RATING:

991 GT3

Top speed: 193mph





Capacity: 3,800cc

0-62mph: 3.5sec

Top speed: 196mph

Electric power steering and vide body shell from 991 Carrera 4 was used for the first time jere. PDK transmission nly, no manual option. Mezger engine from previous

GT3s replaced with revamped version of direct injection 991 Carrera Sengine. First models now in the

Compression ratio: 12.9:1 Maximum power: 475hp @ 8,250rpm Maximum torque: 440Nm@6,250rpm Wheels & tyres: Front: 9Jx20,245/35 ZR 20; Rear: 12Jx20, 305/30 ZR 20 Length: 4,545mm Width: 1,852mm Weight: 1,430kg

RATING:

991 Turbo



Top speed: 195mph

The new Turbo marks the ntroduction of electric and ar axle steering, plus PDKonly transmission to forced nduction 991 models. With a 100mm longer wheelbase

2013-

than the 997 Turbo and rear fenders being 28mm wider than even the 991 Carrera 4, this is the longest

Capacity: 3.800cc Compression ratio: 9.8:1 Maximum power: 520hp @ 6,000-6,500rpm Maximum torque: 660Nm@1,950 - 5,000rpm Wheels & tyres: Front: 8.5x20-inch, 245/35/ZR20 tyres Rear: 11x20-inch, 305/30/ZR20 tyres Length: 4,506mm Width: 1,880mm Weight: 1,595kg 0-62mph: 3.4sec **RATING:**

991 Turbo S



ame dimensions as 991 Turbo, but with a tweaked nap to provide an extra 10hp. Turbo S also benefits om usual Turbo options as standard including centre lock

eels and PCCB, with Porsche Dynamic chassis Control (PDCC) offered standard for the first time. PTM is all new on both Turbo and Turbo S

Capacity: 3,800cc Compression ratio: 9.8:1 Maximum power: 560hp @ 6,500 - 6,750rpm Maximum torque: 700Nm @ 2,100 - 4,250 Wheels & tyres: Front: 9x20-inch, 245/35/ZR20 tyres Rear: 11x20-inch, 305/30/ZR20 tyres Length: 4,506mm Width: 1,880mm Weight: 1,605kg 0-62mph: 3.1sec **RATING:** Top speed: 197mph

991 GT3 RS 20132014-



RATING:

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997 "28" 3.8 Gen 2 PDK (2010 - 10)





997 Turbo 3.6 Cab (2008 - 57)



997 "25" 3.8 Gen 2 PDK (2008 - 58)



997 "25" 3.8 Gen 2 (2009 - 09) salt Black with Stone Grey Leati



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997 Turbo 3.6 (2006 - 06)



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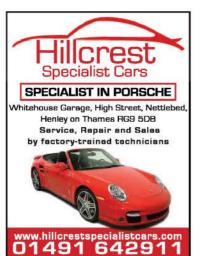
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Lagoon Silver/Green metallic with Black ther interior 40,000 miles

Speed	Multichanger	AirCon &	Litronic Lights
/lanual	with Sound	Climate Control	19" Carrera S
Comfort Seats	Package Plus	Electric Sunroof	Alloys



2001 996 CARRERA 2 TIPTRONIC COUPE

Rainforest Green metallic with Beige eather interior 56,000 miles

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Savanna Beige	AirCon &	PSM		
interior	Climate Control	Electric Sunroof		



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2005 997 CARRERA 2 MANUAL

Atlas Grey metallic with Grey Leather nterior 76,000 miles

Speed	AirCon &	Multichanger	Home Lights
1anual	Climate Control	PSM	19" Carrera S
omfort Seats	SatNav Module	Litronic Lights	Alloys



2005 BOXSTER 3.2 MANUAL

Silver metallic with Metropole Blue eather interior 77,000 miles

Owners	Onboard		Home Light
Speed Manual	Computer	Climate Control	18" Boxster S
mory Seats	CDR24 Stereo	PSM	Alloys



