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Total 911

THE PORSCHE MAGAZINE

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POWER OF THE X51

Three generations of the water-cooled Carrera S with X51 Powerkit driven

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	ISSUE 108



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PORSCHE

Welcome



Ever one for a nostalgic throwback, I recently picked up a multi-marque automotive publication from September 1987 (a magazine that precedes my very own existence, no less). On the cover sat the Porsche 959, the thunderous Eighties supercar that, for many, was the halcyon car of a generation.

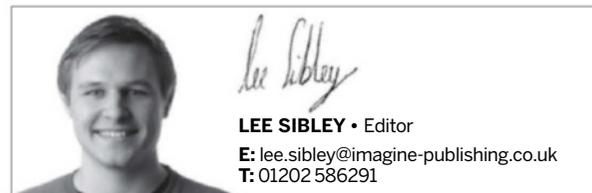
Equipped with explosive performance, astute technology and peerless elegance, the 959 was an engineering masterpiece – so much so that 26 years on, that report still fascinates me. What is perhaps most endearing is the editorial team's insistence on referencing the 959 back to its 911 brethren. Of course, you can't feasibly compare a 959 to a 3.3-litre Motronic 930 of the time, but while the 450bhp supercar has a lot of

“The 959 showed what could be achieved from a flat-six engine at the rear, which the 911 has since evolved further”

911 traits to be grateful for, so too does the 911 owe thanks to the 959. Evolution has dictated that intricacies of the 959 like four-wheel drive, traction management and variable damping settings have become commonplace on many a 911 in the intervening years, and the 959's unworldly performance showed what could be achieved from a road-going flat-six engine hanging past the rear axle, which the 911 has since evolved further.

It's been a pleasure, then, to admire a car with such stature as a 959S in this issue, one of only 29 examples in the world, alongside three gloriously rare turbocharged 911s from the air-cooled era. Each of the models here underline Zuffenhausen's commitment to going above and beyond with the glamorous Turbo moniker, to fulfil the desires of a privileged few.

2013 may have been the year for a dramatic new Turbo and GT3 release among others, but with as decorated a history as Porsche's, looking back can be just as stimulating.



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1911 Opening Shot

To some, the hustle and bustle of a thriving capital city may make for an ill-advised destination for an air-cooled 911. However, on a sunny Sunday morning, such a classic Porsche 911 only adds to London's beautiful vistas.

Photograph by **James Lipman**



Contents



14 RARE AIR-COOLED TURBOS

“Porsche reserves its Turbo ‘S’ badge for the cream of the crop, the premium range-toppers in performance”

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Essentials

- 08 **Update**
News, product reviews and sport
- 12 **Views**
Your letters, emails and tweets
- 34 **UK subscriptions**
Latest offers for UK fans of **Total 911**
- 60 **Christmas Subscriptions**
Our special subscription offer
- 76 **Living the Legend**
Martini liveries, low-temp thermostats
and a 3.2-litre Carrera Cabriolet
- 81 **USA Subscriptions**
Our special offer for US readers
- 88 **Data file**
Essential info on every Porsche 911
- 113 **Coming soon**
A look at what's in store for next issue
- 114 **Great roads**
A trip on one of California's greatest
stretches of tarmac

Features

- 14 **Rare air-cooled Turbos**
Four incredible Porsche Turbos come
together for the Total 911 cameras
- 26 **Powerkit group test**
If you want more power from your 911,
the factory Powerkits could be for you
- 36 **R Gruppe in London**
London's calling for this 911T modified
by the underground tuning collective
- 44 **Ultimate Guide: 996 GT2**
Everything you need to know about the
first water-cooled extreme Turbo
- 52 **Dynamic engine mounts**
We explain all about Porsche's clever
engine mounting system
- 54 **911 Hero: Gijs van Lennep**
The 1973 Targa Florio winner recalls his
racing glories in this exclusive interview
- 62 **DP Motorsport
head-to-head**
A 3.2 Carrera and an RSR replica battle
it out in a lightweight fight
- 70 **British GT season review**
Oman Air Motorbase talk us through
their 2013 campaign in the 997 GT3 R
- 84 **TechArt company profile**
A factory tour of the Leonberg giants



26



36



44



54



62



70



84

Update

Key dates, latest news, star products and race results from the world of Porsche



The 'last project of Ekkehard' completed DP Motorsport founder's 'Super RSR' debuts at Essen Motor Show

Ekkehard Zimmermann, founder of Porsche legends DP Motorsport, has nearly finished his last project. The personal build, dubbed 'the Super RSR', enjoyed its public debut at the Essen Motor Show on 1 December.

After leaving his job at Ford Cologne, a young Zimmermann started DP Motorsport, building bodywork for Kremer Racing's RSR. As such, the all-conquering Seventies racing machine is afforded a special place in Ekkehard's heart, leading to him choosing the RSR as the inspiration for his final project.

With DP's continual drive to improve on original designs, the 'Super RSR' will embody Zimmermann's ideal reimagining of the RSR, leaving no component untouched. In true DP Motorsport fashion, the Indian red bodywork is a mixture of fibreglass and carbon fibre panels. When coupled with the green-tinted plexiglass windows, this lightweight body enables the

car to sit at a dry weight of just 950 kilograms. While saving weight is an inevitable focus of the build, the bodyshell has been strengthened according to the original RSR designs. This is undoubtedly a car for track-driving enthusiasts.

Playing through a custom DP Motorsport racing exhaust, the 3.5-litre engine (the block of which is from a 3.3-litre 930) features a lightweight flywheel, Sachs clutch and high-lift camshaft from a 3.0-litre RSR, giving it a power output of 353bhp. The engine is mated to a 915 five-speed synchromesh gearbox, which has been modified to include DP's own short shift kit.

Stopping this ultimate RSR is the job of a pair of 928 S4 discs and calipers on the front and 3.3-litre 930 front brakes on the rear. These units will sit behind a set of black Fuchs wheels, branded with DP Motorsport's logo on the centre. The 9x15-inch and 13x15-inch wheels are shod in vintage, semi-slick

Michelin tyres, meaning that this is undoubtedly not a car for the faint of heart.

Attempting to keep this 371bhp-per-tonne machine on the road is the job of the height-adjustable H&R suspension, modified in-house by Zimmermann's team. The rear axle guide from a Turbo has been used alongside an adjustable stabiliser from H&R, while Australian specialist Super Pro supplied the bushings on the front suspension.

Stepping inside, a four-point harness holds you to the 935-style 'lollipop' seats, with a fully welded roll cage adding to stiffness and safety. A 350mm MOMO sports steering wheel provides the driver's contact with the front wheels, while lightweight carpet continues DP's focus on reducing mass, as does the gel battery and racing electrical loom.

Head over to **Total 911**'s website in order to see exclusive first shots of the finished car from the Essen Motor Show.

What's on in 2013 - 2014

October - March 2014

60 years of super sportscars
29 October 2013-14 March 2014
 The Porsche Museum is marking 60 years of supercars, including a 911 GT1 Straßenversion.

December

Porsche Club GB Open Day
8 December 2013
 The annual Christmas open day will be held at Cornbury House, Gloucestershire.



991 GT3 release
December 2013
 The eagerly awaited new 911 GT3 is released for worldwide sale.

January 2014

Performance Car Show
9-12 January 2014
 This speed-celebrating show at the NEC will be attended by Porsche Club GB.

Detroit Motor Show
13-26 January 2014
 The first international motor show of the year heads to 'Motor City'.

RM Auctions Arizona
16-17 January 2014
 An eclectic mixture of Porsche lots, including a 911 Carrera Speedster.



TechArt reveals 991 Turbo

German tuning house TechArt has revealed the first image of its new 991 Turbo-based car. The as-yet unnamed machine features the company's 'Aerodynamic Kit 1', as well as the eponymous Formula IV lightweight alloy wheels.

Based in Leonberg (also the home of tuning rivals Gemballa), the 991 Turbo kit is the long-awaited latest offering from the creators of the famous 996 GT2-based GT Street.

The car will make its first public appearance at the Essen Motorshow, which is running until 8 December. For more details about the new car and to see more photos, head over to Total911.com.



Win a £250 Design911 voucher with Total 911 readers' survey

Total 911 has teamed up with Design911 to offer one lucky reader a £250 voucher to spend online at Design911.com on completion of the magazine's readers' survey. What's more, every completed survey questionnaire guarantees an exclusive ten per cent discount on Design 911's website, which you can put towards your next Porsche parts order.

In order to continue improving the magazine, we would like to hear from you, our enthusiastic, passionate and knowledgeable readership. With your feedback, we can continue to offer you the very best of Porsche 911 content.

As well the first prize from Design911, there will also be a prize draw for two further participants, either receiving a selection of Richbrook products

and a Code Clean detailing kit, or a £100 voucher towards an Experience Megastore supercar day.

In order to complete the readers' survey and put yourself in with a chance of winning the £250 Design911 voucher, head over to www.total911.com/readersurvey. Once you have completed the questions, you will be provided with your ten per cent discount code.



In brief



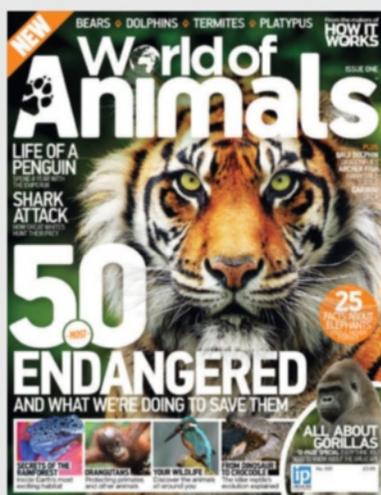
PS AutoArt release 50th year watch

To mark five decades since the unveiling of the 901 in Frankfurt, Paul Stephens' Design Studio has released the bespoke 'Edition 901' watch. Designed and manufactured in England using an ETA 2451 Swiss mechanical movement, the face design evokes the original green dials of early 911s. Limited to 50 pieces, this exclusive watch will cost £1,625. For more info, visit www.paulstephensdesign.com.



Öhlins Porsche suspension

Porsche parts stockists Design911 have announced that they will supply the new bespoke Öhlins Porsche suspension collection, bringing the Road and Track range of suspension components to 911 owners. Available for all 996 and 997-type cars, the dampers use a single dial adjuster to change bump and rebound settings, while ride height is also adjusted. To give your 911 a new lease of life, visit Design911.com for more details.



Go wild with World Of Animals

From the slovenly sloths of the Amazon rainforest to the predatory polar bears of the Arctic Circle, **World Of Animals** is a new monthly magazine from the makers of **Total 911** that takes a unique look at wonderful wildlife from across the globe. With captivating stories and stunning illustrations, each issue offers the safari of a lifetime that takes the reader on a fact-filled tour of the planet's wildlife, exploring the habitats, behaviour and societies of all Earth's creatures.

Out now, the first issue includes an in-depth look into the world of gorillas, an exposé of 50 animals dangerously close

to extinction and what can be done to save them, plus a bite-by-bite account of how great white sharks hunt their prey.

This groundbreaking magazine launches alongside digital editions for iOS and Android that are available from greatdigitalmags.com, and is accompanied by a brand-new companion website: animalanswers.co.uk. Connect with **World Of Animals** on Twitter @WorldAnimalsMag and Facebook facebook.com/worldofanimalsmag and let them know what you'd love to see in forthcoming issues of **World Of Animals**.

911 in Motorsport

December	January		
Africa Eco Race 29 December-11 January The Paris-Dakar rally's spiritual successor will see plenty of 911s in action.	Roar before the 24 3-5 January 2014 The official test sessions before the 2014 running of the 24 Hours of Daytona.	Autosport International Show, UK 9-12 January 2014 The first British auto show of 2014 takes place at the NEC.	Rolex 24 Hours of Daytona 23-26 January 2014 The first race of the USCR will see the CORE autosport 991 RSRs in action.



Thiim secures maiden Supercup crown Double Abu Dhabi victory provides Dane with first title

Nicki Thiim won the 2013 Porsche Mobil 1 Supercup championship in the season finale at Yas Marina in Abu Dhabi.

With the absence of the late Sean Edwards, Thiim was the favourite to take the most coveted title in Porsche 911 racing. However, in qualifying for the opening race of the weekend, guest driver and newly crowned Carrera Cup Asia champion Earl Bamber stole pole position on his Supercup debut.

The Dane was content to wait for an error and, on the final tour, his pressure paid off, as Bamber made a mistake, allowing Thiim to win by 0.7 seconds. The

victory ensured he just needed to finish inside the top ten in the final encounter to take the crown.

With Bamber starting in seventh, Thiim secured the title with a performance worthy of a champion. The Dane led home his Attempto Racing teammate, Kévin Estre, by nearly seven seconds, while Jeroen Bleekemolen scored his first podium since 2011.

Total 911's 'one to watch' Ben Barker finished fourth in the first encounter, his best finish of his debut Supercup season. In the final race of the year, the Briton secured third place in the Rookies Classification with a ninth-place finish.

Results - Overall driver standings after Abu Dhabi (Rounds 8 & 9)

Pos	Entry no	Driver	Total	Abu Dhabi points (Total)
1	2	Nicki Thiim	140	40
2	14	Sean Edwards	118	-
3	3	Michael Ammermüller	115	21
4	1	Kévin Estre	107	32
5	12	Kuba Giermaziak	105	30
6	21	Michael Christensen	95	17
7	6	Klaus Bachler	73	10
8	25	Christian Engelhart	69	13
9	4	Jeroen Bleekemolen	67	25
10	10	Ben Barker	66	24
11	5	Robert Lukas	44	9
12	22	Richie Stanaway	43	15
13	9	Jean-Karl Vernay	29	DNF
14	18	Jeroen Mul	27	6
15	20	Markus Pommer	25	9
16	11	Patryk Szczerbinski	24	2
17	19	Clemens Schmid	21	2
18	17	Sebastian Bleekemolen	15	7
19	26	Martin Ragginger	14	-
20	15	Sean Johnston	9	7
21	24	Jochen Habets	4	1
22	23	Alessandro Zampedri	3	-
23	8	Roar Lindland	2	0
24	7	Esteban Gini	0	-
25	26	Alain Menu	0	-

Porsche Supercup: 2013 winners

- **Gran Premio de España – Catalunya (Round 1) 10-12 May**
Winner: Sean Edwards
- **Grand Prix de Monaco – Monte Carlo (Round 2) 23-26 May**
Winner: Sean Edwards
- **British Grand Prix – Silverstone (Round 3) 28-30 June**
Winner: Nicki Thiim
- **Grosser Preis von Deutschland – Nürburgring (Round 4) 5-7 July**
Winner: Michael Christensen
- **Magyar Nagydíj – Hungaroring (Round 5) 26-28 July**
Winner: Sean Edwards
- **Belgian Grand Prix – Spa-Francorchamps (Round 6) 23-25 August**
Winner: Klaus Bachler
- **Gran Premio d'Italia – Monza (Round 7) 6-8 September**
Winner: Nicki Thiim
- **Abu Dhabi Grand Prix (Rounds 8 & 9) Yas Marina, Abu Dhabi 1-3 November**
Winner: Nicki Thiim (x2)

Porsche podium at FIA WEC Shanghai

Porsche AG Team Manthey secured their fifth podium of the 2013 FIA World Endurance Championship season as the 911 RSR of Jörg Bergmeister and Patrick Pilet finished third in Shanghai.

For the penultimate round, Marc Lieb and Richard Lietz were looking to close the gap. However, the duo dropped from third to sixth after struggling with high tyre wear.

While the Aston Martin team utilised their straightline speed advantage, Bergmeister and Pilet were the best of the rest after a long battle with an AF Corse Ferrari, while in the GTE-Am class the IMSA Performance 997 GT3 RSR finished second.



Racing updates latest news and results from racing series around the globe

 **Carrera Cup GB Scholarship**
GP3 racer Josh Webster has won the sought-after £80,000 bursary towards a seat in the 2014 and 2015 Carrera Cup GB.

 **Carrera Cup Asia**
On the streets of Macau, Earl Bamber beat nine-times World Rally champion Sebastian Loeb by four seconds. Martin Ragginger took third.

 **Porsche International Scholarship**
Earl Bamber secured the €200,000 Supercup prize after the evaluation day at Oschersleben.

Porsche lifestyle

Total 911 brings you the best fusions of classic and modern fashion with a selection of goods from revered brands

Paul Smith umbrella £99

Like it or not, winter is here. While your 911 may be wrapped up in the garage, ensure that you can still venture into the great outdoors with this walker umbrella, featuring the classic stripes.

www.john-anthony.com



Silverstone jacket £264

Originally made famous by José Froilán González, winner of the 1951 and '54 British Grand Prix at Silverstone, this classic-fitting jacket is made of a fluid-repellent cotton mix. Featuring a jacquard lining, the jacket also includes a double zip, allowing for a more comfortable driving experience.

www.suixtil.co.uk

Touring bag £60

Thinking of a weekend road trip? Look no further than this cotton canvas bag. Large enough to hold a complete change of clothes and bold enough not to be left in a hotel room, this bag will make the ideal travel companion.

www.suixtil.co.uk



Swims loafers £115

Featuring a rolled rubber heel, these loafers are ideal driving shoes. The classic tassel design is revitalised with a breathable mesh toe area, while the suede body adds a touch of class.

www.john-anthony.com



Vivienne Westwood wallet £78

Vivienne Westwood may be better known for her more extravagant designs, but this leather wallet, featuring her iconic orb logo and internal money clip, proves that understatement is often the best type of statement.

www.john-anthony.com

Views

Your letters, emails and tweets

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editorial@total911.com



@total911

Here's the best of your tweets to @Total911 this month:

911 looking very different with this gloss blue wrap @Total911 @Warp_concepts



Win a RaceRoom DC2 wireless controller



KW Automotive's gaming subsidiary, RaceRoom, has announced its new controller range for PS3 and PC gamers. Both the DC1 and DC2 feature a mini steering wheel instead of the dual analogue sticks, improving the driving experience without incurring the cost of a full-blown steering wheel setup.

As well as the innovative control system, the controller features the usual host of buttons based around the iconic PlayStation design. To complete the driving experience, both the DC1 and DC2 have built-in force-feedback to provide vibration as you hit every virtual apex curb.

Costing £24.95, the DC1 connects via a wired USB lead and is compatible with PC only. The wireless DC2 (costing £34.95) uses a 2.4GHz USB dongle to connect to both PC and PS3 platforms.

RaceRoom also manufacture a host of other peripherals, including full bucket seat gaming rigs. To find out more, visit the website www.raceroom.com/shop_int.

As part of the RaceRoom controller's release, **Total 911** is giving one lucky reader the opportunity to win a new RaceRoom DC2 wireless controller. To be in with a chance of winning, just answer the following question:

How does the RaceRoom DC2 connect to your games console?

Send your answer with your name and address to competitions@total911.com with 'RaceRoom' in the subject line before the closing date of 9 January 2014.

Letter of the month

Write or email in with your Porsche opinions, and the author of the letter of the month will receive a complimentary copy of the special **Porsche 911 50th Anniversary Collection** bookazine!



The merits of driving on track

Dear Sir,
I read with interest the letter by Mark Lewis about the Metropolitan Police Driving School. Due to having two brothers in law enforcement, I had the opportunity to take the Highway Patrol Certification Course for officers. However, after buying a 997 and driving it daily for about two months, a friend recently invited me to a Driver's Education event at Miller Motorsports Track.

I thought I was a pretty good driver, having driven modified vehicles for most of my life. I was truly amazed at the level of performance the Porsche showed me at the track. It is the first

vehicle that had more performance than I had ability.

Having the track experience made me a better all-round driver. I believe that having had both experiences would be beneficial to anyone wanting to safely drive on the road. I find that my experience on the track allows me to perform more smoothly than before, and knowing the limits of your car can only be found on a circuit. I now know how fast I can manoeuvre, brake, turn or corner without worrying about leaving the road.

If you have never had track experience, I strongly recommend the adventure. I would suggest having

a professional instructor drive with you on the track, though, as it takes someone with technical skill to show you the capabilities of whatever car you drive. I had a professional (he races Porsches) actually drive my car. We drove for 25 minutes, with each lap progressively faster and smoother. I will never forget the experience.

Sincerely,

Kim Wardle, via email

The track is the ideal place to take a Porsche 911 (or any car for that matter) to its limits. It's good to hear that you felt the experience has made you more confident in handling your 997.



Stars of the special stage

Dear Sir,
I've really loved reading the 'Race Icons' features over the last six issues. The 935s are part of Porsche legend, and the 911 GT1 Evo was a really interesting find.

However, having read the 'Five Decades of Competition' feature in issue 107, I can't help but feel the 911's rallying heritage has been neglected. After all, one of the car's earliest competition successes came in the Monte Carlo Rally.

I, for one, would love to see more features about famous 911 rally cars. The stars of the special stage deserve their moment in the limelight too.

Best regards,

Peter Wardropper, via email

Fear not! Next issue, we have a 1984 911 SC RS in an incredibly iconic livery. We're sure this will suitably please the rally fanatics among our readers.

@Total911 \$3,295 for a bunch of 964 trinkets and not one dollar spent on good taste. You've got to admire the optimism though!
@manj964

Just been reading issue 106 of @Total911 the 1973 911 RS and 993 RS are maybe some of mans best engineering feats.
@harrymaisey



911-50 at the museum.
@drummol3



911 2.7 Carrera

Dear Sir,
I have just purchased issue 104 off the shelf in Australia. Great magazine. Good articles, well written on fantastic subjects.

However, I would like to make a correction to the 'next icon' 2.7 Carrera feature. Sorry to be a Porsche geek, but the rear spoiler on the model in the article was an option, not standard (although it was often fitted on the showroom floor). The chrome window flashing was all that was available on this model. Blacking only came as an extra in 1978.

Also, the article was mostly

about the engine, yet there weren't any photos of the motor. There were two fan and two air cleaner configurations on this engine, and it would have been good to see which it was. I own one of this series, a 2.7 lightweight, and was desperate to see a photo of the motor.

Lex Caldwell, via email

Thanks for the note on period factory extras. We always endeavour to publish the correct facts, but sometimes we miss something that the owners of these specific cars know about. Your input is appreciated.



The best way in

Dear Sir,
I was really encouraged to read the 'Performance Icons' feature in issue 107. Like many car enthusiasts, I hope to own a 911 in the not-too-distant future. So, seeing a collection of Stuttgart's finest that make your money work proved very helpful in earmarking a potential model.

I was especially taken with the Gen1 997 Carrera 2S. For the money, they truly represent a great way of getting a car that looks modern both on the inside and out, without paying the premium of a new 991.

It was definite food for thought, and I look forward to more brilliant articles in a similar vein.

Keep up the good work,

Tim Jones, via email

It's certainly true that 911 ownership is more accessible than people imagine. The 997 Carrera 2S is a great choice for fans of the newer cars.

The case for the SC

Dear Sir,
The 'Performance Icons' feature in the last issue certainly had a host of interesting choices, many of which I would agree with. The one car that I thought was missing was the 911 SC, especially considering the 3.2-litre Carrera was included on the list.

The SC market is more favourable to buyers at the moment, with cars costing (on the whole) less than their 3.2 replacement. While this isn't a criticism, I was just wondering if it was a car you had considered.

Best wishes,

Daniel Miller, via email

Putting such a feature together entailed endless hours of debate, and there were



many good candidates that missed the cut. The SC missed out because finding a good example is tough, especially given the volumes in which the 3.2-litre

Carrera was produced. As it was 'Performance' icons, we also favoured the 3.2's extra potency. However, an SC is coming to Total 911 very, very soon.

Total 911

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Total 911 is granted exclusive access to four of the rarest air-cooled, turbocharged 'S' models to ever leave Zuffenhausen

ULTRA RARE TURBOS

Written by **Andrew Krok** Photography by **Jeremy Cliff**

Despite the body evolutions on the 997, both RSs retain that timeless 911 side profile



One of only 28 turbocharged Flachbau Cabriolets in existence, the value of this rare 930 is enhanced by the specially ordered interior and paint-to-sample exterior hue

Across its entire range, Porsche reserves its 'S' badge for only the cream of the crop: the range-toppers that offer a premium in performance and an added edge over a standard model. Whether in Carrera form or under the more glamorous Turbo moniker, the S should rightfully stand for 'special', as these cars truly represent the pinnacle of the line-up's capabilities.

For the span of this piece, however, the 'S' can also stand for Sloan Cars. These buyers and sellers of rare, low-mileage 911s have managed to amass a four-strong gathering of the most incredibly rare and sought-after metal to ever leave Zuffenhausen. Never before have this many cars of this high a calibre come together under the same roof.

While the 'S' badge didn't reach the naturally aspirated Carrera until the 993, the single-letter denomination had been making waves in forced-induction 911s since the 3.3-litre 964 Turbo S was announced in 1992. In its first and only year of production, the first-ever Turbo S featured a lightweight interior with fewer 'creature comforts,' as well as a 56-horsepower bump over the standard 320hp Turbo. It was low, tight and focused on performance.

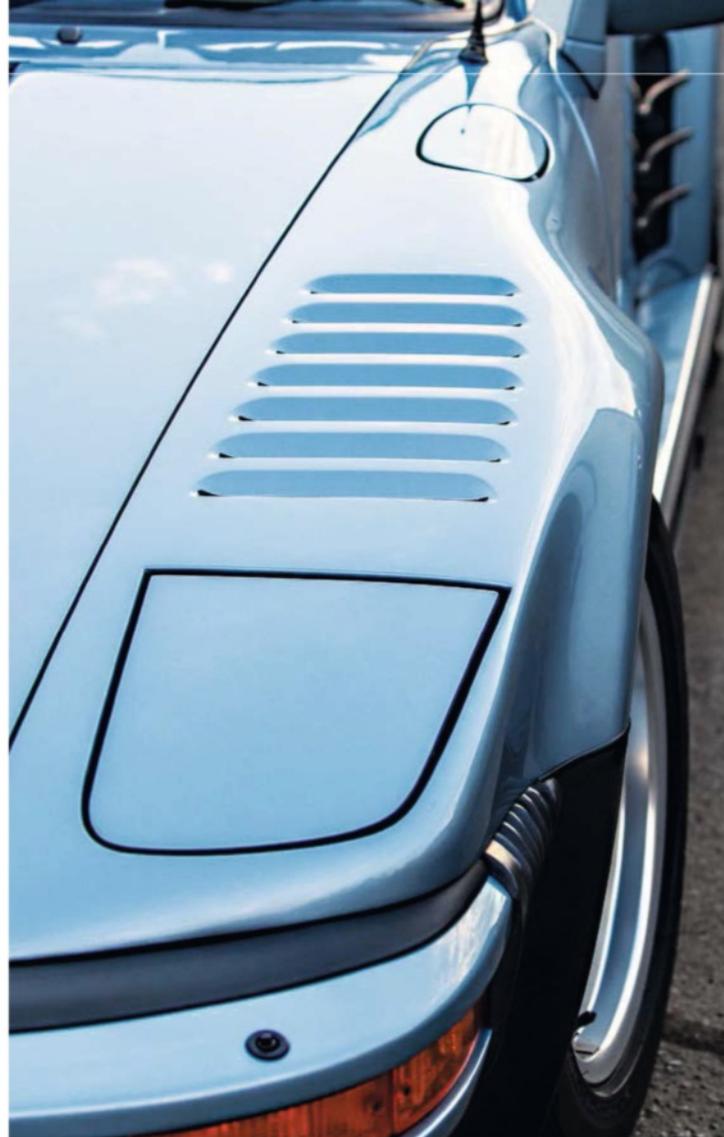
If you ask Brett Sloan, though, he has a different idea about the beginnings of the Turbo S. "Porsche really started laying the groundwork for the Turbo S with the 930S," he said. The 930S – known as the 930 SE in Europe – was the first turbocharged 911 to be offered with a small-batch upgrade. Although the M505/M506 Flachbau (flatnose) option was purely

cosmetic, it commanded a serious price; the option cost nearly \$24,000 (£15,000) in the late Eighties.

When the 930 SE was sold in the UK, it often came equipped with the 330-horsepower performance option, which was built to order. In that sense, it's a worthy beginning for the 'S' model. Another qualifier is its rarity; the 930S that Sloan possesses is one of only 28 turbocharged Flachbau Cabriolets in existence, and it's believed that there are only 18 or so remaining in any condition. This specific 930S is a 1989 model, which ups the rarity factor even more by way of an included G50 five-speed transmission, only available for the 930's very last year of production.

Thanks to stricter emissions standards, the United States did not see the power-adding performance option for the 930S, so the power





Specification

930S (1989)

Engine

Capacity: 3,299cc
Compression ratio: 7.0:1
Maximum power: 330bhp @ 5,500rpm
Maximum torque: 432Nm @ 4,000rpm
Transmission: G50/50 (950) five-speed manual

Suspension

Front: MacPherson struts with telescopic dampers; torsion bar springs
Rear: Trailing wishbones with telescopic dampers and transverse torsion bar; front and rear antiroll bars

Wheels & tyres

Front: 8x16-inch Fuchs alloys, 225/50/VR16 tyres
Rear: 9x16-inch Fuchs alloys, 245/45/VR16 tyres

Dimensions

Length: 4,491mm
Width: 1,775mm
Weight: 1,335kg

Performance

0-60mph: 4.6 secs
Top speed: 173mph



The 930S was classified as a 930 SE in Europe, where examples came with Porsche's 30hp performance option, unavailable in the USA



“My father likes to tell people that the car is original down to the air in the tyres”



Specification

964 Turbo S (1994)

Engine
Capacity: 3,299cc
Compression ratio: 7.0:1
Maximum power: 381hp @ 6,000rpm
Maximum torque: 490Nm @ 4,800rpm
Modifications: Factory X88 power package

Transmission: G50/52 five-speed
Suspension
Front: Lower wishbones and MacPherson struts with combined coil springs and dampers; antiroll bar
Rear: Semi-trailing arms with combined coil springs and dampers; antiroll bar

Wheels & tyres
Front: 8x18-inch alloys, 235/40/ZR18
Rear: 10x18-inch alloys, 265/35/ZR18

Dimensions
Length: 4,250mm
Width: 1,775mm
Weight: 1,290kg

Performance
0-60mph: 4.6 secs
Top speed: 180mph



While this is essentially a 964 Turbo S without the X85, there are still plenty of features that set it apart from the other Turbo models





The distinguishing front fascia feature was included on all but 17 of the 380bhp Turbo models

rating for the flatnose in our pictures remains at 282bhp, still incredibly impressive for the period.

