



FUTURE CLASSIC 997 CARRERA GTS BUYER'S GUIDE & TIPS

Total 911

THE PORSCHE MAGAZINE

**WALTER RÖHRL IN THE
NEW 991.2 GT3 RS!**

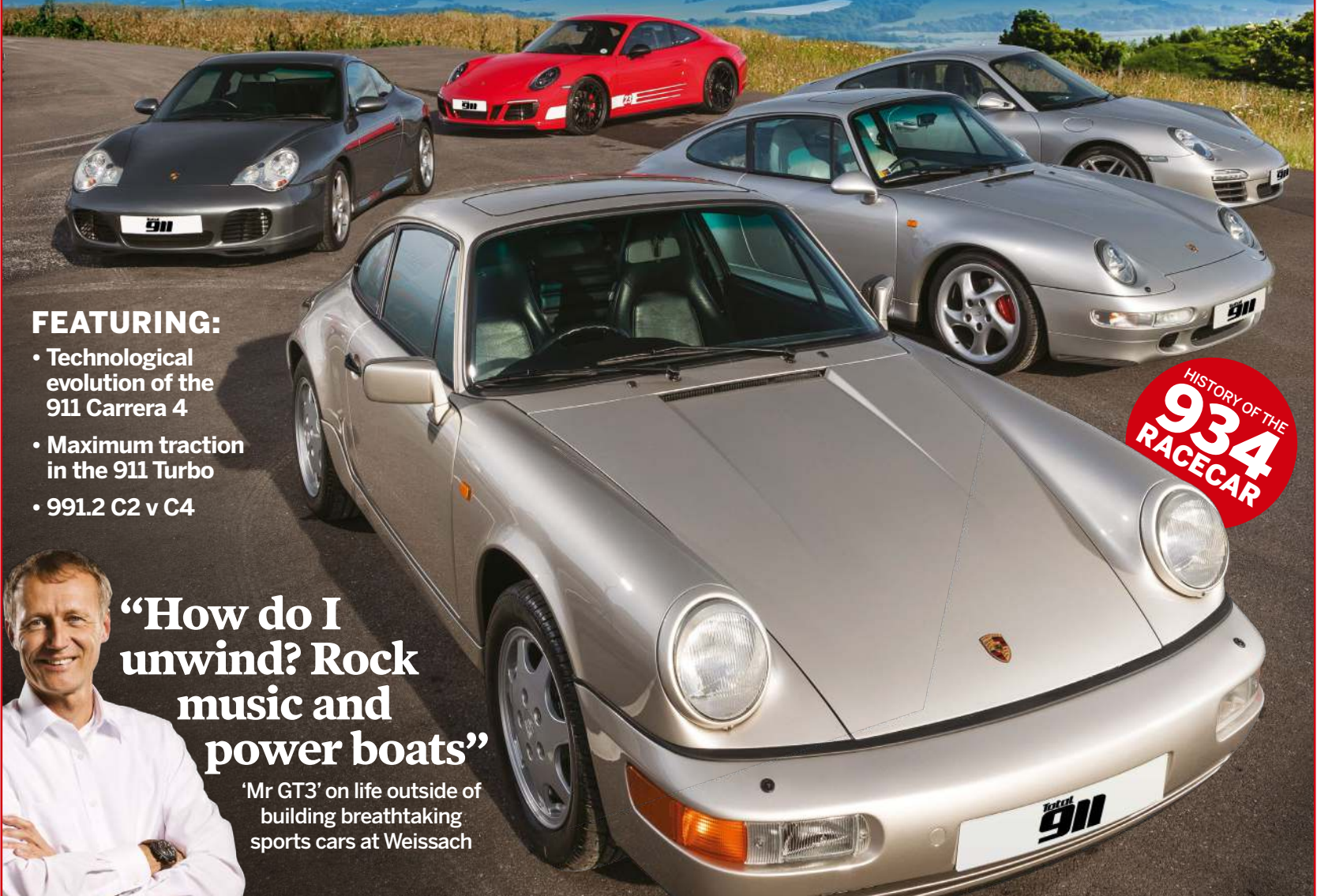
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‘Mr GT3’ on life outside of building breathtaking sports cars at Weissach

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Welcome



I always relish the arrival of a new 911 GT3 RS. The car is innately special to Porsche, which does justice to each and every generation by ensuring it is the ultimate road-going expression of its hallowed Neunelfer. So what do we make of the 991.2?

You can learn all about Porsche's new Rennsport in the most detailed article you'll find on the car anywhere on the newsstand beginning on page 28. However, what does need clarification here are the facts surrounding specs and build times. Hopefully these notes will help steer you through the muddy waters of rumour and conjecture found online.

To start, there aren't going to be many examples available at first. OPCs are typically being allocated two or three cars – for context, these same centers sold four or more 991 GT2 RSs.

However, there will be a second batch of 991.2 GT3 RSs, due for delivery in 2019 (these will be built alongside the incoming 992-generation 911s). There will be slightly more batch 2 cars than batch 1, and these cars will be available with full Weissach Pack, which isn't obtainable full stop until June. So, if you've missed out on these early examples, don't panic.

What can't be answered right now is whether or not a special-edition Rennsport is to follow. After all, if the 991-generation is to herald the last naturally-aspirated 911 GT3 RS (it's fairly common knowledge the 992-generation GT cars will switch to a turbocharged flat six), is this the model Porsche is going to bow out with? Compared to how special the 997 GT3 RS 4.0 was – itself the last bastion of the manual, analogue RS, and a loss-maker for Porsche – I'd speculate not.

“There will be a second batch of 991.2 GT3 RSs, due for delivery in 2019”







1911 Opening Shot

Atop a frozen lake at Porsche's Camp Finland ice-driving experience centre, the all-white topography is spectacularly broken by the striking, jutting features of Porsche's new Lizard green GT3 RS as Mr Walter Röhrl prepares to put this new Rennsport through its paces for the cameras.

Photograph by Porsche AG

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Update

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



Production of 991-generation cars ceases

Carrera and Turbo derivatives no longer available to order

Porsche has ceased production of almost all 991-generation cars from Zuffenhausen. The move, which was denied by a Porsche press office spokesman but confirmed by multiple other sources within the company, has invited speculation as to whether the factory infrastructure at Werk II is being converted to accommodate hybrid technology and associated new production concepts or whether the space is being used to prepare a larger number of

GT cars. The theory for the latter scenario is derived from the fact that in comparison to the 997.2-generation cycle, the 991.2 GT2 RS is late to the fore, leaving just months before Porsche turns its 911 intentions to a new generation dubbed '992'. Freeing up the production line would provide Porsche with a platform to produce more GT3 RSs to meet demand.

"Carrera and Turbo derivatives are no longer available to order," a source told **Total 911**.

"Save for a few cars floating around which are already specced, the only car you can now order is a GTS. Some Porsche Centres may still have the capacity to order a Carrera T, depending whether they have sold out their allocation or not, but nothing else can now be built."

Current orders for a GTS will mean a delivery of the vehicle late this year.

Total 911 recommends speaking with a sales representative at your nearest OPC for guidance.

Porsche ploughs €6 billion into electromobility

Porsche has announced it will double its initial €3 billion investment into a comprehensive electromobility programme as part of the company's push towards plug-in hybrid and purely electric vehicles. The additional funds will go towards bolstering Mission E variants as well as the expansion and redevelopment of existing sites including Zuffenhausen and Weissach.



911 US display now open

The Petersen Automotive Museum in Los Angeles has teamed up with Porsche Cars North America to celebrate 70 years of the manufacturer with a display of 50 of the most iconic Porsche sports cars. Running until January 2019 and dubbed the most comprehensive collection outside Stuttgart, tickets for 'The Porsche Effect' can be purchased from petersen.org.





Porsche to take centre stage at Goodwood FoS

Central feature will mark 70 years of Porsche sports cars

Porsche will once again headline the Goodwood Festival of Speed after it was revealed the Central Feature for 2018 will celebrate 70 years of the Zuffenhausen sports car manufacturer. This will be the third time Porsche has had its sports cars adorning the world-renowned Central Feature in front of

Goodwood House, more than any other manufacturer. Porsche used the 2017 event to launch its 991 GT2 RS and give public debuts to its 991 Turbo Exclusive Edition and GT3 models.

This year's Festival will showcase the full range of Porsche's achievements in a dedicated batch on the Goodwood

hillclimb, with other examples of the marque's rich heritage also displayed around the event site.

The 2018 Festival of Speed, surely an event not to be missed by enthusiasts of the Porsche marque, takes place 12 to 15 July. Tickets can be obtained via the website goodwood.com.

What's on in 2018

- Porsche Travel Experience: Tuscany
5-11 April
Seven-night wine-tasting tour along the Mille Miglia route
- FIA Spa 6 Hours
5 May
First race of new WEC 2018/19 'super season' begins in Belgium
- Supercup round 1
11-13 May
Round one takes place in Barcelona
- Le Mans 24 Hours
16-17 June
The world's most famous 24-hour race takes place in France
- Goodwood Festival of Speed
12-15 July
Porsche will once again headline the world's largest motoring garden party



Porsche Classic now 3D printing parts

Innovative tech could mean an end to unavailability of classic parts

The Classic arm at Porsche has sought to circumvent potential problems with the unavailability of classic car parts by successfully trialling a 3D printing process for components.

The company has ensured that the 3D-printed parts technically and visually match the part's original specifications, helping

to expand Porsche Classic's range of 52,000 parts, and meaning that they will be more readily available for owners of classic cars. Steel and alloy parts are produced using a selective laser melting process, while plastic parts such as the base for a Speedster's rear-view mirror (above), are completed with an SLS printer.



Rare Porsche at Amelia Island auctions

Host of modern classics will look to improve on shaky 2018 start

All eyes were on the various auction houses at Amelia Island Concours d'Elegance as **Total 911** went to print as modern-classic Porsche look to recover from a shaky start to 2018 thus far.

Gooding & Co looks to have the pick of the lots from a Porsche perspective, with a 964 Turbo S Leichtbau featuring with just 100

kilometres from new, plus a 993 GT2 and one-of-500 997 GT2 RS.

Piquing interest of serious collectors is Porsche's 1974 2.1-litre Turbo RSR, this R13 example the most successful Turbo RSR of all time, placing second at the 1974 Le Mans 24 Hours. The car has an estimate of \$6-8million.



Porsche 992 interior revealed

Total 911's spies capture inside of next-generation 911 for first time

The cabin of Porsche's next-generation 911, the 992, has been uncovered for the first time after **Total 911's** spies were able to get up close to a test mule. As you can see, the inside of the 992, set for launch at the Paris Motor Show in October, has been completely reworked with what could be argued as an even greater lean towards comfortable GT driving over focused sports car driving.

The screen in the centre of the dashboard is now much bigger, in line with the 911's Panamera cousin, while the centre console beneath it appears to be wider, too. PASM and PSM buttons have been relocated up from the centre console on to a small panel beneath the dashboard screen, though the biggest and most radical changes have taken place in front of the driver's seat.

The 911's iconic five dials, in existence since the first 911 of 1963, have been disbanded in favour of a digital screen either side of an analogue tachometer. In front sits a three-spoke, multi-function wheel that's been redesigned despite retaining the 'Mode' wheel introduced for the 991.2 generation. Despite a scrapping of the 911's five dials, traditionalists will be enthused by the presence of a manual shifter.

Particulate filters to be fitted to all 911s from September

Measure introduced to ensure cars pass new emissions tests

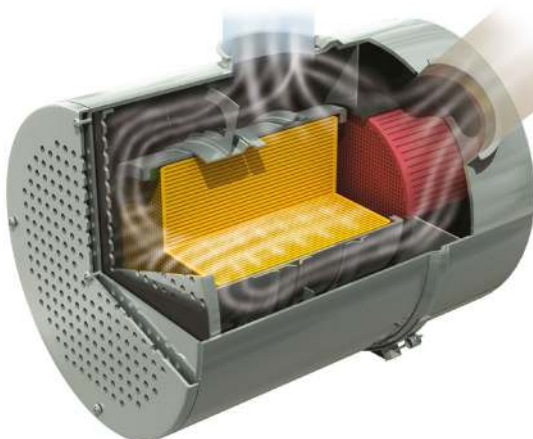


Illustration by Adrian Mann

All Porsche 911s leaving the factory from September will be fitted with a new particulate filter to enable them to conform to new Euro 6B emissions requirements. Porsche will fit the particulate filter to all of its sports cars exclusively using internal combustion engines for power, affecting the 718 Boxster and Cayman line-up as well as the 911 itself. Particulate filters are commonly found on diesel cars and capture and store exhaust soot in order to reduce emissions. The filters require regular emptying, which is usually done passively as the engine burns off the soot when reaching a certain temperature. This regeneration process takes

place every 300 miles or so, according to the AA, but problems occur when a car is only used for short journeys, not allowing the engine to get up to temperature enough to burn the soot. Porsche is expected to get around this by installing software which will detect when the particulate filter needs emptying, injecting extra fuel into the engine to raise exhaust temperatures and provide a catalyst.

First 911 models to leave Werk II with the filter installed will be the 991.2 GT3 RS and 991.2 GTS, as well as the first 992-generation Carreras which won't come with hybrid technology. Batch one GT3 RSs will not have the particulate filter.



Ben Barker

The FIA WEC driver shares all about his world championship campaign

- **2017:** FIA WEC Gulf Racing 991 RSR
- **2013-2016:** Porsche Mobil 1 Supercup
- **2012:** Porsche Carrera Cup GB Runner Up



The perfect start to my 2018

Ben recounts his victorious season opener in Bathurst and explains why his future could lie in the US

Those of you who follow international motorsport closely will already be aware of the result of the Bathurst 12 Hours, but I'm pleased to reveal to everyone else that the 2018 season got off to a great start for yours truly.

I've made no secret of the fact that I love Australia, and the Mount Panorama circuit in particular, so winning there with Grove Racing last month was the cherry on top of the icing on the cake. This was my fourth appearance at Bathurst with Grove and the second time the #4 Porsche 911 GT3 Cup car has come out on top of its class, so that's not a bad strike rate.

The excessively patriotic yellow and green machine began to feel more to my liking through practice, and I was able to claim pole position half a second faster than I managed in 2017 and well ahead of our nearest rival to secure a place in the middle of a 50-car grid for the 5.45am start (yes, really). Starting a race in the dark at Bathurst is beyond mental and certainly wakes you up, even at that silly hour, but we survived the initial chaos and that set the tone for the rest of the event.

Although avoiding trouble on track meant that the race was relatively smooth, we did have to overcome an unexpected twist when one of my teammates, Brenton Grove, was taken ill behind the wheel. The team was able to draft in experienced Porsche racer Dan Gaunt to ensure that the remainder of the event ran smoothly. The #4 eventually reclaimed the lead with four hours remaining and went on to win by three laps.

The 12 Hours has become one of the 'can't miss' events of the year – especially on my calendar – and is the perfect warm-up to the rest of the season, but it always proves to me that I'm definitely not a cold weather kind of guy! After enjoying a taste of the Australian summer, heading home to a bleak and blustery Blighty is never a comfortable experience – which is just one reason why I'll be heading off to Florida just before you get to read this...

Rest assured, however, that this isn't just another holiday, as I'll be heading to one of the world's most famous races to do some important networking for the future. Having sampled life in the IMSA SportsCar series with the GB Autosport

team a few years back, I've always hankered after a return, but I know that I can't just rock up Stateside and expect someone to put my bum in a seat. Endurance racing in the USA, as in the rest of the world, is enjoying something of a resurgence and the IMSA WeatherTech SportsCar Championship is flourishing at the moment, so it'd be good to get involved.

It'll be strange to be at a race meeting and not actually be racing, but I'll keep myself engaged in the weekend by supporting a couple of entries with whom I've had history. Occasional teammate Egidio Perfetti is competing in one of the support races, while one of my sponsors, Montaplast, is backing the Land Motorsport Audi R8 in the headline 12 Hour event, so there will be plenty to keep me occupied. The FIA WEC visits Sebring in 2019, too, so there is no harm in familiarising myself with the circuit either.

My main reason for being there is to get my face and name known in US racing circles, and I'll be working the paddock hard in search of an opportunity to take my talents back to that side of the Atlantic sometime soon. Wish me luck...

Views

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editorial@total911.com

The very best of your Porsche opinions via emails, letters, the website & social media



991.2 Carrera T v GTS Dilemma

Dear Sir,

It has been a pleasure reading **Total 911** magazine since I found it two years ago. There is so much information on current and previous models. I am from Hong Kong and currently drive a Cayman 981 GTS (PDK), but I wish to get a 911 in the future.

After driving the Cayman GTS, I have to admit there is charm in the naturally aspirated engine, particularly the sudden increase in engine roar when it revs over 4,000rpm. For the new generation of 991.2 with the turbocharged engine, would the engine have a different roar after certain revs?

My ideal model would be a 911 with NA engine and manual six-speed gearbox. In our region setting it seems impossible to get a GT3 in the coming two years, despite my willingness to wait.

I've now turned my eyes to the 991.2 GTS and Carrera T. From a driving pleasure perspective which model would best deliver for street driving?

Also, I learned from your article that the T's gear ratio (mainly the seventh gear ratio) is lower than the basic 991.2. How about the GTS model? Does the GTS give similar low-gear ratios?

Thank,

Dominic Tai

Swapping a 981 GTS for a 911 is a positive natural ascension in the world of Porsche, Dominic. Congratulations on your choice. Regarding the turbocharged engines, we're huge fans of the new 9A2 unit here at Total 911. To all intents and purposes, it behaves very much like an NA flat six: it's rev happy, doesn't

run out of puff as you approach the redline (despite smaller turbochargers being fitted than a bona fide 911 Turbo) and emits a good, throaty noise. Bar the hushed whistle of the turbos spooling up under acceleration, plus a modicum of delay in throttle response, you'd likely forget the flat six uses forced induction.

As for Carrera T vs GTS, for pure road driving the Carrera T will be more rewarding: it's slightly softer in terms of chassis and its engine (80hp down on the GTS) and gearbox are better suited to the confines of road driving. If you intend to do even the odd track day, you'll need the better brakes of a GTS. The Carrera T's final drive ratio is also shorter than the GTS. Good luck!

Write to or email us with your Porsche opinions and the star correspondence will receive a complimentary copy of the **Porsche 911 Buyer's Guide 3rd Edition** bookazine, worth £9.99!



991 Speedster?

Dear Sir,

Just wanted to sound you out on the much rumoured but never seen 991 Speedster – do you think it's still likely to happen as I understand at the end of May the current 911 production line is closed and work starts to get the next generation sorted. Any info good, bad or ugly would be much appreciated.

Robert Stone

Rumours have long been doing the rounds regarding the possibility of a 991 Speedster (as you know, **Total 911** first reported this back in 2016). As you'll see from our Update section this issue, **Total 911** has been informed Porsche will celebrate 70 years of existence by releasing a Speedster at July's Festival of Speed. Its 356 Speedster was a pillar of the



Hypocrisy of the automotive press

Dear Sir,

First, let me say how much I enjoy your magazine and the enthusiastic articles on new and old 911s. My complaint is with the automotive press in general, especially here in the US. I get so frustrated with all the 996 bashing concerning the headlights. I never read about anyone disparaging the look of GT1s. Same with the 915 transmission. Never do you read about a journalist bemoaning the 915 transmission in a 1973 RS or S. It's the same shop-worn, sanctimonious and hypocritical cliches when it comes to the PDK transmission not being as 'visceral' as a manual. Again, I see no one complaining about the new GT2 RS, Porsche's most extreme 911 ever, and the fact it only comes with a PDK.

Stephen Gies

The 996 always has and perhaps always will divide opinion among enthusiasts, regardless of whether it shares headlights with a Le Mans-winning race car or not. The same goes for the other instances you highlight, regarding Porsche's most extreme 911 ever, the GT2 RS, being PDK only, or the 2.7 Carrera RS with 915 transmission. However, if we all liked the same things, the world would be a boring place. There are many positives to be taken from each situation highlighted: the 996's divisive

nature has kept the car affordable, allowing more enthusiasts to enter the market. The GT2 RS being PDK-only has allowed purists to get on with buying manual cars while the turbocharged Rennsport in question is scurried away into collections. We can only encourage you to use **Total 911**, along with other sources, to broaden your knowledge of Porsche to make an informed decision on any opinion you may hold. It's all part of the fun, right?

BELOW GT1 is the most expensive road 911 ever sold at auction yet is styled on a 996



Ask the expert

Got a question for our Porsche technician? Email us editorial@total911.com



Scott Gardner

Job Title
Gold Diagnostic Technician
Place of work
Porsche Centre Bournemouth, UK
Time at Porsche
12 years

I've a 964 C4 (it's my first 911) and am getting very frustrated by the understeer induced from the heavy all-wheel-drive system. I'd like to know therefore how easy is it to remove drive to the front wheels, effectively converting the car to rear-drive, C2 spec? I'm sorely tempted! Ray Endsleigh, via email

Scott's answer: "This would definitely not be something I would advise doing to a 964 Carrera 4 – they have too complex an all-wheel-drive system with the high pressure pump and diff locks. Speaking to our classic car technician, Nick Perry (also Gold certified) he mentioned that even for installing a Carrera 2 gearbox, you may potentially still encounter problems with the diff lock system.

My advice in the first instance then is to opt for a good geo setup to help eliminate some of the understeer you mention or, if you are really committed, sell the 964 Carrera 4 and look to replace it with a rear-drive Carrera 2!"



Nine nine two big

Dear Sir,

Great to see some early shots of the 992 Turbo out in testing (*Total 911* issue 163). Thing is, the car is now just getting too big for me. I own a 997 Turbo, and though it's a wide-bodied car, compared to even a 991 it's tiny. It looks like the 992 is moving further away from the 'little sports car' the 911 has always been loved for.

It doesn't just come down to its proportions – there's a practicality to consider too: if the car is going to be more than two-metres wide, how will it fit in a conventional parking space?

Short answer: it won't, unless you want to then climb out through the window!

Luke Graham

The 911 has certainly grown in dimensions, but you can argue so has every other car on the roads today – a Volkswagen Polo is now comfortably bigger than even a Golf of 15 years ago, for example. While the cars have increased in size, their safety has also improved. Personally, we're happy to drive a more bloated car if it means ourselves and any other occupants inside it are safer than ever before.

Porsche Classic v the specialists

Dear Sir,

Your interview over lunch with RPM Technik and Autofarm, two brands I've admired from afar for a while now, offered a fascinating insight into the trade. It seems Porsche is now acutely aware there's a truly huge market of classic and modern-classic Porsche to tap into. This is a marked turnaround from only a few years ago when it seemed main dealers were happy to lose cars and customers to the specialist or third-party network once the car's warranties lapsed.

Perhaps it's a mark of an improvement in quality of the product that now Porsche is happy to invite cars which are many years old back into the fold. Either way, for me you can't beat the hands-on approach of a specialist. In the interview, Darren mentioned the latte lounge approach to customer service at a main dealer. I'm sure I speak for many reading this publication when I say as an enthusiast it's not the coffee I'm concerned with,



it's the level of knowledge and love that's going into my Porsche each visit.

Will Turner

Whether you use a specialist or main dealer for buying, selling or servicing your 911, you should be receiving nothing but spectacular service. While Porsche has obviously looked to the specialist market for inspiration in appearing more accommodating for classic cars, specialist dealers have also upped their game in response to the rise of Porsche Classic.

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Future PLC Richmond House, 33 Richmond Hill
Bournemouth, Dorset, BH2 6EZ

Editorial

Editor **Lee Sibley**
lee.sibley@futurenet.com
01202 586200

Senior Art Editor **Stephen Williams**
Production Editor **Nikole Robinson**

Contributors

Rob Clarke, Richard Klevenhusen, Tony McGuiness, Joel Newman, Gina Purcell, James Samuel, Chris Randall, Chris Wallbank, Kyle Fortune, Joe Croser, Greg James, David Grover, Daniel Pullen, Dana Pawlicki, Craig Llewellyn, Joe Williams, Ali Cusick, Andreas Mau, Kieron Fennelly, Wilhelm Lutjeharms, Kian Eriksen

Cover image

Daniel Pullen

Photography

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Advertising

Media packs are available on request
Regional Advertising Director **Mark Wright**
mark.wright@futurenet.com
Advertising Manager **Toni Cole**
toni.cole@futurenet.com
Account Manager **Alex Choma**
alex.choma@futurenet.com

International

Total 911 is available for licensing. Contact the International department to discuss partnership opportunities
International Licensing Director **Matt Ellis**
matt.ellis@futurenet.com

Subscriptions

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Circulation

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Production

Head of Production **Mark Constance**
Production Project Manager **Clare Scott**
Advertising Production Manager **Joanne Crosby**
Digital Editions Controller **Jason Hudson**
Production Manager **Nola Cokely**

Management

Managing Director **Aaron Asadi**
Commercial Finance Director **Dan Jotcham**
Editorial Director **Paul Newman**
Head of Art & Design **Greg Whitaker**

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27k miles.....£75,000



(997) "4S" 3.8 "GEN 2" PDK (60 - 2011)
Dark blue with sand leather,
57k miles.....£49,000



(997) "4S" 3.8 "GEN 2" PDK (59 - 2009)
Basalt black with black leather,
35k miles.....£48,000



(997) "4S" 3.8 "GEN 2" PDK (60 - 2010)
White with black leather,
59k miles.....£47,000



(997) "2S" 3.8 "GEN 2" PDK CAB (09 - 2009)
Basalt black with black leather,
29k miles.....£47,000



(997) "4S" 3.8 "GEN 2" PDK (09 - 2009)
Meteor grey with black leather,
50k miles.....£46,000



(997) "C4" 3.6 "GEN 2" PDK (60 - 2010)
Aqua blue with black leather,
30k miles.....£46,000



(997) "4S" 3.8 "GEN 2" PDK (10 - 2010)
Meteor grey with ocean blue leather,
58k miles.....£46,000



(997) "2S" 3.8 "GEN 2" PDK (60 - 2010)
Atlas grey with black leather,
49k miles.....£46,000



(997) "4S" 3.8 "GEN 2" (09 - 2009)
Basalt black with tan leather,
48k miles.....£45,000



(997) "4S" 3.8 "GEN 2" PDK (58 - 2008)
Meteor grey with black leather,
58k miles.....£44,000



(997) "4S" 3.8 "GEN 2" PDK (09 - 2009)
Basalt black with black leather,
62k miles.....£44,000



(997) "2S" 3.8 "GEN 2" PDK (09 - 2009)
Silver with black leather,
59k miles.....£41,000



(997) "C2" 3.6 "GEN 2" PDK (09 - 2009)
Red with black leather,
46k miles.....£39,000



(997) TURBO 3.6 TIP (08 - 2008)
Basalt black with black leather,
38k miles.....£58,000



(997) TURBO CAB 3.6 TIP (57 - 2007)
Basalt black with black leather,
59k miles.....£56,000



(997) TURBO 3.6 TIP (57 - 2007)
Silver with black leather,
63k miles.....£50,000



(997) "4S" 3.8 TIP CAB (08 - 2008)
Basalt black with black leather,
44k miles.....£38,000



(997) "4S" TIP 3.8 CAB (57 - 2007)
Midnight blue with ocean blue leather,
36k miles.....£36,000



(997) "4S" 3.8 (07 - 2007)
Basalt black with black leather,
45k miles.....£36,000



(997) "4S" 3.8 TIP (56 - 2006)
Basalt black with black leather,
52k miles.....£34,000



(997) "2S" 3.8 TIP (07 - 2007)
Silver with black leather,
49k miles.....£34,000



(997) "2S" 3.8 (57 - 2007)
Midnight blue with black leather,
63k miles.....£34,000



(997) "4S" CAB 3.8 (07 - 2007)
Silver with black leather,
62k miles.....£34,000



(997) "4S" 3.8 TIP (56 - 2006)
Silver with ocean blue leather,
51k miles.....£33,000



(997) "2S" 3.8 TIP (07 - 2007)
Basalt black with black leather,
66k miles.....£33,000



(997) "2S" 3.8 TIP (57 - 2007)
Silver with black leather,
53k miles.....£33,000



(997) "2S" 3.8 TIP CAB (07 - 2007)
Basalt black with black leather,
62k miles.....£33,000



(997) "2S" 3.8 TIP CAB (55 - 2005)
Atlas grey with black leather,
50k miles.....£30,000



(997) "2S" 3.8 TIP (55 - 2006)
Silver with black leather,
40k miles.....£30,000



(997) "2S" 3.8 TIP (56 - 2006)
Silver with ocean blue leather,
57k miles.....£30,000



(997) "2S" 3.8 (06 - 2006)
Midnight blue with ocean blue leather,
61k miles.....£29,000



(1993) C4 3.6 (N - 1996)
Midnight blue with grey leather,
94k miles.....£50,000



PORSCHE CAYMAN "8" 3.4 PDK (63 - 2013)
Basalt black with black leather,
19k miles.....£42,000



PORSCHE BOXSTER 2.7 PDK (14 - 2014)
Basalt black with black leather,
19k miles.....£34,000



PORSCHE BOXSTER 2.7 PDK (13 - 2013)
White with black leather,
24k miles.....£31,000



PORSCHE CAYENNE "GTS" 4.8 (62 - 2012)
Basalt black with black leather,
37k miles.....£42,000



PORSCHE CAYENNE "GTS" 4.8 TIP (09 - 2009)
Meteor grey with black leather,
60k miles.....£24,000



PORSCHE CAYENNE "GTS" 4.8 TIP (58 - 2008)
Basalt black with black leather,
61k miles.....£23,000

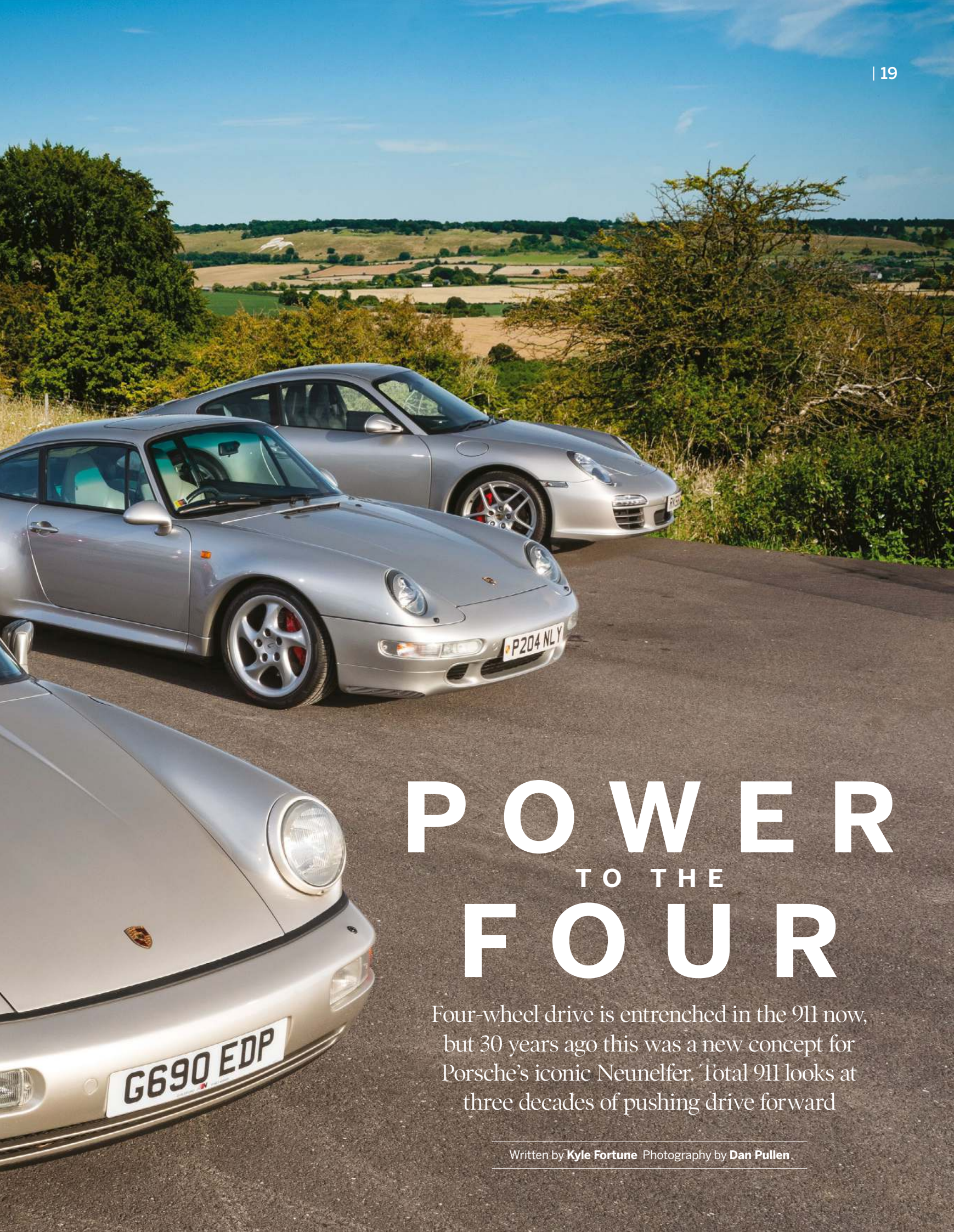
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POWER TO THE FOUR

Four-wheel drive is entrenched in the 911 now, but 30 years ago this was a new concept for Porsche's iconic Neunelfer. Total 911 looks at three decades of pushing drive forward

Written by **Kyle Fortune** Photography by **Dan Pullen**

Power to four or two wheels is a debate that's gone on for 30 years now. That's 30 years with the 911, anyway, since the 964 arrived in 1988 when 'Carrera' accompanied by a '4' entered the lexicon of Porsche speak. Porsche is celebrating that 30 years of four-wheel drive using that 964 C4's introduction as a useful line in the sand, snow or any other traction-limiting surface of choice to hang an anniversary off.

We all know that Porsche's four-wheel drive didn't start with the 964. Indeed, the Lohner-Porsche electric car of 1900 drove all four wheels via hub-mounted electric motors. Then, in 1947, Ferdinand Porsche built the Lohner-Porsche Type 360 Cisitalia Grand Prix racing car, its 12-cylinder supercharged engine able to drive all its wheels via an all-wheel drive system.

