

# 'What gives you the license to do this?'

THE CEO OF A MAJOR SWISS WATCH BRAND ON HEARING ABOUT CALIBRE SH21, CHRISTOPHER WARD'S FIRST IN-HOUSE MOVEMENT.

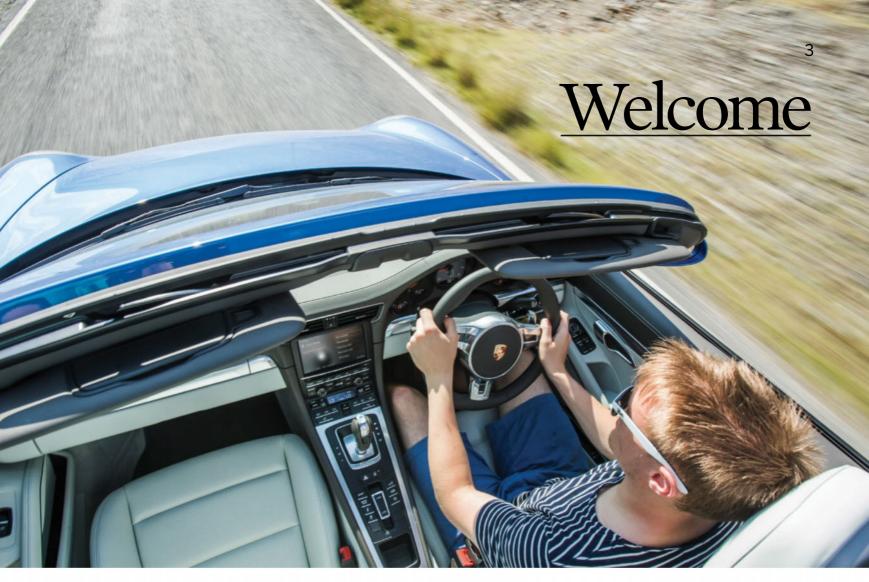


The chronometer-certified C9 Harrison 5 Day Automatic, with 120-hour power reserve, is the first watch to house our own movement. Conceived and designed by our master watchmaker, Johannes Jahnke, and manufactured by some of Switzerland's finest watchmaking craftsmen, it is destined to be one of the most talked about watches in years. And, yes, you do have the license to own one.



CALIBRE SH21





s serial owners will testify, the Porsche 911 has always been a well-oiled model with plenty of iterations throughout its history to keep us interested. This adage is especially true with the more modern generations: take a quick head-count of models belonging to the 997 generation, for example, and you'll find yourself comfortably reciting up to 30 variations before even a hint of struggle. The 991 story so far shows little sign of being any different.

What does all this mean? Well, primarily, there's ample chance to get yourself into one of Zuffenhausen's famous 91ls that's perfectly personable to you and your lifestyle, aptly highlighted during our prodigious 991 supertest this issue. We're used to hopping from one model to the next at Total 91l as part of our remit to deliver you in-depth observation and assessment, but having all three iterations of 991 Carrera to play with exposed us to the entire spectrum of just what's

"There's ample chance to get yourself into one of Porsche's famous 911s" permissible with the current 911 layout. Consider our test an impartial extension of Porsche's online 'build your own' model tool, with the analysis and comment beginning on page 26.

Away from another stellar issue of your favourite Porsche publication, I'm pleased to announce more exciting innovations for fans of Total 911. I mentioned on this very page last issue that we've launched our entire range of digital-only collector's issues dedicated to each generation of the Porsche 911 – and building on that, I'm pleased to reveal our first interactive app is now live too.

The Great Driving Roads app is a clever evolution of a regular feature found in this magazine, now giving you free rein to find, drive and even share the very best driving routes the planet has to offer. The app is available to download to your iPhone via iTunes now, and really is your essential tool for that epic driving adventure – apart from a Porsche 911 and a full tank of fuel, of course!



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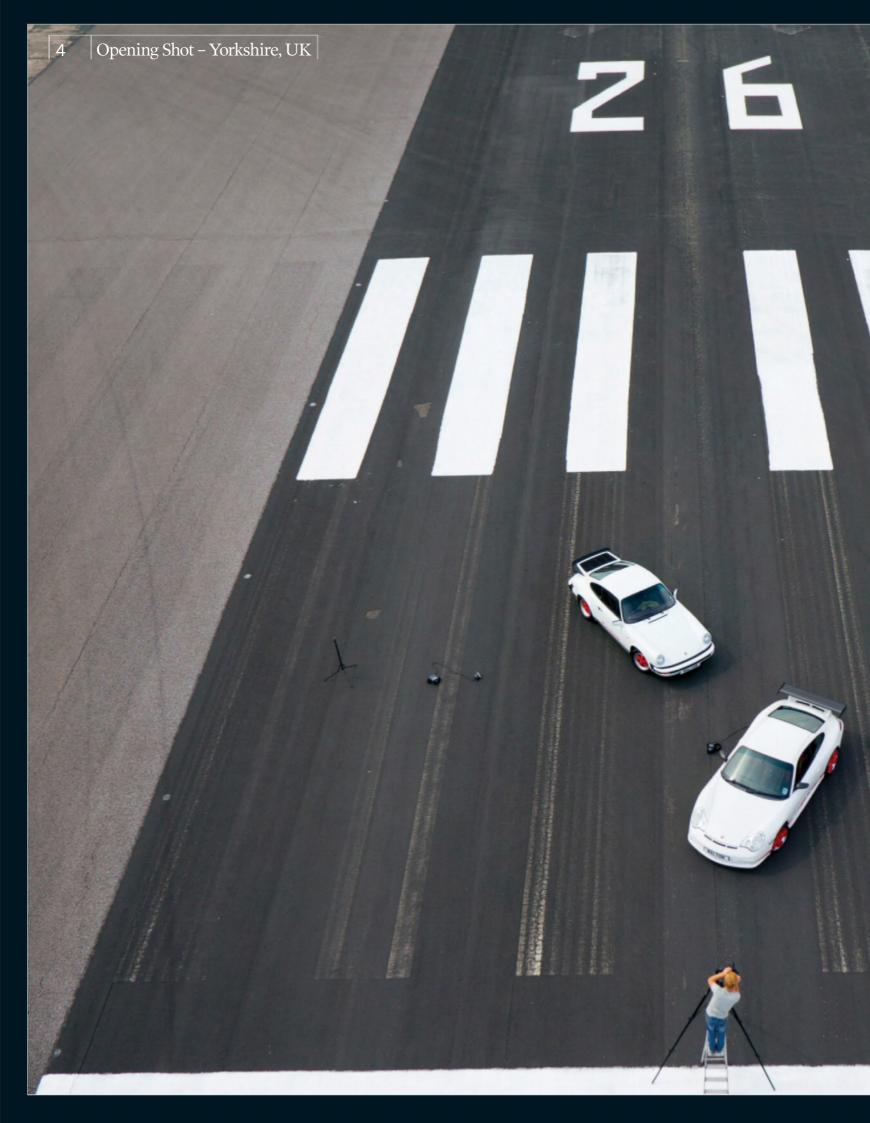
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#### Spilopenia Grae ex ca lig

Groundwork meets groundbreaking as an aerial drone captures Total 911's photographer extraordinaire Chris Wallbank masterfully capturing the cover photograph of this issue's lightweight superstars feature.

Photograph by **Hopgrove Productions** 

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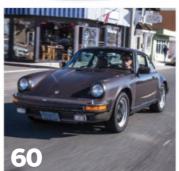
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# Latest news, key dates, star products and race results from the world of Porsche









# Singer stuns in Monterey

New cars and new engine revealed at Pebble Beach

alifornia-based Porsche 911 restorer and modifier Singer Vehicle Design has once again wowed the automotive world with its latest Porsche 964-based reimaginings, revealed at two events during the annual Monterey Classic Car Week.

Unveiled at the Jet Centre during the Motorworks Revival event, the star of the show was Singer's most extravagant project yet. Dubbed 'Silicon Valley' after its final destination, the Casablanca beige Porsche 911 showcased Singer's all-new Touring/Deco package. Designed as the ultimate combination of elegance and understatement, the new package combined the subtle exterior finish with a Tobacco brown leather-weave interior, as well as a host of nickel-plated embellishments and a luggage set

designed to epitomise the 'gentleman's touring express' aesthetic.

Powering 'Silicon Valley' - the 17th Porsche 911 restored by Dickinson's team – is the popular 3.8-litre motor developed in conjunction with Cosworth, mated to a six-speed gearbox and driven through a limited-slip differential. The highly personalised Porsche 911 reimagining came with a price tag in the region of \$490,000 (£295,000).

As the antithesis to the Touring/Deco specification, the Namib yellow example on Singer's main stand at the Jet Centre and the following day's event at the Quail golf lodge was more overtly sporting. Featuring a central fuel tank with bonnetmounted filler cap, the second Porsche 911 on display at Monterey also highlighted Singer's new

Nickel RSR wheel finish. Like 'Silicon Valley', this ca is also powered by Cosworth's 3.8-litre powerplant.

Among the stunning Stuttgart sports cars, Singer also displayed something similarly showstopping: a new 4.0-litre flat six motor developed by Porsche motor specialist Ed Pink Racing Engines. The North Hollywood firm has developed the new unit from the 964's standard 3.6-litre engine, producing what Singer feels is the ultimate air-cooled Porsche powerplant.

With a host of bespoke components, including a Pankl crankshaft, Mähle pistons and barrels, Carillo con-rods and Rothsport fuel injection, the '4.0' produces 390hp and 427Nm at 6,000rpm, providing race car performance for an everyday road environment.

#### Porsche buys Kylami South African importer purchases iconic circuit

Porsche's South African importer has purchased the famous Kylami circuit at an auction in Johannesburg, saving the long-time home of the South African Grand Prix from an uncertain future.

Craig Venter, CEO of Porsche South Africa, reportedly placed the winning bid over his mobile while at the Porsche Macan launch. The High Street Auction Company had set a reserve of R 200 million (£11.18 million). However, Venter's winning bid totalled just a further R 5 million (£280,000).

Plans for the Kylami circuit are currently unknown, although it is understood that the iconic venue will be kept as an operational race track. However, an official Porsche source, who provided no comment on the future of the circuit when offered, was keen to stress that the purchase of Kylami is a private business venture, independent from Porsche AG.

#### What's on in 2014

September-

Goodwood Revival 12-14 September Lord March's event has become more than just a historic race meeting

'Project: Top Secret' at Porsche Museum

17 September – 11 January 2015 Explore 60 years of Porsche's rarest prototypes

Brands Hatch Festival of Porsche

19-21 September Porsche Club GB's national event for 2014 Porsche 'Performance' course (LIK)

30 September For those who have done Paris Motor Show 4-19 October

October

The bi-annual partner to Frankfurt's IAA, Paris's Silverstone's 'Precision' course automotive extravaganza returns America's chocolate industry

RM Auctions Hershey 9-10 October

The sales house's penultimate auction of the year heads to



# New Total 911 app launches

Find, drive and share exhilarating road trips with our new app for iPhone

Total 911 has helped to create the world's first dedicated Great Driving Roads app, allowing iPhone and iPad users to get right to the heart of the best driving routes from around the globe. Great Driving Roads has been built in-house at Imagine Publishing, creators of the world's only Porsche 911 magazine, and is designed with the driving enthusiast truly in mind.

The new iOS app, available from the iTunes App Store, provides all the vital stats from all the Great Roads featured in the pages of Total 911, allowing you

to pick the ideal Sunday morning blast or the best route for a continental road trip. What's more, the app can even help you navigate straight to the start of our awesome tarmac stretches.

You can browse through the international selection of routes, many of which are compiled by a host of automotive experts solely for Total 911, listed either via their proximity to your location or by the latest additions to this awesome driving list, ensuring that you never miss out on the greatest new stretches of automotive nirvana.

Of course, as well as being continually updated with the latest routes from the magazine, the standout feature of the Great Driving Roads app is the ability for you to upload your favourite roads for the entire world to explore. Simply select a start and end point, attach a mouth-watering photo and provide a few spectacular sentences of description, and your route will be uploaded to the app for all to see. With the app available for just 69p (99c), this is your essential tool for finding, driving and sharing the world's best roads

## SharkWerks Turbo exhaust Californian's new 991 pipes give bigger bite

As **Total 911** has found, the latest iteration of the Porsche 911 Turbo is a supreme car, right at the pinnacle of automotive engineering. However, like many forced-induction 911s before it, the 991 Turbo often loses out to rival supercars when it comes to its lack of a growling exhaust note.

This is where the talented team at Californian Porsche tuners SharkWerks come in. Headed up by Alex Ross, the US firm's exhausts have provided firm favourites with 911 enthusiasts and now they also cater to 991 Turbo and Turbo S owners after releasing their latest stainless steel system.

The straight-through pipes work with the factory catalytic converters (ensuring no engine warning lights), providing a gruffer tone. Moreover, the system reduces back pressure and



provides more turbo spooling sound. For more information on the hand-built exhaust, head over to www.sharkwerks.com.

# In brief



#### New TechArt centrelock wheel

German styling and tuning supremos TechArt have unveiled their latest wheel: the Formula IV Race centrelock. Based on the Leonberg firm's famous Formula IV, the Race wheel has been designed for the 991 generation Porsche 911 Turbo, Turbo S and GT3.

Available in 9x20-inch and 12x20-inch forms (the latter size coming with the option of ET47 and ET58 offsets for GT3 and Turbo machinery respectively), the wheels are forged from a single piece of aluminium alloy using flowforming technology. The result is a lightweight rim, with each wheel shaving approximately one kilogram from the weight of each OEM 991 Turbo S centrelock.

For more wheel options for a variety of Porsche 911s, head to page 14.

#### Pagid Brakes app

Finding the right brake pads to fit your 911 can be a bit of a chore. Now, thanks to Pagid's parent company, TMD Friction, that needn't be the case any more thanks to the launch of a new Pagid app.

The new free app includes Pagid's full range of brake parts, including images of the components, technical information, and the OE part number. Acting as a catalogue of Pagid's stock, the app will automatically update to include the latest braking

products from the company. To find the app, head to Google Play or the iTunes App Store and search 'Pagid'.

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



#### Busy second half for Porsche Team Manthey

orsche Team Manthey has a busy second half of 2014 ahead of it as the FIA World Endurance Championship campaign roars back into life at Circuit of the Americas on 20 September. After a hiatus of over three months following the 24 Hours of Le Mans, the final five rounds of the 2014 FIA WEC are packed into just ten weeks as the series visits the US, Japan, China, Bahrain and Brazil for a combined 30 hours of racing.

After Le Mans, the Ferrari pairing of Gianmaria Bruni and Toni Vilander enjoy a healthy advantage atop the points standings owing to their victory in the famous French endurance race. Despite this, the number 92 Porsche crew of Frédéric Makowiecki and Marco Holzer still sit in second place in the drivers' and teams' classifications rankings after securing third place at La Sarthe alongside Richard Lietz.

The Austrian racer, along with Total 911 columnist Nick Tandy, will not race in the FIA WEC Porsche 911 RSRs in Texas due to their Tudor United SportsCar Championship commitments. However, the factory Porsche squad will be joined on the grid by the Corvette Racing team, whose C7.Rs have been a thorn in the side of Lietz and Tandy during the course of the inaugural USCC campaign.

With the Tudor series concluding at Petit Le Mans before the Japanese round of the FIA WEC at Fuji, it would be possible for Lietz and Tandy to reprise the third driver roles that they occupied in the number 92 and 91 machines respectively at Silverstone and Le Mans. However, this has not yet been confirmed, with Tandy explaining to **Total 911** that he was expecting a busy winter testing schedule in the US to preclude and further WEC outings for the duo in 2014.

Tudor United SportsCar Championship standings after round nine				
Pos	Drivers	Team	Total	
1	Antonio Garcia	#3 Corvette C7.R	270	
2	Jonathan Bomarito/Kuno Wittmer	#93 Dodge Viper SRT	264	
3=	Andy Priaulx/ Bill Auberlen	#55 BMW Z4 GTE	250	
3=	John Edwards/ Dirk Müller	#56 BMW Z4 GTE	250	
3=	Dominik Farnbacher/ Marc Goosens	#91 Dodge Viper SRT	250	
6	Jan Magnussen	#3 Corvette C7.R	246	
7	Oliver Gavin/ Tommy Milner	#4 Corvette C7.R	240	
8	Patrick Long/ Michael Christensen	#912 Porsche 911 RSR	239	
9	Nick Tandy	#911 Porsche 911 RSR	231	

Porsche Mobil 1 Supercup standings after round seven				
Pos	Drivers	Team	Total	
1	Earl Bamber	FACH AUTO TECH	107	
2	Kuba Giermaziak	VERVA Lechner Racing	104	
3=	Klaus Bachler	Konrad Motorsport	66	
3=	Ben Barker	VERVA Lechner Racing	66	
5	Michael Ammermüller	Walter Lechner Racing	64	
6	Philipp Eng	Team Project 1	62	

standings after round seven				
Pos	Drivers	Team	Total	
1	Josh Webster	Redline Racing	246	
2	Michael Meadows	Samsung UHD TV Racing	238	
3	Victor Jimenez	Redline Racing	171	
4	Paul Rees	In2 Racing	170	
5	Peter Kyle-Henney	Parr Motorsport	93	
6	Steven Liquorish	Team Parker Racing	91	

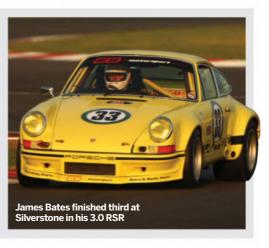
## Silverstone Classic report Podiums for Porsche 911 racers

Historic Porsche 911 racers tasted plenty of success at Silverstone during the annual Classic race meeting, held on the Arena GP circuit. In the FIA Masters Historic Sports Carrace, the EB Motorsport duo of Mark and James Bates dominated the 'Pescarolo' class, finishing first and third respectively.

After qualifying in pole position, Mark ran away from the field in his 3.0-litre Porsche 911 Carrera RS despite snapping a spoke on the steering wheel after just four laps. James, driving EB Motorsport's 3.0-litre Carrera RSR, finished third after enjoying a race-long dice with a Chevrolet Corvette.

There was more silverware in the Chopard International Trophy for Pre '66 GT Cars as Mark Sumpter and Adrian Slater guided their 2.0-litre 911 to third in the C1 class, with the classic 911s unable to match the dominant TVR Granturas. However, the Paragon GB car of Sumpter and Slater put on a fine show in a race for the final podium position with Historika's Porsche 901 driven by John Young.

Elsewhere, Henrik Lindberg secured a top-ten finish in the second Group C race in his Porsche 962, while Michael Birch and Gareth Burnett took their 356B Carrera GT to 14th overall and first in Class B in the RAC Tourist Trophy.



#### Motor racing in 2014

September

13-14 September

**ELMS** Paul Ricard FIA WEC America 18-20 September A1.000km race awaits Ben The World Endurance Championshipgetsunderway Barker, whose Gulf Racing team will use a new 991 RSR again at COTA in Texas

**USCC Texas** 

19-20 September The penultimate round of

the Tudor series supports the FIA WEC Six Hours

Carrera Cup GB Silverstone

27-28 September 2014's penultimate meeting at British motorsport's home Petit Le Mans

October

2-4 October Can Nick Tandy double his

The penultimate Nordschleife Road Atlanta win tally and endurance race of the year finish the year on a high? could decide the 2014 VLN title

VLN Round 9

11 October

## Total 911's racing columnists



# Ben Barker

As you may have seen in this column, I've been racing more and more on the other side of

the Atlantic this year after being given my Tudor series debut by the GB Autosport squad. Obviously, the Porsche Supercup has been my main focus this year, but it would have been crazy to turn down these opportunities Stateside.

The motorsport economy is strong over there right now, especially in sports car racing (and the TUSCC specifically). It appeals to me because you can make a career out there for quite a long time if you can develop a name for yourself. Compared to Europe, the teams (like GB Autosport) are really receptive to young guys coming through the ranks, and they are always on the lookout for really quick 'Silver' graded drivers. The teams are happy to invest in guys like me, while in Europe it's less common to get paid for your services as a silvergraded driver.

The US is the ideal place for me to be at this moment in my career. I've shown some good pace in my stints, mixing it with the established pros (as

The Supercup driver: Ben explains why racing in the US season has helped him move towards a professional drive

> I'd expected). I haven't had a chance to really have a go in qualifying, as Damian Faulkner is the 'Gold' driver in the team, so setting a time is down to him, but I'm learning a lot from him, especially as he came up through the Supercup.

While there's a strong possibility that I will be

racing in the US next year, I need to keep performing in the Supercup - something that has been difficult recently. Doing all these endurance races (including the ELMS) means I haven't been as aggressive as I need to be, especially in qualifying, so I need to sort that out over the remaining races, as I really want to finish off the season as I started it: with podiums. Hopefully, that will enable me to finish in the top three too

Among all the travelling, I've found time to move to east London. I'm going to miss Oxford, as I've had a lot of fun there, but there's a good vibe in the capital, and it's nice to be somewhere with a bit more going on - even if my journey to Heathrow hasn't really gotten any shorter.





# **Josh Webster**

Recently, I seem to be in a bit of a purple patch. Starting at Le Mans, I've outscored Michael Meadows in every

race, winning the last four encounters, including a double victory at Snetterton, my home race.

Naturally, with more time under my belt, I'm gaining a better understanding of how to drive and set up the car, but while I was expecting to develop gradually during 2014, I didn't expect to have won so many races at this stage. I'm not saying I'm going to keep this up for the rest of the season, but I'm feeling more and more confident, so let's see how it goes.

However, bearing in mind the way the points work in the championship, with just two points separating first and second place in each race, if you have one DNF you're back to square one, so I can't afford for that to happen. I'm aware that I'm leading the title chase, but I'm going to keep driving the same way right to the end of the

Away from the Carrera Cup paddock, I've recharged my batteries on a week-long holiday. Even better, I took delivery of a new Cayman from my sponsor partner

The Carrera Cup driver: After four consecutive Carrera Cup GB victories, Josh explains his strong form



Porsche Retail Group, who have dealerships in Hatfield, Reading, Guildford, Mayfair and west London.

My previous white one has been replaced with a Guards red version on black wheels. It looks awesome and sounds great too, so I'm looking forward to the drive to Knockhill for the next round of the Porsche Carrera Cup.

#### Carrera Cup round-up



Carrera Cup Deutschland Christian Engelhart

left the Nürburgring at the head of the title race in rounds 11 and 12. Philipp Eng and Michael Ammermüller shared victories.



Carrera Cup Asia Earl Bamber took

first and second to extend his lead over Martin Ragginger. The Austrian spun out of the lead of race one, but bounced back in the second race.



Meadows cut Josh Webster's lead as the Porsche Scholar finished second in both races at Knockhill. Victor Jimenez and Pepe Massot were third in races one and two respectively.



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







# Racing with 'Balance of Performance'

GT competition is full of manufacturers, but how do you streamline their philosophies?

ou may have noticed in my last column that the 997 GT3 R I drove to victory in Toronto has more peak power than the 2014 911 RSR I share with Richard Lietz in the Tudor United SportsCar Championship, despite the latter being the faster car over a racing lap. Ultimately, this discrepancy in power comes down to the air intake restrictions imposed on the RSR, a result of the 'Balance of Performance' regulations (or BoP for short), or 'Adjustment of Performance' (AoP) as it's more commonly known in GTLM.

BoP is the process in which a new car is introduced, and the championship organisers of the various international GT series attempt to equalise the racing cars from all the different manufacturers by making changes to metrics such as the fuel tank capacity, aerodynamics, weight and engine power. Obviously, an 8.4-litre V10 Viper starts off from a very different base to a 4.5-litre V8 Ferrari or a 4.0-litre flat six 911.

After winning the opening two rounds of this year's TUSCC at Daytona and Sebring, 2014 has since proven to be a difficult season for our Porsche 911 in the USA. There have been times when we've run fast and strong, but not ended with a result, and there have also

been places where we've been a long way off the pace. It's hard for the championship organisers to judge the exact performance levels of each car, because different cars perform better at different tracks, and it's also tough to establish which teams or drivers are doing a particularly good job with the equipment and the adjustments they are racing with.

Winning races isn't always about having the fastest car, and we feel like we were hit a little bit hard by the AoP adjustments this year. The problem was that we came straight out the box and won the first two races of the year, but never had the fastest car on a consistent race run. When you looked at it over the course of a race distance, we weren't the fastest car out there; we won those races by being the best race team on the day and by having the most reliable car. So when the other cars were given some performance upgrades we started to lose ground.

It's a difficult subject, but from our standpoint we just perform to our best all the time, and then the FIA, ACO and IMSA committees look at the performance of all the cars (we give them full access to all our data). We can suggest what we think needs to be done based on our calculations, which I guess all the other manufacturers also do.

It's a different situation to the likes of Formula One, and I think most people hope that in GT racing we can get to a point where everybody can build a car to a set of regulations and go racing (where if you do the best job, you have the best results). The problem is that in GT racing, the core of the racing car is based on the street version, unlike in prototype racing, where each car starts as a blank sheet.

Porsche is fully committed to the history and the heritage of the 911, and its chassis layout benefits as a passenger car, though it's simply not the ideal platform for a racing car, just like the Viper having a huge engine in the front of the chassis. So the difficulty in creating a set of regulations that allow all the cars to compete together is why we have the whole Balance of Performance.