It's a four-owner car, and has been through Sloan twice now. It was originally purchased in Florida, and then spent some time in New York before being shipped across the country to Montana.

Sloan purchased it from the owner, and then sold it to a collector in New Orleans, who recently sold it back to Sloan. Both the interior and exterior are special-order – the interior features sport seats in a linen-grey colour, while the exterior is an unnamed paint-to-sample colour that is close to (but not the same as) Mercedes-Benz's Diamond blue Metallic.

While there might be some debate as to whether or not the 930S started the trend of low-quantity, high-performance Turbo S models, there's no

argument about the 964 Turbo S. It started in 1992 with the 3.3-litre engine from the 930, albeit with revisions that resulted in less turbo lag and more power. The 3.3-litre Turbo S lasted for one year of production, and approximately 86 copies were made.

When the standard Turbo came back in 1993, its heart was replaced with the 3.6-litre M64 engine, which produced 360bhp. Once 964 production was coming to an end, Porsche took the remaining Turbo chassis and built the first-ever Turbo S, a name that would continue to this very day with the water-cooled Type 991 variants. All but 17 of the 380bhp Turbo S models included the Flachbau front fascia. Despite the desirability of the flatnose, the Flachbau cars would end up

playing second-fiddle to the 17 others, now referred to as the 'Package' cars.

In essence, the Package car is just a 964 Turbo S without the X85 (Flachbau) package. While it still possessed the standard 964 front end, there were plenty of differences to set it apart from other Turbo models – specifically the X88 hand-built 380bhp engine, X92 Exclusive front spoilers, X93 Exclusive rear spoiler and X99 air inlets in both rear quarter panels. The interior is unchanged from the 964 Turbo, unless the owner opted for a few special touches.

The Package car at Sloan is literally one of a kind; it's the only one painted Guards red, and a single-owner vehicle, with 9,163 miles on the odometer. "We originally contacted the owner in 2006," Brett





As quick as it was striking, the 993 Turbo S was the fastest air-cooled Porsche ever built

recalled. “At the time [the price] seemed high, but since then it’s started to trend among buyers and collectors.” After six years of talking and keeping every party interested in a transaction, Sloan sent a representative down to Maryland and bought the car soon after.

The Package car is original through and through. “It’s even on the original tyres, that’s how well-preserved it is,” Sloan said with a laugh. “My father likes to tell people that the car is original down to the air in the tyres.” Sloan is also in possession of the original window sticker and invoice, and interest in the car has been very high since it arrived at Sloan’s headquarters in Connecticut.

With the introduction of the 993, so came three very important milestones: it was to be the final

generation of air-cooled 911s, as well as the first generation to adopt a twin-turbocharger format in place of a single item, and it was also the first 911 Turbo to accompany the all-wheel-drive setup as standard. The base 3.6-litre Turbo put out a hair over 400bhp, and featured widened rear-wheel arches, a fixed rear wing and redesigned bumpers, along with weight-reducing hollow-spoked wheels.

The 993 Turbo S arrived in 1997, the penultimate year of 993 production. While Europe received the full 450bhp power upgrade, the US was stuck with a 424bhp flat six, again due to emissions regulations. Nevertheless, the 993 Turbo S was the fastest air-cooled Porsche ever built, reaching 60mph in a blistering 3.7 seconds.

As with the 964 Turbo S, the 993 Turbo S featured a number of exterior aesthetic upgrades, including rear-quarter air inlets, air inlets near the foglights and a different front lip-style spoiler. Despite the same brake material as the standard Turbo, the calipers for all Turbo S models were painted yellow. All in all, only 182 of these cars were produced in 1997, making it another incredibly rare model that will command some serious attention from Porschephiles the world over.

In contrast with the purpose-built, spartan interior of the 964 Turbo S, the 993 Turbo S included carbon fibre decorations in the interior for aesthetic value. Carbon fibre covers the dashboard face, upper dashboard, door cards and handles, and a number of other pieces are wrapped in leather, ➔





Specification

993 Turbo S (1998)

Engine

Capacity: 3,600cc
Compression ratio: 8.0:1
Maximum power: 450hp @ 5,750rpm
Maximum torque: 585Nm @ 4,500rpm
Transmission: G50/52 six-speed manual

Suspension

Front: Lower wishbones and MacPherson struts with combined coil springs and dampers; antiroll bar
Rear: Multilink with parallel wishbones, combined coil springs and dampers; antiroll bar

Wheels & tyres

Front: 8x18-inch alloys, 225/40/ZR18
Rear: 10x18-inch alloys, 285/30/ZR18

Dimensions

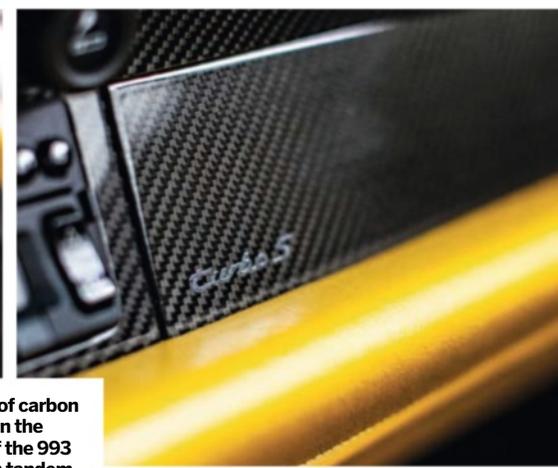
Length: 4,245mm
Width: 1,795mm
Weight: 1,583kg

Performance

0-60mph: 4.1 secs
Top speed: 186mph



Lashings of carbon fibre adorn the interior of the 993 Turbo S in tandem with copious amounts of leather, a clear marker of the model's class





The 959 was a beneficiary of the US's 'show and display' law, enabling vehicles of historical significance to be registered

including the air-conditioning vents and the small switches on the dashboard.

This specific 993 Turbo S has a low mileage – just over 5,200 – but it more than makes up for this in the amount of special-ordered interior touches. The owner special-ordered the steering wheel, steering wheel column and shift boot in yellow leather, although the wheel has since been changed for a TechArt piece. In addition, yellow seat belts were ordered, and the seats themselves had both yellow deviated stitching and yellow-painted hard backs.

After acquiring the 993 Turbo S, Sloan sold it to a former GT2 RS owner – clearly, the man who knows his red-blooded 911s. Despite its animal magnetism, it has since returned to join the ranks at Sloan Cars once more.

While the all-wheel-drive 911 Turbo has been around since the 993, the all-wheel-drive system itself had to come from somewhere. After all, these drivetrains aren't just invented and implemented overnight. That system was developed based on Porsche's living, breathing science experiment, the 959. The 959 is as close to a 911 as it gets without actually being one.

What some people don't know, however, is that there were officially two variants of the 959: the standard 959 and the extra raucous 959S. Porsche built 329 959s in total, including prototypes, but only 29 of those were given the S moniker.

This time, the S stood for Sport, and it stands in contrast to the standard 959's Komfort designation. It was 220 pounds lighter than the

Komfort model, thanks to the deletion of the adjustable air suspension, a rear-seat deletion, no air conditioning and a new, lighter set of cloth front seats. The 959S also came with a factory-installed, leather-wrapped roll cage and factory racing harnesses (versus the Komfort's traditional seat belts).

It was believed that the Sport models were intended for the US market, but Porsche was unwilling to sacrifice four of them for certification and crash-testing, since the vehicles were hand-built and it would be a waste of a great number of man-hours. This specific 959 is one of a few models to be legally registered in the United States under the 'show and display' law, which allows vehicles of historical significance to become registered and

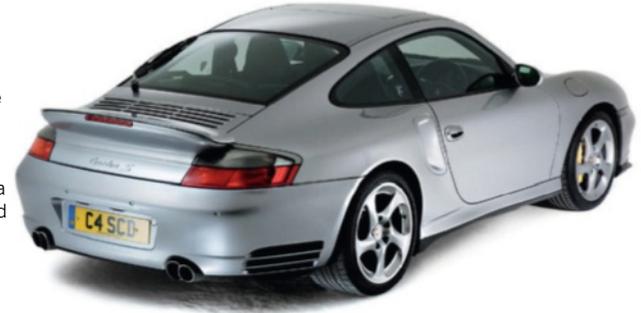


Other Rare Turbos

While Sloan's current collection is unquestionably stout, the 'S' badge has adorned other Turbo models, too. Of these, only one is air-cooled – the Flachbau variant of the 964 Turbo S 'Package Car' (the only difference is the front fascia). The other two models are the later 996 and 997 Turbo S.

The 996 Turbo S, despite the water-cooled engine, remains true to the Turbo S moniker. Its flat six is massaged to 450bhp – up from 420bhp in the standard Turbo – thanks to the X50 option, which introduced larger turbochargers and intercoolers and a revised engine map. The 996 Turbo S also included Porsche Composite Ceramic Brakes (PCCB), which was previously only an optional extra.

The 997 generation did not birth a Turbo S model until after the generational facelift in 2010. Power and torque were leagues above the 996's numbers, with the newest Turbo S putting down 530bhp (a 30bhp bump over the non-S) and a staggering 700Nm of torque. Delivered with a host of optional extras over the Turbo including Sport Chrono Plus, the 997 Turbo S was also a trendsetter, as it was the first Turbo S to come equipped with mandatory PDK. The 997 Turbo S was the first Turbo model to come with motorsport derived centre-locking wheels, while inside, a unique two-tone interior marked this out as a special forced induction model.



Specification

959S

(1988)

Engine

Capacity: 2,884cc

Compression ratio: 8.3:1

Maximum power:

Stage I upgrade to 575hp

Maximum torque:

732Nm

Transmission: 959/50 six-speed gearbox

Suspension

Front: Double wishbone with upgraded gas-struts and titanium coil springs

Rear: Double wishbone with upgraded gas-struts and titanium coil springs

Wheels & tyres

Front: 8x17-inch alloys, 235/40/VR17 tyres

Rear: 8x17-inch alloys, 255/40/VR17 tyres

Dimensions

Length: 4,260mm

Width: 1,840mm

Weight: 1,450kg

Performance

0-60mph: 3.2 secs

Top speed: 200mph+



“There were officially two variants of the 959: the standard 959 and the extra raucous 959S”

drivable on US roads, albeit with severe annual mileage restrictions.

The 959S retains the Komfort's 444bhp flat six, which features air-cooled cylinders with water-cooled heads. This 959S, however, has had the benefit of being run through the hands of a well-renowned Porsche tuner. It now puts out approximately 575bhp thanks to new turbos, an upgraded fuel system, contemporary engine management and more. Moreover, the 959S's wheels have also been modified to accept modern Michelin tyres.

Most people didn't even know that this car existed in the US, except for a select few enthusiasts, the tuner, and the owner. In fact, a street-legal 959S was so unbelievable that after Sloan purchased it, they had trouble convincing people it was real. "Until I got the Certificate of Authenticity from Porsche, it was tough to convince anybody," Sloan recalled, smiling. "One acquaintance even tried to convince me that I'd purchased a fake." This car is very real, though, and with less than 6,000 original miles, it's the premier example of a 959S in the US, if not the whole world.

While it's impressive that all this metal (and kevlar and carbon fibre) is all in one place, don't expect it to stay that way. "I had four calls about the 959S the same day I put it up on our website," Brett said, "and one gentleman booked a flight from Germany as soon as I told him it was physically here at our shop." By the time this issue lands on your doorstep, this prestigious collection is unlikely to still be together under the same roof, with each of these ultimate Turbo Ss more than likely spread across several continents. Well, it was good while it lasted! **911**



“Never before
have this many cars
of this
high a calibre
come together
under the same roof”

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—PREMIUM— POWER

The Powerkit has long been offered to those who seek more performance from their flat six. We look at it across three generations of the water-cooled Carrera S

Written by **Lee Sibley** Photography by **Daniel Pullen**



“The Powerkit improved power from the flat six for generations”

The Powerkit: derived in principle for those who desire a pinch of extra factory-honed grunt for their 911, it's an intriguing optional extra best described as something of an enigma in Porschedom. Few get it, and most readily dismiss it. Yet the Powerkit has stubbornly remained on the options list for generations, first offered on the 993, though not particularly exercised by customers until the water-cooled era.

The '40 Jahre' anniversary edition 996 came with the Powerkit as standard, of course, but owners otherwise had to spec the factory-code X51 for their 996 and 997-generation Carrera S when purchasing, while Turbo models were ordered with the slightly different X50 code Powerkit. Today, the X51 option can be ordered for a new 991 Carrera S for £9,388.

And that's exactly where the plot thickens. Many feel that for over £9,000 of additional investment (the 996 Powerkit commanded £6,000 and the 997 near £8,000) the 30hp increase in power isn't impressive enough.

Certainly, at face value at least, the numbers don't add up. £312.50 per extra horsepower seems a steep ask, especially when a plethora of reputable aftermarket tuners will comfortably deliver a greater power hike than the extra seven per cent from the Powerkit for the same money.

However, dig deeper and behind the numbers lies the science that makes for an interesting digestion of information. As ever, it's not about your end speed, but how you get there, and it's here that the Powerkit comes into its own by yielding a more linear delivery of power. The mechanics that achieve this on the 991 include reworked and polished cylinder head inlet ports, an increased stroke from the intake camshaft, a variable resonance intake manifold with six plus one switchable valves (six air flaps and a resonance flap) enabling a switch between power and torque-optimised geometries, and a centre radiator, with the ECU recalibrated accordingly.

Added to this treasure chest of enhanced Porsche engineering, the Powerkit package includes

the Sports Exhaust system with twin dual-oval tailpipes – itself usually a £1,770 option – the £1,084 Sports Chrono package with dynamic engine mounts and a specially painted titanium engine cover with carbon fibre emblem inserts. All of a sudden, then, that £9,000 looks like money well spent when applied to a Carrera S.

There is a caveat here, of course: never have you been able to order the 30hp Powerkit for the base Carrera, as for models such as the Gen1 997, for example, the 30hp gained from the Powerkit would provide equal power to the Carrera S with a better spec for less money. The option therefore is designed to accommodate for those that demand premium, linear power delivery over the factory Carrera S, but who perhaps can't quite stretch to the fiscal requirements of a 911 Turbo.

Porsche's Powerkit is justified on paper at least, then, and goes some way to explaining why it has continued to alleviate extra power from the 911's flat six for generations. However, its legacy can only truly be assessed on the road, which is the very



Specification

996 C4S X51
(2004)**Engine****Capacity:** 3,596cc**Compression ratio:** 11.3:1**Maximum power:**

345bhp @ 6,800rpm

Maximum torque:

370Nm @ 4,800rpm

Transmission:

Six-speed manual

Suspension**Front:** Independent

MacPherson struts; coil springs; antiroll bar

Rear: Multi-link system; coil springs; antiroll bar**Wheels & tyres****Front:** 8x18-inch alloys, 225/40/ZR18 tyres**Rear:** 11x18-inch alloys, 285/30/ZR18 tyres**Dimensions****Length:** 4,445mm**Width:** 1,830mm**Weight:** 1,495kg**Performance****0-60mph:** 4.9 secs**Top speed:** 180mph

Specification

997 Carrera S
(Gen1) X51
(2005)**Engine****Capacity:** 3,824cc**Compression ratio:** 11.8:1**Maximum power:**

381bhp @ 7,200rpm

Maximum torque:

414Nm @ 5,500rpm

Transmission:

Six-speed manual

Suspension**Front:** Independent

MacPherson struts; coil springs; antiroll bar

Rear: Multi-link system; coil springs; antiroll bar**Wheels & tyres****Front:** 8x18-inch alloys, 235/40/ZR18 tyres**Rear:** 10x18-inch alloys, 265/40/ZR18 tyres**Dimensions****Length:** 4,427mm**Width:** 1,808mm**Weight:** 1,495kg**Performance****0-60mph:** 4.4 secs**Top speed:** 186mph

Specification

991 Carrera
4S X51
(2013)**Engine****Capacity:** 3,800cc**Compression ratio:** 12.5:1**Maximum power:**

430hp @ 7,400rpm

Maximum torque:

440Nm @ 5,600rpm

Transmission:

Seven-speed PDK

Suspension**Front:** Independent

MacPherson struts, coil springs, antiroll bar

Rear: Multi-link system; coil springs; coaxial internal dampers**Wheels & tyres****Front:** 8.5x20-inch alloys, 245/35/ZR20 tyres**Rear:** 11x20-inch alloys, 305/30ZR20 tyres**Dimensions****Length:** 4,491mm**Width:** 1,852mm**Weight:** 1,450kg**Performance****0-60mph:** 4.0 secs**Top speed:** 191mph



reason for our gathering of three water-cooled X51 Carrera Ss for a country drive around Kent.

The 996 C4S X51 belongs to Alun Morris, a Porsche enthusiast of some years whose first foray into Porsche ownership was via an air-cooled SC. Alun has owned his X51-powered C4S for two years, and found his solace with what he describes as an “extra snap” in high-end acceleration.

“The 996 C4S is fantastic value for supercar performance,” says Alun as he shows **Total 911** around his car for the first time. “The Powerkit option for me was an essential part of the car, as I’m a keen attendee of trackdays around Europe, which is when I really like to stretch the car. The track is where the Powerkit is most noticeable to me, giving extra pull across a higher rev range.”



As far back as the 996, Porsche relied on a rework to the engine to find extra power. This was done via new intake and exhaust manifolds, with a larger cross-section and optimised flow behaviour, cylinder heads with enhanced inlet ducts, camshafts with a larger inlet valve stroke and a recalibration of the ECU. The result is an increase in power to 345hp from of 320hp at 6,800rpm. An extra radiator kept operating temperatures in check, while more lubrication was assured thanks to an additional oil pump and lines.

For the 997, the recurring theme of reworked cylinder heads with flow-optimised intake and exhaust ports plus an increased inlet size on the intake manifold makes up the thrust of the Powerkit, along with the customary recalibrated

ECU and third radiator. Power gains are up from 355hp for the Gen1 Carrera S to 381hp at 7,200rpm.

Richard Smith, the owner of the C2S X51 in our photos, is well placed to justify the 997 Carrera Powerkit's additional 26bhp: "I've driven a few 997 Carrera 2s and 4s, but the S with Powerkit provides noticeably more torque from around 5,000rpm, which is very handy to have," he says.

As Alun's 996 and Richard's 997 line up with our 991 X51 overlooking Bluebell Hill, visual evolutions of the Powerkit are discussed. While all three generations utilise a front centre radiator as the obvious giveaway to X51 power, there's less on the 996 that denotes a Powerkit, even when lifting the decklid, which reveals a powerplant that at face value looks identical to a 320bhp 3.6-litre 996

Carrera S. In the bay of the 997, an extra air inlet is the obvious addition aside from the bigger, carbon fibre airbox, while similarly the 991's all-engulfing engine cover is replaced with a carbon fibre item.

Alun and Richard agreed that it was time to demonstrate the thrill of the Powerkit with a drive. First, Alun's 996. As we potter along the twisty B-roads, he explains how the extra oil lubrication from the X51 put his mind at ease for owning a 996: "For me, the extra oil lubrication from the Powerkit actually provided some piece of mind regarding the engine's reliability, as the reported 996 cylinder failures almost always involve the overheating and under-lubrication of cylinder number six."

With the oil suitably warmed, Alun was happy to highlight the sensitivity of the throttle above that



The Turbocharged Powerkit

While the X51 Powerkit is commonly referred to as the Carrera Powerkit, Turbo 911s have in the past been offered with an X50 Powerkit, increasing overall power and widening the band of maximum torque. This is achieved via larger turbochargers, better intercoolers, a revised exhaust and a recalibrated ECU. In 996 form, the Turbo S merely came with the previously optional X50 Powerkit.





“Wonderfully sleek, X51 is perfect for the flat-six connoisseur”

of a mainstream C4S. With no Sport button on the 996, the added pull of the Powerkit is accessible in all driving conditions, and the C4S is quick to react to the push of a pedal as the rev needle shoots round the counter while we go through the early gears. Even in third, the sound of the 3.6-litre flat six is messianic at 6,000 revs, noticeably more illuminating than a C4S without X51. It continues to pull hard, as Alun surmises: “To my mind, the car is a higher revving GT3-like car than normal.”

Stepping into the 997, the first evolution to spot is the Sport button and Sports Chrono watch on the dashboard. Although Sport Chrono wasn't available in 996 guise, by the turn of the 997 era a Porsche 911 specced with Sport Chrono Package augmented the Sport button on the dashboard, which found its way onto the 997s that were fitted with the X51 powerkit. Richard believes the 'Sport' button is a great evolution for the 997 Powerkit, too, alluding to its enhancement of not only power, but also everyday drivability: “A 911 with the X51 option immediately appealed to me, as it gave the option of turning the extra power on with a harder suspension and switchable exhaust – ideal for my style of driving at the mere switch of a button. When not in 'Sport', the car utilises a comparatively tame setting, which is ideal for my wife going to the shops, for example.”

With Sport activated, Richard isn't afraid to push on, and the X51 immediately serves up its famed bottom-end torque surge on the 997. With the 911 shooting along the road, the next thing to notice is the pleasurable note supplied by the PSE, which is part of the 997 X51 package. Richard's enjoyment of his X51 is evident to see: “For me it's all down to the ability of the engine to rev very freely when driving hard,” he says. His observation seems accurate: pushing on, the car seems to want to rev and rev.

Climbing into the 991 for the last part of the test drive, the immediate divergence revolves around the PDK transmission. The Powerkit wasn't offered to Tiptronic 911s in the 996 era, and many didn't take the option under the Tiptronic guise of the Gen1 997 either. PDK of the 997 Gen2 and 991 is a vast evolution, though, so Sport is selected (I deem Sport Plus not feasible on public roads) as I eagerly follow the earlier X51s through the countryside.

I've driven many a 991 Carrera 4 and 4S this year, and while the Carrera 4 is noticeably slower to the magical flat six bark at 6,000 revs, there's not a great deal of difference with the additional 30bhp of the Powerkit over the Carrera S in the real world. However, the inevitable surge up the rev range feels more assertive and all-encompassing when driven enthusiastically, owing to the proven more linear

delivery in power. Crucially, the Powerkit still retains the driving character of the everyday 911, simply letting the driver eek out those revs and then rewarding you handsomely in the lofty regions of the tachometer. It's textbook 911, and then some.

There's no denying the Powerkit makes for a rousing experience mechanically, and the overall package provides a sparkling sports car that's proven to resale at a premium over an equivalent Carrera S. The Powerkit is to be applauded as a sleek piece of engineering, perfect for the flat-six connoisseur who demands that little extra from their day-to-day 911. Yet few will spec the X51 Powerkit for their 911, and most will still readily dismiss it. And in our view, that's all part of the magic for an owner of a 911 with Powerkit. **911**

911 '50 years edition' package

When spec'ing up your new 991 Carrera S, Porsche will currently present you with the chance to add a commemorative package to celebrate fifty years of the 911s existence. Interestingly, it's worth noting the '911 50 years edition' package includes the X51 Powerkit, plus Sports Chrono pack, Telephone Module, heated seats, plus ParkAssist front and rear, for around £1,000 less than the X51 option by itself.

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LONDON CALLING

England's capital city has an enviable array of breathtaking sights – with an R Gruppe inspired 911 from Virginia now among them

Written by **John Glynn** Photography by **James Lipman**





The 2.7RS engine loves to rev, making an early Sunday morning run an ideal time to enjoy the merits of the capital

It's 6am on a Sunday morning, and the air of calm outside London's prestigious Dorchester Hotel is banished by the bark of a flat-six Porsche tearing into life. A black Virginia registration plate marks this 911 as a recent arrival on UK soil, and judging by the thrap from the tailpipes I think it quite likes it.

London is built on destiny. Founded as a river crossing and trading post by the Romans around 50 AD, it gained status as the Roman capital in Britain, and was developed into a planned and walled city, housing 60,000 people.

Even near-destruction in battle early on and subsequent abandonment after the collapse of the Roman Empire could not kill Londinium. Following a post-Roman lull lasting more than a century, the Anglo-Saxons breathed new life into London, and the UK's capital city has prospered ever since.

The most famous words describing London come from the famous 18th century English writer, Samuel Johnson: "You find no man, at all

intellectual, who is willing to leave London... When a man is tired of London, he is tired of life, for there is in London all that life can afford."

Walk along any street in the capital, and the chances are you are walking in Johnson's footsteps. The great writer lived and worked all over this metropolis, as did thousands more notable names from history. The sense of accumulated greatness they endowed upon the city is what makes London so unique and remarkable.

Only one thing lifts my spirits after more than a morning spent in London, and that's driving a great 911. It doesn't take long to decide that this fits that bill. After ten minutes rumbling through Mayfair, delighting in this zingy 911 on empty Sunday streets, we arrive in St James' Square. Time to stop for some photos and a chat with the 911's owner, Chris Cooke.

"My dad was a vehicle engineer and car designer," says Chris. "We lived in Bedfordshire, close to Vauxhall Special Projects, where Dad

created cars like the famous Droop Snoot Firenza. Our driveway always had something special: Dad's daily driver was a road-going Group B Manta 400.

"I started working in London while still in my teens. One job led to another, and eventually I was working as a carpenter in classified military buildings, fitting blast-proof windows and anti-terrorist measures. Spending hours in buildings run exactly like naval vessels and hearing epic tales of ocean life gave me a wanderlust for the sea. I then abandoned the mainland and moved to the Isle of Wight to study for the Yachtmaster qualification."

Yachtmaster is the Royal Yachting Association's certificate of competency to captain a sea-going sailing or motor yacht. There are three levels of ability, the most advanced of which is the Yachtmaster Ocean Certificate. A skipper must work their way up to this grade, eventually planning and completing an ocean voyage of no less than 96 hours and covering a distance of at least 600 miles. ➡





Specification

Porsche 911T (1973)

Engine

Capacity: lightened and balanced 2.7-litre; 36mm RS throttle bodies; RS fuel pump

Compression ratio: 9.5:1

Maximum power:

210bhp (estimate)

Maximum torque:

190lb ft @ 5,100rpm (est)

Transmission:

917 with Quaife LSD

and Wevo shifter;

Clubsport mounts

Suspension

Front: 21mm torsion

bars; 20mm ARB; Bilstein

HD dampers; 911 Alloy

Strut Brace

Rear: 27mm torsion

bars; 18mm ARB; Bilstein

HD dampers

Wheels & tyres

Front: Forged Fuchs

6x15-inch 911R wheels; BF

Goodrich 205/60/R15 tyres

Rear: Forged Fuchs

6x15-inch 911R wheels; BF

Goodrich 205/60/R15 tyres

Brakes

Front: 911 SC brake disc and

caliper; road pads; Cool Kit

Rear: 911 SC brake disc and

caliper; road pads

Dimensions

Length: 4,163mm

Width: 1,610mm

Weight: 980kg

Performance

0-62mph: 5.8 secs

Top speed: 145mph



The myriad sights of our capital are best observed in style, and this 1973 911T certainly provides the means with which to do that





This classy 911T enjoyed a generous options package from the factory, which was then substantially overhauled by an R Gruppe enthusiast in Virginia before its London arrival



"It's a bit more than learning to sail on the local reservoir," grins Chris, who is potentially the coolest guy in London this morning. "All my Bedfordshire friends took the mickey while I was studying, but when I qualified and got a job skipping a 50-metre super yacht on the French Riviera, the conversation changed."

I delight in Cooke's life path, and wonder how many others have stood here on the steps of Chatham House, discussing their travels. The blue plaque fixed above us notes that three Prime Ministers (William Pitt, Edward Stanley and William Gladstone) lived at this address, and the building has been home to the Royal Institute for International Affairs since the Twenties.

"You know, Chopin died around the corner," says a passing smart-dressed man. He is Wally Fields, eponymous Jazz Orchestra band leader and George Gershwin aficionado, in town for a gig at The Plaza. The likeable Liverpoolian asks what we're doing, and joins in the conversation. Our thoughts are in tune: lengthy discourse on whether the accumulated creative energy of a city can survive across time ends in agreement that the great ghosts

of London fuel its future potential. Nowhere else would such a revelation occur before 9am without alcohol involved. I love this city.

Delighted to have met a kindred spirit, it was time to drive. The flat six thrills willingly into life, ready for Mayfair, the West End and more. Teasing Eros with our orangeness through Piccadilly Circus, the Porsche revs excitedly as we sprint down Haymarket and into Trafalgar Square.

This miracle engine gives the package its sass. Built by Jeff Gamroth of Rothsport in Tualatin, Oregon, it's an energetic 2.7-litre RS that just loves to rev. Jeff's detailed build sheet for the engine reads like classic literature: proper 1974 7R crankcases formed the basis of the motor – these were expertly cleaned before being line bored by ten thousandths of an inch. The assembly was fitted with case savers and the block decked to provide a uniform platform.