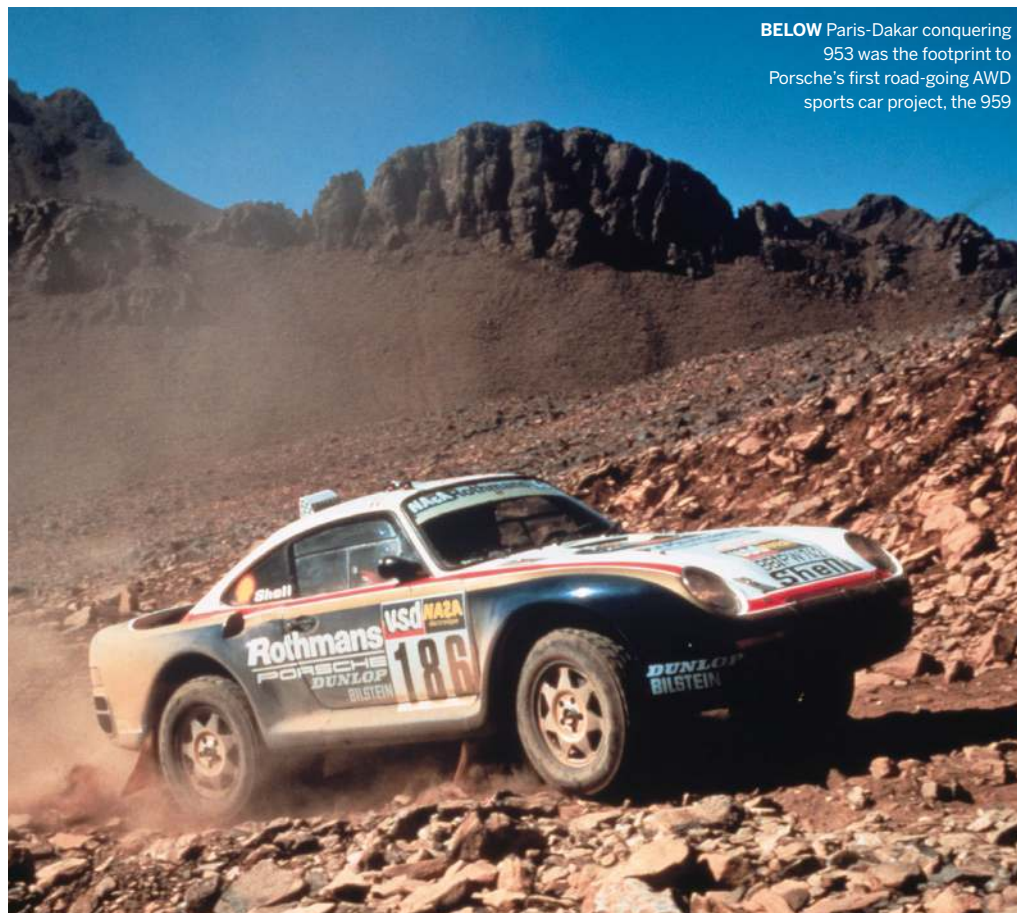
It would be motorsport again – specifically the Group B rulebook – which would see Porsche embrace four-wheel drive. The effectively open rules saw Porsche's CEO Peter Schutz and head of research and development Professor Helmuth Bott throw every available technology and more at its revolutionary 959 hypercar. That it was four-wheel drive is no surprise, with Audi's Quattro having already demonstrated the effectiveness of four-wheel drive on the world's rally stages. Porsche's new super 911 had to feature it.

Prototype testing underlined the effectiveness of driving all four wheels, Porsche developing the 953

for the 1984 Paris-Dakar rally. This heavily modified 911 ran a mechanically controlled 4x4 system and during three weeks and over 13,000km it dominated, René Metge and co-driver Dominique Lemoigne winning the famous race.

That 953 was the evolutionary step to the 959, which was first shown in concept 'Group B Studie' form at the 1983 Frankfurt Motor Show. The 959 would take the development of four-wheel drive to another level altogether. It remains a hugely complex and sophisticated system to this day, featuring what's referred to as PSK (Porsche-Steuer Kupplung – roughly translated as Porsche control coupling) four-wheel drive system. It is unusual as it allows instant torque splits while driving, either automatically through its computer control or manually selected for various conditions.

Using an output shaft from the front of the gearbox, drive was pushed to the front axle via a prop shaft to a front differential via a multi-plate clutch. It is the 959's multi-clutch arrangement that is unusual, it replacing a more common centre differential. Featuring six pairs of frictional plates, each controlled by hydraulic pressure and managed by the 959's electronics, the system needed the wheels to run at differing speeds to work in normal conditions. Thus the 959's front tyres have a rolling radius around one per cent larger than those at the rear. Should slip be detected at the rear wheels, or differing wheel speeds in corners, the clutches would engage accordingly, transmitting torque to the front axle. ➔



BELOW Paris-Dakar conquering 953 was the footprint to Porsche's first road-going AWD sports car project, the 959





“It would be motorsport again, specifically the Group B rulebook, which would see Porsche embrace four-wheel drive”



4WD and the 911 Turbo

Perhaps most apparent on the 911's evolution has been the embracing of four-wheel drive in the Turbo line-up. Porsche's early 911 Turbos had a fearsome reputation: cars for the most skilled drivers with tricky power and handling traits that appealed to only a small number of buyers. With the 993 Turbo that changed: the 414hp twin-turbo 993 civilised the Turbo, removing its handling quirks and creating a machine that mixed GT comfort with supercar performance and handling.

Four-wheel drive was arguably the only way to go with the Turbo, at least for a mainstream audience, the hardcore forced-induction fans always able to get their blown kicks from the GT department's spin-off models, the 993, 996 and 997 GT2 and its RS relation, and, most recently, the 991 GT2 RS. The GT department's Andreas Preuninger did admit with the firm's latest GT2 RS they thought long and hard about leaving the Turbo's driveshafts, differential and multiplate clutch transmission in to deal with its prodigious output, however.

That the Turbo models have remained four-wheel drive is because of their ever-increasing outputs. A modern 991 Turbo S's output massively surpasses that of the 959 (even a 993 Turbo S had output to match it), the huge torque delivery and its response arguably necessitating four-wheel drive – for the majority of customers at least. Indeed, it's increased the accessibility of the Turbo to a wider audience and has allowed Porsche to push the 911 in many different ways, differentiating the Turbo from its initial hardcore market and allowing the GT department to fill that gap with models like the GT3 and their RS siblings.



TOP Switchgear for locking differential made its way onto the 964 Carrera 4, but VDO gauge showing torque split remained unique to the 959



RIGHT 964 Carrera 4 was released in autumn 1988 for MY1989 cars. Rear-drive Carrera 2 followed a year later



Evolution of 4WD tech

1983

Rallying success

Porsche tries out a mechanically operated four-wheel drive 911 (953) rally car in the Paris-Dakar after initial success with prototype cars in testing. It won, underlining there might be some value in pushing drive forwards...

1986

Genesis: the 959 hammers 4x4 superiority

Porsche applied Group B rules and its best thinking to produce the most sophisticated 4x4 system ever. So advanced it remains a sensation today.

1988

Porsche's production Carrera 4 arrives

With lessons learned from the 959 project, the 964 series 911 is introduced with four-wheel drive, Porsche introducing it prior to its Carrera 2 relation by a whole production year.

1994

Lighter, simpler, better with the 993 C4

Realising that the 964 C4's four-wheel drive was needlessly complex, Porsche stripped weight and complexity, adding balance, poise and a more natural feel in the process.



In normal conditions the drive would be apportioned automatically, with a maximum of 40 per cent being pushed to the front wheels.

Under its famously quick full-load acceleration in perfect conditions, 80 per cent of drive would be routed to the rear axle, though Porsche offered the 959 driver a choice of four drive modes via a stalk on the steering column. Traction locked the drive in a 40/60 front to rear torque split to allow pulling away out of deep snow in emergencies. In Ice and Snow modes that 40/60 push remains constant, while Rain and Dry offered a variable split that used G-force and ABS wheel-speed sensors as well as details like the throttle position, gear ratio, engine revs, turbo pressure and even the incline to best apportion the drive from the sequentially turbocharged 2.85-litre, 450hp flat six engine.

To homologate the car Porsche needed to build 200 (it would eventually build 337), its technological complexity meaning customer cars were delayed. It proved its worth in competition with three campaigned in the 1986 Paris-Dakar, the 959 taking first, second and sixth places in this most unlikely environment for a supercar. The win was again taken by René Metge, with Jacky Ickx second and a third 'support car' driven by Porsche engineer Roland Kussmaul taking that sixth spot. If that wasn't enough to demonstrate the 959's superiority, a single 961 racing version built off chassis 10016 competed at Porsche's more usual Le Mans 24-hour stomping ground. Again René Metge took the wheel, this time joined by fellow Frenchman Claude Ballot-Léna, together finishing first in class and seventh overall.

Famously expensive to build, the 959 is often quoted as having cost Porsche twice as much to build as Porsche could sell it for. That, say some commentators, is conservative, automotive historian Karl Ludvigsen learning that each 959 cost Porsche nearly three times its selling price.

With that legacy, both competitive and financially, it's little wonder that Porsche introduced its next 911 with the option of four-wheel drive. The 964, Porsche's biggest re-engineering of the 911 since the G-Series cars, premiered with the Carrera 4 in 1988 (the C2 following its 4WD relation to market), it being the first production 911 to apportion drive to both axles. It matched something of a motoring zeitgeist, with rally cars and the 959 demonstrating four-wheel drive as desirable, safe and performance enhancing, while the 1990s would be a decade where four-wheel drive would feature on everything from sports cars to lowly rep and family cars.

Unsurprisingly, and despite Bott's departure, the 964 borrowed elements of the 959's drivetrain, ➔

1994

Viscous coupling and ABD

Quick-reacting viscous drive allowed greater immediacy, while ABD allowed even more precise control, this forming the basis for the 911 and 911 Turbo's 4x4 systems to this day.

2002

Porsche Traction Management (PTM)

Porsche introduced its Cayenne SUV with PTM, a version of which would see use in the 2006 997 Turbo. It Uses an electro-magnetically actuated multiplate clutch to apportion drive.

2006

Oil-cooled viscous 996

Changes with the 996 Carrera 4 added oil-bathed viscous coupling which improved cooling, even under high stress loads.

2012

New torque distribution display

Digital screen within dash of 991 shows real-time torque split of power between front and rear axles.

2013

Bye electro-mechanical, hello electro-hydraulic

PTM four-wheel drive now features quicker reacting electro-hydraulic control of the multiplate clutch for even greater control of propulsion forces.

albeit simplified to actually more closely resemble that of the 953. Porsche described its four-wheel drive system as 'differential slip controlled' and dubbed it PDAS (Porsche Dynamische Allrad Steuerung – translated as Porsche Dynamic All-wheel Control). Changes in the 911's structure and chassis allowed it the binning of the torsion bar from 1986, while higher drive tunnel required for the four-wheel drive system increased the torsional rigidity of the 911's structure. Underneath, a belly pan was fitted to ensure the 964's front differential and that the drive tunnel didn't disrupt air flow.

Drive in the 964 Carrera 4, offered in Coupe, Cabriolet and Targa forms, saw torque transferred via a differential in front of the gearbox through a hollow shaft connected to a centre differential (Power Transfer Unit). From here the drive is distributed 31 per cent to the front and 69 per cent to the rear, the differential controlled by a multiplate clutch operated by the hydraulic pressure from the C4's braking system. With the ABS sensors once again used by the electronic control unit to detect wheelspin, any excess drive torque could be diverted to the axle best suited to using it.

The Carrera 4's four-wheel drive system was designed to enhance traction and improve handling. It was set up to help reduce the likelihood of oversteer by utilising a lateral, transverse lock on the rear wheels, too, countering the Ferrari effect (from 31mph and above) – where lifting off the accelerator mid-bend produces oversteer.

That inherent safety would ultimately prove to be one of its shortcomings, the 964 C4 a car that, when pushed, is prone to understeer, contrary to 911s before it. Driven back to back with its Carrera 2 relation

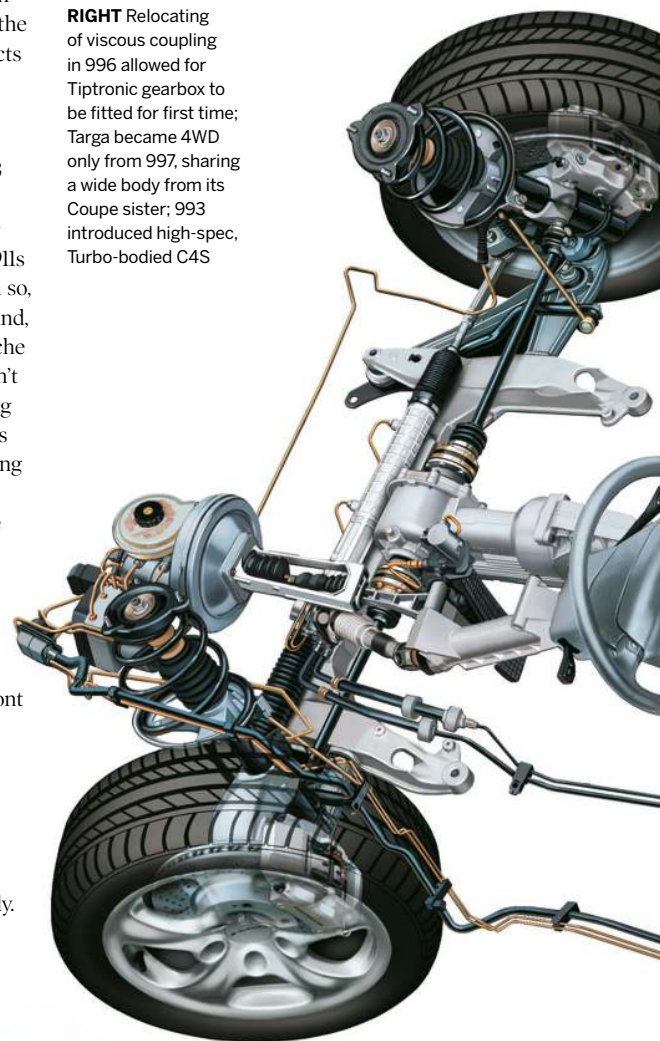
it's obviously four-wheel drive, not least because in some situations you can feel it winding up, while the circa-100kg weight difference also marginally affects its performance.

Even so, around one in three 964s sold would be Carrera 4s, that inevitably seeing Porsche go on to develop a four-wheel drive version of its 993 replacement. The 993's development chief Bernd Kahnau admitted that with the new rear axle, rear engine and platform on the last of the air-cooled 911s that "we really didn't need four-wheel drive". Even so, pressure from customers in markets like Switzerland, as well as the 964's sales success, persuaded Porsche to develop a Carrera 4, even if Kahnau said it wasn't necessary. Fritz Bezner was tasked with developing a Carrera 4, his take simpler, lighter and hence less expensive, all while being less obvious when driving than with the system in the 964 C4.

Introduced in September 1994, the 993's torque split would be less than that of the 964, typically sending between 5 and 15 per cent of drive to the front axle via a passive viscous coupling. With less power rotating those front driveshafts they could be lighter by around 50kg overall, the viscous coupling transferring propulsion to the front axle when slip is detected at the rear.

With a limited-slip differential on the rear axle with 25 per cent locking under load and 40 per cent on overrun, as well as the fitment of ABD (Automatica Brake Differential), which prevents wheelspin by braking individual rear wheels, the 993's four-wheel drive system works more naturally. It feels very much like a rear-driven 911, with the confidence inspiring gains that four-wheel drive brings with it. ➔

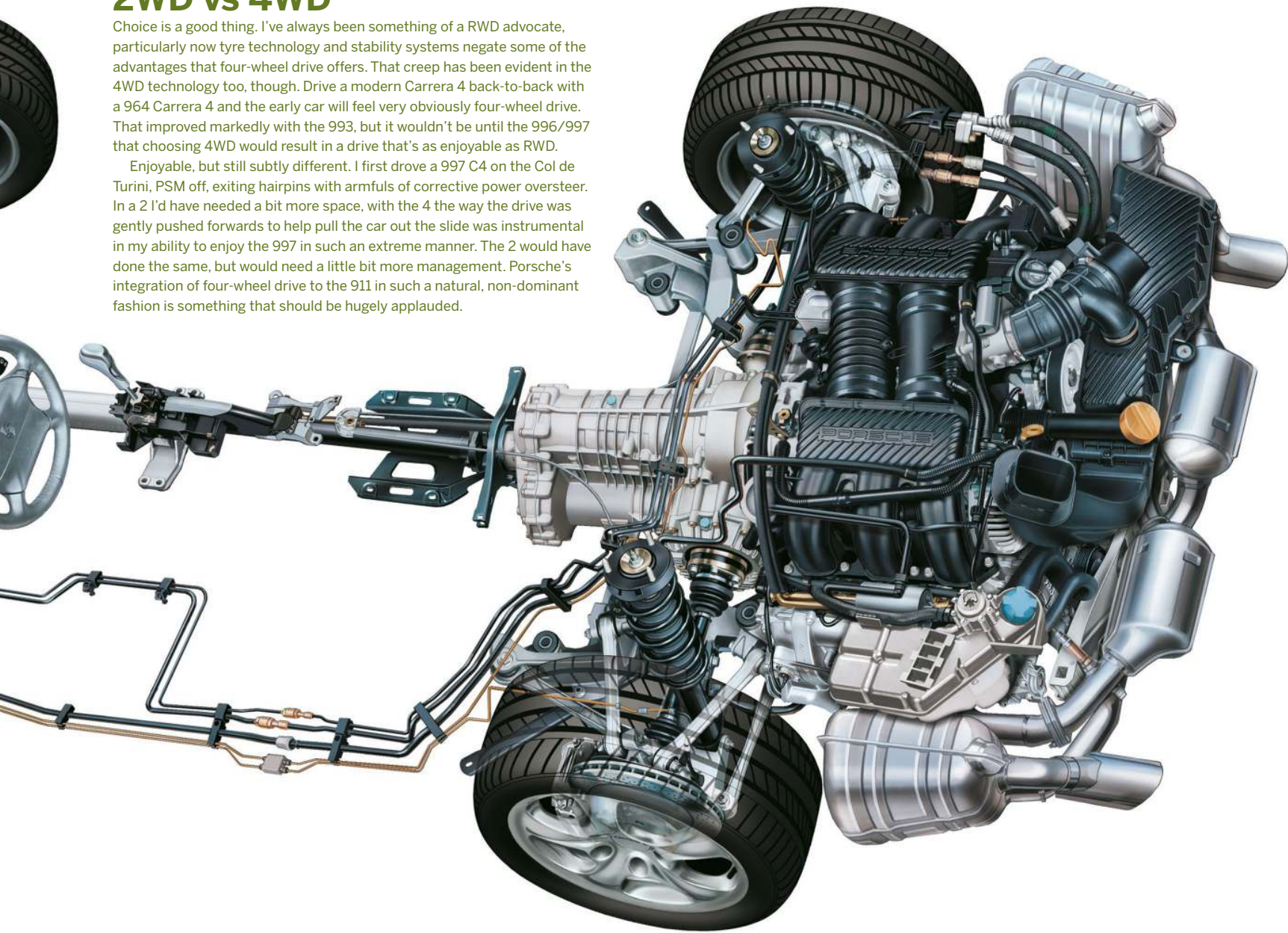
CLOCKWISE FROM RIGHT Relocating of viscous coupling in 996 allowed for Tiptronic gearbox to be fitted for first time; Targa became 4WD only from 997, sharing a wide body from its Coupe sister; 993 introduced high-spec, Turbo-bodied C4S



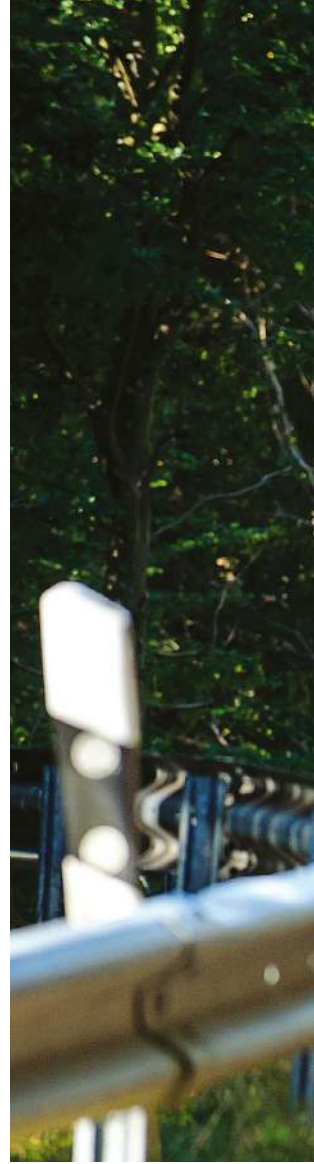
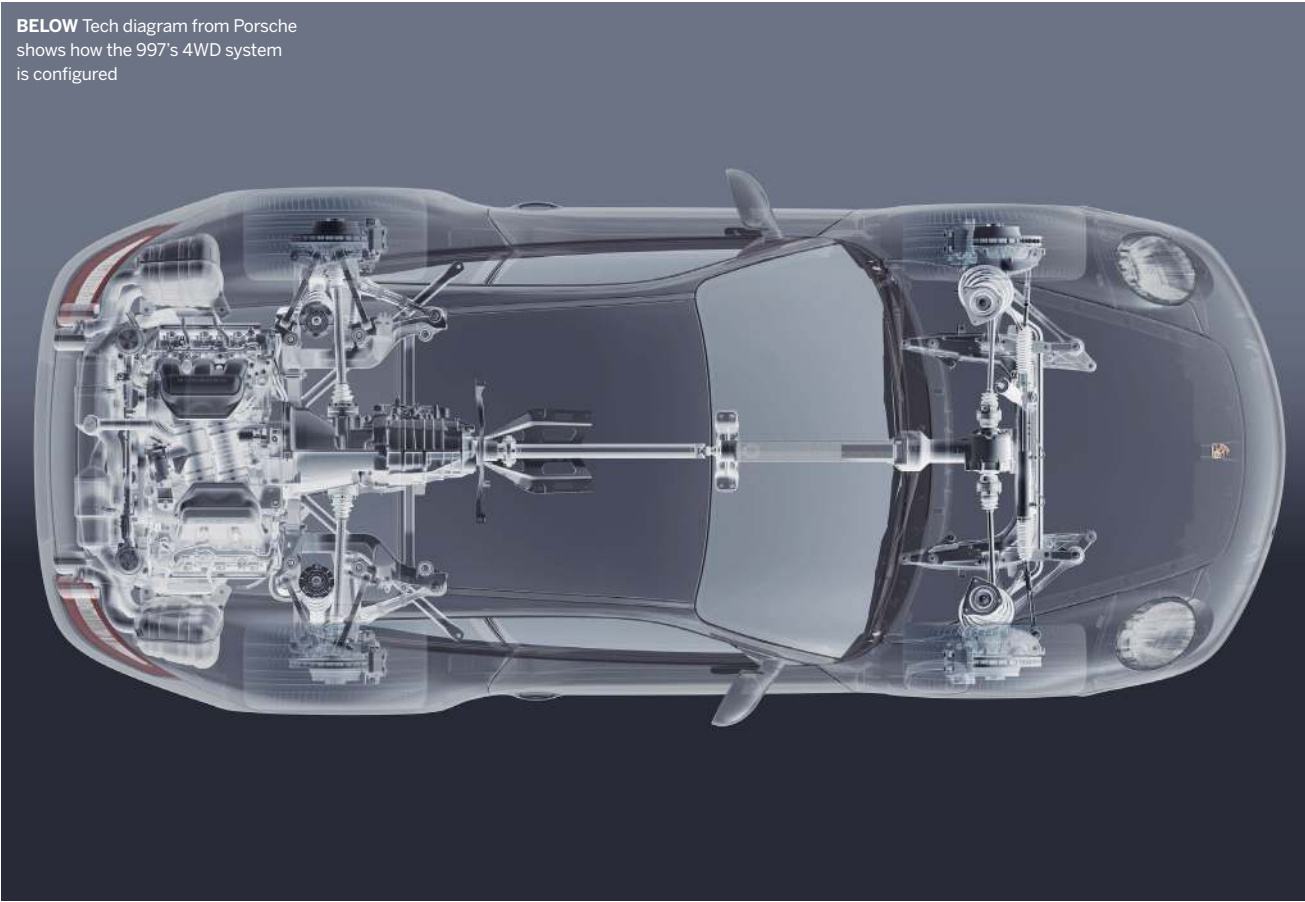
2WD vs 4WD

Choice is a good thing. I've always been something of a RWD advocate, particularly now tyre technology and stability systems negate some of the advantages that four-wheel drive offers. That creep has been evident in the 4WD technology too, though. Drive a modern Carrera 4 back-to-back with a 964 Carrera 4 and the early car will feel very obviously four-wheel drive. That improved markedly with the 993, but it wouldn't be until the 996/997 that choosing 4WD would result in a drive that's as enjoyable as RWD.

Enjoyable, but still subtly different. I first drove a 997 C4 on the Col de Turini, PSM off, exiting hairpins with armfuls of corrective power oversteer. In a 2 I'd have needed a bit more space, with the 4 the way the drive was gently pushed forwards to help pull the car out the slide was instrumental in my ability to enjoy the 997 in such an extreme manner. The 2 would have done the same, but would need a little bit more management. Porsche's integration of four-wheel drive to the 911 in such a natural, non-dominant fashion is something that should be hugely applauded.



BELOW Tech diagram from Porsche shows how the 997's 4WD system is configured



BELOW Digital torque distribution meter for the 991 gave real-time display to driver of how much torque was being ferried between each axle





With the introduction of the 996 the simple, effective four-wheel drive system of the 993 would be largely carried over, despite the new water-cooled Carrera benefitting from a raft of new technology, including PSM stability control. One notable change is the shift in the viscous coupling from the front of the gearbox to the front differential. With the Carrera 4 Porsche had the opportunity to completely re-engineer the front of the 996, being structurally different from the windscreen forward. The suspension struts are slightly inclined to the rear to allow routing of the driveshafts, the fuel tank differed in shape and the boot lost some capacity, now down to 100 litres.

Typically some 5 per cent of drive reaches the front axle, but as much as 40 per cent can be directed to the nose, aiding stability and grip. Porsche has always pushed its Carrera 4 as technology that

enhances driver appeal, rather than focusing on the safety benefits, that remaining true with the 996 Carrera 4 models. Like its predecessors, the 996 would be offered in Coupe and Cabriolet form, though no Targa option was available.

“In oversteer you can feel the four-wheel drive system apportioning drive forwards to ease the car back into a neutrality”

That would change with the 997, Porsche's heavily restyled and engineered version of the 996 introduced in 2004. With the introduction of the Carrera 4 and 4S following in spring 2005, a Targa 4 followed in 2006. Like the regular Carrera 4 Coupes the now exclusively four-wheel drive Targa features the wider bodywork, it being some 44mm broader at the rear. Like its predecessor, the driving

characteristics of the Carrera 4 models over their rear-driven Carrera and Carrera S relations is such that they deliver a little bit more stability, while in oversteer you can feel the four-wheel drive system apportioning drive forwards to ease the car back into

a neutrality. Four-wheel drive was offered on the 997.2 Carrera and Carrera S Cabriolets, exclusively on the Targa and also on the late-arriving GTS Coupe and Cab models. That spread and breadth of four-wheel drive choice

would remain with the introduction of the 991 series 911, with the Carrera 4 badge now utterly entrenched in the 911 model line-up. If Porsche has always been good at one thing it's offering choice, and whatever yours is, be it 2 or 4, the debate is likely to go on for another 30 years or more. What is undeniable, though, is that in the 30 years that choice has existed, it's gotten better with every iteration. **911**



————— **991.2 GT3 RS** FIRST LOOK —————

WHITE NOISE

Total 911 joins Walter Röhrl and Andreas Preuninger for cold-weather testing of Porsche's second-generation 991 Rennsport. So what's new?

Written by **Kyle Fortune** Photography by **Porsche AG**



ABOVE Black leather interior with contrast Lizard green colour is new and unique to the 991.2 GT3 RS, with Lizard green 12 o'clock steering wheel marker also optional

“You wouldn’t believe how much empirical stuff is still involved despite all the computers. You have to try stuff out,” says GT boss Andreas Preuninger about the new 911 GT3 RS. He’s talking specifically about those NACA ducts that are borrowed from the GT2 RS, saying that the gains they brought were far more significant than they imagined.

“The first and most brutal element for track use is they cool the brake better. Secondly, by getting so much good air from the top to the bottom through the body, we can make the air shovels, which are attached to the lower arm, a lot smaller so they’re not slammed in the wind, offering resistance. In normal form they cost us a little bit of downforce, so if you make them shorter so you’re better on the downforce side you don’t lose. They also affect the coefficient drag. This air that we suck into the brakes makes for a cleaner airflow over the car. It’s three positive points,” explains Preuninger, adding: “we astounded ourselves.”

We’re at Porsche’s Experience Centre in Finland, about 110 miles north of the Arctic Circle, and Preuninger and I are walking around the new GT3 RS. It’s cold, minus 28, the GT3 RS looking a little bit incongruous in its winter setting. We’ll see it officially

again at the Geneva Motor Show in March, but at this early preview there’s a chance to pour over the details – and have a ride. Walter will be driving, that’s Röhr, on a track cut from a frozen lake. But that’s later on, for now Preuninger’s keen to talk about his team’s latest creation, despite the biting chill.

“Our main development target under our second-generation GT3 RS was to make it more precise,” says Preuninger, pointing to the developments in aerodynamics and suspension rather than increases in power. The engine is essentially identical to that in the GT3 – it revs to the same stratospheric 9,000rpm – but thanks to the RS’s differing inlet tract via the Turbo-derived body’s intakes fore of the rear wheels, as well as a differing, RS-specific exhaust system – which, unlike the car pictured will have larger 98mm tail pipes – it now develops 520hp.

That’s 20hp up over the GT3, torque too increasing by around 10Nm, the gains mostly felt above 4,500rpm. That’s conservative, too; Porsche could homologate the car at 527 to 530hp, but in typical fashion, and in a bid to ensure it produces all its performance regardless of the environment it’s in, that 520hp figure is the one it’ll quote, as is a 3.2 second 0-62mph time. “There’s still meat in that engine as it is,” admits Preuninger in response

to questions about whether they considered a larger capacity, and, tantalisingly, he lets slip they’ve explored it running at greater than 9,000rpm, though changing that “makes no sense”.

The electronic control of the engine has been finessed in that goal for more precision and quicker responses. Even so, Preuninger admits that engine will only account for around one second of the gains the RS will inevitably make around the Nürburgring. And a time? We’ve discussed the spurious nature of quoted lap times numerous times before, but Preuninger concedes: “It’s definitely something you can measure your progress in, but I wouldn’t sacrifice feel of the car and sensation when you operate it for a lap time. It has to come together. When you have both then it’s a winner.” As yet it’s not been set, but the GT boss anticipates it to come in at around seven minutes and five seconds, which is an appreciable improvement over the Genl car.

Key to a faster time will be the chassis improvements. It’s not surprising to hear that the GT3 RS borrows from the GT2 RS in this respect. Underneath it’s essentially the same, with ball-jointed mounts throughout the suspension, the only chassis fixture to feature a bush being a single link for the rear-wheel steering system. “It wasn’t necessary to change that one,” admits Preuninger. ➔



BELOW Batch one cars built before June 2018 cannot be specced with Weissach Pack, as per the example in our pictures



The spring rates are double that of a GT3 up front and at the back, with the dampers doing more work. Like the GT2 RS that means the GT3 RS is essentially running 911 Cup car suspension, set up for the bumps of the Nürburgring. Preuninger admits that customers will accept some of the compromises that the focused suspension brings, though our experience with the GT2 RS suggests that while it'll be taut, it'll not be overly compromised, even on what passes for roads in the UK.

The geometry changes to the suspension mean it's riding on a slightly longer wheelbase, around 2mm, Preuninger full of tiny details like this that define the RS's development. The brakes, for example, are all but identical to the standard GT3, but some revisions have seen the pads positioned fractionally closer to the discs for greater response times.

The rear-wheel steering system has been re-worked to react quicker, aiding turn-in and high speed stability, while the shift strategy with the seven-speed PDK transmission has also been improved. The RS's PDK 'box will remain the only option. An RS essential, it's unique to the car with differing – larger – bearings over the GT3, while the rear-axle ratio is altered to account for the GT3 RS's 21-inch rear wheel and tyre package. Preuninger admits to significant improvements on the software side, particularly relating the electronic differential control, improving traction from the tyres. It's that, along with the chassis changes, being key to the greater performance the RS will deliver on track.

Perhaps the biggest gain is a loss, specifically the addition of the option of the Weissach Pack into the options list for the GT3 RS. Introduced with the GT2 RS, we're familiar with it, its addition changing the bonnet and roof panels for carbon-fibre ones, the Clubsport's steel cage for a titanium one and the standard alloy wheels for magnesium ones. The loss is the same 29kg that you get with the GT2 RS, though Preuninger admits that due to manufacturing delays with the magnesium wheels the Weissach Package will be initially a two-stage option, where you can have everything but the wheels. They're worth about 12.5kg of the weight savings, though Preuninger admits that the standard alloy wheels are

a slightly differing design with a slight improvement in their weight.

Visually, the GT3 RS with the Weissach Pack will be obvious, the bonnet and roof panel being finished in carbon fibre. Unlike the GT2 RS there won't be a body-coloured stripe up and over them, instead just contrasting with the body colour. The launch colour, seen here without the Weissach Pack, is Lizard green, it an evocation of a colour Preuninger saw on a 1970's car he spotted at the last Rennsport Reunion.

It hasn't been confirmed yet, but it's highly probable that in order to speed up production and secure a higher allocation of cars for the market, UK customers won't be offered Paint to Sample (PTS) or CXX with the RS. With as many as five different body materials to paint, offering PTS slows down the production process significantly and, with the ever-increasing demand on GT products, it's keen to push as many down the line as possible. With nearly 5,000 Gen1 RSs built they're good business. Fans of the GT3 RS graphics will be pleased to see that with the Gen2 991 RS they've made a return.

Changes in the homologation laws mean that the RS's quoted weight will likely match that of the Gen1 car, despite some improvements in mass reduction. Preuninger explains: "On paper it's the same weight, but only because we have homologated differently than before. Before on the Gen1 991 RS we could specify the lightest possible spec the customer can choose. It means with the bucket seats, the PCCB brakes and all the lightening stuff – no radio, air conditioning – to make the minimum weight. Now we have to do it a little bit differently because if the sum of all available options on the car is more than three per cent of its dry weight, which is a new law, then you have to spec differently. In the new spec, for example, there's not the pieces of the Weissach Pack and the steel brake, which is 17 kilos heavier."

Overall, thanks to losses like 5kg in the carpeting and soundproofing, and the possibility to option the Weissach Pack, Preuninger admits the new RS "comparing apples to apples" is about 20kg lighter. That other GT3 RS signature, downforce, will again be pretty much identical to that of the previous car, admits Preuninger, though there are some ➔

BELOW Resplendent in Lizard green, the 991.2 Rennsport brings back 'GT3 RS' decals seen on the 996 and 997.1





“Like the GT2 RS the suspension rides with remarkable civility despite that Cup car set-up.”







BELOW Quite possibly the last ever naturally aspirated Rennsport, batch 2 cars will be made alongside the new 992 generation

improvements. Those NACA ducts, which help smooth the air over, under and through the car, allow the rear wing to sit a touch higher, which allows the new car to generate downforce equal to (and a touch better than) the Gen1, that also aided by revisions to the RS's underside and rear diffuser.

All that allows its downforce to be generated with less drag, another efficiency. Preuninger admits that the GT3 RS produces more downforce than its turbocharged GT2 RS relation, saying: "The GT3 RS has more force than the GT2 RS because with the GT2 RS we always said we want the same downforce at the respect of top speed. The top speed of the GT2 RS is way more. With both cars running side by side at 300km/h the GT3 RS makes a little bit more. With the GT2 RS I wanted it to be king of the highway as well, on the autobahn." That underlines a fundamental difference between the two cars. The GT3 RS is more singular in its focus, that being the track, while the GT2 RS has to fulfil a slightly more expansive remit.