Fortunately, we were granted some new parts ahead of the Road America race, which seemed to help the car run more competitively on a high-downforce configuration circuit. Hopefully, we can keep moving forward in the final few races, especially as one of my favourite events, the Petit Le Mans at Road Atlanta (a race I won last year with the Falken Porsche crew), is just around the corner.



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# Brands Hatch Sunday 21 September

The world famous Brands Hatch race track will be firmly in the spotlight, as the Kent circuit hosts a Festival of Porsche and Porsche Club GB's 2014 National event on Sunday 21 September. Classic and contemporary models from the brand's history - from both road and race backgrounds - will be seen on and off the track!

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/total911magazine





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

We're off to Wales in the 991 Carrera Coupe, Cabriolet and Targa. Which would you take?







## Win a Quantum **Tuning remap**

After a successful competition last year, Total 911 magazine and respected engine-tuning specialists Quantum are delighted to team up once again to offer one lucky reader a free remap for their Porsche 911 (available for 993-991s only).

**UK-based Quantum Tuning** have been in business since 2007, developing and testing their own engine-tuning solutions in-house at their Technical Centre in London's

As such, Quantum are able to offer a range of bespoke remaps to suit not only each individual car, but each individual customer - with Quantum, there's no such thing as a generic remap.

By adapting parameters like fuel pressure, ignition advance, throttle pedal control, camshaft timing and oxygen content, Quantum Tuning are able to provide a range of solutions for owners keen to unleash the full potential of their Porsche's engine.

To be in with a chance of winning, just answer this simple question:

#### What's the oldest generation of 911 that Quantum can remap?

A) 993 B) 991

C)964

Send your answer to competitions@ total911.com with 'Quantum remap' in the subject line. The editor's decision is final, and full terms and conditions can be found on the Total 911 website. The closing date is 8 October 2014. Good luck!

## Letter of the month

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





# **Special Sports spoilers**

At a recent Porsche Club of America meeting, I learnt something I didn't know about one of my own Porsches. It seems that the nuances Porsche is known for only become evident over time

An employee of Beverley Hills Porsche had been viewing my car from afar when I confirmed to him that the 2012 Racing yellow 991 Carrera was indeed mine. I informed him that after the LA auto show, I was bitten by the 991 bug, and ordered the car to my own specification from his store in Beverly Hills

I had noted that the front spoiler on my car was rather extended, and was reminded of this from time to time by a

scraping noise when entering or exiting all but the most gradual or shallow drive entrances/egresses. In contrast, Hater saw on the 991 Carreras and Carrera Ss a much shorter front spoiler (still elegant, but less aggressive in length and angle).

I thought this was a revision in design based on customer reports of the drive scraping, but according to the young employee at Beverly Hills Porsche, the two front spoilers are dependent on the suspension package ordered. The Sport Suspension, he informed me - while not swearing to the accuracy of the report - resulted in the racing or more aggressive front spoiler appearing with the car, while all others receive the less aggressive front spoiler. This was the first time I had heard this information.

Beyond this, he told me that right down to the 5mm spacers and wheels, each car received a custom setup with regards to the factory suspension and angles, etc of all the suspension components, meant to work to their absolute maximum under all conditions.

I thought I'd pass this along to **Total** 911 out of general interest? Best regards,

Alex Ford, via email

An interesting titbit of information. Thanks for sharing it with us.

#### **Exhaust enhancement**

Please tell Sean Parr (Living the Legend) that he doesn't need to remove any undertrays or soundproofing to be thrilled by the sound of his 964 engine.

Just do as I did - and for about £150 - fit the two by-pass pipes, replacing the catalytic converter and secondary silencer as shown in the attached photo.

It is an easy job that you can do yourself, saves about 32 pounds and gains power, but that sound - especially on over-run, you will never tire of it!

The good thing is that it is all easily and quickly reversible.

Regards,

Bill Stephens, via email



Have you seen our 991 GT3 track test in the new issue? This was the view from our hotel on the morning of the test:



Good feature from @Josh\_No90 in the new @Total911 out today on Porsche Approved. These were great used examples:



#### **Data File dilemma**

Dear Sir

You may remember our previous correspondence on the subject of the 964 C2 and your rather unjust, in my view, three-star rating of the sports car in previous data files.

It was with great anticipation, therefore, that I bought issue 116 with its revised Data File ratings. To my great disappointment, I see that you have now downgraded the 964 C2 from three stars to two and a half stars! I can only assume therefore that the two and a half is a misprint, as is the even lower two-star rating for the C4. Perhaps you would kindly confirm this and that it will be rectified for the next issue, or if too late, at least the issue after

My opinion is biased, since I have been the happy owner of a 964 C2 Coupe for the last 17 years. However, in my defence, I would point out that I've been lucky enough to have driven most versions of the 911, from a very early 2.0-litre up to a 997 GT3.

Perhaps your Data File should not be taken too seriously. since it's only Total 911's opinion and is published, I suspect, more to create debate and correspondence. But by giving a car two and a half stars out of five, I take that to mean it is no more than 'average' rather than 'very good'.

I would be interested to know, therefore, who actually decides how many stars to award each car. Is it a panel of several Total 911 employees? Do you have the final say on

Yours faithfully, Brian Thompson, via email

While the 964 C2 is indeed a good car (in reality there is no such thing as a 'bad' 911), in order to give greater parity across all Data File ratings, a downgrade was necessary. Giving it a theoretical rating of four stars would have placed it alongside markedly better cars such as the 964 Turbo S and both generations of 996 GT3. Ratings are carefully calculated by the Total 911 team to reflect 51 years of the 911.

#### Total911.com hot topic: **Online Poll** What is your favourite generation of Porsche 911 Turbo? Total 911's top six Porsche 911 rear wings of all time Celebrating its 40th anniversary this year, we wanted to find out Total 911 readers' perfect Porsche 911 Turbo:

We gave a rundown of the best rear wings to feature on a 911, and you weighed in with your own opinions. Here are the best:

> The rear wings of the 997 GT3 RS 4.0, 964 RS 3.8 and 993 GT2, as well as the ducktail on the 2.7 RS, are the best ones, and look really great! Should be on the first positions, just followed by the rear wing of the 991 Turbo, which is a great piece of technology! The rear wing of the 997 GT2 RS is not bad too, by the way...

I'm a classic, simple kind of guy. I'll take the ducktail! Justin M Dallas

Ducktail if I really have to, otherwise one that gets on with the job and puts itself away afterwards.

Luke Plummer

Admittedly, I'm not a rear wing guy. I like the more conservative look the best.

Aj Salerno

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964 Turbo 3.3 0%

303.3 14.94%

**64 Turbo 3.6** 11.69%

Turbo

9303.0 3.9%



997 Turbo (Gen 2) 9.09%



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# LIGHTWEIGHT SUPERSTARS



Porsche has a peerless history of producing pared-back 911s for purity in performance. Here, Total 911 samples two very different lightweights that stick to the Stuttgart axiom of 'less is so much more'

Written by Neill Watson Photography by Chris Wallbank



erhaps more than any other car manufacturer, Porsche has evangelical ethos of seeking to improve performance by creating lighter editions of its sports cars in the quest for purity in performance. Particularly evident throughout the 911's entire lineage, the Porsche achievement of enhanced performance and durability with reduced weight stands alone.

The 2.7 RS, introduced after ten years of 911 production and well documented in recent editions of this magazine, achieved motorsport fame before becoming the holy grail of car investment

legend. Later, its Rennsport successors did the same, with the water-cooled GT3 RS creating a resurgence in Porsche Cup popularity and some giant-killing performances in GT racing.

But there are other variants away from that RS moniker that can still claim 'lightweight' 911 status. One of these is the 3.2 Carrera Clubsport, introduced in 1987.

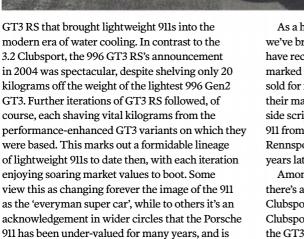
At the time, the Clubsport seemed to slip by with little to celebrate in competition - and visually too, you have to say it's not exactly awe-inspiring at first glance. The changes are individually very small, including deletion of electric seats, an alloy spare

wheel instead of a steel item, and no sunroof, radio or air conditioning. At face value it reads like weight saving of the Obsessive Compulsive Disorder style, but add this all up and you'll realise that Stuttgart managed to shave 50 kilograms off the base 3.2 Carrera. While this may not seem like a lot, it should be noted that this was on a sports car that was marketed during the 17-year Rennsport hiatus - proof in itself that Porsche has always harboured an obsession with lightweight 911s throughout its half-century of existence.

The famous 964 and 993 Rennsports duly followed in the Nineties, but it was the 996







As a homage to Porsche's featherlight obsession, we've brought two lightweight 911s together that have recently enjoyed a resurgence in popularity, marked by the fact they've both recently been sold for north of £100,000. Parked together in their matching white hue with red wheels and side script, the Clubsport represents a pared-back 911 from the Eighties, while the first water-cooled Rennsport does so for the same axiom nearly 20 years later.

Among the vast expanse of our Yorkshire airfield, there's a significant difference in size between the Clubsport and Rennsport 91ls in front of me: the Clubsport looks so small – almost petite – alongside the GT3 RS. In the bright summer sunshine, there's a significant difference in the shades of white too.

# COTARS



The Clubsport's Carrera white appears a little more creamy than the stark GT3 RS paintwork.

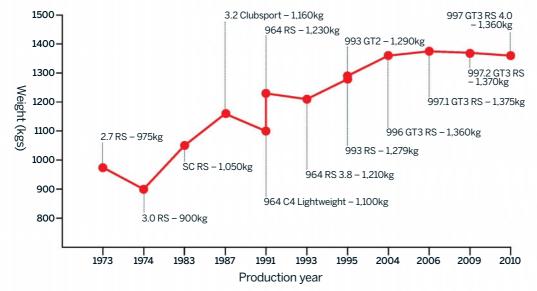
First climbing in the Clubsport for a spirited dash away from public roads, I immediately notice that lovely, solid G Series feel, though I can't help but wonder if it will really be that much different to a conventional 3.2 Carrera. Fumbling that Eighties immobiliser fob into its slot for a moment before turning the key, I'm greeted by the lovely hunting idle that air-cooled Porsches always make for the first few moments, along with a whiff of mixture aroma before that old-generation ECU settles down. Putting the gear lever into first (with a shorter throw linkage, more precise and defined), I give a blip on that sharp throttle, and we're away.

There appears to be a stiffness from those dampers that a standard 3.2 doesn't have. Turn in to medium-speed corners is incredibly crisp, while a lack of sound deadening enhances that lovely sharp engine bark, encouraging you to press on as you push hard out of a corner. Much to my surprise, a tangible difference is felt from the norm. There's a drumming in my seat back connecting me with the engine and a throttle response that is very sharp. It's almost as if someone had carefully blueprinted it and mounted it on stiffer engine mounts.

This car has covered just 19,000 miles from new, so in deference to the fact that it's spent long periods hibernating, I decide not to seek out that extra 300rpm over a 3.2 Carrera. My favourite B-road is around the corner, and as we turn down the tighter lanes those dampers really make themselves felt, soaking up undulating crests while the engine remains punchy and really singing, tingling my backbone. You've got to smile at the completeness of the setup, and while I don't think that's just down to those missing coat hooks and sun visors, it's becoming obvious that those tiny

## Timeline of the lightweight 911

now finding its true place as a collectable car.





## Five other lightweight superstars

# 5. A 'build your own' project



If you desire a lightweight Porsche 911 for the driving experience rather than its investment potential, then why not build your own? There's a wealth of information available, and if you're able to find a good G-Series Porsche 911 as a baseline, you can create a lightweight, track-focused car like this SC we featured last year. With the heavy-impact bumpers, polycarbonate windows, lightweight seats and carpets removed, this car is under 1,000 kilograms. This simple 3.0-litre 911 punches above its weight, and with Boxster front brakes and a good chassis setup, it's just the thing for a spot of giant-killing on the track.

#### 4.964 RS 3.6



The 964 era reintroduced the RS moniker to the road-going 911 again, with an impressive 130 kilograms pared from the original 964 Carrera 2. Like the 2.7 RS, the 964 RS was available in Touring specification or the even more hardcore Clubsport variant. With lightweight carpets, doors, boot and engine covers, the 964 RS also went for incredibly expensive magnesium alloy wheels.

#### 3.1974 3.0 RS



Far rarer than the 2.7 RS (just 109 were built, of which six were right-hand drive), the 1974 3.0-litre RS achieved featherlight status through the adoption of every weight-saving measure Porsche could think of at the time: think magnesium engine casings, glass fibre body panels, ultra-thin glass and the deletion of every possible option. Now intensely collectable, expect the first seven-figure sale of a 3.0-litre RS soon.

#### 2.997 GT3 RS 4.0

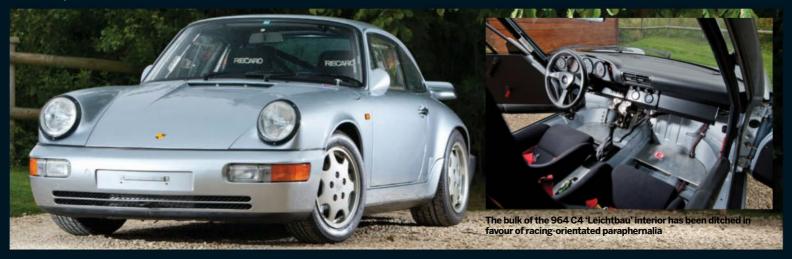


The last of the line of lightweight factory 911s. If current values are anything to go by, the halcyon 997 RS 4.0 is already well on the way to achieving the iconic status already attained by the 40-year-old 2.7 RS. Despite an increase in engine capacity to 4.0 litres with a long-stroke engine, weight was kept at 1,360 kilograms. A 500bhp powerplant places this among the pinnacle of lightweight Porsches.

# 1.964 C4 Lightweight

So rare that you've probably never even heard of it, all 20 964 C4 Lightweights represent the epitome of what a reduced-weight 911 should be

Written by Andrew Krok



Of all Porsche's lightweight superstars to leave Weissach, none are as hardcore (or rare) as the 964 C4 Leichtbau. Meaning, quite literally, 'light build', the Leichtbau was the brainchild of Jürgen Barth, Porsche's client racing manager. He recommended building it after an American customer suggested that Porsche construct a lightweight, competition-centric variant of the standard road-going 964. Barth secured fewer than 50 orders, with only 20 being built, making this one of the rarest 911s on the road.

The Leichtbau takes its name seriously. It is essentially a stripped-out race car, featuring many motorsport bits from Porsche's 953 Paris-Dakar rally car, including a manually adjustable four-wheel-drive system that allowed the driver to adjust torque front to rear and side to side. The gearbox itself was the low-ratio five-speed from the 953 as well.

The 964 Lightweight starts off with the standard 964 narrow body, but that's where the normalcy stops. There are numerous examples of how Porsche went to serious lengths to keep the car as light as possible. The doors and boot lid are made of aluminium, the side windows Plexiglass with small, sliding openings, and the side mirrors are small and placed right up along the door panel. The whaletail is made of fibreglass, and there's zero carpeting around the interior.

The remainder of the standard interior is ditched in favour of Recaro bucket seats, a Matter roll cage, a Momo competition steering wheel and a motorsport-derived hydraulic handbrake. Both the steering and brakes lack power assist, and there are no anti-lock brakes – even more moves to reduce the curb weight. There isn't even a clock on

the dashboard; it was omitted in favour of a piece of velcro for a stopwatch.

To complement all these weight-reducing measures, Porsche fitted the Leichtbau with additional stiffening welds at the rear of the car. The brake discs and calipers came from the SC RS, and the suspension came from the 964 Carrera Cup car. Tyres are standard spec, and while the wheels may look standard too, they're actually made of magnesium to lower the 964's unsprung mass.

The end product was a 1,100 kilogram beast of a car, boasting a 350 kilogram weight drop over a standard 964 C4. This low weight, combined with the 265bhp flat six from the 964 Carrera Cup car, resulted in a power-to-weight ratio of nearly 250bhp per ton. It might be hard to find one, but it's even harder to catch one off the line!



details - that lost rear wiper arm, door pocket lid, manual heater controls between the seats, reduced soundproofing, the engine blueprinting and uprated mountings - all come together to deliver that lightweight motorsport-style feel. This is far more enjoyable than a blueprinted engine. Now, I'm cursing myself for not buying one of these cars when I had the chance just a few years ago. Returning to the serenity of the airfield, we roll to a halt with the GT3 RS in front of us.

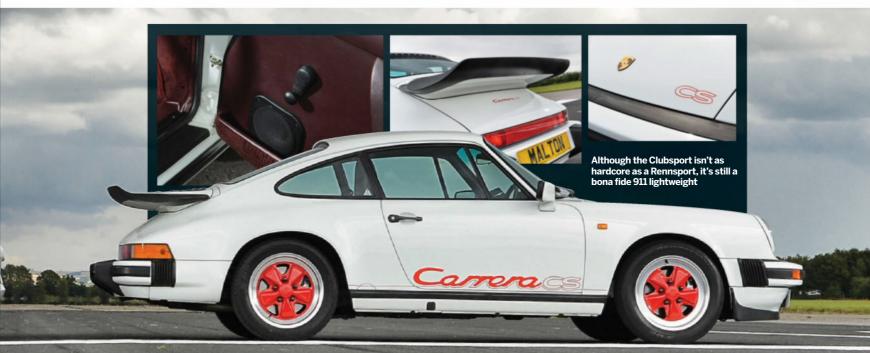
Walking around the newer RS, I'm still trying to get the Clubsport out of my head. "That shouldn't have happened," I tell myself. "How did those little changes alter the drive so much?" I'll reflect on these thoughts later. The GT3 RS is far more contemporary motorsport, the results of the lightweight measures being instantly apparent with that caricature of a rear wing, unpainted and

revealing the carbon weave. Drum your fingers on the rear screen, and the polycarbonate shimmers and flexes. Peer inside, and you'll see replacing that usual 'lightweight' deletion of rear seats is a stout, purposeful roll cage, five-point Schroth harnesses wrapped around the cross tubes and threaded through the lightweight Recaro FIA-spec seats.

I release the boot lid and walk to the front, my fingertips clicking the catch as my arm lifts. There's a curious lack of weight to the lid, giving that unexpected feeling akin to imagining a suitcase is full of bricks but actually contains feathers. Closing the front lid, I always feel slightly nervous of pushing too hard, as if the heel of my palm might leave a dent. This is unlikely though, as the RS has a carbon composite bonnet, complete with adhesive transfer of a Porsche crest, not enamel. Yes, here's that weight-saving thing once more.

After wriggling down into the deep Recaros, I shrug the five-point harness to one side and decide to opt for the red lap and diagonal belt, as in the main we're driving the same Yorkshire A-road route after the airfield. Though they're utterly different, I want a direct comparison to the Clubsport. The engine settles down to that lovely GT3 idle, accompanied by that 'rattling' of the clutch and gearbox I love so much. Into first, sensations are a fairly sharp clutch action and lots of crunching of gravel as the tight limited-slip differential does its shuddering while we reverse our path, following the Clubsport. Right away, this feels very different; extremely stiff, even more so than the 996 GT3 I drove just a few days earlier.

Very, very motorsport, the GT3 RS is every bit a racing car for the road, with this car running uprated EBC brake pads to give your thigh



muscles a workout too. The lightweight treatment applied to the GT3 RS is apparent right away: second and third gears giving that seamless power delivery, with seemingly no time to return your hand to the wheel before it's time to select the next gear. The car feels as if it weighs less than 1,000 kilograms rather than 1,360. Over the bumpy Yorkshire lanes, the rear tyres spend long periods off the floor, and under braking the nose darts around like a hungry anteater.

GT3 RS suspension could be set to Cup Car positions on the top mounts, and I'm wondering if this car is set like that. Visually, it has significant rake when viewed from the side. For sure, the trackfocused castor and camber settings mean the car needs significant attention under braking to stop it diving off the heavy camber. All the while, that Mezger engine is filling my ears with vividly raw flat-six sounds. I'm beginning to think that the black carpets are actually just painted on the floor, such is the noise. This is actually quite hard work, while ahead the Clubsport is nodding and swaying over the undulations in a far more compliant way. I'm beginning to regret not snapping that harness on.

Out onto a smoother, faster A-road, the RS is in its element. Opening up the engine through a series

of smooth bends, I pass the Clubsport. A glance in the mirror through the shimmering polycarbonate window shows the older lightweight 911 getting smaller, and I'm now getting the full Rennsport effect, that purist feeling of being intricately connected to the car and the road. I'm trying to think of how to describe it other than 'wearing it', but while I know that sounds corny, it really is the feeling. With urban speed limits ahead, we slowly creep back to base.

A direct comparison between these two lightweight superstars is quite irrelevant: the cars are from different generations. But do they actually have anything in common when you drive them? They're several generations apart, the GT3 RS with significantly more power and from a newer era of the 'modern' Porsche 911. And yet their philosophy does bring about a feeling of being distant cousins. It's that feeling I always get when I explore the tactility of lightweight 911s.

The Clubsport probably has more in common with the older 2.7 RS, quite classically Porsche in feel, with the GT3 RS feeling very modern. And yet the ethos of weight saving and attention to detail common to both allows that tactile interface to shine through in a remarkably common way

in both cars. There's no denying that they're related, and indeed that they're both lightweights, each achieving the same objective of superior performance and a very direct driving experience by shedding weight. The Clubsport accomplishes this in a far more subtle way, and of the two is the more surprising – an abject lesson on how attention to detail can accomplish so much. For me, this is the surprise of the day. The GT3 RS is just as I recall it: a motorsport hero designed to achieve homologation and GT racing victories. You wouldn't really want it as your daily driver, and yet the Clubsport undeniably could be. I find it sad that this car's value means it will now rarely be driven.

Indeed, the other common theme these two share is value – an interesting comparison that is worthy of thought, with Clubsport values remaining as low as £35,000 until recently. The GT3 RS was always going to be a blue-chip value car, and never really dropped much below its original invoice price, yet as I write this, both of these cars have just been sold for very similar sums of money: in excess of £100,000. If you're a GT3 RS owner then, it's business as normal. If you're a Clubsport owner, you've either been incredibly fortunate or quite remarkably far-sighted.

# "The Clubsport is an abject lesson on how attention to detail can accomplish so much."









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# 991 SUPERTEST

This year's Targa release completes the non-GT lineup of the latest-generation Porsche 911. But which body, chassis and engine combination provides the most exhilarating driving experience? Total 911 takes to the utopian asphalt decorating north Wales in the ultimate Carrera cross-examination...

Written by Lee Sibley & Josh Barnett Photography by Ali Cusick





hat's your idea of the perfect road trip? Be it a quiet,
Sunday morning blast in that revered air-cooled 911, or a cross-continental epic in a modern supercar, we all harbour a vivid dream – some perhaps executed – of that idyllic drive.

My own utopian road trip can be aptly personified across the next ll pages: consisting of a deserted mountain pass on a hot summer's day with a mouth-watering flat-six ensemble to complement. As well as Ali Cusick and his camera, I'm joined by my staff writer, Josh, and owner of this fine publication, Damian, for this extraordinary road trip, organised with one titillating mission in mind: to test the 911 Coupe, Cabriolet and Targa models in our possession.

Now, our three new sports cars chewing up the blacktop among the idyllic setting of north Wales may share the same gorgeous shade of Sapphire blue and a flat-six boxer engine, but this is where most of the similarities end. Instead, the three of us are piloting a tasty treble of 991s, each representing a delectable iteration of new 91l Carrera. The differences between the Zuffenhausen trio before us make for fascinating cross-examination: two are open-topped; a different two have all-wheel drive; another two have manual gearboxes, and all have diverse power outputs. This, then, is the supertest of the entire 991 Carrera range, as we dissect







#### Sport Chrono: Do you need it?

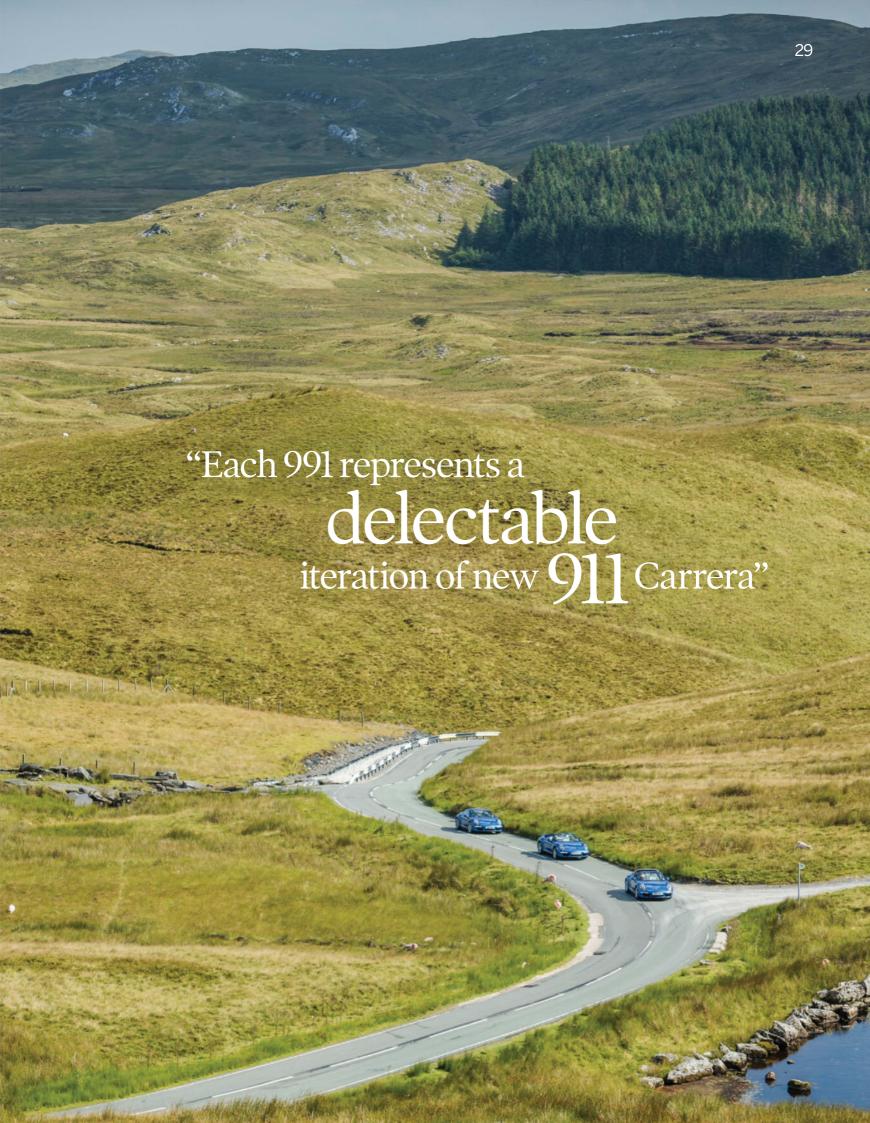
The Sport Chrono package is a debatable option. From the driver's seat, all that appears to have been added is a centrally mounted stopwatch/clock and a button marked 'Sports Plus' on the centre console. Push that button, and there are some noticeable changes to the dynamics that some drivers may find a necessity, but at £1,085, we'd argue that the money could be better spent elsewhere.