Much skilled machine work went into this engine: reconditioning the rods, installing new phosphorus bronze valve guides, boring the throttle bodies to 36mm, a full engine balance with upgraded SC engine oil pump and converting the MFI system and fuel pump to RS spec. "Does it feel

like an RS?" asks Chris as we swing out of Trafalgar Square and down towards Whitehall, the epicentre of British politics for almost ten centuries.

I consider the question while enjoying the view. Most Londoners are still asleep, but there are plenty of tourists around, and ample policemen to guard them. They watch over us too, with our US plates and noisy exhaust. Tolerance endures in this great melting pot, and we continue our fun, running up and down Whitehall again.

Does it feel like an RS? Chris means does the power and balance feel similar, but it's somewhat early to say. This revs like one, but is smoother than other RS-specs. Of all the Rothsport cars I've experienced, this is the best yet, underlining the firm's reputation in the US air-cooled community. Unmistakable expertise has gone into this build, and that isn't common nowadays.

The history file for this car is enormous. The Porsche Certificate of Authenticity tells how it started as a simple 1973 911T with US equipment, painted in the same 2323 Tangerine with black Leatherette trim. The paint in the door shuts is said to be original, and I can believe it. 🔄

Options on the T included US emissions equipment, Koni dampers replacing Boge, S trim package, wheel well mouldings, tinted glass, front and rear antiroll bars, a Comfort kit, light alloy wheels and Pirelli tyres. It's quite a sporting spec for the Blood orange screamer, but nothing like as sporty as it is now.

The enormous history file comes from past owner Tom Wilkinson in Oregon. The binder is packed with receipts, mostly from Marque Motors in Oregon, Rothsport and US Porsche parts suppliers dating back to the Nineties.

"I had to prove my credentials to buy this 911," says Chris. "The chap I got it from had a serious car collection, and was very particular about who this one went to. We exchanged a few emails, and he sent pictures with some other cars in the background. Next to a BMW E30 M3 road car was an E30 M3 touring car, sporting a works M6 paint scheme. I'd spent long weekends in the Vauxhall touring car pits with my dad, so I said how unusual that was on the M3. It was enough to prove I knew my stuff, and we agreed a deal.

"Once the car had arrived in the UK, I registered it and took it to France for a long summer holiday.

3,000 miles in the old 911 through France wasn't a huge hit with my girlfriend, who prefers my daily 997 with all the mod cons. 'Why aren't we in the newer one?' was often heard from the passenger seat but, once she settled in, it went fine. We'd leave campsites about 5am – the 911 loved the cool air at that time of day – cover some miles and settle into a new space. A few weeks of that was just perfect."

Regarding the ride, I certainly agree with this assessment. Standard bushes give just enough bounce, with 21mm front and 27mm rear torsion bars paired with Bilstein HD dampers holding the factory 911R wheels in check. The original roll bars continue to do great work, and support from these snug sports seats is all a man could ask for. Blasting down Whitehall, we turn into Westminster Square, then left towards the river. Embankment leads to the square-mile financial heart, where London first started and where fortunes are decided every working day. Deserted on a Sunday, it's the perfect place to open the windows, squeeze on the throttle and enjoy Aria Number 911, performed by the Porsche Symphony Orchestra.

Again, the thought strikes me: you don't build a 911 like this by accident; people with intimate

knowledge of the Porsche 911 took their time here. Cooke is aware that he struck gold on his very first purchase. "There's nothing I'd change about this 911," says Chris, who's been considering the question of what to do next. "From the RS steering wheel to the WEVO shifter to the 10k tachometer and that original colour, I can't think of one way to improve it."

Kudos to Cooke for his not-to-touch ethos, but reluctance to play with perfection could mean the car finds a new home. The classic British bike enthusiast and Ducati owner comes from a long line of fettlers who like waving spanners: having a vehicle with no need of tools is unfamiliar territory.

"I bought a classic R Gruppe Porsche with perfect everything and bypassed the build process: choosing and hunting for parts, and fitting them to the car myself. I'd like to try building my own Porsche next: maybe a backdate on a wide-body, air-cooled model.

We end our London tour parked around the corner from Samuel Johnson's house in Gough Square, where he wrote his famous dictionary. Under 'enthraling', it reads: 'Blood Orange Flat Six, London 2013'. Or it will do, once I find my quill. **911**

“Perfect is how
I’d describe the
ride”





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996 GT2



The rear bumper was lifted from the Turbo, but the dual rear spoiler was unique, with the top section being adjustable through five degrees



18-inch Turbo-style alloys hid expensive PCCB brakes. GT2s from '04 got lighter ten-spoke wheels

“
SOME
COMMENTATORS
RECKONED IT WAS
ONE OF PORSCHE'S
FINEST DRIVER'S CARS

”



Ferocious turbocharged power fed exclusively to the rear wheels makes for an explosive 911 experience, epitomised in the modern day by Porsche's peerless GT2

Written by **Chris Randall** Photography by **Phil Steinhardt**



Specification

996 GT2

(2003)

Engine

Capacity:

3,600cc air-cooled flat six

Compression ratio: 9.4:1

Maximum power:

462bhp @ 5,700rpm

Maximum torque:

620Nm @ 3,500-4,500rpm

Transmission:

Six-speed manual, rear-wheel drive

Suspension

Front: MacPherson strut; coil springs; adjustable antiroll bar

Rear: Multi-link with telescopic dampers; coil springs; adjustable antiroll bar

Wheels & tyres

Front: 8.5x18-inch alloys;

235/40/ZR18 tyres

Rear: 12x18-inch alloys;

315/30/ZR18 tyres

Dimensions

Length: 4,435mm

Width: 1,830mm

Weight: 1,440kg

Performance

0-60mph: 4.1 secs

Top speed: 195mph

The term 'Widowmaker' is not the most auspicious of monikers – or one that conjures up especially pleasant images – when it's applied to a range-topper that cost north of £110,000 on its launch in 2001. A number of factors contributed to the reputation of the GT2, not least of which was a mighty power output, lack of electronic driver aids and a peaky power delivery. It divided opinion too, some commentators reckoning it was one of Porsche's finest driver's cars, while others felt it was a model that should have remained on the drawing board, but we're not here to judge. Instead, let's look at the facts behind the myth, and that starts with the twin-turbocharged flat-six engine.

The 3.6-litre motor was lifted from the 996 Turbo – itself no slouch – but with some key changes, chief among them larger turbochargers, with the KKK17 items swapped for bigger KKK24 blowers and boost pressure increased to 13.5psi. On a 9.4:1 compression, that meant a power output of 462bhp and a top speed close to 200mph. Fuelling and

ignition was controlled by a Bosch Motronic 7.8 system incorporating cylinder knock control, and there were twin catalytic converters. The engine itself came in for some fettling, and along with a light alloy crankcase and pistons there were forged connecting rods, Nikasil-lined bores and dual valve springs with hydraulic tappets. Porsche's VarioRam variable valve timing system was carried over from the regular 996, while the bottom end of the engine utilised the same dry-sump arrangement as the GT3 – itself derived from that found on the GT1 race car – but used a dual pick-up to ward off oil starvation. 2004 saw a round of revisions that included tweaks to the turbos and Motronic mapping among other changes, boosting power to a heady 483bhp and the price to a wallet-wilting £126,000.

All that power was channelled to the rear wheels – no molly-coddling four-wheel drive here – via a six-speed manual gearbox. Although similar to the 993 GT2's unit, there were a number of changes for the new application, including a 20 per cent shorter shift action that was operated by cables

rather than rods for smoothness, brass instead of steel synchromesh rings for increased strength and an internal oil pump to keep everything lubricated. A heat exchanger for the gearbox oil was another racing-derived addition, while the gears from third to sixth could even be swapped for competition-orientated ratios if circuit use was your thing. A dual-mass flywheel and standard limited-slip differential completed the transmission package, while any form of electronic stability control was notable only by its absence.

The rest of the running gear was a mouth-watering confection, starting with the brakes. The very earliest cars were fitted with conventional steel discs, but most GT2s were equipped with the PCCB carbon-ceramic setup. The cross-drilled and ventilated rotors were expensive to replace, and there were wear issues in the early days, with some being replaced under warranty, but with six-piston calipers up front and four-piston units at the rear, there was no doubting their stopping ability. The GT2 was the first production Porsche

GT2 TIMELINE

1995

Porsche introduces the first GT2 with the 993. 430bhp and beefy aerodynamic addenda distinguish it from lesser 911s.

2001

The 996 GT2, with rear-wheel drive and no traction control, attracts the 'widowmaker' tag.

2004

A revised model goes on sale, boasting 483bhp via tweaks to ECU and turbos. Carbon ceramic brakes are standard.

2007

The 997 GT2 arrives with 530bhp and 680Nm of torque. It is essentially a Turbo with rear-wheel drive.

2010

Porsche go back to basics, losing weight from the bodywork and interior and adding more power to create the 997 GT2 RS.

2013

Spy pictures emerge of the 991 GT2 testing at the Nürburgring. Insiders reckon it could be PDK-only, as per the Turbo and GT3.

SPECIALIST VIEW

"Low-production volume Porsches have always been great long-term investments, and I think we are on the cusp of seeing the 996 GT2 have its day. Many have been driven very hard and have non-Porsche specialist service histories. These cars with patchy histories and that have been poorly maintained can be expensive to prepare. However, a well-setup GT2 with full Porsche specialist service history and lots of big service bills is something to cherish. Personally, I think it's arguably the best-looking 996 generation 911, and they are always on my radar. With only 129 UK cars ever delivered, it's hard to find good ones, so I expect to see values continue to climb. I just hope they don't all go into collections. A twin-turbo, non-traction-controlled 911 with masses of torque and manual transmission is unlikely to be produced again."

Greig Daly, RPM Technik





Exhaust exits were fairly subtle considering the potential of the engine that fed them. Fixed rear wing clearly marks the model out form a Turbo variant



“

A WEIGHT SAVING OF AROUND 50 PER CENT WAS CLAIMED OVER THE EQUIVALENT STEEL BRAKES FOR THE GT2, AND THEY WERE BACKED UP BY FOUR-CHANNEL ABS

”

to use PCCB brakes as standard, and they were marked out by distinctive yellow calipers. A weight saving of around 50 per cent was claimed over the equivalent steel items, and they were backed up by four-channel ABS. Although essentially the same MacPherson strut front/multi-link rear arrangement as standard 996s, the suspension also received substantial changes. Compared to the Turbo it was stiffer as well as 20mm lower, the front struts had different mounting points, and there were rose joints in place of some of the standard bushes. There was also a wide range of adjustability, with camber, track and ride height all changeable to suit a specific preference or circuit, and you could adjust the antiroll bars through five stages at the front and four stages at the rear. Hydraulically assisted steering was carried over from other models, and

wheels were 18 inches in diameter, shod at the rear with impressively broad 315/30 rubber. Gen2 cars came fitted with lighter ten-spoke alloys (also fitted to later versions of the GT3) in place of the previous five-spoke Turbo items.

The GT2 was no less special on the outside. Based on the wider shell of the Turbo and sharing that model's air intakes ahead of the rear wheels and its rear bumper, a unique aerodynamic package marked out the newcomer. Up front, a small grille was located between the lower edge of the bonnet and the bumper, the latter gaining special ducting to direct air to the brakes and a flexible front splitter fashioned from composite. At the rear was a two-part spoiler, the lower section fixed to the engine cover with a large upper element that could be adjusted through a range of five degrees for

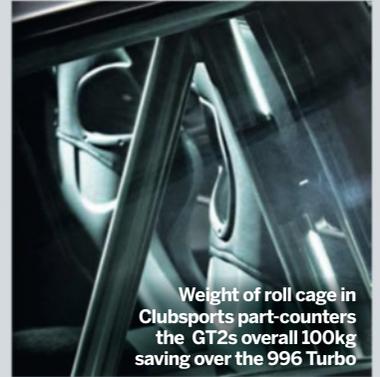


As a derivative of the Turbo models, the 996 GT2 was ergonomically sound, though a plethora of logos reminded the driver that they were in something special. There were plenty of options available, too, if the stripped-bare racer look wasn't for you



WEIGHT SAVING IN THE GT2

Where Porsche did focus plenty of attention with the GT2 was on saving weight. With a well-equipped Turbo model tipping the scales at a slightly portly 1,540kg or so, the company managed to lop around 100kg from that with the GT2. Ditching the four-wheel drive system was one of the main benefits, along with the adoption of carbon-ceramic brakes, but reducing sound insulation and undersealing also played a part. Approximately 20 per cent of the GT2 was formed from lightweight aluminium and magnesium, which helped too, but despite the lack of luxury kit the Clubsport was reckoned to weigh slightly more than the Comfort model once all the safety features had been added.



Weight of roll cage in Clubsports part-counters the GT2s overall 100kg saving over the 996 Turbo



Hip-hugging Recaro seats were standard, covered in flame-retardant cloth or leather depending on your preference. Electric items from the Turbo were optional. Carpet adorned the vacant rear bench in place of the rear seats from Turbo and Carrera models



BUYING TIPS

The 996 GT2 was a specialised model, and a rare one in the UK, so finding one that has been cared for is crucial if big bills and a painful ownership experience are to be avoided.

- **Ownership:** Hard-driven cars or those that have seen action on a circuit should have an impeccable service history for peace of mind. Avoid any that haven't.
- **Bodywork:** Corrosion should not be an issue unless there has been some damage somewhere down the line. The unique parts are costly, so check the condition carefully.
- **Engines:** Engines are considered bomb-proof, but only if looked after properly. Any signs of wear should be treated with extreme caution.
- **Suspension:** A complete overhaul is pricey, and it's possible that inexperienced owners may have fiddled around with the various settings. A specialist check is advisable to ensure everything is straight.
- **Brakes:** The huge cost of replacing the PCCB discs – nigh-on £4,000 per corner – means some owners have reverted to steel items. Either way, you need to be absolutely certain of its condition before taking the plunge.

maximum downforce. Located at the base of the spoiler supports were air ducts to feed air into the engine bay, which was an effective setup, with Porsche claiming an impressive reduction in lift and a Cd of 0.34. Interestingly, the company also boasted that the bodywork of the GT2 was more than 80 per cent recyclable, which might be useful if you'd just stuffed yours into the Armco at the Nordschleife. And despite its reputation, the GT2 was packed with the latest safety technology just in case the worst happened, with careful design at the front ensuring maximum energy absorption in an impact, Boron steel reinforcing bars in the doors and the 'Porsche Side Impact Protection' system consisting of side airbags and energy-absorbing door panels. Front airbags for the driver and passenger were standard, while the seat belts came with the now common pre-tensioning feature.

Owners could also choose to have their GT2 in one of two distinct flavours: Comfort or Clubsport. The latter was the one to have if you had any pretensions to track action, coming as it did with a tasty spec that included figure-hugging Recaro buckets covered in a flame-retardant material, a bolted-in rear roll cage (the front half was available separately), fire extinguisher and battery cut-off switch. You could also ditch the standard seat belts and replace them with a six-point harness. Those after something a bit less track-focused – though this is relative when you're talking about the GT2 – are likely to have found the Comfort option more to their liking. You could have the same Recaro seats trimmed in leather instead, while the electrically adjustable items from the Turbo model were no-cost options. Items such as electric windows and central locking were standard, although a CD player and air-conditioning remained on the options list.

Missing from both variants were rear seats and a spare wheel, the latter replaced by a foam/compressor repair kit. But while the GT2 was aimed at the racing driver in us, Porsche wasn't going to miss the opportunity to offer a vast range of personalisation options. The PCM system offered satellite navigation and better audio, there were various levels of phone preparation on offer, and you could choose from a wide variety of interior trims. If you wanted to cover the cabin of your car with leather, aluminium or carbon, or decorate it with GT2 logos then Porsche could oblige. Even the seat belts could be coloured to suit your tastes, with Guards red, Speed yellow and Maritime blue offered as no-cost options. Thankfully perhaps, exterior choices were limited to a range of tasteful colours and the option to clad the mirrors, rear spoiler and air ducts in carbon.

All this talk of equipment lists and optional extras is diverting us away from the fundamental

“
THE PURPOSE WAS
TO OFFER BUYERS
A CAR THAT SAT AT
THE TOP OF THE 911
TREE WHEN IT CAME
TO PERFORMANCE,
DYNAMICS AND DRAMA
”



OWNING A 996 GT2

- **Price:** £116,000 in 2001
- **Total numbers sold:** 129
- **Service intervals:** 1 year/12,000 miles
- **Service costs minor:** £375
- **Service costs major:** £750
(Figures here are courtesy of Porsche Centre Reading)

Thanks

Thanks to Hendon Way Motors for the use of their 996 GT2, which is currently for sale. Details of the car and all other stock can be found by visiting www.racecar.co.uk/hwmnet or calling 020 8202 8011.

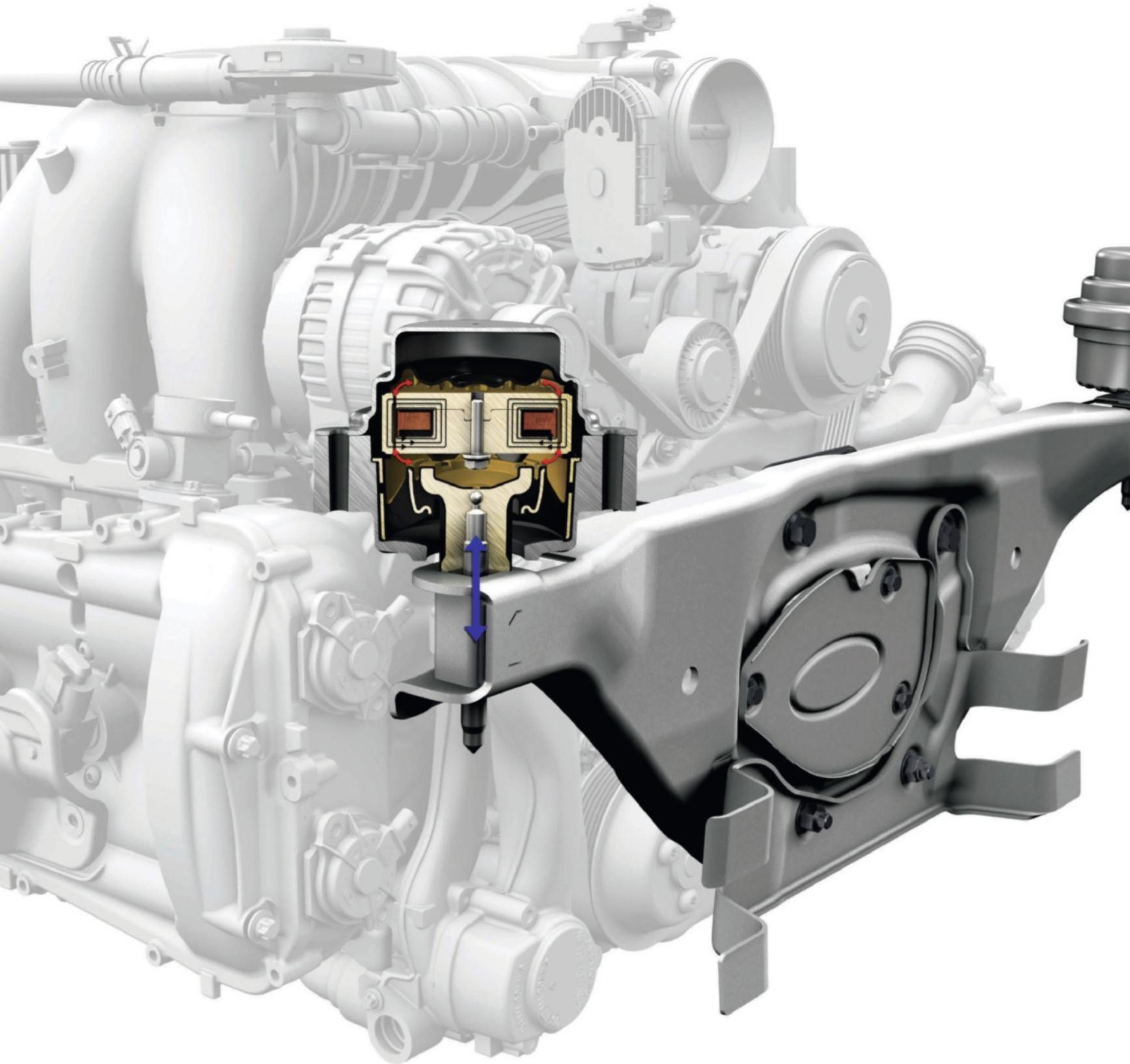
purpose of the GT2, though; namely to offer buyers the most powerful 911 yet at the time, a car that sat at the very top of the 911 tree when it came to performance, dynamics and, dare we say it, drama. They most definitely succeeded. Porsche might not like the reputation the car developed – and they certainly wouldn't thank you for mentioning that 'widowmaker' word – but they delivered a car that will live long in the minds and imagination of the 911 enthusiast. Those once-impressive power outputs and performance figures may have been eclipsed by subsequent generations, but the GT2 was special. Very special. **911**

"I'VE GOT ONE"

"I've known this car for a while now, having sold it on two previous occasions over the last eight years. The 911 GT2 is a rewarding car, though not for the faint-hearted, and the 996 model makes for a track weapon with a difference, retailing at around £45,000. With 997 GT2 prices still sky high, the 996 GT2 may make for a true performance bargain and an exhilarating experience, providing, of course, the right application is executed behind the wheel. It's easy to get caught out in one of these, such is its zest for sheer rocketship performance, but right now the GT2s startling performance is happily matched by startling value."

Anthony Pozner, Hendon Way Motors





ACTIVE ENGINE MOUNTS

Yet another example of Zuffenhausen technology that alleviates the perceived shortfalls of the 911's rear-engine layout

Written by **Kieron Fennelly**
Photography by **Porsche AG**

The basic concept of the automobile has changed little: an internal combustion engine usually placed ahead of the passenger compartment drives a two-axle chassis with transmission to the rear axle. Since the Sixties, small and medium cars have almost all become front-wheel drive, and only larger models remain rear. Following racing practice, high-performance cars now mostly have mid-mounted engines behind the passenger space, but within the wheelbase. The Porsche 911, however, is the sole survivor of what might be termed the 'Germano-Czech strain' of rear-engined cars.

If the concept is still recognisable, though, the scope of improvements, from efficiency and economy to performance and comfort, is immense. But the area that has probably seen the most progress is electronics, and you have only to look at Porsche's water-cooled cars to see the modern panoply of electronic control. Although the transaxle Porsches and 993 had ABS and (on the Turbo 911) automatic brake differential, the new 996 platform gave Porsche the scope to integrate the new generation of electronic dynamic control systems. Simply plumbing air conditioning into the original 911 shell, for which it was never designed, required ingenuity. With a 21st century chassis, Zuffenhausen pushed ahead with stability control (PSM), later enhanced by Porsche torque vectoring and suspension management (PASM). If the former brought traction control to enhance cornering adhesion, PASM let the driver choose from 'comfort' and 'sport' settings. Firm suspension with reduced travel keeps the tyres in better contact with the road, but usually at the expense of ride quality.

If sources of NVH (noise, vibration and harshness) relating to rotation of the wheels can be dealt with through improved suspension and insulation, disturbance created by the engine offers a different challenge. For over half a century, car engines have been mounted on rubber blocks. These filter out much of the vibration that would be transmitted to the passenger compartment if the engine was bolted to the chassis, and modern formulations of these blocks has become pretty

effective. In a high-performance car like a 911, however, lateral cornering forces, now routinely capable of exceeding 1G, cause the engine – a 270-kilogram mass largely outside the wheelbase – to shift, compressing the blocks on the outside of the corner much in the way the suspension that side is also compressed.

With infinite monitoring and control of traction and suspension already available, Porsche looked to see how engine mounts could be part of the dynamic management system, how to tighten real-time control of engine mounts and to create better insulation of the cabin from low-frequency, road-induced vibration. To achieve this, Porsche turned to magneto rheological (MR) technology. This involves engine mounts containing soft iron particles in fluid. In an unmagnetised state they remain relatively pliant, and the resultant flexibility of the mount absorbs much of the vibrations the engine would otherwise transmit to the chassis. When a current is applied to the mounts, the magnetism aligns these particles, making them resistant to fluid flow and stiffening the mount. On the face of it the technology is straightforward: the stronger the current, the greater the magnetic force and firmer the mount. Operation is affected by a processor using data stored in the car's management system, and it reacts instantaneously. The powertrain mounts control the moving mass of the engine and eliminate what Porsche calls 'the challenging lower frequencies and higher amplitudes caused by transient torque events.' In other words, the mounts firm up in cornering, then soften again according to the sensors' interpretation of factors like throttle, braking and engine speed.

MR was first exhibited on the 3.8-litre 997 GT3, and has since been extended to the 911 Turbo and the latest GT3. On the track, MR is imperceptible, but what the experienced driver does notice is how power can be applied earlier through a corner, the 'anchoring' of the engine to the chassis improving traction at the precise moment when conventional damping would be unable to prevent lift and lateral movement of the engine mass. With its Dynamic Engine Mounts, Porsche really does seem to have squared another circle. **911**

“The experienced driver will notice how power can be applied earlier through a corner, the ‘anchoring’ of the engine to the chassis improving traction”



Gijs van Lennep

The Targa Florio and Le Mans-winning Porsche aficionado discusses Formula One, distance records and conquering the Mulsanne with Total 911

Written by **Johnny Tipler**
Photography by **Johnny Tipler, Antony Fraser**
and **Porsche Archive**



In a career spanning five decades, Gijs van Lennep has driven most Porsche racing cars. From the 904 Carrera GTS, 906 and 910, to the 911R and RSR, the Dutch aristo won at Le Mans in 1971 with Helmut Marko in a mighty Martini 917, setting a distance record of 5,335 kilometres, which remained unbroken until the 2010 Le Mans race. He also managed four years in Formula One and F5000 single-seaters, competing in eight Grand Prix races between 1971 and 1975 with under-financed Ensign, Williams (Iso-Marlboro) and Surtees teams. In 1972 he won the highly competitive British F5000 Championship in a Surtees TS11. Gijs (pronounced 'Ghys') won Le Mans again in 1976 with Jacky Ickx in a 936, yet, as he tell us, the victory he's most proud of is the 1973 Targa Florio in a 911: a 2.8 Carrera RSR.

Your first World Championship was with your brother in the 1966 Nürburgring 1,000km, when you drove for five out of six hours. That highlights your prowess as an endurance driver...

ESSENTIAL FACTS

- Gijs competed in various endurance races in 1966 with his brother, including the 1,000kms at the Nürburgring, Spa, and Monza.
- 1971 Le Mans Winner: while partnering Helmut Marko in a 917, Gijs set a distance record for the famous 24-hour race that lasted almost 40 years.
- 1972 British F5000 champion: van Lennep was one of only two teams to race with the Surtees TS11 design.
- 1973 Targa Florio winner: piloting the famous Porsche 911 2.8 RSR, van Lennep conquered the notorious Sicilian race with co-pilot Herbert Müller.
- 1976 Le Mans winner: Gijs won Le Mans for a second time, this time with co-pilot Jacky Ickx, before announcing his retirement from professional racing.
- van Lennep also competed in eight Formula One races over four years, for various teams.

There were 13 Carrera 6s in that race, and I finished first in class and seventh overall. It started raining one lap before the end when I was third in class, and I used my experience from Rob Slotemaker's Zandvoort skid school to climb a couple of places higher. I'd been

racing karts since 1957, and then a Beetle with a 356 engine, but the skid school was valuable training.