When you think track what comes to mind isn't the rough, tight ice and snow circuit cut out of a Finnish lake that's just visible out of the screen ahead. I'm sitting next to Walter Röhrl in a 'disguised' GT3 RS. He admits he's having fun, the two-time World Rally Championship-winning Porsche test driver happy to demonstrate what the GT3 RS is capable of... or more rightly, what it's capable of in his hands. Röhrl admits that the speeds around the Nürburgring have gotten silly thanks to the limited run off, but he doesn't seem to have noticed that a few feet either side of us are sizeable snow banks which will stop a GT3 RS pretty quickly if we hit them.

It's that blinkered focus that describes the best drivers, the lack of imagination as to what might

happen and the sheer self-belief in their capacity to have the car do exactly what they want it to do and go where they want it. Röhrl is the best I've ever sat alongside, the speed is incredible, yet the measured inputs he makes to generate it are so slow and considered as to look like they're easy.

The glorious shriek of the GT3 RS's engine behind us, the angles Röhrl's controlling as the rear wheels fight for traction on the snow and ice – studded tyres, hence the 20-inch rear wheels on this black matte-wrapped car – are little short of incredible, yet Röhrl has the capacity to have a conversation with me as he manages 520hp, big speeds and the narrow track.

If it demonstrates one thing it's that the RS sounds magnificent, and like the GT2 RS the suspension rides with remarkable civility despite that Cup car set-up. Röhrl states that it feels sharper, more connected, even here saying: "it's much better," which we're not going to argue with. We'll be driving it in the next few weeks, and more details will be revealed as it's finally homologated, but as a brief, tantalising glimpse into the new GT3 RS it proves one thing, that the GT department is playing its A-game. That drive can't come soon enough. **911**

991.2 GT3 RS FIRST LOOK

- ➕ Additional chassis focus from GT2 RS's Cup car set-up
- ➕ 9,000rpm redline makes it highest-revving GT3 Rennsport ever
- Doesn't seem special enough on paper to be the last naturally aspirated GT3 RS
- No PTS or CXX option for UK customers
- Early cars aren't eligible for Weissach Pack

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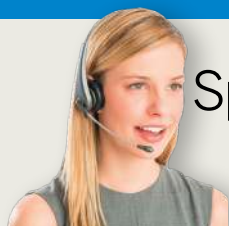
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9 1 1 I C O N

ANDREAS PREUNINGER

He's known as 'Mr GT3', but away from his responsibilities building thrilling performance Porsche, how does Andreas Preuninger spend his time? Step forward Status Quo, Dodge Rams and powerboats...

Written by **Kyle Fortune** Photography by **Porsche AG & T911 Archive**

We're in Finland, and the choice for dinner is reindeer or salmon. Andreas Preuninger is quick to opt for salmon. He's had his fill of reindeer, having worked previously for Porsche's Driving School before he reached his current position as head of GT cars. "I was a sporting instructor at the sport driving school when I came to Porsche because I had the time then on the weekends. I wasn't married so I could go and instruct. The first time I was over in Finland it was for three weeks, and generally minus 36 degrees. There were waves of people coming in, coming out, every other day there were new people. The program repeated, the dishes were always the same – a choice between salmon and reindeer. Maybe I was a little bit overfed on reindeer."

"The next head of GT cars might be the man who's just spent the day pulling my car repeatedly out of the snow banks then? I quip. Preuninger laughs, saying: "Absolutely. I did it – I really would like to do it again – it gave me a lot of contacts, I met interesting people, I made friendships that built up. It's always absolutely vital for me to talk to customers, to know their opinion, to get their feedback. To be able to get the next product spot on."

He hasn't got the time for instructing, but he's never so busy not to speak to enthusiasts, chatting to Porsche Experience customers later in the evening. The GT department has never been busier. Working alongside motorsport boss Frank Walliser, Preuninger admits the dynamic between him and Walliser is one that clicks, admitting: "We appreciate each other. He's completely different than I am. He's an analytic guy, he always wants to have mathematical data that he can analyse and I'm more like the person that does

things out of his stomach." He adds: "I don't say that's negative. It's very, very important, especially if you can combine the two."

That pairing has been hugely successful, the results speaking for themselves. Porsche struggles to keep up with the demand for the cars from its GT division, while the shelves continue to creak under the weight of all those winners' trophies.

We've spent the day in Finland talking about Preuninger's latest project, the GT3 RS. The conversation this evening isn't about that. We've met many times now and, as ever, Preuninger is always at his most illuminating when he's off topic, letting the conversation stray away from business and towards his life outside work.

After hearing some traditional Finnish music while we eat we're not talking tailpipes, but bagpipes, the instrument of choice in my home country. Big Country come up, Preuninger quickly turning the conversation to AC/DC, in particular the Bon Scott era. "I've always liked AC/DC, since I was 12 years old, I grew up with this band." Even so, it's Status Quo that he admits to being the biggest fan of, counting himself as lucky that his position in Porsche meant that he got to meet one of his heroes, Rick Parfitt. They were great friends, Rick loving his cars, Andreas his band's music. "I'm a freak for rock music," he says, that passion for music having been passed from father to son.

Preuninger the father is revealed as we talk music and life, Andreas clearly a hugely dedicated family man. His inner engineer is apparent too, as he admits: "I collect guitars and build guitars and amplifiers, I have a whole room full of amplifiers and guitars. I jam along with my son, who is ten years old. He's been playing since he was four." ➔



RIGHT Andreas is well acquainted with collecting accolades, seen here with August Achleitner at the 2009 Sport Auto awards



Preuninger claims to own 12 or 13 guitars, of which he's built "six or seven". He's given a few to friends who have admired them and built his son his own scaled-down guitar, enjoying the challenge and the distraction from work.

"When I have the time I build guitars, but only electrical guitars. I don't want a thing with a hole in the middle. There's a bit of a science behind it. You get different tones with different sorts of wood, with different sorts of wood on the fret board even, and different pickups that you can use and the wiring of all the electronics. Everything counts, everything plays a role. It's quite nice experimenting to get the right sound from the guitar." A Gibson Preuninger edition, I muse? Preuninger quips: "I'm more the Fender type, I'm not so much into Gibsons." Fender Preuninger or RS, anyone? With a dial up to 9,000...

Building and playing guitars is something he enjoys in his basement and workshop at home "during all the cold months". If it's warmer outside he says he might be in the garden, saying he rather enjoys the "English" pastime of tending to it. That he's had the time to use that garden, and the need to haul big bits of it to the refuse centre provides the excuse to buy a Dodge Ram pickup truck, this revelation

as illuminating as it is hilarious. His wife actually encouraged him to buy it, preferring it to having a trailer, and inevitably it's developed into something of a project.

"It's bright yellow and got a V8, a 5.7 Hemi. I'm thinking of doing a compressor upgrade on that – if I do it will be 500hp plus." There's obviously a Porsche alongside that outrageous Dodge truck in the garage, his being a pre-*variorum*, "one of the best ones", 993 Cabriolet, which sits on RS suspension and has, Preuninger concedes: "an engine that's been a little bit worked over."

It was always about Porsche for Preuninger. His uncle owned one and his father worked as a tier-one supplier, visiting Weissach as the company he worked for supplied Porsche with its wind tunnel. "I was always fascinated by cars. When I was young I can remember that there were several posters in my bedroom. One of them was the 2.7 RS, white with blue stripes, and the other one was a 747 cockpit. I always liked Porsche, it was always considered to be the car of the cars."

Preuninger recalls a particular Saturday morning where he got to join his father on a visit to Weissach, back in the days before security was so tight. "I think

I was about 18, 19, something like that, just finishing the thought of what to study when I go to university and I had this day at Weissach. It impressed me so much seeing the wind tunnel and seeing all the cars. I looked at the cars that were on benches, on lifts. I saw the first four-wheel drive system, pointed it out and was quickly dragged away from it. It was kind of cool. For me that was a wonderland." It clearly made an impression, Preuninger saying: "I was totally sure when I came home. I have to study mechanical engineering and then automotive engineering, and then I'm going to work for Porsche."

It wouldn't be easy; at the time Porsche wasn't recruiting, so Preuninger ended up working as an automotive sales engineer for a tier-one supplier. "I made brake drums and motor blocks, everything you can cast. That kept me busy for about three years, but I didn't stop applying, applying, applying." His break would be at a wedding party, where he met the then-boss of motorsport Hartmut Kristen, who he wrote to the following day.

Preuninger ended up working for Porsche's engineering department that sold to other OEMs, back when around 30 per cent or more of the company's business was clandestine work for other

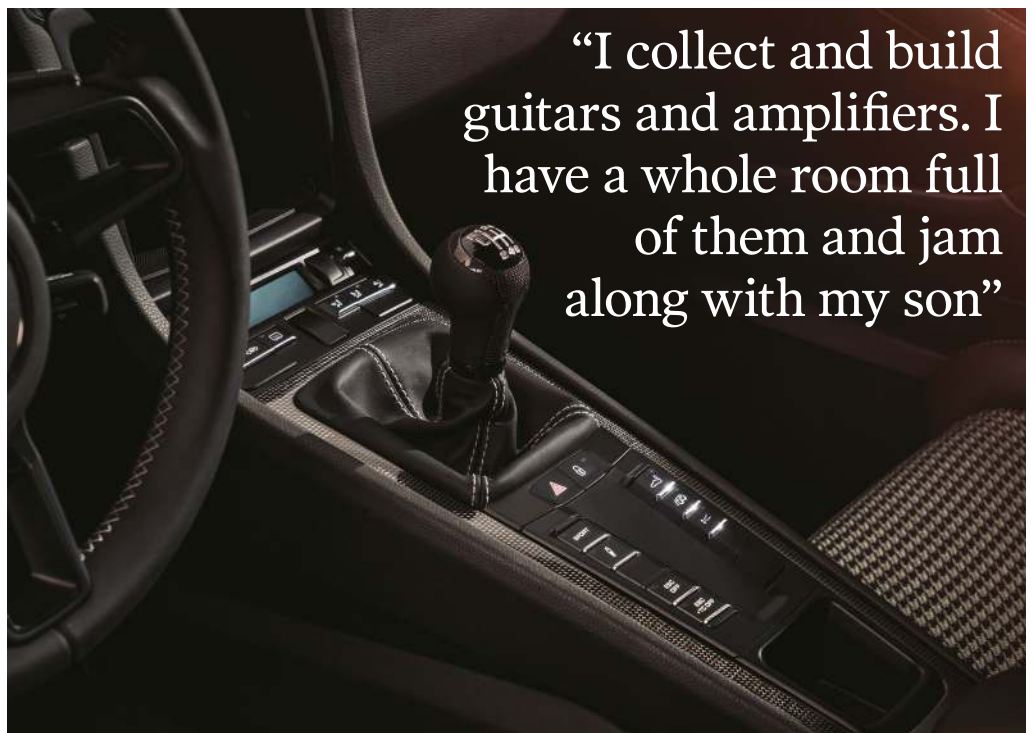


ABOVE The 2016 991 R is arguably Preuninger's greatest achievement, the car marking a very public return to a manual gearbox for a 911 GT car

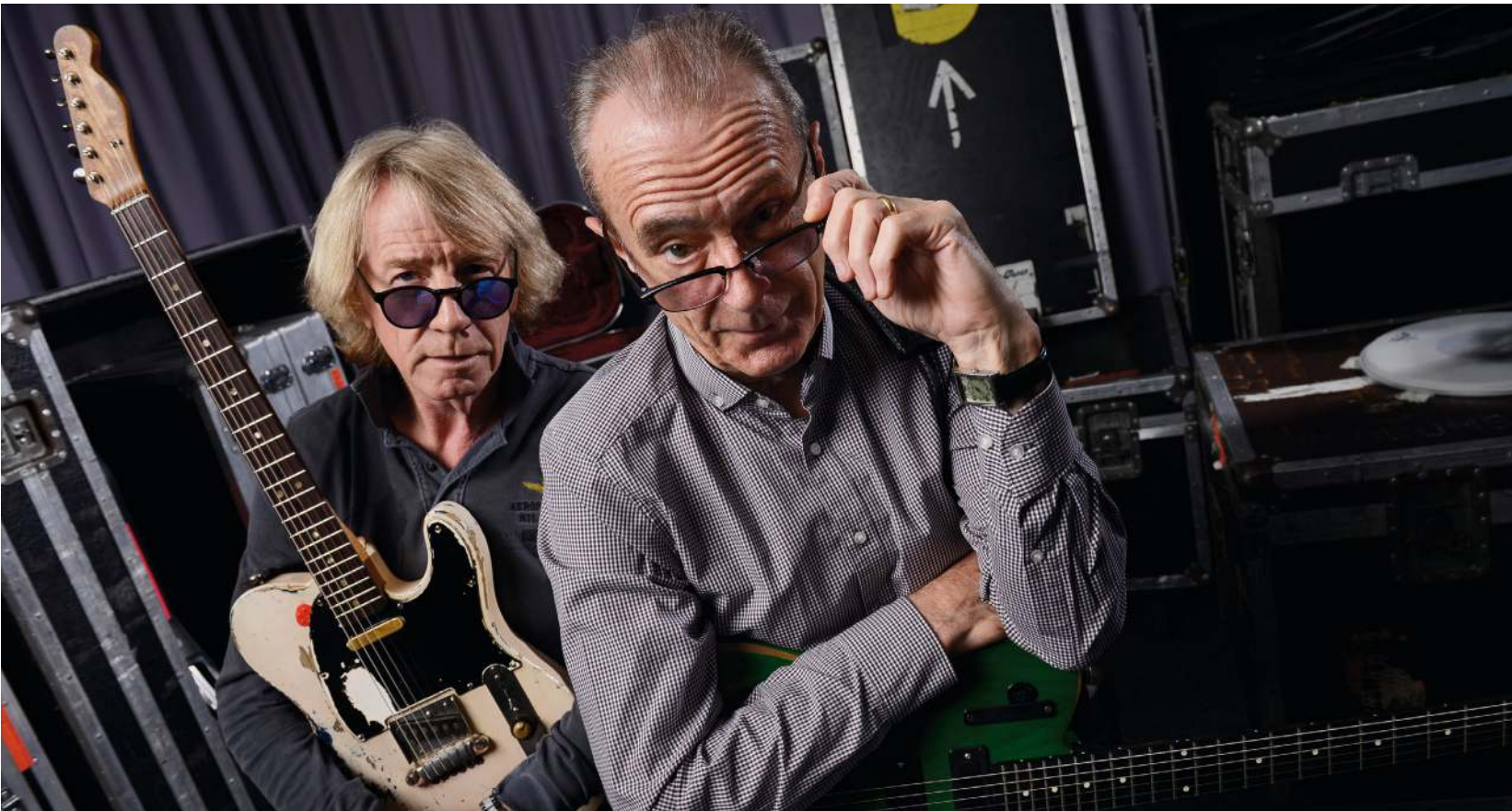
manufacturers. Not just the well-known projects like the Audi RS2 or Mercedes-Benz 500E, but the Harley-Davidson V-Rod engine and the Opel Zafira. That early role would prove significant, Preuninger saying it worked perfectly: "The positive thing was you get to know Weissach and all the relevant persons quite well, because if you sell the engineering you have to talk to everybody."

From the Gen2 996 GT3 onwards Preuninger's role in the GT department has been clear. The growth has been incredible since, making it difficult to comprehend how he finds time to do anything but work. But he thrives on it, admitting: "For me, the more stress I have in the company the more things I need to keep me thinking in a different direction at home. Most people, they don't do anything else when they are under too much stress. I do as many hobbies as possible. One of the best getaways from it all for me was always being out in the water."

Sailing boats, I joke, knowing full well the Preuninger boat will have an engine. "I'll sail when I'm 80," he laughs: "that's when I'll start to play golf as well. It's a powerboat, a fast powerboat, it goes 80 miles an hour. We have it on a lake and that's where we go on the weekends, with the family." Obviously ➔



"I collect and build guitars and amplifiers. I have a whole room full of them and jam along with my son"





TOP AND LEFT Preuninger's association with Porsche began at Camp Finland's ice driving course. Away from Weissach, Preuninger likes to indulge in the music of English rock band Status Quo

as an engineer's boat, the engine's not standard: "Absolutely not, its engine is three sizes bigger than what it normally comes with. It's loud, it's a V8, it has 600 horsepower and I love that thing. It's very, very nice to get it away from it all."

He says he's happy to do "nothing", but nothing for Preuninger isn't how most people would look at it. "When I'm lying around on the boat I can't sit still because in everything I see something. If there's a stain I have to get that off. If the noise of the radio is crackled, I'll check the speaker is connected correctly. There's always something, but I like that."

If he's not on his boat with his family, then there's always his dirt bike. He rides a KTM, occasionally riding it to and from work through the woods, though admitting to do so he has to take the licence plate off to prevent unwanted attention. On the 991 GT3 launch he had the team load his KTM into the back of the truck with the cars so he could explore the Swabian hills while the journalists were out driving: "I knew I had one-and-a-half hours of spare time every afternoon. It was the perfect scenery because nobody lives up there and the nature is nice. That was quite rewarding every day."

For a man inextricably linked with high-performance vehicles he confesses that there's a contradiction in loving nature. "Being out in nature is very important to me. I'm a freak for nature, but on the other hand it is a little bit controversial, as I enjoy nature best on my two-stroke dirt bike." Inevitably

his son shares the passion for two wheels, having an electric trail bike, but his love is of bicycles. "I had to build a whole new shack because the garage was flowing over with my son's bikes. It is my fault because I bought them. He has a downhill bike, he has an electric bike and all kinds of different trick bikes for different parks. I'd rather see him on a bike than in front of a computer or a video console. If he wants to go outside and do something sportive that has my full support."

That's something Preuninger can count on from his wife, too, even if he says: "She thinks I'm crazy." He adds: "I appreciate her support definitely. She knows I need something to get my head around when I'm at home, not drowning in work. All these hobbies give me inspiration for my work as well. The best ideas I always have out on the lake, the bike, anywhere mostly doing a hobby."

Being removed from the scenario of work is restorative as it is productive, then. "It's mostly styling or colour things or really technical solutions that some special situation calls for, like something on an engine I'm working on, I'm thinking very hard. It's options as well. It's things like the 911 R, the whole car came about like that."

The rewards are clear, but Preuninger admits that meeting customers and people with the same passions as he has drives him, too. "I consider it a privilege to get to know people that I normally wouldn't meet, people who share the same passion.

As a matter of fact when you do something like that, what I do for almost 20 years now, there are friendships that develop. This is like a little family, this automotive world. Even people who work for other companies, they're doing similar things to me. It's quite interesting. I consider myself really, really fortunate to be able to have that insight."

With the GT3 RS launching at the Geneva Motor Show in March, Preuninger will be busy with work. "I have the impression that my work is appreciated, including all the changing board members over the years. The business is respected, it works. It's fun. There is always something that you have to react upon and that's interesting."

Preuninger will continue to have his many distractions too, including preparing for a shooting competition in spring. He competes in long-range target shooting with rifles and pistols, the measured concentration and meticulous engineering of the guns something that appeals to the engineer. That, his family and his passions away from the company keep him busy. "I'm 53 now. I don't know, I'm sure I won't work until I'm 70, you can quote me for that. The next five, six years there's enough things, enough challenges ahead, to keep me motivated."

New GT cars is one which we can all look forward to, and as for Preuninger himself? Think self-built guitars, a faster, more perfect boat, dirt and mountain biking and a garden tended by a supercharged Hemi gardening truck. **911**

PORSCHE INDEX

997 GTS

Written by **Chris Randall** Photography by **Daniel Pullen**

The GTS was a fine send off for the 997 generation, and eight years on it's more desirable than ever.

Total 911 presents the full dossier



History of the 997 GTS

Porsche is hardly shy when it comes to celebrating the 911, and it certainly knows how to tempt buyers with something extra special, but how to celebrate the demise of one of the most respected generations of all? The answer was the GTS, and even the quickest perusal of the spec sheet reveals an enticing confection.

Tempting enough, in fact, for a manual Coupe with low mileage to set you back in the region of £70,000 today according to Greig Daly from RPM Technik and RSJ's Darren Street. To put that in perspective the Coupe cost £77,000 at its 2010 launch and, really, prices only ever dipped as low as £50,000 back in 2013.

Based on the wider-hipped shell of the Carrera 4S, Porsche

added a Sport Design front apron with a black-painted lower edge that extended to the sills and rear bumper. 19-inch RS Spyder centre-lock wheels were standard, while low-key GTS logos completed a look that was both subtle and effective. The same could be said of the cabin, the ambience managing to be both tasteful and clearly a notch up on the standard Carrera – an effect that was entirely fitting for a special 997. Black instrument faces and stainless-steel sill trims looked terrific, the rear seats had gone, saving 5kg, and just about every surface had seen the liberal application of Alcantara.

There was plenty of standard equipment, too, including climate control, Sound Package Plus and the PCM system, although naturally there was scope to enrich this further if your pockets were deep enough. It looked and felt superb, but what of the mechanical specification? Well, it was suitably impressive, thanks to the adoption of the Powerkit that boosted the output of the 3.8-litre flat six to 408hp. That arrived at a deeply sonorous 7,300rpm and was backed by 420Nm of torque, the same as the Carrera S but spread across a wider rev range.

Transmission options were the familiar six-speed manual or seven-speed PDK (an extra £2,500), the latter

gaining a launch-control function if Sport Chrono Package Plus had been specified. A manual Coupe despatched the 0-60mph sprint in 4.6 seconds – it was swifter still with PDK – and the electronics called time at 190mph. Porsche didn't stop there, specifying the GTS with Porsche Stability Management (PSM) and Porsche Active Suspension Management (PASM), with a firmer, lower, limited-slip differential-equipped PASM Sports set-up optional. Beefier brakes featured larger, thicker discs, while anyone planning track use could delve deeper into the options list and their bank account for (largely unnecessary) PCCB carbon ceramic items. Oh yes, and you could have all of the above as a Cabriolet if you preferred.

The only major change arrived in July 2011 when the four-wheel drive C4 version was added to the mix, the electronically controlled system featuring Porsche Traction Management that apportioned torque via a multi-plate clutch, and included a limited-slip differential at the rear. Aside from an additional 60kg and a red reflector between the rear lights that told onlookers you'd chosen your GTS with all-weather abilities it was the same as the C2, just a little pricier, with Coupe and Cabriolet costing £83,145 and £90,024 respectively. ➔





What's it like to drive?

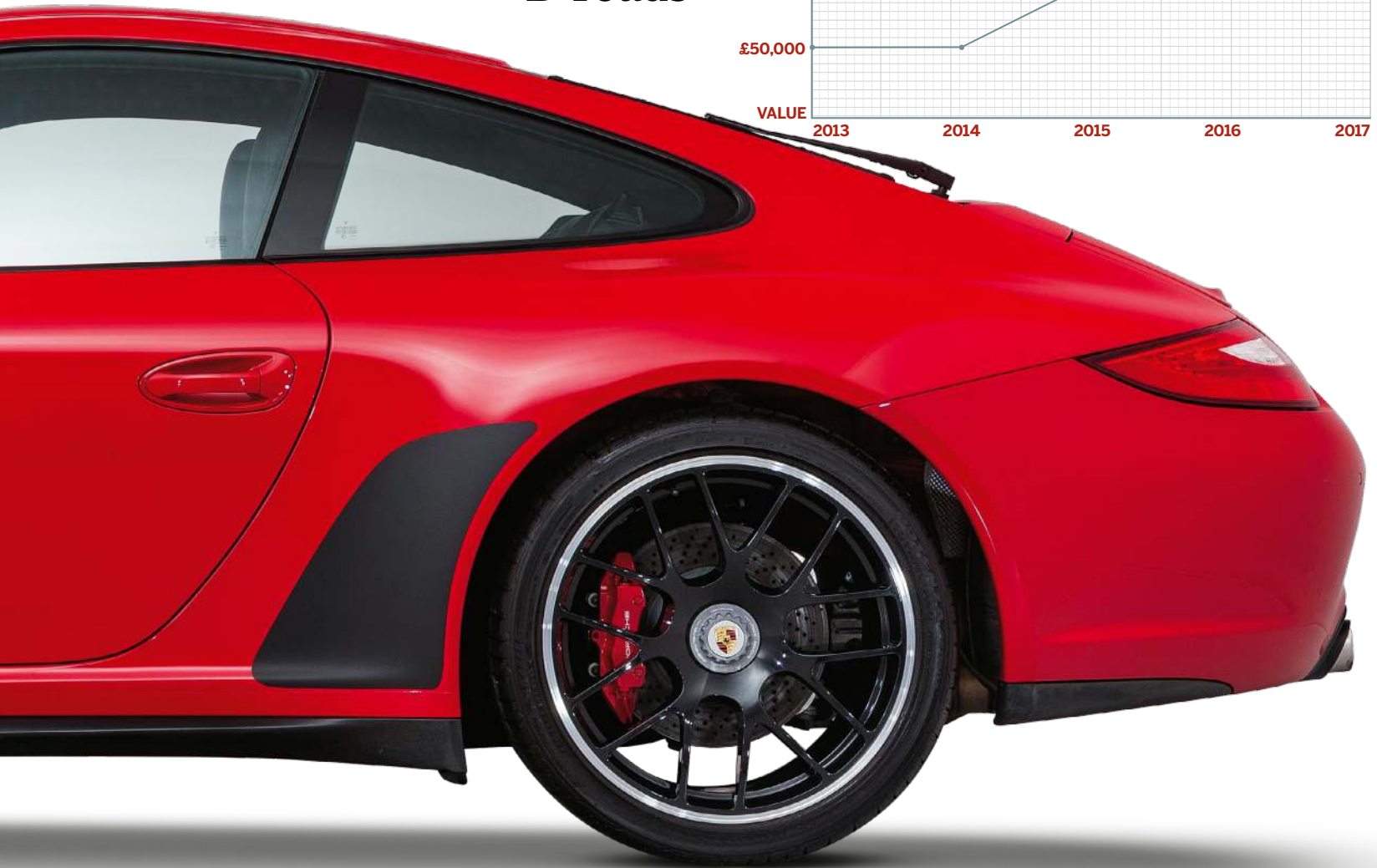
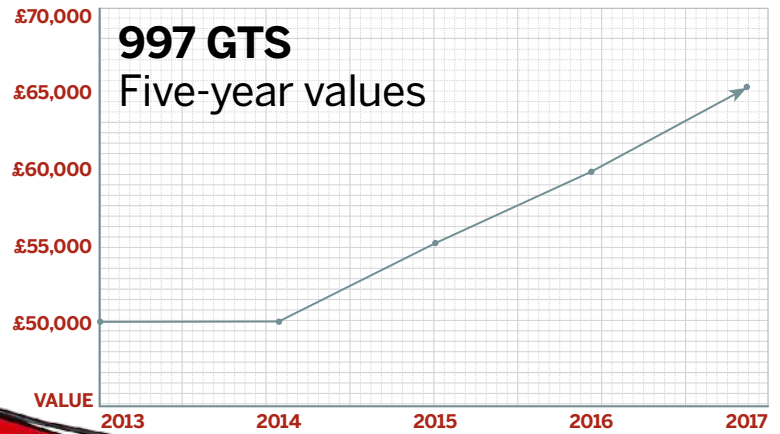
In a word: brilliant. Boasting a 'best of' specification from the Carrera range with some unique features thrown in, the GTS feels incredibly special from behind the wheel. Its chassis is focused yet not uncompromising on rickety British B-roads, with a sharpness about its nose lacking elsewhere among 997 Carreras. The steering system too is marvellous, it showing almost GT levels of directness, with plenty of communication feeding back through the wheel.

The 997 GTS possesses razor-sharp throttle response and the extra 23hp is most keenly felt in the top end of the tacho, rewarding a driver that hunts for the redline before upshifts.

Don't expect this to have GT3-like handling though: push on and you'll realise the GTS is much softer, which makes it ideal for fast road driving. ➡



“Its chassis is focused yet not uncompromising on rickety British B-roads”



Market rivals

With somewhere in the region of £70k to spend the GTS is as tempting as they come, but that same money also brings other desirable 911s within reach...



991.1 Carrera S

PASM-equipped and with 400hp on tap, it's devastatingly capable. There are some who feel sharpness has been lost in a bid for improved grand-touring ability, though.



997.2 Turbo

The twin-turbo 3.8 motor manages 500hp and 650Nm of torque. If you find one with Sport Chrono that translates to 0-62mph in 3.4 seconds and nigh-on 200mph.



997.1 GT3

For our budget you're looking at a Gen1 model. Bag a cherished one and you'll never tire of the track-focused abilities, with a Mezger engine revving above 8,000rpm its appeal is obvious.



2.4-litre 911T

This is a Neunerfer that brims with character, and as an antidote to today's heft and opulence there are few better choices. The purity of the design and driving experience are an utter joy.

Before you buy

The Gen2 997 has earned a reputation for reliability and the quality of its build, and that's as true for the GTS as it is for any other variant. But, as the years and miles slip by – the last examples are now six years old – you'll want to be certain that previous owners have looked after the car as you'd expect. A thorough investigation of the service records should reveal an unimpeachable history from an OPC or specialist.

It's still worth investing in an interrogation of the ECU, looking for evidence of over-revs and to ensure that mileage records tally. There are discussions about the potential for the DFI engine to suffer from coking of the valves, but it appears no more of an issue than with other direct-injection units. A quick check of the oil/brake vacuum tandem pump is worthwhile, as casing corrosion means a replacement costing £600 or so. Unless abused during track outings the manual gearbox shouldn't be suffering any woes, but bear in mind that clutch replacement is around £1,200 at a specialist. PDK 'boxes will require an oil change after six years. Costing just over £100, ensure it hasn't been missed on the earliest cars.

When it comes to brakes there's the usual warning about the eye-watering cost of PCCB replacement, so think about whether this is worth the risk. The steel items are more than up to the task, although they can suffer from corrosion on the inner faces of the discs (especially on lightly-used examples). Expect a night-on £1,500 bill for replacing all four along with pads, so check carefully if you're buying privately. By the same token it's worth ensuring that the suspension is in good health, so consider a specialist inspection before parting with any money. The cost of refreshing tired bushes and joints will soon add up, while PASM dampers are £500 each. You'll certainly want to avoid any damage to those gorgeous centre-lock rims – budget £1,700 to replace one – and if you've any suspicions about odd tyre wear then spend £250-300 on a geometry check to discover the root cause.

As for the exterior, well it ought to be perfect. There certainly shouldn't be any hint of corrosion, so it's really just a case of checking the history for accident repairs and looking for evidence of localised stone chip rectification. Exterior parts are predictably expensive – a new headlight setting you back almost £1,000 and the Sport Design front bumper £2,600 – so be wary of damage. If you're tempted by the Cabriolet be sure to examine the condition of the roof itself (£2,600 including the liner) and the optional aluminium hard top. Replacing the latter is £5,200 before painting.

The cabin is where the 997's top-notch quality really paid off. Aside from the lightest of wear and perhaps some smooth Alcantara trim there shouldn't be anything amiss, so walk away from anything remotely scruffy. Naturally, you'll want to ensure that everything works – especially the climate control, which suffers from the usual issue of corroded condensers – and ask whether the PCM3 system has been updated to accept full postcodes. ➔





Desirable options

A key part of this 911's raison d'être was its lavish standard specification, and even if the original owner had gone nowhere near the options list you'd still be more than satisfied. Not that such a move was likely, so there are some choice extras to look out for.

Cabriolet or not?

It's the Coupe that will prove the most desirable, but there's a decent case to be made for combining the opulence and performance of a GTS with drop-top enjoyment. There's little difference in values, so it's a matter of personal preference.

Two-wheel drive

Although both of our specialists would take their GTS in rear-drive form like this (as would we), RSJ's Darren Street says that four-wheel drive is worth considering. Again, there's relatively little impact on values, and it adds a welcome dose of all-weather ability and security if you plan on everyday use.

PDK vs manual

The sweet-shifting manual 'box is rarer and adds to both values and desirability, but the majority of models sported the PDK transmission. Unless you have a real aversion to just two pedals you won't be disappointed, and it marginally improves outright performance – it shaves 0.2 seconds from the 0-62mph time compared to the manual, and the same again with Sport Chrono.

Interior

Greig Daly's preference is for the Alcantara-trimmed cabin rather than optional leather, and he also says the bucket seats are a nice find. Costing around £2,000 when the GTS was new, the GRP/carbon shells saved weight, and they prove impressively supportive if you make full use of the performance.



ABOVE Lavish GTS specification includes options such as Sport exhaust, centre-locking RS Spyder wheels and an Exclusive Powerkit



“An example that’s been looked after should prove painless to own”



Total 911 verdict ★★★★★

We love the GTS. It does so many things so well, and if you want a 911 that can act as refined and comfortable everyday transport and then transform itself into a car capable of devouring a challenging road while providing true delicacy and feedback, you've found it. To that mix you can add potent

straight-line performance, strong reliability and sensible running costs if you buy well to begin with. Avoid any examples where the previous owner might have skimped, and those with over-optimistic price tags, and you have a very desirable Neunelfer that we have no hesitation in recommending.

THANKS

The car in our pictures is currently for sale with Hexagon Classics. For more information please call +44(0)208 348 5151 or visit hexagonclassics.com.



Investment potential & ownership experience

When it comes to values the GTS has proved to be something of a slow burner in the world of 911s, although if you still own one that you bought new the current values should prove pretty heartening. Having dipped to around £50,000 to £55,000 back in 2013/2014 it's been rising gently ever since, and appears to have

stabilised at current levels. From here on it's reasonable to expect more of the same, with modest increases over the next few years, although as Greig Daly points out GTS values can be governed to some extent by what happens to the 997 GT3. Rises there make the car here even more attractive, with a predictable effect on prices. Although not exceptional

the future looks sound for the moment, so there shouldn't be any concerns if a GTS appeals, which it certainly should. An example that's been looked after should prove painless to own, and when you combine that with superb quality and dynamics – not to mention an element of rarity – you are left with a very desirable ownership proposition indeed. **911**



THE OPEN QUESTION

Can a 964 Carrera 2 Cabriolet be as fun to drive as its Coupe contemporary? Total 911 finds out during an ocean drive in South Africa

Written by **Wilhelm Lutjeharms** Photography by **Kian Eriksen**



As I press the button situated just to the right of the steering wheel, the roof lowers. In front of me is one of the best coastal roads you'll find anywhere in the world. The weather is perfect and I'm behind the wheel of a concours-winning 964 Carrera 2 Cabriolet – this will undoubtedly be an epic afternoon. I've always been intrigued by the 911 Cabriolet. Is it a proper 911? Can it deliver the same level of driving enjoyment as its tin-top sibling?

First, some history. The 911 dates back to the early '60s, but the first 911 ragtop, the SC Cabriolet, only rolled off the production line in January 1983.

Porsche began testing the market for a possible 911 Cabriolet as late as the Frankfurt International Auto Show in 1981. It was also no ordinary 911 Cabriolet show car, however: the Zuffenhausen-based marque exhibited a unique all-wheel-drive 911 Turbo Cabriolet to gauge the market's interest.