The most prominent transformation is the sharper throttle response. It's a welcome tweak, providing greater adjustability mid-corner, and it works especially well with

the higher-stability management threshold that Sport Plus mode activates.

Sports Chrono also provides dynamic engine mounts, but in reality they make very little difference, even during spirited road driving. The rest of the package predominantly seems to focus on turning on various modes that you can activate at the touch of a button (such as PSE and PASM), while the Launch Control feature and auto blip (the former on PDK, the latter on manual) are entertaining, but little more than party tricks.





#### Battle of the open-top: Cabriolet v Targa

Here at **Total 911**, it is generally accepted that the Coupe is the ultimate Porsche 911 body style. It is the only car that truly provides the silhouette synonymous with Zuffenhausen's darling sports car, and thanks to plentiful chassis stiffness, it also offers the most dynamism among the three 991 Carrera shapes available. However, that doesn't stop us from comparing the two open-top choices, especially as for the first time in nearly a quarter of a century, convertible connoisseurs have two truly distinct choices before them.

First off, when it comes to the visuals, the new Targa wins hands down. It's a truly gorgeous car that seems to grab people's attention wherever it goes (especially in the luscious Sapphire blue hue). Looks-wise, it's possible that it's even prettier than the Coupe, with the silver roll bar providing extra aesthetic interest. In comparison, the Cabriolet is still the least appealing visually despite the bulbous rear haunches having been reworked. What's more, thanks to the efforts of Zuffenhausen's engineers, the roofline nearly matches the perfectly proportioned Coupe and Targa.

Yet, when it comes to the job of providing an enjoyable al fresco motoring experience, the Cabriolet is definitely the car to have, especially if you intend to embark on any long-

distance, top-down trips. The fabric roof (reinforced with a titanium frame) folds away at an impressive pace, and can be operated with the car rolling, albeit below 31mph. Conversely, the Targa's electro-mechanical system can only be activated at a standstill, and takes a further six seconds to 'de-roof' compared to the Cabriolet.

Once underway, it becomes more apparent which 911 provides the more consummate open-top experience. Wind noise and buffeting in the Cabriolet is surprisingly minimal to the point that you'll be putting the roof up not to get some respite from the air, but from the sun. The electrically operated wind deflector that raises above the rear seats does a superb job of preventing any uncomfortable gusts around the cockpit, allowing you to enjoy the superb engine sound that resonates from behind.

In the Cabriolet, the idiosyncratic engine note is amplified, making it more enjoyable aurally than even the Coupe. What's more, basking in the unseasonably hot Welsh sun, the extra breathing room of the Cabriolet makes it a truly unforgettable experience for all the right reasons.

Conversely, in the Targa, buffeting is the major detractor. At any speed over 50mph, the air crashes noisily against the upper edge of the roll hoop. The effect is unbearable at times, especially on steady speed cruises. A 911 for the motorway this is not. Lowering the windows by an inch or more can remove the effect, but this only serves to dish out an uncomfortable blast of air to your face. On the Welsh lanes, the effect isn't so pronounced thanks to constant fluctuations in pace. However, the wind always overcomes the engine note (even with PSE on), removing a major draw of the 911.

Where the Targa does well, though, is in its chassis balance. For all intents and purposes it drives like a Coupe, with the same confidence when cornering (no doubt aided by the 4's wide rear track). The front end is sharp, while the Cabriolet (admittedly in standard Carrera spec) is much softer and wallowing. The latter often requires more driver involvement to drive quickly, but the Targa, with its supreme poise, is ultimately the faster point-to-point, despite weighing in at over 100 kilograms more than our Cabriolet.

This weight may not manifest itself in the Targa's cornering performance, but it does require the additional grunt of the S's engine, as Lee found out last issue. Conversely, the lack of precision from the Cabriolet means that if this is the open top 911 for you, the S's chassis is a must, even if like-for-like the Cabriolet costs £600 more than the Targa.



each engine and chassis and delve into the options list to discover the very embodiment of the current 911 outside of its Turbo or GT lineage.

Our earlier journey from Porsche GB's headquarters in Reading was fairly nondescript, the convoy of Carreras settling into an amicable pace as we entered Wales via the Severn bridge. 45 minutes later and north of Abergavenny, the roads begin to take on some character: boring duel carriageways make way for exciting B-roads that dart through glorious, sweeping valleys. Rising to the occasion, the three of us elect to push on. I'd started the day in the 3.4-litre Cabriolet, with standard suspension and bigger-profile tyres, which begin to feel noticeably soft in the corners under spirited driving. I find myself craving more precision on turn in, the frustrations only exacerbated by the sudden build-up of traffic through Builth Wells, which this weekend is playing home to the annual Royal Welsh Agricultural Show. Working the heavy clutch pedal as we crawl through the nostalgic, narrow streets, I reason that as amicable as the Cabriolet is for roof-down pleasantries, I yearn for a more precise driving setup for the glorious roads that await us in the afternoon.

We use the traffic as reason enough to take a fuel stop and swap cars, giving us a chance to sample the second 911 in our trio of Sapphire blue test mules. I climb in the Powerkitted C4S Coupe, mated to a manual 'box. This feels more like it: PDCC on a lowered sport suspension offers a much more focused experience from the driver's seat, and it doesn't take me long to revel in the immediate pace of the 430hp Coupe.



After spending the afternoon blasting towards our destination of Ffestiniog in north Wales, we turn off the A470 trunk route – intermittently laden with slow-moving caravans and coaches – in favour of a deserted mountain pass heading for Bala.

The B439l is in many ways the complete road, with a faster, well-sighted lower section making way for tighter and more technical corners the higher you climb up the mountain.

We'd waited all day for the next 30 minutes of tantalisingly twisty asphalt, and the road –

as well as the 9lls – were not about to disappoint. As the occasional single-seat racer, Josh was the first to peel away despite piloting the lesser-powered 350hp C2 Cabriolet. Undeterred, I take chase in the Coupe, spurred by confidence in its delightfully rigid chassis. This C4S really is the most complete 99l Carrera I've driven, but then it should be, given its £107,000 all-in price tag.

In fact, I soon realise that the C4S with Powerkit makes me look good, as any pace lost from

#### Powering the 991: 3.4 v 3.8 v Powerkit



Blasting up a North Welsh hillside, it's hard to find fault in any of the engine configurations found in our three Sapphire blue 991s. As we wind up one wonderfully inviting pass among our stunning scenery, the howl of flat sixes bouncing off the sheer rock face to our right is enough to move even the staunchest of water-cooled doubters. In cannon, each azure rocket launches forward, the sports exhausts adding extra theatre to an already impressive scene. On reflection, though, each powerplant enjoys its pros and cons, with a source of propulsion being perfect for nearly every driver.

The 3.4-litre engine mounted in the 991 Carrera is, on paper, the weakest of the three motors. Its 350hp can only propel a manual Coupe to 62mph in 4.8 seconds, with our heavier Cabriolet achieving the same sprint a further two tenths slower. Below 3,000rpm, the engine has a decisive lack of torque that can leave you red-faced against modern German turbo-diesels. On the flip side, the engine's obvious lack of potency instead manifests itself with some seriously impressive fuel economy statistics; here, you can



reasonably expect ratings of 30 miles per gallon plus with concerted, regular driving.

Yet, this is not to write off the 3.4-litre DFI engine entirely. On the Welsh lanes and passes, you simply have to keep the crank speed high to realise its full potential. The complement of peak power is provided just 100rpm below the redline, necessitating lots of second and third-gear blasts, which really brings out its best. It feels more old-school than the 3.8 engines, where you have to maintain a fluid driving style. Combined with the perfectly matched manual 'box, it's a rewarding experience.

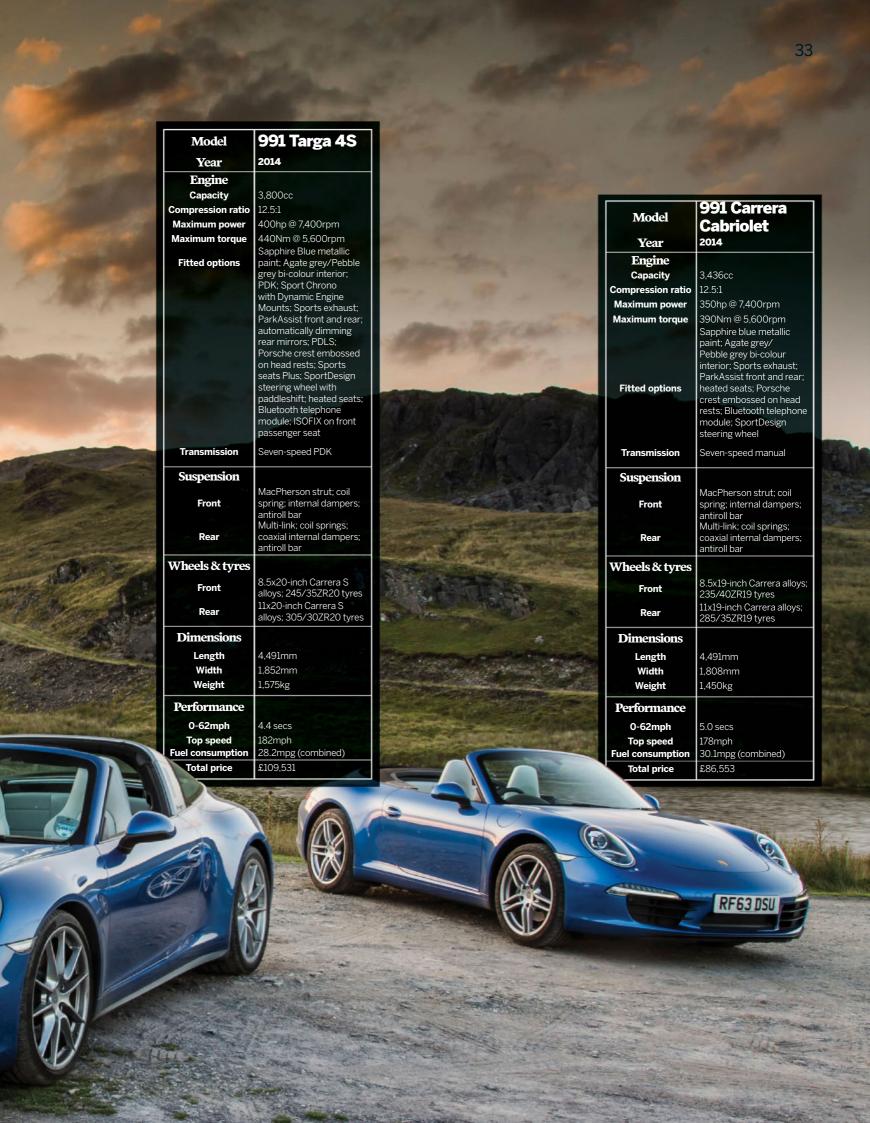
That's not to say the 3.8-litre motors are not fulfilling. The standard, 400hp engine in the Carrera S (or in our case, a Targa 4S) is probably the best engine on test. The extra 400cc of capacity provides more bottom end, with the supplementary 50Mn of torque allowing you to take corners a gear higher than the 3.4 and still maintain your forward momentum. What's more, in the heavy Targa, the 3.8 is a necessity, providing the extra shove needed to



counter the roll-hoop-endowed sports car's ample mass. It is the best all-round engine, and it is no surprise that it is equally as enjoyable when mated to a PDK gearbox as it is to the (slightly tedious) seven-speed manual.

The speed that this car can develop at is more than enough for the majority of enthusiastic motorists, yet Zuffenhausen still feels the need to offer the Powerkit for the S's engine, as fitted to our tested 4S Coupe. At 430hp, it is the most powerful Carrera ever, but with a £9,388 price tag, it isn't cheap (even if Sports Chrono, dynamic engine mounts and PSE are thrown into the deal). The internal modifications wield yet more torque too, making overtaking the plethora of caravan-towing tourists a breeze, but under spirited driving, it is easy to worry more about losing your licence than the scenery and road ahead with all that pace endowed in the Powerkit. Such is its proclivity for sprinting the tacho round too, the manual gearbox feels like an agricultural choice. Instead, for this motor, we would definitely make a beeline for the PDK.







clumsy, over-zealous braking on the tight B-roads is quickly recuperated from a lively mid-range offered by the mighty 430hp Powerkitted flat-six. The PCCBs fitted to the Coupe mean only a gentle prod on the brake pedal from the ball of my right foot is enough to shed pace from the Porsche. It takes me a while to get used to the sensation of not having to jump on the pedal to scrub speed, but after a short while of acclimatising, I become smoother in the Coupe and really start to let it sing.

However, I daren't get too carried away: the halo-like glowing of the LED front lamps fitted to the Targa 4S remains a permanent fixture in my rear-view mirror. Damian has found his groove,

keeping the heaviest car of our trio on point with big-number revs and lightning-quick gear shifts from the PDK's aluminium Sport Design steering wheel paddles.

Pumped with adrenaline, we carve through the canyon-like scenery, taking full advantage of the sweeping, twisty roads now totally bereft of traffic. In fact, our state of ecstasy prove detrimental to our time-keeping abilities: we've nearly missed our much-anticipated sunset shoot. Interrupting the shrill cry of the flat six piercing my eardrums in the Coupe's cabin, Ali's voice comes over the walkietalkie's airwaves: "Gents, we have a ten-minute window to get our shot before it's too late." Bugger.

We zip back to our lakeside location on Ffestiniog's outskirts and position the cars with military-esque regimentation. With a sigh of relief, we make the sunset shot and decide to call it a day. It's only a short drive into Ffestiniog, and three 991s amble back into town ahead of a well-earned night's rest for men and machines alike.

"What a day. I could quite easily do all of that again, this minute," Josh enthuses as we disembark from the Porsches and head for our rooms in a quaint B&B. I can't help but nod in agreement. Each Carrera has so far offered so much fun at the wheel that stepping away from them for even a short period seems utterly incomprehensible.

#### **Brakes**

The engine you'd like fitted to your 991 (be it the 3.4-litre DFI Carrera engine or 3.8-litre DFI Carrera S powerplant) will determine what brake options are available 'out the box', so to speak. Those who opt for the lesser-powered 350hp unit will have the four-piston alloy monobloc calipers fitted with 330mm discs all round, while a prerequisite for the 3.8-litre engine are bigger, six-piston alloy monobloc calipers and larger 340mm discs up front, with the four-piston caliper and 330mm discs at the rear. Calipers on S models are painted red in a nod to the 'Big Red' brakes formerly seen on 911 Turbos, with calipers on the standard Carrera appearing in an anodised black hue.

While some may find the four-pot brakes on the 3.4-litre car more involving (as you really have to stamp on the pedal to reduce the 991's speed), the six-piston 'Big Reds' provide noticeably more conviction, with less effort required from the

driver. However, for £5,787, there is a premium choice in the form of PCCB.

Porsche's lighter ceramic brakes excel in a competitive track environment, scrubbing speed from the 911 at a stupendous rate. What's also noticeable with the PCCB (as fitted to the 991 C4S with Powerkit for our road test) is how quickly that speed is scrubbed: only a quick 'dab' of the brake pedal is required for the 911 to noticeably have its velocity shredded. However, the well-known caveat to ceramics is their tendency to 'squeal' around town after only concerted road use.

For the track, ceramics are simply majestic in their conviction, letting you out-brake your rivals before hitting the apex on turn-in while offering minimal fade under prolonged stress. For everything else, Big Reds are more than adequate, delivering confidence-inspiring stopping ability in every road situation with commendable urgency.















We awoke early the next morning after a light sleep, still physically tired but mentally invigorated by the day's agenda to attack more great driving roads North Wales had to offer. Walking to the car park where 1,180hp of Sapphire blue Carreras sat waiting, we swap keys once more for a steer of the third and final car.

Now, it was my turn in the Targa 4S, and after a scintillating yet effortless stint in the Coupe the day before, I was apprehensive as to the performance credentials of the heaviest Carrera on our test.

I needn't have worried. In contrast to the soft, sluggish character of the 991 Targa 4 I took to Zuffenhausen last month, the 3.8-litre 'S' engine here takes little time to prove that it's a better fit for the Targa concept. There's much less roll in the Targa 4S compared to the spongy Cabriolet chassis, and steering is wonderfully positive as a result.

PDK is another welcome addition to the Targa 4S's touring credentials, though there's little time to sit back and bask in the comfortable sun-drenched cabin. Josh has already disappeared ahead in the C4S Coupe, followed by Damian, who's equally handy at hustling the plucky Cabriolet through corners with pace.

As morning turns into afternoon, our Carrera convoy heads back south, with one last special stop-off point planned. The impressive Elan valley sits in the very centre of Wales, where it incorporates 70 square miles of lake and countryside. More aptly for our Sapphire blue contingent, the area is blessed with a beautiful, snaking route slowly descending from the top of the valley to its base. The road's width is much narrower here, so no overtaking was to be had, but it allowed the three of us to spread out from one another and become immersed in dancing

each 991 down to our stop-off at the abandoned mine around six miles in.

After another exhilarating drive, we reach the mine. Ruinous in appearance and remote in location, it sits in the very base of the valley, with unkempt granite slabs rising steeply to the summit above. We bring the 9lls to a stop in front of the mine, allowing Ali a suitable backdrop in which to take care of the final detail shots of each Carrera.

As Damian and Josh head over to explore what was left of the mine, I simply stand in silence, listening to the pinging of metal from our three hot, static Porsches as they attempt to cool down. At this, I ponder: what do I make of our 99l experience on the supertest?

The 991 in its entirety is a thrilling sports car to pilot. What's more, although it may well be a world away mechanically from the revered classics so

#### **PASM** and **PDCC**

As technology progresses, so too does the number of configurable parameters on your 911. PDCC (the active anti-roll system) is only available to specify alongside Porsche Active Suspension Management on Carrera S models. This means it cannot be added to a sports car with passive dampers, but that's okay, because ultimately you need the entire package in order to reap the full benefits.

The Cabriolet (an unlikely stead to analyse a 911's handling potential) is the only car on test with the passive damper setup. It feels incredibly soft, rolling extensively into the corners. This makes it incredibly forgiving, yet its lack of precision hampers it when you feel like pushing on (even if it feels more like a classic 911 than a 991 to drive).

By comparison, the Coupe, which features the full compliment of PDCC and PASM, is an incredibly accomplished sports car. The stiffer suspension is still perfectly compliant over poor road surfaces (though motorway cruising can be slightly crashy), while the antiroll control is superb, promoting plenty of front-end grip. It's possibly the most dynamically competent setup we've ever driven; it's that good, and the 20mm lowering makes the car look pleasantly purposeful. You could possibly run without the PDCC, as the Targa on test did, but it doesn't really make sense; with the stiffer suspension and improved roll control complimenting each other perfectly, the 991 chassis is imbued with incredible poise and pace.



## 991: Our choice

We've driven every iteration of 991 Carrera and sampled every significant option, so what's our ultimate new 911? Lee and Josh have used the configurator on the Porsche consumer website to piece together their own utopian 911. The brief? To keep the total price below the £100,540 required for a 991 GT3. Their final, theoretical 991s are below.





I originally chose a C4S Coupe, but found that I was fast encroaching on GT3 territory with my options, so had to opt for the narrower, rear-driven 'S' at \$96,720 all in.

The 'S' package presents a far more purposeful 911, with 'Big Red' brakes and more torque the nearer side of 6,000 revs being more alluring to me. I also think PDK suits the 'S' engine better, allowing for lightning-quick shifts between gears that the lethargic and overworked seven-speed manual just can't compete with.

I wanted a sports car capable of meandering through town in style and comfort, before calling on scrupulous performance and balance for trackdays. 400hp and PDK will see to the performance side of the bargain, while PDCC with PASM will allow me to load the 911 into corners. Sports seats Plus complement all environments: adjustable side bolsters will keep me rooted in place. For longer journeys the adjustable depth of the seat bottom will give greater support to my knees, and my aural sensations will flip between PSE and Bose.

Yes, I've specced up a manual 991 Carrera Coupe to £84,888. That's a whopping £13,708 of options, but I've got everything I really want. I feel in love with the 3.4-litre engine and the fact that I had to push its limits during fast driving, while the manual gearbox with the standard brakes makes heal-and-toeing a joy (no Sports Chrono for me, here). I have added the PASM sport suspension, which not only provides stiffer damping, but

I have added the PASM sport suspension, which not only provides stiffer damping, but also lowers the whole car by 20mm, aiding dynamics and visuals. PSE, for me, is a must, as it is plenty loud enough and full of character, but can still be turned off when I want to quietly cruise along (aided by the addition of cruise control).

Inside, I've got heated and ventilated Sports Seats Plus for all-season comfort, plus an Alcantara Sport Design wheel and gear knob for a bit of motorsport character. Externally, Sapphire blue has fantastic depth and iridescence, while the Carrera S wheels are, in my opinion, beautiful.

rightly adored throughout every issue of this very magazine, I was relieved to find that the 991 still offers that inherent Porsche 911 experience if you really go looking for it.

With Ali soon signalling the completion of the pictures to Josh, Damian and I, we all swap keys

once more and fire up the requisite Porsches for the final drive home.

And that's where we'll leave you: three Sapphire blue 991s alone in the Elan valley, zipping back along in close unison as the road twists and turns and dives and climbs under the glare of the hot summer

sun, the shriek of three hard-working flat six engines augmented by the popping and growling of the raucous Sport exhausts. There's still a gruelling three hours and 160 miles of driving left to do, and yet I couldn't care less: after all, I wouldn't want to be anywhere else.





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for days; it's fair to say that the 993 Carrera S is something of an office favourite, and I'm feeling particularly pleased that I'm the man with the job of heading out onto the open road in a car that, thanks to a surplus of Turbo body shells at Zuffenhausen in the late Nineties, was the last naturally-aspirated air-cooled 911 to roll off the production line.

Sliding into the assuredly azure-hued driver's seat, the door shuts behind me with the 'thunk' noise that is oh-so familiar to classic 911 owners. Inside the Metropole blue interior, the forward view in the Carrera S features those famous five, clearly divorced dials mounted into a shallow dashboard. Yet, while the instrument panel's design clearly bears more than a passing resemblance to past 911s, the increased number of warning lights slung around nearly every dial's face highlights that, unlike classic 'S' models, this is a 911 teetering on the edge of a digital precipice.

The centre console's ergonomics are by no means modern, yet unlike the slapdash button placement found inside 964s, the 993's controls feel more thought-out, even if the heater controls are placed out of the driver's eyeline, hidden behind the hideous airbag-enveloping steering wheel that proves satisfactory to grip yet less pleasing to the eye. It's an unusual mix of classic and contemporary that clearly marks the 993 Carrera S out as a sports car at the tail-end of a generation.

After deactivating the compulsorily confusing immobiliser, the 993 effortlessly spurs into life

with the mechanical rattle that only air-cooled flat sixes can muster. It's a wonderful sound, although after a succession of PSE-equipped 991 press cars in recent months, the Carrera S greets my ears tamely. In comparison to the raucous bark of the 991, the 993 lacks the aural drama of the latest 911, while thanks to its twin silencers (one for each bank of cylinders), the distinctive air-cooled 'thrum' noise is also muted. Thankfully, due to its place at the end of 993 production, the Carrera S benefitted from the VarioRam-equipped M95 engine which, with its distinctive aluminium plenum, creates an idiosyncratic reverberating tone.

Still, weaving my way out of north London is not the best time for making first impressions, though it does give me ample chance to work the delicately weighted clutch as the engine is given a chance to warm up. The pedal doesn't provide much feel, but it's not overly heavy and, in the inevitable traffic, I'm not under the impression that the Tiptronic S would be my preferred choice.