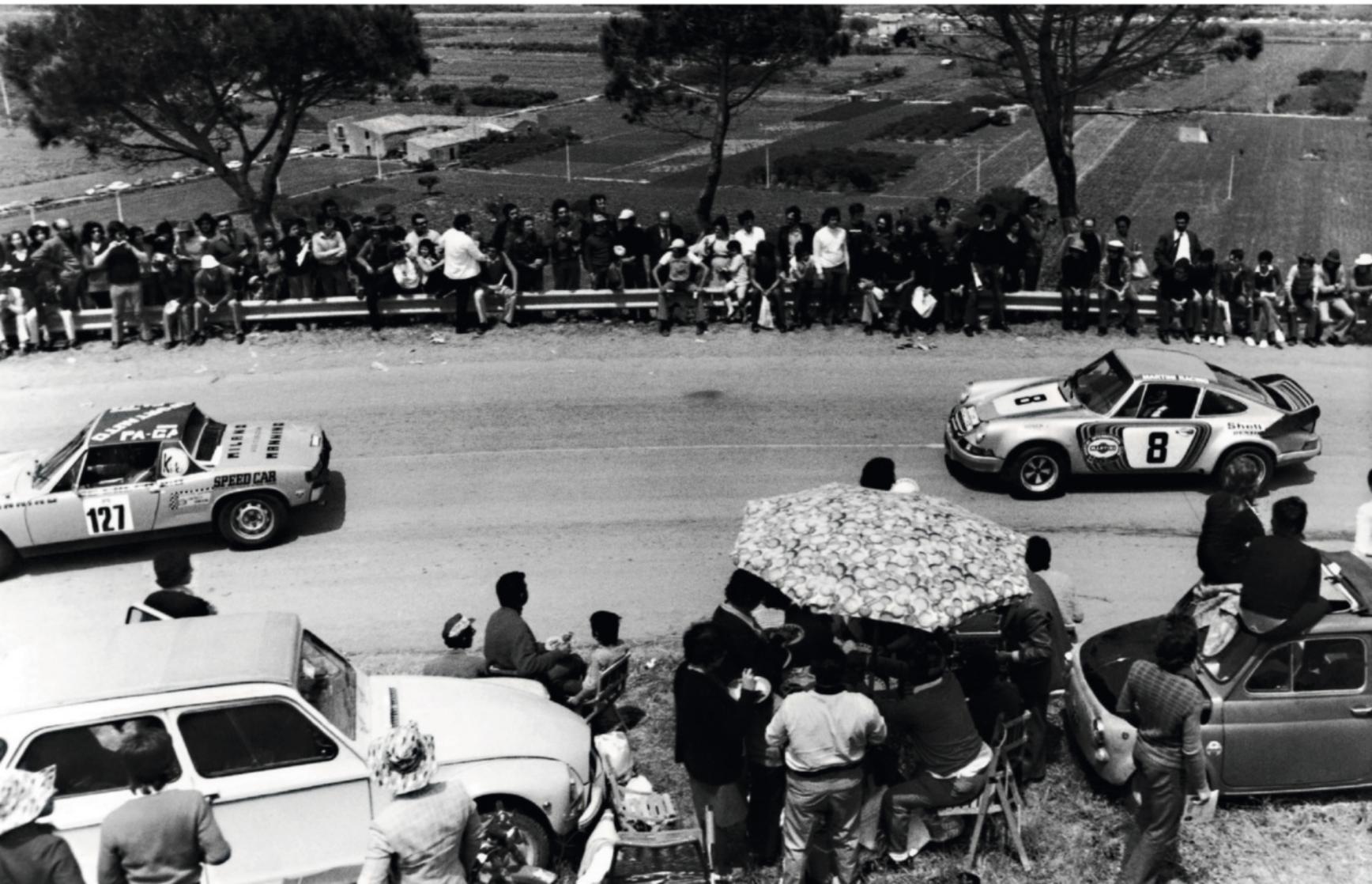
In 1967 you mostly drove a 911R, but at Spa you had a bad crash in a Carrera 6.

It was just before safety belts became mandatory, and I pitted to have the roll bar adjusted. Then I went out again, but they hadn't fastened the rear-hinged engine cover properly, and one of the catches broke. I'd just changed to fifth gear and the engine lid came off – it was like an aircraft taking off. I spun, but there was no guardrail on the Spa circuit in those days – the track was about a metre higher than the surrounding land, and the car kept going for about 200 metres. I dropped out of it and fell into a ditch, and at first they couldn't find me. I only broke a finger – my boots and trousers were gone, but I was bloody lucky, as I should have been dead.

In 1971 you drove the Martini-liveried 4.9-litre 917 in the World Championship for Makes, partnered by Helmut Marko, in which you scored your first Le Mans victory. ☺



Gijs van Lennepe has never really stopped racing, entering events like La Carrera Panamericana with a 356, and he's a regular on the Mille Miglia in a 550 Spyder. Here, he keeps his hand in with a 911 SC RS at Abbeville, decades after his Targa Florio win, below





Gijs heads out into the Sicilian countryside with the 2.8-litre Carrera RSR on the way to victory in the 1973 Targa Florio. It was the first major international success for the new breed of 911 racing cars

Yes, that was the last year of the traditional Le Mans starts, and the speed record down the Mulsanne straight was 236mph. We led from the 13th hour all the way to the finish, won our class and the Index of Performance, and set a distance record that lasted almost 40 years! The 917 was beautiful to drive, though Porsche was clever with the aerodynamics. There were three short-tails – we had one of them – and three longtails. We were the lightest car, but the longtails did 230mph on the straight, and we did 217mph. They put new bulbs at every pit stop, and we won, although as a Martini car the JW Automotive squad didn't like that. That was my first great victory.

After the rule change that banned the 917 prototypes for 1972, Porsche concentrated on turning the 911 into a giant-killing machine. Could you describe the transition from the 2.8-litre RSR that you won in Sicily with in 1973, and the turbocharged 2.1-litre RSR that you came second in Le Mans with the following year?

Porsche always wanted to be in the prototype class with the normal Carrera, so they took the 911 out of the GT category, bored out the engine to 3.0 litres, fitted lightweight body panels, 11-inch and 14-inch wheels from the 917 and a huge rear wing. We drove the '73 24 Hours of Le Mans with the car as a prototype, finishing fourth. Porsche wanted to not only say it was a prototype, but also a sort of road car,

not like a Matra or Ferrari 312 with the flat-12 engines, because they could do very well sometimes, and it made them look like they could beat the prototypes with a road car, like we did in the Targa Florio, winning with the 2.8-litre Carrera RSR when there were two Alfa T33s and three Ferrari 312 prototypes, which all went out. [Clay] Regazzoni crashed one Ferrari in practice, [Arturo] Merzario had engine failure in another and [Jacky] Ickx hit a wall, so suddenly after three or four laps we were in the lead and drove home unopposed. It was nice to win, because only five people have won Le Mans *and* the Targa Florio.

So Porsche 911s could win in the prototype class against these real prototypes.

Yes, but it wasn't so straightforward. At Le Mans, Dr [Ernst] Fuhrmann, who was the company boss, said to me and Herbert Müller, "You have to drive as fast as you can, all 24 hours long, flat-out all the way!" In the early days people thought Le Mans was for old men, while nowadays it is a sprint race, but in '73 it was the same sprint race! We would really be going flat out.

That meant there was no time to relax.

I was so tired at night, but the engines are cooler, and we were always faster than in the daytime because of the oxygen in the air, so the engine was better and the brakes cooler, but this time I had to go faster, and we finished fourth overall between the real prototypes.

That sums up Porsche; no engine failures. All they said was: "You use 8,200 revs and that's it – for the rest do what you like. Be nice to the gearbox, because then the car is nice to you." So we had to drive as fast as we could, braking as late as we could, but let the tyres take the strain in the corners because you can always put new ones on. We had to refuel, of course, and that took about a minute, so we did the tyres at the same time.

So that's how you make up the time.

Yes, or they have a problem or they stop. But then the 3.0-litre RSR wasn't fast enough anymore, so for 1974 they built the new Porsche RSR Turbo. It's got a much bigger rear wing and is a fair bit wider, with even wider wheels and a 2.1-litre Turbo engine; it was a great car. We drove Le Mans again in '74 as a prototype, and in the morning when the leading Matra had a gearbox problem it looked like we could win. But then, about five and a half hours before the end, all our gears broke apart from fourth. We don't know what caused it – if one tooth breaks it ruins the whole box – but the fourth cog up in the corner stayed together. In fourth gear in a Turbo, going away from the pits and in the slow corners, it's difficult, but anyway we drove for five and a half hours in only fourth gear! On the straight we were allowed 8,000 revs, but in fourth gear 8,000 revs is only about one or two millimetres of throttle, so there's no pressure on the pistons or



Gijs kept the Porsche flag flying after rule changes sidelined the mighty 917, winning the 1973 Targa Florio with the 911 Carrera 2.8-litre RSR. The enormous rear spoiler harnessed downforce on the fast, rustic course



Driving a Martini Racing 917, Gijs scored his first Le Mans win in 1971, partnered with Helmut Marko. He set a distance record of 5,335km over 24 hours, which remained unbroken until 2010



Porsche 911s are in Gijs' blood. As well as racing a variety of classics over the years, he stays acquainted with the latest models, posing here with the 991 50th Anniversary edition while at the 2013 Classics at the Castle show

bearings, so the engine was rattling because it was just short of idling, and I said, "This will never make it to the finish." Porsche had said I was a bit kinder to the car than Müller, so they let me drive for the last two hours. I was easy on the throttle, because otherwise it would bang about at low revs, though on the straight it would still be quite fast. But they put another gearbox in the Matra, and now Audi does it in seven minutes, but back then they took 45 minutes and still won. We were second, having run five and a half hours with only fourth gear, so that was something. If we'd had a good gearbox we could have won.

There were 13 Group 4 RSRs running at Le Mans in 1974, one of which was being driven by one of your biggest rivals, Clemens Schickentanz.

Yeah, there was a moment on the Mulsanne when we were neck-and-neck. He came out of my slipstream on the long straight and moved alongside me. I looked directly into his eyes at 160mph, and at that moment I heard a bang, and he suddenly seemed to go very quickly backwards. I saw a lot of smoke – he'd blown his engine at full throttle, so I waved bye-bye!

Your professional racing career ended on a high

I finished in '76. Porsche asked me to do Le Mans again because they knew I could drive well there. I was paired with Jacky Ickx, who had already won twice. I loved it, and we won again in the 936. It was the same 2.1-litre Turbo engine we'd used in '74 in the Carrera

RSR. I'd said beforehand that I would stop after Le Mans, and it is good to finish your career with a win.

Do you have any regrets about F1?

Formula One was not good enough for me. I did eight Grand Prix races, finishing sixth twice, but never got the real contracts, so I never got the right car, and in sports cars I more or less won everything that there was to win, and a lot of my contemporaries killed themselves along the way. 34 is quite a young age to stop, but there were other things I wanted to do.

Which of your Le Mans wins was most satisfying?

In 1986 I was world champion without Stucky [Hans Stuck] because of Porsche leaving me out of a couple of races, so I didn't get the points. I thought I'd lost the title to Jaguar and Derek Warwick, but in the last race at the Norisring somehow they didn't do as many laps as they had recorded. John Fitzpatrick lent me his old 962 because he spotted that Porsche were entering just one car, and said, "It is pretty obvious they want Stuck to be world champion on his own." It was the only round that had one driver, and he was doing it in a rocketship of a car. Stuck had problems and came 13th, and I was driving around slowly in 11th or 12th place, and beat him to the title by one position, which seemed like poetic justice.

Is there an event that stands out as the best?

The IMSA at the Miami Grand Prix, where I was in

the Lowenbrau 962. The organisers wanted the American muscle cars to win, and there was a full-course yellow flag. When I went to restart the car, it was firing on four cylinders instead of eight, and I got overtaken by the works cars and Budweiser cars – it took two whole laps for the engine to clear. When it finally did though, I went on to win.

I think the most memorable WSC race I didn't win was Le Mans in 1983 with Jacky. He got hit on the first lap, and there was big pressure on fuel economy, so we had to really economise, yet we managed to take a lap off the whole field to get back in the lead without more fuel. Then we had a fusebox problem, so I had to change the electronics at Mulsanne, and then we had to work our way back up through the field – we finished second by about 26 seconds.

What has been your favourite moment?

Le Mans '71 was actually my best win ever, but in my heart the '73 Targa Florio is actually the win I'm most proud of; that's my best moment in a 911!

*Gijs grasps every opportunity to drive in historic events. He has raced a Porsche 356 in La Carrera Panamericana, and regularly runs a sponsored 550 Spyder in the Mille Miglia. He'll turn up at an Abbeville trackday, Classics at the Castle or the Naarden-Vesting model collectors' fair just for the craik, and if he gets to drive a Porsche, so much the better. Like he says, he's a 911 man through and through. **911***



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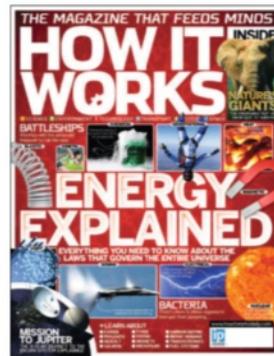
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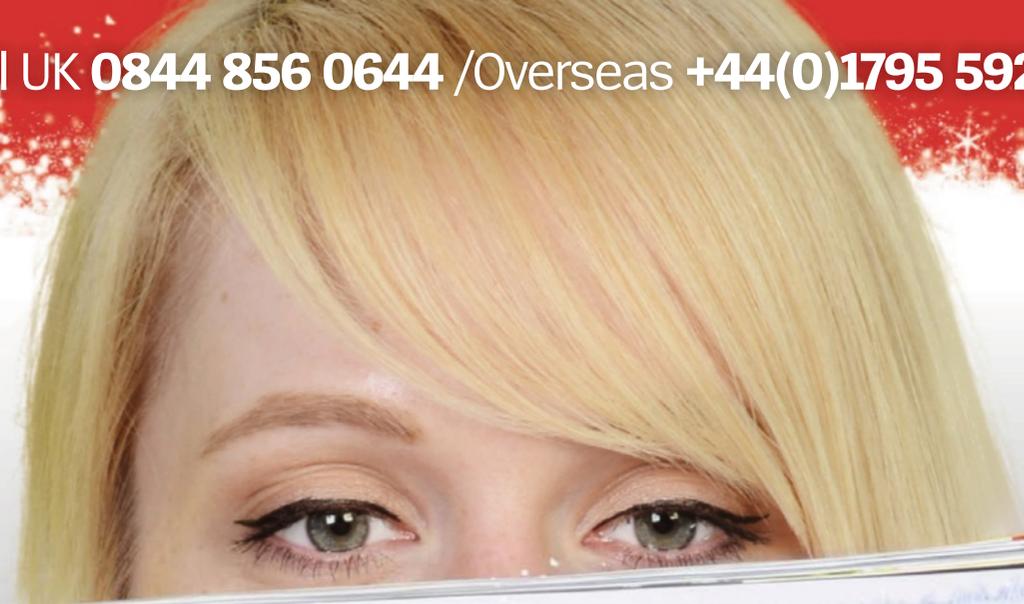
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— THE — FEDERLEICHTE ELFERS

Total 911 investigates two featherlight classics from DP Motorsport that go far beyond the hallowed curb weight bracket of 1,000kg

Written and photographed by Maurice van den Tillaard



Original RSRs tipped the scales at just 900kg, though DP Motorsport's evocation is lighter still at just 850kg

For years, motorsport vehicles have always tried to be two things: fast and lightweight. Indeed, being lightweight is half the battle when it comes to speed, and as technology has evolved we've seen plenty of road-going sports cars – as well as high-performance motors – shedding weight in order to gain that extra edge in performance.

However, DP Motorsport, the revered tuning specialists from Germany who have an illustrious history in motorsport, are a company that has long specialised in building 'Federleichte Elfers', translated to English as lightweight 911s. Their two latest creations, which stand proudly in front of our camera lens, are a continued testament to the belief that when it comes to weight for DP Motorsport, less is so much more.

First is a stock-looking Rock green 3.2-litre Carrera from 1986. After talking to DP's owner Patrick Zimmermann (read all about him and the history of DP Motorsport in Issue 107 of **Total 911**) regarding the car, it quickly became apparent that there is far more to this classic 911 than meets the eye, with Patrick himself admitting that he has nicknamed this car 'the Sleeper'. A DP Motorsport project car built to celebrate the 50th anniversary of the 911, this Carrera was transformed into an ultra-lightweight 3.2 by shaving off an incredible 280 kilos, resulting in an extremely lightweight 911 weighing only 905 kilos on an empty tank of fuel.

The goal was to build a very fast and nimble car, but without the looks of an all-out racer, so that the 911's deft performance could remain understated. Patrick bought the car for himself, and as a base

for the project the body was completely stripped to bare metal and an abundance of lightweight carbon fibre/kevlar used on body parts, including fenders, bumpers, the roof, hood, rear decklid and rear quarters (DP Motorsports uses fibreglass for most lightweight applications, but if it has to be even lighter they will use carbon fibre or a mix of carbon fibre and kevlar). Only the doors were kept original, Patrick citing safety reasons during a possible side impact as reason enough to leave them alone. All hinges were drilled and, after applying the paint, lexan windows installed.

The original engine with its 3.2-litre displacement was retained for the project, though 288-degree Schrick camshafts were installed together with a larger 67mm throttle valve, ported and flowed heads, a lightened flywheel and a





A meaty 280kg was shaved off the weight of this Carrera, bringing it down to a featherlight 905kg

titanium RSR racing exhaust, which is equipped with two 100-cell catalysers for German TÜV reasons. Performance figures now stand at a very friendly 270 horsepower, supplying 307Nm of torque. To put the power on the tarmac, a rebuild of the 915 gearbox was accompanied by an external cooler, limited-slip differential and modified shortshifter being fitted to the Porsche, the shortshifter extended to sit closer to the steering wheel. Closer reach makes Patrick shift quicker, which gets him around even faster. Bilstein sport shocks combined with SuperPro polyurethane bushings, bigger sway bars, a welded-in strutbrace and uniballs further ensure that this 911 handles just like Doctor Ferdinand would have liked it to.

Crucially, the original 16-inch diameter Fuchs rims in widths of seven and nine inches are

shod with Michelin semi slicks that ensure superb grip on entering a corner. Stopping power is obtained from 964 Carrera-spec calipers combined with 3.2 discs.

On the inside you'll find carbon Lollipop seats finished in the original Porsche chalk-lined upholstery, which can also be found on the doors. The roll bar is a custom DP Motorsport item, and is combined with the usual racing equipment that is often used on sport-purpose 911s such as a dished Momo 350mm steering wheel, Willans four-point harnesses and lightweight RS-style carpet. Most impressive of all, inside is the complete carbon fibre dashboard, which is connected to a lightweight wiring harness straight from a race car and a small 25Ah battery. Since there's no heater installed, a heated windshield is fitted to get rid of foggy

windows, which is a common problem in the often moist and cold German Eiffel area.

Transforming the 3.2 proved to be a long process, with the DP Motorsports team dedicating a few hours to the car per day for over a year as they juggled Patrick's personal project with the needs of paying customers of the 40-year-old business.

The car bears the undoubted fruits of a good year's work, and while the 'sleeper' 3.2 is an undoubted lightweight Porsche masterpiece, the team at DP went an unequivocal step further with the white RSR replica in our feature belonging to their friend, Claus Scherer. Claus first stepped into the DP Motorsport building around six years ago in a bid to simply acquire a few parts to reduce the weight of his 911. He wanted his first Porsche, a white 3.0-litre SC, to appear stock even after the



Specification

3.2 Carrera
(1986)**Engine****Capacity:** 3,200cc**Compression ratio:** 10.3:1**Maximum power:**

270hp

Maximum torque:

307Nm

Engine modifications:Schrack 288 degree cams;
flowed and ported heads;
67mm throttle valve;
lightened flywheel; titanium
race exhaust**Transmission:**

Five-speed 915 with LSD

Suspension**Front:** Bilstein Sport
dampers with Uniballs and
SuperPro bushings**Rear:** Bilstein Sport dampers**Wheels & tyres****Front:** 7x16-inch Fuchs alloys
with Michelin semi-slick
225/50/15 tyres**Rear:** 9x16-inch Fuchs alloys
with Michelin semi-slick
245/45/15 tyres**Dimensions****Length:** 4,291mm**Width:** 1,650mm**Weight:** 905kg**Performance****0-62mph:** Not tested**Top speed:** Not tested

“The ‘sleeper’ 3.2
is an undoubted
lightweight
911
masterpiece”

Specification

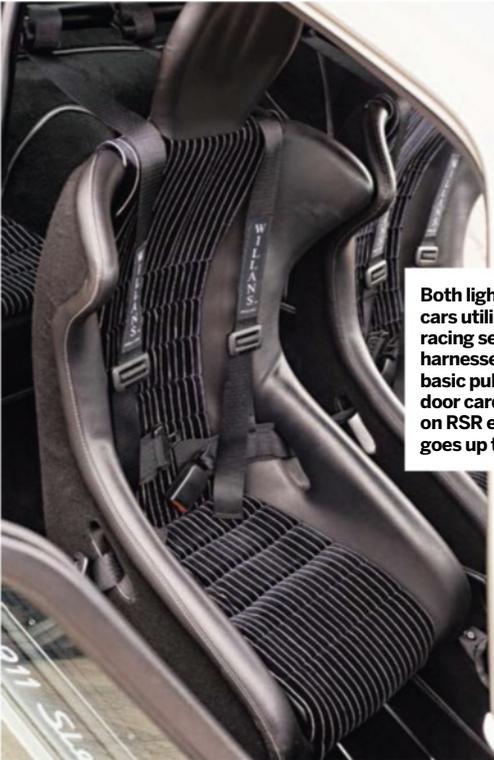
RSR replica
(1983)**Engine****Capacity:** 3,200cc**Compression ratio:** 10.3:1**Maximum power:**

292hp

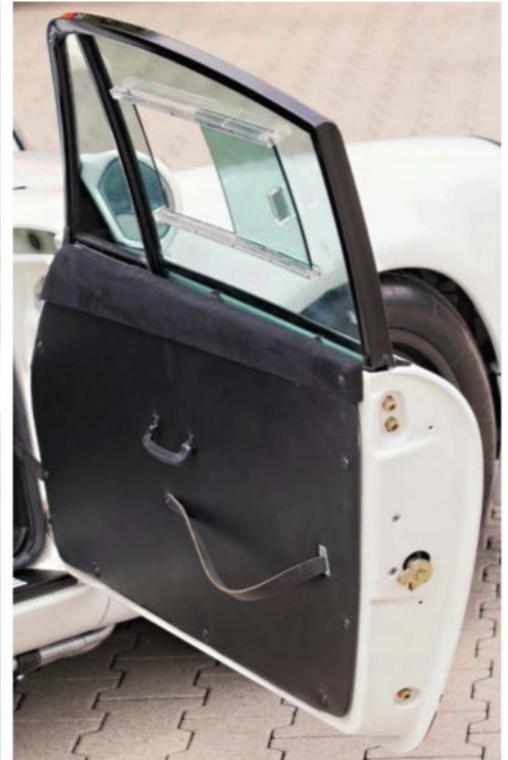
Maximum torque:

334Nm

Engine modifications:46mm PMO carbs; twin-
plug ignition; 911S cams;
lightened flywheel and
clutch; titanium racing
exhaust**Transmission:**Five-speed 915 with external
cooling and LSD**Suspension****Front:** Bilstein RSR
with Uniballs**Rear:** Bilstein RSR
with Uniballs**Wheels & tyres****Front:** 9x15-inch Fuchs
alloys with Michelin TB5
225/55/15 tyres**Rear:** 11x15-inch Fuchs alloys
with 285/40/15 tyres**Dimensions****Length:** 4,235mm**Width:** 1,680mm**Weight:** 850kg**Performance****0-62mph:** Not tested**Top speed:** Not tested



Both lightweight cars utilise lollipop racing seats and harnesses, with basic pull-handle door cards. Tacho on RSR evocation goes up to 10k revs



modifications, and “making it a bit lighter” was all he was looking to achieve.

Back then, DP Motorsport didn't have all the fancy, ready-to-mount lightweight parts that they now sell in abundance, so Claus quickly found that he didn't have access to a lot of parts. Unlike many, he didn't want fibreglass RS bumpers or an RS interior, so with just a few lexan windows under his arm he left the building. Patrick didn't hear much from Claus for a short while after, until Claus took his SC to a local bodyshop to remove a couple nasty of rust spots. At that point, the thesis for the project changed, as Claus tells **Total 911**: “I decided to take it to the next level and get rid of the heavy steel front fenders.”

Claus duly went back to DP to buy lightweight fenders and a whole lot more. As well as a host of lightweight body parts in similar zest to the 3.2, Claus cut off the roof, which was swapped for an original one, sans sunroof. Doing all the fibreglass work was too much for his bodyshop, being more specialised in steel craft, which is where DP Motorsport took over. At first the SC became a narrow-bodied G-model 911 with everything

stripped from it except the parts needed to keep it road-legal for the German TUV.

The car had a steel welded-in Heigo roll cage, so in order to make it lighter, all the tubes that were screwed in were switched for aluminium examples. By the time Claus crashed the car and damaged the front and rear, his mind was further entrenched in the world of classic Porsches with a lightweight theme. In the aftermath of the crash, the body was straightened again, and DP Motorsport was ready to build a second version of it. Being the lightweight and aggressive motor that it was, Claus needed wider tyres and more grip.

Before the crash, Claus had got rid of his K-Jetronic fuel injection and enlarged the displacement of the engine. However, when DP put the engine on the dyno, they found out that it made six horsepower less than a stock motor. After opening up the engine, they also discovered that someone had installed the so-called Max Moritz pistons with their slanted tops the wrong way around. Claus had inherited the pistons in the engine when he bought the car, so upon hearing news of the condition of the engine he decided to

start again with a complete RSR motor build. The RSR-spec performance would go hand in hand with the wider tyres and fenders they were planning to install regardless.

With the body straightened and back in the DP shop, Claus came in every day with magazines in his hand and new ideas for how he wanted the SC to look, and it quickly became clear that he wanted an F-model RSR. The 911 was already white, which Claus wanted to maintain, as well as the 850-kilogram curb weight with an empty gas tank. To achieve this, more carbon fibre and kevlar parts were implemented in the bodywork to make up for the wider tyres and rims, plus Turbo axles so that the same weight figure could be maintained.

The engine was built by Peter Prosten from Prosten Motorsport, located about 20 kilometres from the DP Motorsport headquarters. 290bhp was duly achieved on the dyno, and over the course of last winter a smaller fan and an aluminium clutch were installed, with the clutch alone saving three kilograms.

According to the owner, the factory racing lubrication system of the transmission makes up ➡



for six to eight extra horsepower. It's literally a dry sump oil system for the transmission, where the gears are not running in a bath of oil, thus saving power. The transmission cooler sits in the rear of the car in the decklid, and oil is constantly being pumped away from the deepest point of the transmission housing to the cooler. From there the oil is fed back to the transmission bearings and gears, where it's injected at the exact spots where lubrication is needed. So by now the engine should make close to – or maybe even over – 300hp. The cams come from a 911S, and Claus isn't afraid to demonstrate how the high power and

low weight of the RSR converts to rapid performance, with an incredible torque band throughout the whole rpm range.

Just like in the 3.2-litre Sleeper, a racing wiring harness is installed, weighing only a third of the stock harness. The fusebox is also upgraded and only carries eight fuses, while the RSR also uses a lightweight battery from a BMW motorcycle.

From the DP Motorsport facility it's literally two right-hand corners and a 30-second drive to a very exciting mountain road. This is where we took these two lightweight wonders to put the pedal to the metal for an afternoon of lightweight

Porsche perfection. Inside, noise levels in both cars are surprisingly acceptable, despite most of the insulation being stripped away. Very stiff and incredibly agile, both 911s felt very responsive, with great feedback through the wheel aided, of course, by the lightweight nature and lack of power steering in both. Although the 3.2 felt quick, it was the RSR that was noticeably the faster of the two, owing largely to its carburetted engine.

I could have happily spent the rest of the afternoon in these two high-end cars, which easily represent some of the most precise craftsmanship you'll ever see in aftermarket Porsche tuning. **911**

“The owner wanted to maintain the RSR's curb weight of just 850 kilos”



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2013: A SEASON REVIEW

Away from the race track, Oman Air Motorbase drivers Ahmad Al Harthy and Michael Caine look back on a season of varied success as pilots of the fastest Porsche 911 GT3R in Britain

Written by **Josh Barnett** Photography by **Daniel Pullen**



Being overweight is no good thing; being overweight by 130 kilograms in racing is especially so. Due to the driver grading system, this was the problem faced by Oman Air Motorbase in the 2013 British GT Championship.

Last season, their Porsche 997 GT3R (affectionately called 'Max') took the title with Michael Caine and Daniele Perfetti at the wheel. This year, Carrera Cup GB Pro-Am1 champion Ahmad Al Harthy replaced Perfetti in the line-up.

With Al Harthy's previous success at the wheel of a Porsche, the championship organisers rated the Omani as a 'Silver' graded driver. Coupled with the

experienced Caine's high rating, this left the team with a hefty chunk of weight needed in the car to counter the pairing's supposed speed, despite Al Harthy's inexperience in the highly competitive environment of the British GT Championship.

With the addition of the FIA's 'Balance of Performance' correction, 130 kilograms of ballast would sit in place of the passenger seat in the GT3. Despite this, the season would bring two victories for Motorbase (two more than their championship-winning campaign the previous year) and leave them fighting for the title at the Donington finale.

Reviewing the season at Motorbase's lock-up near the Brands Hatch circuit in Kent, drivers Caine

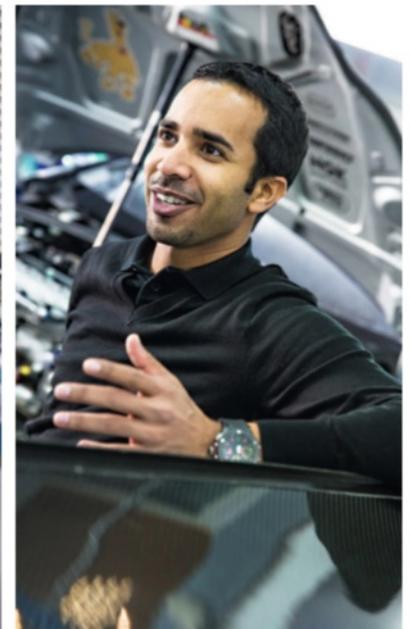
and Al Harthy, plus team boss David Bartrum, are philosophical to **Total 911** about the attempted defence of their 2012 championship crown.

Caine begins by explaining the effect of the weight on their 2013 season. "As a pairing we were going to be strong, but we weren't going to be any stronger than anybody else," he says, shrugging his shoulders. "The worst thing was qualifying. We just didn't have the pace compared to everybody else. Everybody would find a second and a half to two seconds (the Astons would find three seconds), and we would find half a second on new tyres."

Caine's anecdote is borne out in cold, hard statistics. Across all ten qualifying sessions this



Motorbase's team spirit remains on point. 2013 may have been a tough year, but these are people who really enjoy their motor racing



season, the average position of the Motorbase 911 was 12th. Even the high point of pole position at Zandvoort has to be taken with a pinch of salt, as Al Harthy was the last car across the finish line before a torrential downpour.