The interest level was high but customers still had to wait, because at the next year's Geneva Motor Show, Porsche showed another car, this time a closer-to-production convertible model based on the 911 SC. Finally making production as an SC Cabriolet for MY1983, it had been 17 years since the last Porsche Cabriolet was produced in the 356. From that point onward, Porsche has always offered buyers a 911 Cabriolet option – which brings us to this L-Series 964 Carrera 2 Cabriolet.

This manual-shift model's VIN suggests it was earmarked for the North American market – perennially one of the largest markets for 911 Cabriolets. The car currently belongs to Porsche Centre Cape Town's Classic department, which has maintained and detailed this car to a meticulous level in the recent past. The result is that this car is in a remarkable condition, even though it has clocked up a healthy 83,000 miles. According to the Certificate of Authenticity, this Guards Red 964 was specified with optional features such as leather, air conditioning, electric windows and cruise control.

The heavy-centred steering wheel (equipped with an airbag) is not the prettiest of its kind of this era, as the older three- or four-spoke versions are much better looking. Obviously the modern radio is an aftermarket fitment and because a passenger's-side airbag was fitted in the place of the glove compartment, a new 'box is located below this area.

Back then, the Cabriolet model was more expensive than the Coupé (as is the case today). In the USA the Carrera 2 retailed for \$58,500 (£41,504) and the Cabriolet cost \$66,800 (£46,699). Interestingly, the Carrera 4 Cabriolet was a hefty \$77,800 – it was the most expensive Porsche in showrooms at the time.

Porsche's workshop manual states the rear inside wall is modified to position the pivot gearboxes and threaded fork for the convertible top's linkage. The quoted weight of the Cabriolet (1,420kg) is 70kg ➔



ABOVE The 964 Cabriolet's roof system adds 70kg in weight over a Coupé, yet the open-topped car proves a better ally for touring



ABOVE Windscreen and 'A' pillars of 964 Cabriolet are identical to its Targa and Coupé cousins



History of the 911 Cabriolet

1981

First 911 Cabriolet study shown at IAA in Frankfurt

An all-wheel-drive 911 Turbo Cabriolet was designed and built to gauge customer interest at a major exhibition. The model attracted enough attention to prompt Porsche to take the next step... In 1982, at the Geneva Motor Show, the company unveiled a 911 Cabriolet based on the SC.

1984 onwards

Colour & Tonneau cover

As with the 3.2 Carrera Cabriolet, a selection of convertible top colours was made available, including black, blue and brown. Optional equipment for the roof included a large, matching-colour Tonneau cover.

1988

930 Cabriolet introduced

In 1988 the 930 Turbo Cabriolet was added to the range. The result was that the 911 range now comprised six models. The Cabriolets (Turbo and Carrera) were also better specified than the other models.

1989

First all-wheel-drive production 911 Cabriolet

All-wheel drive was introduced to the 911 range with the 964, which meant the Cabriolet was offered in Carrera 4 guise too. As with the previous range, a Turbo-look Cabriolet was offered with pronounced wider rear wheel arches.

1994

993 Cabriolet introduced

Six months after the 993 became available, Porsche offered the Cabriolet. However, although the roof could be actuated while the engine was running, the parking brake had to be up to make sure the car did not move.

1998

Remote control for the roof operation

Launch of the first water-cooled 911 (996) Cabriolet. For the first time (although not for all markets), the roof action could be started by a button on the ignition key fob. A removable hard top, which weighed 33kg, was included in the base price of the car.

2000

Heated rear screen available

Porsche marked the turn of the millennium by offering a glass rear screen as standard for all 911 Cabriolets, marking an end for the plastic screen that was used right up until MY1999 996 Cabriolets.

2004

Powerful Turbo and Turbo S models

Both these models became available in Cabriolet guise. The 3.6-litre S engine developed 450bhp at 7,500rpm and 620Nm from 3,500rpm. All the S models were fitted with Porsche Ceramic Composite Brakes (PCCB).

2013

Perfect Cabriolet profile

For the first time, Porsche's designers and engineers achieved a 911 Cabriolet with a profile that is virtually identical to that of the Coupé.



ABOVE When stowed, the 964 Cabriolet's roof sits atop the car's rump, giving it a distinctly classic look

Model **964 Carrera 2 Cabriolet**

Year **1990**

Engine

Capacity **3,600cc**

Compression **11.3:1**

ratio

Maximum power **250bhp @ 6,100rpm**

Maximum torque **310Nm @ 4,800rpm**

Transmission **Five-speed manual; RWD**

Suspension

Front **Independent; lower wishbones; MacPherson struts with coil springs; anti-roll bar**

Rear **Independent; MacPherson struts with coil springs; anti-roll bar**

Wheels & tyres

Front **6x16-inch; 205/55/ZR16**

Rear **8x16-inch; 225/50/ZR16**

Dimensions

Length **4,250mm**

Width **1,652mm**

Weight **1,420kg**

Performance

0-62mph **5.9 seconds**

Top speed **162mph**





“On this road, in this car, at this time of day, the Cabriolet has to be a more suitable car than a Coupé”



LEFT The 964 made an evolutionary step in design, featuring an active rear wing that had an aerodynamic effect on cooling

heavier than that of the Coupé. Another impressive statistic is the torsional rigidity, which improves from the 1988 version's 7,000Nm/degree to 11,500Nm/degree stiffness. Those are clinical numbers – however, it's time to put the 911 through its paces.

Having never before experienced a 964 of any kind whatsoever, I'm particularly looking forward to spending the next 15 hours with this car. My trip starts just outside Cape Town during peak-hour traffic. For the first part of the journey I keep the roof in situ. Ahead of me is a 45-mile drive to Gordon's Bay, a small coastal town that leads to Clarens Drive, one of the smoothest and most picturesque pieces of coastline-hugging tarmac that you're likely to find anywhere on the globe.


As it is 27 degrees Celsius outside, I'm thankful for the air conditioning that's blowing perfectly cooled air into the cabin. Stop-start traffic is the last place you want to spend time in a modern classic 911, but the clutch is not too heavy and the driving position is comfortable (while offering enough side support).

Throughout the first hour behind the wheel I'm surprised at the lack of serious scuttle shake – an irksome characteristic of so many open-topped cars. I decide to try out the cruise control and can't help but giggle when the 964's throttle pedal moves

inward when I activate the function – that's because it utilises an old school cable, instead of today's electronic systems. With the two side windows up, there is also a lack of wind buffeting in the cabin. In front of the gearlever is a knob that raises and lowers the retractable rear wing. Leave it to its own devices and it will rise at 50mph and lower again when your speed drops below 6mph.

I temper my ever-enthusiastic right foot all the way towards Gordon's Bay. However, once parked next to the cliffs jutting against the pulsing ocean, I immediately want to take the roof down and 'stretch the 911's legs'. Although the throaty engine sound was audible even with the fabric roof in its fixed position (and more so than in a Coupé), now I can hear that timbre even better. What a joy the gruff flat six-cylinder sound is!

Clarens Drive snakes along the False Bay coastline, but there is another short and very twisty road that heads up to a hydroelectric station. The location is often used for local and overseas' advertisements and is littered with corners, including one of only a few hairpin turns in the Western Cape.

I marvel at the slick, relatively short throw of the G50 transmission during both slow and fast shifts. Because this 911 is left-hand drive (South Africa is )



Buying a 964 Cabriolet

A search online revealed only a small number of these cars for sale in the UK (both Carrera 2 and Carrera 4 Cabriolet examples). However, many more were available in the USA.

Jonathan Ostroff from specialist Hexagon Classics in London explains what to look out for when analysing a potential car: "As well as looking for smooth operation, check that the roof is clamping down on to the windscreen frame. Also, check if the hood material's seams have signs of mould on them, or if there are any tears in the fabric," he says.

Unlike today, these cars were fitted with plastic (not glass) rear screens, which forms another area of investigation when assessing a potential purchase: "The rear window should be checked for clarity and that it's free from scratches or fogging."

The Cabriolet requires its own, unique procedure when caring for the car too, as Jonathan again points out to us: "When washing the car avoid using excessive soap on the roof fabric. Clean with a stiff brush and give it a yearly spray of waterproofing liquid. The rear window should be cleaned with a dry, lint-free cloth," he advises.

Should you have an eye on a potential car, Ostroff suggests that you should set aside around £1,500 to replace the roof fabric and rear window in period-correct material. Happy hunting!

a right-hand-drive country, remember) it takes a few shifts before I get used to operating the transmission.

I'm immediately impressed by how tractable the engine is, however. From 1,000rpm you can put your foot down and the engine starts pulling all the way to its 6,800rpm redline. The sensation of speed is heightened with the roof down, too. Obviously the car is not as rigid (nor as light) as a Carrera 2 Coupé but, as the road twists and turns, I'm still impressed with the rigidity on offer and how eagerly the car turns in. There are no electronic safety systems to help you out, so you need to judge how enthusiastically you dip into corners and how much throttle you can apply!

I frankly expected that the car would be floatier and less stiff. However, thanks to strengthening and the fact that the 964 was, and still is, a compact car, the 911 Cabriolet drives and handles very much like you would expect it to.

I can't help but enjoy listening to that flat-engine sound; I am more aware of it than I would have been if I had a metal roof over my head. There is no element of the car that makes me think I can't – or shouldn't – drive it as hard as a Coupé.

On this road, in this car, at this time of the day, the Cabriolet has to be a more suitable car than even a focused Coupé with a roll cage and a harness – especially if you have a passenger, who could enjoy

the ride with you. The Cabriolet offers something the Coupé simply can't.

A quick look on Google Maps indicates there are still several miles of twists and turns to enjoy should I continue towards the next coastal town. With the roof and the windows down (is there any better way to experience a Cabriolet?) I feel closer and more connected to the road and the environment – which includes the smell of the ocean, as well as the engine.

Believe it or not, I'd never experienced a 911 Cabriolet before I drove the 964 version. Such a car hadn't crossed my path and, besides, there have always been so many interesting Coupé derivatives to drive and experience.

After spending more than 100 miles behind the wheel of this 964, on a variety of roads and even through peak hour traffic (twice), I now understand the lure of these cars. It still wouldn't feature in my dream five-car garage, but it is an appealing 911 nonetheless.

I suspect that for many of us, the Cabriolet might not have the same dream car appeal of the Coupé but, from an aural point of view, it offers more than the tin-top. Most importantly, it is still a 911 – and thoroughly drives like one. **911**

Thanks

Special thanks to Porsche Classic Centre Cape Town for the loan of this vehicle.



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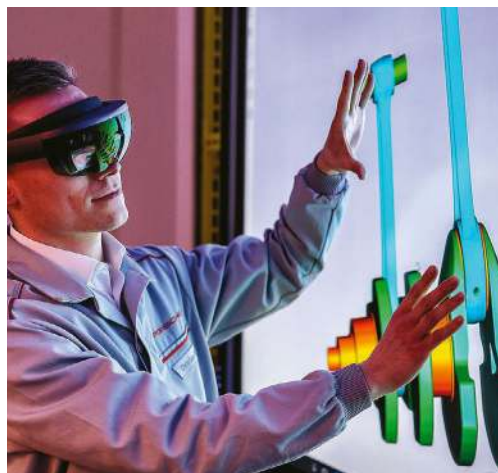
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BELOW A greater AR and VR presence will allow Porsche to save time in key areas while being able to operate smoother as a multi-location business



SECRETS OF THE PRODUCTION LINE

Total 911 is granted rare access to the production line as Porsche reveals how it will use AR and VR to improve its product quality management in the future

The production line at Porsche makes for a fascinating place to spend an afternoon. Rarely does anybody get to see the inner workings of how our beloved sports cars are made. Save for a scant selection of press shots over the years, all we really know is the quality of the final product which greets our eyes, ears and hands in showrooms, the occasion marking what is a long and vigorous process for Porsche.

That word 'quality' is important. For us as consumers, it's the reason we buy the car, knowing it is superior to its rivals in terms of build quality and performance. For Porsche, synonymous with sports-car construction at the highest level over the last 70 years, it's keen to protect that quality par excellence. That's why, although there are a plethora of twisting, crane-like arms from robots which whiz body parts all around us, a healthy human presence is noticeable, their expertise called upon not only to assist building these wonderful cars, but also to scrutinise quality from the first moment to the last.

As we walk around the plant, Frank Mozer, head of corporate quality at Porsche, explains to us why this scrutiny is so important: "Top quality is a core value of Porsche. Customers pay a lot for their cars so they expect nothing less. We split our interpretation of quality down into four key areas: emotional quality with design, performance and sound; functional quality like reliability and connectivity; service quality regarding customer care and delivery, plus the quality of look and feel.

"Quality isn't achieved by chance. It is a controlled process from beginning to end, involving methods, people, culture and statistics. This mindset is spread from the chairman of the executive board [Oliver Blume] right through our colleagues at Zuffenhausen, Weissach and Leipzig, to showrooms and aftersales right around the world." We're about to see first hand how seriously Porsche implements this mindset.

Mozer explains how a customer expects perfection with his or her 911 visually, aurally and in terms of haptics. This means different aspects of the car's appearance must therefore be quality checked, which is done by a human. Take the quality control of door panels, for example. After the sheet metal is pressed (on a 991 this is aluminium) and cut into a shape, a 'look and feel' technique is carried out, ensuring there are no deviations or bumps. Once

painted, the panel is reassessed to check for any runs, polishing errors and the general structure of the paint. There should be no orange peel on the body of a modern Porsche, for example.

Similar techniques are applied by a human when checking panel gaps between the fitted door and other panels. We're told the trained eye can usually see any deviations, yet each gap is subject to measurement, with further checks to look for any joints which aren't flush. "Any panels sitting slightly proud or under flush will negatively affect the customer experience when tackling the autobahn, as a case in point," says Mozer.

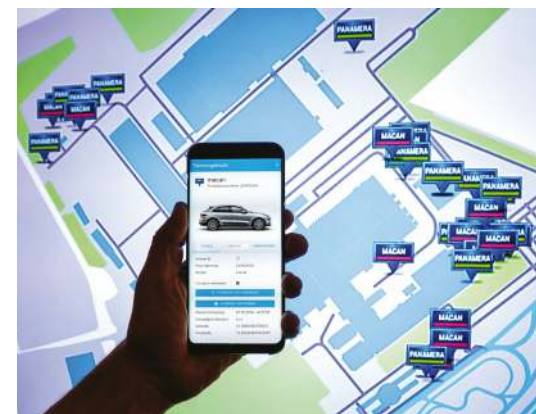
Likewise with the interior: that aforementioned door must open and close smoothly, have a good sound when doing so and feel smooth to operate. With notes taken by staff throughout, we quickly realise testing all of this is truly an immersive experience that's as ardent as it is time consuming.

That's why Porsche is harnessing innovative technologies to improve on not only its own analysis quality, but also the act of time saving, too, ensuring the perfection of its products is increased, while the process behind this is suitably streamlined. Porsche is doing this with what it calls its 'Inno-Space' innovation area at Leipzig, forming an interface between the present and future of quality management, allowing innovations to be developed and established ready for series production processes at its production plants.

The first such example of groundbreaking Inno-Space technology to come to fruition on the production line is the use of both augmented reality (AR) and virtual reality (VR) to bolster quality management. Porsche has successfully integrated AR into the 'look and feel' test to improve its implementation and results.

A trained technician now needs just a tablet app and the vehicle due for inspection – that's it. First, the individual CAD data for a specific vehicle is read into an app on a tablet, while the tablet's camera is held over a component of the car in question. The CAD image is super-imposed on the live image, making any flaws or deviations immediately noticeable. Highlighted using a colouring system – similar in appearance to a heat map, if you like – the system checks the entire component or body is within spec (Porsche allows tolerance with its vehicle bodies of $\pm 0.5\text{mm}$). ➔





“Quality isn’t achieved by chance. It is a controlled process from beginning to end, involving methods, people, culture and statistics”

“The problem is today a human has to walk around a car and manually appraise it before typing up his or her notes to submit a report. Here the report and pictures are done on the move – saving time,” Mozer tells us. The test can also be streamed in real time to any partner or site around the world, with the results stored at the plant’s central database and made available worldwide. It all sounds wonderfully futuristic, but this is happening now, this system already being rolled out at the Leipzig facility, with upgrades at Zuffenhausen – home of the 911 production line – likely to coincide with a refit for the new 992 generation come the autumn.

Quality management doesn’t just take place on Porsche currently in production, but also on the development of prototypes. Further Inno-Space technologies being implemented here include a virtual cockpit, which allows Porsche engineers to

try the cockpit on a new car before it’s actually built, helping to optimise the vehicle before it comes into reality. “This way we can refine the ergonomics of the interior, its quality, its layout,” Mozer says.

Testing of pre-production cars can take place at both Weissach and Leipzig, the latter boasting a six-kilometre, FIA-certified track, so clear communications between both sites is imperative. Here Porsche will use VR, with engineers from any site able to dissect an engine – together – and drill down into its minute componentry in minutes thanks to a newly developed program and a headset. This all helps with Porsche being a multi-location business. “Virtual Reality allows somebody in Leipzig to look at the same engine as a colleague in Zuffenhausen at the same time,” Mozer adds, suggesting this technology alone will save millions of Euros per year in employee travel costs alone.

Of course, there’s a perennial danger with technology in that it can render human input superfluous, risking jobs. I ask Herr Mozer if these new technologies aim to eventually replace skilled workers. His answer is reassuring: “Not at all. These new technologies simply mean we will take on a different type of employee in the future. We will be looking for a different type of engineer,” he says before pointing out that in the Leipzig plant alone, the average age of staff is just 35.

Quality always has and evidently always will be central to the Porsche brand, it as important to the marque as it is to its customers, if not more so. That it is investing heavily, improving not just the quality of its products but the processes by which this is measured and executed, underlines its commitment here. With Porsche, excellence is assured – on and away from the road or race track. **911**

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THE TURBO FOR



RACING

The 934 was the opening salvo in Weissach's unprecedented turbo attack on sports and GT competition. Total 911 uncovers its full story...

Written by **Kieron Fennelly** Photography by **Daniel Pullen**

The man behind Porsche's first production Turbo, the 930, was Ernst Fuhrmann. His overriding intention was less to introduce a new production model than to go racing: the spur of competition was Porsche's life blood, and few understood this better than Fuhrmann. FIA rule changes meant that Porsche's newly acquired turbocharging expertise, brilliantly exemplified by the turbo 917/30's victories in the 1972-3 CanAm championships, now opened a range of opportunities; the 934 would effectively be a 930 built to the new Group 4 GT regulations.

Once the 930 Turbo had been launched the new model was extraordinarily well received despite the prevailing fuel crisis, much to Porsche's relief. It was apparent by the spring of 1975 that the homologation minimum of 400 units per annum over two years was entirely feasible – in fact Zuffenhausen would consistently outshop over a thousand 930 Turbos a year. The 934 was designed specifically to provide previous 911 RSR clients with a far more powerful entry for the 1976 season in the new Group 4. These would all be client cars. The works team itself would tackle Group 5 and the World Championship for Makes with the silhouette 935.

The FIA ruled that super or turbocharged engines had to meet an equivalence formula, which meant the 934 would have to compete with cars up to 1.4-times its capacity. This put the 934 in the 4 to 4.5-litre class, which dictated a minimum weight of 1,120kg without fuel. Little weight reduction was needed, given the luxuriously specified 930 crossed the scales at only 1,205kg. The cabin was denuded of mats and the seats replaced with a specific bucket for the driver, but the electric windows and door furniture of the 930 remained, a detail which on its own created an amusing historical footnote for the 934. The road car's bumpers were also retained. With an aluminium roll cage, heavier turbocharger and other modifications which included additional cross bracing in the boot and a 120-litre fuel tank, the 934 weighed in at 1,080kg. That left a margin to bring the car to the minimum weight with ballasting, the positioning of which could be adjusted around the chassis to suit a particular circuit.

The man leading the 934 project was Wolfgang Berger; a chassis engineer, Berger had earned his spurs under Fuhrmann by stripping a 911T shell and modifying it to accept the wider wheels and revised suspension for the proposed Carrera 2.7 RS. For this latest task, Berger would put this accumulation of experience to good effect.

Much of the 930 could be carried over to the 934, and indeed the basis for construction was the stock 930 shell. The original build of the 930 prepared the car to handle far more than the conservative 260bhp of the production model. For example, its suspension with anti-dive geometry at the front suspension, anti-squat of the rear and the heavy-grade wheel bearings had all been calculated with racing in mind: harder springing, solid bushing and different damping characteristics combined with wider tyres were deemed sufficient to bring the road car to competition standard. Group 4 regulations permitted the fitting of auxiliary adjustable springing and adjustable anti-roll bars. Steering gear came directly from the production 911, but the brakes, as on the previous 3.0 RSR, came from the 917, their deep-finned calipers instantly recognisable.

The wheels were centre lock. Porsche used its own on the first 934 prototype, and subsequent customer cars wore BBS items; the 934 was also the first 911 to feature 16-inch rims. Berger explains that he was hamstrung by the FIA ruling which said tyres could be of a maximum 14-inch tread width, insufficient for what by 1976 standards was a heavy and powerful (potentially 500hp) car. He solved the problem by getting Goodyear and Dunlop to provide 16-inch diameter rubber which would make both car and tyres more stable. To cover the wheels, which were now 10.5-inch rims at the front and 12-inches at the rear, glass fibre extensions were riveted to the steel wings. Glass fibre was also employed for the front skirt beneath the bumper.

The engine was essentially the 930's 2,994cc unit with detail changes. The most obvious modifications were a horizontal rather than vertical engine fan and the provision of a water-cooled

intercooler. This was built into the rear spoiler, which on the 930 contained the air-conditioning radiator. Flow through this intercooler was driven by a pump operated by one of the camshafts, and it circulated its coolant through two radiators in the front skirt. The entire system added only around 20kg, though its labyrinth of hoses earned it the nickname 'Porsche Water Power Station'. In practice, the intercooler reduced intake air temperature from about 150°C to 50°C with appreciable effect (as colder air is denser) on boost pressure. A much larger KKK turbocharger was installed, raising the 934's boost setting to 1.35 bar compared with the 930's 0.8 bar. At this level the 934 delivered a dependable 485bhp at 7,000rpm and 588Nm at 5,400 rpm. All this was achieved with the stock 930 crankshaft and casing, single ignition head and standard camshafts and valve timing, with inlet

Build and derivatives

Besides its prototype, dismantled in 1978 when Fuhrmann terminated the competition programme, Weissach built 31 934s, beginning with chassis number 930 970 0151. Today almost all of the cars are believed to exist, and some have been restored to 1976/7 condition. Porsche made another ten so-called '934.5s' for US IMSA competition, but the authorities, fearing another Porsche walkover, initially ruled against turbocharging. These 934.5s, which had full width rather than 930 rear spoilers, wider tyres and mechanical fuel injection made over 600bhp: they found an outlet in SCCA events and provided Follmer's winning mount in the 1976 Trans Am Championship. A few raced in Europe in Group 5 from 1977, and some teams converted them to full 935s.





LEFT Many 934s were eventually converted to 935 spec, so this example is particularly remarkable for its originality, even boasting the original engine and gearbox



Model Porsche 934

Year 1976

Engine

Capacity 2,994cc

Compression ratio 6.5:1

Maximum power 485bhp @ 7,000rpm

Maximum torque 588Nm @ 5,400rpm

Transmission Four speed with choice of optional revised ratios

Suspension

Front Strut and torsion bar; anti-roll bar

Rear Strut and torsion bar; semi-trailing arms as per production 930; adjustable coil springs; anti-roll bar

Wheel dimensions

Front 10.5x16-inch

Rear 12.5x16-inch

Dimensions

Length 4,290mm

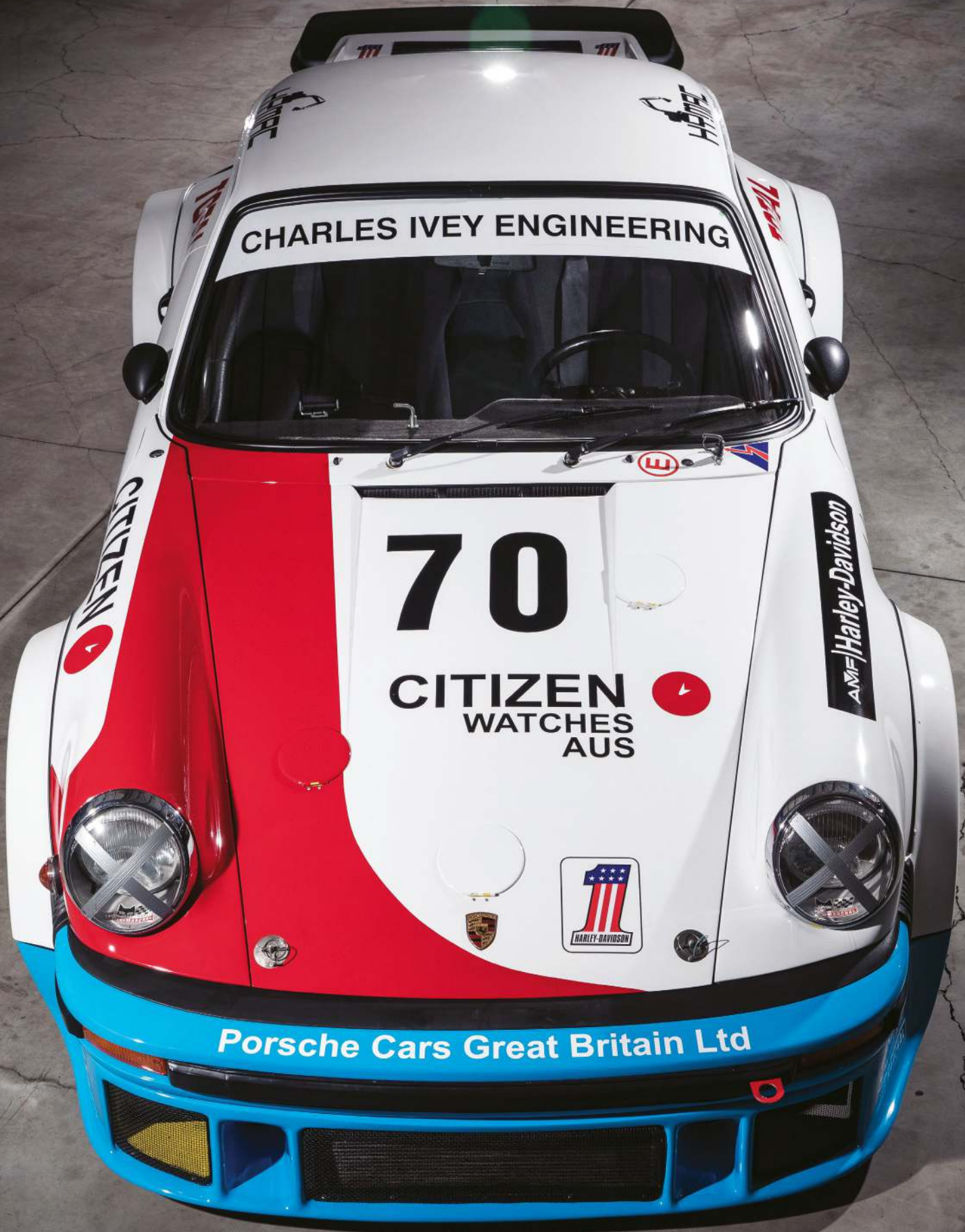
Width 1,870mm

Weight 1,120kg minimum

Performance

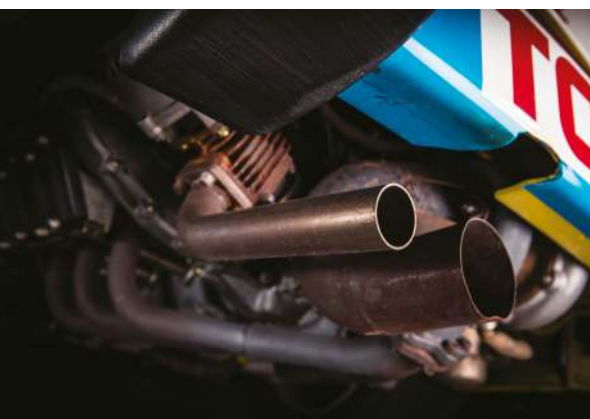
0-62mph 4.5 seconds

Top speed 188mph (dependent on gearing)





LEFT The 934 is officially titled '934 Turbo RSR' by Porsche, which used the 930 Turbo as its base



and exhaust ports enlarged to 43.5mm and 36.5mm. Special pistons were used for greater durability at high crank speeds, but the connecting rods were stock, as was the 6.5:1 compression ratio. Like the production car, the 934 was fed by Bosch K Jetronic injection rather than the mechanical fuel injection used by Porsche hitherto in competition.

As with the rest of the car, the 934's transmission was essentially the 930's, whose specific four-speed gearbox, capable of transmitting 644Nm, was heavier duty than the five-speed 915 used on the 3.0 RSR and production 911s. Porsche offered standard ratios, plus two different ratio sets and final drive ratios, the limit of what the GT rules would allow. The 934 gearbox had its own oil cooler, a mechanical pump which circulated its oil through a cooling matrix mounted in the rear wing. Compared with the road-going 930, gear lever travel was considerably reduced and the precision of the shift enhanced by more solid mounting of the engine and gearbox to the shell. Porsche engines rarely broke, and when they did, the culprit more often than not was a missed gear change. Again the clutch was standard 930, albeit with a stronger diaphragm spring and sintered metal plates. A limited-slip differential with an 80 per cent locking factor was standard.

The 934's base price was DM 97,000, equivalent to \$43,000 or £25,000 at the time. A few extras, such as additional sets of gear ratios and a cockpit-mounted boost adjuster, plus spares would add a few thousand Deutschemarks, but this still represented value for money. As one of its first buyers, US racer Al Holbert, who in the 1980s lead Porsche's racing programme in America, remarked: "With everything you need for a hundred thousand marks it's still cheap for what you get."

As so much of the material was already proven, the development process was rapid. Design work in earnest had begun in May 1975, and by September Berger's prototype was accruing test miles around the track at Weissach. There was further testing at Paul Ricard, then in January Manfred Schurti lapped the Nürburgring 15 seconds quicker than his best in the previous year's 3.0 RSR. By early February 1976, a dozen of the 31 series 934s which Porsche would build during the season had already found takers.

Buyers were well established teams, most of which had raced Porsches previously. In Europe Kremer, Loos, Max Moritz, the Jolly Club and Alméras; in the US Vasek Polak and Al Holbert and in Australia Alan Hamilton. The 934s were driven by all the top Porsche racers, and to no one's particular surprise the 934 was absolutely dominant in GT competition. Although Porsche never developed it further, it won the GT class at Le Mans in 1977, 1978 and 1980.

The 934's most successful pilot in that first season was Toine Hezemans, who took seven wins and four second places in 20 races to win the GT Championship for Georg Loos. In the US George Follmer won the Trans Am Championship, and in 1978 Jacques Alméras won the European Hill Climb Championship. Always a privateer's car and latterly boosted to 590bhp by some teams, the 934 continued to flourish at lower levels of competition until the early 1980s when Group 4 faded away.

However, compared with the beautifully balanced 3.0 RSR, the turbocharged 934 was a challenge even for the most skilled drivers. Hezemans remarked: "The 934 was brutal. It had almost 200hp more than the 3.0 RSR we were used to and you never knew where the boost was going to come in. It made it particularly difficult to drive."

The engaging Al Holbert commented to *Car & Driver*: "It always seems I am out of control in the damn thing. That's the only way it goes fast. It's a small car with a small wing and small tyres,

so you slide it into a turn, get it sideways and pointed in the direction you want to go, which lets you get on the power much earlier. It's very responsive to brake and steering effort, just like the street cars. When I get into a 911 afterwards, it doesn't feel that different."

Another seasoned 911 exponent who recalled the 934 was Nick Faure, who shared Belgian Jean Blaton's car at Le Mans in 1976. "The single-turbo Porsche were a handful. I took Jackie Ickx's advice to commit the car to the corner then saw away with the steering wheel to scrub off speed while not lifting your right foot. I got the hang of it in the end, but it took some bottle!"

This 934, chassis number 930 670 0153 and object of our photography, was delivered in yellow to Jean Blaton at Le Mans, and Faure, a professional artist, painted and signwrote it for him in the paddock. The team was unlucky. Turbo technology was still new and Faure says that they had not understood that the car needed to idle for a minute or so to cool the turbocharger bearings before switching off. During the 24 hours they went through four turbochargers. The time lost reduced them to unclassified at the finish. Blaton sold chassis 0153 to fellow Belgian Jean-Pierre Gaban and in 1977-78 it achieved a couple of outright wins and second places at Spa, Nivelles and Zolder in the hands of Willy Brailard and Marc Duez. After 1979 the 934 was more or less retired in its original state. It joined the JFD collection in 2016 where with Le Mans Classic in prospect, it is very unlikely to remain a static exhibit. **911**

“The 934 was designed specifically to provide previous RSR clients with a far more powerful entry for the 1976 season”

Thanks

Thanks to the JFD collection for access to the 934.