As we reach the dual carriageway northwards, with oil and water into their operating bands, I'm finally given a chance to open up the offset throttle and launch the 993 Carrera S towards the location of our photoshoot. Weaving through the edges of the capital, the M95 powerplant proved to be excellently driveable, with a glut of torque at the lower end of the rev range, yet despite this VarioRam-induced effect, the velocity at which I shoot forward isn't startling. The Turbo body

adds an extra 80 kilograms over the standard 993 Carrera, and with only a 13bhp boost in power, that added mass is noticeable when it comes to acceleration.

Once up to cruising speed, the engine reverts back into a more malleable mode, making higherspeed bursts of acceleration more entertaining. However, the relative lack of pace compared to a modern yardstick is noticeable, causing my photographer for the day, Phil (a previous 993 Carrera S owner) to remark that he remembered this run-out 911 feeling faster. Our expectations of 2014-levels of performance are heightened by the car's sure-footed ride at high speeds. However, in outright performance stakes, the 993 is proof of how quickly technology has progressed this side of the millennium.

Our terminus is the Ashridge estate in Hertfordshire, 35 miles north of central London. The protected woodland scenery has been made famous by various Hollywood blockbusters. However, I have known this particular patch not for it's role in the film Sleepy Hollow, but as my old stomping ground when I was growing up. In fact, the last time I visited this locale, the 993 Carrera S could be bought new from a Porsche Centre. Since then, much time has passed, which is evident in the way the Carrera S attacks the hairpin bends littered around my route.

Like the litany of classic 911s before it, as I send the 993 into the sweeps at an enthusiastic pace, the







front end is the first to call it quits thanks to a lack of forward-biased mass. To counter the car's pining for the opposing carriageway, I need to firmly feed the throttle in before the apex. A liberal amount of the 'noisy pedal' enables the 993 to pivot around its nose as the rear begins to lose traction. To a modern 911 driver, it's an alien technique (made all the more difficult by the inability to trail-brake the car – the engine is, after all, firmly situated behind the rear axle line in the Carrera S). However, aided by the damp road and the punchy torque of the S's motor, the style required to hustle this car at pace comes to me more naturally than in the lower-powered 91ls of the Sixties and Seventies.

The 993 was the first 911 to make use of multilink rear suspension, and I feel this provides the car with a poise earlier iterations lack (even if Phil contends that the 964's torsion bar-based system was more forgiving). He may have a point, but the 993 never feels edgy. This is no doubt a result of the car's soft anti-roll setting. The car noticeably feeds itself into corners, providing plenty of sensation back to me before breaking away. It's a world away from the stiff, snappy, yet more responsive chassis found in the water-cooled menagerie.

With more and more time behind the wheel on the near-deserted roads, I'm really enjoying the old-school driving style this car thrives under. It's a rewarding endeavour made more pleasurable by the excellent steering. Yes, the aforementioned steering wheel is ugly, but with just under three turns lock-to-lock, rack speed is fast enough to provide control at the flick of the wrist without feeling overtly nervous. Despite this, it doesn't feel like the most precise system (though that could be more to do with suspension wear after this particular car's 71,000 miles than any failings by Zuffenhausen's engineers 17 years ago).

Where I'm most impressed, though, is by the steering's weight. At low speeds the 993's steering doesn't benefit from as much assistance as a 991, but as the speed increases, the load back through to my arms does likewise. The effort required never feels like a chore, but it is enough to make you realise that you are the key component when it comes to driving this particular 911 at speed.

Unlike its composure on flatter roads, the cambers of the forest stretches invite the car to wander and track, but despite the less than ideal surface, the damping is still compliant (maybe to the degree that comfort is favoured in exchange for outright G-force-inducing performance). The car's tendency to track is most noticeable under braking where, after a hefty shove of the central pedal, it

bucks about a bit too much for my liking. However, it is all part of the analogue experience that the 993 provides, wrapped up in a body designed for the digital age, even if the unsightly external gutters attempt to prove otherwise.

I haven't touched on the gearbox much, but despite its age, the six-speed unit dispatches shifts with ease. It's impossible to beat the syncromesh, even on the fastest changes, although with age, the precision across the gate has begun to wane. Heel-and-toe downshifts prove easy enough too, although the offset pedal position initially causes me a few problems as I catch the wheel arch to the right of the throttle – a signifier of just how narrow the front track really is on the 993.

After a thorough workout, the 993 Carrera S leaves me with a car divided in two. In an urban environment, it has proven itself just as capable as more modern 91ls, yet on roads more befitting its 'S' denomination, the car's character switches to something more positively retro. Yet, this is precisely the point of buying a 993: it is the turning point of the 91l story, a crossroads of old and new. The Carrera S provides arguably the most evident example of this meeting point, and because of this has truly captured my heart like its forebears. Vive la 911 'S'.

#### **Buying a 993 Carrera S**

Like all classic 911s, the 993 generation has proved particularly appealing to investors, owing to its place at the end of the legendary air-cooled timeline. In the last 12 months, values have rocketed, led seemingly by the 993 Turbo. Where we placed it as a \$60,000 rival to the 997 Turbo in issue 103, starting rates for a decent forced-induction 993 now sit at around the six-figure mark.

This hike at the top of the market has effectively pulled the price of the lower-level models up in the same way that 2.7 Carrera RS values have inflated the entire pre-impact bumper pricing structure. Last year, 993 Carrera 4Ss seemed to sit at around £45,000 (with some examples on offer for under £40,000). However, now, the four-wheel drive, Turbo-look model has closed in on £60,000, no doubt aided by its mechanical similarity to the 993 Turbo.

By comparison, the 993 Carrera S had been seen as a lesser offering, enjoying a discount of 10-15 per cent over the 4S. If you looked hard enough in 2013, a Carrera S could have been yours for significantly south of £40,000, but now the gap to 4S prices is narrowing. This is no doubt as the 993 Carrera and Carrera 4 has started to push up while investors are also catching onto the 993 Carrera S's rarity.

3,714 Carrera S models rolled off the production line originally, compared to 6,948 4Ss (and 5,937 Turbos). Coupled with the car's place at the end of the air-cooled era, and the 993 Carrera S looks likely to catch up to the 4S in the eyes of 'the market', especially rarer manual cars (and those with black interiors). This doesn't mean that you should jump head-first for the first car though, as the Carrera S can still suffer from the normal 993 problems like rust around the windscreen, but from an investment point of view, solid cars look likely to continue providing solid returns.



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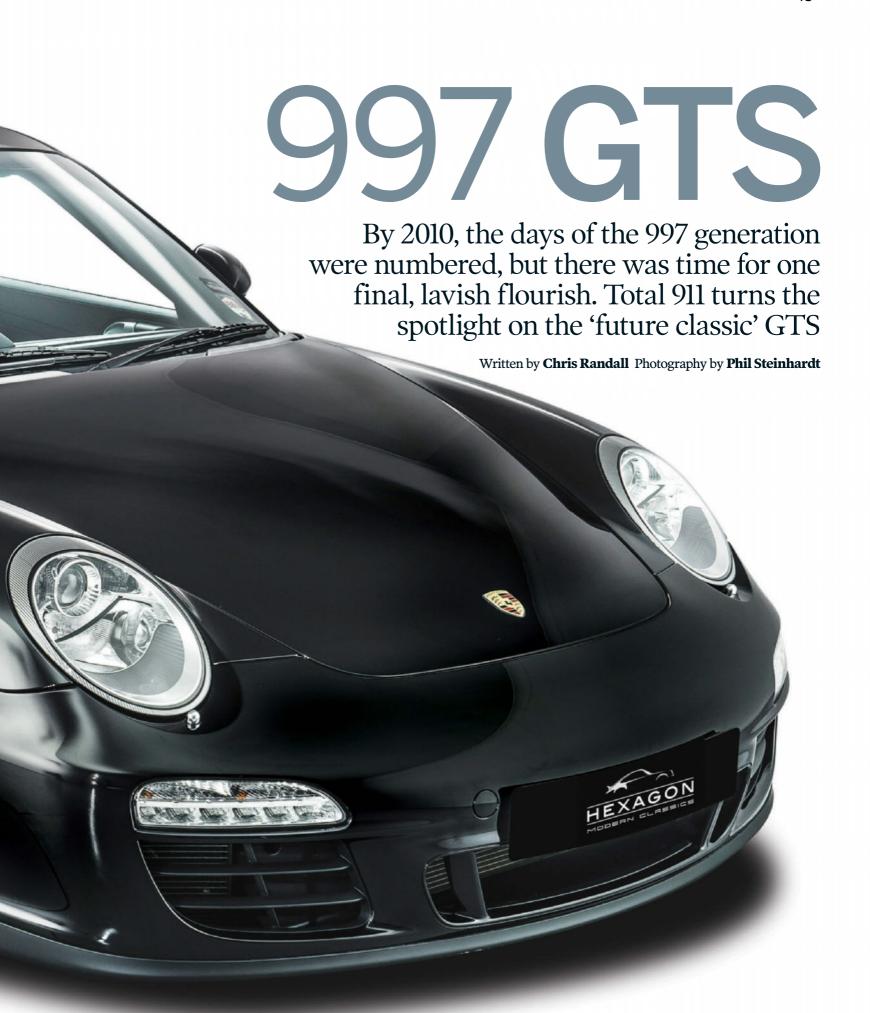
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he 997 generation was immensely popular with buyers, and rightly so. By the turn of 2010, however, thoughts at Porsche had already turned towards its replacement, the 991. Zuffenhausen had no intention of completely ignoring the then-current model though, so as a way of marking its imminent departure, they gave us the car you see here, the rather special GTS. It arrived later in 2010 with a price tag just shy of £77,000 in Coupe form - which admittedly wasn't cheap, even in the rarified world of the 911, but there were some key additions that made this one last hurrah for the 997 very attractive indeed.

One of those additions was the Powerkit, which boosted power to 402bhp at 7,300rpm - just 200rpm short of the red line. Torque delivery also benefitted, and although the same 420Nm as the Carrera S (which peaked at 4,400rpm), it was now spread across a wider rev range from 4,200-5,600rpm. A handy 320Nm arrived at just 1,500 revs too, so there was plenty of shove at light throttle openings. What hadn't changed was the use of the direct-injected 3.8-litre flat six with four valves per cylinder operated by twin-overhead camshafts per bank, constructed using an alloy block and cylinder

> **997 GTS** 2010-12

Model

Suspension

Wheels & tyre:

**Dimensions** 

Performance

heads. Lubrication was via a dry sump arrangement with an electronic on-demand oil pump for greater efficiency, Variocam Plus was standard, and there was a variable resonance intake system that used six vacuum-controlled flaps to provide those boosts to power and torque. When combined with a 12.5:1 compression ratio, further tweaks to the shape of the inlet ports and a standard sports exhaust resulted in an impressive 106bhp per litre.

It was efficient too, considering the performance on offer, the twin catalytic convertors ensuring that the GTS puffed out little more than 250g/km of CO2 - less if you chose the self-shifter. There was also the option to increase the already useful touring range by opting for the 90-litre fuel tank in place of the standard 67-litre item. What all that translated to on the road - or indeed, track - was a 0-60mph sprint time of just 4.6 seconds in manual Coupe form, the Cabriolet taking a trifling 0.2 seconds longer for the same benchmark. Opting for the PDK gearbox lopped another 0.2 seconds off those times, while ticking the box marked Sport Chrono Package Plus (which also incorporated a launch control function, as well as a race-tuned shift map for the PDK 'box) would see almost half a second cut from the times for the manual car.

IT ARRIVED IN 2010 WITH A PRICE TAG JUST SHY OF £77,000. IT WÁSN'T CHEAP. **EVEN IN THE RARIFIED** WORLD OF THE 911, BUT THERE WERE SOME KEY ADDITIONS THAT MADE THIS ONE LAST HURRAH **FOR THE 997 VERY** ATTRACTIVE INDEED







With a maximum speed of 190mph, the GTS certainly wasn't short of pace. Driving the rear wheels, the manual 'box was the familiar cable-operated six-speeder, the optional PDK coming with seven ratios and paddle shifters as standard.

It goes without saying that Porsche wanted to ensure buyers could make the most of that improved performance, so the rest of the running gear received equally close attention. Suspension was still by MacPherson struts up front, but the track was now 2mm wider at 1,488mm, while the multi-link rear end was 32mm broader at 1,548mm, and now included a thicker antiroll bar. Both Porsche Stability Management (PSM) and Porsche Active Suspension Management (PASM) were standard for the GTS, the latter switchable between two modes: PASM Normal and PASM Sport. For those wanting only the most iron-fisted of suspension control, the PASM Sports setup was optional for the Coupe, and brought firmer

dampers, a 20mm drop in ride height and the addition of a mechanical limited-slip differential.

While the hydraulically assisted rack and pinion steering was unchanged, the brakes were beefed up, the cross-drilled and ventilated discs measuring 330mm in diameter and now 34mm thick at the front and 28mm at the rear. With four-piston monobloc alloy calipers all round, it was unlikely that you'd run out of stopping power in normal conditions, although you could always opt for the safety of the carbon ceramic PCCB items. Ticking that particular box would bring six-piston monobloc calipers at the front and four-piston items at the rear, clamping 350mm discs that Porsche claimed were 50 per cent lighter than the steel equivalents. Fronting all of this hardware were the ultradesirable 19-inch RS Spyder centre-lock wheels.

Equally impressive were their dimensions: 8.5 inches at the front and 11 inches at the rear, the latter wrapped with 305/30 rubber replacing the 295/30

boots found on the standard Carrera S. Should those leave you feeling dissatisfied, you could choose 19-inch Carrera Sport alloys at no cost.

Of course, it's possible that if you'd splashed out this amount of money, you'd want people to know about it, so Porsche ensured that the GTS looked a bit special too. It was nothing too conspicuous, the biggest change being the adoption of the rear bodywork from the Carrera 4S, the extra 44mm of width adding some muscularity to the equation.

But there were some subtle additions to reassure onlookers that you knew your 997s, starting with a new SportDesign apron at the front, the lower section painted black along with the lower reaches of the side skirts and rear apron to add visual width. Minor aerodynamic tweaks resulted in a drag factor of 0.30 for the Coupe with manual transmission, that figure rising to 0.31 for PDK-equipped cars thanks to the increased cooling demands for the dual-clutch 'box, and for the Cabriolet.







IT GOES WITHOUT SAYING THAT PORSCHE WANTED TO ENSURE BUYERS COULD MAKE THE MOST OF THAT IMPROVED PERFORMANCE, SO THE REST OF THE RUNNING GEAR RECEIVED EQUALLY CLOSE ATTENTION





#### **BUYING TIPS**

Being based on the robust 997 helps the cause when it comes to buying a GTS, and with the earliest cars being just four years old, the condition should be excellent. As with any 911, a degree of caution is required, but be prepared to walk away if it's not perfect.

- History: It should be unimpeachable, but it pays to do all the usual background checks just in case. At this age and price level, expect a detailed service history from an OPC.
- Bodywork: It should be spotless. Be especially alert if there is evidence of track use, and make sure it hasn't seen a gravel trap – or worse still, the Armco barrier.
- Engine/Transmission: The 3.8-litre DFI engine in Gen2 cars is bulletproof with proper maintenance, and the extra power of the GTS doesn't change this Neither gearbox should exhibit problems unless seriously abused.
- Suspension/Brakes: Wear and tear is likely to be the main concern, though cars of this age shouldn't be suffering unless neglected. Think about whether you need the PCCB brakes though, as replacement is expensive, and watch for curb damage on those rims.
- Interior: It really shouldn't be showing any significant signs of significant wear (although the Alcantara trim on the steering wheel has been known to wear quickly), and despite strong reliability it pays to ensure that all the gadgets are working properly.

The drop-top was a popular choice too, the multi-layer hood taking just 20 seconds to raise or lower at speeds of up to 32mph. A heated glass rear window was fitted, a wind deflector was standard, and an aluminium hard top was on the options list. Rounding off the exterior changes were some unique GTS logos in black or silver depending on body colour and applied to the lower edge of the doors and engine lid. Aside from Speed yellow, the colour palette was fairly muted, although arguably it was white with black logos that suited the GTS best. The engine itself got a 'Carrera GTS' script applied to the inlet trunking as a final reminder.

Behind those doors was an interior that fully befitted the GTS's special edition status, and it would take a very hard-to-please customer not to be impressed by the changes Porsche had wrought. The 997 cabin was already a fine place to be, with first-rate build and material quality, but there is no doubt that the GTS ratcheted the ambience up a notch. The first thing you'd probably notice was the missing rear seats, which Porsche claimed saved five kilograms, but you could have those put back at no cost if you wanted to entertain those who were short of leg. It was the extensive use of Alcantara, however, that really lifted things. The deliciously tactile material was everywhere, being applied to the seat panels, the rim of the three

-spoke SportDesign steering wheel, the gear knob and handbrake lever, the door handles and storage compartments, and in the Coupe the roof lining. If you didn't care for the stuff then you'd have been disappointed, but for many this was a top-notch cabin, and you could always pay to swap the faux-suede for full-leather trim. In addition, there were black faces for the instruments and stainless steel sill trims with Carrera GTS script.

There was plenty of standard equipment too, including bi-xenon headlights, climate control and the Porsche Communication Management (PCM) system, not to mention the Sound Package Plus audio system, which boasted nine speakers and 235 watts of aural delight. Needless to say, those with deeper pockets could take advantage of the extensive options list, so there was plenty of opportunity to add niceties such as adaptive sports seats, leather or carbon interior trim, satellite navigation and Bose surround sound audio.

It's easy to dismiss this car as just another 'special' designed to part Porsche customers from even more money, but the truth is it's much more than that. Already a fine 911 in its own right, the 997 generation will be fondly remembered, and the added power and ability of the GTS made it even more desirable at launch - with its status as a surefire future classic guaranteed.

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IT WOULD TAKE A VERY HARD-TO-PLEASE CUSTOMER NOT TO BE IMPRESSED BY THE CHANGES PORSCHE HAD WROUGHT

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#### **SPECIALIST VIEW**

"Wider 997 values are holding up well at the moment, especially the turbocharged models. Mechanically, they're pretty much bulletproof, and with a strong following among 911 enthusiasts they remain sought after. In terms of the GTS, I really think we are looking at a future classic – being normally aspirated, it's a very pure interpretation of the 911, so very much the enthusiast's choice. Values are currently quite a bit higher than those for, say, a Carrera – probably around £10,000 more – and I can't really see that changing. The GTS offers a lot for the money, so it's easy to see why they are so popular."

Jonathan Franklin, Hexagon







#### "I'VE GOT ONE"



"The body kit and wider rear give the GTS great style, and the car also has specific suspension changes that differ from the standard Sports suspension package and

wes great reer.

While the Powerkit lends more to the mid-range than 0-60 and top speed, all combined, the upgrades make this a very individual 911 in its own right. I was lucky enough to drive the 'Nurburgring' and unlucky enough to get caught in Autobahn traffic that produced a nine hour journey and have to say, the Carrera 4 GTS performed perfectly in all aspects. It was the right choice."

**Graham Hutchinson** 

#### **Thanks**



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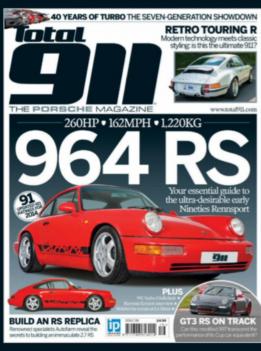
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f you browse the small print of most investment packages, there's always the rather ominous warning at the bottom stating 'Investments can fall in value; you may get back less than you originally put in.' They are very true words - however, buyers of most air-cooled 911s in the past five to ten years would laugh at this statement.

Through the early 21st Century, the air-cooled market stabilised and then slowly started to rise. However, over the last few years and even months we've seen an explosion in values, partly driven by many records set at auctions across the globe, particularly in 2014.

For this year alone, we've seen a 1973 Carrera 2.7 RS Lightweight reach \$1.4 million (£830,000) at Gooding & Company's Amelia Island auction, while a 1992 964 Carrera 3.6 RS went for a rather astonishing £220,000 at RM Auctions' May event in Monaco. In the bigger scheme of things, this was probably to be expected, as a 1996 993 GT2 sold for £325,000 in 2012 at a similar event in London.

These were all cars with the hallowed RS moniker, but these values have pushed up mainstream 911s from the same era, so the days of buying an entry-level SC for example are gone.

As a result of these rocketing values and interest in not only 911s but classic cars as a whole, new opportunities have arisen. An example of capitalising on this trend is Crossley & Webb in Cape Town, South Africa, which opened its doors to air-cooled Porsche customers just last year.

These investment motoring specialists trade in classic cars, and are also part of the Écurie25 supercar timeshare club. The company's pristine premises allow enthusiasts to have their cars detailed, restored offsite or even stored in the fine, in-house glass storage facility. It has become the meeting point for car enthusiasts in Cape Town, even if it is only for a coffee and to admire the sports cars on display.

Needless to say, the classic 911s have generated interest since day one, as Gareth Crossley, one of the founding members, says: "I would almost say every 911 owner who walks in here has more than one 911 in his garage, and wants to add to them."

He observes the mix of customers' garages seem to be, for example, usually one pre-1974 911,



- · Percentage of clients looking to buy a 911:70%
- Percentage of clients looking to sell a
- Number of 911s in current stock: 3
- **Vebsite:** www.crossley-webb.com

#### Crossley & Webb's top five future classics



#### 911 T and E

These are still relatively well-priced, and are from the same period we associate with the Carrera RS and the 2.2 and 2.4 S. Unlike these cars, they are still (just about) affordable, and present that true and clean 911 shape and driving experience.



#### 1988 and 1989 Carreras

These are the last-of-the-line G-Series 911s from this era and come with the much-admired G50 gearbox. In some cases, these cars are also better looked after because their owners are aware of their provenance as some of the final G-Series cars to leave the factory.

















followed by a G-Series or a 964, the latter of which will be used on a more regular basis.

"Your collectors want, for instance, one specific car in a range - or maybe one to complete a collection. Porsche enthusiasts are loyal to the brand, and will only buy Porsches - these guys will usually have a combination of 911s and 356s. Then you have 911 enthusiasts. They will, for instance, organise their own runs, separate from the Porsche Club's events. They also tend to drive a lot more than some of the other buyers or collectors."

For Crossley & Webb, it is important to form relationships with its clients and know their needs. A collector might plan to sell or acquire a car, while C&W might know of a client who wants that car. However, with 911s being in high demand, some

are looking at buying one as an investment, rather than as a commendable sports car. Crossley says: "We do get buyers who want to have a 911 to drive and own one for what it represents. On the other hand, we also get a few speculators. Even within the enthusiasts group there is a level of profiteering, a buyer looking for a car to resell in the near future."

The fact that some owners want to speculate in the market - mostly on the internet, outside the specialist network - does have its effects on a showroom such as C&W. Crossley reaffirms: "This overtraded private market makes it rather difficult for us. We also have a reputation to protect. Every car we sell is inspected. We check the body to see if it has been in an accident, and if so, how it had been repaired. We scrutinise the electrics, the gaskets,

the carburettors. We don't sell a car as is, because that is the way a car is sold on the private market. That is really the difference between the private market and dealers like us."

Because of the increase in demand - and value - some owners are trying to make a quick profit. Moreover, Crossley insists that these values of classic 911s are likely to continue to rise: "I think the price of the real quality cars will continue to climb, but maybe at a slower level than the rise in the past year or two. Buyers should also be careful to buy, for instance, a Targa for the sake of Targa prices going up. You need to focus on the section of the market that will have a high demand. If a selection of models is priced too high, there might not be demand for it."



#### 912

There has already been an increase in the value of these cars, but there is certainly more to come. Apart from its name and the fact that it is equipped with a 356's fourcylinder engine, it still offers the classical 911 shape – but is considered undervalued at this time.



#### 964 Carrera

The most sought-after models of this range's prices, the 964 Turbo and 964 RS, have already gone through the roof. This has turned potential buyers' interest to the standard 964 Carrera. The model to look out for would be a rear wheel-drive Carrera with a standard manual gearbox.



#### 996 Turbo

The design might be a little unexciting for some, but this is currently – by some margin – the most affordable 911 Turbo, Look out for an S derivative, or one with the X50 Powerkit fitted. It is one of the most prominent cars in the 996 range, overlooked by many enthusiasts and collectors.



The other problem a specialist business faces is the fact that some collectors and owners think about exporting their cars to countries where the respective car(s) can be sold at a higher price. Crossley explains: "That makes the local market smaller, which influences values and the business as a whole. Our aim is to offer a client a price that is comparable to the overseas conditions."

For some enthusiasts, it might be logical to see why air-cooled 911 values have risen in the past, and not for others: "It is like a V12 Ferrari; air-cooled engines are such a huge part of Porsche's heritage.

#### Record breakers

#### Most expensive 911 ever sold at auction:

During Gooding & Company's 2012 Amelia Island auction, the Drendel family collection of Porsches went up for auction and several records were broken. The second of four Martini works 2.14-litre Carrera RSR Turbos went for a phenomenal £2.077 million. Featuring a single KKK turbocharger, this car produces an estimated 450bhp at 8,000rpm. It was a participant in the 1974 World Sports Car Championship, and also took part at the Nürburgring and the Österreichring.

#### Most expensive Porsche ever sold at auction:

At the same auction, a 1973 Porsche 917/30 Can-Am Spyder (one of only six) crossed the block and made an astonishing £2.8 million. Also part of the Drendel family collection, this 917 is equipped with a 5.4-litre air-cooled flat-12 cylinder engine with twin-KKK turbochargers. It is estimated to produce 1.200bhp at 8,000 rpm. It was originally sold to Australian Porsche importer Alan Hamilton, and was later restored in Penske Racing's Sunoco livery.