2000 BOXSTER 2.7 MANUAL

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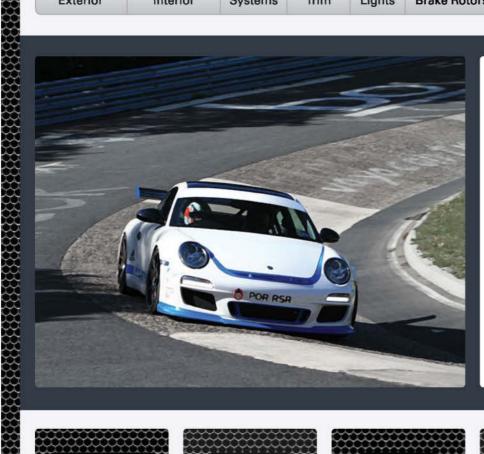
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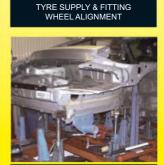
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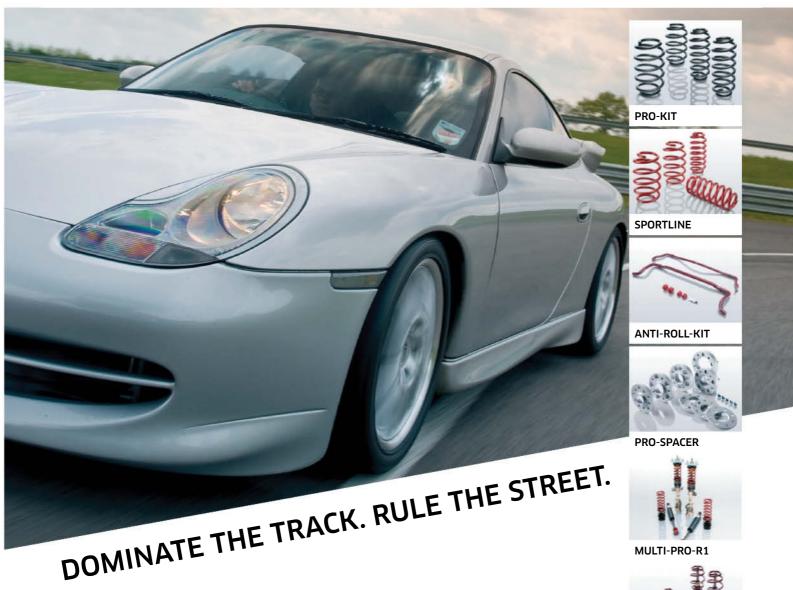
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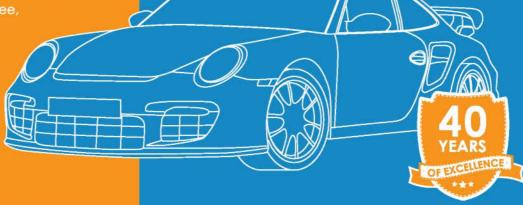
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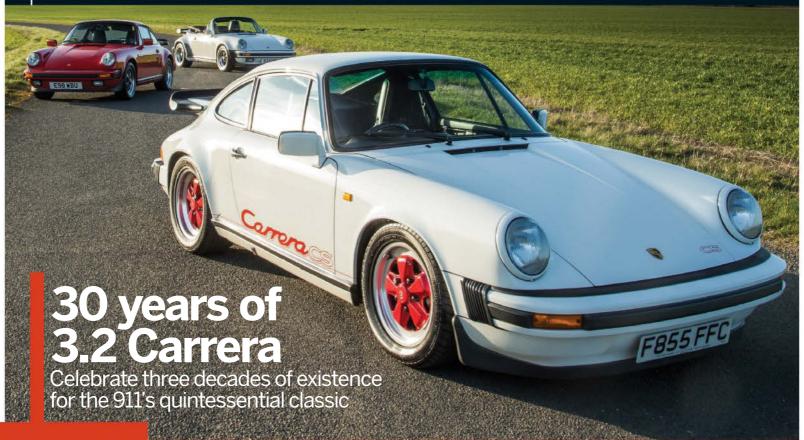
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We sit down to talk with the three-time Dakar winner about taking the Porsche 911 off road



SWB 911 S VS 991 S

They may be 47 years apart, but how does the first and latest 911 S compare?