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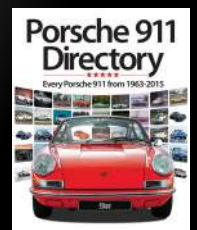
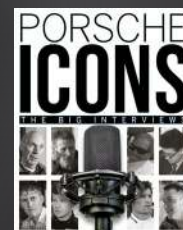
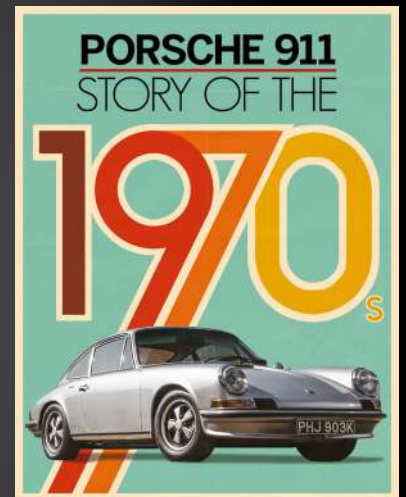
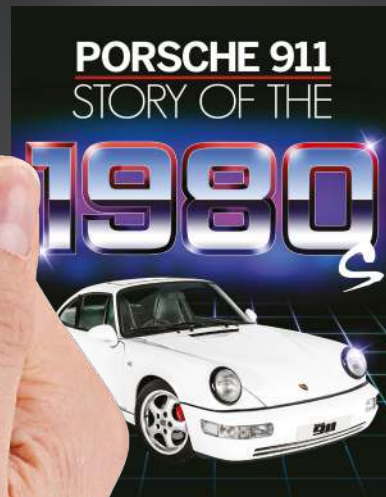
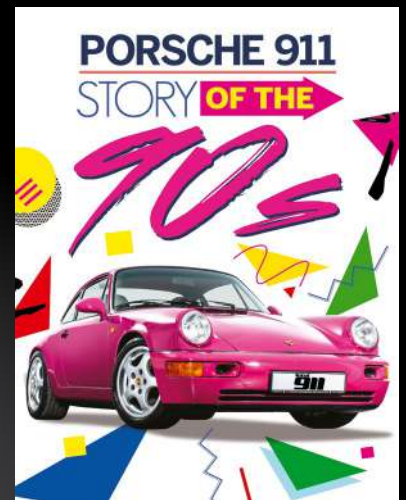
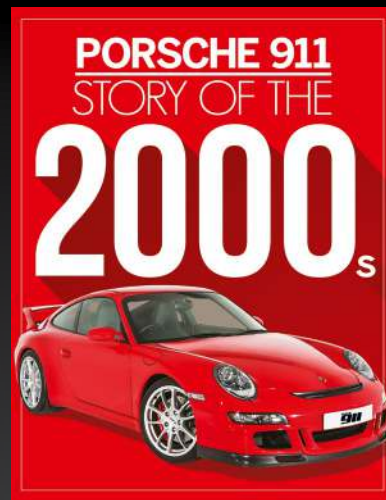
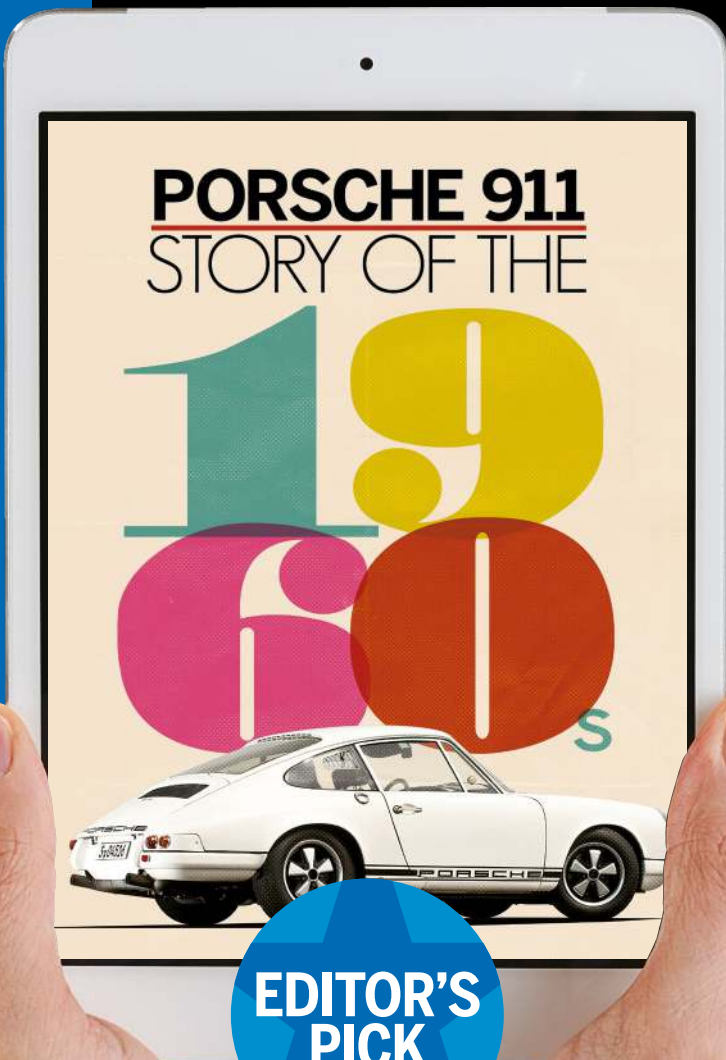
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Living the Legend

Our contributing enthusiasts from around the world share their real-life experiences with their Porsche 911s



Gina Purcell
Oxford, UK

Model 911 SC
Year 1982
Acquired April 2014
Model 964 Carrera 4
Year 1989
Acquired September 2004



With the primer having hardened for a month, the colour coat beckoned. I'd had a few sprays of Platinum Metallic done to the sunroof panel and new front wings, one shade of which was based on a spectrographic analysis of the original paint. Science eventually had to bow before the human eye as the computer mix of Porsche Platinum came out too dark and lifeless, but one choice out of a bewildering selection of Mipa paint chip samples screamed out as 'the One'.
Steffi the SC's birthdate on her C.O.A. is 15 January 1982, so it was quite the fitting coincidence that her colour coats were applied on 15 January 2018. What a 36th birthday present! Once more, Tyrone Fuller, proprietor of Riviera Autobody, was his usual accommodating self in letting me into the spray booth to

record the event. Kudos to him – I didn't put him off, and it was a pleasure to watch the colour go on.

Being a former graphic designer and airbrush illustrator, it intrigued me to watch the Platinum Metallic paint being mixed up for the gun, the main difference being the scale of things. You might think platinum is a simple mix of silver and gold, but no; like any tasty recipe it's the carefully portioned extra little herbs and spices that lift the dish. Porsche's Platinum Metallic is a six-way mix: silver is the largest by volume, then a splash of gold, two separate shades of black, a little dark ochre and finally, a spill of retina-busting bright orange... all to 1/10th percentage point accuracy.

In all, five coats of Mipa water-based paint were applied to the body shell, the first being just a light dusting of colour, then three heavier layers, all sprayed at 2 bar pressure. The final layer is the 'drop coat', so-called as the

gun pressure is halved to 1 bar which enables the maximum amount of paint to contact the surfaces and flow. It's a strange process to observe as the paint lays on the surface in different densities looking like soft tiger stripes, but these disappear in a few seconds as the paint shifts and settles. This is topped off with three layers of Lesonal HS Premium clear lacquer. The first is a 'semi-wet' 3/4 coat, followed by two heavy applications which, when dry, receive a good polish. The smaller panels followed the same process over the next few weeks.

Meanwhile, Classic FX's Garry Hall had received the headliner material and turned my job around pronto. I collected it from him and took it straight to Riviera where the multi-talented Jason, their ace metalworker, expertly fitted the headliner. All the glass is in and the Southbound-supplied carpet set is beginning to dress the interior as I write this up. I'm bursting with excitement! More next month!





Chris Wallbank
Leeds, UK

Instagram: [chris_wallbank](#)

Twitter: [@chrisjwallbank](#)

Model 997.1 Carrera S
Year 2005
Acquired November 2012



After discovering that the tandem oil pump on my 997.1 C2S was badly corroded on my last visit to Revolution Porsche

I was advised that I should get it replaced as soon as possible before failure. Needless to say I booked it in for the following week.

Now that the early Gen1 997s are nearly 14 years old, technician Danny told me how corrosion of the tandem oil pump is becoming a much more common problem, in more severe cases resulting in the pump cracking, leaking oil and losing pressure. If this were to go undetected for a prolonged period it could lead to much bigger engine problems.

Basically it's a dual-service pump that acts as a scavenger pump to maintain oil pressure for the cam shafts and also creates a vacuum for the brake system, too. So in short it is definitely not

something you would want cracking and leaking!
With my car having only covered 35,000 miles, my advice to anyone who owns a 997.1 would be to get this checked out if you haven't already – no matter what the age.

Something else Revolution recommended replacing at the same time was the extremely corroded exhaust flange bolts with their stainless steel versions. The OE fixings are made from mild steel which had rusted to the point that they had to be removed with the help of a blow torch! Again, this is becoming common, especially with our salty UK roads.

The cost for the replacement pump alone came in at £318.39 +VAT, but I was pleasantly surprised with the very reasonable labour costs involved coming in at £156 +VAT, including replacing the corroded exhaust flange bolts and gaskets.

Once again, thanks to the guys at revolutionporsche.co.uk for their great service and knowledge.





Tony McGuinness

San Diego, USA

[@tonygt3rs](#)

[@tonymcguinnessgt3rs](#)

Model 997.2 GT3 RS
Year 2011
Acquired February 2011

Model 991.1 GT3
Year 2015
Acquired December 2014



I had mentioned in a previous column the GT3 RS was now seven years old. This past December marked the third anniversary of

owning the 991 GT3. Because I own both GT cars, people inevitably ask me how the GT3 compares to the GT3 RS.

While the GT3 is a superb 911, the GT3 RS is extraordinarily special and, to be honest, I can't give it enough accolades. Driving the GT3 RS is one of the biggest thrills I have ever experienced and one packed with emotion.

Just sitting in the cabin of the car is an emotional experience. The red cloth door pull straps give off a Cup car feeling. Of course, this is a 911 closely linked to Porsche Motorsport. It is all about lightweight with the RS. It has very little sound-deadening material which allows you to hear the scream that only a Mezger engine slung out the back can make.

Whereas the GT3 has the PDK gearbox, the Rennsport requires you to be fully involved. I have to think about what I am doing and I feel rewarded just changing gears. It is a gearbox unlike any other I have ever driven. The clutch

is heavy and makes me wonder, if I hadn't played soccer for years would my left thigh be able to cope? I feel the mechanics of the car and it tests my driving skills. It leaves you feeling exhilarated and spent at the same time. It's a complete joy.

The GT3 does share some of the same characteristics and is a phenomenal 911, yet if I ever had to make a decision on which one to keep... there is only going to be one choice. That choice would be the Rennsport. You can watch our Editor Lee drive both of my 911s on his YouTube channel, just search for 'That Nine Eleven Guy'. Thanks to Rich Pearce for the pics.



James Samuel

Poole, UK

[@Jamessamuel4](#)

Model 997.1 Turbo
Year 2008
Acquired April 2015

Model 996.1 GT3
Year 2000
Acquired January 2018



Though I'm a long-time subscriber to the magazine, this is my first 'Living the Legend' article, so I thought I'd start by introducing myself

and explaining how I got into the Porsche brand. As you'll likely have read from the title on the left, I'm James, and I live on the sunny south coast of the UK with my wife, two kids and Labrador.

I've been car mad since birth – it's in the blood. Anything with an engine was of interest, from model vehicles to reading about new cars. Dad would take us to

watch rallying whenever he could and F1 was always on the television, too.

My passion for the 911 started at a young age watching the classic car movie, *Condorman*. Bad guys driving awesome, all-black 911s through the mountain roads with precision just didn't get any better. Right then I told my parents I would own a black 911 Turbo one day... how they laughed.

Fast forward to 2015 and I finally got myself in a position to purchase my first 911, diving in at the deep end with a 997.1 Turbo from RPM Technik. Darren and Greig made the whole process brilliant. I am not one for low-mileage garage

queens and I intended to use the car for a number of bucket list experiences, which is what I'm now doing! The car is a late-2008 Gen1 with good specification and great service history, having covered 48,000 miles in seven years at the time.

Three years later I started to yearn for a more track-focused car, with a decision needed on whether to focus all these efforts on the Turbo or find something else. A good friend has a passion for all things GT3 and suggested looking at the 996 for pure driving experience and value for money. I love the history and build quality of all that comes with the Mezger lump in both n/a and Turbo form, so the hunt for a 996 GT3 began.

It wasn't long before a Speed yellow Gen1 caught my eye, once again at old friends RPM Technik. I quickly rang Greig to check the car was still available and, to my surprise, it was. I have only just collected the car as I write! I will keep you up to date with all my findings, plans and experiences going forward, of which I am sure there will be many. For now I will just sign off as a very happy owner of two very different, but equally amazing 911s that I plan to retain forever and keep driving, working on and enjoying to the best of my ability.





Kyle Fortune
Warwickshire, UK

Instagram @kylefortune205

Twitter @Kyle_Fortune

Model 993 Carrera 2
Year 1994
Acquired December 2014



Two Carreras. Yes, that's greedy, but I'm rapidly forming the opinion that it's the best solution. The 993 for occasional weekend use, and

the 991.2 Carrera as a daily. I've managed to hang on to the new car a little bit longer than was first planned and, truthfully, I'm finding it difficult to come to terms with the idea it'll go back sometime. It's being used as a family hack, doing the school run with two kids in the back, my Recaro Monza Isofix child seats fitting in well. It even manages the odd two kids, Mrs Fortune and myself run in genuine comfort.

The compromises I thought might take the shine off the 'ownership' of a



daily-driving 911 just haven't materialised. Getting the kids in the back is a cinch; indeed, the proximity of the rear seats to the B-pillar mean I simply sit on the sill, reach into the back and can make sure the kids are buckled in securely. In my wife's E-Class Coupe you need to clamber in with them to do so, and that's never easy.

The front luggage compartment has yet to be beaten by a full week's shopping, and even managed enough bags for a proper weekend away – and, as anyone with kids will tell you, they never pack light.

The other thing I've found so good is this particular Carrera's simplicity. It's a manual, which if you've read anything else on these pages I've written you'll know is my preference, and there's very little in the way of superfluous,



unnecessary and distracting 'driver assistance' tech from the options list. The only tiny frustration is the need to press the Sports Exhaust button after I've started it; I've always thought they should be default on, with the option to switch them off. Oh, and anyone who tells you 370hp isn't enough is talking rubbish. I've never once felt like it needed more.

Even the fuel consumption is proving decent: daily use it's in the early 20mpg region, but longer runs sees that climb up to 30mpg, that without me driving with any real consideration to mpg. Sure, I've not yet needed to try and take the buggy in it for the kids, or planned any longer family trips away from home, but chuck a roofbox on it and there's no reason why it couldn't do all that, too.



Joel Newman
London, UK

Model 996 Turbo
Year 2003
Acquired April 2014



It's easy to wax lyrical about Porsche ownership, but often the warts-and-all stories about the reality of ownership are ones some

owners gloss over (not here, I might add). This month I am going to present two sides of the coin. My regular daily driver, an old 5 Series BMW, has been off the road this month, which meant motorway duties were handed over to the Turbo. In the past four weeks I have added near enough 1,500 miles to the odometer. With two trips to the Cotswolds, two to

Bristol and a jaunt to Wales I have to say I have put my demons about mileage behind me.

The good news was the car didn't let me down, averaging around 20mpg all in relative comfort. However, as you may remember my car runs on 19-inch OZ wheels, Bilstein Dampers and lowered Eibach springs. The car is certainly very firm suspension-wise, which on the motorway is fine but on the back roads can get a bit jarring. Combine this with the drop in ride height and you have a car that can only be driven at 5mph or less on anything but a flat surface due to the front splitter. Removing it would probably be sensible, but I tried and it just looks weird, so vanity wins over sense on this one. The issue is now I require my third front splitter, which in two years of ownership tells its own story!

More worrying, on my return from a beautiful town called Lacock in Wiltshire, the car threw up a very odd error message: 'Warning brake bias'. It then immediately shut off ABS, power steering and PSM. Trust me when I tell you that driving in this mode is not the same as switching off PSM. I learned this while braking for a roundabout at around

70mph and feeling the back end coming round on even mild application of the middle pedal. It went from amusing to terrifying in a matter of milliseconds. I do not know how anyone pilots a furious Porsche with no electronic wizardry. The only car I have ever driven that reminded me of the experience was a 1966 Chevrolet Corvair, which I later learned (soon after travelling backwards through a red light) was 'the most dangerous car ever built' thanks to its weight distribution and fuel tank position!

Looking at the handbook I see no mention of any 'bias' fault, only a warning about brake distribution, which I assume is one and the same? Now the funny thing is I spoke to my mechanic and he said he has not seen that fault before on a 996 – ever. After nearly 20 years of working on them, that sounds ominous.

I have also now managed to illuminate the brake pad service wear indicator, which means I have eaten through an entire set of pads in around 7,500 miles. It doesn't sound like many, but I did complete three track days... 1,500 miles later I require a new splitter, new brake pads and let's hope a sensor to solve my brake bias issue.





Joe Croser

Northamptonshire, UK

@jcx911

Model 997.2 Turbo
Year 2010

Acquired December 2015



After last month's major service at DW Performance I sent oil samples from my engine and gearbox to Millers Oils for testing. At about

£30 a sample it's an affordable way to diagnose issues by identifying 'stuff' that shouldn't be there.

Within days reports were emailed to me, making for some interesting reading. First the good news: after 8,500 miles the engine oil was still within spec for a 0w-40, meaning it is still fit for the task of protecting my engine. A small amount of fuel showed up in the oil, which is

consistent with a car that generally does shorter runs in richer 'start-up' mode. This fuel is typically burned off when the oil runs very hot for a long time, such as on longer journeys. Particularly low wear levels of the boron and molybdenum from the oil additive pack also indicate that the engine is in very good condition, having not consumed them. Happy days!

It will be interesting to test the Millers CFS 10w-50 NT+ when it gets changed to see how well it has performed.

However, the gearbox oil told a different story. This factory-filled 75w-90 was almost eight years old when drained with 35,000 miles under its belt and it was way past its best. The results

showed a drop of 30 per cent in viscosity, taking it out of spec and making it more of a 75w-80 oil. Clearly this transmission oil was no longer in a fit state to take the best care of a PDK transmission handling 500bhp and 700Nm of torque.

Thankfully wear debris was negligible so no harm done, but if I'd kept the oil in there for another four years as Porsche advises I think the story might be very different indeed. My conclusion? Get your PDK oil changed at least every six years or 30,000 miles for maximum protection of that hard-working £15,000 part.

But what of the 'feel' of the car since its service? Driving home it felt a little sleepy, a bit laggy. I wondered if the lower engine friction left the ECU just a little out of sync on the supply of fuel and air, so the next day I disconnected the battery and left the car to reset. After reconnecting the power I fired it up and headed for my favourite local roads at a sedated pace while waiting for the engine temperature to rise, then I let rip and the car took off.

I could clearly feel the difference in the immediacy of the acceleration. It was readier, happier, and quicker to gather speed. Could it be the placebo affect? I couldn't be sure but I'd love to find out.



Dana Pawlicki

Maplewood, New Jersey

Model 993 Carrera
Year 1995

Acquired May 2007

Model 991 Carrera S
Year 2013

Acquired March 2013

Model 930 3.3
Year 1986

Acquired April 2014

Model 964 Carrera
Year 1994

Acquired June 2014

Model 930 Targa
Year 1988

Acquired April 2015



Winter is here in the north-east US in full force. I truly wish I had more to report on the driving front, but nearly all of that

has been exclusively relegated to my SUV and 4WD wagon. I was recently short on garage space before a snowstorm and the 991 C2S got caught outside in it (which I never usually allow to happen), but at least it made for some interesting snow formations, particularly on the rear ducktail!

In other Porsche news, you may recall that my business partner decided to order his first Porsche this autumn: a base model 911 Cabriolet. I helped him spec out the car. While if it were my own an S would have been mandatory, for him, being his first Porsche (or sports car), the standard 991 was "plenty" of car. I was at least able to get him into the 20-inch wheels and a few other options! I also recommended the rear 911 model designation which I think is a nice touch, particularly for a non-S model. The car arrived a few months before its predicted delivery date, which allowed him to drive it before the severe weather set in. I went for one ride with him in it, and my



first impression was when he started it up while I was standing outside the car. Despite it being a base model, and the new turbo engine of course, it still very much sounded like a 911. Mainly my impressions were that it very much seemed like a 911 all over. The pull was very linear, the ride comfortable and the handling fantastic. He absolutely loves it. His father had a 911 Targa in the 1980s and he always wanted one, but I have to think that my Porsche 911 passion put him over the edge!





Rob Clarke
Bristol, UK

@rob911_tlt

@Rob996LTL

Model 996.1 Carrera 4
Year 1999
Acquired February 2014



I was reviewing the list of things I was thinking about doing on my car this year, one of which was upgrading the headlights. I did have

my headlights refurbished to improve the brightness last year, but in looking at the proposed MOT rules coming into force in the UK later this year with respect to aftermarket HID conversions I'm going to hold off for now. On the subject of MOT my car passed again with no advisories which is always good news.

I think I said last month I was going to start addressing some of the paintwork

issues, but haven't looked at that yet because I've been distracted with a cold-induction system! I found reference to a cheap cold induction modification via one of the active 996-related forums that does not give you any power increase but does improve the noise. Since I said last month I liked the better sounding 991 Gen2s I thought I would give this a go.

I have gone down the cheap route and sourced some bits from eBay. This conversion only needs three parts: a replacement pipe between airbox and throttle body, a blank to close off the hole from the Helmholtz resonator and a new performance filter. I have not purchased a new filter as not sure which

to buy or how much difference it will make. As for the Helmholtz resonator, which is apparently in the system to reduce 'drive-by' noise, I found the blank I purchased will fit the resonator but not the hole it was in, so I will be ordering a new blank!

This is an easy fit, although the pipe I purchased did seem a bit short, but it did just fit. I removed the three clips of the current OEM pipe from the throttle body. With the pipe off I took the opportunity to run the car without the pipe so I could see the butterfly valve in action (I will post some videos on Instagram if anybody wants to have a look). So then I put the new pipe in, located the blank and I was ready. 30 minutes and £30 seems cheap for a mod that may bring a grin to my face if it works, if not it looks cool anyway!

During this process I also learned that some Tiptronic cars have an extra breather hose; mine doesn't, which made this conversion easy! But it seems some cars (possibly earlier cars or export cars) had a Daimler-Chrysler 'box, whereas the later had a ZF. To be honest my enthusiasm to research a problem that I didn't need to worry about meant I lost interest quickly!



David Grover
Harpندن, UK

@davidgrover12

Model 991 Carrera S
Year 2014
Acquired March 2016

Model 997 Cup
Year 2014
Acquired December 2016



So it's blue, vivid blue and what a colour! It seems to change quite a lot with the light. On a grey winter day it almost looks dull and

subdued, then with a sparkle of sunshine it seems to come to life.

This late 2017 model sadly isn't mine. I have mentioned in the past that aside from the lovely cars I do have, I am also a member of a car club in North London (Autovivendi) through which you can take cars out and use them. So in mid January I took this car for a weekend and a jaunt outside of London. My route starting right in the city included stop-start

traffic, dual carriageways, motorways, 'A' and 'B' roads, so a perfect blend to find out what everyday life is like in a GT3.

First, the car itself. It's a pretty standard GT3 in comfort spec. It has normal seats, no roll cage, no harness seat belts and a nice mix of Alcantara and leather in the cabin. I like the carbon touches and the nice use of the red stitching and rev counter.

On start up the car bristles with the potential it offers, rumbling nicely with the sports exhaust option. It's quite mechanical, so you can hear it shifting gear, especially down into second and first. This is nowhere near as extreme as my Cup car, which is so mechanical it sounds like you have broken it each time you move around in the low gears.

At low revs there isn't a lot of urgency in the car; it purrs along nicely so is ideal for traffic. Then you jab the accelerator and it's off – the top end revving to 9,000rpm – and you feel the power and noise building to the redline as it comes alive. Getting to the redline is not easy on UK roads and very quickly you are knocking on the door of legality, which simply makes you want to find a race track or European road to explore its true virtue.

The next thing I noticed was the ride. Because our roads certainly in London are so bad, it's pretty harsh even in comfort mode. It tracks every change in surface, every drain cover, every rut and that makes for a fairly tough hour or so coming out of London. As soon as the surface improves, the ride is spot on.

What is beyond comparison for me was the engineering of the car. It's solid, it's precise and simply does what you ask of it. Everything is in the right place for the driver and my experience inside the car was perfect harmony. My last experiences in GT3s have always been manual, so experiencing the PDK solution was something I was looking forward to. It didn't disappoint and the gear change is phenomenal. You can flat shift going up the 'box without any noticeable hesitation that could impact negatively on its acceleration, even when close to or bumping on the redline.

The next car has been booked, this time another one outside our core brand favourite. Hopefully you won't judge me too harshly as it's a new McLaren 720S. Also, my first track day is looming so that will get me back out in the Cup car for a shakedown day post the winter break. Happy days!





Lee Sibley
Bournemouth, UK

@lee_sibs

Model 996 Carrera 4S
Year 2002
Acquired April 2017



It was during a spirited drive early one Sunday morning with a group of Porsche-fanatical friends when I decided I had to do

something about the chassis of my 4S. Perhaps it was frustration born out of the fact I was trying to keep pace with a 991 R, 991.2 C2S and Cayman GT4 among others, but for the first time I found my 4S was left wanting when it came to providing a suitably focused ride that's nice and sharp at the nose.

Of course, there's only so much that can be done with the latter when your 911 is so heavy at the front thanks to its all-wheel drive system, but travelling at speed on twisty British B-roads highlighted the general vagueness of a suspension set-up that's now 16 years old. In a nutshell, the car was reacting to lumps and bumps in the road long after my wheels had ridden over them – when driving fast, you're talking tens of meters down the road. This isn't good, not just for grip but for balance too. Something had to be done.



Previous experience with my old 996.2 C4 showed me that switching up to a quality aftermarket suspension can totally transform the handling. Though I went with Bilstein PSS10 coilovers on that car I noticed they weathered quite quickly, which would make it difficult to adjust them during geo tweaks. This time I decided to speak with KW, as their twin-tube, stainless steel coilovers are corrosion resistant.



I've gone for Variant 3s from the KW 'inox-line', recommended to me by KW UK to best serve my needs of fast-road and occasional track driving, as well as a comfortable pop to the shops. The V3's compression and rebound damping can be adjusted independently and easily (with a choice of 12 clicks for the former, 16 for the latter) to optimise body roll and overall stability for fast driving or, when the mood suits, a greater degree of comfort.

I've just picked the coilovers up (looks like the 911's rear seats and belts do have a use after all!) and can't wait to get them fitted before a thorough test on road and track.



Ron Lang
Ashland, Oregon

Model 2.4-litre 911S
Year 1972 Acquired 2018

Model 964 Carrera 4S
Year 1989 Acquired 2015

Model 964 Carrera 2
reimagined by Singer

Year 1990 Acquiring 2018

Model 964 C4 Safari
Year 1991 Acquired 2018

Model 993 C4S
Year 1996 Acquired 2016

Model 993 Turbo
Year 1997 Acquired 2015

Model 997.2 GT3 RS
Year 2011 Acquired 2016

Model 991.2 Carrera 4S

Year 2017 Acquired 2016

Model 991.2 Turbo S
Year 2018 Acquired 2017



Putting 911s away for the winter is common and logical wisdom, perhaps most sensible for the classics that may not have the same

degree of corrosion protection as the newer cars. Depending on one's local climate, that can mean being without the 911 experience for up to six months of the year. Properly set up, however, driving on cold, wet and often snow-covered roads adds another fun dimension to the 911 experience.

Winter alpine driving develops further intimacy with the car. Similar to a wet track day, they share in common the ability to explore the edge of grip more readily and at lower speeds. Playing the throttle, clutch and brakes to move grip fore, aft and sideways on snowy and twisty mountain roads is an exercise of rarely feeling like a real rally driver and mostly feeling like a complete uncoordinated oaf. Despite winter mountain driving in 911s for years, mastery remains elusive.

My 2017 C4S has the seven-speed manual. Adding appropriate clutch slippage in the search for balance and grip is an extra dimension of car control. Today I drove it to our local alpine ski hill.



It's a 35-mile drive from home and begins with a climb from 1,800 to 4,300 feet. That portion is a curvy climb to the top of the Siskiyou Pass. The pass is the highest point on this major West Coast artery that runs from the US border with Mexico north to Canada.

Exiting at the pass, the final 13 miles is a two-lane road that rises another 2,000 feet. This is the play zone. Uncrowded and with no cross traffic, this section is mostly second- and third-gear corners with a few short straights. The descent on return presents a whole different set of apexes to explore.

In the dry, all the 911s are a joy both uphill and back down. On the snow it's half the speed, but arguably more fun as grip comes and goes, often at just 30mph through the tighter corners.

I keep expecting the front axle to do more of the work, and perhaps it does,



but the torque distribution gauge when displayed on the dashboard LCD rarely shows more than perhaps 15 to 20 per cent of the torque being shifted to the front wheels. Maybe I'm just not pushing hard enough, with fear trumping courage.

I've had good success with the Porsche OEM winter wheel and tyre set. Carrera S wheels shod in Pirelli SottoZeros in original sizing work well on this car. I've also added front mud flaps, reducing the amount of debris thrown at the rear arches. I use RallyArmor flaps, another product that has proven itself over time.

This is a fun ski car too, especially for solo runs. I readily fit up to 180cm skis at an angle in the car, passenger seat reclined a bit, ski tails in the passenger footwell, tips in the rear compartment and a soft bag encasing the skis and poles.



Greg James
Mercer Island, Washington

- Model 3.2 Carrera**
Year 1985
Acquired 2008
- Model 993 Turbo**
Year 1997
Acquired 2016



One of the subjects rarely discussed in Porsche circles is colour. While gearheads can go on forever about engine build specs,

suspension mods and tyres, talk of colour is rare. More to the point, talk of a colour that doesn't work is rare.

Take, for example, cars from the early 1970s. In the US, we refer to bright colours like orange, lime green, yellow and bright red as Skittles colours, after the candy of the same name. Orange and lime green seem perfectly suited to a 1973 or 1974 911. However, I'd probably think it odd or out of place to see the same colour on a 993. On a similar note, my 1985 Carrera seems perfect



as a triple-black Cab, but would appear strange if it was Chocolate brown (a late 1970's colour) with a black top. The 1980s saw Guards red as a very popular colour, however it's all but nonexistent on today's modern 911s.

A car's colour seems to be one of those strange things that's either right or wrong. I'm not sure why, but it seems to me that you either know it works, or know it doesn't. Many modern Lamborghinis are painted in bright colours like orange, electric blue, green and yellow, and to me all those colours work on that marque. The same colours just would not work on a Toyota or Lexus.

Porsche seem to be reviving some of the brighter colours of yesteryear on their new 911s, and I like the trend.

Too many cars today are silver, black or white. Bringing back bright colours on high-performance cars is something I'm all for. I started to think about the subject of colours because I've always thought that Mexico blue or Riviera blue would be my first choice on my 993 Turbo.

I've seen photos of Jerry Seinfeld's Riviera blue 993 Turbo S, and it was spectacular, but then I started to wonder what the 993 would look like in Lime green, or Viper green (colours I've never personally seen on a 993) and it seemed out of place. I wonder if it all comes down to something as simple as this: if you've seen it on a car and the colour registers in your mind you subconsciously think it's okay. If not, you question whether or not it would be appropriate.



Michael Meldrum
Houston, Texas

@p911r

- Model 911T Targa**
Year 1972 Acquired 2013
- Model 911E**
Year 1972 Acquired 2014
- Model 930 Turbo 3.0**
Year 1977 Acquired 2014
- Model 930 Turbo 3.0**
Year 1977 Acquired 2015
- Model Carrera 3.0**
Year 1977 Acquired 2016
- Model 911 SC**
Year 1981 Acquired 2015
- Model 3.2 Carrera**
Year 1986 Acquired 2015
- Model 993 C4S**
Year 1996 Acquired 2016
- Model 964 Carrera 4**
Year 1994 Acquired 2016
- Model 997.1 GT3**
Year 2007 Acquired 2017



Is the Porsche 911 the ultimate family friendly sports car? The inclusion of semi-functional rear seating is almost as iconic as the rear

engine location in my opinion. It's marketing genius. How many buyers have used the miniscule back seats of the 911 to justify the purchase? Similarly, it's a fantastic way to indoctrinate the next-generation Porsche enthusiast; I'm 100 per cent positive my obsession with the 911 started with seat time in the rear of my grandpa's car.

Not all 911s come with rear seats but, being me, I was interested to know if GT ownership and kids could go hand in hand, so I started doing some research. The 997.1 was the last GT3 with the necessary seat belt mounting points, which was one of the reasons I purchased one for my wife. She too loves the 911 but has concerns about the lack of safety features of the classics, so the plan was to have something that's fun but with modern safety equipment.

Upon arrival to my trusted local independent Porsche specialist, Eurocar-Werk, I had them go over it with a fine-toothed comb and promptly initiated project 'back seats'.

Once all the parts necessary to retrofit seat belts were identified, we ordered all brand-new parts from Porsche (you do not want to cut corners on your seat belts). I was pleasantly surprised that the yellow rear seat belts were available to match the yellow belts and deviated stitching up front.

While not an insignificant project I was pleased with the quick turnaround and the much lower than expected cost.

As of now, I have not initiated phase two, the full retrofit of the seating. I remember from my 997 GTS that the official Porsche Plus Child Seat fitted better when the rear seat pad had been removed. The combination of the seat belts and the Porsche kids seats works brilliantly for me, but I do foresee issues in the near future when my kids outgrow the child seats.





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Data File

For up-to-date stats and market values of every Porsche 911, including the F-series 911T, E and S models, see our Data file beginning on page 86

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W R I G H T U N E

They say the best things come in small packages, but does that hold true when it comes to Porsche specialists? A visit to Oxfordshire presents a chance for Total 911 to find out...

Written by **Chris Randall** Photography by **Ali Cusick**

When it comes to fettling cars there's something very reassuring about the existence of small but very skilled businesses. That's exactly what we have here, Wrightune consisting of just three people. We were keen to pay them a visit at their premises a short distance from the River Thames in Wallingford, Oxfordshire to see those skills being put to good use and find out what makes the business tick. We're here to see Chris Wright, son of company founder, Tony, who tells us that the firm's history is steeped in Porsche motorsport.

"Back in the 1970s my dad worked for JW Automotive, building Ford Cosworth DFV engines for the Gulf Mirage cars, and he then spent more than 15 years with Porsche racers, Dage Sport and G-Force Motorsport, where he built engines and transmissions for 935, GT2 and GT3 cars (and the occasional GT1), so he knows racing inside out."

It's clearly in the blood, as it turns out that Chris himself is no slouch behind the wheel, either - a successful career in kart racing was followed by campaigning a 911 GT3 in the Britcar series. But why become a Porsche specialist? Well, it turns out that Tony's love for the marque began way back in 1976 when he worked at a main dealer in Henley-on-Thames in Oxfordshire, and

after the motorsport career setting up the business seemed a logical move.

According to Chris the exact timing is a bit hazy: "It was around 2002 and he just began with a small workshop, working on his own, but we've always been on this site." Since then the company has built a strong reputation for not only the quality of their work, but also a fanatical attention to detail.