The enthusiasts and purists understand that, and they are driving the value. But even that needs to be qualified in terms of what a classic 911 is, be it the body shape, gearbox, drivetrain, etc."

Understandably, most buyers' requirements are based around originality: "Two-wheel drive, manual Coupes are the most sought-after cars. These clients are usually quite well-educated in terms of 9lls. This used-9ll market is relatively young, and most buyers are aged between 35 and 50. They tend to read a lot – including your magazine – and browse the internet for all the latest classic car news and values. They know about the history of the car, which builds on the foundation of their knowledge."

Crossley also makes a point regarding new clients to the 9ll market: "Sometimes a client will walk in here who doesn't own a 9ll, or who has maybe recently purchased a 99l, and he is looking for a classic alternative to sit alongside the 99l. They will then ask us for advice. It is important to guide such a buyer through the first steps, because if they are not happy with what they buy, they will exit the market and they won't come back".

"We have a strong network of clients. If a potential buyer is looking for a specific car, we could assist him in the search. However, one needs to be patient to find the right car. If they are in too much of a rush, they could end up buying the wrong car."

So, what does the future hold for the used 911 market? Those who lived through the bubble that started in the late Eighties will testify how the bubble eventually burst, followed by prices coming down. I asked Crossley if he thinks we are heading

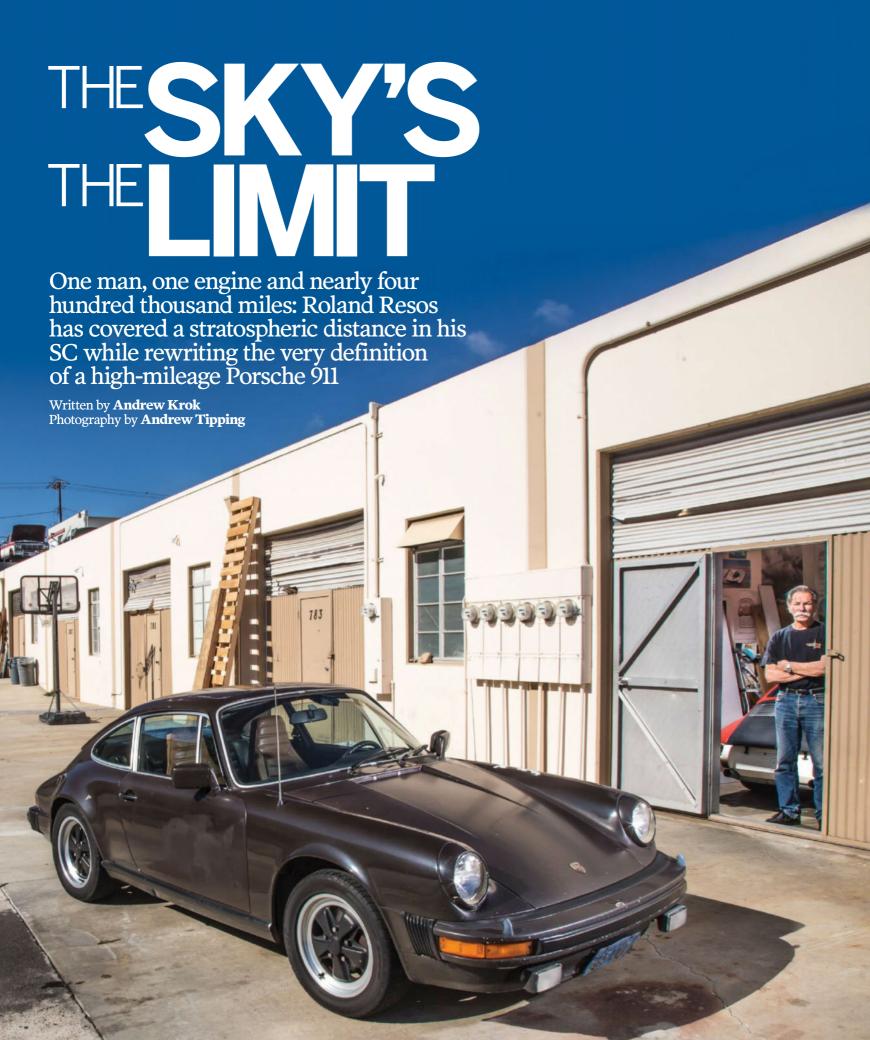
for the same scenario: "I think the early water-cooled models will still take a long time for the market to flatten out. Also, because of the design and the front lights, which weren't universally accepted, these models are less popular. You have to be careful where the modern ones go versus a keenly priced alternative. When you can buy a 993 Turbo for the same price as a new 991, clients might ask where the value is. However, the price of the pre-1974 cars will, I believe, continue to rise. In my opinion, the G-series will slow down in its growth."

Crossley also pointed out that values depend, for his business in South Africa, on the exchange rate: "Overseas clients will keep driving the prices up, because there will always be a comparison between Europe – for example – and us in South Africa. I usually don't take much notice of the American market. They are usually at a lower base level, owing to the volume of cars on sale. The European and UK market is a benchmark that you need to look at. South Africans need to pay the Rand equivalent of what a car costs overseas. To import a car from Europe means one pays almost double the Rand equivalent, owing to import duties.

"The exchange rate has definitely pulled up the pricing on its own. That should be looked at separately from the actual growth in investment value and demand."

One of Crossley's final remarks sums up the current market conditions: "It is like a treasure hunt out there for the early 911s." The 911 market is alive and well, with no signs of tapering off. It seems there is a healthy appetite from both enthusiasts and collectors, which is unquestionably a healthy position for Porsche as a brand to be in.















veryone loves a story where the protagonist goes on to succeed beyond anybody's wildest expectations. That was the case in issue 113 of **Total 911**, where we looked at a 996 bought with 170,000 miles on the odometer and a full OPC history from day one. The 996's M96 motor has been maligned as being unreliable, but this car represented proof that due diligence can keep even a 996 motor at its best. Now, we have yet another single-engine success story. However, this time the mileage is simply mind-altering.

Roland Resos, known affectionately as Rolly, is no stranger to Porsche ownership. The cars that have come into his possession include a 1957 Carrera Speedster and a 1962 356B. However, no car is as close to him as his daily driver, a 1979 911 SC with over 392,000 miles on the clock – and that number is still rising every day.

The 911 SC helped keep Porsche's ubiquitous sports car alive. In an alternate universe, the 911 SC would have been the last 911 variant, whereupon it would be replaced by the 928. However, in reality the 911 SC sold far more units than the 928, and the decision was made to keep the 911 in production after all. Featuring the 3.0-litre flat six from the 911 Turbo (albeit without a turbocharger), the 911 SC was more reliable than the models before it, with this still ringing true today.

The 911 SC came out in 1978, and one year later 'Rolly' walked out of a Porsche dealership in Pasadena, California, with a brand new 1979 model.

"I am the only owner of this car, and will continue to be," Rolly says with a laugh. "I own other cars and spend time driving all of them, but I have been daily-driving the 911 SC since the day I bought it."

That's 35 years of driving under his belt, completing nearly 12,000 miles per year – neither the lifespan nor the mileage that you would probably expect to get out of a sports car. Not many owners are lucky enough to reach that milestone, even with an engine swap or two. However, for Rolly, he has managed to get through 400,000 miles on a single engine without a complete rebuild.

"The only internal work I've had to do with my car is an upper-end rebuild, centering on the valves," Rolly recalls. "That's about it. Otherwise, maintenance has been nothing but the normal: oil changes, tyres, the things that need to be changed no matter what." And keep up with that maintenance he has. Being the owner of several Porsches, Rolly knows the value of sticking to a maintenance schedule.

However, most of that work hasn't taken place at an OPC. "I haven't put the 911 in a dealership's service bay since the factory warranty expired," Rolly said. "Instead, almost everything is done through one mechanic who has been working on the car – again since the factory warranty expired." While it's true that OPCs confer several benefits that independent garages do not, let this be the anecdote that proves that there are multiple ways to reach the same result achieved by issue 113's 996.

Thankfully, his mechanic, Bob Grigsby of RMG Enterprises, hasn't had to keep himself too busy during the times where the 91l is in for service. Aside from the aforementioned wear-and-tear items, Rolly hasn't had a single complex issue crop up. Even the head-stud corrosion that has claimed more than a handful of 3.0-litre motors over the

#### Top tips for extending the life of your 911

Whether it's at an OPC or an independent specialist, there are a number of tips that can keep your 911's motor running well beyond 100,000 miles. According to William Thompson, shop foreman and silver technician at The Porsche Exchange, an OPC outside of Chicago, every single top tip can be summarised in one word. "Maintenance," William said, laughing, "Maintenance, maintenance, maintenance."

He's right, too; it doesn't matter if it's cooled by air or water, the 911's flat six is relatively bulletproof, so long as you stay on top of maintenance. "If something looks off, get it checked out immediately. Not enough people pay

attention, not enough people follow through when they find an issue. That's when expensive repairs and engine replacements come into the picture."

For DIY enthusiasts, Thompson's advice doesn't change. "Inspect your car every time you do anything to it, whether it's changing oil or replacing a ruined tyre. Problems can crop up quickly, so if you don't do your due diligence, you probably won't make it to big miles on a single engine," Thompson said.

Ās for the adage that a little oil leak is just a 911's signature? Thompson thinks it's poppycock: "No oil leak is too small to warrant your attention. It's not a feature."



years has proved uneventful for Rolly's beloved 911. For all intents and purposes, the last 35 years has been a cake-walk for Rolly and his SC.

Rolly does enjoy eking every last available inch of usefulness from the parts on his car, especially the tyres: "When I bought the car, it came with Pirelli P7s. I replaced the rear tyres twice before hitting 100,000 miles. The front tyres, however, went almost 90,000 miles before I changed them. They still had tread, but I had to replace them due to age."

Of course, the clutch has been replaced. Rolly believes it's been changed three or four times (it is awfully hard to keep track of 35 years of service), which means he's not driving like he's at the Rallye Monte Carlo every day. In fact, not constantly

pushing the car hard has been one of Rolly's keys to longevity; after all, an engine is far more likely to live a long life if it isn't driven hard while cold, nor mechanically over-revved. Despite the clutch swaps, the 911's factory five-speed manual transmission has never needed replacing.

Another component that's never required replacement is the factory torsion-bar suspension. "Yes, I am still driving on the original shocks that came with the car," Rolly says with a laugh. "However, I think it's time I get around to replacing them. 35 years seems like an appropriate length of time to wait."

It has to be said, Rolly's 911 SC wears its 35 years well. 392,000 miles will take a toll on a sports

car, and Rolly's is no exception. The seats are, for lack of a better term, worn. The odometer's gauge face is covered in scratches. The front bumper is pockmarked with stone chips, lingering evidence of many a journey's past. The body looks like it's been driven for nearly four decades, although Rolly divulges that it's had its fair share of body work: "There have been some scrapes here and there, and some of the panels have been repainted or replaced as needed," he says.

Thankfully though, there remains a bright future for this 911 SC, one that involves a plan to bring it back to its original 1979 glory. Rolly's biggest future plan with his car is a complete restoration. "I want a full restoration done, inside and out," Rolly says,

#### Rolly's SC in numbers

When your car approaches 400,000 miles, things start to pile up. Everything, in fact, starts to pile up; whether it's engine rebuilds, clutches, tyres or struts, the race to the peak of Mileage Mountain is a game of figures. What sort of numbers has Rolly experienced throughout his 911 SC's lifetime? Most of them are smaller than you'd expect:



11,428

The average annual mileage Rolly has accrued since 1979, not counting his other cars.

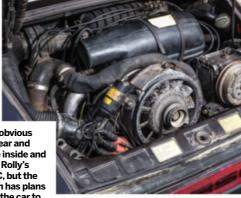
The mileage mark after which Rolly finally replaced a set of front tyres, despite still having tread on them.

The number of years that Rolly has driven on the original shocks.

1,000+

The amount of oil, in litres, that has passed through Rolly's engine.









Model	911 SC Coupe							
Year	1979							
Engine								
Capacity	2,994 cc							
Compression ratio	8.5:1							
Maximum power	180hp @ 5,500rpm							
Maximum torque	265Nm @ 4,300rpm							
Transmission	Five-speed manual							
Suspension								
Front	18.8mm torsion bar with MacPherson struts; 20mm sway bar 24.1mm torsion bar with							
Rear	shock absorbers; 18mm sway bar							
Wheels & tyres								
Front	6x15-inch Fuchs; 185/70/15 tyres							
Rear	7x15-inch Fuchs; 215/60/15 tyres							
Dimensions								
Length	4,291mm							
Width	1,626mm							
Weight	1,160kg							
Performance								
0-62mph	6.5 secs							
Top speed	141mph							

clearly galvanised at the prospect. "I really want to take it back to its original condition."

Originality has been the name of the game throughout this SC's life; aside from multiple wheel and tyre sets, which he now rotates through on a regular basis, Rolly has never modified his car in any way. That is likely another strong contributor to the car's illustrious longevity.

Once this SC goes back to original, there's not much that will be able to stop it from gathering another 392,000 miles – except, perhaps, for Rolly. Even though he's now retired with plenty of time to get behind the wheel, when asked whether or not he was looking forward to cracking 800,000 miles, all he could do was laugh. He clearly has a great

sense of humour about his car; after all, it's been by his side for nearly half his life. While a doubling of its current mileage isn't out of the question, Rolly prefers to "take it one day at a time."

Thanks to a strong relationship with his personal mechanic, countless hours of prescribed maintenance and maybe even a little bit of luck, his 911 SC has been the perfect daily driver since the day Rolly picked it up in Pasadena. "It's a good car. The motor is still strong, it runs great, and it's a real blast on the road," Rolly says matter-of-factly.

Whether driving a 911 SC or a 991 GT3, the fact remains the same for all 911 owners: it's an experience that sticks with you for a lifetime – sometimes, as proved here, literally.

When pressed to recount specific examples of good times he's had over the course of 392,000 miles, Rolly admits that he's had too many of them – which isn't a bad thing. "It's difficult to recollect specific examples in the 911; I've just had so many. However, I will say that the car has provided my wife and I with many great road trips up and down California, to scenic destinations like Big Sur."

Surprisingly, given the car's mileage, Rolly has never once embarked on a huge road trip with his 911 SC. "Despite having nearly 400,000 miles, it's never been across the country or anything like that," Rolly noted. "But that doesn't mean it hasn't been put through its paces." All it takes to prove that is one quick glance at the odometer.

The number of owners this SC has had, and will ever have, according to Rolly.

The number of mechanics that have touched Rolly's SC since the warranty expired.

The number of top-end rebuilds on the SC's motor.

The number of times that the SC has returned to the dealership since the warranty expired.

The number of times the transmission has been replaced.

The number of bottom-end rebuilds on the SC's motor.

The number of times the clutch has been replaced.

The number of sets of wheels and tyres that Rolly now swaps between regularly.

The number of times you would need to cross the entire state of California to reach 400.000 miles.

### THE GLOBETROTTER

With close to 25,000 miles of global rallying under its wheels, this 911T has a few stories to tell – most of it being far away from the black top

Written by Wilhelm Lutjeharms Photography by Rob Till

ntentionally, I prodded the throttle pedal as the rear of the 9ll began to slide outwards and away from the centre line. A slight counter steer brought the car back under control, and I watched the dust trail in the rear-view mirror, my view partially blocked by the huge, all-engulfing yellow roll cage. This was the first time I'd driven a 9ll on gravel, and later when we reviewed the photographs on the camera's viewfinder, I recalled similarities to numerous iconic images of 9lls at international rallies sliding about the terrain over the previous decades.

This particular 911 has a very rich rallying history. Its owner bought it in 1998 with the intention of taking part in a trans-continental rally. I could sense that he still pondered whether he should have converted the 1972 911 2.4 T to a rally car, but the experiences he'd enjoyed in this Porsche could fill a book. The evening prior to the sunrise shoot, we spent a few hours in his study while he recounted several anecdotes. Some interesting personalities who took part in the first rally included former French rally driver Michèle Mouton and 911 rally guru Francis Tuthill.

After acquiring the car, it was converted to rally specification by Franz Stangel at Carrera Motors in Johannesburg to participate in the 2000 London-to-Sydney rally. Stangel did not only have an abundant knowledge of air-cooled 911s; he had participated in several trans-continental rallies himself. In total, he and his team converted four 911s for this rally, this yellow model being one.

As these rallies were official FIA events, the car had to fulfil all the requirements. The main improvements included stripping the car and adding an FIA-approved roll cage, as well



as reinforcing the chassis where necessary. Two Cobra bucket seats were fitted along with all the necessary timing equipment, cut-off switch and engine start button. More importantly, the engine and suspension received upgrades. The mounting points for the front and rear axle, as well as the suspension arms, were reinforced, and the engine and gearbox were taken apart and completely overhauled. Porsche 911S camshafts were installed and a new exhaust system and carburettors fitted, while the porting of the cylinder head was also done. No wonder its maker claimed that power delivery had increased to a healthy 180bhp.

This first event is clearly etched in the owner's mind as he explained the highlights and daily challenges. Spending a month in a car brings its own set of problems, as the owner explains: "You have your clothes for the hot European summer and the winter in Australia. We each took 30 t-shirts and 30 pieces of underwear. We had a spare wheel up front next to the fuel cell and a spare wheel in the rear behind the seats. A few additional parts were also attached to the roll cage."

Even with this additional weight and the fact that there were daily timed special stages, the Porsche did an excellent job: "The Porsches were simply remarkable – all the damage we had on the car was self-inflicted. A perfect characteristic of these 91Is is that within two hours you can change the suspension to improve ground clearance for the worst sections of the route."

The owner enjoyed the rally so much that he entered the same race in 2004. The bug really took hold, as he also took part in the 2006 Carrera Sudamericana rally in South America – with the same 911. This included a race from Buenos Aires, Argentina, to Quito in Ecuador. Over the Andes mountain range the cars struggled with their power due to the elevation. The air/fuel ratio mix also needed to be constantly monitored.

Our 2.4 T owner explains what it is about the first rally that made him such an enthusiast: "Your priorities change the moment you pass the starting line. You want to arrive at the final destination, but without getting lost, running out of fuel or breaking down. However, at the same time you also don't want to be the slowest. You simply don't think about anything else but the event."

The level of organisation and administration required for such an event is truly mesmerising, but once you take part, the challenges never stop. Having participated in three of these events, our owner is quite clear about the 911's capability: "The 911 is one of the best long-distance rally cars. These races are usually dominated by cars such as Porsche 911s and Ford Escorts."

If something does happen to your car and you are not at the start line the next morning, you are disqualified. This almost happened: "In the Outback we hit a rock going through a corner. We had to wait for everyone to pass until the truck came past to pick us up. The truck only takes you

and your car to the next town. Eventually, we found a backyard mechanic to fix our bent rear swing arm. The car was finally repaired at llpm. However, we were nearly 400 miles from our destination, and the next day we would travel almost 700 miles! The only option was to drive through the night, take a shower, and tackle the next day."

As fate would have it, a similar scenario played out in 2004, this time in Italy. In a mountain pass the tail came out and they hit the barrier. After a long story – which involved an old Italian lady, a tow truck, several hand gestures and a 911 mechanic – they arrived at their destination at two the next morning.

Eight years after its last rally, I approached the 2.4 T with a level of respect; after all, it has done close to 25,000 miles of cross-continental rallies. The car appeared to be in a better condition than I expected. Obviously it is no concourse contender, but everything is in place, while the yellow hue and blue Fuchs wheels immediately signalled the car's unique history. The rally stickers in the side window contribute to a marked history of the car's globe-trotting activities.

Behind the doors, this 2.4's intentions are immediately visible. The doors have pseudo RS-inspired blue pull cables. The race buckets fill the front of the cabin, while the rear is blocked out by the full roll cage and a net to keep the luggage in place. Dampers are attached to two of the roll cage's cross members.

the crankcase in 1970.

1972, Zasada finished in second place in Dar

and a fifth place in

es Salaam.

#### 1965 2.0-litre 'Monte Carlo' 911 1968 2.0-litre 'London to Sydney' 911 Although Porsche didn't take part, it prepared Safari Classic' Tuthill 911 Only three months after production started, the Francis Tuthill has been involved three 911s for customers. Only one car dropped 911 was entered in its first international rally. The 2.0-litre engine was tuned to deliver 160bhp out with brake problems in Afghanistan, with long-distance rallying instead of the standard 130bhp. The factory fivewhile Sobieslaw Zasada (1967 European Rally for 37 years. After several speed Type 901 gearbox was used, albeit with champion) and Marek Wachowski finished third; successful finishes, Björn lower gearing. Development engineers Peter Falk Edgar Herrmann and Hans Schüller finished in Waldegård won in a Tuthill 911 and Herbert Linge brought the car home after 15th. These cars are known for their kangaroo rally car, the first time this rally 2,858 miles to a fifth overall position. bars and steel mesh front 'curtains'. was topped by a Porsche. The 911 in off-1968 911 2.0-litre T 1972 2.2-litre 'East road competition African Safari' 911S Pauli Toivonen powered a After a retirement works 911 to an overall win following a rock that hit in that year's European

Rally Championship, as

well as the World Rally

Championship, the latter of

which was not yet official at



These days, the car is more conservatively set up for road use, which means it has been lowered again and fitted with semi-slick tyres. It's not ideal for dusty roads, but as I press the starter button (part of the modern equipment installed with all the rest of the rally and time-keeping buttons and switches), the 2.4-litre engine catches after a few turns. Despite the plethora of upgrades lavished on this pre-impact bumper classic, the exhaust and engine sound is very similar to that of an original 2.4-litre engine. That is where any similarities to one of the more basic 91ls from the Seventies end.

The bucket seat, along with the four-point harness, holds you perfectly in place. I select first gear and apply just a bit too much throttle as I pull off, causing the rear wheels to spin. I then pick second gear, only to realise the tyres are still searching for grip. Being so close to the ground, a few of the larger stones on the gravel road roll underneath the car and hit the chassis. Feeling like bullets, I opt to steer clear of them where I can.

As we pick up speed, I marvel at the feedback given through the steering wheel. As we approach a corner, I briefly touch the (heavier than usual) brake pedal and turn in confidently, feathering the throttle pedal and sensing how the rear is ready to swing around the moment I press the pedal too far. The corner is too slow to truly feel that fine balance of the 911, but through

a faster and longer bend it will be a joy to drive. I wonder just how satisfying – and extremely challenging – it must have been to pilot such a tail-happy 911 for 30 consecutive days across three continents.

With the photographs complete, we head back to the residence of our 2.4 T owner, which requires a few more miles of black top. Here, the additional performance over a standard 2.4 becomes evidently noticeable. The car is swift up to 4,000rpm, but the moment it passes this mark the engine gets its second breath and the needle swings to that thick red line at 6,200rpm, a feature still recognisable from this era.

Clutch engaged, I swiftly select the next gear, upon which I can immediately discern that the gearbox feels slightly stiffer and stronger than an original 'T'. Even though the car is not a great deal lighter than the standard car, the fact that the engine revs with more ease and you can feel the impact of every little piece of road litter in the cabin makes this a racer in every sense of the word.

With just under 25,000 miles of rallying, this 'T' has been on roads it could not have imagined when it originally rolled off the production line in 1972. Surely though, such an adventure is possibly one of the most exciting drives you could ever have in a Porsche 911, which is as capable away from the asphalt as it is on it.