On top of the draconian performance 'balancing', there was another hurdle to overcome, namely Al Harthy's lack of experience at this level. The Omani driver is frank about the challenge that faced him. "As a first year in British GT and in endurance racing, it was so much to learn," he explains.

The quality of the 2013 British GT field was arguably the strongest since the inception of the championship, making Al Harthy's learning curve steeper than it would have been in previous seasons. "You tell someone that you have won two races in British GT," Al Harthy begins, "they then come and see how difficult it is to finish, and then finish in the top ten, and then to win". Caine agrees: "When you look at the driver combinations, it's a who's who of British motorsport. The quality of the drivers among the pros is the highest in Britain."

To therefore win not one, but two races in 2013, is testament to the talents of not just Caine

and Al Harthy, but the entire Motorbase team. "Ricky [Martino] worked wonders with the drivers," explained team boss David Bartrum, duly providing a glowing reference for the team engineer. "He was constantly getting around the weight to give them some speed."

“We were here to fight, and we showed that we could fight”

The speed that Bartrum talks about manifested itself in the races – a mixture of one, two and three-hour encounters. Caine and Al Harthy, on average, moved through the field by five places in each race. These strong performances ensured that entering the final round of the championship, the Oman Air 911 hadn't finished outside of the points – the only car to do so throughout the entire campaign.

With the weight penalty, such consistency was the only way Motorbase would defend their title. Despite this, Al Harthy, Caine and Bartrum are in agreement as to which result meant the most to them: Zandvoort. "We'd never been there, we'd never tested there," clarifies Caine, his smile creeping ever wider. "We walked the circuit at the start of the weekend, and that's how we learnt it."

After taking pole for the first race, Al Harthy's stint was spent stuck behind the safety car after a plethora of incidents in the early part of the race. A well-timed pitstop then left the Porsche in the lead with Caine at the wheel. However, it wasn't plain sailing. Bartrum takes up the story: "I was on the radio saying, 'Look Michael, you need to get your foot down as best as you can, because Dan Brown in the Audi R8 is gaining a second per lap, Rob Barff in the Ferrari 458 is gaining a second a lap, and there's another couple of cars behind them that will catch up'. Michael asked me, 'When are they going to be here?' I said, 'Ten minutes before the end. You're going to have to make it as wide as you can.'"

And that's exactly what Caine did. For the remainder of the race the Porsche survived the



Al Harthy has enjoyed a successful first season behind the wheel of the 911 GT3R, taking two British GT wins in the process



attacks of the Audi, Ferrari and BMW. Eventually, the chasing pack started squabbling among themselves, giving Caine a gap. "We don't normally go out and celebrate in the evenings, but we did on that one! It was a real sense of achievement," says Bartrum, clearly buoyed by the memory.

Throughout the interview, Zandvoort kept coming up in conversation. However, at one point, it showed the culture shock experienced by Al Harthy. "I think Zandvoort was the most nerve-racking race for me because, personally, I don't like to jump out of the car and watch it." Opening up, he elucidates further: "It's a weird feeling. It's a lot more stressful out the car." It should be noted this isn't a marker of the Omani's inexperience; racing drivers just like being behind the wheel.

Staying with Al Harthy, 2013 provided the Omani with plenty to learn in his new racing environment. "It was a lot for me to appreciate how important teamwork is," he says matter-of-factly. It is perhaps for this reason that the SRO's decision to impose the 75 kilograms of weight was such a sticking point during the season. "I'm flattered to be called a 'Silver' driver," Al Harthy admits, "but

I'm not. But then again I'm not a Bronze, so I think there should have been a compromise."

"I understand the championship's problem; it's a Pro-Am series," explains Bartrum. "But you shouldn't be too blinkered. Ahmad wasn't really a 'Bronze', but he wasn't a 'Silver.'" Bartrum feels the compromise Ahmad alludes to should have fallen at around 40 kilograms. "We could have dealt with that. But 75 kilos, that's a lot," the manager laments.

Of course, it wasn't always the ballast that caused Motorbase problems. In August's round of the championship at Brands Hatch, an entirely different problem was causing Caine difficulty.

During Al Harthy's stint, the rear of the car took a knock from another competitor, breaking one of the exhaust back boxes and causing a small fire. While the pit crew extinguished the flames at the driver change, no one was initially aware that the damage was causing exhaust gas to fill the cockpit.

In true racing driver fashion, though, Caine continued to race to the flag, despite the damage his stint at the wheel was doing to his health. "The best way of describing it is it was like going out for a beer," says Caine. "You know when you've had ☺

2013 Season results

Rounds One & Two: 1 April – Oulton Park



Motorbase begin the season by finishing 4th, then 9th

Round Three: 6 May – Rockingham



Caine and Al Harthy finish 6th after qualifying 15th

Round Four: 26 May – Silverstone



Motorbase finish 8th after qualifying down in 17th

Rounds Five & Six: 16 June – Snetterton



A first win of the season was followed by a finish in 8th

Round Seven: 11 August – Brands Hatch



The GT3R finished a credible 7th after qualifying 20th

Rounds Eight & Nine: 7-8 September – Zandvoort



Motorbase took another win and a 9th place in Holland

Round Ten: 6 October – Donington Park



12th place means Motorbase finish the season in fifth



Caine (left) recounts his story of the Brands Hatch 'gassing'. Despite this, the whole team is looking forward to next year



two beers and you think, 'I'll have a third, I don't feel that bad'? So you keep going and then you wake up in the morning and think, 'Woah, what the hell was going on there?'"

Bartrum kept talking to Caine throughout the race, keeping him alert as the build-up of gas continued. Admirably, the 2012 British GT champion brought the car home in seventh. However, the legacy of this race meeting continued well beyond the chequered flag.

"I felt horrendous. I told my wife I'd got flu because I couldn't tell her that I'd just gassed myself in a racing car," Caine laughs. "So I went to bed and woke up in the night, and my arm was dead. When I woke up in the morning it was still the same.

"I went to the doctors and they sent me to hospital. What had happened was I'd damaged the nerve endings in my hand because I was sat in a racing car like that [Caine extends his arms in front of him]. It was the furthest thing from my heart, and that is the first thing to go." So for Caine this was obviously the hardest race, right? "No," he says emphatically, "because I couldn't remember it!"

Caine's resilience has been a hallmark of the season: as well as the Zandvoort win in September, his inability to give up on a fight brought about a win in June's Snetterton event. In the first of the one-hour races on the Norfolk circuit, Caine had Warren Hughes in the Audi R8 all over him

“Come and see how difficult it is to finish, and then finish in the top ten, and then to win”

with five or six laps to go, so he deployed some well-versed defensive driving to take the flag in second. However, after the Trackspeed 911 GT3R was disqualified for overtaking under yellow flags, Motorbase gained their first win of the season.

Before this opening win, Motorbase found their Porsche languishing in ninth. This victory, coupled with their incredible consistency, turned Caine and Al Harthy into championship contenders. Asked what ensured the 997 GT3R was in with a chance of retaining the championship title going into the final race, Bartrum paused to consider his response, before replying emphatically: "I think the strength in the car was the preparation, the mechanical reliability and, of course, the driver pairing."

While the final round at Donington Park (documented in Issue 107 of **Total 911**) didn't go to plan, Motorbase's 2013 season shouldn't be defined by what stymied them. Instead, it is the Snetterton and Zandvoort triumphs that typify the team's British GT campaign.

"It was a hard season, but enjoyable," says Bartrum, turning serious as we conclude our season post-mortem. The sentiments of both drivers throughout the interview certainly appear to echo Bartrum's summary. Despite just missing out on the title, success hasn't completely evaded Motorbase. Besides, there's always next year. **911**

2014: A new beginning?

For two years, Motorbase has been one of the yardsticks in the British GT Championship. However, in 2014, the team may be trading the M25 for journeys of a more pan-European nature as it looks to move into the Blancpain Endurance Series, in which Al Harthy has already competed this year with the ARC Bratislava 911 GT3R.

"The long-term goal," explains Caine, "is to make him [Al Harthy] very, very successful. I would love to go to Le Mans to watch him do the 24 Hours. The progression is to

make him massively successful in GT racing. That's what Motorbase is here to do."

While the step up to European competition, taking on some of the world's best GT teams, is huge, Caine feels that Motorbase is ready. "There is no way we would see ourselves any differently to a factory team. There will be no difference in preparation, and no difference in effort."

In an ideal world, a Blancpain campaign would be dovetailed with another shot at the British GT crown.

"Ahmad deserves to be British GT champion, so that is something that needs to be sorted out. If we're running in Blancpain, he needs to be running up the front," says Caine.

In motorsport, money is always the determining factor in moving up but, if the finances can be sorted, team boss Bartrum is hopeful that Europe will be Motorbase's calling next season. "British and Blancpain is the aim, if everything goes to plan. It would be a new adventure for us: six-hour, 24-hour. No time for tea breaks!"



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Ben Przekop

• Georgia, USA

1988 911 Cabrio



This month: The lure of the vintage 911



A lack of driving aids bring pleasure to the purist from behind the wheel

Date acquired: November 2011
Last report: Issue 98
Total miles: 52,600
Costs: Fuel

A sunny Saturday in Autumn means the Cabrio top is down on my 1988 911, and I am driving it right at the limit of adhesion through another corner of this winding country road. As I pass the apex, I floor it right to the redline before upshifting, thrilling in the classic sound of the air-cooled engine wailing away, awash in the sensory overload that comes with driving this vintage 911.

And when it happens again, I just can't help myself; I start laughing and shaking my head with surprise at how much fun it is to drive this car. After all, this is a 25-year-old car with no power steering, a mere 217 horsepower, and lacking virtually every modern convenience we have come to demand in our cars. In contrast, my 2007 911 GT3 has 415hp, scalpel-sharp steering and hand-of-God braking, and is the closest thing

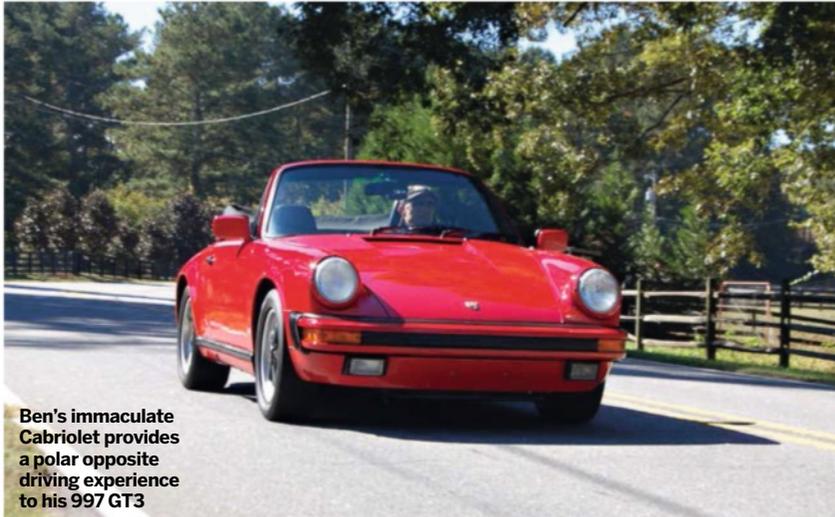
you can get to a street-legal race car, and yet in any other setting apart from a race track I actually enjoy driving the older 911 more!

How can this be? Two words: purity and character. Back in the early Fifties, Porsche advertised their 356 with the tagline 'Driving in its Purest Form', and kept that focus when building its successor. My 1988 911 may lack the electronic gadgetry we have been told we must have in our cars, but in terms of what matters to driving a car it has everything you could want. The leather seats, still looking new, fit like a glove. The direct, non-assisted steering, which feels extremely heavy at low speed, becomes incredibly light as soon as you are underway, giving the impression that you are literally flying across the road.

As it loads up in turns, you feel every digit of G-force the car is capable of through your hands, and every ripple in the pavement. The suspension, a simple combination of

torsion bars and shock absorbers with 60 profile tyres, actually providing a compliant ride while exhibiting no body roll in corners, and the brakes give you the confidence to keep pushing – and the harder you push, the better it feels. It has been said that it is more fun to drive a slow car fast than a fast car slow. Where my GT3 feels literally like a caged animal at street legal speeds, the older 911 is exciting and fun on these same winding roads. You get to use all 217hp all the time, driving the car around corners that the GT3 would take without breaking a sweat, but also without putting that smile on your face.

And then there is that hard-to-define thing called 'character'. The older 911 is an ergonomic disaster – or full of charming quirks, depending on your point of view. Take the HVAC system: there are so many switches and levers (eight in total) controlling the heating and air conditioning that many



Ben's immaculate Cabriolet provides a polar opposite driving experience to his 997 GT3



owners go through their entire ownership experience without ever understanding how they work.

Other knobs and switches are scattered throughout, because Porsche would not pay for a full redesign of a car they planned to phase out in the early Eighties. Need a new switch? Stick it where there's a space. Fog light switch should be part of the headlight switch, right? Wrong; it's a separate knob in the middle of the dash next to the lighter. Where is the rocker that changes control to the passenger door mirror? Hiding under the dash, below the oil gauges. Intermittent wiper control must be part of the wiper arm stalk, right? Nope, it's a separate knob between the speedometer and clock, which goes slower the more you turn it.

There are many more examples, but I have saved the best for last: checking the oil. First, the car must be at full operating

temperature, which takes at least 15 minutes of driving, and then you have to leave the engine running and check it with the dipstick, which is inside the oil fill pipe, stuck in a circular loop so it doesn't fall into the bottom of the oil tank. Checking oil on this car is a real treat: hot engine and oil, fan spinning away, and there you are using this dainty dipstick to check your oil while trying not to get your clothes caught in the spinning fan or drop the dipstick into the tank. Doesn't that beat using a dash computer to show you those bar charts?

But I guess all I really had to tell you is that if you really enjoy driving, you would take every opportunity you had to drive this car hard and fast, as I did this particular weekend, laughter mixing with the roar of the air-cooled engine, chasing the setting autumn sun around just a few more perfect corners for just a few more miles... **911**



Richard Klevenhausen

1979 930

Date acquired: May 2012 Miles this month: 70

Costs this month: Fuel plus a new headlight nozzle

Lowlights: I've had a broken headlight nozzle for some time now, though I've finally managed to source a replacement.

Highlights: My 930 has been confirmed to be on the Porsche exhibition to celebrate 50 years of the 911 in Rio de Janeiro, Brazil.



Magnus Walker

1971 911T #277

Date acquired: 2009 Miles this month: Quite a few!

Costs this month: Just gas

Lowlights: None whatsoever.

Highlights: The car and I attended the NCMA Porsche by Design exhibit. While I was there I did a VIR trackday and shot another video.



Gina Purcell

1989 964 Carrera 4

Date acquired: September 2004 Total miles: 120,477

Costs this month: £80 fuel

Lowlights: Rides out with my husband in his 911 3.2. While enjoyable, they point out the gap in the garage where Wolffi should be.

Highlights: The recalcitrant heater control unit has been sent to another ECU specialist. I'm hopeful of a better outcome.



Tony McGuinness

2010 Gen2 997 Turbo

Date acquired: January 2010 Total miles: 25,470

Costs this month: Fuel only

Lowlights: Getting stopped by the police for not having a front license plate, as required by California State Law.

Highlights: He said it was an excuse to ask me about the Turbo. Spent an hour chatting, and no ticket was issued.



Kris Clewell

1972 911T

Date acquired: November 2012 Miles this month: 0

Costs this month: £1,180

Lowlights: Redoing the oil cooler setup and realising that the 1972 oil cooler systems are a pain!

Highlights: having a second wind for the rebuild. I should probably have it completed in a month or two.



Chris Wallbank

2005 997S Cabriolet

Date acquired: November 2012 Total miles: 25,568

Cost this month: £0

Lowlights: I've been so busy on photo shoots all over in the UK and abroad that I haven't had an opportunity to take my 911s out.

Highlights: Getting the chance to fly to Las Vegas and check out some amazing 911s, both old and new, at the 2013 SEMA Show.



Ray Chandler

2003 996 Turbo

Date acquired: August 2011 Miles this month: 110

Costs this month: £247 + fuel

Lowlights: Making the unfortunate discovery that I need two new front tyres to be installed.

Highlights: The inconvenience was alleviated by the fact that I got the two of them all in for £160 less than I first feared!



The original thermostat was removed thanks to WD-40, a female torx socket, and elbow grease

Maxie Islam

• Stevenage, UK

2006 997 Carrera 4S



This month: Fitting a low-temp thermostat to a 997

Date acquired:

August 2010

Last report:

Issue 100

Total miles:

40,400

Costs:

£50 Low-temp
thermostat
£70 fuel

Having read enough about bore-scoring and hot-running M97 engines, I recently decided to take the preventative measure of ordering a low-temperature thermostat (LTT) from Wahler (I bought mine from eBay), which will cost in the region of £50. I invited Mr Paul Dixon, a fellow moderator from 911uk.com, to come along and assist me with the modification, as he had done exactly the same work to a C4 996.1 X51 he used to run previously. Very kindly, Paul didn't just help me; he fitted my LTT all by himself! This was largely because I didn't have the correct set of tools or, more importantly, the know-how. However, there is now a how-to guide on the 911uk forum for

fitting LTTs to both 996s and 997s, complete with step-by-step photos and descriptions.

If you are doing this at home, please allow about a day from start to finish. First, we needed to jack the car up at the rear to get some access to the work that was about to follow. Using some old wooden sleepers that I had left over from a gardening job last year, we braked the rear wheels, jacked the car up, chocked the front tyres and put the car in gear. Then we placed the wooden blocks under the rear tyres and supported the car using axle stands. Once jacked up, the next job was to extract the coolant fluid from the system into a clean bucket (as this will be poured back into the engine at the end).

As we (or rather, Paul!) were about to loosen the bolts securing the existing thermostat, we discovered that the pattern on the bolt-heads was somewhat unique, and that no tools were available to loosen them. These are the bolt-heads securing the thermostat on a 997. Not only did Paul make some frantic calls to get the name of this pattern, he also searched the web for where we might buy the tool to loosen them. The name is an E10 Female Torx socket.

Halfords seemed to be the answer, according to Google. As we were unable to describe it over the phone, Paul had the idea of taking an impression of the bolt-head pattern in a blob of Blu-tack. We then made the impromptu trip down to Halfords to buy those tools.

If you look under the engine of any 996 or 997, you will probably notice the spaghetti junction of pipes, other rubber hoses and (in the case of the 997) extra support arms. This was a problem, as some of the bolts that needed undoing were located behind said pipes. The only way to do it is if you have a sprocket set that can work at multiple angles. After being sprayed with WD-40, these bolts eventually came off. However, a large rubber hose-piping stubbornly still held onto the intake of the thermostat. Secured by a jubilee clip, a pair of pliers was used, and a small pointed screwdriver poked between the surfaces. With the aid of WD-40, the piping eventually came off, and the thermostat fell into our hands.

What can be seen is that the temperature stamp is marked at 83 degrees celsius versus 71 degrees celsius of the new one. Once taken off, excess coolant also fell through, which



One of the first steps was draining the coolant fluid from the M97s system



Maxie used a healthy dose of Loctite before applying the new low temp thermostat to the 997, below



was caught in another bucket. The adjoining part to the thermostat was cleaned down using wet/dry paper. Using some Loctite 5922 glue, the new gasket was sealed onto the new thermostat. Luckily, fitting it back onto the engine wasn't as much hassle as taking it off, but you will still need those specialist sprockets.

Now the car needed its coolant, which was funnelled back in. Be aware of air gaps now circulating in the system – this is why you need to buy extra coolant. In fact, we forced some of the air gaps out simply by turning the engine over and depressing the accelerator. We could see the level of the coolant dropping, and so we immediately re-topped it with coolant and distilled water once more.

The proof of the pudding always comes in the actual driving, and that's what we did next. Paul led the way in his 993 while I followed in my own car, occasionally

stopping to top up with coolant. I did this twice in an hour, and the coolant level seems to have stayed the same. Has the thermostat worked? The water temperature gauge still reads at 80 degrees celsius as it ever did. However, the big difference is the oil gauge reading: 88 degrees celsius at normal operating temperature, as opposed to 90 degrees celsius at speeds of up to 4,000rpm. When operating in the 4,000-5,000rpm rev band, the oil temperature rose to 92 degrees celsius, compared to 100 degrees celsius previously. This may not sound like much, but early signs suggest that the thermostat is doing its job.

Early evening dinner and drinks at the Red Lion in Welwyn Garden, Hertfordshire while discussing the next mod – fitting a third central radiator – went down well. I will be discussing this next fitment in a future issue of **Total 911**. My thanks once again to Paul. **911**



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This month: A Martini-inspired livery

Joel Newman
• London, UK



1999 996 Carrera 4

Date acquired:
December 2011
Last report:
Issue 104
Total miles:
100,055
Costs:
£680

A few months ago I attended the Goodwood Festival of Speed. I've always been fascinated by automobiles of all types, but racing cars are a particular passion, so I was certainly in the right place. The various liveries associated with particular vehicles and particular eras, from Seventies John Player Special wrapped Lotus F1 cars to Warsteiner DTM BMWs and Marlboro McLarens, are inextricably linked, but there's one iconic association that stands above the rest for me: the Martini sponsorship of some stunning Porsches from the Seventies, most notably the Le Mans-winning 1971 917 and 1976-77 936 (both driven by a certain Gijs van Lennep).

Having soaked up the nostalgia, I left the event imagining how ridiculous adorning my 996 C4 with full-on race livery would be, but started to think about how I could include a nod to Porsche's illustrious racing history in a fun and marginally tasteful way.

After some research, I stumbled across a couple of interpretations of the Martini sponsorship I liked. It turns out they were

designed by Creative FX, a vehicle-wrapping outfit in Bromley, Kent, so I gave them a call and ended up chatting to owner and fellow Porsche fan Sean Davis.

It soon became clear that there was more to the whole process than I had first thought, and that in terms of my design I could have anything I fancied, whether that be subtle or an all-singing, all-dancing masterpiece. So, I booked an appointment with the in-house designer and got my thinking cap on.

I decided I wanted a design that echoed the graphics of one of the greatest modern Porsches, the 997 GT3 RS 4.0, but utilising the palate of classic Martini race livery. This route would create a more understated look. I also decided while the car was under the knife that I would lightly tint the windows.

You probably think I have exceptionally poor taste, but I have always felt the black paintwork and graphite wheels would be complemented by darkening the windows, and it happens that vehicle wrappers Autoworx UK are located close to Creative FX, and often work in conjunction.

Adding the tint was a relatively quick affair, but it was very clear that an intricate and methodical technique is required for a perfect finish. Thankfully, Tom Hulett, the firm's owner, has been working his magic for over 17 years, and having watched him at work, I can tell you that this is not something you would want to try on your own!

I'm told that Porsche offers an OE tint option known as 'sun protection glass' that allows for 35 per cent light transmission in comparison to clear glass, so I opted for that spec, although I also chose to take care of the door windows too. In daylight this allows the outside world a view into the cabin, but at night it does look pretty dark and menacing, and also masks how bright my red leather interior is, making for a nice surprise when you open the door!

Apart from the obvious improvement in privacy, the tinted glass also stops UV radiation, reduces internal glare, adds an additional layer of safety (as even when smashed the shards will stay attached to the film) and offers a huge reduction in cabin temperature on summer days. Since the fit, I can park up in direct sunlight, leave the car for as many hours as I wish and step straight in without feeling like I've found a portal to the Sahara desert! At under £300 for all four windows and the rear screen, I felt like I'd stumbled upon a bit of a bargain, too.

From here I'll let the pictures do the talking, but I'm enjoying the new Mohawk! I'm not sure how long it will remain like this, but for a few months of fun I have a car that grabs attention and brings a smile to my face every time I see it, and I can return it to standard in minutes. It might not be for everyone, but that's not my concern; I love the new look, and hope some of you do too. **911**

Stylish new addition or a bit garish? You decide

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INSIDE: 911 TURBO S SPECS
Full details of every 911 Turbo S can be found in our Data File beginning on page 88

“Porsche took the remaining 964 Turbo chassis and built the first-ever Turbo S, a name that would continue to this day”

COMPANY PROFILES 47



DATA FILE 88



ALSO INSIDE >>>

SHOWROOM 96

SERVICING & TUNING 99

INSURANCE & FINANCE 109

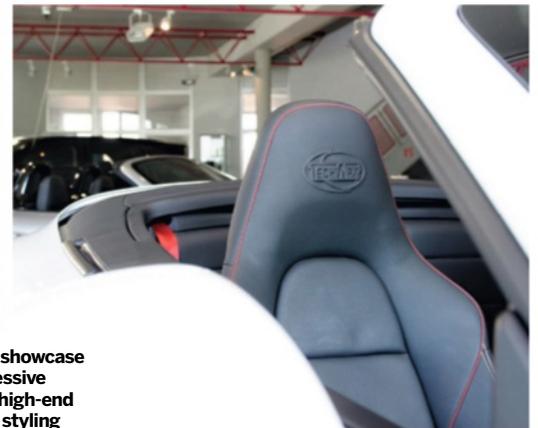
PORSCHE LIFESTYLE 111



TECHART

Famed for high-end bespoke Porsche tuning, the German custom 911 giants run an immaculate business catering for all the needs of the contemporary sports car owner

Written and photographed by Steve Hall



TechArt showcase an impressive array of high-end Porsche styling designs in both past and present guise at their Leonberg headquarters



It's impossible not to be impressed by a visit to TechArt. The glass-fronted building is situated in a quiet corner of Leonberg, sharing its hometown with Gemballa, right in the heartland of Porsche. Stuttgart and Weissach are just a few kilometres away – but here houses an impressive array of aftermarket products with everything from full cars to miniature models, giving you an exact idea of what TechArt is about.

After entering through the front door, I'm immediately confronted by Cayenne-based early and latest generation TechArt Magnums, sitting alongside the very latest Boxster and 991 Cabrios, fully dressed in the very best interior and exterior cosmetic packages. But inevitably it's the 710bhp white-and-black 997 that grabs the attention, and has me pouring over its every detail and aching to get behind the wheel and discover what this

power in a GT2 RS feels like. Or, if you have a spare €215,000 (£183,000), you could buy it and find out for yourself! For us, the stunning GT Street RS will have to wait for another day, as I'm here to get behind the scenes of TechArt and find out a bit more about the company that brings us these incredible modified Porsches.

While many will identify with TechArt for the impressive back catalogue of extreme cars from the GT Street and Grand GTs of today, to 1994's supercharged CT3 (a 462bhp 993), TechArt is a very diverse business nowadays, with extreme conversions representing just ten per cent of the total business. A stroll around the impressive showroom offers some clues to the remaining 90 per cent, as beyond the full cars there are shelves and display cases of the myriad individual pieces TechArt offer to personalise your Porsche. You'd

expect to find the selection of wheels, exhausts, pedals and suchlike, but pieces like a cutaway showing just how a TechArt steering wheel is assembled, to material samples and trim option parts give an insight into the true foundation of TechArt today, and demonstrates the deserved confidence in their quality. Interior work represents 30 per cent of what TechArt produce, with everything from a replacement steering wheel to a full interior retrim with any material and colour choice you desire on the menu.

Our visit to the trim shop is eye-opening. This is true handmade quality, no different to what you'd expect to find in the specialist departments of Aston Martin or Bentley. And with ten highly skilled staff trained to work here, there's plenty of scope to accommodate demand. Despite our tour coinciding with Friday lunchtime, there's still five workers ☺



TechArt designers and fitters apply immaculately high standards of workmanship to their craft, giving you an impeccably bespoke Porsche



“TechArt is going from strength to strength in a difficult climate”

busily crafting in here, from floor mats having labels stitched to a custom trim of Cayenne seats.

So with the interior of your Porsche taken care of, perhaps it's time to move onto an exterior cosmetic package. TechArt will be only too happy to oblige; with a full suite of body addenda and wheels available across the range for Porsche, there's something to suit all tastes, from a full wide-arch Cayenne to a simple lip spoiler for your 996. And while these parts are manufactured by trusted suppliers, they are made to exacting standards specified by TechArt designers.

The company's high standards are immediately evident during our tour, particularly as we take in the service area, which accounts for another 30 per cent of the TechArt business. I'm drawn to a flamboyantly styled 750bhp Cayenne sporting matt grey exterior offset by red highlights and blood-red interior retrim. Destined for the Middle-East, the quality of the package is stunning, with a fit and finish exceeding the donor car. With a staff of 15 to work the busy service area, and cars in for anything

from a straightforward oil service through to the full works conversion, it's clear that this is the heartbeat of the company.

The final part of the business – and perhaps of most interest to the driver – is where your Porsche is made faster and louder, with improved handling. TechArt do a strong trade in aftermarket dynamic parts, with full suspension, brake and exhaust packages developed in combination with the best in the business. While the power gains from modern n/a engines are moderate (no package is offered for 991 models), the Turbo models are more giving, with Cayennes gaining 160bhp and 997 Turbos up by over 200bhp. And with every package thoroughly tested and certified via the notoriously thorough German TUV process, you can be sure of the longevity – TechArt stake their reputation on it.