Customer service, too, plays an important part in Wrightune's ethos, as Chris explains: "It's something that's really important to us. Being a small business we can not only afford to spend time getting things absolutely right, but also make sure we remain focused on building a really strong relationship with every customer. I'm not saying larger businesses don't do that, but being able to keep close control over everything that happens and every decision is definitely a plus." That's no marketing spin, as it's clear that the team - Chris joined in 2011 to help run things, while technician Joe Carter served his apprenticeship with them - love the challenge of

delivering on high customer expectations. That's perfectly illustrated by the fact that while we are chatting, alongside plenty of other work, a G50 gearbox was in the middle of being rebuilt, the finished unit due to be shipped to a customer in America just two days later. ➔

Owner

Tony Wright

Opened

2002

Location Wallingford,
Oxfordshire

Specialist area of expertise

Air-cooled engine and
gearbox rebuilds

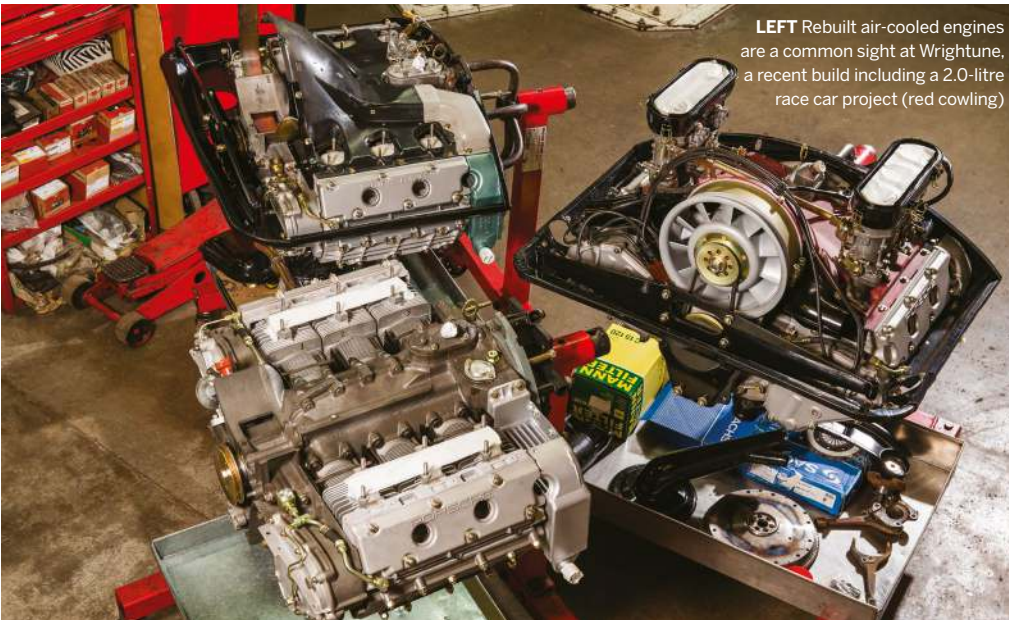
Interesting fact about the business

The winning car in the 1975
Le Mans race was powered
by an engine built by Tony

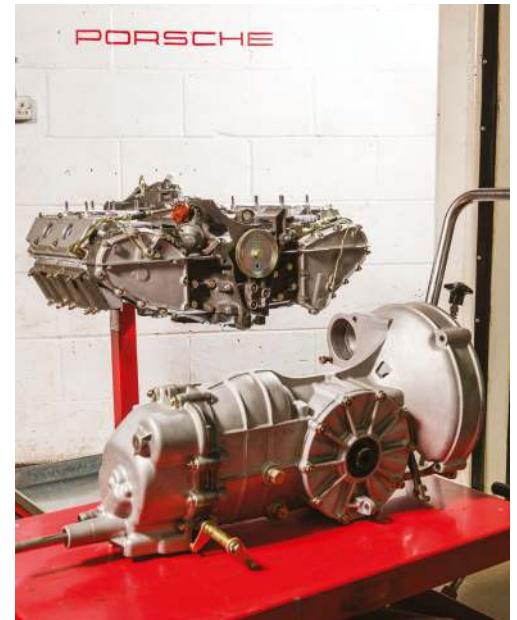
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+44 (0) 1491 826911
www.wrightune.co.uk





LEFT Rebuilt air-cooled engines are a common sight at Wrightune, a recent build including a 2.0-litre race car project (red cowling)



The job was taken on at short notice, something the company are used to, and an example of how being small can allow them to provide a quick turnaround if it means keeping customers happy. So what of that other work, and how does the 911 fit in? Well, one thing we discover is that Wrightune is as happy tackling routine service and repair work as it is taking on anything from bespoke engine and transmission builds to complete restorations. It's also encouraging to realise that much of the work is kept in-house wherever possible, which is another way of keeping a firm grip on quality. Whether it's milling and machining or returning components to their original finish through processes such as chromating (an important skill when it comes to the magnesium parts found on older cars) it can all be carried out at their modest premises. And if sub-contracting certain jobs is required, then the work goes only to local, trusted suppliers, says Chris. "For me it really is all about quality, so I make sure I go and talk to these businesses beforehand, and I'm quite happy to spend the time watching them do the job to ensure it meets the standards we expect."

As for the cars themselves, every type of Neunelfer is welcome. While the last few years have seen a healthy demand for servicing and repairing 996 and 997 models, they've also seen a noticeable shift towards the older, air-cooled cars. No surprise, perhaps, given the rise in values and the fact that owners are more willing than ever to spend money on them, but it's certainly good news for Wrightune as classic 911s have become something of a company specialism. What helps here is Tony's contacts and in-depth knowledge, both of which are invaluable and a constant source of amazement to Chris. "We've built up a huge stock of information, and no matter what it is we almost certainly have it somewhere. I can mention something like cam timing data on an RSR engine and my dad will have it to hand. It all stems back to his racing days when he kept detailed records of everything he did, and that's paying dividends now," says Chris.

Mention of the RSR brings the discussion back to racing, something the business is still involved in. They've prepared those and 964 Cup cars, and do some GT3 engine preparation for selected customers,

but it's an aspect that they hope will feature more prominently in the coming years. It's a fascinating aspect of the business and one we could discuss all day, but I'm conscious of the workload that awaits Chris and, with our time in Oxfordshire nearly up, we're keen to find out from him what the future holds. "As we've taken on more work around the air-cooled cars, and seen the restoration side expand, it's allowed the business to grow organically over the years, but we definitely have plans to develop things further. More space is certainly something we'd like, along with becoming more involved in racing again, but whatever we do the priority for us is maintaining the focus on quality and customer service. We're true enthusiasts here and love what we do, but those things really are the bedrock of the business... Tony simply wouldn't have it any other way."

It's an encouraging note on which to end our visit, one that's been hugely enjoyable as we've experienced the workings of a small team devoted to our favourite Porsche. It's said that motorsport improves the breed, and on this evidence it would seem that old saying has never been truer. **911**

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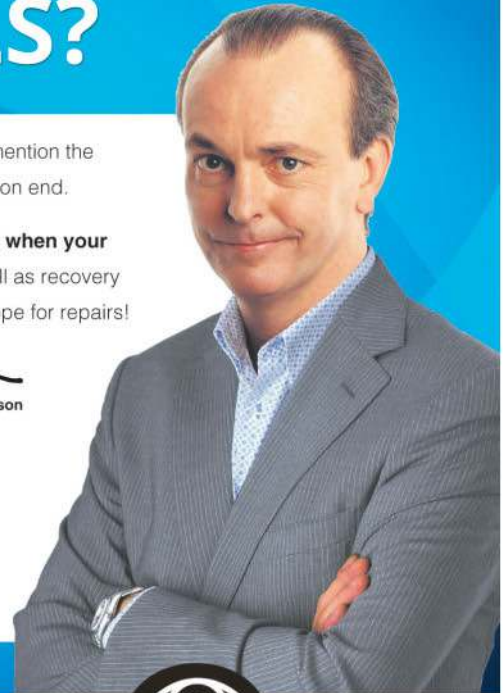
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Data file

Definitive facts and figures for every 911 model from 1964 to the present day



911s in the data file are organised in rows according to release date, beginning with the very first model in 1964. Many models were available in Coupe, Targa and Cabriolet forms, with the option of automatic transmission. Here, data has been provided from the Coupe variants unless stated. All data here has been compiled, where possible, from Porsche's own figures.



General valuations

This reflects the general market trend for a model's used value compared to the previous financial quarter. The review for 2018 Q3 will be July. The review for 2018 Q2 was April.



Ratings

Each model is rated out of five in our half-star system according to their performance, handling, appearance and desirability.



▲ (O series) ★★★★★

911 2.0-litre
1964-67

The 911 that started it all when the prototype appeared in 1963, this car set the style for all 911s to follow. Developed to replace the 356, a four-pot 912 was also made.

| | |
|--------------------|--|
| Production numbers | 9,250 |
| Issue featured | 123 |
| Engine capacity | 1,991cc |
| Compression ratio | 9.0:1 |
| Maximum power | 130hp @ 6,100rpm |
| Maximum torque | 149Nm @ 5,200rpm |
| 0-62mph | 8.3sec |
| Top speed | 131mph |
| Length | 4,163mm |
| Width | 1,610mm |
| Weight | 1,075kg |
| Wheels & tyres | F 4.5x15-inch: 165/80/R15 R 4.5x15-inch: 165/80/R15 |



An upgrade in engine size gave the 911S 180bhp. Unlike the 911E, the S didn't gain improved low-down power and torque, so you had to keep the revs up for good power.

| | |
|--------------------|--|
| Production numbers | 4,691 |
| Issue featured | 120 |
| Engine capacity | 2,195cc |
| Compression ratio | 9.8:1 |
| Maximum power | 180hp @ 6,500rpm |
| Maximum torque | 199Nm @ 5,200rpm |
| 0-62mph | 6.6sec |
| Top speed | 145mph |
| Length | 4,163mm |
| Width | 1,610mm |
| Weight | 1,020kg |
| Wheels & tyres | F 6x15-inch: 185HR R 6x15-inch: 185HR |



● (C & D series) ★★★★★

911T 1969-71

Like the E, the 911T's torque curve was flatter, making the car more drivable. Ventilated discs from the S were fitted, and a five-speed gearbox became standard.

| | |
|--------------------|--|
| Production numbers | 15,082 |
| Issue featured | 107 |
| Engine capacity | 2,195cc |
| Compression ratio | 8.6:1 |
| Maximum power | 125hp @ 5,800rpm |
| Maximum torque | 169Nm @ 4,200rpm |
| 0-62mph | 7.0sec (est) |
| Top speed | 127mph |
| Length | 4,163mm |
| Width | 1,610mm |
| Weight | 1,020kg |
| Wheels & tyres | F 5.5x15-inch: 165HR R 5.5x15-inch: 165HR |



● (C & D series) ★★★★★

911T 1973

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

| | |
|--------------------|--|
| Production numbers | 16,933 |
| Issue featured | 127 |
| Engine capacity | 2,341cc |
| Compression ratio | 7.5:1 |
| Maximum power | 130hp @ 5,600rpm |
| Maximum torque | 197Nm @ 4,000rpm |
| 0-62mph | 7.6sec |
| Top speed | 128mph |
| Length | 4,163mm |
| Width | 1,610mm |
| Weight | 1,077kg |
| Wheels & tyres | F 5.5x15-inch: 165HR R 5.5x15-inch: 166HR |



Updated version of the 1973 2.7 RS, complete with impact bumpers and Turbo-spec whaletail rear wing. Steel arches added by hand at the factory, with 917 brakes.

| | |
|--------------------|--|
| Production numbers | 109 |
| Issue featured | 145 |
| Engine capacity | 2,994cc |
| Compression ratio | 8.5:1 |
| Maximum power | 230hp @ 6,200rpm |
| Maximum torque | 275Nm @ 5,000rpm |
| 0-62mph | 5.3sec |
| Top speed | 152mph |
| Length | 4,135mm |
| Width | 1,680mm |
| Weight | 900kg |
| Wheels & tyres | F 8x15-inch: 215/60/VR15 R 9x15-inch: 235/60/VR15 |



Larger engine resulted in extra 40bhp, and an intercooler on top of the engine led to the adoption of a 'teatray'. Brakes were upgraded from 917 racer.

Production numbers 5,807 (plus 78-79 Cali cars)

| | |
|-------------------|--|
| Issue featured | 116 |
| Engine capacity | 3,299cc |
| Compression ratio | 7.0:1 |
| Maximum power | 300hp @ 5,500rpm |
| Maximum torque | 412Nm @ 4,000rpm |
| 0-62mph | 5.4sec |
| Top speed | 160mph |
| Length | 4,291mm |
| Width | 1,775mm |
| Weight | 1,300kg |
| Wheels & tyres | F 7x16-inch: 205/55/VR16 R 8x16-inch: 225/50/VR16 |



From 1978, the SC was the only normally aspirated 911. Developed from the Carrera 3.0, but produced less power. Upgraded Sport options.

| | |
|--------------------|--|
| Production numbers | 60,740 |
| Issue featured | 156 |
| Engine capacity | 2,994cc |
| Compression ratio | 8.5:1/8.6:1/9.8:1 |
| Maximum power | 180/188/204hp @ 5,500rpm |
| Maximum torque | 265/265/267Nm |
| 0-62mph | 6.5sec |
| Top speed | 141/146mph |
| Length | 4,291mm |
| Width | 1,626mm |
| Weight | 1,160kg (1978) |
| Wheels & tyres | F 6x15-inch: 185/70/VR15 R 7x15-inch: 215/60/VR15 |



True homologation special built so that Porsche could go Group B rallying. Six Rothmans cars used fibre glass front wings and lid. Tuned 3.0-litre engine had its basis in 930's crankcase.

| | |
|--------------------|--|
| Production numbers | 21 |
| Issue featured | 158 |
| Engine capacity | 2,994cc |
| Compression ratio | 10.3:1 |
| Maximum power | 255hp @ 7,000rpm |
| Maximum torque | 250Nm @ 6,500rpm |
| 0-62mph | 4.9sec |
| Top speed | 153mph |
| Length | 4,235mm |
| Width | 1,775mm |
| Weight | 940kg |
| Wheels & tyres | F 7x16-inch: 205/55/VR16 R 8x16-inch: 225/50/VR16 |

(A series) ★★★★★

911L 1967-68



In 1967, the 911 was updated and the range expanded: the 911L (Lux) was standard and sat alongside the high-performance 911S and entry-level 911T.

| | |
|--------------------|--|
| Production numbers | 1,603 |
| Issue featured | 138 |
| Engine capacity | 1,991cc |
| Compression ratio | 9.0:1 |
| Maximum power | 130hp @ 6,200rpm |
| Maximum torque | 173Nm @ 4,600rpm |
| 0-62mph | 8.4sec |
| Top speed | 132mph |
| Length | 4,163mm |
| Width | 1,610mm |
| Weight | 1,080kg |
| Wheels & tyres | F 5.5x15-inch; 185HR R 5.5x15-inch; 185HR |

(A & B series) ★★★★★

911T 1967-69



To save money, the 911T's engine used cast-iron cylinder heads, unlike the Biral aluminium/iron items, which gave more efficient cooling, and carbs instead of fuel injection.

| | |
|--------------------|--|
| Production numbers | 6,318 |
| Issue featured | 127 |
| Engine capacity | 1,991cc |
| Compression ratio | 8.6:1 |
| Maximum power | 110hp @ 5,800rpm |
| Maximum torque | 156Nm @ 4,200rpm |
| 0-62mph | 8.8sec (est) |
| Top speed | 124mph |
| Length | 4,163mm |
| Width | 1,610mm |
| Weight | 1,020kg |
| Wheels & tyres | F 5.5x15-inch; 185HR R 5.5x15-inch; 185HR |



(B series) ★★★★★

911E 1968-69

The 911 received its first major update, evolving into what is known as the B series. The 911E replaced the 911L as the 'standard' car. The 'E' stood for 'Einspritz' (injection).

| | |
|--------------------|--|
| Production numbers | 2,826 |
| Issue featured | n/a |
| Engine capacity | 1,991cc |
| Compression ratio | 9.1:1 |
| Maximum power | 140hp @ 6,500rpm |
| Maximum torque | 175Nm @ 4,500rpm |
| 0-62mph | 7.6sec |
| Top speed | 130mph |
| Length | 4,163mm |
| Width | 1,610mm |
| Weight | 1,020kg |
| Wheels & tyres | F 5.5x15-inch; 185HR R 5.5x15-inch; 185HR |

(B series) ★★★★★

911S 1968-69



Like the E, the S gained a fuel injection, boosting power to 170bhp. To help cope with the extra demands on the engine, an additional oil cooler was fitted in the front right wing.

| | |
|--------------------|--|
| Production numbers | 2,106 |
| Issue featured | n/a |
| Engine capacity | 1,991cc |
| Compression ratio | 9.1:1 |
| Maximum power | 170hp @ 6,800rpm |
| Maximum torque | 183Nm @ 5,500rpm |
| 0-62mph | 7.0sec (est) |
| Top speed | 140mph |
| Length | 4,163mm |
| Width | 1,610mm |
| Weight | 995kg |
| Wheels & tyres | F 6x15-inch; 185/70/R15 R 6x15-inch; 185/70/R15 |



(C & D series) ★★★★★

911C 1969-71

Engine improvements included revised cylinder heads, larger valves and stronger con rods. The 1970 'D' series cars had hot-zinc coated undersides.

| | |
|--------------------|--|
| Production numbers | 4,927 |
| Issue featured | 107 |
| Engine capacity | 2,189cc |
| Compression ratio | 9.1:1 |
| Maximum power | 155hp @ 6,200rpm |
| Maximum torque | 196Nm @ 4,500rpm |
| 0-62mph | 7.0sec |
| Top speed | 137mph |
| Length | 4,163mm |
| Width | 1,610mm |
| Weight | 1,020kg |
| Wheels & tyres | F 6x15-inch; 185HR R 6x15-inch; 185HR |

(E series) ★★★★★

911E 1972



2.341cc was achieved by increasing the stroke from 66mm to 70.4mm while at the same time leaving the bore unchanged. The new 915 transmission was stronger.

| | |
|--------------------|--|
| Production numbers | 4,406 |
| Issue featured | 117 |
| Engine capacity | 2,341cc |
| Compression ratio | 8.0:1 |
| Maximum power | 165hp @ 6,200rpm |
| Maximum torque | 206Nm @ 4,000rpm |
| 0-62mph | 7.5sec |
| Top speed | 137mph |
| Length | 4,163mm |
| Width | 1,610mm |
| Weight | 1,077kg |
| Wheels & tyres | F 5.5x15-inch; 185HR R 6x15-inch; 185HR |

(E series) ★★★★★

911T 1972



A lower compression ratio and the inclusion of Zenith 40 T1N triple-choke carburetors led to the relatively lower power output of 130bhp despite the new 2.341cc engine size.

| | |
|--------------------|--|
| Production numbers | 16,933 |
| Issue featured | 107 |
| Engine capacity | 2,341cc |
| Compression ratio | 7.5:1 |
| Maximum power | 130hp @ 5,600rpm |
| Maximum torque | 197Nm @ 4,000rpm |
| 0-62mph | 7.6sec |
| Top speed | 128mph |
| Length | 4,163mm |
| Width | 1,610mm |
| Weight | 1,077kg |
| Wheels & tyres | F 5.5x15-inch; 165HR R 5.5x15-inch; 165HR |

(E series) ★★★★★

911S 1972



A 2.4-litre engine increased torque. The mostly chrome brightwork had a black decklid grille with a 2.4" badge. External oil filler on right rear wing confused some.

| | |
|--------------------|--|
| Production numbers | 5,054 |
| Issue featured | 120 |
| Engine capacity | 2,341cc |
| Compression ratio | 8.5:1 |
| Maximum power | 190hp @ 6,500rpm |
| Maximum torque | 211Nm @ 5,200rpm |
| 0-62mph | 6.6sec |
| Top speed | 140mph |
| Length | 4,163mm |
| Width | 1,610mm |
| Weight | 1,077kg |
| Wheels & tyres | F 6x15-inch; 185/70/R15 R 6x15-inch; 185/70/R15 |



(F series) ★★★★★

Carrera 2.7 RS 1973

The RS had a 2.687cc engine that developed 210bhp. The body was lightened and fitted with flared rear arches and an optional ducktail. Sport and Touring available.

| | |
|--------------------|--|
| Production numbers | 1,590 |
| Issue featured | 145 |
| Engine capacity | 2,687cc |
| Compression ratio | 8.5:1 |
| Maximum power | 210hp @ 6,300rpm |
| Maximum torque | 255Nm @ 5,100rpm |
| 0-62mph | 5.8sec |
| Top speed | 152mph |
| Length | 4,163mm |
| Width | 1,610mm |
| Weight | 975kg (Sport) |
| Wheels & tyres | F 6x15-inch; 185/70/R15 R 7x15-inch; 215/60/R15 |

(F series) ★★★★★

911E 1973



After incidents of people filling E series 911s with petrol via the external oil-filler, the filler returned to under the engine decklid. Fitted with the front spoiler of the 911S.

| | |
|--------------------|--|
| Production numbers | 4,406 |
| Issue featured | 144 |
| Engine capacity | 2,341cc |
| Compression ratio | 8.0:1 |
| Maximum power | 165hp @ 6,200rpm |
| Maximum torque | 206Nm @ 4,500rpm |
| 0-62mph | 7.5sec |
| Top speed | 137mph |
| Length | 4,163mm |
| Width | 1,610mm |
| Weight | 1,077kg |
| Wheels & tyres | F 6x15-inch; 185HR R 6x15-inch; 185HR |

(F series) ★★★★★

911S 1973



The 911S had the same upgrades as the 911E, including deletion of the external oil filler. It also adopted black trim around the front and rear lights and black front quarter grilles.

| | |
|--------------------|--|
| Production numbers | 5,054 |
| Issue featured | 120 |
| Engine capacity | 2,341cc |
| Compression ratio | 8.5:1 |
| Maximum power | 193hp @ 6,500rpm |
| Maximum torque | 211Nm @ 5,200rpm |
| 0-62mph | 6.6sec |
| Top speed | 140mph |
| Length | 4,163mm |
| Width | 1,610mm |
| Weight | 1,075kg |
| Wheels & tyres | F 6x15-inch; 185/70/R15 R 6x15-inch; 185/70/R15 |

(G, H, I, J series) ★★★★★

911 1974-77



'911' was now the entry level. Bumpers were added to conform to US regs. From 1976, all 911s were hot-dip coated and fitted with 'elephant ear' mirrors.

| | |
|--------------------|--|
| Production numbers | 9,320 |
| Issue featured | 121 |
| Engine capacity | 2,687cc |
| Compression ratio | 8.0:1 |
| Maximum power | 150hp @ 5,700rpm (165hp from '76) |
| Maximum torque | 235Nm @ 3,800rpm (4,000 from '76) |
| 0-62mph | 8.5sec |
| Top speed | 130mph |
| Length | 4,291mm |
| Width | 1,610mm |
| Weight | 1,075kg |
| Wheels & tyres | F 6x15-inch; 185VR R 6x15-inch; 185VR |

(G, H, I, J series) ★★★★★

911S 1974-77



911S was now a mid-range model comparable to the previous 911E. It had the same body changes as the base model, and came as standard with 'Cookie Cutter' rims.

| | |
|--------------------|--|
| Production numbers | 17,124 |
| Issue featured | n/a |
| Engine capacity | 2,687cc |
| Compression ratio | 8.5:1 |
| Maximum power | 173hp @ 5,800rpm |
| Maximum torque | 235Nm @ 4,000rpm |
| 0-62mph | 7.0sec |
| Top speed | 142mph |
| Length | 4,291mm |
| Width | 1,610mm |
| Weight | 1,080kg |
| Wheels & tyres | F 6x15-inch; 165VR R 6x15-inch; 185VR |



(G & H series) ★★★★★

911 Carrera 2.7 1974-76

From 1974, Carrera name was given to range-topping 911. Essentially the same engine as previous year's RS for all markets except USA. Whaletail available from 1975.

| | |
|--------------------|---|
| Production numbers | 1,667 |
| Issue featured | 134 |
| Engine capacity | 2,687cc |
| Compression ratio | 8.5:1 |
| Maximum power | 210hp @ 6,300rpm |
| Maximum torque | 255Nm @ 5,100rpm |
| 0-62mph | 6.3sec |
| Top speed | 148mph |
| Length | 4,291mm |
| Width | 1,610mm |
| Weight | 1,075kg |
| Wheels & tyres | F 6x15-inch; 185/70/R15 R 7x15-inch; 205VR |

(I & J series) ★★★★★

911 Carrera 3.0 1976-77



Not sold in the US, the Carrera 3.0 was basically the same model as the previous Carrera, only fitted with a new 2.994cc engine, essentially from the 911 Turbo.

| | |
|--------------------|--|
| Production numbers | 3,687 |
| Issue featured | 148 |
| Engine capacity | 2,994cc |
| Compression ratio | 8.5:1 |
| Maximum power | 197hp @ 6,000rpm |
| Maximum torque | 255Nm @ 4,200rpm |
| 0-62mph | 6.3sec |
| Top speed | 145mph |
| Length | 4,291mm |
| Width | 1,610mm |
| Weight | 1,093kg |
| Wheels & tyres | F 6x15-inch; 185/70/R15 R 7x15-inch; 215/60/R15 |



(I & J series) ★★★★★

930 3.0 1975-77

Fitted with a KKK turbo, this was the world's first production Porsche to be turbocharged. Flared arches, whaletail rear wing and four-speed gearbox were standard.

| | |
|--------------------|--|
| Production numbers | 2,850 |
| Issue featured | 157 |
| Engine capacity | 2,994cc |
| Compression ratio | 6.5:1 |
| Maximum power | 260hp @ 5,500rpm |
| Maximum torque | 343Nm @ 4,000rpm |
| 0-62mph | 5.5sec |
| Top speed | 155mph |
| Length | 4,291mm |
| Width | 1,775mm |
| Weight | 1,140kg |
| Wheels & tyres | F 6x15-inch; 185/70/R15 R 8x15-inch; 215/60/R15 |



(I & J series) ★★★★★

930 3.3 1984-89

Revised engine added power and torque in 1984, while in 1987 Motronic engine management improved efficiency and emissions upon its return to the US market.

| | |
|--------------------|--|
| Production numbers | 11,135 |
| Issue featured | 144 |
| Engine capacity | 3,299cc |
| Compression ratio | 7.0:1 |
| Maximum power | 300hp @ 5,500rpm |
| Maximum torque | 432Nm @ 4,000rpm |
| 0-62mph | 5.4sec |
| Top speed | 161mph |
| Length | 4,291mm |
| Width | 1,775mm |
| Weight | 1,300kg (1,335kg from '86) |
| Wheels & tyres | F 7x16-inch; 205/55/VR16 R 8x16-inch; 225/50/VR16 |

(I & J series) ★★★★★

Carrera 3.2 1984-89



Almost the same galvanised body as the SC. Engine was claimed to be 80 per cent new, and the first production 911 to feature an ECU to control ignition and fuel systems.

(I & J series) ★★★★★

930 SE 1986-89



Slantnosed and based on 935 race cars, with pop-up headlamps. Front spoiler made deeper to accommodate extra oil cooler, rear intakes fed air to brakes.

| | |
|--------------------|--|
| Production numbers | 50 (UK only) |
| Issue featured | 146 |
| Engine capacity | 3,299cc |
| Compression ratio | 7.0:1 |
| Maximum power | 330hp @ 5,500rpm |
| Maximum torque | 432Nm @ 4,000rpm |
| 0-62mph | 4.6sec |
| Top speed | 173mph |
| Length | 4,291mm |
| Width | 1,775mm |
| Weight | 1,335kg |
| Wheels & tyres | F 7x16-inch; 205/55/VR16 R 9x16-inch; 245/45/VR16 |



(I & J series) ★★★★★

959 1986-1988

Had tech later used on 911s including 4WD, ABS and twin turbos. A 959S was also available, featuring lighter cloth Sport seats, five-point harnesses and a roll cage.

| | |
|--------------------|--|
| Production numbers | 337 |
| Issue featured | 142 |
| Engine capacity | 2,850cc |
| Compression ratio | 8.3:1 |
| Maximum power | 450hp @ 6,500rpm |
| Maximum torque | 500Nm @ 5,000rpm |
| 0-60mph | 3.9sec |
| Top speed | 196mph |
| Length | 4,260mm |
| Width | 1,840mm |
| Weight | 1,450kg |
| Wheels & tyres | F 8x17-inch; 235/45/ZR17 R 9x17-inch; 255/40/ZR17 |

(I & J series) ★★★★★

Speedster 1989



Carrera 3.2 with a steeply raked windscreen and hood and stripped interior. Porsche claim the hood was not designed to be 100 per cent watertight.

| | |
|--------------------|--|
| Production numbers | 2,274 (for both wide and narrow-bodied) |
| Issue featured | 128 |
| Engine capacity | 3,164cc |
| Compression ratio | 10.3:1 |
| Maximum power | 235hp @ 5,900rpm |
| Maximum torque | 284Nm @ 4,800rpm |
| 0-60mph | 6.0sec |
| Top speed | 148mph |
| Length | 4,291mm |
| Width | 1,775mm |
| Weight | 1,220kg |
| Wheels & tyres | F 6x16-inch; 205/45/VR16 R 8x16-inch; 245/60/VR16 |

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1997 PORSCHE 911 SUPERCUP 3.8



This factory original, pastel yellow Porsche 911, among the last few air-cooled racecars produced, belongs in your collection. Current owner since early 1999. Maintained in factory spec form with only 7459KM. Recently displayed at Larz Anderson Auto Museum in "Marque of Excellence: Porsche" exhibit.

See www.porsche993supercup.com for details.



930 LE 1989

Essentially an SE but without a slantnose front, the LE had the same engine, front spoiler, sill extensions and rear air intakes. One made for every OPC of the time.

| | |
|--------------------|--|
| Production numbers | 50 |
| Issue featured | 110 |
| Engine capacity | 3,299cc |
| Compression ratio | 7.0:1 |
| Maximum power | 330hp @ 5,500rpm |
| Maximum torque | 432Nm @ 4,000rpm |
| 0-62mph | 4.6sec |
| Top speed | 173mph |
| Length | 4,291mm |
| Width | 1,775mm |
| Weight | 1,335kg |
| Wheels & tyres | F 7x18-inch, 205/55/VR16 R 9x18-inch, 245/45/VR16 |

3.2 Clubsport 1987-89



Removing 'luxuries' sliced off around 40kg of weight. Revised engine management gave a higher rev limit of 6,840rpm. Suspension upgraded and LSD standard.

| | |
|--------------------|--|
| Production numbers | 340 |
| Issue featured | 126 |
| Engine capacity | 3,164cc |
| Compression ratio | 10.3:1 |
| Maximum power | 231hp @ 5,900rpm |
| Maximum torque | 284Nm @ 4,800rpm |
| 0-62mph | 5.1sec |
| Top speed | 152mph |
| Length | 4,291mm |
| Width | 1,650mm |
| Weight | 1,160kg |
| Wheels & tyres | F 6x16-inch, 205/55/VR16 R 7x16-inch, 225/55/VR16 |

964 Turbo S 1992-93



180kg lighter than Turbo. Intakes in the rear arches funnelled air to the brakes, while the engine power was boosted by 61bhp. RS-spec uprated suspension.

| | |
|--------------------|---|
| Production numbers | 81 |
| Issue featured | 108 |
| Engine capacity | 3,299cc |
| Compression ratio | 7.0:1 |
| Maximum power | 381hp @ 6,000rpm |
| Maximum torque | 490Nm @ 4,800rpm |
| 0-62mph | 4.6sec |
| Top speed | 180mph |
| Length | 4,250mm |
| Width | 1,775mm |
| Weight | 1,290kg |
| Wheels & tyres | F 8x18-inch, 225/40/ZR18 R 10x18-inch, 265/35/ZR18 |



(C & D series) 964 3.8 RS 1993

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

| | |
|--------------------|---|
| Production numbers | 55 |
| Issue featured | 12 |
| Engine capacity | 3,746cc |
| Compression ratio | 11.6:1 |
| Maximum power | 300hp @ 6,500rpm |
| Maximum torque | 359Nm @ 5,250rpm |
| 0-62mph | 4.9sec |
| Top speed | 169mph |
| Length | 4,250mm |
| Width | 1,775mm |
| Weight | 1,210kg |
| Wheels & tyres | F 8x18-inch, 235/40/ZR18 R 11x18-inch, 285/35/ZR18 |



993 Carrera 4S 1995-96

The 4S was effectively a Carrera 4 with a Turbo wide bodysell, albeit lacking a fixed rear wing. Also boasted Turbo suspension, brakes and Turbo-look wheels.

| | |
|--------------------|---|
| Production numbers | 6,948 |
| Issue featured | 109 |
| Engine capacity | 3,600cc |
| Compression ratio | 11.3:1 |
| Maximum power | 285hp @ 6,100rpm |
| Maximum torque | 340Nm @ 5,250rpm |
| 0-62mph | 5.3sec |
| Top speed | 168mph |
| Length | 4,245mm |
| Width | 1,795mm |
| Weight | 1,520kg |
| Wheels & tyres | F 8x18-inch, 225/40/ZR18 R 10x18-inch, 285/30/ZR18 |

993 Carrera RS 1995-96



Lightweight body as per RS tradition, teamed with a 3.8-litre engine, VarioRam intake system and remapped ECU to create 300bhp, fed to the rear wheels only.

| | |
|--------------------|---|
| Production numbers | 1,014 |
| Issue featured | 119 |
| Engine capacity | 3,746cc |
| Compression ratio | 11.5:1 |
| Maximum power | 300hp @ 6,000rpm |
| Maximum torque | 359Nm @ 5,400rpm |
| 0-62mph | 5.0sec |
| Top speed | 172mph |
| Length | 4,245mm |
| Width | 1,735mm |
| Weight | 1,279kg |
| Wheels & tyres | F 8x18-inch, 225/40/ZR18 R 10x18-inch, 285/35/ZR18 |

996 Carrera 4 1998-2001



Four-wheel drive transmission fed five per cent of power in normal driving, increasing to 40 per cent when required. PSM used for first time, rolled out across the range in 2001.

| | |
|--------------------|--|
| Production numbers | 22,054 |
| Issue featured | 111 |
| Engine capacity | 3,387cc |
| Compression ratio | 11.3:1 |
| Maximum power | 300hp @ 6,800rpm |
| Maximum torque | 350Nm @ 4,600rpm |
| 0-62mph | 5.2sec |
| Top speed | 174mph |
| Length | 4,430mm |
| Width | 1,765mm |
| Weight | 1,375kg |
| Wheels & tyres | F 7x17-inch, 205/50/R17 R 9x17-inch, 255/40/R17 |

996 GT3 1998-2000



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

| | |
|--------------------|---|
| Production numbers | 1,858 |
| Issue featured | 117 |
| Engine capacity | 3,600cc |
| Compression ratio | 11.7:1 |
| Maximum power | 360hp @ 7,200rpm |
| Maximum torque | 370Nm @ 5,000rpm |
| 0-62mph | 4.8sec |
| Top speed | 188mph |
| Length | 4,430mm |
| Width | 1,830mm |
| Weight | 1,350kg |
| Wheels & tyres | F 8x18-inch, 225/40/R18 R 10x18-inch, 285/30/R18 |

996 Turbo 2001-05



Distinguished by wide rear arches, air intakes and deep front wing, plus part-fixed, part-retractable rear wing. Different engine to 3.6-litre 996 unit.

| | |
|--------------------|---|
| Production numbers | 20,499 |
| Issue featured | 152 |
| Engine capacity | 3,600cc |
| Compression ratio | 9.4:1 |
| Maximum power | 420hp @ 6,000rpm |
| Maximum torque | 560Nm @ 2,700-4,600rpm |
| 0-62mph | 4.2sec |
| Top speed | 189mph |
| Length | 4,435mm |
| Width | 1,830mm |
| Weight | 1,540kg |
| Wheels & tyres | F 8x18-inch, 225/40/R18 R 11x18-inch, 295/30/R18 |

★★★★★
964 Carrera 4 1989-93



Heavily revised bodywork, deformable bumpers over coil-spring suspension and four-wheel-drive marked this radical overhaul of the '87 per cent new' 911.

| | |
|---------------------------|------------------------|
| Production numbers | 13,353 (Coupe) |
| Issue featured | 111 |
| Engine capacity | 3,600cc |
| Compression ratio | 11.3:1 |
| Maximum power | 250hp @ 6,100rpm |
| Maximum torque | 310Nm @ 4,800rpm |
| 0-62mph | 5.7sec |
| Top speed | 162mph |
| Length | 4,250mm |
| Width | 1,652mm |
| Weight | 1,450kg |
| Wheels & tyres | |
| F | 6x16-inch; 205/55/ZR16 |
| R | 8x16-inch; 225/50/ZR16 |

★★★★★
964 Carrera 2 1990-93



Rear-drive Carrera 2 offered an emphatically more traditional 911 experience, and was 100kg lighter, but looked identical to the Carrera 4. Tiptronic was a new option.