Model	2.4 911T					
Year	1972					
	13/2					
Engine	2.241					
Capacity	2,341cc					
Compression ratio	7.5:1					
Maximum power	130bhp @ 5,600rpm					
Maximum torque	197Nm @ 4,000rpm					
Modifications Transmission	Total rebuilt five-speed manual					
	ilve-specu manuai					
Suspension						
Front	MacPherson strut;					
T	telescopic damper; torsion bar: antiroll bar					
Rear	trailing wishbones;					
	telescopic dampers;					
	transverse torsion bar; antiroll bar					
XX711-0-4	artiron bar					
Wheels & tyres						
Front	6x15-inch Fuchs; 205/50/15 tyres					
Rear	6x15-inch Fuchs;					
	205/50/15 tyres					
Dimensions						
Length	4,163mm					
Width	1,610mm					
Weight	1,050kg					
Performance						
0-62mph	Not tested					
Top speed	205 km/h					



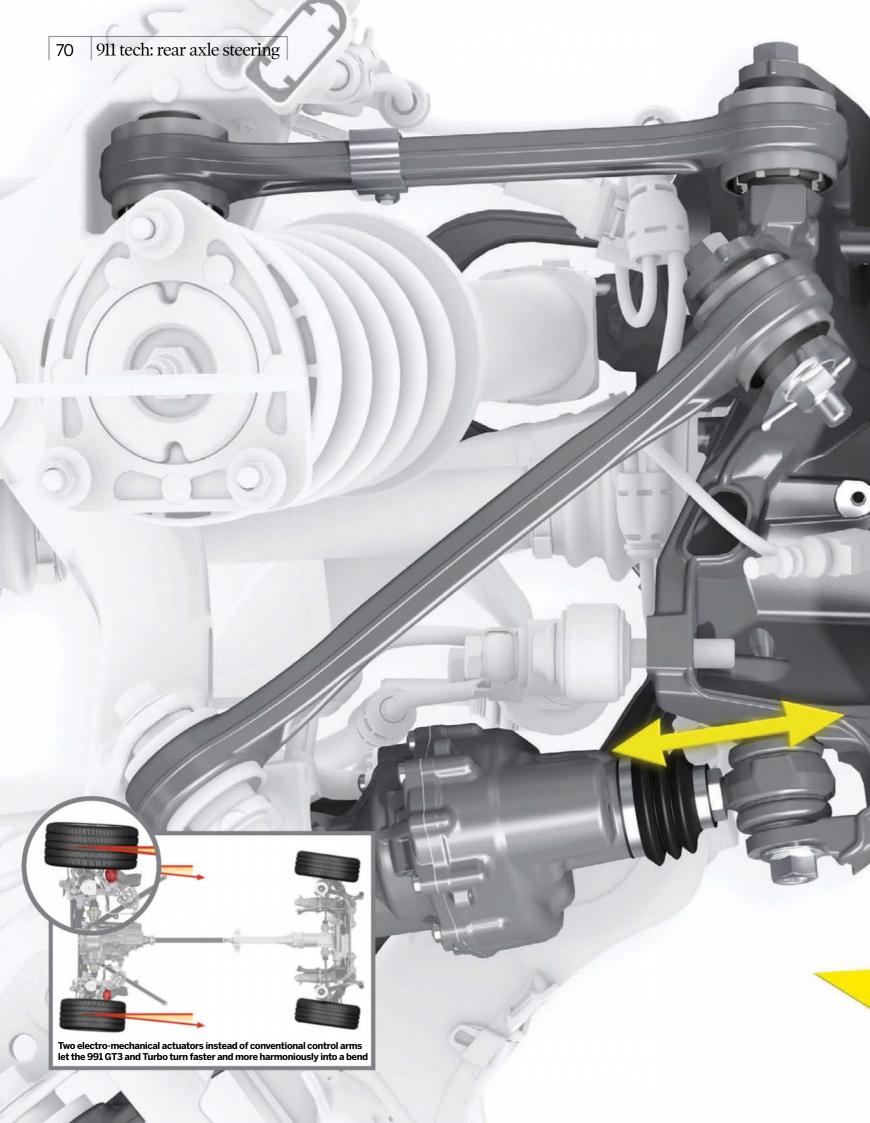
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## PORSCHE REAR AXLE STERING

Among other technical innovations, the 991 introduced Porsche's concept of the steering rear axle. Total 911 looks at how it works and the mechanisms behind the technology

Written by Kieron Fennelly Photography by Porsche AG

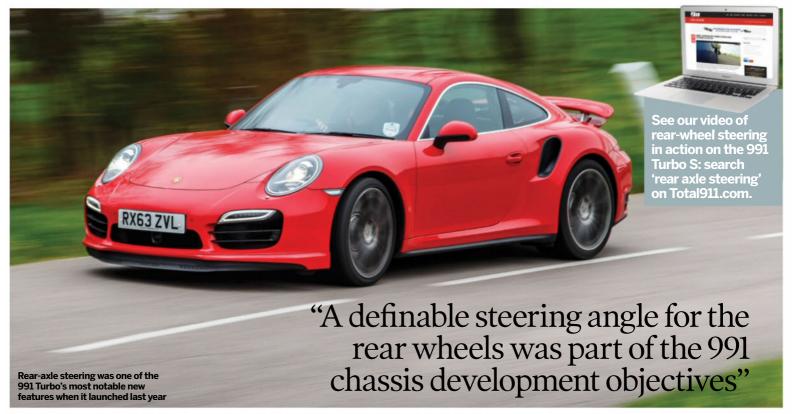
steering rear axle is far from a new idea. Heavy trucks have been using them for 20 years to aid manoeuvring, and car manufacturers have experimented with them at various times. In the late Eighties, Honda and Mitsubishi offered rear-steer models, and since 2009 BMW has made it an option on its 7 Series with its Aktiv Hinterachs Kinematik. As with other technologies like PDK, which it brought to market in 2008, Porsche has long had rear steer in the wings. Now that the electronic componentry involved has been miniaturised and offers infinitely more capacity, the advent of the 991 and a total new chassis was the time to bring it into production.

Porsche, of course, also had objectives well beyond facilitating parking by shrinking the turning radius, which is effectively what a pivoting second axle achieves. Rear steer hits several of Porsche's development targets simultaneously: not only does it reduce driver steering input at lower speeds, but above all it achieves a measurably higher level of stability at high speeds. At present, the company is limiting this technology to the most powerful 911s, the GT3 and the Turbo, but it is likely to filter down to the lesser 991 specifications in future model years. Porsche is keen to point out that its steering rear wheels work in conjunction with the comprehensive dynamic upgrade, which the 991's new and stiffer shell represents. Indeed, with a wider front track that includes lighter electrohydraulic steering and a redesigned and lighter rear axle, the chassis of the 991 is an even more radical step than what the 964 was at the time, which finally dispensed with torsion bars.

What advance does rear steer offer? As indicated earlier, turning rear wheels effectively 'shorten' the car for parking manoeuvres, but this is not Porsche's main reason. With the last generations of 997 GT3, many enthusiasts were of the view that the 3.8 and 4.0 RS had taken cornering speeds to a level beyond the point where further significant improvements would be hard to imagine and unlikely to materialise in the immediate future. But the 991 GT3 clearly disproves this, comfortably outcornering the 997 GT3 with greater stability and none of the uncertainty of the older model when at the very limit of its adhesion. The 991 GT3 is able to perform at this level thanks to its longer wheelbase, wider front track, stiffer shell and a rear axle that steers very slightly in the same direction as the front above 50mph.

Head of vehicle driving dynamics at Weissach Dr Manfred Farrer explains that with the 991, Porsche sought to keep its class-leading position as not only the best-handling sports car, but one that was even more comfortable and reassuring to drive. The steering rear axle is part of a fundamental redesign of the 991 chassis, which he says means the latest C4S (with a non-steering rear axle) is able to equal the Nürburgring lap time of the previous 997 Turbo. He points out that the stiffer chassis, longer wheelbase (almost 100mm), 20-inch wheels and new compounds from the tyre manufacturers all play a role in this. To this, second axle steering will contribute more lateral stability.

At low speed (up to 30mph), the rear wheels pivot slightly (up to 2.8 degrees) in the opposite direction to the front: the car then turns in a shorter radius – look at how the trajectory of a rear-



steering truck or trailer follows the curve of a tight roundabout. At higher speeds, the 99l's driving wheels turn up to 1.5 degrees in the same direction as the front axle. This reduces the fundamental conflict of cornering: the front wheels steer the car as instructed by the driver, but the momentum and angle of the rears is to continue straight. There is thus a delay, and therefore potential instability before the rear wheels respond to the desired change of direction. At all times their inclination is to continue straight, because that is where their own geometry points them.

Various mechanisms exist to counter this tendency at the highest speeds, from limited-slip differentials, which direct torque to the outer wheel, to Porsche's Torque Vectoring, which applies braking to the inner wheel. But a system that directs the rear axle to follow the front is more radical because it changes the geometry. With both axles turning into the corner, steering delay and effort are reduced and the car is fundamentally better balanced because both sets of wheels are following the same trajectory.



Dr Harrer emphasises that the steering response is improved, as reaction from the whole car – not simply the front – means that driver input is less, with correspondingly less likelihood that he/she will steer too sharply, potentially destabilising the trajectory. This fulfils another of Porsche's objectives, namely of enhancing driving comfort on the track, with greater stability through corners reducing lap times.

A definable steering angle for the rear wheels was an integral part of the 991 chassis development objectives. But not all multi-link axles are steerable according to Harrer, and if the principle is not radical, technically Porsche rear steer is no small achievement, because uniquely the 911 (and 981/918 family) are rear-engined. Weissach engineers did not have the luxury of their opposite numbers at BMW with a straightforward driving axle to configure. The rear wheels of a 911 are separated by the flat six, meaning there is less space in which to mount additional components, making it impossible to give each wheel its own actuator as a centrally mounted unit. Two electromechanical (rather than hydraulic) actuators are mounted each side at the top of the suspension, effectively replacing the top link. Like electromechanical steering, these do not use energy during straight-line driving as hydraulics would.

The actuators themselves have to be extremely robust to contend with high temperatures and constant attack from impurities and road spray. Porsche developed them in conjunction with ZF, and is pleased that they add no more than seven kilograms to the overall weight. Each actuator has its own ECU linked to the chassis-CAN (the

'brain' controlling chassis behaviour). Both ECUs 'listen' to the CAN, but only the left side responds, transmitting the message right following the master-slave principle of braking systems. A cross-check between the actuators ensures that both wheels always turn in the same direction.

Prototype testing began in 2009. Extensive trials over the next three years were designed not just to test the robustness and reliability of the system, but to ensure it achieved what Porsche intended in terms of agility and did not compromise the 'natural' feeling of the car. It also had to work in harmony with the 991's other electronic control systems, particularly the new electric steering of the front axle. Normally, rear steer will increase the steering effort of the front axle, so Porsche has compensated by tightening the steering by ten per cent at the same time as enhancing haptical information (feedback) through the wheel.

The rear steer system initially costs around €700 (£560) per car, but as ZF finds wider applications, the unit cost will fall significantly. Harrer says that research and development of all Porsche's dynamic systems continues unabated. Tyre technology especially is moving fast: at the time of our meeting, he was between fact-finding visits to Japan and the US. His quest is to understand trends and see what new technology Porsche could use.

"Performance is nothing without control," he says philosophically, adding that the mechanical layout must also work perfectly without any electronic assistance.

The 991 facelift is due in 2015, and Dr Harrer hints that among other advances, it is likely to herald further upgrades in chassis dynamics.



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









2005 997.1 Carrera S



Chris Wallbank Leeds, UK

**Date acquired:** November 2012 ow time flies when you're having fun! It's hard to believe that I've had my 997S for almost 20 months now, but I've enjoyed every one of them, and it hasn't cost me anything in maintenance fees other than fuel up until now – that being its second major service.

With the ever-so-polite service indicator appearing on my dash giving me a 21-day countdown, I had plenty of time to think about getting it booked in, and indeed where to take it for its major service. From experience, a lot of Porsche 911 owners with cars out of the factory warranty seem to immediately go down the independent specialist route, as it can sometimes save you money, this being the case with most of my Porsche-owning friends.

However, budget permitting, I wanted to try and stick to the OPC route. My 997S had a full Porsche service history up until now, and I intended to try and keep it that

way if I could. So I picked up the phone and called Porsche Centre Leeds, my closest dealership, to enquire about pricing. I'd had great experiences with them in the past when I had my old 2006 Boxster, so I knew I'd be in safe hands.

I was greeted at the other end of the phone by a helpful and friendly service advisor called Kimberley, who coincidently looked after the servicing of my Boxster four years ago. When I enquired about servicing I expected the worst, but to my shock I was very pleasantly surprised! She informed me that they have very competitive pricing now, as they've recently applied 996 servicing rates to the 997 range, with a major service costing a total of £440 and a minor service coming in at £340!

When I actually compared this pricing to independent specialists, I found that there was very little difference at all in most cases. But the main deal-breaker for me was the level of service and convenience that Leeds

OPC had to offer, as few specialists could provide me with a brand new 991 Carrera 4 Cabriolet from their fleet as a courtesy car for the day. I accepted, booking my 997S in for the following week.

On the day of service, I asked if I could watch them carry out the Porsche health check before I went away for the day, and they had no problem with this at all. It was nice to get hands-on advice and pointers while the car was checked by the technician. Taking me through it step by step, service technician Paul Fawcett clearly knew his stuff, pointing out a few common traits, like uneven tyre wear, etc. Thankfully, he gave it the all-clear, telling me it was all in good order apart from the front discs being very close to their limit according to Porsche guidelines, so that's the next thing on the list. Personally, I think they've done well to reach 28,000 miles!

After the health check, it was onto the major service and MOT, so at that point





I left them to it while I took advantage of the 991 Carrera 4 courtesy car. Luckily, there wasn't a cloud in the sky, and I managed to take it on some nice winding Yorkshire B-roads. What a great car it is – in fact, the only problem I could find was that it made my 2005 997S feel rather dated!

I arrived back at Leeds Porsche in the late afternoon to find my car immaculately valeted, having passed the MOT with no problems or advisory comments whatsoever, so it's safe to say that I was a happy man. It had been a day that made me realise just how much I continue to love Porsche ownership, and how affordable 997s can be to run – even at times when you've got to watch your budget!

I'd like to thank the service team at JCT 600 Porsche Centre Leeds for a care-free day from start to finish. No doubt I'll be there at some point in the not-too-distant future for fronts discs and pads!

#### 1999 996 Carrera 4



Bristol, UK **Date acquired:**February 2014

**Rob Clarke** 



oon after buying my Carrera, I arrived back at it one day to find green fluid under the car. Several phone calls later, I established that it was not part of the braking or steering system, but was actually air con fluid.

This subsequently went down the list of priorities, but after having more than two consecutive hot days in Bristol, the time came to get it fixed. So the car was booked into Bristol OPC for new pipes and an oil and gas recharge, the date set and courtesy car booked.

I arrived at Bristol OPC and asked them to check the cooling system again, as I was still losing fluid. I was handed the key to a PDK Cayman (that PDK box is superb!). Twenty-



four hours later, I arrived to pick up my car, where I found the air con fixed, the cooling system checked and a few other small items done. They couldn't find any faults in the cooling, but suspect there may be a small crack in one of the radiators causing my loss of fluid, recommending I keep an eye on it.

I found the OPC experience almost surreal, sat there surrounded by Porsches. The service was exceptional – it took longer than anticipated, but they only charged me the agreed discounted price (discounted due to Bristol OPC's relationship with my local TIPEC region), and did a few small extra bits, including re-sticking on a wheel badge, as the old one was falling off. Thanks, Bristol OPC.

#### 2010 997.2 Turbo; 2011 997.2 GT3 RS



**Tony McGuiness** San Diego, USA

Dates acquired: January 2010 & February 2011



s you may recall, in April I had my 997 Gen2 Turbo and Gen2 997 GT3 RS serviced. They are my pride and joy, and I enjoy cleaning and detailing them almost as much as I do driving them.

Over the years, I have been pleased with the results from Mothers' products. Typically, I use their car wash, clay bar, wax, and California Gold detailing spray. For the interior, I have been happy with Porsche brand leather cleaner. It not only cleans well; it protects the leather interior. Choosing good cleaning products and top-quality microfibre cloths is critical to ensuring your car looks magnificent. A little more money spent on good cleaning materials is well worth it.





Of course, with the Southern California climate, grime and other contaminants are also issues. Therefore, regular cleaning is important. Cleaning the wheels on my GT3 RS wheels is easier than on my Turbo, because PCCB brakes produce virtually no dust. The gold rims with centre-lock wheels are a treat to clean, and look stunning after. Cleaning the wheels on my Turbo is more challenging, but they look fantastic once the Type II Turbo wheels are free of dust.

To learn some great ways to clean and detail your Porsche, I suggest taking a concours class, or looking on YouTube or one of the many forums. Treating the exterior and interior like you treat your engine will extend your car's life and keep it beautiful.

1988 3.2 Carrera



Gina Purcell Oxford, UK Date acquired:

o sooner did my husband Alan get the new, rumbly Turbo Thomas exhaust fitted to his 3.2 Carrera – nicknamed Sabine – she was promptly dropped off to Tyrone at Riviera Autobody for some mild pampering to deal with her many small blemishes. That was the plan, but you know what happens to plans.

Al had expended much effort on Sabine's paint with clay bar and polish, and had achieved a smooth and lustrous shine. This is the best way to find any and every fault, and while Sabine was in fantastic condition for her age, there were the inevitable signs of mild corrosion. The front and rear bumpers and sills needed blasting and repainting, and both front and rear valances required reshaping where it had been driven into high curbs, low grass banking or even some medium-sized and unlucky British wildlife! The lower edges of all four wings/fenders were beginning to fester, and the 'B' posts had some tiny bubbles. In other words, she was due a freshening up and a perimeter renovation - some love, basically.

During the recent fuel line work at BS Motorsport, Neil Bainbridge had highlighted early signs of deeper corrosion when he had the car on his ramps. There was a faint haze of corrosion on the bottom of the driver's side kidney bowl, which tipped the balance to go deeper with the whole project. We were looking at 'Renovation Plus' status rather than our 964's 'Restoration Lite', but wouldn't know until the 'B' posts were out.

We received a call from Ty: "The posts are out. We could patch the kidney bowls, but it would take as long to fit new ones".
This initially came as a disappointment, but













there is no way to know the true condition of the bowls on any air-cooled 911 without ripping the car to bits to uncover the inner bodywork. You can't turn up to view a car armed with air chisel or weld cutter; it wouldn't make for friendly negotiations!

New kidney bowls were ordered, and Ty got stuck in. Sabine was a sorry sight, and I cringed at the memory of Al's best efforts in renovating her glossy coat, with big sections

of the rear wings staring at me from the front boot. The bigger shock was seeing the sheer amount of corrosion. It's easy to be critical about that weak spot in the 911's design, but consider that the body shell was designed back in the Sixties – and that galvanising can only hold off rust, not banish it – and she's doing well for her age. Imagine how many of Sabine's 1988 motoring contemporaries met the car crusher years ago.

#### 1967 911 S



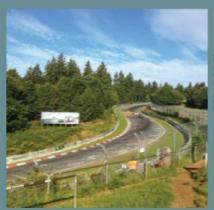
Magnus Walker Los Angeles, USA

Date acquired: 2008

his month, I left behind my usual stomping ground of downtown Los Angeles and headed for Germany – Porsche HQ, to be precise – for a special meeting with Porsche AG to celebrate the launch of the new 991 Turbo S GB Edition (as revealed in the previous issue of this very magazine).

First stop, though, was a visit to the factory at Zuffenhausen to do some filming for a very special video I've got coming up. I can't say too much at this stage, but it involved looking at paint samples. I then went to see Dieter Landenberger at the Porsche Archives to check some research on a car, before being given the opportunity to drive the new seven-speed 991 anniversary: totally different to the classic cars I build, but a great car all the same.

From there, I drove up to Weissach for the monthly FLB meet. Here, I met up with Herbert Linge and Hans Mezger, two Porsche legends. We discussed our



passion for all things Porsche, and I even got to drive a 1973 RS, complete with the iconic ducktail wing. The FLB meet was huge fun – a bit like the Cars and Coffee meet in LA. only closer to the Porsche HO

meet in LA, only closer to the Porsche HQ. From there, I got a ride through the Rhine Valley to the Nürburgring (in a 997 Sport Classic!) to watch the Old Timer Grand



Prix. I was officially based at the Porsche tent, but as this was my first time at the world-famous track, I made sure to check out as much of the Green Hell as possible during the race, as well as taking in some really cool cars in the paddock. That's my European adventure so far – more next month. Next stop, England!

#### 1979 930 3.3



Richard Klevenhusen Rio de Janeiro, Brazil

**Date acquired:** May 2012



enjoyed the recent article in **Total**911 concerning tyre pressures, and thought I would share an extra snippet of information: what makes a tyre lose pressure?

Usually (unless you have a puncture), it is the porosity of the rubber. The pores of the rubber allow oxygen molecules, which are small, to flow or pass through the rubber, causing the tyre to lose pressure. In atmospheric air, we have approximately 21 per cent oxygen, so the volume of 'air' that can pass through the tyre rubber is large. Therefore, I recommend recalibrating your tyre pressures every 15 days.

Over time, as only the oxygen passes through the rubber, the air inside the tyre gets the highest percentage of nitrogen and other gases, which are larger molecules. According to Michelin, in this situation the tyre will lose pressure more slowly because they have less oxygen molecules to pass through the rubber. As I cannot determine this (the amount of oxygen present inside the tyre), I prefer to maintain pressures ensure peak tyre operation.

Remember that the correct pressure is vital for the tyres and vehicle behaviour, and this small, fortnightly task is free, quick and easy to perform.





2003 996 Turbo

Joel Newman London, UK

Date acquired:

've not had the best of months with the Turbo. A couple of weeks ago I went to start the car, and was greeted by an orchestra of highpitched whizzing, some electronic squelching and eventually, after tens of twists and turns of the key, some shuddering into life. It's happened intermittently ever since.

It turns out that my starter motor has decided that enough is enough, which is irritating, as I haven't been able to get a slot at my local garage to get it fixed – well, not until after this print deadline, at least. Fingers crossed that a swap-out will remedy the issue so I can actually get on with the enhancements.

Not all was lost, and with the car sat outside looking sorry for itself, I decided to get hands on, which always proves to be a bad idea, and this was no exception

My Turbo has dollops of carbon trim covering the dash, centre console and door cards, but one of the panels on the dash – due to the sun and heat, no doubt – had started to lift. It caught my eye every time and I hated it. In a moment of madness I thought I'd just superglue it back down – you can probably tell where this is going!

Yep, I have managed to get glue all over the carbon panel, a bit on the dash and some on the A-pillar. This all happened in a few seconds after I attempted to hold the panel in place for it to take, and squirted glue all over my fingers. I so want to be hands-on, but after more than 15 years of wreaking havoc, I'm hanging up my boots! If anyone knows how to get the stickiest of sticky stuff off without damaging the weave then please email in!

#### 2006 997.1 Carrera 4S



**Maxie Islam** Stevenage, UK

Date acquired: August 2010



've put some miles on this month; about 1,000, to be more precise, the reason being that the family has borrowed my daily steed (an Audi A4 Avant), so the Porsche and a trusty mountain bike – for the more local journeys – have become my staple transport.

Well, I will say that Porsches don't like local drives; by that time the engine hasn't even started to warm up. Secondly, potholes make themselves felt, reminding me how uncomfortable a 911 can be for daily driving. During the spate of warm weather, I noticed the oil temperature shooting up above 90C. These M97 engines are a delicate bunch!





In spite of this, it is wonderful to open the taps and feel the surge of power; the longer journeys still prove what a magnificent grand tourer these cars are, and there is little to compare them with. Also, the car was called on for bridal duties quite recently, and my Carrera lovingly obliged.

Readers of my column will know that I had a major service recently at Porsche Cambridge, and the car has behaved since. A slight decrease in fuel consumption has been a result of that, and now I am once again back into the average 26mpg zone. However, another tyre pressure sensor has failed, so I'll be replacing that one soon.





1989 964 Carrera 4 Sean Parr Harpenden, UK Date acquired:

fter three weeks of chasing the Tour de France on my bike, I have a weird suntan and tired legs to show for it. I try to go every year, and this one was a beauty: Yorkshire and London (what a show) followed by the Vosges Mountains, the Alps by Bourg d'Oisans and the Pyrenees. All in all, it was 1,200 kilometres on the bike and 4,500 kilometres of driving – unfortunately not on the 964, as I had my 18-year-old son, two bikes and a mountain of kit, so I opted to take my trusty '98 E class Mercedes estate.

This demonstrated how incredible the roads around Europe are. I'm particularly referring to the ones slightly away from the iconic climbs and roads, although my favourite would have to be the route from Pau to Hautacam over the mighty Col du Tourmalet – incredible either on a bike or, even better, in one of our marvellous cars.

On the question of my car, it's been ignored since the amazing day at Goodwood. It arrived home reeking, with the speedo and spoiler refusing to work. The spoiler was stuck in the raised position, the smell acrid and horrible. I was concerned it was the clutch, although it's now apparent that this isn't the issue; it's associated with electrics, which would explain the smell and the inoperative speedo and spoiler, which all started working again a couple of days later.

The smell has also disappeared, although I will get it checked out as soon as I stop holidaying! It was Whitby most recently (there are some great roads in the area) and it'll be Stockholm soon after. My wife has taken the 'no major holiday this year' rule and stretched it to the max – I Can't complain!

1988 3.2 Carrera Cab



**Ben Przekop** Georgia, USA

**Date acquired:** July 2012



am facing a difficult decision about my 1988 911: whether I should repair (if possible) my original Blaupunkt 'Reno' radio, or replace it with a more modern system that will also play CDs. The original Blaupunkt radio and speakers were never exactly an audiophile's dream, especially compared to the modern systems to which we all have become accustomed to in recent years. Even in the best of times, the radio reception could be slightly static-filled while the engine was running, a symptom I attributed to the inability of earlier systems to block out ignition-related interference.

But lately, the static has gotten significantly worse whether the car is running or not, and in an intermittent fashion, which to me indicates component failure of some type, as opposed to just a loose antenna connection. Sure, I can still play tapes, but how long will that work? After all, we are talking about 26-year-old products made with Eighties technology!

Part of me leans toward repair, if that is even possible, in order to keep my car 'original'. Except for a paint job and a new Cabrio top a few years ago, and a new A/C compressor, my car is original, and I suspect the next owner will be the kind of person who values originality over modern function in a car of this vintage. But the audiophile side of me says I should forsake the nostalgia and replace it with a more modern unit that I will truly enjoy listening to. But how far do I go? Do I just replace the head unit with one that has a working radio and plays CDs, or go all in and start installing a more powerful amplifier, upgraded speakers, etc?

Tough decisions always make me want to take a drive to think things over, with a stop at an ice cream shop or a Starbucks for a bit of refreshment. And with the top down on a balmy summer day, what could be a better soundtrack than the soulful sounds of the Zuffenhausen flat-six symphony emanating from the rear of the car? Sounds to me like it is time for a drive...

1961 356 T5B; 1973 911E; 1975 Carrera MFI race car; 1981 930 3.3; 1995 993 RS Clubsport; 1974 IROC



**Sven Burchartz** Victoria, Australia

Dates acquired: Various



'm now at both ends of the Porsche weight spectrum. Given that the values of 1975 Carreras are moving into \$250,000+, racing what amounts to a suitcase full of money has prompted the retirement of my car from active racing.