In the year of its 26th anniversary, it seems TechArt is going from strength to strength in a difficult climate. With a sound business built on an enviable reputation and steady expansion into global markets (new showrooms opened in

Company profile

- **Owners:** Thomas Behringer and Matthias Krauss
- **Founded:** 1987
- **Most famous project:** TechArt GT Street (based on the 996 GT2) and TechArt Magnum
- **Most popular 911 for TechArt parts:** 997 Turbo
- **Most exotic TechArt upgrade/part:** TechArt GT Street RS package, based on 997 GT2 RS
- **Most expensive TechArt upgrade:** Grand GT for Panamera, Magnum for Cayenne and GT Street for 911 Turbo all exceed £200,000 depending on specification

Contact

- **Website:** www.techart.de
- **Telephone:** +49 (0)7152 93390

Switzerland, China, Thailand and South Korea this year alone, pushing its presence beyond 30 countries), it seems TechArt is going to be serving up its own special brand of Porsche tuning for a long time to come. With their high-quality approach, we're excited to see TechArt's take on the new 991 generation Turbo in the flesh at the Essen motor show. In the meantime, the keys to that GT Street RS would keep us happy. **911**

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Hendon Way Motors was established in 1952, and is now one of Europe's leading Ferrari and Porsche specialists. Please visit our website at www.hwm.biz for more information on the company and our stock.

PORSCHE 997 - TURBO, GT2, C2S, C2**2012 - 991 C2S PDK COUPE (GUARDS RED) 14,000 Miles**

3.8L Black Leather Interior, PDK Gearbox, Paddle Shift, PSM, PASM, PCM, Sat Nav, BOSE Sound System, Sports Chrono Pack, Sports Exhausts, Adaptive Sports Seats, Embossed Leather Headrests And Wheel Crests Fitted, Porsche Vehicle Tracking System, Bi-Xenon Headlights, Suede Headlining, 20" Alloy Wheels, Porsche Warranty.

2008 - 997 GT2 CLUB SPORT (GUARDS RED) 11,000 Miles

Carbon Interior Pack, Black Leather And Alcantara Interior, Original Rollage Fitted, Alcantara Roof Lining, PASM, PCM, Sat Nav, Sports Chrono Pack, Xenon Headlights, Climate Control, Ceramic Brakes With Yellow Callipers, 19" GT2 Alloy Wheels With Michelin Super Cup Tyres, Full Porsche Service History And 2 Sets Of Keys, Outstanding Condition.

2008 - 997 TURBO CABRIOLET MANUAL (ATLAS GREY) 28,000 Miles

Black Leather Interior, PSM, PASM, PCM, Sat Nav, BOSE Sound System, CD Changer, Cruise Control, Porsche VTS, White Dials, Chrono Pack, Sports Exhaust, Multi Function Steering Wheel, Hardtop, 19" Turbo Alloy Wheels, Full Porsche Service History, One Owner From New.

2009/58 - 997 C2S COUPE PDK (GEN II) (MIDNIGHT BLUE) 32,000 Miles

Full Grey Leather Interior, PDK Gearbox, Sports Chrono Plus, BOSE Sound System, Sports Mode, PSM, PASM, PCM, Sat Nav, White Dials, 19" Turbo S Alloy Wheels, Xenon Headlights, Full Porsche Service History.

2009/58 - 997 C2S COUPE (GEN II) MANUAL (GT SILVER) 31,000 Miles

Metropole Blue Leather Interior, PSM, PASM, PCM, Sat Nav, Universal Audio Interface, Sport Shifter, BOSE Sound System, White Dials, Xenon Headlights, 19" Carrera Sport Wheels, Full Porsche Service History.

2006 - 997 C2S CABRIOLET TIP (SILVER) 22,000 Miles

Full Metropole Blue Leather Interior, PSM, PASM, PCM, Sat Nav, White Dials, 19" Carrera S Alloy Wheels, Xenon Headlights, Original Wind Deflector, Full Porsche Service History.

2006 - 997 C2S COUPE TIP (ARCTIC SILVER) 33,000 Miles

Black Leather Interior, PSM, PCM, Sat Nav, BOSE Sound System, CD Changer, Multi Function Steering Wheel, White Dials, Sports Exhaust, Climate Control, Xenon Headlights, Sunroof, 19" Carrera S Alloy Wheels, Full Porsche Service History.

2005/54 - 997 C2S COUPE TIP (ARCTIC SILVER) 59,000 Miles

Grey Leather Interior, PSM, PCM, Telephone, Computer, BOSE Sound System, CD Changer, Sunroof, 19" Carrera S Alloy Wheels, Rear Park Assist, Full Service History.

2005 - 997 C2 COUPE MANUAL (SEAL GREY) 37,000 Miles

2 Previous Owners Only, Full Black Leather Interior, PSM, PCM, Sat Nav, CD Changer, Part Electric Seats, Rear Parking Sensors, White Dials, 19" Carrera Alloy Wheels, Colour Crested Wheel Centre Caps, Tracker Fitted, Full Porsche Service History.

PORSCHE 996 - GT2, GT3, TURBO, C2**2003 - 996 GT2 (BASALT BLACK) 20,000 Miles**

Full Black Leather Interior, Electric Windows, Climate Control, Rear Roll Cage, Porsche Radio With CD Player, 18" GT3 Alloy Wheels, Full Service History (Just Been Serviced).

2004 - 996 GT3 (ATLAS GREY) 30,000 Miles

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

2004/54 - 996 TURBO "S" MANUAL (BASALT BLACK) 19,000 Miles

Full Black Leather Interior, Bilstein PSS10 Lowered Suspension, Performance Friction 350mm Brakes, Porsche GT3 Nomex Bucket Seats With 5 Point Seat Belts By Willems, Full Engine Rebuild, Very Low Mileage, Only 1 Previous Owner.

2004 - 996 TURBO CABRIOLET TIP (BASALT BLACK) 53,000 Miles

Full Black Leather Interior, PSM, PCM, Sat Nav, Cruise Control, BOSE Sound System, Climate Control, Xenon Headlights, 19" 997 Turbo Diamond Cut Alloy Wheels, New Tyres All Around, Full Porsche Service History.

2004 - 996 TURBO CABRIOLET TIP (BASALT BLACK) 67,000 Miles

Full Black Leather Interior, PSM, PCM, Sat Nav, Cruise Control, BOSE Sound System, Climate Control, 19" 997 Turbo Diamond Cut Alloy Wheels, Xenon Headlights, New Tyres All Around, Full Porsche Service History.

2004 - 996 TURBO COUPE TIP S (ATLAS GREY) 53,000 Miles

Full Black Leather Interior, PSM, PCM, Sat Nav With Full Set Of DVDs For Europe, BOSE Sound System, Cruise Control, Rear Parking Sensors, 18" Turbo Alloys With A Set Of New Tyres, Full Porsche Service History.

2003 - 996 TURBO COUPE MANUAL (BASALT BLACK) 45,000 Miles

Black Leather Interior, PSM, PCM, Sat Nav, Telephone, On-Board Computer, Bose Sound System, CD Changer, Cruise Control, Sports Seats, Heated Seats, Alcantara Headlining, Sunroof, Xenon Headlights, Rear Wiper, Rain Sensor, Full Porsche Service History.

2002 - 996 TURBO COUPE MANUAL (MERIDIEN SILVER) 44,000 Miles

Mid Grey Leather Interior, PSM, PCM, Sat Nav, Telephone Module, BOSE Sound System, Sunroof, White Dials, Computer Climate Control, Xenon Headlights, 18" Turbo Alloy Wheels, Official Porsche Centre Service History.

1999 - 996 C2 CABRIOLET MANUAL (BASALT BLACK) 63,000 Miles

Black Leather Interior, PSM, Telephone Module, Electric Windows, Electric Mirror, Climate Control, Hardtop, Full Service History, Low Number Of Keepers, Many More Extras.

PORSCHE 993 - TURBO, C2, TARGA, CARRERA**1998 - 993 TURBO "S" COUPE MANUAL (SPEED YELLOW) 60,000 Miles**

Black Leather/Carbon Fibre Interior, Litronic Lights, Sports Seats, Electric Seats, Electric Mirrors, Yellow Dials, Porsche Radio and Single CD Changer, Yellow Seat Belts, Sunroof, Rear Wiper, Yellow Callipers, 18" Turbo S Alloy Wheels, Full Service History.

1995 - 993 TURBO COUPE MANUAL (ARENA RED) 31,000 Miles

Grey Leather Interior, Wood Package, Electric Sunroof, Sports Seats, Cruise Control, Upated Becker CD Player, Bluetooth, Speakers, Sat Nav, 18" Turbo Alloy Wheels, Official Porsche Centre Service History.

1996 - 993 C2 COUPE TIP (IRIS BLUE) (VARIORAM) 73,000 Miles

Black Leather Interior, On-Board Computer, Upgraded Stereo and CD Changer, Electric Windows, Electric Mirrors, Electric Sunroof, Climate Control, 16" Carrera Alloy Wheels, Official Porsche Centre and Specialist Service History.

1997 - 993 C2 TARGA TIP S (OCEAN BLUE) 67,000 Miles

Varioram, Marble Grey/Metropole Blue Leather Interior, Electric Glass Targa Roof, Porsche Stereo, Air Conditioning, 17" Targa Alloy Wheels, Full And Extremely Detailed Service History With Very Recent Service, Spare Key, Master Remote, Original Books, MOTs, Service Invoices All Present.

1996 - 993 C2 TARGA TIP 'VARIORAM' (TURQUOISE) 83,000 Miles

Marble Grey Leather Interior, Electric Glass Targa Roof, Electric Seats, Electric Mirrors, Porsche Stereo, Air Conditioning, Rear Wiper, On-Board Computer, 17" Targa Alloy Wheels, Full Specialist Service History.

1995 - 993 C2 COUPE MANUAL (GRAND PRIX WHITE) 92,000 Miles

6 Speed Manual, Dark Grey Full Leather Interior, Upated Kenwood Sound System, External Audio Connector (iPod, MP3 etc), Central Locking With Immobiliser, 17" Targa Alloy Wheels, New Tyres Fitted, Full Porsche And Specialist Service History.

1994 - 993 C2 COUPE TIP (BLACK) 92,000 Miles

Black Leather Interior, Upated Becker Radio System, 17" Alloy Wheels, Central Locking With Immobiliser, Full Service History, Extremely Comprehensive Service History. (Spare Key, Old MOTs And Tax Discs, Original Manuals, etc)

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

Marble Grey Leather Interior, Sunroof, Becker Radio, Electric Seats, 17" Alloy Wheels, Full Porsche And Specialist Service History (Just Been Serviced).

1989 - 911 CARRERA 3.2 CABRIOLET (G50 GEARBOX) 124,000 Miles

Iris Blue Metallic, Full Beige Interior, Manual Gearbox, Matching Numbers Example, Matching Dark Blue Hood, Fully Electric Softtop, Period Correct Fuchs Alloy Wheels, Comprehensive Service History, 10 Years With The Same Owner.

1989 - 911 CARRERA 3.2 CABRIOLET (G50 GEARBOX) 92,000 Miles

Black Metallic, Full Black Interior, Matching Black Hood, Manual, Matching Numbers Example, Fully Electric Softtop, Period Correct Fuchs Alloy Wheels, Full Service History, 21 Years With The Same Owner.

PORSCHE BOXSTER S**2008/57 - BOXSTER (987) 24V SPORT EDITION 12,000 Miles**

Black Leather Interior, PASM, PASM, PCM, Sat Nav, Climate Control, BOSE Sound System, CD Changer, Colour Crested Wheels, Xenon Headlights, New Brakes, Recently Serviced, Striking Example.

PORSCHE CAYENNE TURBO**2005 - CAYENNE TURBO TIP (BASALT BLACK) 54,000 Miles**

4.5i V8 Turbo Engine, BOSE Sound System, Sat Nav, PCM, Active Suspension, Parking Sensors Front and Rear, Multi-Function Steering Wheel, Xenon Headlights, 22" Alloys With New Tyres, Very Good Service History, One Previous Keeper.

FERRARI - MODELS FROM 1967 +**2006 - F430 SPIDER V8 MANUAL (TITANIUM SILVER) 28,000 Miles**

6 Speed Manual, Titanium Silver Exterior, Rosso Leather Interior, Carbon Fibre Trim, Ferrari Stereo With A Telephone Module, Manettino With Sports And Track Settings, Climate Control, Ferrari Crested Headrests. Full Ferrari Service History.

2003 - 360 SPIDER F1 (GRIGIO SILVER) 28,000 Miles

Black Leather Interior, F1 Gear Box, ASR, Challenge Grill, Climate Control, CD Changer, 19" Ferrari Alloy Wheels, Full Ferrari Service History, Two Previous Keepers.

1998 - 550 MARANELLO COUPE MANUAL (SILVER) 53,000 Miles

Navy Leather Interior, Sat Nav With DVD, ASR Sports Mode, Electric Seats, Upgraded Radio And 6 CD Changer, Climate Control, Ferrari Service History.

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

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

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

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

1967 - 275 GTB/4 MANUAL LHD (ARGENTO SILVER) 59,000 Miles

Full Black Leather Interior, Detailed Restoration History, Original Build Sheets, Sales Invoice, Tool Kit, Wallet, Hand Books, Numerous Concourse And Awards Winner, Engine Rebuilt By Ferrari In Johannesburg 26,000 KMS Ago, Comprehensive Photos Showing The Repair And Work Done By Ferrari, Exceptional Condition Throughout.

1962 - 250 GTE LHD MANUAL (NERO BLACK) 73,000 KM

Rosso Red Leather Interior, Matching Numbers 2nd Series, Ferrari's First Series Produced 2+2, "Ferrari Classiche" Certified, Nardi Steering Wheel, Chrome Rimmed Vaglia Instruments.

CLASSICS - AC, PORSCHE, JAGUAR, BENTLEY, PGO, LAMBORGHINI**1991 - AC COBRA LIGHTWEIGHT (BLACK METALLIC) 5,000 Miles**

1 Of 26 RHD Lightweight, Black Leather, Black Metallic Coachwork With White Stripes Full Black Leather Interior, Absolutely Stunning Condition, Very Rare With Approximately Only 26 Vehicles Manufactured.

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

1600cc Signal Red Coachwork, Soft Beige Leather Interior, Left Hand Drive, 4 Speed Manual, Recent Restoration To Concourse Standard, Eligible For Many European Events.

1962 - JAGUAR 3.8 MARK II AUTOMATIC LHD (BLACK) 16,478 Miles

Automatic Black Coachwork, Red Leather Interior, Power Assisted Steering, Wire Wheels, Recent Restoration To Virtually Concourse Standard.

1936 - BENTLEY 4 1/4 PILLARLESS COUPE (MIDNIGHT BLUE)

Grey Leather Gurney Nutting Coachwork, 1 Owner In 40 Years, Extensive History, A True Classic Completely Original Throughout And Has Been Exhibited At Louis Vuitton Concours D'Elegance In Paris 2003. Sunroof Produced By Gurney Nutting, Chassis Completely Original Throughout.

1935 - BENTLEY DERBY 3.8 SALOON

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

2010 - PGO BUGGY - 500 RCM PGO BUGRACER (White) 700 Miles

Original PGO Buggy, Powered by a 500 cc Motorbike Engine, Steel Tube Frame, Right Hand Drive, Road Legal, LCD Dashboard, Locking Differential, Hand Brake Reverse.

2008/57 - LAMBORGHINI GALLARDO SPYDER (BLACK) 21,000 Miles

Interior In Nero Leather With Yellow Stitching, 19" Lamborghini Crested Alloys With Yellow Callipers, Satellite Navigation, Fully Electric Seats With Lamborghini Crests And Yellow Piping, Tracker Fitted, Bi-Xenon Lights, Full Official Lamborghini Service History, Recently Serviced, New Lamborghini Continental Tyres Fitted, An Immaculate Example.

2007 - MERCEDES CLS320 CDI (SILVER METALLIC) 59,000 Miles

Full Black Leather Interior, Diesel V6, Tiptronic (Automatic Gearbox), Sat Nav, CD Changer, Multi Function Steering Wheel, Cruise Control, Full Climate Control, ESP, Xenon Headlights, 17" Alloy Wheels With Good Tyres, Full Service History, Spare Key, All Original Manuals Present.

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established 1952



911 PREMIER
PORSCHE

Data file

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

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

Ratings: ★★★★★
Each model is rated according to performance, handling, appearance and desirability. Do you agree? Tell us your thoughts: editorial@total911.com.

- ULTRA RARE** You'll be lucky to see one on the road.
- GREAT VALUE** Provides a generous dose of 911 for your money.
- INTRO 911** An ideal first 911 – affordable and largely trouble-free.

Sales debate: Do X50 and X51 powerkits add value?



As discussed in Total 911 this issue, the X50 and X51 powerkits provide 911 owners with an extra hit of speed as a factory option. But does this add significant value to a water-cooled model in the used market?

Darren Street, of Porsche specialists RSJ Sports Cars, believes Powerkit 911s do sell at a significant premium, with a particular figure in mind for Turbos: "We've sold a couple of X50s recently for £2,000 more. It's helped as with the 996 Turbo there is a lot of interest in manual cars. I just can't find enough of them!"

Paragon Porsche's managing director Mark Sumpter also believes the powerkits have a greater effect on price. "I would have thought on a 996 Turbo, it adds quite a lot: 15 to 20 per

cent, which can be £4,000 – £5,000," he explains. "They've actually become a bit of a cult car."

But what of the X51 package? Sumpter continues: "On the 997 Carrera S, the X51 adds less, maybe ten per cent. I'm not sure many people know about the X51."

This disparity could be explained by the gains provided by the two kits. "On the X51 you don't see it so much, whereas on the 996, the X50 is really noticeable," Sumpter says. "If you want a faster 997, you go for a Turbo."

The 996 Turbo X50, therefore, is an appealing prospect for both buyers and sellers. The extra premium can be as much as 20 per cent, while from a driving perspective the gains are absolutely appreciable.

911 2.0-litre **ULTRA RARE** (O series) 1963-67



The 911 that started it all off exactly 50 years ago when the prototype appeared in 1963, this is the car that set the style for all 911s to follow. Developed to eventually replace the 356, the 911 was an all-new design that was undoubtedly a better all-round drive than its predecessor.

Capacity: 1,991cc
Compression ratio: 9.8:1
Maximum power: 130bhp @ 6,100rpm
Maximum torque: 149Nm @ 5,200rpm
Brakes: Front: 282mm discs; Rear: 290mm discs
Wheels & tyres: Front: 15x4.5J, 165HR (15x5.5J, 185HR from 1967); Rear: 15x4.5J, 165HR
Length: 4,163mm
Width: 1,610mm
Weight: 1,075kg
0-60mph: 7.9 sec
Top speed: 152mph

RATING:
★★★★★

911S (O and A series) 1966-68



Porsche soon started off something that would continue to be popular throughout the 911's history: producing more powerful variants. The first of these was the 911S (for Super), which had a higher compression engine and twin Weber 40IDS carburettors.

Capacity: 1,991cc
Compression ratio: 9.8:1
Maximum power: 160bhp @ 6,800rpm
Maximum torque: 180Nm @ 5,200rpm
Brakes: Front: 282mm discs; Rear: 290mm discs
Wheels & tyres: Front: 15x4.5J, 165HR (15x5.5J, 185HR from 1967); Rear: 15x4.5J, 165HR
Length: 4,163mm
Width: 1,610mm
Weight: 1,075kg
0-60mph: 7.9 sec
Top speed: 152mph

RATING:
★★★★★

911E (C & D series) 1969-71



The C series saw an increase in engine capacity to 2,195cc. Other minor improvements made to the engine included revised cylinder heads, larger valves and stronger connecting rods. In 1970 the D series cars had hot-zinc coated undersides and other minor changes.

Capacity: 2,195cc
Compression ratio: 9.1:1
Maximum power: 155bhp @ 6,200rpm
Maximum torque: 191Nm @ 4,500rpm
Brakes: Front: 282mm discs; Rear: 290mm discs
Wheels & tyres: Front: 15x6J, 185VR; Rear: 15x6J, 185VR
Length: 4,163mm
Width: 1,610mm
Weight: 1,020kg
0-60mph: 7.5 sec
Top speed: 137mph

RATING:
★★★★★

911S (C & D series) 1969-71



An upgrade in engine size from 1,991cc to 2,195 gave the 911S a useful 10bhp hike in power to 180bhp. Unlike the 911E, though, the S didn't gain such an improvement in low-down power and torque, so you had to keep the revs up to get the full benefit of the extra horsepower.

Capacity: 2,195cc
Compression ratio: 9.8:1
Maximum power: 180bhp @ 6,500rpm
Maximum torque: 199Nm @ 5,200rpm
Brakes: Front: 282mm discs; Rear: 290mm discs
Wheels & tyres: Front: 15x6J, 185HR; Rear: 15x6J, 185HR
Length: 4,163mm
Width: 1,610mm
Weight: 1,020kg
0-60mph: 6.6 sec
Top speed: 155mph

RATING:
★★★★★

911S (F series) 1973



For the F series, the 190bhp 911S followed the same upgrades as the 911E, the most significant being the deletion of the external oil-filler flap in the right-hand rear wing. It also adopted black trim around the front and rear lights and black front quarter grilles.

Capacity: 2,341cc
Compression ratio: 8.5:1
Maximum power: 190bhp @ 6,500rpm
Maximum torque: 216Nm @ 5,200rpm
Brakes: Front: 282mm discs; Rear: 290mm discs
Wheels & tyres: Front: 15x6J, 185VR; Rear: 15x6J, 185VR
Length: 4,163mm
Width: 1,610mm
Weight: 1,050kg
0-60mph: 6.6 sec
Top speed: 144mph

RATING:
★★★★★

911T (F series) 1973



US-bound F series 911Ts were the first 911s to have Bosch K-Jetronic fuel injection. This was fundamentally mechanical with some electronic sensors. It gave precise injections of fuel as required, in the process keeping emissions down and improving economy.

Capacity: 2,341cc
Compression ratio: 8.0:1
Maximum power: 165bhp @ 6,200rpm
Maximum torque: 206Nm @ 4,500rpm
Brakes: Front: 282mm discs; Rear: 290mm discs
Wheels & tyres: Front: 15x6J, 185VR; Rear: 15x6J, 185VR
Length: 4,163mm
Width: 1,610mm
Weight: 1,050kg
0-60mph: 7.0 sec (est)
Top speed: 140mph (est)

RATING:
★★★★★

911 Carrera (G & H series) 1974-75



From 1974, Porsche used the Carrera name on its range-topping 911. The 911 Carrera used essentially the same 2.7-litre, 210bhp engine as the previous year's RS for all markets except the USA. In 1975 it was available with an optional new whale-tail spoiler.

Capacity: 2,687cc
Compression ratio: 8.5:1
Maximum power: 210bhp @ 6,300rpm
Maximum torque: 255Nm @ 5,100rpm
Brakes: Front: 282mm discs; Rear: 290mm discs
Wheels & tyres: Front: 15x6J, 185VR; Rear: 15x7J, 215VR
Length: 4,291mm
Width: 1,610mm
Weight: 1,075kg
0-60mph: 6.1 sec
Top speed: 149mph

RATING:
★★★★★

911 Carrera 3.0 (I & J series) 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, which was essentially that from the 911 Turbo. This engine, with the addition of some minor changes, continued to power the 911 until 1989.

Capacity: 2,994cc
Compression ratio: 8.5:1
Maximum power: 200bhp @ 6,000rpm
Maximum torque: 255Nm @ 4,200rpm
Brakes: Front: 282mm discs; Rear: 290mm discs
Wheels & tyres: Front: 15x6J; Rear: 15x7J, 215VR
Length: 4,291mm
Width: 1,610mm
Weight: 1,093kg
0-62mph: 6.3 sec
Top speed: 145mph

RATING:
★★★★★

911L (A series) 1967-68



In 1967, the 911 received its first update with the A-series. This coincided with an expansion to the range: the standard car became known as the 911L (Lux) and sat alongside the high-performance 911S and the entry-level 911T.

Capacity: 1.99lcc
Compression ratio: 9.0:1
Maximum power: 130bhp @ 6,100rpm
Maximum torque: 173Nm @ 4,200rpm
Brakes: Front: 282mm discs; Rear: 290mm discs
Wheels & tyres: Front: 15x5.5J, 185HR; Rear: 15x5.5J, 185HR
Length: 4,163mm
Width: 1,610mm
Weight: 1,075kg
0-60mph: 8.4 sec
Top speed: 132mph

RATING:
 ★★☆☆☆

911T (A & B series) 1967-68



The entry-level 911T had a 110bhp engine that, to save money, used cast-iron cylinder heads (as opposed to the Biral aluminium/iron items which gave more efficient cooling) and carburetors instead of fuel injection. The interior specification was similar to that of the 912.

Capacity: 1.99lcc
Compression ratio: 8.6:1
Maximum power: 110bhp @ 5,800rpm
Maximum torque: 156Nm @ 4,200rpm
Brakes: Front: 282mm discs; Rear: 290mm discs
Wheels & tyres: Front: 15x5.5J, 165HR; Rear: 15x5.5J, 165HR
Length: 4,163mm
Width: 1,610mm
Weight: 1,020kg
0-60mph: 8.8 sec (est)
Top speed: 124mph

RATING:
 ★★☆☆☆

911E (B series) 1968-69



In 1968 the 911 received its first significant update, enabling it to evolve into what is known as the B series. Central to the new model line-up was the 911E, which replaced the 911L as the 'standard' car. The 'E' stood for 'Einspritz', which is German for injection.

Capacity: 1.99lcc
Compression ratio: 9.1:1
Maximum power: 140bhp @ 6,500rpm
Maximum torque: 175Nm @ 4,500rpm
Brakes: Front: 282mm discs; Rear: 290mm discs
Wheels & tyres: Front: 15x6J, 185VR; Rear: 15x6J, 185VR
Length: 4,163mm
Width: 1,610mm
Weight: 1,020kg
0-60mph: 7.6 sec
Top speed: 130mph

RATING:
 ★★☆☆☆

911S (B series) 1968-69



The 911S was updated to B series specification in line with the 911E. Like the E, the more sporty S gained a fuel injection, boosting power to a useful 170bhp. To help cope with the extra demands this put on the engine, an additional oil cooler was fitted in the front right-hand wing.

Capacity: 1.99lcc
Compression ratio: 9.9:1
Maximum power: 170bhp @ 6,800rpm
Maximum torque: 183Nm @ 5,500rpm
Brakes: Front: 282mm discs; Rear: 290mm discs
Wheels & tyres: Front: 15x6J, 185HR; Rear: 15x6J, 185HR
Length: 4,163mm
Width: 1,610mm
Weight: 995kg
0-60mph: 6.6 sec
Top speed: 155mph

RATING:
 ★★☆☆☆

911T (C & D series) 1969-71



When the 911E and 911S increased their engine capacity to 2.2 litres, their little brother followed suit. Like the 911E, the torque curve was now flatter, in the process making the car more driveable. Ventilated discs from the S were fitted and a five-speed gearbox became standard.

Capacity: 2.195lcc
Compression ratio: 8.6:1
Maximum power: 125bhp @ 5,800rpm
Maximum torque: 177Nm @ 4,200rpm
Brakes: Front: 282mm discs; Rear: 290mm discs
Wheels & tyres: Front: 15x5.5J, 165HR; Rear: 15x5.5J, 165HR
Length: 4,163mm
Width: 1,610mm
Weight: 1,020kg
0-60mph: 7.0 sec (est)
Top speed: 123mph

RATING:
 ★★☆☆☆

911E (E series) 1972



An increase in engine capacity to 2.34lcc 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 a stronger unit, making it better suited to the extra power.

Capacity: 2.34lcc
Compression ratio: 8.0:1
Maximum power: 165bhp @ 6,200rpm
Maximum torque: 206Nm @ 4,500rpm
Brakes: Front: 282mm discs; Rear: 290mm discs
Wheels & tyres: Front: 15x6J, 185VR; Rear: 15x6J, 185VR
Length: 4,163mm
Width: 1,610mm
Weight: 1,050kg
0-60mph: 7.5 sec
Top speed: 137mph

RATING:
 ★★☆☆☆

911T (E series) 1972



The entry-level 911T received a boost in engine size to 2.34lcc in 1972 to compensate for its increased power. However, a lower compression ratio and the inclusion of Zenith 40 TIN triple-choke carburetors led to the relatively lower power output of 130bhp.

Capacity: 2.34lcc
Compression ratio: 7.5:1
Maximum power: 130bhp @ 6,200rpm
Maximum torque: 196Nm @ 4,000rpm
Brakes: Front: 282mm discs; Rear: 290mm discs
Wheels & tyres: Front: 15x5.5J, 165VR; Rear: 15x5.5J, 165VR
Length: 4,163mm
Width: 1,610mm
Weight: 1,050kg
0-60mph: 7.6 sec
Top speed: 128mph

RATING:
 ★★☆☆☆

911E (F series) 1973



After a number of incidents in which people filled E series 911s with petrol via the external oil-filler, the filler returned to under the engine compartment lid. The 911E was fitted with a new type of ATS cast-aluminium wheels and had the front spoiler of the 911S.

Capacity: 2.34lcc
Compression ratio: 7.5:1
Maximum power: 130bhp @ 6,200rpm
Maximum torque: 196Nm @ 4,000rpm
Brakes: Front: 282mm discs; Rear: 290mm discs
Wheels & tyres: Front: 15x5.5J, 165VR; Rear: 15x5.5J, 165VR
Length: 4,163mm
Width: 1,610mm
Weight: 1,050kg
0-60mph: 7.6 sec (est)
Top speed: 140mph (est)

RATING:
 ★★☆☆☆

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



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

Capacity: 2.687lcc
Compression ratio: 8.0:1
Maximum power: 150bhp @ 5,700rpm (165bhp @ 5,800 from 1.976)
Maximum torque: 235Nm @ 3,800rpm (235Nm @ 4,000rpm from '76)
Brakes: Front: 282mm discs; Rear: 290mm discs
Wheels & tyres: Front: 15x6J; Rear: 15x6J, 185VR
Length: 4,291mm
Width: 1,610mm
Weight: 1,075kg
0-60mph: 8.5 sec
Top speed: 130mph

RATING:
 ★★☆☆☆

911S (G, H, I, J series) 1974-77



For 1974, Porsche realigned its model line-up, and the 911S was no longer the range-topping car, but rather a mid-range model comparable to the previous 911E. It had the same body changes as the base model, and came as standard with 15-inch ATS 'cookie cutter' wheels.