| | |
|---------------------------|------------------------|
| Production numbers | 19,484 |
| Issue featured | 119 |
| Engine capacity | 3,600cc |
| Compression ratio | 11.3:1 |
| Maximum power | 250hp @ 6,100rpm |
| Maximum torque | 310Nm @ 4,800rpm |
| 0-62mph | 5.6sec |
| Top speed | 162mph |
| Length | 4,250mm |
| Width | 1,652mm |
| Weight | 1,350kg |
| Wheels & tyres | |
| F | 6x16-inch; 205/55/ZR16 |
| R | 8x16-inch; 225/50/ZR16 |



★★★★★
964 Turbo 1991-92

This used the revised 964 bodysheet, extended arches and 'teatray' wing. The engine was essentially the 3.3-litre unit from the previous model, but updated.

| | |
|---------------------------|------------------------|
| Production numbers | 3,660 |
| Issue featured | 160 |
| Engine capacity | 3,290cc |
| Compression ratio | 70:1 |
| Maximum power | 320hp @ 5,750rpm |
| Maximum torque | 450Nm @ 4,500rpm |
| 0-62mph | 5.4sec |
| Top speed | 168mph |
| Length | 4,250mm |
| Width | 1,775mm |
| Weight | 1,470kg |
| Wheels & tyres | |
| F | 7x17-inch; 205/50/ZR17 |
| R | 9x17-inch; 255/40/ZR17 |

★★★★★
964 C4 Lightweight 1991



964 Leichtbau made use of surplus parts from 953 Paris-Dakar project. Highlights include four-way adjustable differential, short-ratio gearbox and stripped interior.

| | |
|---------------------------|------------------------|
| Production numbers | 22 |
| Issue featured | 131 |
| Engine capacity | 3,600cc |
| Compression ratio | 11.3:1 |
| Maximum power | 265hp @ 6,720rpm |
| Maximum torque | 304Nm @ 6,720rpm |
| 0-62mph | 4.5sec |
| Top speed | 125mph |
| Length | 4,275mm |
| Width | 1,652mm |
| Weight | 1,100kg |
| Wheels & tyres | |
| F | 7x16-inch; 205/55/ZR16 |
| R | 9x16-inch; 245/55/ZR16 |



★★★★★
964 RS 1991-92

120kg saved by deleting 'luxuries' and fitting magnesium Cup wheels. Power was boosted by 10bhp, suspension lowered by 40mm and updated, as were brakes.

| | |
|---------------------------|------------------------|
| Production numbers | 2,405 |
| Issue featured | 131 |
| Engine capacity | 3,600cc |
| Compression ratio | 11.3:1 |
| Maximum power | 260hp @ 6,100rpm |
| Maximum torque | 310Nm @ 4,800rpm |
| 0-62mph | 5.4sec |
| Top speed | 162mph |
| Length | 4,250mm |
| Width | 1,650mm |
| Weight | 1,230kg (Sport) |
| Wheels & tyres | |
| F | 7x17-inch; 205/50/ZR17 |
| R | 9x17-inch; 255/40/ZR17 |

★★★★★
964 C2 Speedster 93-94



Combined the 964 bodysheet with the hood and windscreen of the Carrera 3.2 Speedster, plus RS interior. It is thought Porsche planned to build 3,000, but demand fell.

| | |
|---------------------------|------------------------|
| Production numbers | 936 |
| Issue featured | 128 |
| Engine capacity | 3,600cc |
| Compression ratio | 11.3:1 |
| Maximum power | 250hp @ 6,100rpm |
| Maximum torque | 310Nm @ 4,800rpm |
| 0-62mph | 5.5sec |
| Top speed | 161mph |
| Length | 4,250mm |
| Width | 1,652mm |
| Weight | 1,340kg |
| Wheels & tyres | |
| F | 7x17-inch; 205/50/ZR17 |
| R | 9x17-inch; 255/40/ZR17 |

★★★★★
964 Turbo 3.6 1993-94



Engine based on modified 3.6-litre 964 unit. Distinctive 18-inch split-rim Speedline wheels covered the Big Red brake calipers. Suspension lowered by 20mm.

| | |
|---------------------------|-------------------------|
| Production numbers | 1,437 |
| Issue featured | 120 |
| Engine capacity | 3,600cc |
| Compression ratio | 75:1 |
| Maximum power | 360hp @ 5,500rpm |
| Maximum torque | 520Nm @ 4,200rpm |
| 0-62mph | 4.8sec |
| Top speed | 174mph |
| Length | 4,250mm |
| Width | 1,775mm |
| Weight | 1,470kg |
| Wheels & tyres | |
| F | 8x18-inch; 225/40/ZR18 |
| R | 10x18-inch; 265/35/ZR18 |

★★★★★
964 Anniversary 1993-94



'30 Jahre' anniversary 964 utilised a Turbo wide body melded to the four-wheel-drive Carrera running gear. Available in Viola metallic, Polar silver or Amethyst.

| | |
|---------------------------|------------------------|
| Production numbers | 911 |
| Issue featured | 112 |
| Engine capacity | 3,600cc |
| Compression ratio | 11.3:1 |
| Maximum power | 250hp @ 6,100rpm |
| Maximum torque | 310Nm @ 4,800rpm |
| 0-62mph | 5.7sec |
| Top speed | 162mph |
| Length | 4,250mm |
| Width | 1,775mm |
| Weight | 1,470kg |
| Wheels & tyres | |
| F | 7x17-inch; 205/50/ZR17 |
| R | 9x17-inch; 255/40/ZR17 |



★★★★★
964 RS America 1973

Offered in five colours, fixed whaletail wing and two cloth sports seats, with just four options: air-con, sunroof, 90 per cent locking rear differential and stereo.

| | |
|---------------------------|------------------------|
| Production numbers | 701 |
| Issue featured | 157 |
| Engine capacity | 3,600cc |
| Compression ratio | 11.3:1 |
| Maximum power | 250hp @ 6,100rpm |
| Maximum torque | 310Nm @ 4,800rpm |
| 0-62mph | 5.5sec |
| Top speed | 164mph |
| Length | 4,250mm |
| Width | 1,650mm |
| Weight | 1,340kg |
| Wheels & tyres | |
| F | 7x17-inch; 205/50/ZR17 |
| R | 9x17-inch; 255/40/ZR17 |

★★★★★
993 Carrera 1993-97



Restyled bodywork had swept-back headlamps, curvaceous wings and blended-in bumpers. The 3,600cc engine was revised, with VarioRam available from 1996.

| | |
|---------------------------|------------------------|
| Production numbers | 38,626 |
| Issue featured | 160 |
| Engine capacity | 3,600cc |
| Compression ratio | 11.3:1 |
| Maximum power | 272hp @ 6,000rpm |
| Maximum torque | 330Nm @ 5,000rpm |
| 0-62mph | 5.6sec |
| Top speed | 168mph |
| Length | 4,245mm |
| Width | 1,735mm |
| Weight | 1,370kg |
| Wheels & tyres | |
| F | 7x16-inch; 205/65/ZR16 |
| R | 9x16-inch; 245/45/ZR16 |

★★★★★
993 Carrera 4 1994-97



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 a more rear-drive feel.

| | |
|---------------------------|------------------------|
| Production numbers | 2,884 (Coupe) |
| Issue featured | 111 |
| Engine capacity | 3,600cc |
| Compression ratio | 11.3:1 |
| Maximum power | 272hp @ 6,000rpm |
| Maximum torque | 330Nm @ 5,000rpm |
| 0-62mph | 5.8sec |
| Top speed | 166mph |
| Length | 4,245mm |
| Width | 1,735mm |
| Weight | 1,420kg |
| Wheels & tyres | |
| F | 7x16-inch; 205/55/ZR16 |
| R | 9x16-inch; 245/45/ZR16 |

★★★★★
993 GT2 1995-96



911 Turbo, but with reduced equipment. Also included rear-wheel-drive, making it a better track car. Fitted with huge front and rear wings and bolt-on arch extensions.

| | |
|---------------------------|-------------------------|
| Production numbers | 173 |
| Issue featured | 131 |
| Engine capacity | 3,600cc |
| Compression ratio | 80:1 |
| Maximum power | 430hp @ 5,750rpm |
| Maximum torque | 540Nm @ 4,500rpm |
| 0-62mph | 3.9sec |
| Top speed | 189mph |
| Length | 4,245mm |
| Width | 1,855mm |
| Weight | 1,290kg |
| Wheels & tyres | |
| F | 9x18-inch; 235/40/ZR18 |
| R | 11x18-inch; 285/35/ZR18 |

★★★★★
993 Turbo 1996-98



Fitted with two KKK turbochargers in order to reduce lag. Power went to all four wheels using the Carrera 4's transmission system. Brakes were 'Big Reds'.

| | |
|---------------------------|-------------------------|
| Production numbers | 5,937 |
| Issue featured | 147 |
| Engine capacity | 3,600cc |
| Compression ratio | 80:1 |
| Maximum power | 408hp @ 5,750rpm |
| Maximum torque | 540Nm @ 4,500rpm |
| 0-62mph | 4.3sec |
| Top speed | 180mph |
| Length | 4,245mm |
| Width | 1,795mm |
| Weight | 1,500kg |
| Wheels & tyres | |
| F | 8x18-inch; 225/40/ZR18 |
| R | 10x18-inch; 285/30/ZR18 |



★★★★★
993 Carrera S 1997-98

The features that come with the Carrera S are similar to the Carrera 4S's, only this time in rear-wheel drive. Sought after for its superb handling and wide-body looks.

| | |
|---------------------------|-------------------------|
| Production numbers | 3,714 |
| Issue featured | 118 |
| Engine capacity | 3,600cc |
| Compression ratio | 11.3:1 |
| Maximum power | 285hp @ 6,100rpm |
| Maximum torque | 340Nm @ 5,250rpm |
| 0-62mph | 5.4sec |
| Top speed | 168mph |
| Length | 4,245mm |
| Width | 1,795mm |
| Weight | 1,450kg |
| Wheels & tyres | |
| F | 8x18-inch; 225/40/ZR18 |
| R | 10x18-inch; 285/30/ZR18 |

★★★★★
993 Turbo S 1998



The final hurrah for 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.

| | |
|---------------------------|-------------------------|
| Production numbers | 345 |
| Issue featured | 115 |
| Engine capacity | 3,600cc |
| Compression ratio | 80:1 |
| Maximum power | 450hp @ 5,750rpm |
| Maximum torque | 585Nm @ 4,500rpm |
| 0-62mph | 4.1sec |
| Top speed | 186mph |
| Length | 4,245mm |
| Width | 1,795mm |
| Weight | 1,583kg |
| Wheels & tyres | |
| F | 8x18-inch; 225/40/ZR18 |
| R | 10x18-inch; 285/30/ZR18 |



★★★★★
996 Carrera 1998-2001

An all-new 911 with larger, restyled bodywork and a water-cooled engine. Interior was redesigned in order to enable better ergonomic efficiency and more room.

| | |
|---------------------------|------------------------|
| Production numbers | 56,733 |
| Issue featured | 160 |
| Engine capacity | 3,387cc |
| Compression ratio | 11.3:1 |
| Maximum power | 300hp @ 6,800rpm |
| Maximum torque | 350Nm @ 4,600rpm |
| 0-62mph | 5.2sec |
| Top speed | 174mph |
| Length | 4,430mm |
| Width | 1,765mm |
| Weight | 1,320kg |
| Wheels & tyres | |
| F | 7x16-inch; 205/55/ZR16 |
| R | 9x17-inch; 255/40/ZR17 |



★★★★★
996 Carrera 4S 2001-05

Basically a C4 featuring a Turbo bodysheet, without rear air intakes, but with a full-width rear reflector panel. Suspension and brakes were similar to the Turbo spec.

| | |
|---------------------------|-------------------------|
| Production numbers | 23,055 |
| Issue featured | 155 |
| Engine capacity | 3,596cc |
| Compression ratio | 11.3:1 |
| Maximum power | 320hp @ 6,800rpm |
| Maximum torque | 370Nm @ 4,250rpm |
| 0-62mph | 5.1sec |
| Top speed | 174mph |
| Length | 4,435mm |
| Width | 1,830mm |
| Weight | 1,495kg |
| Wheels & tyres | |
| F | 8x18-inch; 225/40/ZR18 |
| R | 11x18-inch; 295/30/ZR18 |

★★★★★
996 GT2 2001-03



A lightweight, Turbo-bodied 996 with updated turbocharged engine and suspension. PCCB was standard. Revised ECU later gave an extra 21bhp.

| | |
|---------------------------|-------------------------|
| Production numbers | 1,287 |
| Issue featured | 127 |
| Engine capacity | 3,600cc |
| Compression ratio | 94:1 |
| Maximum power | 462hp @ 5,700rpm |
| Maximum torque | 620Nm @ 3,500-4,500rpm |
| 0-62mph | 4.1sec |
| Top speed | 196mph |
| Length | 4,450mm |
| Width | 1,770mm |
| Weight | 1,440kg |
| Wheels & tyres | |
| F | 8x18-inch; 235/40/ZR18 |
| R | 12x18-inch; 315/30/ZR18 |

★★★★★
Gen2 996 C2 2002-04



Facelifted with Turbo-style headlamps and revised front and rear bumpers, fitted with more powerful 3.6-litre engine and VarioCam Plus. Manual and Tiptronic boxes updated.

| | |
|---------------------------|------------------------|
| Production numbers | 29,389 |
| Issue featured | 136 |
| Engine capacity | 3,596cc |
| Compression ratio | 11.3:1 |
| Maximum power | 320hp @ 6,800rpm |
| Maximum torque | 370Nm @ 4,250rpm |
| 0-62mph | 5.0sec |
| Top speed | 177mph |
| Length | 4,430mm |
| Width | 1,770mm |
| Weight | 1,370kg |
| Wheels & tyres | |
| F | 7x17-inch; 205/50/ZR17 |
| R | 9x17-inch; 255/40/ZR17 |



★★★★★
Gen2 996 C4 2002-04

Facelifted in line with rear-drive Carrera, though the all-wheel-drive version drives very much like its rear-drive brethren. Cabin received minor updates over Gen1.

| | |
|---------------------------|------------------|
| Production numbers | 10,386 |
| Issue featured | 107 |
| Engine capacity | 3,596cc |
| Compression ratio | 11.3:1 |
| Maximum power | 320hp @ 6,800rpm |
| Maximum torque | 370Nm @ 4,250rpm |
| 0-62mph | 5.0sec |
| Top speed | 177mph |
| Length | 4,430mm |
| Width | 1,770mm |
| Weight | 1,430kg |
| Wheels & tyres | |
| F | |

Sales debate

Is a 911 with Sportomatic gearbox desirable?



It's no secret that in the current climate of collectible sports cars, a manual gearbox sits central to a model's desirability. Certain PDK-only models have of course bucked this trend, including the 997 Turbo S or, more recently than that, the 991.1 GT3. However, previous to that 911s with two pedals just haven't appealed to the collector market in quite the same way.

This is largely because when we think of a classic, automatic 911 we think of the Tiptronic gearbox – a thoroughly agricultural system by today's standards. However, delve into the archives and you'll find Porsche utilised a Sportomatic gearbox on some of its earlier models, it carrying gravitas as the unit fitted to a triumphant 911R at the 1967 Marathon de la Route. The unit was then fitted to a selection of pre-impact bumper and G-series models, eventually being dropped by Porsche in 1980. Sportomatic 911s are a rare find today, so does that make them more desirable?

"It's an underrated gearbox and actually offers a really involving drive," says Adam at Crawley-based specialists Nine Excellence, pointing to the fact a Sporto 911 still involves a manual gear shift. "There was a period of time, even fairly recently, when Sportomatic gearboxes weren't as well thought of, and swapping the unit out for a manual gearbox was a common occurrence in a 911. Conversely, that means a genuine matching-numbers Sportomatic 911 is actually a rare find," agrees Ken Napier, proprietor at Nine Excellence.

Nevertheless, according to Jonathan Franklin at Hexagon Classics, a manual will of course be worth more. "When people think of the 911, they think of the manual gearbox and a purist driving experience. While fun, the Sporto doesn't quite deliver in the same way," he says. So what's better, an original Sportomatic 911 or an example that's had this unique 925 gearbox swapped out for a manual 915? "Good question," is Jonathan's reply. "If it's a mint, low-miles car then originality is key, otherwise a buyer will want a manual, simple as that."

Of course, a Porsche 911 Coupe with a manual gearbox is always the default choice for those wanting a purist example of classic sports car driving and therefore will always be much more desirable than any automatic or semi-automatic gearbox. However, the Sportomatic gearbox presents part of the charm of the 911's unique history – to some, that's worth something.

Gen2 996 GT3 2003-05



Based on facelifted 996 Carrera, but with new wings. Suspension lowered and updated, PCCB optional. Full-spec interior unless Clubsport option was ordered.

| | |
|--------------------|-------------------------|
| Production numbers | 2,313 |
| Issue featured | 142 |
| Engine capacity | 3,600cc |
| Compression ratio | 11.7:1 |
| Maximum power | 381hp @ 7,400rpm |
| Maximum torque | 385Nm @ 5,000rpm |
| 0-62mph | 4.5sec |
| Top speed | 190mph |
| Length | 4,435mm |
| Width | 1,770mm |
| Weight | 1,380kg |
| Wheels & tyres | |
| F | 8.5x18-inch; 235/40/R18 |
| R | 11x18-inch; 295/30/R18 |



996 GT3 RS 2004-05

Same 3.600cc engine as in GT3, but with weight saving, offering 280bhp per ton – an improvement of four per cent over the 996 GT3 Clubsport. PCCB optional.

| | |
|--------------------|-------------------------|
| Production numbers | 682 |
| Issue featured | 161 |
| Engine capacity | 3,600cc |
| Compression ratio | 11.7:1 |
| Maximum power | 381hp @ 7,400rpm |
| Maximum torque | 385Nm @ 5,000rpm |
| 0-62mph | 4.4sec |
| Top speed | 190mph |
| Length | 4,435mm |
| Width | 1,770mm |
| Weight | 1,360kg |
| Wheels & tyres | |
| F | 8.5x18-inch; 235/40/R18 |
| R | 11x18-inch; 295/30/R18 |

996 Turbo S 2004-2005



A 911 Turbo with the previously optional 30bhp power upgrade, with larger turbochargers, updated intercoolers and a revised ECU. PCCB standard.

| | |
|--------------------|------------------------|
| Production numbers | 1,563 |
| Issue featured | 132 |
| Engine capacity | 3,600cc |
| Compression ratio | 9.4:1 |
| Maximum power | 450hp @ 5,700rpm |
| Maximum torque | 620Nm @ 3,500rpm |
| 0-62mph | 4.500rpm |
| Top speed | 4.2sec |
| Length | 191mph |
| Width | 4.291mm |
| Weight | 1.830mm |
| Wheels & tyres | |
| F | 8x18-inch; 235/40/R18 |
| R | 11x18-inch; 295/30/R18 |

997 Carrera 4 2005-08



Like the 997 Carrera, but with drive to all four wheels via a multi-disc viscous coupling, transferring between five and 40 per cent of traction to the front. 44mm wider at rear.

| | |
|--------------------|------------------------|
| Production numbers | 8,533 |
| Issue featured | 3 |
| Engine capacity | 3,996cc |
| Compression ratio | 11.3:1 |
| Maximum power | 325hp @ 6,800rpm |
| Maximum torque | 370Nm @ 4,250rpm |
| 0-62mph | 5.1sec |
| Top speed | 174mph |
| Length | 4,427mm |
| Width | 1,852mm |
| Weight | 1,450kg |
| Wheels & tyres | |
| F | 8x18-inch; 235/40/R18 |
| R | 11x18-inch; 295/30/R18 |

997 Carrera 4S 2005-08



The same 3.8-litre, 355bhp engine as the Carrera S, with four-wheel-drive system on C4. 44mm wider than Carrera S to accommodate for wider rear wheels and tyres.

| | |
|--------------------|------------------------|
| Production numbers | 30,973 |
| Issue featured | 111 |
| Engine capacity | 3,824cc |
| Compression ratio | 11.8:1 |
| Maximum power | 355hp @ 6,600rpm |
| Maximum torque | 400Nm @ 4,600rpm |
| 0-62mph | 4.8sec |
| Top speed | 179mph |
| Length | 4,427mm |
| Width | 1,852mm |
| Weight | 1,475kg |
| Wheels & tyres | |
| F | 8x18-inch; 235/35/R19 |
| R | 11x19-inch; 305/30/R19 |



997 Turbo 2005-08

Similar to 997 C4S body, but with extra intakes at the front and sides. Essentially the 996 Turbo engine, but with all-new twin turbos. VTG gave best of small/large turbos.

| | |
|--------------------|-------------------------|
| Production numbers | 19,201 |
| Issue featured | 159 |
| Engine capacity | 3,600cc |
| Compression ratio | 9.8:1 |
| Maximum power | 480hp @ 6,000rpm |
| Maximum torque | 620Nm @ 1,950rpm |
| 0-62mph | 5.000rpm |
| Top speed | 3.9sec |
| Length | 193mph |
| Width | 4.450mm |
| Weight | 1.852mm |
| Wheels & tyres | |
| F | 8.5x19-inch; 235/35/R19 |
| R | 11x19-inch; 305/30/R19 |

997 GT2 2007-09



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

| | |
|--------------------|--------------------------|
| Production numbers | 1,242 |
| Issue featured | 127 |
| Engine capacity | 3,600cc |
| Compression ratio | 9.0:1 |
| Maximum power | 530hp @ 6,500rpm |
| Maximum torque | 680Nm @ 2,200-4,500rpm |
| 0-62mph | 3.7sec |
| Top speed | 204mph |
| Length | 4,469mm |
| Width | 1,852mm |
| Weight | 1,440kg |
| Wheels & tyres | |
| F | 8.5x19-inch; 235/35/ZR19 |
| R | 11x19-inch; 325/30/ZR19 |



Gen2 997 C2 2008-12

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

| | |
|--------------------|---------------------------|
| Production numbers | 10,500 |
| Issue featured | 144 |
| Engine capacity | 3,614cc |
| Compression ratio | 12.5:1 |
| Maximum power | 345hp @ 6,500rpm |
| Maximum torque | 390Nm @ 4,400rpm |
| 0-62mph | 4.9sec |
| Top speed | 179mph |
| Length | 4,435mm |
| Width | 1,808mm |
| Weight | 1,415kg |
| Wheels & tyres | |
| F | 8x18-inch; 235/40/ZR18 |
| R | 10.5x18-inch; 265/40/ZR18 |

Gen2 997 C2 S 2008-12



Altered as per the Carrera, but with larger 3.8-litre engine – again using fewer components and Direct Fuel Injection. Had seven-speed PDK optional, like the Carrera.

| | |
|--------------------|-------------------------|
| Production numbers | 15,000 |
| Issue featured | 61 |
| Engine capacity | 3,800cc |
| Compression ratio | 12.5:1 |
| Maximum power | 385hp @ 6,500rpm |
| Maximum torque | 420Nm @ 4,400rpm |
| 0-62mph | 4.7sec |
| Top speed | 187mph |
| Length | 4,435mm |
| Width | 1,808mm |
| Weight | 1,425kg |
| Wheels & tyres | |
| F | 8x18-inch; 235/35/ZR19 |
| R | 11x18-inch; 295/30/ZR19 |

Gen2 997 Turbo 2009-13



Same as the original 997 Turbo but with new LED tail-lights and driver lights up front. Larger tailpipes and DFI engine, with fuel consumption cut by 16%.

| | |
|--------------------|--------------------------|
| Production numbers | 3,800 |
| Issue featured | 152 |
| Engine capacity | 3,800cc |
| Compression ratio | 9.8:1 |
| Maximum power | 500hp @ 6,000rpm |
| Maximum torque | 650Nm @ 1,950-5,000rpm |
| 0-62mph | 3.4sec |
| Top speed | 194mph |
| Length | 4,450mm |
| Width | 1,852mm |
| Weight | 1,570kg |
| Wheels & tyres | |
| F | 8.5x19-inch; 235/35/ZR19 |
| R | 11x19-inch; 305/30/ZR19 |

Gen2 997 GT3 RS 09-12



Wider front arches and a larger wing. Dynamic engine mounts and PASM are standard. Air-con is optional, with no door handles, wheel brace or sound proofing.

| | |
|--------------------|-------------------------|
| Production numbers | 1,500 |
| Issue featured | 125 |
| Engine capacity | 3,800cc |
| Compression ratio | 12.2:1 |
| Maximum power | 450hp @ 7,900rpm |
| Maximum torque | 430Nm @ 6,750rpm |
| 0-62mph | 4.0sec |
| Top speed | 192mph |
| Length | 4,460mm |
| Width | 1,852mm |
| Weight | 1,370kg |
| Wheels & tyres | |
| F | 9x19-inch; 245/35/ZR19 |
| R | 12x19-inch; 325/30/ZR19 |



997 Speedster 2010

Built to mark Porsche Exclusive's 25th year. Shorter windscreen, but rake angle same as 997 Carrera. Wide body with 19-inch Fuchs wheels. Rear-wheel drive.

| | |
|--------------------|--------------------------|
| Production numbers | 356 |
| Issue featured | 128 |
| Engine capacity | 3,800cc |
| Compression ratio | 12.5:1 |
| Maximum power | 408hp @ 7,300rpm |
| Maximum torque | 420Nm @ 4,400rpm |
| 0-62mph | 5.600rpm |
| Top speed | 4.4sec |
| Length | 190mph |
| Width | 4.440mm |
| Weight | 1.852mm |
| Wheels & tyres | |
| F | 8.5x19-inch; 235/35/ZR19 |
| R | 11x19-inch; 305/30/ZR19 |



★ ★ ★ ★ ★
997 Carrera
 2004-08
 Fully revised Porsche 911 with 993-influenced bodywork and a new interior. Engine was like 996, but refined for more power. Six-speed Tiptronic option available.

| | |
|--------------------|------------------------|
| Production numbers | 25,788 |
| Issue featured | 112 |
| Engine capacity | 3,596cc |
| Compression ratio | 11.3:1 |
| Maximum power | 325hp @ 6,800rpm |
| Maximum torque | 370Nm @ 4,250rpm |
| 0-62mph | 5.0sec |
| Top speed | 177mph |
| Length | 4,427mm |
| Width | 1,808mm |
| Weight | 1,395kg |
| Wheels & tyres | |
| F | 8x18-inch; 235/40/R18 |
| R | 10x18-inch; 265/40/R18 |



★ ★ ★ ★ ★
997 Carrera S 2004-08

As per the 997 Carrera, but with more powerful 3.8-litre engine and PASM, 19-inch wheels as standard, with bigger ventilated brakes. Featured quad exhaust tailpipes.

| | |
|--------------------|------------------------|
| Production numbers | 41,059 |
| Issue featured | 107 |
| Engine capacity | 3,824cc |
| Compression ratio | 11.8:1 |
| Maximum power | 355hp @ 6,600rpm |
| Maximum torque | 400Nm @ 4,600rpm |
| 0-62mph | 4.8sec |
| Top speed | 182mph |
| Length | 4,427mm |
| Width | 1,808mm |
| Weight | 1,420kg |
| Wheels & tyres | |
| F | 8x19-inch; 235/35/R19 |
| R | 11x19-inch; 295/30/R19 |



Track focused, but based on narrow-bodied Carrera with reworked 996 GT3 engine. PASM standard, revs to 8,400rpm, 200 higher than the Gen2 996 GT3.

★ ★ ★ ★ ★
997 GT3 2006-07

| | |
|--------------------|-------------------------|
| Production numbers | 2,378 |
| Issue featured | 117 |
| Engine capacity | 3,600cc |
| Compression ratio | 12.0:1 |
| Maximum power | 415hp @ 7,600rpm |
| Maximum torque | 405Nm @ 5,500rpm |
| 0-62mph | 4.3sec |
| Top speed | 192mph |
| Length | 4,445mm |
| Width | 1,808mm |
| Weight | 1,395kg |
| Wheels & tyres | |
| F | 8.5x19-inch; 235/35/R19 |
| R | 12x19-inch; 305/30/R19 |



★ ★ ★ ★ ★
997 GT3 RS 2006-07
 Similar to GT3, with wider rear bodyshell of the Carrera S. 20kg of weight saved from GT3 thanks to carbon engine cover and rear wing, and plastic rear window.

| | |
|--------------------|-------------------------|
| Production numbers | 1,106 |
| Issue featured | 156 |
| Engine capacity | 3,600cc |
| Compression ratio | 12.0:1 |
| Maximum power | 415hp @ 7,600rpm |
| Maximum torque | 405Nm @ 5,500rpm |
| 0-62mph | 4.2sec |
| Top speed | 194mph |
| Length | 4,460mm |
| Width | 1,808mm |
| Weight | 1,375kg |
| Wheels & tyres | |
| F | 8.5x19-inch; 235/35/R19 |
| R | 12x19-inch; 305/30/R19 |



★ ★ ★ ★ ★
Gen2 997 C4S 2008-12
 Body as per C4 but with larger engine. Utilised 997 Turbo's 4WD and PTM. Viscous coupling gives way to electromagnetically controlled multi-plate clutch.

| | |
|--------------------|-------------------------|
| Production numbers | 7,910 (Coupe) |
| Issue featured | 111 |
| Engine capacity | 3,800cc |
| Compression ratio | 12.5:1 |
| Maximum power | 385hp @ 6,500rpm |
| Maximum torque | 420Nm @ 4,400rpm |
| 0-62mph | 4.7sec |
| Top speed | 185mph |
| Length | 4,435mm |
| Width | 1,852mm |
| Weight | 1,480kg |
| Wheels & tyres | |
| F | 8x19-inch; 235/35/ZR19 |
| R | 11x19-inch; 305/30/ZR19 |



Updated as per the Carrera, but with a unique front and rear wing, revised PASM, centre-lock wheels and better brakes. 2010 MY GT3s recalled to fix rear hubs.

★ ★ ★ ★ ★
Gen2 997 GT3 2009-12

| | |
|--------------------|--------------------------|
| Production numbers | 2,200 |
| Issue featured | 117 |
| Engine capacity | 3,797cc |
| Compression ratio | 12.2:1 |
| Maximum power | 435hp @ 7,900rpm |
| Maximum torque | 430Nm @ 6,250rpm |
| 0-62mph | 4.1sec |
| Top speed | 194mph |
| Length | 4,460mm |
| Width | 1,808mm |
| Weight | 1,395kg |
| Wheels & tyres | |
| F | 8.5x19-inch; 235/35/ZR19 |
| R | 12x19-inch; 305/30/ZR19 |



Based on 3.8-litre Powerkit, rear-wheel-drive Carrera S, but with 44mm wider rear arches. Retro styling including iconic ducktail and large Fuchs wheels.

★ ★ ★ ★ ★
997 Sport Classic 2010

| | |
|--------------------|--------------------------|
| Production numbers | 250 |
| Issue featured | 146 |
| Engine capacity | 3,800cc |
| Compression ratio | 12.5:1 |
| Maximum power | 408hp @ 7,300rpm |
| Maximum torque | 420Nm @ 4,200-5,600rpm |
| 0-62mph | 4.6sec |
| Top speed | 187mph |
| Length | 4,435mm |
| Width | 1,852mm |
| Weight | 1,425kg |
| Wheels & tyres | |
| F | 8.5x19-inch; 235/35/ZR19 |
| R | 11x19-inch; 305/30/ZR19 |



★ ★ ★ ★ ★
997 GT3 RS 4.0 2010
 Engine was upgraded and aerodynamically tweaked, with the angle of the rear wing increased and dive planes on either side of the front nose. A future collectors' gem.

| | |
|--------------------|-------------------------|
| Production numbers | 600 |
| Issue featured | 125 |
| Engine capacity | 3,996cc |
| Compression ratio | 12.6:1 |
| Maximum power | 500hp @ 8,250rpm |
| Maximum torque | 460Nm @ 5,750rpm |
| 0-62mph | 3.9sec |
| Top speed | 193mph |
| Length | 4,460mm |
| Width | 1,852mm |
| Weight | 1,360kg |
| Wheels & tyres | |
| F | 9x19-inch; 245/35/ZR19 |
| R | 12x19-inch; 325/30/ZR19 |



ENGINEERING EXHILARATION

981 CAYMAN CSR



The handling, performance and driver feedback of the CSR are a joy and take the 981 experience to the next level.
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Technology explained

008 VARIORAM

Critics still debate which is better, VarioRam or non-VarioRam? **Total 911** explains the mechanics and theory behind the variable induction system introduced on the Porsche 993



Porsche's VarioRam induction system was designed to improve low- to mid-range torque by optimising airflow at different rpms. Introduced on the 993 Carrera RS's M64/20 engine in 1995, the technology was then rolled out to the standard 993 Carrera range with the introduction of the 1996 M64/21 engine. The previous M64/05 engine made use of a single throttle body and a resonance chamber tuned to make use of Helmholtz resonance (where pressure pulses caused by the opening and closing of the intake valves cause air to be bounced off the walls of the resonance chamber and forced into the combustion chamber).

VarioRam adds a second, upper throttle body that flows through to a central plenum. From this central plenum, six vacuum-operated induction runners are mounted. Below 5,000rpm, the ECU electronically triggers these six runners (one for each cylinder) extending them to nearly twice their normal length, using rubber seals to cut off the primary throttle body and resonance chamber.

The resulting increase in runner length makes use of the Venturi effect – by reducing the cross-sectional area the speed of the airflow is increased. The increased air velocity aids cylinder charging, while lowering the optimal rpm for resonance induction.

By improving low-range airflow, VarioRam engines enjoy around 20 per cent more torque at 5,000rpm than non-VarioRam units. Once the engine reaches 5,000rpm, and the throttle is more than 50 per cent open, the induction runners are retracted to their normal length. The primary throttle body is reengaged, and one of the connecting tunnels between the two banks of the resonance chambers is opened via a vacuum-operated valve.

Above 5,800rpm the second connecting tunnel is opened, again through the use of a valve. These final two stages operate in the same way as non-VarioRam engines, using the resonance chamber to improve the volumetric efficiency of the engine at high rpms.