At a recent race, I was chasing a late Sixties Camaro. After basically setting the lap record for the class, I reflected that the odds of a Big One were shortening. But fear not; I had a plan.



Within 24 hours, I had made an approach to a contact that had a 1974 RS race ready and for sale. It's very orange, and the salient numbers are as follows: 960 kilograms, 365bhp, GT3 brakes, fully fabricated coilover suspension and an IROC body, with a power-to-weight ratio of 3.6 kilograms per KW.

Speaking of numbers, I traded the 991 Carrera S and bought a Panamera 4S. Being a responsible family man and all, it seemed like the right thing to do.

#### 2003 996 Turbo



Ray Chandler Surrey, UK

**Date acquired:** August 2011 y wife and I decided that a long weekend was overdue, so the 996 was packed and we headed up to Lincoln. The air show that weekend at RAF East Kirkby was an added attraction.

I write this on 4 August 2014 – 100 years on from the day Britain went to war with Germany. Over the years, both sides committed their best brains to creating innovative engineering designs in not just weapons, but transportation. 100 years later, my German-made Porsche 996 TT was parked as close as it will ever get to a British 70-year-old veteran – a Lancaster bomber sporting not just one supercharged engine of 1,640hp, but four of them!

This Lancaster bomber aircraft, one of only three in the world capable of flying, is located at RAF East Kirkby in Lincolnshire. She – her name is 'Just Jane' – currently only has a licence to taxi, so for the moment that's what it does. Its Air Worthiness Certificate costs a lot of money, and all donations to the project of getting it flying again are welcome.

For those wanting a relaxed break, Lincoln and the surrounding area comes highly recommended. Its magnificent cathedral is a joy to behold, its welcoming, knowledgeable



and friendly tour guides taking you not just through the cathedral, but its tower and roof structure too

It is rich in history and practicality too.
For example, most of the supporting columns use dark green granite from the Isle of Purbeck – made to measure, as it was cut from the rock and then sent up to the cathedral via sea/river/cart to be slotted together into its place in the column.

Routes from London are quite straightforward, with the M1 taking you 80 per cent of the way. We stayed in an eponymously named hotel right by Lincoln Castle. It did a good breakfast, but the so-called Junior suites/deluxe rooms are small and overpriced, and parking is limited.



The place to get into is the Old Palace Hotel behind the cathedral. It is very Porschefriendly, offers secure parking and has welcomed many a PCGB group. Special rates apply for PCGB, so do ask.

With its flat landscape and myriad minor roads, Lincolnshire offers some excellent driving experiences. RAF East Kirby is just under an hour's drive away, and getting there involves traversing some really exciting minor roads with long sweeping curves and tight bends.

For a change of pace, not to be overlooked is Doddington Hall and its gardens. It has wonderful walled gardens to wander through, as well as a house full of paintings, furniture and weapons, so is worth a visit.



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n 2001, Lee Maxted-Page set up his own company, Maxted-Page Limited, concentrating on the sale of high-end cars like front-engined Ferraris, Ford GT40s, early 91ls and other exceptional sports and racing cars.

Gradually, the Porsche side took over: in 2005, he met 356 specialist Andy Prill, and the two set up a separate engineering company, Maxted-Page & Prill Ltd. They have subsequently acquired a reputation as two of the foremost individuals dealing in and working on historic early Porsches. Lee sources cars, often involving an intensive search to verify authenticity and provenance for the kind of clients who look not only to invest in these cars, but also participate in historic events like the Tour Auto and Le Mans Classic. Porsches prepared and run by Maxted-Page & Prill Ltd have won the Le Mans index of performance twice and the Tour Auto three times.

Lee says, "I have a car sales background working with people like Alan Day, Jack Barclay and P&A Wood, the Rolls-Royce and Bentley specialist. Eventually, I decided to set up and run my own business, so I found farm premises here in rural Essex. I didn't want to get into

competition with my previous employers, and I loved Porsches – I was driving a 993 at the time, so I concentrated largely on historic sports cars. I got to know Andy Prill, who also lives locally and had clients in common. He now manages the workshop business, and I run the sales company. We have a small team of engineers who are highly skilled in service, restoration and race preparation of historic Porsches, and together we offer advice on all aspects of buying, selling and maintaining historic Porsches."

For his part, Prill has been a Porsche enthusiast for over 25 years. "I was racing motorcyles when a pal started doing historic rallies in a 1937 Triumph Dolomite. I used to go along as a mechanic, and it was at one of these events that I saw a beautifully restored 912. The owner let me have a proper look at it, and I was really taken by the quality of the engineering. I loved the way Porsche seemed to achieve more with less."

After that, it was a matter of time before Prill, whose background is in mechanical engineering, would become involved full-time with classic Porsches. His ethos has always been to provide a service for older Porsches in the way they would have been maintained in the period. Over the years,

this has meant considerable effort and research to get methodology and detail right. His words have the conviction of the true enthusiast.

"If I'm reading up on something until after midnight, then that's because I insist on being absolutely accurate: you never stop learning. We repainted the Mila Schön RSR, but it took a lot of background work to get the details of that design exactly right; you can't necessarily add this to the customer's invoice. Yet it's become even more important since the prices of these cars have gone up so much. You have to maintain their originality, and therefore intrinsic value.

"We look after a lot of classic Porsche racers and prepare them for competition. Modern regulations mean they have to have fire extinguishers for which often they have no provision. But instead of just drilling a hole in the floorpan as many companies would, we look around for a suitable factory hole such as the bolt holding the seat frame. Then we make a bracket in the Porsche style and install the extinguisher that way. It's all removable, and the car's originality is not touched."

He points out that a lot of MP&P's work involves correcting the sometimes sloppy work carried out by previous modifiers, or simply finding original











# "Lee sources cars, often intensively to verify authenticity and provenance"

parts to complete a car. He cites an RS 6l in his care that had its headlights removed at some point during its racing career. These must have been lost, for they have been replaced by working but entirely wrong aftermarket items. "It simply devalues the car to have those," says Prill, "so I will source originals. It may take a year – patience is essential in this business – but I'll find some."

He tells the story of one owner who arrived with a slipping clutch on his 993 Targa. "It was so worn I could hardly drive it. Yet when we looked inside this 993 we found an inch-thick folder of invoices, including a recent large bill from a London independent. When we took off the underside panels there was a dried-out rat's nest that had obviously been there for ages. One of the spark plugs - the one that's awkward to get at - can't have come out since the time the car left the dealer network ten years ago! Another fellow turned up here with a 912. He'd driven all the way from Dublin on two cylinders - we could hear him coming! That's the thing with old Porsches: they can still run on indifferent or no maintenance, but it's a disaster for the car. We try to make our labour rates reasonable, because we really want owners to keep their Porsches correctly – not to line our pockets, but to protect the value of their cars. A lot of owners have come to us because they have been disillusioned by the treatment they received from other specialists. We've spent a lot of time undoing bodgery and restoring cars correctly."

Prill believes that one of the biggest threats to the market today comes from plausible vehicles with assumed identities, which although often beautifully presented, are not what they purport to be. It underlines his point that thorough research into authenticity is now vital, given that many historic early Porsches are trading for well over €1 million (£800,000).

There are also the legitimate competitive pressures to consider, as Prill says some clients think the workshop is too slow: "Some work simply takes time to do properly. It's a question of attitude: you can't reassemble a four-cam Carrera engine with all those roller bearings just like that; for other work, correct parts have to be sourced."

Word gets around though, and more than once MP&P has been asked to help out Porsche Classic

# **Company profile**

• Owner: Lee Maxted-Page

• Founded: 2001

Location: Essex, UK

• Rarest 911 sold: 964 Carrera 4 lightweight

Most common 911 sold: 911S
 Most expensive 911 sold: 3.0 RSR

 Interesting fact about the business: Among other celebrity-owned Porsches in its care, Maxted-Page looks after Stirling Moss's RS 61, the car in which Moss, at the age of 82, finally retired from competitive racing in 2011.

#### **Contact**

 Website: www.maxted-page.com, www.maxted-pageandprill.com
 T-land www.maxted-pageandprill.com

• Telephone: +44 (0)1787 477749



- something of a badge of honour, and the Porsche museum director's favourite exhibit is a 911 TR restored by MP&P. You don't, after all, manage a workshop – with a dozen historic Porsches ranging from a Group C 956 to three 904s, a 911S, RSR and a 1955 Speedster rolling through the door during our visit – without creating a certain reputation. But reputation or not, MP&P will go on burning the midnight oil, because as Porsche says of racing, preparation is everything.





### 1994 PORSCHE 993 CARRERA 2 COUPE

Rare and desirable speed yellow with full black leather interior - absolutely stunning! Upgrades include RS front and rear spoilers and Speedline alloys with black centres. Only 21,100 miles with full service history - drives as good as it looks!



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Only 9,000 miles - the car is in as new condition and drives as if it
had just left the factory. A true opportunity for the collector.



1989 PORSCHE 930 TURBO LE - RHD Has covered only 29,100 miles and has full service history. 1 of only 50 right hand drive cars made. Immaculate.



1989 PORSCHE 930 TURBO G50 - RHD Excellent Condition throughout. Many extras and upgrades. Great value. 71,700 miles.



1989 PORSCHE 911 3.2 - **LHD**Only 49,350 miles with FSH. Option of air-conditioning. One of the best examples we have come across for some time.



1987 PORSCHE 911 SUPERSPORT CABRIOLET - RHD Original factory wide body example comes with full service history. Full black leather with electric soft top. 60,000 miles.



1997 PORSCHE 993 TURBO - **LHD**Only 28,200 miles. LHD. Competely original. The last air-cooled Porsche Turbo model - a really exciting car to drive.



1988 PORSCHE 930 TARGA TURBO - RHD
One owner car with only 10,200 miles - Solid Guards Red with
Beige full leather interior. Absolutely stunning condition.



1962 PORSCHE 356B SUPER T6 CABRIOLET - LHD
Desirable 'Twin Grill' model with period chrome luggage rack.
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# Datafile

# Definitive facts and figures for every 911 model from 1964 – 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 in 1964, 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 in half stars according to their performance, handling, appearance and desirability. Do you agree? We'd love to hear from you: editorial@total911.com.

#### Sales debate: How are 911 racing car prices calculated?



Every dog has its day, but when it comes to racing cars, technology is always moving forward, rendering equipment uncompetitive after a just a few years. Total 911 spoke to two industry experts to see what the market is currently like.

"If we start with the factory-built cars. things like RSRs are very expensive," says Mark Sumpter, owner of Paragon. "They're about €500,000 (£400,000) for a new RSR and they have a shelf life of three to five years. When they're five vears old they're worth about €200.000 (£160,000) because they're expensive to run and no longer competitive.

"It gets to the stage where if you've got a good car, you're better just to cover it up and wait for the market to come back." As an example, Sumpter points to 993 GT2 racers. Cars were exchanging hands for as little as £70,000, while now, "cars are back up to £500,000 within the space of a few years."

According to Sumpter, depreciation and a championship to race in is less of an issue with ex-Carrera Cup and Supercup cars. "Because they aren't that hard to run. Someone can turn up with their own trailer. and if they're good they can run the car."

This means that many cars filter down through the various national race series. as Paul Robe, head of Parr Motorsport. points out. "Some of our cars have moved down to GT Cup and Britcar. The sideways move is to go into trackdays. If you've got a GT3RS Gen2, the devaluation is quite high, whereas there's not really a depreciation relative to what you use it for on a Cup car.

"For a good 996 Carrera Cup car, you're still talking £30,000-35,000, and that's relative to its purchase price, which was around £70,000-ish," Robe explains. "It depreciates by about 15 per cent per year, but it will stop somewhere and hang probably for the rest of its days.

"With, say, a 997 2012 or 2013 variant,  $you're\,talking\,somewhere\,between$ £80.000 and £85.000-87.000, for the good cars that still have half the life left in them - 25 hours in the engine and 20 hours in your drivetrain" he continues

Factory-built RSRs, therefore, are unlikely to see much track time, but as a long-term prospect could become assets. Conversely, older GT3 Cup machinery has had its time of relatively low depreciation and offers track enthusiasts an inexpensive way into Porsche 911 racing.

#### **911 2.0-litre** 1964-67



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

Engine capacity: 1,991cc Compression ratio: 9.0:1 Maximum power: 130bhp @ 6,100rpm Maximum torque: 149Nm @ 5,200rpm Brakes: Front: 282mm discs: Rear: 285mm discs Wheels & tyres: Front: 4.5x15-inch; 165/80/R15 Rear: 4.5x15-inch: 165/80/R15 Length: 4,163mm Width: 1.610mm Weight: 1,075kg 0-62mph: 8.3 sec Top speed: 131mph

#### \*\*\*\*

#### **911S** 1967-68



Porsche soon started more owerful variants. The first Super), which had a higher ompression engine and twin Weber 40IDS carburettors.

Production numbers: 4,015 Engine capacity: 1,991cc Compression ratio: 9.8:1 Maximum power: 160bhp @ 6,600rpm Maximum torque: 179Nm @ 5,200rpm Brakes: Front: 282mm discs: Rear: 285mm discs. Wheels & tyres: Front: 4.5x15-inch; 165/80/R15 Rear: 45x15-inch: 165/80/R15 Length: 4,163mm Width: 1.610mm Weight: 1,030kg 0-62mph: 8.0 sec Top speed: 137mph Issue featured: 114



#### **911E** 1969-71



Issue featured: 106

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

Production numbers: 4.927 Engine capacity: 2,195cc Compression ratio: 9.1:1 Maximum power: 155bhp @ 6,200rpm Maximum torque: 196Nm @ 4,500rpm Brakes: Front: 282mm discs; Rear: 290mm discs Wheels & tyres: Front: 6x15-inch; 185HR Rear: 6x15-inch; 185HR Length: 4,163mm Width: 1,610mm Weight: 1.020kg 0-62mph: 7.0 se Top speed: 137mph Issue featured: 107 \*\*\*\*



#### **911S** 1969-71



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

Production numbers: 4.691 Engine capacity: 2,195cd 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: 6x15-inch; 185HR Rear: 6x15-inch; 185HR Length: 4,163mm Width 1,610mm Weight: 1.020kg 0-62mph: 6.6 sec Top speed: 145mph Issue featured: 112



#### **911E** 1973



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

Production numbers: 4,406 (including Eseries) Engine 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: 6x15-inch ATS; 185HR Rear: 6x15-inch ATS; 185HR Length: 4,163mm Width: 1,610mm Weight: 1.077kg 0-62mph: 7.5 sec



#### **911S** 1973



Production numbers: 5,054

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

Engine capacity: 2,341cc Compression ratio: 8.5:1 Maximum power: 190bhp@6,500rpm Maximum torque: 211Nm @ 5,200rpm Brakes: Front: 282mm discs; Rear: 290mm discs **Wheels & tyres**: Front: 6x15-inch; 185/70/R15 Rear: 6x15-inch; 185/70/R15 Length: 4,163mm Width: 1,610mm Weight: 1.075kg 0-62mph: 6.6 sec Top speed: 140mph Issue featured: 56



Top speed: 137mph Issue featured: 117

#### **911 Carrera 2.7** 1974-76



From 1974, Carrera name was given to range-topping 911. Essentially the same engine as previous year's RS or all markets except USA Whaletail available from '75

Engine 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: 6x15-inch; 185VR Rear: 7x15-inch; 205VR Length: 4,291mm Width: 1.610mm Weight: 1,075kg 0-62mph: 6.3 sec Top speed: 148mph Issue featured: 104



#### **911 Carrera 3.0** 1976-77



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

Engine capacity: 2,994cc Compression ratio: 8.5:1 Maximum power: 197bhp @ 6.000rpm Maximum torque: 255Nm @ 4,200rpm Brakes: Front: 282mm discs; Rear: 290mm discs Wheels & tyres: Front: 6x15-inch; 185/70/VR15 Rear: 7x15-inch: 215/60/VR15 Length: 4,291mm Width: 1.610mm Weight: 1,093kg 0-62mph: 6.3 sec Top speed: 145mph Issue featured: 3



#### **911L** 1967-68



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

Production numbers: 1,603 Engine capacity: 1,991cc Compression ratio: 9.0:1 Maximum power: 130bhp @ 6.100rpm Maximum torque: 173Nm@4,600rpm Brakes: Front: 282mm discs: Rear: 285mm discs. Wheels & tyres: Front: 5.5x15-inch; 185HF Rear: 5 5x15-inch: 185HR Length: 4,163mm Width: 1.610mm Weight: 1,080kg 0-62mph: 8.4 sec Top speed: 132mph \*\*\*\* Issue featured n/a

#### **911T** 1967-69



To save money, the 911T's ngine used cast-iron cylinder neads (as opposed to the Biral aluminium/ironitems, which gave more efficient cooling) and carbs instead of fuel injection

Production numbers: 6,318 Engine capacity: 1.991cc Compression ratio: 8.6:1 Maximum power: 110bhp @ 5,800rpm Maximum torque: 156Nm@4,200rpm Brakes: Front: 282mm discs: Rear: 285mm discs Wheels & tyres: Front: 5.5x15-inch; 185HR Rear: 5 5x15-inch: 185HR Length: 4,163mm Width: 1.610mm Weight: 1,020kg 0-62mph: 8.8 sec (est) Top speed: 124mph

#### **911E** 1968-69

Production numbers: 2,826

Engine capacity: 1.991cc



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

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: 5.5x15-inch; 185HR Rear: 5 5x15-inch: 185HR Length: 4,163mm Width 1.610mm Weight: 1,020kg

0-62mph: 7.6 sec Top speed: 130mph Issue featured n/a

## **911S** 1968-69



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

Production numbers: 2,106 Engine capacity: 1,991cc Compression ratio: 9.9:1 Maximum power: 170bhp @ 6.800rpm Maximum torque: 183Nm@5,500rpm Brakes: Front: 282mm discs: Rear: 290mm discs. Wheels & tyres: Front: 6x15-inch; 185/70/R15 Rear: 6x15-inch: 185/70/R15 Length: 4,163mm Width: 1.610mm

Weight: 995kg 0-62mph: 7.0 sec (est) Top speed: 140mph Issue featured n/a

#### \*\*\*\*

### **911T** 1969-71



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

Production numbers: 15,082 Engine capacity: 2,195cc Compression ratio: 8.6:1 Maximum power: 125bhp @ 5,800rpm Maximum torque: 169Nm @ 4,200rpm Brakes: Front: 282mm discs; Rear: 290mm discs Wheels & tyres: Front: 5.5x15-inch; 165HR Rear: Front: 5.5x15-inch; 165HR Length: 4,163mm Width: 1,610mm Weight: 1.020kg 0-62mph: 7.0 sec (est) Top speed: 127mph \*\*\*\* Issue featured: 107

#### **911E** 1972

Issue featured: 39



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

\*\*\*\*

Production numbers: 4.406 (including F series) Engine 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: 6x15-inch; 185HR Rear: 6x15-inch; 185HR Length: 4,163mm Width: 1,610mm Weight: 1.077kg 0-62mph: 7.5 sec Top speed: 137mph \*\*\*\*

#### **911T** 1972



A lower compression ratio and the inclusion of Zenith 40 TIN triple-choke carburettors led to the relatively lower power output of 130bhp despite the new 2,341cc engine size

\*\*\*\*

Production numbers: 16,933 (including F series) Engine capacity: 2,341cc Compression ratio: 7.5:1 Maximum power: 130bhp @ 5,600rpm Maximum torque: 197Nm @ 4,000rpm Brakes: Front: 282mm discs; Rear: 290mm discs Wheels & tyres: Front: 5.5x15-inch; 165HR Rear: 5.5x15-inch; 165HR Length: 4,163mm Width: 1,610mm Weight: 1.077kg 0-62mph: 7.6 s Top speed: 128mph

#### **Carrera 2.7 RS** 1973



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

Production numbers: 1,590 Engine 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: 6x15-inch; 185/70/R15 Rear: 7x15-inch; 215/60/R15 Length: 4,163mm Width: 1,610mm Weight: 975kg (Sport) 0-62mph: 5.6 se Top speed: 152mph \*\*\*\* Issue featured: 106

# **911T** 1973



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

Production numbers: 16,933 (including Eseries) Engine capacity: 2,341cc Compression ratio: 7.5:1 Maximum power: 130bhp @ 5,600rpm Maximum torque: 197Nm@4,000rpm Brakes: Front: 282mm discs; Rear: 290mm discs Wheels & tyres: Front: 5.5x15-inch; 165HR Rear: 5.5x15-inch; 165HR Length: 4,163mm Width: 1,610mm Weight: 1.077kg 0-62mph: 7.6 sec Top speed: 128mph Issue featured: n/a

### (G. H. I. J series

Issue featured: 117

#### **Carrera 3.0 RS** 1974



Production numbers: 109

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

Engine capacity: 2,994cc Compression ratio: 8.5:1 Maximum power: 230bhp @ 6,200rpm Maximum torque: 275Nm @ 5,000rpm Brakes: 300mm discs; Rear: 300m discs Wheels & tyres: Front: 9x15-inch; 215/60/VR15 Rear: 11x15-inch; 235/60/VR15 Length: 4,135mm Width: 1,680mm Weight: 900kg 0-62mph: 5.3 sec Top speed: 152mph Issue featured: 102 \*\*\*\*

### **911** 1974-77

Issue featured: n/a



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

\*\*\*\*

Production numbers: 9.320 Engine capacity: 2,687cc Compression ratio: 8.0:1 Max power: 148bhp @ 5,700rpm (165bhp from '76) Max torque: 235Nm@3,800rpm (4,000 from '76) Brakes: Front: 282mm discs; Rear: 290mm discs Wheels & tyres: Front: 6x15-inch; 185VR Rear: 6x15-inch; 185VR Length: 4.291mm Width: 1,610mm Weight: 1.075kg

\*\*\*\*

#### **911S** 1974-77



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

Production numbers: 17.124 Engine capacity: 2,687cc Compression ratio: 8.5:1 Maximum power: 173bhp @ 5,800rpm Maximum torque: 235Nm@4,000rpm Brakes: Front: 282mm discs; Rear: 290mm discs Wheels & tyres: Front: 6x15-inch; 185VR Rear: 6x15-inch; 185VR Length: 4.291mm Width: 1.610mm Weight: 1.080kg 0-60mph: 7.0 sec Top speed: 142mph Issue featured: n/a  $\star$   $\star$   $\star$   $\star$ 

#### **930 3.0** 1975-77



Fitted with a KKK turbo this was the world's first production car to be turbocharged. Flared arches. whaletail spoiler and four speed gearbox were standard

\*\*\*\*

\*\*\*\*

Production numbers: 2,880 in the US Engine capacity: 2.994cc Compression ratio: 6.5:1 Maximum power: 260bhp @ 5.500rpm Maximum torque: 343Nm @ 4,000rpm Brakes: Front: 282mm discs: Rear: 290mm discs Wheels & tyres: Front: 7x15-inch; 185/70/VR15 Rear: 8x15-inch: 215/60/VR15 Length: 4,291mm Width: 1.775mm Weight: 1,140kg (1,195kg from '76) 0-62mph: 5.5 sec Top speed: 155mph Issue featured: 116

#### **930 3.3** 1978-83



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

\*\*\*\*

Production numbers: 5,807 (plus '78-'79 Cali cars) Engine capacity: 3,299cc Compression ratio: 7.0:1 Maximum power: 300bhp @ 5.500rpm Maximum torque: 412Nm @ 4,000rpm
Brakes: Front: 304mm discs; Rear: 309mm discs Wheels & tyres: Front: 7x16-inch; 205/55/VR16 Rear: 8x16-inch: 225/50/VR16 Length: 4,491mm Width: 1.775mm

Weight: 1,300kg 0-62mph: 5.4 sec Top speed: 160mph Issue featured: 104

#### **911 SC** 1978-83



Issue featured: 110

0-62mph: 8.5 sec

Top speed: 130mph Issue featured: n/a

From 1978, the SC was the only normally aspirated 911 Developed from the Carrera 3.0. but produced less powe suit all markets. Upgraded Sport options were available

\*\*\*\*

Production numbers: 60,740 Engine capacity: 2.994cc Compression ratio: 8.5:1/8.6:1/9.8:1 Maximum power: 180/188/204bhp @ 5.500rpm Maximum torque: 265/265/267Nm@4,300rpm Brakes: Front: 287mm discs: Rear: 295mm discs. Wheels & tyres: Front: 6x15-inch; 185/70/VR15 Rear: 7x15-inch: 215/60/VR15 (16-inch optional) Length: 4,291mm Width: 1.626mm Weight: 1,160kg (1978 Coupe) 0-62mph: 6.5 sec Top speed: 141/146mph

#### **930 3.3** 1984-89



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

\*\*\*\*

Engine capacity: 3,299cc Compression ratio: 7.0:1 Maximum power: 300bhp @ 5.500rpm Maximum torque: 432Nm@4,000rpm Brakes: Front: 304mm discs: Rear: 309mm discs Wheels & tyres: Front: 7x16-inch; 205/55/VR16; Rear: 8x16-inch; 225/50/VR16 Length: 4,491mm Width: 1.775mm Weight: 1,300kg (1,335kg from '86) 0-62mph: 5.4 sec Top speed: 161mph Issue featured: n/a



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#### Carrera 3.2 1984-89



Production numbers: 70,044

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

Engine capacity: 3,164cd Compression ratio: 10.3:1 Maximum power: 231bhp @ 5,900rpm Maximum torque: 284Nm@4,800rpm Brakes: Front: 286mm discs: Rear: 294mm discs Wheels & tyres: Front: 7x15-inch; 195/65/VR15; Rear: 8x15-inch, 215/60/VR15 (16 inches for '89) Length: 4,291mm Width: 1.652mm Weight: 1,210kg 0-62mph: 5.6 sec

Top speed: 152mph \*\*\*\* Issue featured: 114

#### **Speedster** 1989



Carrera 3.2 with a chopped, steeply racked windscreer and hood and stripped-out interior. Porsche insisted the simple hood was not designed to be 100 per cent watertight.