Capacity: 2.687lcc
Compression ratio: 8.5:1
Maximum power: 175bhp @ 5,800rpm
Maximum torque: 235Nm @ 4,000rpm
Brakes: Front: 282mm discs; Rear: 290mm discs
Wheels & tyres: Front: 15x6J, 185VR; Rear: 15x6J, 185VR
Length: 4,291mm
Width: 1,610mm
Weight: 1,075kg
0-60mph: 7.0 sec
Top speed: 142mph

RATING:
 ★★☆☆☆

ULTRA-RARE MODEL

1972-73 Carrera 2.7 RS

The RS had a 2.68lcc engine that developed 210bhp. The body was lightened and fitted with flared rear arches and an optional ducktail spoiler. The RS Sport was an ultra-light model, while the Touring car retained some creature comforts.

Capacity: 2.68lcc
Compression ratio: 8.5:1
Maximum power: 210bhp @ 6,300rpm
Maximum torque: 255Nm @ 5,100rpm
Brakes: Front: 282mm discs; Rear: 290mm discs
Wheels & tyres: Front: 15x6J, 185VR; Rear: 15x7J, 215VR
Length: 4,163mm
Width: 1,610mm
Weight: 975kg (Sport)
0-60mph: 5.6 sec
Top speed: 153mph

RATING:
 ★★☆☆☆



930 3.0 1975-77



Fitted with a KKK turbocharger, this was the world's first production car to be turbocharged. Flared arches and a whaletail spoiler created a look that would become legendary. Brakes weren't good on early Turbos, and the four-speed gearbox was standard.

Capacity: 2.994lcc
Compression ratio: 8.5:1
Maximum power: 260bhp @ 5,500rpm
Maximum torque: 343Nm @ 4,000rpm
Brakes: Front: 282mm discs; Rear: 290mm discs
Wheels & tyres: Front: 15x7J, 185/70VR; Rear: 15x8J, 215/60VR
Length: 4,291mm
Width: 1,610mm
Weight: 1,195kg
0-62mph: 5.3 sec
Top speed: 168mph

RATING:
 ★★☆☆☆

930 3.3 1978-83



A larger engine led to an extra 40bhp of power, and an intercooler on top of the engine led to the adoption of a new 'teatray' spoiler. The brakes were upgraded with 917 racecar-based items, larger discs and four-piston calipers.

Capacity: 3.299lcc
Compression ratio: 7.0:1
Maximum power: 300bhp @ 5,500rpm
Maximum torque: 343Nm @ 4,000rpm
Brakes: Front: 304mm discs; Rear: 309mm discs
Wheels & tyres: Front: 15x7J, 185/70VR; Rear: 15x8J, 215/60VR
Length: 4,491mm
Width: 1,775mm
Weight: 1,300kg
0-62mph: 5.0 sec
Top speed: 160mph

RATING:
 ★★☆☆☆

911 SC 1978-83



From 1978, the SC was the only normally aspirated 911. It was a development of the Carrera 3.0, but the engine produced less power to suit all markets. A Sport option allowed for the inclusion of front and rear spoilers, 16-inch Fuchs alloy wheels, sports seats and dampers.

Capacity: 2.994lcc
Compression ratio: 8.5:1/8.6:1/9.8:1
Maximum power: 180/188/204bhp @ 5,500rpm
Maximum torque: 265/265/267Nm @ 4,300rpm
Brakes: Front: 287mm discs; Rear: 295mm discs
Wheels & tyres: Front: 15x6J, 185/70VR; Rear: 15x7J, 215/60VR (16-inch optional)
Length: 4,291mm
Width: 1,626mm
Weight: 1,160kg (1978 Coupe)
0-62mph: 6.5 sec
Top speed: 141mph

RATING:
 ★★☆☆☆

930 3.3 1984-89



A revised engine added more power and torque in 1984, while in 1987 Motronic engine management improved efficiency and emissions when the car returned to the US market. Perforated brake discs later appeared in 1988, while a five-speed gearbox arrived in 1989.

Capacity: 3.299lcc
Compression ratio: 7.0:1
Maximum power: 300bhp @ 5,500rpm
Maximum torque: 432Nm @ 4,000rpm
Brakes: Front: 304mm discs; Rear: 309mm discs
Wheels & tyres: Front: 16x7J, 205/55VR; Rear: 16x9J, 245/45VR
Length: 4,491mm
Width: 1,775mm
Weight: 1,335kg
0-62mph: 4.8 sec
Top speed: 173mph

RATING:
 ★★☆☆☆

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Carrera 3.2 INTRO 911 1984-89



The Carrera 3.2 had almost the same galvanised body as the SC. The engine was claimed by Porsche to be 80 per cent new, and was the first production 911 motor to feature an ECU to control the ignition and fuel systems. The Getrag G50 gearbox appeared in 1987.

Capacity: 3,164cc
Compression ratio: 10.3:1
Maximum power: 231bhp @ 5,900rpm
Maximum torque: 284Nm @ 4,800rpm
Brakes: Front: 304mm discs; Rear: 309mm discs.
Wheels & tyres: Front: 15x7J, 195/65VR; Rear: 15x8J, 215/60VR (16 inches for 1989)
Length: 4,291mm
Width: 1,650mm
Weight: 1,210kg
0-62mph: 5.6 sec
Top speed: 148mph

RATING:



930 LE ULTRA RARE 1989



Essentially an SE without a slantnose front, the LE had the same engine, front spoiler, sill extensions and rear air intakes. The fully spec'd interior and 'Limited Edition' status meant the LE was initially thought by many to be the last ever 911 Turbo. Of course, that wasn't the case...

Capacity: 3,299cc
Compression ratio: 7.0:1
Maximum power: 330bhp @ 5,500rpm
Maximum torque: 432Nm @ 4,000rpm
Brakes: Front: 304mm discs; Rear: 309mm discs
Wheels & tyres: Front: 16x7J, 205/55VR; Rear: 16x9J, 245/45VR
Length: 4,491mm
Width: 1,775mm
Weight: 1,335kg
0-62mph: 4.6 sec
Top speed: 173mph

RATING:



964 Carrera 2 1990-93



Not everyone wanted four-wheel drive. Reflecting this attitude, the rear-drive Carrera 2 offered an emphatically more traditional 911 experience and was 100kg lighter, but

looked identical to the Carrera 4. Tiptronic automatic transmission was a new option.

Capacity: 3,600cc
Compression ratio: 10.3:1
Maximum power: 250bhp @ 6,100rpm
Maximum torque: 310Nm @ 4,800rpm
Brakes: Front: 298mm discs; Rear: 299mm discs
Wheels & tyres: Front: 16x6J, 205/55ZR16; Rear: 16x8J, 225/50ZR16 (17-inch rims optional)
Length: 4,250mm
Width: 1,650mm
Weight: 1,350kg
0-62mph: 5.5 sec
Top speed: 164mph

RATING:



964 Turbo 1990-92



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

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

Capacity: 3,299cc
Compression ratio: 7.0:1
Maximum power: 320bhp @ 5,750rpm
Maximum torque: 450Nm @ 4,500rpm
Brakes: Front: 322mm discs; Rear: 299mm discs
Wheels & tyres: Front: 17x7J, 205/50ZR17; Rear: 17x9J, 255/45ZR17
Length: 4,250mm
Width: 1,775mm
Weight: 1,470kg
0-62mph: 5.0 sec
Top speed: 169mph

RATING:



964 Turbo 3.6 1993-94



The Turbo received an engine based on the 3.6-litre 964 unit, albeit one that had been modified. Distinctive 18-inch split-rim Speedline wheels covered the big-red brake calipers. Suspension was lowered by 20mm (not in the US) and a front strut-brace was fitted.

Capacity: 3,600cc
Compression ratio: 7.5:1
Maximum power: 360bhp @ 5,500rpm
Maximum torque: 520Nm @ 4,200rpm
Brakes: Front: 322mm discs; Rear: 299mm discs.
Wheels & tyres: Front: 18x8J with 225/40ZR18 tyres; Rear: 18x10J with 265/35ZR18 tyres
Length: 4,250mm
Width: 1,775mm
Weight: 1,470kg
0-62mph: 4.8 sec
Top speed: 174mph

RATING:



964 3.8 RS 1993



Identified by a lightweight Turbo bodysell, large rear spoiler and 18-inch Speedline wheels. Power came from a new 3.8-litre unit with hot-film air sensor and twin exhaust. Suspension was RS-derived, while brakes were a mix of RS and Turbo 3.6 items.

Capacity: 3,746cc
Compression ratio: 11.6:1
Maximum power: 300bhp @ 6,500rpm
Maximum torque: 359Nm @ 5,250rpm
Brakes: Front: 322mm discs; Rear: 299mm discs.
Wheels & tyres: Front: 18x9J, 235/40ZR; Rear: 18x11J, 285/35ZR
Length: 4,250mm
Width: 1,775mm
Weight: 1,210kg
0-62mph: 4.9 sec
Top speed: 169mph

RATING:



993 Turbo 1996-98



The Turbo was fitted with two KKK turbochargers in order to reduce lag. Also, the power went to all four wheels using the Carrera 4's transmission system. Brakes were distinctive 'big reds' under hollow-spoked 18-inch wheels.

Capacity: 3,600cc
Compression ratio: 8.0:1
Maximum power: 408bhp @ 5,750rpm
Maximum torque: 540Nm @ 4,500rpm
Brakes: Front: 322mm discs; Rear: 322mm discs
Wheels & tyres: Front: 18x8J, 225/40ZR18; Rear: 18x10J, 285/30ZR18
Length: 4,245mm
Width: 1,795mm
Weight: 1,575kg
0-62mph: 4.3 sec
Top speed: 180mph

RATING:



993 GT2 1995-96



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

Capacity: 3,600cc
Compression ratio: 8.0:1
Maximum power: 430bhp @ 5,750rpm
Maximum torque: 540Nm @ 4,500rpm
Brakes: Front: 322mm discs; Rear: 322mm discs
Wheels & tyres: Front: 18x9J, 235/40ZR18; Rear: 18x11J, 285/35ZR18
Length: 4,245mm
Width: 1,855mm
Weight: 1,290kg
0-62mph: 3.9 sec
Top speed: 189mph

RATING:



930 SE ULTRA RARE 1986-89



Slant-nosed and based on that of the 935 racecars, with pop-up headlamps. The front spoiler was made deeper in order to accommodate the extra oil cooler, while intakes in the rear wings fed air to the brakes. The larger turbocharger and four-outlet exhaust gave 30bhp of extra power.

Capacity: 3,299cc
 Compression ratio: 7.0:1
 Maximum power: 330bhp @ 5,500rpm
 Maximum torque: 432Nm @ 4,000rpm
 Brakes: Front: 304mm discs; Rear: 309mm discs
 Wheels & tyres: Front: 16x7J, 205/55VR; Rear: 16x9J, 245/45VR
 Length: 4,491mm
 Width: 1,775mm
 Weight: 1,335kg
 0-62mph: 4.6 sec
 Top speed: 173mph

RATING:
 ★★★★★

3.2 Clubsport 1987-89



Removing the 'luxuries' from the Carrera 3.2 sliced around 40kg off the car's weight. Revised engine management gave a higher rev limit of 6,840rpm, but Porsche never claimed there was any increase in power. Suspension uprated and limited-slip differential standard.

Capacity: 3,164cc
 Compression ratio: 10.3:1
 Maximum power: 231bhp @ 5,900rpm
 Maximum torque: 284Nm @ 4,800rpm
 Brakes: Front: 304mm discs; Rear: 309mm discs.
 Wheels & tyres: Front: 15x6J, 195/65VR; Rear: 15x7J, 215/60VR
 Length: 4,291mm
 Width: 1,650mm
 Weight: 1,170kg
 0-60mph: 5.1 sec
 Top speed: 151mph

RATING:
 ★★★★★

Speedster 1989



Essentially a Carrera 3.2 with a chopped, more steeply raked windscreen and hood and stripped-out interior. Most had wide Turbo bodies. Porsche insisted that the simple hood was not designed to be 100 per cent watertight. 2,065 examples of this model were built.

Capacity: 3,164cc
 Compression ratio: 10.3:1
 Maximum power: 231bhp @ 5,900rpm
 Maximum torque: 284Nm @ 4,800rpm
 Brakes: Front: 304mm discs; Rear: 309mm discs.
 Wheels & tyres: Front: 15x7J, 195/65VR; Rear: 15x8J, 215/60VR
 Length: 4,291mm
 Width: 1,650mm
 Weight: 1,210kg
 0-60mph: 5.6 sec
 Top speed: 148mph

RATING:
 ★★★★★

964 Carrera 4 1989-93



Heavily revised bodywork, deformable bumpers over coil-spring suspension and four-wheel-drive marked this radical overhaul of the 911, which Porsche claimed was 87 per cent new. The 3.6-litre engine featured two spark plugs per cylinder and ceramic exhaust port liners.

Capacity: 3,600cc
 Compression ratio: 10.3:1
 Maximum power: 250bhp @ 6,100rpm
 Maximum torque: 310Nm @ 4,800rpm
 Brakes: Front: 298mm discs; Rear: 299mm discs
 Wheels & tyres: Front: 16x6J, 205/55ZR16; Rear: 16x8J, 225/50ZR16 (17-inch rims optional)
 Length: 4,250mm
 Width: 1,650mm
 Weight: 1,450kg
 0-62mph: 5.7 sec
 Top speed: 162mph

RATING:
 ★★★★★

964 RS 1991-92



Around 120kg was lost by deleting 'luxuries' and fitting magnesium Cup wheels. Power was boosted by 10bhp and fed through a flywheel and uprated clutch. Suspension was lowered by 40mm and uprated, as were the brakes. Sport and Touring versions were also offered.

Capacity: 3,600cc
 Compression ratio: 10.3:1
 Maximum power: 260bhp @ 6,100rpm
 Maximum torque: 310Nm @ 4,800rpm
 Brakes: Front: 322mm discs; Rear: 299mm discs
 Wheels & tyres: Front: 17x7.5J, 205/50ZR17; Rear: 17x9J, 255/40ZR17
 Length: 4,250mm
 Width: 1,650mm
 Weight: 1,230kg (Sport)
 0-62mph: 5.2 sec
 Top speed: 162mph

RATING:
 ★★★★★

964 C2 Speedster 1993-94



This combined the 964 bodysell with the hood and windscreen of the Carrera 3.2 Speedster plus the RS interior. It is thought that Porsche planned to build around 3,000, but only 936 were made, many in bright colours such as yellow or red with colour-coded wheels.

Capacity: 3,600cc
 Compression ratio: 10.3:1
 Maximum power: 250bhp @ 6,100rpm
 Maximum torque: 310Nm @ 4,800rpm
 Brakes: Front: 298mm discs; Rear: 299mm discs
 Wheels & tyres: Front: 16x6J, 205/55ZR16; Rear: 16x8J, 225/50ZR16 (17-inch rims optional)
 Length: 4,250mm
 Width: 1,650mm
 Weight: 1,340kg
 0-62mph: 5.5 sec
 Top speed: 164mph

RATING:
 ★★★★★

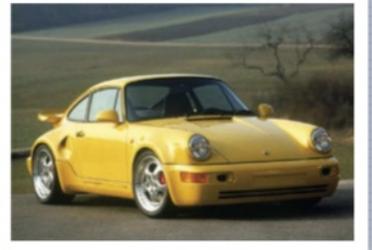
ULTRA RARE MODEL ULTRA RARE

1992-93 **964 Turbo S**

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

Capacity: 3,299cc
 Compression ratio: 7.0:1
 Maximum power: 381bhp @ 6,000rpm
 Maximum torque: 490Nm @ 4,800rpm
 Brakes: Front: 322mm discs; Rear: 299mm discs
 Wheels & tyres: Front: 18x8J, 235/40ZR18; Rear: 18x10J, 265/35ZR18
 Length: 4,250mm
 Width: 1,775mm
 Weight: 1,290kg
 0-62mph: 4.6 sec
 Top speed: 180mph

RATING:
 ★★★★★



993 Carrera 1993-97



Restyled bodywork had swept-back headlamps, curvaceous wings and blended-in bumpers. The engine was revised with hydraulic tappets and hot-film air flow sensor, plus VarioRam from 1996. All-new multilink rear suspension gave improved handling.

Capacity: 3,600cc
 Compression ratio: 11.3:1
 Maximum power: 272bhp @ 6,000rpm
 Maximum torque: 330Nm @ 5,000rpm
 Brakes: Front: 304mm discs; Rear: 299mm discs
 Wheels & tyres: Front: 16x7J, 205/55ZR16; Rear: 16x9J, 245/45ZR16 (17-inch rims optional)
 Length: 4,245mm
 Width: 1,735mm
 Weight: 1,370kg (Coupe)
 0-62mph: 5.6 sec
 Top speed: 168mph

RATING:
 ★★★★★

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 the driving experience a more rear-drive-esque feel. Automatic Brake Differential (ABD) compensated for wheelspin.

Capacity: 3,600cc
 Compression ratio: 11.3:1
 Maximum power: 272bhp @ 6,000rpm
 Maximum torque: 330Nm @ 5,000rpm
 Brakes: Front: 304mm discs; Rear: 299mm discs
 Wheels & tyres: Front: 16x7J, 205/55ZR16; Rear: 16x9J, 245/45ZR16 (17-inch rims optional)
 Length: 4,245mm
 Width: 1,735mm
 Weight: 1,420kg
 0-62mph: 5.8 sec
 Top speed: 166mph

RATING:
 ★★★★★

993 Carrera RS 1995-96



Had a lightweight body as per RS tradition, but teamed with a 3.8-litre engine. VarioRam intake system and remapped ECU to create 200bhp, fed to the rear wheels only, with suspension and brakes all uprated. It is recognisable by the fixed rear whaletail and large front spoiler.

Capacity: 3,746cc
 Compression ratio: 11.5:1
 Maximum power: 300bhp @ 6,000rpm
 Maximum torque: 355Nm @ 5,400rpm
 Brakes: Front: 322mm discs; Rear: 299mm discs
 Wheels & tyres: Front: 18x8J, 225/40ZR18; Rear: 18x10J, 265/35ZR18
 Length: 4,245mm
 Width: 1,735mm
 Weight: 1,279kg
 0-62mph: 5.0 sec
 Top speed: 172mph

RATING:
 ★★★★★

993 Carrera 4S 1995-96



The 4S was effectively a Carrera 4 with a Turbo wide bodysell (albeit lacking a fixed rear spoiler). It also boasted Turbo brakes and suspension, and the 18-inch wheels were aesthetically similar to the equivalent Turbo items.

Capacity: 3,600cc
 Compression ratio: 11.3:1
 Maximum power: 285bhp @ 6,100rpm
 Maximum torque: 340Nm @ 5,250rpm
 Brakes: Front: 322mm discs; Rear: 322mm discs
 Wheels & tyres: Front: 18x8J, 225/40ZR18; Rear: 18x10J, 285/30ZR18
 Length: 4,245mm
 Width: 1,795mm
 Weight: 1,520kg
 0-62mph: 5.3 sec
 Top speed: 168mph

RATING:
 ★★★★★

993 Carrera S 1997-98



The features that come with the Carrera S are similar to the Carrera 4S's, only in rear-wheel-drive. Sought after for its superb handling and looks, the split engine cover lid and wide body give it a distinctive appearance.

Capacity: 3,600cc
 Compression ratio: 11.3:1
 Maximum power: 285bhp @ 6,100rpm
 Maximum torque: 340Nm @ 5,250rpm
 Brakes: Front: 322mm discs; Rear: 322mm discs
 Wheels & tyres: Front: 18x8J, 225/40ZR18; Rear: 18x10J, 285/30ZR18
 Length: 4,245mm
 Width: 1,795mm
 Weight: 1,450kg
 0-62mph: 5.4 sec
 Top speed: 168mph

RATING:
 ★★★★★

993 Turbo S 1998



The 993 Turbo S was a fitting final hurrah to the last air-cooled 911. With 450bhp for UK models, it was the fastest and most luxurious road going model Stuttgart had ever produced. Manual only as Tiptronic had not been developed to manage the abundance of torque.

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

RATING:
 ★★★★★

996 Carrera INTRO 911 1998-2001



An all-new 911 with larger, restyled bodywork and a 3.4-litre water-cooled engine. The interior was redesigned in order to enable better ergonomic efficiency and allow for more room. The Carrera was a rear-wheel-drive, entry-level model, ideal for first-time Porsche drivers.

Capacity: 3,387cc
 Compression ratio: 11.3:1
 Maximum power: 300bhp @ 6,800rpm
 Maximum torque: 350Nm @ 4,600rpm
 Brakes: Front: 318mm discs; Rear: 299mm discs
 Wheels & tyres: Front: 17x7J, 205/50ZR17; Rear: 17x9J, 255/40ZR17 (18-inch rims optional)
 Length: 4,430mm
 Width: 1,765mm
 Weight: 1,320kg
 0-62mph: 5.2 sec
 Top speed: 174mph

RATING:
 ★★★★★

996 Carrera 4 1998-2001



Four-wheel-drive transmission fed only five per cent of power to front in normal driving, increasing to up to 40 per cent when required. Porsche Stability Management combined traction control, anti-slip control and Automatic Braking Differential.

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

RATING:
 ★★★★★

911 technology explained



PTM

On new four-wheel-drive 911s, Porsche Traction Management (PTM) ensures grip is maintained in all conditions. Total 911 explains how the power distribution system works

Since 1989, Porsche has been building production four-wheel drive 911s. In recent years, the system has become increasingly clever with its torque distribution. This is down to Porsche Traction Management.

The system operates using two differentials (one for each axle). With the transmission mounted in front of the engine, the front differential is powered by a perfectly straight propshaft from the rear differential. This ensures that power is distributed evenly.

Traction on the rear wheels is managed by PTV (Porsche Torque Vectoring). PTV is the reason Porsche no longer talks of limited-slip differentials. Torque vectoring not only transfers power from side-to-side, it also independently brakes the inside wheel to enable greater turn in. PTV is mechanically operated unless the 'Plus' option is specified, in which case an

infinitely variable electronically locking version is utilised.

With the rear wheels taken care of, the level of power distributed to the front axle is determined by a series of sensors measuring a range of parameters, from steering angle and throttle application to lateral and longitudinal acceleration.

This information is then used to operate the electronically controlled double-clutch system, located just behind the front differential. If the rear axle is struggling to apply all the power to the road, the electronically activated clutch is engaged more positively (taking a maximum of 100 milliseconds), transferring a greater amount of the engine's power to the front axle. Depending on throttle application, this system can prelock, meaning that traction is always available, even before the driver needs it.

Head to head: 997 C4GTS v 993 Turbo



The 997 C4 GTS is the ultimate Carrera model. Created as a run-out edition of the 997-type car, it is lavished with options, including the stunning centre-lock wheels (more often found on the Turbo S and GT3 RS). Inside, Alcantara is used liberally to provide a sporty yet classy finish.

The 993 Turbo is similarly high-end. However, while the GTS is a showcase of Porsche's modern mastery of automotive technology, the last air-cooled turbocharged 911 has a greater

connection with the past. Everything about the car is pushed to its limits, including the gearbox.

On the road, both are superb 911s. The 993 Turbo is evidently from the same stock as the very first 901, while the GTS is slightly more disconnected, although no less enjoyable.

To find out how these got on against each other in a test of the £70k 911s, get your copy of Issue 91 from the Imagine Shop at www.imagineshop.co.uk.

996 GT3

1998-2000



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

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

Capacity: 3,600cc
Compression ratio: 11.7:1
Maximum power: 360bhp @ 6,300rpm
Maximum torque: 370Nm @ 5,100rpm
Brakes: Front: 330mm discs; Rear: 330mm discs
Wheels & tyres: Front: 18x8J, 225/40ZR18; Rear: 18x10J, 285/30ZR18
Length: 4.430mm
Width: 1.765mm
Weight: 1,350kg
0-62mph: 4.8 sec
Top speed: 188mph

RATING:
★★★★★

996 Turbo

2000-05



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

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

Capacity: 3,600cc
Compression ratio: 9.4:1
Maximum power: 420bhp @ 6,000rpm
Maximum torque: 560Nm @ 2,700 to 4,600rpm
Brakes: Front: 330mm discs; Rear: 330mm discs
Wheels & tyres: Front: 18x8J, 225/40ZR18; Rear: 18x11J, 295/30ZR18
Length: 4.435mm
Width: 1.830mm
Weight: 1,540kg
0-62mph: 4.2 sec
Top speed: 189mph

RATING:
★★★★★

996 GT2

2001-03



A lightweight, Turbo-bodied 996 with upgraded turbocharged engine that produced 460bhp and drove the rear wheels. The suspension was upgraded.

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

Capacity: 3,600cc
Compression ratio: 9.4:1
Maximum power: 462bhp @ 5,700rpm
Maximum torque: 620Nm @ 3,500 to 4,500rpm
Brakes: Front: 350mm discs; Rear: 350mm discs
Wheels & tyres: Front: 18x8.5J, 235/40ZR18; Rear: 18x12J, 315/30ZR18
Length: 4.435mm
Width: 1.830mm
Weight: 1,440kg
0-62mph: 4.1 sec
Top speed: 195mph

RATING:
★★★★★

Gen2 996 C2

2001-04



Face-lifted with Turbo-style headlamps and revised front and rear bumpers. Fitted with the more powerful 3.6-litre engine, VarioCam Plus and other refinements. Manual and Tiptronic transmission was also improved on. Moreover, the cabin received minor updates.

Capacity: 3,596cc
Compression ratio: 11.3:1
Maximum power: 320bhp @ 6,800rpm
Maximum torque: 370Nm @ 4,250rpm
Brakes: Front: 318mm discs; Rear: 299mm discs
Wheels & tyres: Front: 17x7J, 205/50ZR17; Rear: 17x9J, 255/40ZR17 (18-inch rims optional)
Length: 4.430mm
Width: 1.765mm
Weight: 1,345kg
0-62mph: 5.0 sec
Top speed: 178mph

RATING:
★★★★★

996 GT3 RS

2004-05



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

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

Capacity: 3,600cc
Compression ratio: 11.7:1
Maximum power: 381bhp @ 7,400rpm
Maximum torque: 385Nm @ 3,500 to 5,000rpm
Brakes: Six piston calipers front, four piston rear
Wheels & tyres: Front: 18x8.5J, 235/40ZR18; Rear: 18x11J, 295/30ZR18
Length: 4.435mm
Width: 1.770mm
Weight: 1,360kg
0-62mph: 4.4 sec
Top speed: 190mph

RATING:
★★★★★

996 Turbo S

2004-05



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

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

Capacity: 3,600cc
Compression ratio: 9.4:1
Maximum power: 450bhp @ 5,000rpm
Maximum torque: 620Nm @ 3,500 to 4,400rpm
Brakes: Front: 350mm discs; Rear: 350mm discs
Wheels & tyres: Front: 18x8J, 225/40ZR18; Rear: 18x11J, 295/30ZR18
Length: 4.435mm
Width: 1.830mm
Weight: 1,590kg
0-62mph: 4.1 sec
Top speed: 191mph

RATING:
★★★★★

997 Carrera 4

2005-08



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

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

Capacity: 3,596cc
Compression ratio: 11.8:1
Maximum power: 325bhp @ 6,800rpm
Maximum torque: 370Nm @ 4,250rpm
Brakes: Front: 318mm discs; Rear: 299mm discs
Wheels & tyres: Front: 18x8J, 235/40ZR18; Rear: 18x11J, 295/35ZR18
Length: 4.427mm
Width: 1.852mm
Weight: 1,495kg
0-62mph: 5.1 sec
Top speed: 174mph

RATING:
★★★★★

997 Carrera 4S

2005-08



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

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

Capacity: 3,824cc
Compression ratio: 11.8:1
Maximum power: 355bhp @ 6,800rpm
Maximum torque: 400Nm @ 4,250rpm
Brakes: Front: 330mm discs; Rear: 330mm discs
Wheels & tyres: Front: 19x8J, 235/35ZR19; Rear: 19x11J, 295/30ZR19
Length: 4.427mm
Width: 1.852mm
Weight: 1,550kg
0-62mph: 4.8 sec
Top speed: 179mph

RATING:
★★★★★

GREAT VALUE GREAT**2001-2005 996 Carrera 4S**

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

Capacity: 3,596cc
 Compression ratio: 11.3:1
 Maximum power: 320bhp @ 6,800rpm
 Maximum torque: 370Nm @ 4,250rpm
 Brakes: Front: 330mm discs; Rear: 330mm discs
 Wheels & tyres: Front: 18x8J, 225/40ZR18; Rear: 18x11J, 295/30ZR18
 Length: 4,435mm
 Width: 1,830mm
 Weight: 1,495kg
 0-62mph: 5.0 sec
 Top speed: 175mph

RATING:
 ★★★★★

**Gen2 996 C4**

2001-04



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

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

Capacity: 3,596cc
 Compression ratio: 11.3:1
 Maximum power: 320bhp @ 6,800rpm
 Maximum torque: 370Nm @ 4,250rpm
 Brakes: Front: 318mm discs; Rear: 299mm discs
 Wheels & tyres: Front: 17x7J, 205/50ZR17; Rear: 17x9J, 255/40ZR17 (18-inch rims optional)
 Length: 4,430mm
 Width: 1,765mm
 Weight: 1,405kg
 0-62mph: 5.3 sec
 Top speed: 175mph

RATING:
 ★★★★★

Gen2 996 GT3

2003-05



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

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

Capacity: 3,600cc
 Compression ratio: 11.7:1
 Maximum power: 381bhp @ 7,400rpm
 Maximum torque: 385Nm @ 5,000rpm
 Brakes: Front: 350mm discs; Rear: 330mm discs
 Wheels & tyres: Front: 18x8.5J, 235/40ZR18; Rear: 18x11J, 295/30ZR18
 Length: 4,435mm
 Width: 1,770mm
 Weight: 1,380kg
 0-62mph: 4.5 sec
 Top speed: 190mph

RATING:
 ★★★★★

997 Carrera

2004-08



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

Additionally, twin exhaust tailpipes were coupled with rear-wheel drive via six-speed Tiptronic transmission.