★★★★★

997 918 Edition 2010

These exclusive 997 Turbo S-spec 911s were only available to those who had paid a deposit for a 918 Spyder. Acid green badging and brake calipers.

| | |
|--------------------|---|
| Production numbers | 121 |
| Issue featured | 74 |
| Engine capacity | 3,800cc |
| Compression ratio | 9.8:1 |
| Maximum power | 530hp @ 6,250-6,750rpm |
| Maximum torque | 700Nm @ 2,100-4,250rpm |
| 0-62mph | 3.3sec |
| Top speed | 193mph |
| Length | 4,435mm |
| Width | 1,852mm |
| Weight | 1,585kg |
| Wheels & tyres | F 8.5x19-inch; 235/35/ZR19 R 11x19-inch; 305/30/ZR19 |



★★★★★

997 GT2 RS 2010-11

GT2 went back to its roots with lightweight body and interior, plus extra power. Recognisable thanks to carbon fibre bonnet, air intake and mirrors.

| | |
|--------------------|---|
| Production numbers | 500 |
| Issue featured | 155 |
| Engine capacity | 3,600cc |
| Compression ratio | 9.0:1 |
| Maximum power | 620hp @ 6,500rpm |
| Maximum torque | 700Nm @ 2,500-5,500rpm |
| 0-62mph | 3.5sec |
| Top speed | 205mph |
| Length | 4,460mm |
| Width | 1,852mm |
| Weight | 1,370kg |
| Wheels & tyres | F 9x19-inch; 245/35/ZR19 R 12x19-inch; 325/30/ZR19 |



★★★★★

991.1 Carrera 4 2012-15

22mm wider body than C2, with 10mm wider tyres and connecting rear tail light as standard. Also features a torque distribution indicator on the digital dash clock.

| | |
|--------------------|---|
| Production numbers | Unknown |
| Issue featured | 98 |
| Engine capacity | 3,436cc |
| Compression ratio | 12.5:1 |
| Maximum power | 350hp @ 7,400rpm |
| Maximum torque | 390Nm @ 5,600rpm |
| 0-62mph | 4.9sec |
| Top speed | 177mph |
| Length | 4,491mm |
| Width | 1,852mm |
| Weight | 1,430kg |
| Wheels & tyres | F 8.5x19-inch; 235/40/ZR19 R 11x19-inch; 305/35/ZR19 |



★★★★★

991.1 Carrera 4S 2012-15

Same wider body styling as C4, coupled to 3.8-litre 400bhp engine. Also features six-piston brake calipers at front. PTV spread torque more evenly.

| | |
|--------------------|---|
| Production numbers | Unknown |
| Issue featured | 118 |
| Engine capacity | 3,800cc |
| Compression ratio | 12.5:1 |
| Maximum power | 400hp @ 7,400rpm |
| Maximum torque | 440Nm @ 5,600rpm |
| 0-62mph | 4.5sec |
| Top speed | 185mph |
| Length | 4,491mm |
| Width | 1,852mm |
| Weight | 1,445kg |
| Wheels & tyres | F 8.5x19-inch; 245/35/ZR20 R 11x20-inch; 305/30/ZR20 |



★★★★★

991 GT3 RS 2015-

Unprecedented aero package now delivers 997 RS 4.0's max downforce at just 93mph. Features modified 4.0-litre DFI version of 991.1 GT3 engine; PDK-only.

| | |
|--------------------|---|
| Production numbers | 5,000 |
| Issue featured | 136 |
| Engine capacity | 3,996cc |
| Compression ratio | 12.9:1 |
| Maximum power | 500hp @ 8,250rpm |
| Maximum torque | 460Nm @ 6,250rpm |
| 0-62mph | 3.3sec |
| Top speed | 193mph |
| Length | 4,545mm |
| Width | 1,880mm |
| Weight | 1,420kg |
| Wheels & tyres | F 9x20-inch; 245/35/ZR20 R 12x21-inch; 325/30/ZR21 |



★★★★★

991.2 Carrera 2015-

Facelift model substantially changed underneath with power coming from completely new 3.0-litre 9A2 turbocharged engine. PASM now standard.

| | |
|--------------------|---|
| Production numbers | In production |
| Issue featured | 137 |
| Engine capacity | 2,981cc |
| Compression ratio | 10.0:1 |
| Maximum power | 370hp @ 6,500rpm |
| Maximum torque | 450Nm @ 1,700-5,000rpm |
| 0-62mph | 4.2sec |
| Top speed | 183mph |
| Length | 4,499mm |
| Width | 1,808mm |
| Weight | 1,430kg |
| Wheels & tyres | F 8.5x19-inch; 245/35/ZR19 R 11x19-inch; 295/35/ZR19 |



★★★★★

991 R 2016

991 GT3 RS engine mated to revised 6-speed manual gearbox. Features Carrera Cabriolet active rear wing with diffuser aiding downforce. Lightweight flywheel optional.

| | |
|--------------------|---|
| Production numbers | 991 |
| Issue featured | 153 |
| Engine capacity | 3,996cc |
| Compression ratio | 13.2:1 |
| Maximum power | 500hp @ 8,250rpm |
| Maximum torque | 460Nm @ 6,250rpm |
| 0-62mph | 3.8sec |
| Top speed | 201mph |
| Length | 4,532mm |
| Width | 1,852mm |
| Weight | 1,370kg |
| Wheels & tyres | F 9x20-inch; 245/35/ZR20 R 12x20-inch; 305/30/ZR20 |



★★★★★

991.2 Carrera GTS 2017-

Similar specification and 'black accent' styling as per 991.1, available in both rear-wheel and all-wheel drive form. C4 GTS quicker than C2 GTS.

| | |
|--------------------|---|
| Production numbers | In production |
| Issue featured | 150 |
| Engine capacity | 2,981cc |
| Compression ratio | 10.0:1 |
| Maximum power | 450hp @ 6,500rpm |
| Maximum torque | 550Nm @ 2,150-5,000rpm |
| 0-62mph | 4.1sec |
| Top speed | 194mph |
| Length | 4,528mm |
| Width | 1,852mm |
| Weight | 1,450kg |
| Wheels & tyres | F 9x20-inch; 245/35/ZR20 R 12x20-inch; 305/30/ZR20 |



★★★★★

991.2 Carrera 4 GTS 2017-

As 991.2 Carrera GTS but with PTV four-wheel drive electrically controlling drive between both axles (rear always driven). Red connecting strip on rear.

| | |
|--------------------|---|
| Production numbers | In production |
| Issue featured | 151 |
| Engine capacity | 2,981cc |
| Compression ratio | 10.0:1 |
| Maximum power | 450hp @ 6,500rpm |
| Maximum torque | 550Nm @ 2,150-5,000rpm |
| 0-62mph | 3.8sec |
| Top speed | 193mph |
| Length | 4,528mm |
| Width | 1,852mm |
| Weight | 1,515kg |
| Wheels & tyres | F 9x20-inch; 245/35/ZR20 R 12x20-inch; 305/30/ZR20 |

★★★★★
997 C2 GTS 2010-12



C4's wider rear body, and powered by the 3.8-litre Carrera S engine, with a Powerkit producing extra 25bhp. GTS is laden with Porsche options.

| | |
|--------------------|--------------------------|
| Production numbers | Unknown |
| Issue featured | 157 |
| Engine capacity | 3,800cc |
| Compression ratio | 12.5:1 |
| Maximum power | 408hp @ 7,300rpm |
| Maximum torque | 420Nm @ 4,200-5,600rpm |
| 0-62mph | 4.6sec |
| Top speed | 190mph |
| Length | 4,435mm |
| Width | 1,852mm |
| Weight | 1,420kg |
| Wheels & tyres | F 8.5x19-inch; 235/35/19 |
| | R 11x19-inch; 305/30/19 |

★★★★★
997 C4 GTS 2011-12



Like C2 997 GTS but slightly heavier and with 4WD. In either C2 or C4 form, it represented a great saving over optioning up a 997 Carrera counterpart.

| | |
|--------------------|--------------------------|
| Production numbers | Unknown |
| Issue featured | 125 |
| Engine capacity | 3,800cc |
| Compression ratio | 12.5:1 |
| Maximum power | 408hp @ 7,300rpm |
| Maximum torque | 420Nm @ 4,200-5,600rpm |
| 0-62mph | 4.6sec |
| Top speed | 188mph |
| Length | 4,435mm |
| Width | 1,852mm |
| Weight | 1,480kg |
| Wheels & tyres | F 8.5x19-inch; 235/35/19 |
| | R 11x19-inch; 305/30/19 |



★★★★★
997 Turbo S 2011-13

A standard 997 Turbo but more power and higher level of standard equipment including PCCB, centre-lock wheels, crested sports seats and Sport Chrono Plus.

| | |
|--------------------|--------------------------|
| Production numbers | 2,000 |
| Issue featured | 123 |
| Engine capacity | 3,800cc |
| Compression ratio | 9.8:1 |
| Maximum power | 530hp @ 6,250-6,750rpm |
| Maximum torque | 700Nm @ 2,100-4,250rpm |
| 0-62mph | 3.3sec |
| Top speed | 195mph |
| Length | 4,435mm |
| Width | 1,852mm |
| Weight | 1,585kg |
| Wheels & tyres | F 8.5x19-inch; 235/35/19 |
| | R 11x19-inch; 305/30/19 |

★★★★★
991.1 Carrera 2011-15



The first of the newest and latest Gen7 911, it takes styling hues from the 993. A redesigned chassis with lengthened wheelbase reduces overhang of the engine.

| | |
|--------------------|--------------------------|
| Production numbers | Unknown |
| Issue featured | 137 |
| Engine capacity | 3,436cc |
| Compression ratio | 12.5:1 |
| Maximum power | 350hp @ 7,400rpm |
| Maximum torque | 390Nm @ 5,500rpm |
| 0-62mph | 4.8sec |
| Top speed | 179.6mph |
| Length | 4,491mm |
| Width | 1,808mm |
| Weight | 1,380kg |
| Wheels & tyres | F 8.5x19-inch; 235/40/19 |
| | R 11x19-inch; 285/35/19 |



★★★★★
991.1 Carrera S 2011-15

Same as Carrera, with seven-speed manual 'box but utilising bigger engine. Slightly larger front brakes than the standard Carrera, PASM as standard equipment.

| | |
|--------------------|--------------------------|
| Production numbers | Unknown |
| Issue featured | 114 |
| Engine capacity | 3,800cc |
| Compression ratio | 12.5:1 |
| Maximum power | 400hp @ 7,400rpm |
| Maximum torque | 440Nm @ 5,600rpm |
| 0-62mph | 4.5sec |
| Top speed | 188.5mph |
| Length | 4,491mm |
| Width | 1,808mm |
| Weight | 1,395kg |
| Wheels & tyres | F 8.5x20-inch; 245/35/20 |
| | R 11x20-inch; 295/30/20 |

★★★★★
991.1 GT3 2013-2015



Wide body from 991 Carrera 4 was used for the first time. Mezger engine from previous GT3s replaced with revamped DFI version of Carrera S engine. PDK only.

| | |
|--------------------|-------------------------|
| Production numbers | 3,000 (estimate) |
| Issue featured | 143 |
| Engine capacity | 3,800cc |
| Compression ratio | 12.9:1 |
| Maximum power | 475hp @ 8,250rpm |
| Maximum torque | 440Nm @ 6,250rpm |
| 0-62mph | 3.5sec |
| Top speed | 196mph |
| Length | 4,454mm |
| Width | 1,852mm |
| Weight | 1,430kg |
| Wheels & tyres | F 9x20-inch; 245/35/20 |
| | R 12x20-inch; 305/30/20 |

★★★★★
991.1 Turbo 2013-15



New Turbo marks introduction of rear axle steering, plus PDK-only transmission to forced induction 991 models.

| | |
|--------------------|--------------------------|
| Production numbers | Unknown |
| Issue featured | 109 |
| Engine capacity | 3,800cc |
| Compression ratio | 9.8:1 |
| Maximum power | 520hp @ 6,000-6,500rpm |
| Maximum torque | 660Nm @ 1,950-5,000rpm |
| 0-62mph | 3.4sec |
| Top speed | 195mph |
| Length | 4,506mm |
| Width | 1,880mm |
| Weight | 1,595kg |
| Wheels & tyres | F 8.5x20-inch; 245/35/20 |
| | R 11x20-inch; 305/30/20 |

★★★★★
991.1 Turbo S 2013-15



Same dimensions as 991 Turbo, but with a tweaked map to provide extra 40bhp. Turbo options standard, including centre-lock wheels and PCCB.

| | |
|--------------------|-------------------------|
| Production numbers | Unknown |
| Issue featured | 115 |
| Engine capacity | 3,800cc |
| Compression ratio | 9.8:1 |
| Maximum power | 560hp @ 6,500-6,750rpm |
| Maximum torque | 700Nm @ 2,100-4,250rpm |
| 0-62mph | 3.1sec |
| Top speed | 197mph |
| Length | 4,506mm |
| Width | 1,880mm |
| Weight | 1,605kg |
| Wheels & tyres | F 9x20-inch; 245/35/20 |
| | R 11x20-inch; 305/30/20 |



★★★★★
991 Anniversary 2013-14

Exuberantly styled Carrera S with wide body and generous spec. Many styling cues inside and out taken from original 901. Powerkit only came as standard spec in US.

| | |
|--------------------|---------------------------|
| Production numbers | 1,963 |
| Issue featured | 112 |
| Engine capacity | 3,800cc |
| Compression ratio | 12.5:1 |
| Maximum power | 400hp @ 7,400rpm |
| Maximum torque | 440Nm @ 5,600rpm |
| 0-62mph | 4.5sec |
| Top speed | 188mph |
| Length | 4,491mm |
| Width | 1,852mm |
| Weight | 1,420kg |
| Wheels & tyres | F 9x20-inch; 245/35/20 |
| | R 11.5x20-inch; 305/30/20 |

★★★★★
991.1 Carrera GTS 14-16



Big-spec GTS utilises wide body and a host of good options including Powerkit, PASM, Sport chrono, Sport exhaust to name a few, all for £7,000 more than Carrera S.

| | |
|--------------------|---------------------------|
| Production numbers | Unknown |
| Issue featured | 157 |
| Engine capacity | 3,800cc |
| Compression ratio | 12.5:1 |
| Maximum power | 430hp @ 7,500rpm |
| Maximum torque | 440Nm @ 5,750rpm |
| 0-62mph | 4.0sec |
| Top speed | 190mph |
| Length | 4,491mm |
| Width | 1,852mm |
| Weight | 1,425kg |
| Wheels & tyres | F 9x20-inch; 245/35/20 |
| | R 11.5x20-inch; 305/30/20 |

★★★★★
991.1 C4 GTS 2014-2016



Almost the same as the C2 GTS, but with additional traction offered by four-wheel drive. As a result, performance times are altered slightly over its rear-driven variant.

| | |
|--------------------|---------------------------|
| Production numbers | Unknown |
| Issue featured | 125 |
| Engine capacity | 3,800cc |
| Compression ratio | 12.5:1 |
| Maximum power | 430hp @ 7,500rpm |
| Maximum torque | 440Nm @ 5,750rpm |
| 0-62mph | 4.4sec |
| Top speed | 188mph |
| Length | 4,491mm |
| Width | 1,852mm |
| Weight | 1,470kg |
| Wheels & tyres | F 9x20-inch; 245/35/20 |
| | R 11.5x20-inch; 305/30/20 |

★★★★★
991.2 Carrera S 2015-



Shares Carrera's 3.0-litre turbocharged 9A2 engine, with revised turbos, exhaust and engine management to produce extra 50hp.

| | |
|--------------------|---------------------------|
| Production numbers | In production |
| Issue featured | 132 |
| Engine capacity | 2,981cc |
| Compression ratio | 10.0:1 |
| Maximum power | 420hp @ 6,500rpm |
| Maximum torque | 500Nm @ 1,700-5,000rpm |
| 0-62mph | 3.9sec |
| Top speed | 191mph |
| Length | 4,499mm |
| Width | 1,808mm |
| Weight | 1,440kg |
| Wheels & tyres | F 8.5x20-inch; 245/35/20 |
| | R 11.5x20-inch; 305/30/20 |



★★★★★
991.2 Carrera 4 2016-

New 9A2 turbocharged engine fused with all-wheel-drive running gear, now electro-hydraulically controlled. Distinguishable by wider body and full-width rear brake light.

| | |
|--------------------|---------------------------|
| Production numbers | In production |
| Issue featured | 133 |
| Engine capacity | 2,981cc |
| Compression ratio | 10.0:1 |
| Maximum power | 370hp @ 6,500rpm |
| Maximum torque | 450Nm @ 1,700-5,000rpm |
| 0-62mph | 4.1sec |
| Top speed | 181mph |
| Length | 4,499mm |
| Width | 1,852mm |
| Weight | 1,480kg |
| Wheels & tyres | F 8.5x19-inch; 235/40/19 |
| | R 11.5x19-inch; 295/35/19 |

★★★★★
991.2 Carrera 4S 2016-



As per C4 but using revised turbos, exhaust and engine management from C2S to produce extra 50hp. Faster 0-62mph than C2S for first time.

| | |
|--------------------|---------------------------|
| Production numbers | In production |
| Issue featured | 154 |
| Engine capacity | 2,981cc |
| Compression ratio | 10.0:1 |
| Maximum power | 420hp @ 6,500rpm |
| Maximum torque | 500Nm @ 1,700-5,000rpm |
| 0-62mph | 3.8sec |
| Top speed | 188mph |
| Length | 4,499mm |
| Width | 1,852mm |
| Weight | 1,490kg |
| Wheels & tyres | F 8.5x20-inch; 245/35/20 |
| | R 11.5x20-inch; 305/30/20 |

★★★★★
991.2 Turbo 2016-



Revised 9A1 engine from 991.1, producing 540hp thanks to modified inlet ports in cylinder head, new injection nozzles and higher fuel pressure.

| | |
|--------------------|---------------------------|
| Production numbers | In production |
| Issue featured | 135 |
| Engine capacity | 3,800cc |
| Compression ratio | 9.8:1 |
| Maximum power | 540hp @ 6,400rpm |
| Maximum torque | 710Nm @ 2,250-4,000rpm |
| 0-62mph | 3.1sec |
| Top speed | 199mph |
| Length | 4,507mm |
| Width | 1,880mm |
| Weight | 1,595kg |
| Wheels & tyres | F 9x20-inch; 245/35/20 |
| | R 11.5x20-inch; 305/30/20 |



★★★★★
991.2 Turbo S 2016-

As per 991.2 Turbo but with power boosted to 580hp thanks to new turbochargers with larger compressors. Fastest ever Porsche 911 from 0-62mph.

| | |
|--------------------|---------------------------|
| Production numbers | In production |
| Issue featured | 145 |
| Engine capacity | 3,800cc |
| Compression ratio | 9.8:1 |
| Maximum power | 580hp @ 6,750rpm |
| Maximum torque | 750Nm @ 2,250-4,000rpm |
| 0-62mph | 2.9sec |
| Top speed | 205mph |
| Length | 4,507mm |
| Width | 1,880mm |
| Weight | 1,600kg |
| Wheels & tyres | F 9x20-inch; 245/35/20 |
| | R 11.5x21-inch; 305/30/20 |

★★★★★
991.2 GT3 2017-



New 4.0-litre engine from 991.2 Cup car. Retains 9,000rpm redline; six-speed manual Sport transmission now a no-cost option. Revised airflow to front and rear.

| | |
|--------------------|-------------------------|
| Production numbers | 222 (UK est.) |
| Issue featured | 153 |
| Engine capacity | 3,996cc |
| Compression ratio | 13.3:1 |
| Maximum power | 500hp @ 8,250rpm |
| Maximum torque | 460Nm @ 6,000rpm |
| 0-62mph | 3.9sec (manual) |
| Top speed | 199mph |
| Length | 4,562mm |
| Width | 1,852mm |
| Weight | 1,413kg (manual) |
| Wheels & tyres | F 9x20-inch; 245/35/20 |
| | R 12x20-inch; 305/30/20 |

★★★★★
991 GT2 RS 2017-



Fastest factory 911 of all time. Highly modified Turbo S engine with sprayed intercoolers. Rear wheel drive, PDK only. New inlets on bonnet feeds air to brakes.

| | |
|--------------------|---------------------------|
| Production numbers | 1,800 (estimate) |
| Issue featured | 161 |
| Engine capacity | 3,800cc |
| Compression ratio | 9.0:1 |
| Maximum power | 700hp @ 7,000rpm |
| Maximum torque | 750Nm @ 2,500-4,500rpm |
| 0-62mph | 2.8sec |
| Top speed | 211mph |
| Length | 4,549mm |
| Width | 1,880mm |
| Weight | 1,470kg |
| Wheels & tyres | F 9.5x20-inch; 265/35/20 |
| | R 12.5x21-inch; 325/30/20 |

★★★★★
991 Turbo S Exclusive



The work of Porsche's Exclusive department, with extensive use of carbon on the bonnet, roof and side skirts. Power is hiked to 607hp. Turbo Aerokit standard.

| | |
|--------------------|---------------------------|
| Production numbers | 500 |
| Issue featured | 155 |
| Engine capacity | 3,800cc |
| Compression ratio | 9.8:1 |
| Maximum power | 607hp |
| Maximum torque | 750Nm @ 2,250-4,000rpm |
| 0-62mph | 2.9sec |
| Top speed | 205mph |
| Length | 4,507mm |
| Width | 1,880mm |
| Weight | Not specified |
| Wheels & tyres | F 9x20-inch; 245/35/20 |
| | R 11.5x20-inch; 305/30/20 |



★★★★★
991 Carrera T

Purist take on the 991.2 Carrera with 20kg of weight saved and regeared of 7-speed manual gearbox. Same 370hp engine as Carrera, PDK gearbox optional.

| | |
|--------------------|---------------------------|
| Production numbers | 2,000 (estimate) |
| Issue featured | 162 |
| Engine capacity | 2,981cc |
| Compression ratio | 10.0:1 |
| Maximum power | 370hp @ 6,500rpm |
| Maximum torque | 450Nm @ 1,700-5,000rpm |
| 0-62mph | 4.1sec |
| Top speed | 183mph |
| Length | 4,499mm |
| Width | 1,808mm |
| Weight | 1,410kg |
| Wheels & tyres | F 8.5x19-inch; 245/40/19 |
| | R 11.5x19-inch; 295/35/19 |



★★★★★
991.2 GT3 RS

Latest GT3 RS gets GT3 faclift but with NACA ducts and suspension from GT2 RS. 20hp increase over Gen1 with mainly aerodynamic and chassis revisions.

| | |
|--------------------|---------------------------|
| Production numbers | 60 UK cars (estimate) |
| Issue featured | 164 |
| Engine capacity | 4,000cc |
| Compression ratio | unknown |
| Maximum power | 520hp |
| Maximum torque | 480Nm @ 1,700-4,000rpm |
| 0-62mph | 3.2sec |
| Top speed | 193mph |
| Length | 4,549mm |
| Width | 1,880mm |
| Weight | 1,420kg |
| Wheels & tyres | F 9.5x20-inch; 265/35/20 |
| | R 12.5x21-inch; 325/30/20 |



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Baltic Blue metallic with Linen leather, Blue carpets
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PORSCHE 996 TURBO CABRIOLET, 2004
Atlas Grey Metallic with Black full leather
37,480 miles, Tiptronic S, PCM



PORSCHE 997 TURBO, MANUAL, 2012
Guards Red with Black Full leather, 14,400 miles, PCCB, Bucket Seats,
Rear Axle Diff Lock. (Carrara White 997 Turbo manual also available)



PORSCHE 997 TURBO S CABRIOLET, 2010
Carrara White with Black full leather
19,800 miles, Sports Chrono, PCCB



PORSCHE 964 TURBO COUPE, X88 PACK, 1994
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911 Turbo (997 GEN 1.5)

Basalt Black • Black Leather Adaptive Sport Seats • Touchscreen Satellite Navigation • Sport Chrono Pack Plus • 36,089 miles • 2008 (58)

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Amethyst Metallic • Marble Grey Leather Seats • Manual Gearbox • 17" Alloy Wheels • Electric Sunroof • 77,087 miles • 1996 (N)

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Grand Prix White • Black Leather Sport Seats • Manual Gearbox • 16" Fuchs Wheels • Cruise Control • 89,869 miles • 1988 (F)

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Basalt Black • Black Leather Sport Seats • PDK Gearbox • 20" Carrera S III Wheels • Sports Exhaust • Sport Chrono Pack with Sport Plus • 55,178 miles • 2013 (13)

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911 Turbo (996)

Basalt Black • Black Leather Seats • Tiptronic S Gearbox • Satellite Navigation • Factory Hardtop • 55,346 miles • 2003 (53)

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911 Turbo (996)

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with Red leather interior



Porsche 911SC 1983 Cabrio 3.3
Manual Gearbox, LHD, Grand Prix
White with Black interior



Porsche 911 1967 2.0L Coupe
Manual Gearbox, LHD, Ivory White
8604 with Red interior



Porsche 911 Carrera 3.2L 1985
Manual Gearbox, LHD, Iris Blau
Metallik with Black leather interior

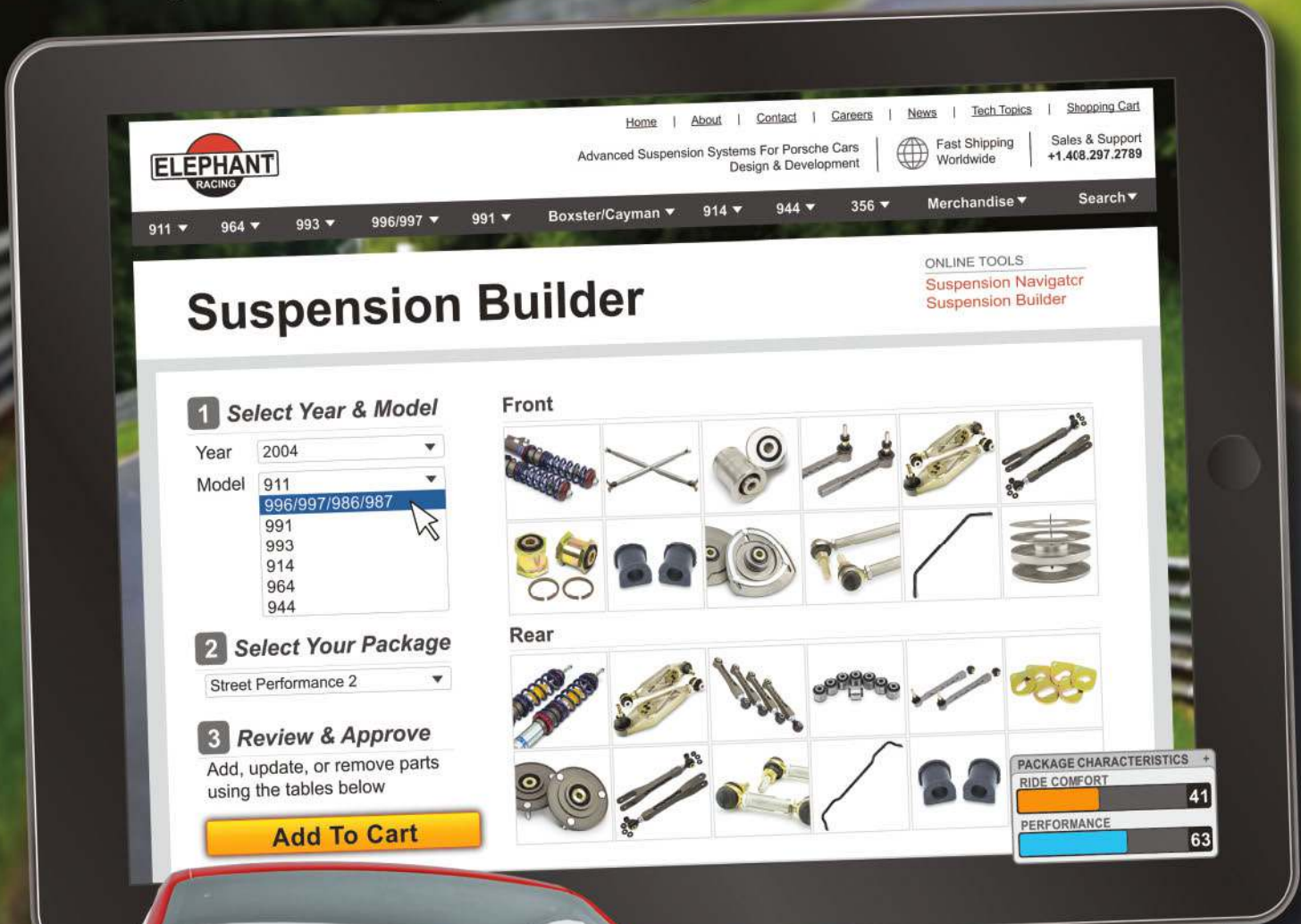
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NEXT ISSUE

Issue 165 in shops and available for download from 18 April



GUIDE TO
BUYING A PROJECT 911

For some it's all about the thrill of a build: Total 911 shows you what you need to consider when buying the right Porsche project



AUCTIONS VS DEALERS

T911 investigates: what's the best way to buy or sell a Porsche today?



MANUAL VS PDK 991.2 GT3

Flat-back Touring takes on 991.2 Clubsport – what's the difference?



996 GT2: UNDERVALUED?

The best value GT2, but how does it stack up as a performance Porsche?

911 DESIGN ICONS TURBO AIR INTAKES

As performance grew, so did the need for more air. Porsche's answer for the 911? Side intakes that have featured for more than 30 years



Photographs by Porsche Archive

Small parts can often play a significant role in terms of engineering, and that's certainly true of the side air intake. Like a number of Neunelfer developments this one stemmed from the Turbo models; although earlier iterations hid their sledgehammer performance behind subtle bodywork, the ramping up of power called for additional measures, especially in the area of cooling.

The intakes were very much a case of function over form, their appearance on the muscular 930 LE and SE models required to feed cooling air to the engine bay and hard-worked rear brakes. Sited low down, just aft of the doors and with a straked design, they suited the LE/SE's more flamboyant styling and worked efficiently. Neither power outputs nor performance were going backwards, so those intakes were set to become a permanent fixture on blown models, the next to get them being the 964 Turbo S. They could even be differently shaped on each side of the car - on the rare 'flat nose' for example - because of the need to accommodate the oil tank in the rear wing.

“The ramping up of power called for additional measures, especially in the area of cooling”

The arrival of the 993 - and more specifically the advent of twin turbochargers - would put even more pressure on cooling and induction systems, although for this iteration it was still only the more powerful Turbo S that benefitted from the extra intakes. By the time water cooling arrived all models with turbochargers had them, the items on the 996 described by Porsche as 'crescent-shaped' and feeding much-needed air to the blowers and intercoolers. A redesign for the 997 saw them take on a less curved appearance, and the intakes were now prominently divided by a horizontal bar.

That last part was a feature lost for the 991 generation, the intakes becoming both larger and a little more sculpted in form. They were also no longer just a feature reserved for the 'regular' Turbo model. While neither generation of the 991 GT3 featured them, the RS certainly did, where they were redesigned to produce a 'ram air' effect for the 4.0-litre engine's induction system, which was then retained for the GT2 RS. So, they're items that both look great and function superbly. It's typical Porsche, really. **911**

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**1982 Porsche 911SC
-stock-09188**

This 1982 Porsche 911SC shown here with matching numbers is available in a beautiful blue with a black interior color combination. It comes equipped with a manual transmission, air conditioning, power windows, Fuchs wheels and includes the spare tire. A very presentable 911 which was previously owned by a Porsche Club of America member. An excellent original California car which is mechanically sound.

For \$36,500



1967 Porsche 911-stock-08824

The 1967 Porsche 911 featured here is available in a glorious red with a black interior. It is equipped and upgraded with a 911T engine with a manual transmission, dual Weber carburetors and comes with Fuchs wheels. This is a very presentable car with endless possibilities. Don't miss this opportunity to climb into an early 911 ownership at a great price.

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1970 Porsche 911T-stock-09326

The featured 1970 Porsche 911T with matching numbers is available in silver with black interior. It comes equipped with a driver's side sport seat, manual transmission, air conditioning, Fuchs wheels and includes the jack and spare tire. An extremely clean and presentable example which has had the same owner for many years. An excellent original blue plate California car which is mechanically sound.

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1978 Porsche 911SC Targa-stock-09241

This 1978 Porsche 911SC Targa featured here with matching numbers is available in Grand Prix White with black interior. It comes equipped with a manual transmission with a 3.0-liter engine, air conditioning, power windows, Fuchs wheels and includes the jack, spare tire, tool kit and owner's manual. An excellent weekend driver which is mechanically sound.

For \$29,950



1986 Porsche Carrera Cabriolet-stock-09220

This stunning 1986 Porsche Carrera Cabriolet with matching numbers, includes the Certificate of Authenticity and has 46,255 on the odometer. It is available in its original color code #027 Guards Red with a tan interior and comes with a clean CarFax. It is equipped with a 5-speed manual transmission, air conditioning, MONO steering wheel, power windows, power seats, Fuchs wheels, soft top and includes the jack, tool kit, spare tire and over \$7,000 in service documentation for a major service in 2015. These are dimming in value. An extremely clean and presentable low mileage example which is mechanically sound.

For \$49,500



1986 Porsche Carrera Coupe-stock-09111

The 1986 Porsche Carrera shown here is available in this highly desirable color combination of black with black interior. It comes with a clean CarFax and is equipped with a manual transmission with a 3.2-liter engine, air conditioning, sunroof, Fuchs wheels, power windows, original owner's manual, service documentation and includes the tool kit. A very presentable example which is mechanically sound.

For \$37,500



1987 Porsche Carrera Targa-stock-09063

This 1987 Porsche Carrera Targa with matching numbers comes in black with tan interior which is a very desirable color combination. It comes with a clean CarFax and is equipped with a G50 transmission, Fuchs wheels, air conditioning, power windows and includes the jack and spare tire. A very presentable Targa which is mechanically sound.

For \$34,750



1987 Porsche Carrera Targa-stock-09250

This eye-catching 1987 Porsche Carrera Targa shown here with matching numbers comes in beautiful silver metallic with black interior. It has a salvage title and is equipped with a G50 transmission, air conditioning, power windows, Fuchs wheels and includes the spare tire. A very presentable example which is mechanically sound.

For \$36,500



1989 Porsche Carrera Cabriolet-stock-09228

The 1989 Porsche Carrera Cabriolet shown here with matching numbers and 76,499 on the odometer is available in its original color code #027 Guards Red with black interior. It comes with a clean CarFax and is equipped with a manual transmission, air conditioning, power windows, soft top, Fuchs wheels and includes the spare tire and jack. A very clean and presentable Porsche which is mechanically sound.

For \$39,500



1990 Porsche 964 Sunroof Coupe-stock-09313

The featured 1990 Porsche 964 Sunroof Coupe is available in grand prix white with tan interior. It comes with a clean CarFax and is equipped with a 5-speed manual transmission, air conditioning, power windows, power steering, power seats, sunroof, Fuchs wheels, original owner's manual and includes the spare tire. This is an extremely collectible car and is mechanically sound.

For \$39,500



1991 Porsche 964 Cabriolet-stock-08890

This 1991 Porsche 964 Cabriolet is shown here in grand prix white with black interior. Clean CarFax. It comes equipped with a manual transmission with a 3.6-liter engine, air conditioning, power windows, power steering, solid wheels, soft top and includes the jack, spare tire and air compressor. A very presentable weekend driver which is mechanically sound.

For \$34,750



1993 Porsche 964 Cabriolet-stock-09187

The 1993 Porsche 964 Cabriolet featured here is available in red with tan interior and includes a clean CarFax. It comes equipped with a manual transmission, air conditioning, power windows, power seats, solid wheels, soft top, original owner's manual, service documentation and includes the spare tire, tool kit, service records and maintenance booklet. An excellent weekend driver which could use some light cosmetics and is mechanically sound.

For \$32,500



1995 Porsche 993 Sunroof Coupe-stock-08248

The 1995 Porsche 993 Sunroof Coupe comes in its original and gorgeous color combination of Aventura Green Metallic with grey interior. It comes equipped with a 6-speed manual transmission, air conditioning, power windows, power steering, power seats, OEM stereo and includes the original owner's manual, spare tire, tool kit and air compressor. It has been with the same owner since 1995 mechanically sound.

For \$33,500

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