SPEEDSTER UP CLOSE

At the wheel of one of the most illustrious 3.2s to leave the Zuffenhausen factory

Issue 114 is available to buy and download from 21 May

Jebel Hafeet Mountain, UAE





Written and photographed by Steven Hall





Essential info

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Total 911 heads to the UAE, where we find an exhilarating route that is wholly different to the long straights the area is famed for

isitors to Dubai or Abu Dhabi will be struck by the disconnect between the quantity of fantastic driver's cars that prowl the streets and the fact that driving is, well, a means to an end. Road building didn't begin in earnest in the UAE until the Sixties, and most roads were built straight and wide to connect the major cities. There were no historical mountain routes to retrace or farflung villages to dictate the route.

So you'd be forgiven for thinking that the motoring purist would be left bereft of somewhere to enjoy their chosen toy. While you can indulge yourself in a trackday at Dubai Autodrome or Abu Dhabi's F1 circuit,

not everyone welcomes the risk and expense of taking to the track. What's lacking is the ability to just drive for the sheer pleasure of it.

I find myself wondering if Sheikh Zayed bin Sultan Al Nahyan, ruler of the UAE from 1971 to 2004, was the biggest petrolhead imaginable, as one of the region's best driving roads was built under the auspices of leading to the palace he had constructed on top of Jebel Hafeet Mountain. The palace remains unused, but the road - a perfectly surfaced three-lane wide affair - is open to the public. It may be two hours from Dubai or Abu Dhabi, but it is the best place to stretch the legs of your Porsche.

Naturally, early on a weekend morning is the best time to enjoy it, as during the day it can get rather busy. It may sound extreme to drive 100 miles for seven miles of blacktop, but it's worth it. And there's no gentle introduction; within a few hundred metres the road starts winding, the occasional short straight punctuating corners. For every well-sighted 180-degree switchback, there are fast and flowing fourth-gear sweepers to keep you on your toes.

It doesn't take long to reach the summit, which affords the chance to thrash up and down a few times and get to know it. Like the Nürburgring, many corners could easily be mistaken for others. We do, however, recommend staying sensible - you really don't need unwanted attention from the authorities out here!



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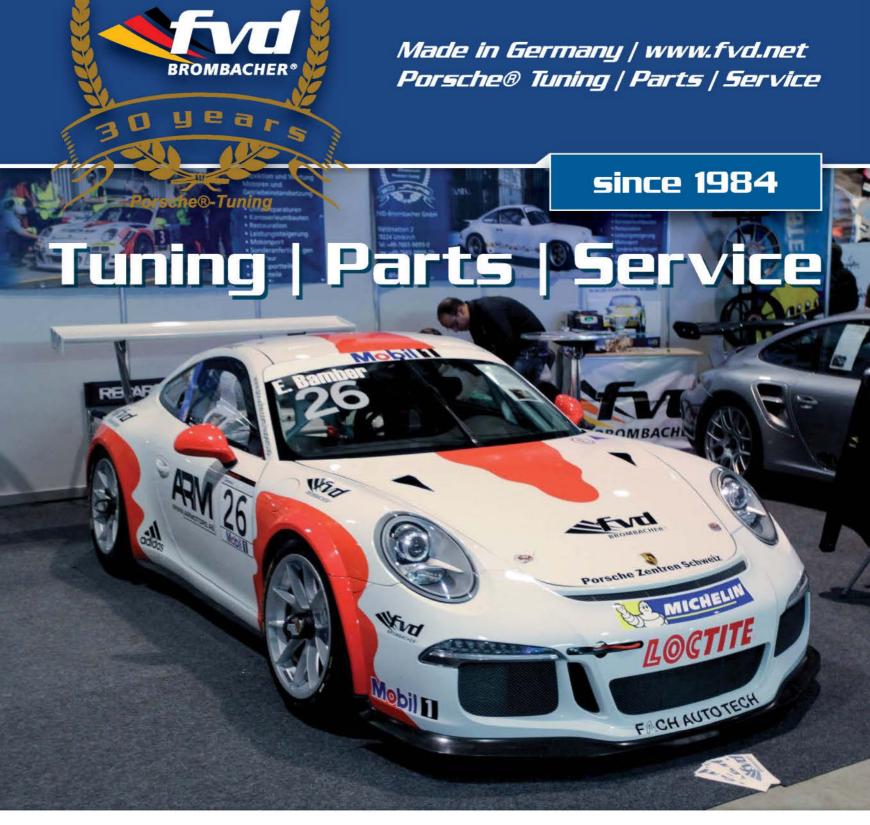
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