Capacity: 3,596cc
 Compression ratio: 11.8:1
 Maximum power: 325bhp @ 6,800rpm
 Maximum torque: 370Nm @ 4,250rpm
 Brakes: Front: 318mm discs; Rear: 299mm discs
 Wheels & tyres: Front: 18x8J, 235/40ZR18; Rear: 18x10J, 265/40ZR18
 Length: 4,427mm
 Width: 1,808mm
 Weight: 1,395kg
 0-62mph: 5.0 sec
 Top speed: 177mph

RATING:
 ★★★★★

997 Carrera S

2004-08



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

exhaust tailpipes, and was available as rear-wheel-drive only.

Capacity: 3,824cc
 Compression ratio: 11.8:1
 Maximum power: 355bhp @ 6,800rpm
 Maximum torque: 400Nm @ 4,600rpm
 Brakes: Front: 330mm discs; Rear: 330mm discs
 Wheels & tyres: Front: 18x8J, 235/40ZR18; Rear: 18x10J, 265/40ZR18
 Length: 4,427mm
 Width: 1,808mm
 Weight: 1,495kg
 0-62mph: 4.7 sec
 Top speed: 182mph

RATING:
 ★★★★★

997 Turbo

2005-10



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

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

Capacity: 3,600cc
 Compression ratio: 9.0:1
 Maximum power: 480bhp @ 6,000rpm
 Maximum torque: 620Nm @ 2,100-4,000rpm
 Brakes: Front: 350mm discs; Rear: 350mm discs
 Wheels & tyres: Front: 8.5Jx19, 235/35/ZR19; Rear: 11Jx19, 305/30/ZR19
 Length: 4,450mm
 Width: 1,852mm
 Weight: 1,585kg
 0-62mph: 3.9 sec
 Top speed: 193mph

RATING:
 ★★★★★

997 GT3

2006-07



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

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

Capacity: 3,600cc
 Compression ratio: 12.0:1
 Maximum power: 415bhp @ 7,600rpm
 Maximum torque: 405Nm @ 5,500rpm
 Brakes: Front: 380mm discs; Rear: 340mm discs
 Wheels & tyres: Front: 19x8.5J, 235/35ZR19; Rear: 19x12J, 305/30ZR19
 Length: 4,445mm
 Width: 1,808mm
 Weight: 1,395kg
 0-62mph: 4.3 sec
 Top speed: 192mph

RATING:
 ★★★★★

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997 GT3 RS

2006-07



The RS was similar to GT3, but with the inclusion of the wider rear bodyshell of the Carrera S. 20kg of weight was saved from the original model thanks to carbon fibre engine cover and rear wing and plastic rear window, not to mention the relatively lightweight interior.

Capacity: 3,600cc
Compression ratio: 12.0:1
Maximum power: 415bhp @ 7,600rpm
Maximum torque: 405Nm @ 5,500rpm
Brakes: Front: 380mm discs; Rear: 340mm discs
Wheels & tyres: Front: 19x8.5J, 235/35ZR19; Rear: 19x12J, 305/30ZR19
Length: 4,445mm
Width: 1,852mm
Weight: 1,375kg
0-62mph: 4.2sec
Top speed: 187mph

RATING:
★★★★★

997 GT2

2007-08



Essentially the 997 Turbo, but with rear-wheel-drive only. Also enjoyed a more track-orientated suspension and brake setup, with GT3-style interior and extra power at 523bhp. Porsche Stability Management and Porsche Active Suspension Management used.

Capacity: 3,600cc
Compression ratio: 9.0:1
Maximum power: 530bhp @ 6,500rpm
Maximum torque: 680Nm @ 2,200-4,500rpm
Brakes: Front: 380mm discs; Rear: 350mm discs
Wheels & tyres: Front: 8.5Jx19, 235/35/ZR19; Rear: 11Jx19, 305/30/ZR19
Length: 4,469mm
Width: 1,852mm
Weight: 1,440kg
0-62mph: 3.7sec
Top speed: 204mph

RATING:
★★★★★

Gen2 997 GT3

2009-2012



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

Problems with rear hubs led to a recall for model year 2010 GT3s.
Capacity: 3,800cc
Compression ratio: 12.2:1
Maximum power: 435bhp @ 7,900rpm
Maximum torque: 430Nm @ 3250rpm
Brakes: Front: 380mm discs; Rear: 350mm discs
Wheels & tyres: Front: 8.5Jx19J 235/35 ZR19 Rear: 12x19J 305/30 ZR19
Length: 4,460mm
Width: 1,808mm
Weight: 1,395kg
0-62mph: 4.1sec
Top speed: 194mph

RATING:
★★★★★

Gen2 997 Turbo

2009-13



Basically the same as the original 997 Turbo, but with new LED taillights and driver lights up front. Features larger tailpipes, plus a larger 3.8-litre engine with direct fuel injection. PDK transmission is optional. Fuel consumption cut by 16 per cent.

Capacity: 3,800cc
Compression ratio: 9.8:1
Maximum power: 500bhp @ 6,000rpm
Maximum torque: 650Nm @ 1,950-5000rpm
Brakes: Front: 350mm discs; Rear: 350mm discs
Wheels & tyres: Front: 8.5Jx19, 235/35/ZR19; Rear: 11Jx19, 305/30/ZR19
Length: 4,450mm
Width: 1,852mm
Weight: 1,570kg
0-62mph: 3.4sec
Top speed: 194mph

RATING:
★★★★★

997 C4 GTS

2010-



As Carrera 2 997 GTS but slightly heavier with four-wheel drive. In either C2 or C4 form, the 997 GTS represented a great saving over optioning up a 997 Carrera counterpart.

Capacity: 3,800cc
Compression ratio: 12.5:1
Maximum power: 402bhp @ 7,300rpm
Maximum torque: 420Nm @ 4,200 - 5,600rpm
Brakes: Front: 330mm discs; rear: 330mm discs
Wheels & tyres: Front: 8.5Jx19, 235/35/ZR19; Rear: 11Jx19, 305/30/ZR19
Length: 4,435mm
Width: 1,852mm
Weight: 1,555kg
0-62mph: 4.6sec
Top speed: 188mph

RATING:
★★★★★

997 GT2 RS

2010-



The GT2 went back to its roots, with an RS-style lightweight body and interior, plus extra power (620bhp). Instantly recognisable over standard GT2 thanks to lashings of carbon fibre on bonnet, air intake and mirrors.

Capacity: 3,600cc
Compression ratio: 9.0:1
Maximum power: 620bhp @ 6,500rpm
Maximum torque: 700Nm @ 2,500 - 5,500rpm
Brakes: Front: 380mm discs; Rear: 350mm discs
Wheels & tyres: Front: 9Jx19, 245/35ZR19; Rear: 12Jx19, 325/30ZR19
Length: 4,460mm
Width: 1,852mm
Weight: 1,370kg
0-62mph: 3.5sec
Top speed: 205mph

RATING:
★★★★★

991 Carrera 4

2012-



This model enjoys a wider body, with rear fenders pulled out by 22mm on each side. A major telltale sign that tells it apart from the Carrera 2 is the connecting rear tail light that comes as standard. Also features a torque distribution indicator, which keeps you informed on where the car is distributing torque.

Capacity: 3,436cc
Compression ratio: 12.5:1
Maximum power: 350bhp @ 7,400rpm
Maximum torque: 390Nm @ 5,600rpm
Wheels & tyres: 8.5Jx19 235/40 ZR19 Rear: 11Jx19 295/35 ZR 19
Length: 4,491mm
Width: 1,852mm
Weight: 1,450kg
0-62mph: 4.9sec
Top speed: 177mph

RATING:
★★★★★

991 Carrera 4S

2012-



Has the same wider body styling as the Carrera 4, with a rear connecting tail light coupled to 3.8-litre 400bhp flat six engine. Also features six-piston brake calipers at front as opposed to four. Seven speed manual or PDK gearbox option available. Bigger wheels than C4 and 15kg heavier.

Capacity: 3,800cc
Compression ratio: 12.5:1
Maximum power: 400bhp @ 7,400rpm
Maximum torque: 440Nm @ 5,600rpm
Wheels & tyres: Front: 8.5Jx20, 245/35 ZR 20; Rear: 11Jx20, 305/30 ZR 20
Length: 4,491mm
Width: 1,852mm
Weight: 1,450kg
0-62mph: 4.5sec
Top speed: 185mph

RATING:
★★★★★

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

Capacity: 3.614cc
Compression ratio: 12.5:1
Maximum power: 345bhp @ 6,500rpm
Maximum torque: 390Nm @ 4,400rpm
Brakes: Front: 330mm discs; Rear: 330mm discs
Wheels & tyres: Front: 18x8J, 235/40ZR18; Rear: 18x10.5J, 265/40ZR18
Length: 4.435mm
Width: 1.808mm
Weight: 1.490kg
0-62mph: 4.9 sec
Top speed: 180mph

RATING:
 ★★★★★

Gen2 997 C2 S

2008-12



Revised as per the Carrera, but with larger 3.8-litre engine – again using fewer components and Direct Fuel Injection. The engine stroke was reduced from 82.8mm to 77.5mm, while the bore went up by 3mm to 102mm, in the process reducing the capacity to exactly 3.800cc.

Capacity: 3.800cc
Compression ratio: 12.5:1
Maximum power: 385bhp @ 6,500rpm
Maximum torque: 420Nm @ 4,400rpm
Brakes: Front: 330mm discs; Rear: 330mm discs
Wheels & tyres: Front: 19x8J, 235/35ZR19; Rear: 19x11J, 295/30ZR19
Length: 4.435mm
Width: 1.808mm
Weight: 1.500kg
0-62mph: 4.7 sec
Top speed: 188mph

RATING:
 ★★★★★

Gen2 997 C4

2008-12



There were numerous engine and body changes as per the Carrera, but with a wider rear end plus the welcome return of the full-width rear reflector, situated between the light clusters. The new all-wheel drive was appropriated from the 997 Turbo.

Capacity: 3.614cc
Compression ratio: 12.5:1
Maximum power: 345bhp @ 6,500rpm
Maximum torque: 390Nm @ 4,400rpm
Brakes: Front: 330mm discs; Rear: 330mm discs
Wheels & tyres: Front: 18x8J, 235/40ZR18; Rear: 18x10.5J, 265/40ZR18
Length: 4.435mm
Width: 1.852mm
Weight: 1.545kg
0-62mph: 5.0 sec
Top speed: 176mph

RATING:
 ★★★★★

Gen2 997 C4S

2008-12



The bodywork was as per the Carrera 4, but with the larger 3.8-litre engine. Utilised the 997 Turbo's four-wheel-drive, and Porsche Traction Management. Viscous coupling gives way to electromagnetically controlled multi-plate clutch.

Capacity: 3.800cc
Compression ratio: 12.5:1
Maximum power: 385bhp @ 6,500rpm
Maximum torque: 420Nm @ 4,400rpm
Brakes: Front: 330mm discs; Rear: 330mm discs
Wheels & tyres: Front: 235/30ZR19; Rear: 19x11J, 295/30ZR19
Length: 4.435mm
Width: 1.852mm
Weight: 1.555kg
0-62mph: 4.7 sec
Top speed: 185mph

RATING:
 ★★★★★

Gen2 997 GT3 RS

2009-



Has wider front arches and a larger spoiler. Dynamic engine mounts and PASM are standard. Air con is optional, with no door handles, wheel brace or sound proofing. Has the lap record for road models at the Nürburgring.

Capacity: 3.800cc
Compression ratio: 12.2:1
Maximum power: 450bhp @ 7,900rpm
Maximum torque: 430Nm @ 6,750rpm
Brakes: Front: 380mm discs; Rear: 380mm discs
Wheels & tyres: Front: 9Jx19, 245/35ZR19; Rear: 12Jx19, 325/30ZR19
Length: 4.460mm
Width: 1.852mm
Weight: 1.370kg
0-62mph: 4.0 sec
Top speed: 192mph

RATING:
 ★★★★★

997 Turbo S

2011-13



As standard 997 Turbo, but with face-lifted body, more power (530bhp) and higher levels of standard equipment, including PCCB, centrelock wheels and ceramic brakes to go with unique two-tone interior and Sport Chrono Plus.

Capacity: 3.800cc
Compression ratio: 9.8:1
Maximum power: 530bhp @ 6,250 - 6,750rpm
Maximum torque: 700Nm @ 2,100 - 4,250rpm
Brakes: Front: 380mm discs; Rear: 350mm discs
Wheels & tyres: Front: 8.5Jx19, 235/35ZR19; Rear: 11Jx19 on 305/30ZR19
Length: 4.435mm
Width: 1.852mm
Weight: 1.585kg
0-62mph: 3.3 sec
Top speed: 195mph

RATING:
 ★★★★★

997 Sport Classic ULTRA RARE

2010



Based on a 3.8-litre, rear wheel-drive Carrera S, but with 44mm wider rear arches. Several instances of retro styling including iconic ducktail spoiler and large Fuchs wheels. Only 250 examples have been sold worldwide.

Capacity: 3.800cc
Compression ratio: 12.5:1
Maximum power: 408bhp @ 7,300rpm
Maximum torque: 420Nm @ 4,200 - 5,600rpm
Brakes: Front: 350mm discs; Rear: 350mm discs
Wheels & tyres: Front: 19x8.5J, 235; Rear: 19x11J, 305
Length: 4.435mm
Width: 1.852mm
Weight: 1.425kg
0-62mph: 4.1 sec
Top speed: 194mph

RATING:
 ★★★★★

997 C2 GTS

2010-



Features the C4's wider rear body and is powered by the 3.8-litre Carrera S engine with a powerkit producing 25bhp extra. The GTS is laden with Porsche options, including PASM, sports exhaust and centre-locking alloys.

Capacity: 3.800cc
Compression ratio: 12.5:1
Maximum power: 402bhp @ 7,300rpm
Maximum torque: 420Nm @ 4,200 - 5,600rpm
Brakes: Front: 330mm discs; Rear: 330mm discs
Wheels & tyres: Front: 8.5x19, 235/35ZR19; Rear: 11x19, 305/30ZR19
Length: 4.435mm
Width: 1.852mm
Weight: 1.420kg
0-60mph: 4.6 sec
Top speed: 190mph

RATING:
 ★★★★★

ULTRA RARE MODEL

ULTRA RARE

2010 997 GT3 RS 4.0

The pinnacle of 997 ownership, just 600 units were produced. The engine was upgraded and aerodynamically tweaked, too, with angle of rear wing increased and dive planes on either side of the front nose.

Capacity: 3.996cc
Compression ratio: 12.6:1
Maximum power: 493bhp @ 8,250rpm
Maximum torque: 460Nm @ 5,750rpm
Brakes: Front: 380mm discs; Rear: 380mm discs
Wheels & tyres: Front: 9Jx19, 245/35ZR19; Rear: 12Jx19, 325/30ZR19
Length: 4.460mm
Width: 1.852mm
Weight: 1.360kg
0-62mph: 3.5 sec
Top speed: 193mph

RATING:
 ★★★★★



991 Carrera

2011-



The first 911 of the newest and latest seventh generation, the Carrera features a 350bhp 3.4-litre engine and takes styling hues from the 993. Completely redesigned chassis, with lengthened wheelbase reducing overhang of engine weight. Panamera-esque interior.

Capacity: 3.436cc
Compression ratio: 12.5:1
Maximum power: 350bhp @ 7,400rpm
Maximum torque: 390Nm @ 5,600rpm
Brakes: Front: 330mm discs; Rear: 330mm discs
Wheels & tyres: Front: 8.5Jx19, 235/40ZR19; Rear: 11Jx19, 285/35ZR19
Length: 4.491mm
Width: 1.808mm
Weight: 1.380kg
0-62mph: 4.8 sec
Top speed: 179.6mph

RATING:
 ★★★★★

991 Carrera S

2011-



Same as Carrera, including seven-speed manual box, but utilising 400bhp from a bigger 3.8-litre engine. Slightly larger front brakes than the standard Carrera (10mm bigger discs), with MacPherson front axle and multi-link suspension at the rear. Distinctive 'S' badging on rear bumper.

Capacity: 3.800cc
Compression ratio: 12.5:1
Maximum power: 400bhp @ 7,400rpm
Maximum torque: 440Nm @ 5,600rpm
Brakes: Front: 340mm discs; Rear: 330mm discs
Wheels & tyres: Front: 8.5Jx20, 245/35ZR20; Rear: 8.5Jx20, 245/35ZR20
Length: 4.491mm
Width: 1.808mm
Weight: 1.395kg
0-62mph: 4.5 sec
Top speed: 188.9mph

RATING:
 ★★★★★

991 GT3

2013-



Electric power steering and wide body shell from 991 Carrera 4 was used for the first time here. PDK transmission only, no manual option. Mezger engine from previous GT3s replaced with revamped version of direct injection 991 Carrera S engine. First deliveries imminent.

Capacity: 3.800cc
Compression ratio: 12.9:1
Maximum power: 475hp @ 8,250rpm
Maximum torque: 440Nm @ 6,250rpm
Wheels & tyres: Front: 9Jx20, 245/35ZR20; Rear: 12Jx20, 305/30ZR20
Length: 4.545mm
Width: 1.852mm
Weight: 1.430kg
0-62mph: 3.5 sec
Top speed: 196mph

RATING:
 ★★★★★

991 Turbo

2013-



The new Turbo marks the introduction of electric and rear axle steering, plus PDK-only transmission to forced induction 991 models. With a 100mm longer wheelbase than the 997 Turbo and rear fenders being 28mm wider than even the 991 Carrera 4, this is the longest and widest Turbo model yet.

Capacity: 3.800cc
Compression ratio: 9.8:1
Maximum power: 520hp @ 6,000 - 6,500rpm
Maximum torque: 660Nm @ 1,950 - 5,000rpm
Wheels & tyres: Front: 8.5x20-inch, 245/35ZR20; Rear: 11x20-inch, 305/30ZR20
Length: 4.506mm
Width: 1.880mm
Weight: 1.595kg
0-62mph: 3.4 sec
Top speed: 195mph

RATING:
 ★★★★★

991 Turbo S

2013-



Same dimensions as 991 Turbo, but with a tweaked map to provide an extra 40hp. Turbo S also benefits from usual Turbo options as standard including centre lock wheels and PCCB, with Porsche Dynamic Chassis Control (PDCC) offered standard for the first time. PTM is all new on both Turbo and Turbo S.

Capacity: 3.800cc
Compression ratio: 9.8:1
Maximum power: 560hp @ 6,500 - 6,750rpm
Maximum torque: 700Nm @ 2,100 - 4,250
Wheels & tyres: Front: 9x20-inch, 245/35ZR20; Rear: 11x20-inch, 305/30ZR20
Length: 4.506mm
Width: 1.880mm
Weight: 1.605kg
0-62mph: 3.1 sec
Top speed: 197mph

RATING:
 ★★★★★

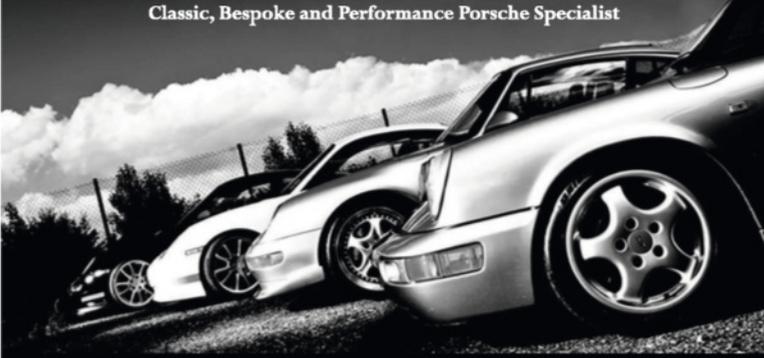
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2013-



RATING:
 UNKNOWN

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 997 Turbo "S" 3.8 PDK (2013 - 62) White with Black Leather, Sat Nav, 12k miles..... £95,000	 997 "4S" Targa 3.8 PDK (2010 - 10) Silver with Black Leather, Sat Nav, 21k miles..... £55,000	 997 Turbo Cab 3.6 Tip (2007 - 57) Atlas Grey with Black Leather, 31k miles..... £50,000	 997 Turbo 3.6 (2008 - 06) Cobalt Blue with Stone Grey Leather, Sat Nav, 32k miles..... £50,000
 997 Turbo 3.6 Tip (2008 - 57) Meteor Grey with Black Leather, Sat Nav, 44k miles..... £48,000	 997 Turbo 3.6 Tip (2007 - 57) Silver with Ocean Blue Leather, Sat Nav, 40k miles..... £47,000	 997 Turbo 3.6 Tip (2006 - 56) Basalt Black with Stone Grey Leather, Sat Nav, 44k miles..... £44,000	 997 "4S" 3.8 (2007 - 57) Cobalt Blue with Ocean Blue Leather, Sat Nav, 20k miles..... £38,000
 Cayman "S" 3.4 Gen 2 (2011 - 61) White with Black Leather, 13k miles..... £35,000	 Cayman 2.9 Gen 2 PDK (2011 - 11) Meteor Grey with Black Leather, Sat Nav, 12k miles..... £35,000	 997 "2S" 3.8 (2007 - 07) Silver with Black Leather, Sat Nav, 28k miles..... £34,000	 997 "4S" 3.8 (2006 - 06) Seal Grey with Black Leather, Sat Nav, 37k miles..... £33,000
 997 "2S" 3.8 (2007 - 07) Meteor Grey with Red Leather, Sat Nav, 38k miles..... £33,000	 997 "4S" 3.8 (2006 - 56) Slate Grey with Black Leather, Sat Nav, 44k miles..... £33,000	 996 Turbo 3.6 "X50" Tip (2004 - 04) Basalt Black with Black Leather, Sat Nav, 60k miles..... £33,000	 996 Turbo 3.6 Cab Tip (2004 - 04) Silver with Black Leather, Sat Nav, 53k miles..... £33,000

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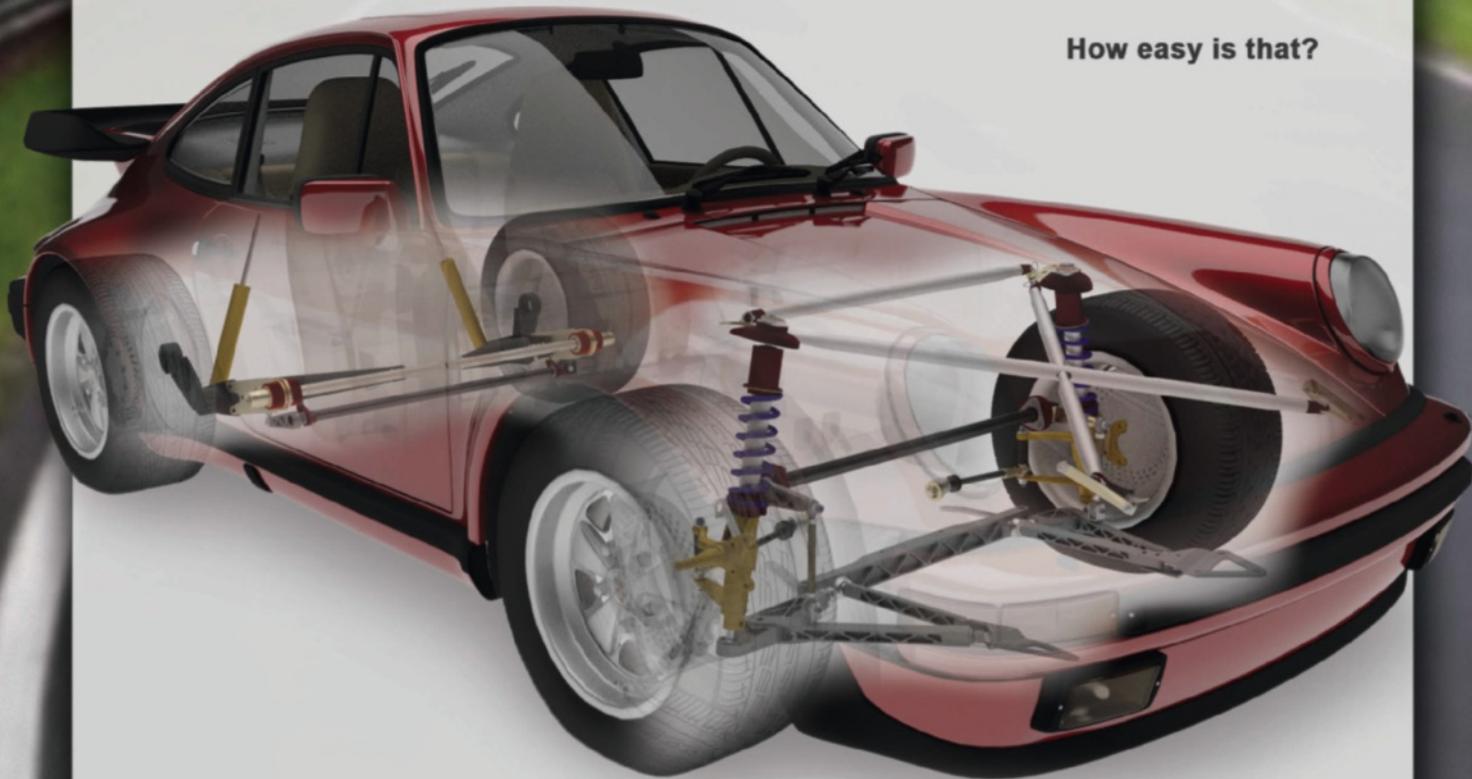
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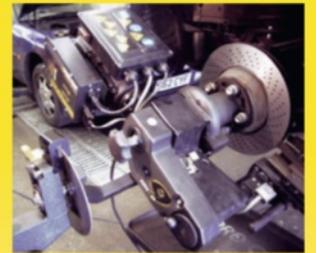


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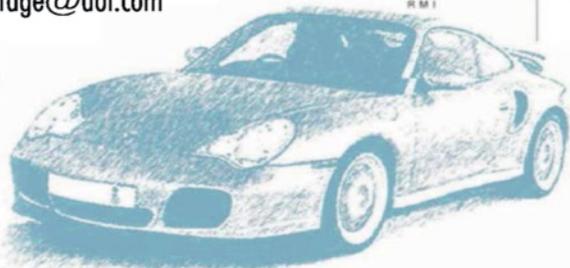
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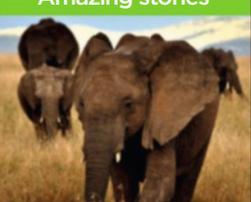
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Issue 109 in shops and online from 9 January 2014



Ortega Highway, USA

Written and photographed by **Tony McGuinness**



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California has some beautiful roads, one of the most infamous of which is the Ortega Highway route 74

The Ortega, as it is known locally, meanders along an old Native American Indian trail through rural South Orange County. Then it climbs into the Santa Ana Mountains, with rock walls on one side and canyons on the other. But this narrow, 33.5-mile serpent of a road is no leisurely drive. With sections bearing nicknames like Dead Man's Curve and Blood Alley, it is the most dangerous road in the state, but that's what makes it so appealing.

The best way to enjoy the Ortega Highway is to take exit 74 off Interstate 15 freeway towards San Juan Capistrano. Follow the signs, and you will immediately begin the

climb through the mountains, with a stunning view of Lake Elsinore. Passing is discouraged and extremely dangerous, and to do so could yield cataclysmic results.

Before long you come to a small eatery called the Lookout Roadhouse. Open since 1968, this is a popular place to prepare for the next leg of the journey. After enjoying the view, continue the trip up the Ortega, gathering speed and braking hard on the tight corners. This is perfect 911 territory – some corners make you feel as if you're at the corkscrew of the famous Laguna Seca raceway. These allow you to use the 911's rear engine bias to catapult you out of a turn with significant speed: the road pushes you and your 911 to the limit.

If this isn't your cup of tea, you won't be disappointed with the next stop. Hell's Kitchen, a self-proclaimed motorsport restaurant, was founded in 2004, and is a great place to catch your breath along the route.

Continuing on, you drive through the small village of El Cariso and the California Forestry Fire Station as you begin the descent to San Juan Capistrano. Your ears 'pop' with the altitude change as you come out of the mountains known as the Cleveland National Forest, but do ensure you bring that throttle down quickly, for awaiting you could be the California Highway Patrol, aware that you have just experienced one of the fastest and most breathtaking roads in southern California. **911**

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