Production numbers: 2,274 (including Turbo-look) Engine capacity: 3,164cc Compression ratio: 10.3:1

Maximum power: 231bhp @ 5,900rpm Maximum torque: 284Nm @ 4,800rpm Brakes: Front: 286mm discs: Rear: 294mm discs Wheels & tyres: Front: 6x16-inch; 205/55/VR16 Rear: 8x16-inch: 245/60/VR16

Length: 4,291mm Width: 1.775mm Weight: 1,220kg 0-60mph: 6.0 sec Top speed: 148mph Issue featured: 114



#### **964 Carrera 2** 1990-93



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

Production numbers: 19.484 Engine capacity: 3,600cc Compression ratio: 11.3:1 Maximum power: 250bhp @ 6,100rpm Maximum torque: 310Nm@4.800rpm Brakes: Front: 298mm discs; Rear: 299mm discs Wheels & tyres: Front: 6x16-inch; 205/55/ZR16; Rear: 8x16-inch; 225/50/ZR16 Length: 4,250mm Width: 1,652mm Weight: 1.350kg 0-62mph: 5.6 s Top speed: 164mph Issue featured: 55



#### **964** Turbo 1991-92



This used the revised 964 body shell, extended arches and 'tea tray' spoiler. The engine was essentially the 3.3-litre unit from the previous model, but updated.

Production numbers: 3.660 Engine capacity: 3,299cc Compression ratio: 7.0:1 Maximum power: 320bhp @ 5,750rpm Maximum torque: 450Nm@4.500rpm Brakes: Front: 320mm discs; Rear: 299mm discs Wheels & tyres: Front: 7x17-inch; 205/50/ZR17 Rear: 9x17-inch; 255/40/ZR17 Length: 4,250mm

Width: 1,775mm Weight: 1.470kg 0-62mph: 5.4 sec Top speed: 168mph Issue featured: 97



#### **964 C2 Speedster** 1993-94



Production numbers: 936

Combined the 964 bodyshell with the hood and windscreen of the Carrera 3.2 Speedster plus RS interior. It is thought hat Porsche planned to build 3.000, but demand fell

Capacity: 3,600cc Compression ratio: 11.3:1 Maximum power: 250bhp @ 6,100rpm Maximum torque: 310Nm@4,800rpm Brakes: Front: 320mm discs; Rear: 299mm discs **Wheels & tyres**: Front: 7x17-inch; 205/50/ZR17 Rear: 9x17-inch; 255/40/ZR17 Length: 4.250mm Width: 1,652mm

Weight: 1,340kg 0-62mph: 5.5 sec Top speed: 161mph Issue featured: 46



#### **964** Turbo **3.6** 1993-94



Production numbers: 936

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

Capacity: 3,600cc Compression ratio: 7.5:1 Maximum power: 360bhp @ 5,500rpm Maximum torque: 520Nm@4,200rpm Brakes: Front: 320mm discs; Rear: 299mm discs **Wheels & tyres**: Front: 8x18-inch; 225/40/ZR18 Rear: 10x18-inch; 265/35/ZR18 Length: 4.250mm Width: 1,775mm Weight: 1,470kg 0-62mph: 4.8 sec Top speed: 174mph Issue featured: 17

#### **993 Carrera 4S** 1995-96



The 4S was effectively a C4 with a Turbo wide bodyshell (albeit lacking a fixed rear spoiler). Also boasted Turbo uspension, brakes and Turbo-look wheels.

Production numbers: 6,948 Engine 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: 8x18-inch; 225/40/ZR18 Rear: 10x18-inch: 285/30/ZR18 Length: 4,245mm Width: 1.795mm Weight: 1,520kg 0-62mph: 5.3 sec Top speed: 168mph Issue featured: 109



#### **993 Carrera RS** 1995-96



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

\*\*\*\*

Production numbers: 1,014 Engine 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: 18x10.J. 265/35ZR18

Length: 4,245mm Width: 1.735mm Weight: 1,279kg 0-62mph: 5.0 sec Top speed: 172mph Issue featured: 106



#### **930 LE** 1989



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

Production numbers: 50 Engine 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: 7x16-inch; 205/55/VR16 Rear: 9x16-inch: 245/45/VR16 Length: 4,491mm

Width: 1 775mm Weight: 1,335kg 0-62mph: 4.6 sec Top speed: 173mph Issue featured: 110



#### **930 SE** 1986-89



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

Production numbers: 50 (UK only) Engine capacity: 3,299cd 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: 7x16-inch; 205/55/VR16 Rear: 9x16-inch: 245/45/VR16

Length: 4,491mm Width: 1 775mm Weight: 1,335kg 0-62mph: 4.6 sec Top speed: 173mph Issue featured: 99



#### **3.2 Clubsport** 1987-89



off around 40kg of weight vised engine manageme gave a higher rev limit of ,840rpm. Suspension uprated and LSD standard.

**Production numbers: 189** Engine capacity: 3,164cc Compression ratio: 10.3:1 Maximum power: 231bhp @ 5,900rpm Maximum torque: 284Nm@4,800rpm Brakes: Front: 286mm discs: Rear: 294mm discs. Wheels & tyres: Front: 6x15-inch, 195/65/VR15; Rear: 7x15-inch, 215/60/VR15 Length: 4,291mm

Width: 1.650mm Weight: 1,160kg 0-60mph: 5.1 sec Top speed: 152mph Issue featured: 97

#### \*\*\*\*

#### **964 Carrera 4** 1989-93



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

Production numbers: 13,353 (Coupe) Engine capacity: 3,600cc Compression ratio: 11.3:1

Maximum power: 250bhp @ 6,100rpm Maximum torque: 310Nm@4,800rpm Brakes: Front: 298mm discs: Rear: 299mm discs Wheels & tyres: Front: 6x16-inch; 205/55/ZR16

Rear: 8x16-inch; 225/50/ZR16 Length: 4,250mm Width: 1.652mm Weight: 1,450kg 0-62mph: 5.7 sec Top speed: 162mph Issue featured: 111

#### \*\*\*\*

#### **964 C4 Lightweight** 1991



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

Production numbers: 22 Engine capacity: 3,600cc Compression ratio: 11.4:1 Maximum power: 265bhp@6,100rpm Maximum torque: 332Nm@4,800rpm Brakes: Front: 322mm discs; Rear: 299mm discs Wheels & tyres: Front: 8x17-inch; 245/620/17 Rear: 9.5x17-inch; 265/630/17 Length: 4,275mm Width: 1,652mm Weight: 1.100kg 0-62mph: unknown Top speed: unknown



Production numbers: 2.405



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

Engine capacity: 3,600cc Compression ratio: 11.3:1 Maximum power: 260bhp @ 6,100rpm Maximum torque: 310Nm @ 4.800rpm Brakes: Front: 320mm discs; Rear: 299mm discs Wheels & tyres: Front: 7.5x17-inch; 205/50/ZR17 Rear: 9x17-inch; 255/40/ZR17 Length: 4,250mm Width: 1,650mm Weight: 1.230kg (Sport) 0-62mph: 5.2 s בייוישוי. כ.ל sec Top speed: 168mph Issue featured: 116 \*\*\*\*

#### **964 Turbo S** 1992-93



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

Production numbers: 81 Engine capacity: 3,299cc Compression ratio: 7.0:1 Maximum power: 381bhp@6,000rpm Maximum torque: 490Nm@4.800rpm Brakes: Front: 320mm discs; Rear: 299mm discs Wheels & tyres: Front: 8x18-inch; 225/40/ZR18 Rear: 10x18-inch; 265/35/ZR18 Length: 4,250mm Width: 1,775mm Weight: 1,290kg 0-62mph: 4.6 sec Top speed: 180mph

#### **964 3.8 RS** 1993



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

Production numbers: 55 Engine capacity: 3,746cc Compression ratio: 11.6:1 Maximum power: 300bhp @ 6,500rpm Maximum torque: 359Nm @ 5,250rpm Brakes: Front: 322mm discs; Rear: 290mm discs Wheels & tyres: Front: 9x18-inch; 235/40/ZR18 Rear: 11x18-inch; 285/35/ZR18 Length: 4,250mm Width: 1,775mm Weight: 1.210kg 0-62mph: 4.9 sec Top speed: 169mph \*\*\*\* Issue featured: n/a

#### **964** Anniversary 1993-94



Production numbers: 911

Engine capacity: 3,600cc

Compression ratio: 10.3:1

Issue featured: 54

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

\*\*\*\*

Maximum power: 250bhp@6,100rpm Maximum torque: 310Nm@4,800rpm Brakes: Front: 298mm discs; Rear:299mm discs **Wheels & tyres**: Front: 7x17-inch; 205/50/17 tyres Rear: 9x17-inch; 255/40/17 tyres Length: 4.250mm Width: 1,775mm Weight: 1.470kg 0-62mph: 5.7 sec Top speed: 162mph Issue featured: 112



#### **964 RS America** 1993-94



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

Production numbers: 701 Engine 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: 7x17-inch; 205/50/ZR17 Rear: 8x17-inch; 255/40/ZR17 Length: 4,250mm Width: 1,650mm Weight: 1.340kg 0-62mph: 5.5 sec

#### **993 Carrera** 1993-97



Issue featured: 108

Restyled bodywork had swept-back headlamps curvaceous wings and blended-in bumpers. Engine revised, with VarioRam

\*\*\*\*

Production numbers: 38.626 Engine 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: 7x16-inch; 205/55/ZR16 Rear: 9x17-inch; 245/45/ZR16 Length: 4.245mm Width: 1,735mm Weight: 1.370kg 0-62mph: 5.6 sec



#### **993 Carrera 4** 1994-97



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

Production numbers: 2,884 (Coupe) Engine 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: 7x16-inch; 205/55/ZR16 Rear: 9x16-inch; 245/45/ZR16 Length: 4.245mm Width: 1,735mm Weight: 1.420kg 0-62mph: 5.8 sec Top speed: 166mph Issue featured: 111

#### **993 GT2** 1995-96



Issue featured: 113

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

Production numbers: 194 Engine 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: 9x18-inch; 235/40/ZR18 Rear: 11x18-inch; 285/35/ZR18 Length: 4,245mm Width: 1.855mm Weight: 1,290kg 0-62mph: 3.9 sec Top speed: 189mph



#### **993 Turbo** 1996-98



Issue featured: 116

Top speed: 164mph Issue featured: 102

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

\*\*\*\*

Engine 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: 8x18-inch; 225/40/ZR18 Rear: 10x18-inch: 285/30/ZR18 Length: 4,245mm Width: 1,795mm Weight: 1,500kg 0-62mph: 4.3 sec Top speed: 180mph



#### **993 Carrera S** 1997-98



Top speed: 168mph Issue featured: 110

the Carrera Sare similar to the Carrera 4S's, only this time in rear-wheel drive. Sought after or its superb handling and wide-body looks.

\*\*\*\*

Production numbers: 3,714 Engine 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: 8x18-inch; 225/40/ZR18 Rear: 10x18-inch: 285/30/ZR18 Length: 4,245mm Width: 1.795mm

Weight: 1,450kg 0-62mph: 5.4 sec Top speed: 168mph Issue featured: n/a

#### **993** Turbo **S** 1998



The final hurrah for the last air cooled 911. With 450bhp for UK models, it was the fastest and most luxurious road going model Stuttgart had ever produced, Manual only

\*\*\*\*

Production numbers: 345 Engine 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: 8x18-inch; 225/40/18 Rear: 10x18-inch: 285/30/18 Length: 4,245mm Width: 1.795mm Weight: 1,583kg 0-62mph: 4.1sec Top speed: 186mph Issue featured: 115



#### 911 technology explained



#### The 'Weissach effect' axle

Active rear steering may be the 991's party trick, but Porsche has been trying to control rear toe for decades

While the 991 Turbo and GT3 may be the first Porsches to feature active rear wheel steering (with the system being explained in issue 116), neither model is the first to try and control the direction of the rear axle under load.

Throughout the Sixties, Seventies and Eighties, most of the cars rolling off of the Zuffenhausen production line featured semi-trailing arm rear suspension, whereby the two arms connected to each upright are mounted to the chassis via rubber bushes (to reduce vibration and road noise)

While the design is a cost-effective alternative to double wishbones, during any deceleration the car's body tries to pull away from the rear suspension. This causes the semi-trailing arm to deflect thanks to the elasticity in the rubber bushes, pushing the heavily loaded outer rear wheels into toe out. If this deceleration is caused by a mid-corner throttle lift, the ensuing toe out helps to destabilise the car, causing a rapid snap into oversteer

To overcome this, Porsche developed and patented the Weissach axle, a passive rear-wheel steering system that was fitted to the front-engined 928 grand tourer. Compared to a standard semi-trailing arm, the innermost mount was moved further towards the rear, with a third, pivoted linkage sitting between the foremost mount and the upright. This pivot reversed the direction of the wheels travel under deceleration, causing toe-in that helped to promote understeer.

While the Weissach axle was never implemented in a 911, the 964 featured a semi-trailing arm setup whereby the rear-most arm featured a more flexible connection than the forward arm. This made use of the lateral loads under cornering to induce 928-like toe-in.

This 'Weissach effect' was also created within the 993's multi-link rear suspension setup with the inclusion of a particularly elastic fifth link, although plans to include an electro-mechanical active steering system were tested before being scrapped due to their complexity

#### **996 Carrera** 1998-2001



estyled bodywork and a ater-cooled engine. Interio was redesigned in order to nable better ergonomic efficiency and more room

Production numbers: 56,733 Engine 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: 7x17-inch; 205/50/R17 Rear: 9x17-inch: 255/40/R17 Length: 4,430mm Width: 1.765mm Weight: 1,320kg 0-62mph: 5.2 sec Top speed: 174mph

#### **996** Carrera **4** 1998-2001



fed five per cent of power in normal driving, increasing to 40 per cent when required. SM used for first time, rolled out across the range in 2001.

Production numbers: 22,054 Engine capacity: 3,387c 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: 7x17-inch; 205/50/R17 Rear: 9x17-inch: 255/40/R17 Length: 4,430mm Width: 1.765mm Weight: 1,375kg 0-62mph: 5.2 sec Top speed: 174mph \*\*\*\* Issue featured: 111

**Gen2 996 C2** 2002-04

#### **996 GT3** 1998-2000



GT3 this was a lightweight 996 with power driving the rear wheels. Suspension was owered by 30mm and brakes were uprated.

Production numbers: 1,858 Engine capacity: 3,600cc Compression ratio: 11.7:1 Maximum power: 360bhp @ 7,200rpm Maximum torque: 370Nm@5,000rpm Brakes: Front: 330mm discs: Rear: 300mm discs Wheels & tyres: Front: 8x18-inch; 225/40/R18 Rear: 10x18-inch: 285/30/R18 Length: 4,430mm Width: 1.765mm Weight: 1,350kg 0-62mph: 4.8 sec Top speed: 188mph Issue featured: 99

Gen2 996 C4 2002-04



#### **996 GT2** 2001-03



Issue featured: 55

A lightweight, Turbobodied 996 with uprated turbocharged engine and uspension. PCCB wa standard, Revised ECU later gave an extra 21bhp

\*\*\*\*

Production numbers: 1.287 Engine capacity: 3,600cc Compression ratio: 9.4:1 Maximum power: 462bhp @ 5,700rpm Maximum torque: 620Nm@ 3.500-4.500rpm Brakes: Front: 350mm discs; Rear: 350mm discs Wheels & tyres: Front: 8x18-inch; 235/40/R18 Rear: 12x18-inch; 315/30/R18 Length: 4,450mm Width: 1,830mm Weight: 1.440kg 0-62mph: 4.1 sec Top speed: 196mph \*\*\*\* Issue featured: 108



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

Engine 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: 7x17-inch; 205/50/R17 Rear: 9x17-inch; 255/40/R17 Length: 4,430mm Width: 1,770mm Weight: 1.370kg 0-62mph: 5.0 s Top speed: 177mph \*\*\*\* Issue featured: n/a



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

Production numbers: 10,386 Engine capacity: 3,596cd 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: 7x17-inch; 205/50/R17 Rear: 9x17-inch; 255/40/R17 Length: 4,430mm Width: 1,770mm Weight: 1.430kg 0-62mph: 5.0 sec Top speed: 177mph Issue featured: 107



#### **996 GT3 RS** 2004-05



ame 3.600cc engine as in GT3, but with weight saving, offering 280bhp per ton – an improvement of four per cent over the 996 GT3 Clubsport CCB included as standard

Production numbers: 682 Engine 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: 8.5x18-inch; 235/40R18 Rear: 11x18-inch; 295/30R18 Length: 4,435mm Width: 1,770mm Weight: 1.360kg

\*\*\*\*

#### **996 Turbo S** 2004-05



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

Production numbers: 1.563 Engine capacity: 3,600cc Compression ratio: 9.4:1 Maximum power: 450bhp @ 5,700rpm Maximum torque: 620Nm@ 3,500-4,500rpm Brakes: Front: 350mm discs; Rear: 350mm discs **Wheels & tyres**: Front: 8x18-inch; 225/40/R18 Rear: 11x18-inch; 295/30/R18 Length: 4,435mm Width: 1,830mm Weight: 1,590kg 0-62mph: 4.2 sec



#### **997 Carrera** 2004-08



Fully revised 911 with 993-influenced bodywork and a new interior. Engine was like 996, but refined for more power. Six-speed Tiptronic

Production numbers: 25,788 Engine capacity: 3,596cc Compression ratio: 11.3:1 Maximum power: 325bhp @ 6,800rpm Maximum torque: 370Nm@ 4,250rpm Brakes: Front: 318mm discs; Rear: 299mm discs **Wheels & tyres**: Front: 8x18-inch; 235/40/R18 Rear: 10x18-inch; 265/40/R18 Length: 4.427mm Width: 1,808mm Weight: 1,395kg 0-62mph: 5.0 sec Top speed: 177mph Issue featured: 112



#### **997 Carrera 4S** 2005-08



0-62mph: 4.4 sec

Top speed: 190mph Issue featured: 107

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

Production numbers: 30,973 Engine capacity: 3.824cc Compression ratio: 11.8:1 Maximum power: 355bhp @ 6.600rpm Maximum torque: 400Nm@4,600rpm Brakes: Front: 330mm discs: Rear: 330mm discs Wheels & tyres: Front: 8x19-inch; 235/35/R19 Rear: 11x19-inch: 295/30/R19 Length: 4,427mm Width: 1.808mm Weight: 1,475kg 0-62mph: 4.8 sec Issue featured: 14



#### **997** Turbo 2005-10



Issue featured: 107

Top speed: 191mph Issue featured: 62

Similar to the 997 C4S body, but with extra intakes at the ront and sides. Essentially the 996 Turbo engine, but with allnew twin turbos. VTG gave the best of small and large turbos

Production numbers: 19,201 (up to 2008) Engine capacity: 3.600cc Compression ratio: 9.8:1 Maximum power: 480bhp @ 6.000rpm Maximum torque: 620Nm@1,950-5,000rpm Brakes: Front: 350mm discs: Rear: 350mm discs Wheels & tyres: Front: 8.5x19-inch; 235/35/R19 Rear: 11x19-inch; 305/30/R19 Length: 4,450mm Width: 1.852mm Weight: 1,585kg 0-62mph: 3.9 sec Top speed: 193mph



\*\*\*\*

#### 997 GT3 2006-07



Issue featured: 111

narrow-bodied Carrera with vorked 996 GT3 engine. PASM standard, revs to 8,400rpm, 200 higher than the Gen 2996 GT3.

Production numbers: 2,378 Engine capacity: 3,600cc Compression ratio: 12.0:1 Maximum power: 415bhp @ 7,600rpm Maximum torque: 405Nm @ 5,500rpm Brakes: Front: 380mm discs; Rear: 350mm discs Wheels & tyres: Front: 8.5x19-inch; 235/35/R19 Rear: 12x19-inch: 305/30/R19 Length: 4,445mm Width: 1.808mm Weight: 1,395kg 0-62mph: 4.3 sec Top speed: 192mph



#### **996 Turbo** 2001-05



Distinguished by wide rear arches air intakes and deen ront spoiler, plus part-fixed part-retractable spoiler. Different engine to naturally aspirated 3.6-litre 996 unit

Production numbers: 20,499 Engine capacity: 3,600cc Compression ratio: 9.4:1

Maximum power: 420bhp @ 6.000rpm Maximum torque: 560Nm@2,700-4,600rpm Brakes: Front: 330mm discs: Rear: 330mm discs Wheels & tyres: Front: 8x18-inch; 225/40/R18

Rear: 11x18-inch: 295/30R18 Length: 4,435mm Width: 1.830mm Weight: 1,590kg 0-62mph: 4.2 sec Top speed: 189mph Issue featured: 114



#### **996 Carrera 4S** 2001-05



Basically a Carrera 4 featuring a Turbo bodyshell, without rear air intakes, but with a full-width rear reflector panel. Suspension and brakes were similar to the Turbo spec.

Production numbers: 23,055 Engine capacity: 3,596cd 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: 8x18-inch; 225/40/R18 Rear: 11x18-inch: 296/30/R18

Length: 4,435mm Width: 1.830mm Weight: 1,495kg 0-62mph: 5.1 sec Top speed: 174mph Issue featured: 101



#### **996 Anniversary** 2003-04



Available in GT silver, and included a Turbo front bumper and chrome Carrera wheels. Powerkit, -10mm sports suspension and nechanical LSD standard

Production numbers: 1.963 Engine capacity: 3,596cc Compression ratio: 11.3:1 Maximum power: 345bhp@6,800rpm Maximum torque: 370Nm@4.800rpm Brakes: Front: 330mm discs; Rear: 330mm discs Wheels & tyres: Front: 8x18-inch; 225/40/R18 Rear: 10x18-inch; 285/30/R18 Length: 4,430mm Width: 1,770mm Weight: 1,370kg 0-62mph: 4.9 sec

**997 Carrera S** 2004-08



#### **Gen2 996 GT3** 2003-05



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

Production numbers: 2.313 Engine 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: 8.5x18-inch; 235/40/R18 Rear: 11x18-inch; 295/30/R18 Length: 4.435mm Width: 1,770mm Weight: 1,380kg 0-62mph: 4.5 s Top speed: 190mph



Top speed: 175mph

Issue featured: 112

As ner the 997 Carrera hut with more powerful 3.8-litre engine and PASM. 19-inch wheels as standard, with pigger venitlated brakes

Production numbers: 41.059 Engine capacity: 3,824cd Compression ratio: 11.8:1 Maximum power: 355bhp @ 6,600rpm Maximum torque: 400Nm@4,600rpm Brakes: Front: 330mm discs; Rear: 330mm discs **Wheels & tyres**: Front: 8x19-inch; 235/35/R19 Rear: 11x19-inch; 295/30/R19 Length: 4 427mm Width: 1,808mm

Weight: 1,420kg 0-62mph: 4.8 sec Top speed: 182mph Issue featured: 107



#### **997 Carrera 4** 2005-08



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

Engine capacity: 3,596cc Compression ratio: 11.3:1 Maximum power: 325bhp @ 6,800rpm Maximum torque: 370Nm@ 4,250rpm Brakes: Front: 318mm discs; Rear: 299mm discs **Wheels & tyres**: Front: 8x18-inch; 235/40/R18 Rear: 10x18-inch; 295/35/R18 Length: 4.427mm Width: 1,852mm Weight: 1,450kg 0-62mph: 5.1 sec Top speed: 174mph Issue featured: 3

Production numbers: 8.533



#### **997 GT3 RS** 2006-07



Similar to GT3, with inclusion of wider rear bodyshell of the Carrera S. 20kg of weight saved from GT3 thanks to carbon engine cover and rear wing, and plastic rear window

Production numbers: 1,106 Engine capacity: 3.600cc Compression ratio: 12.0:1 Maximum power: 415bhp @ 7,600rpm Maximum torque: 405Nm @ 5,500rpm Brakes: Front: 380mm discs: Rear: 350mm discs Wheels & tyres: Front: 8.5x19-inch; 235/35/R19 Rear: 12x19-inch: 305/30/R19 Length: 4,460mm

Width: 1.808mm Weight: 1,375kg 0-62mph: 4.2 sec Top speed: 194mph Issue featured: 110



#### **997 GT2** 2007-09



0-62mph: 3.7 sec

Issue featured: 31

Top speed: 204mph

Essentially the 997 Turbo, but with rear-wheel drive only. Enjoyed a more trackorientated suspension and brake setup, with GT3-style interior and extra power.

Engine 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: 8.5x19-inch; 235/35/ZR19 Rear: 9x11-inch: 305/30/ZR19 Length: 4,469mm Width: 1.852mm Weight: 1,440kg

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#### Gen2 997 C2 2008-12



ear lights and front driving ights. M97 engine replaced with a 91 DFI unit, using fewer parts (with no problematic ntermediate Shaft).

Production numbers: 10,500 Engine capacity: 3,614cd 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: 8x18-inch; 235/40/ZR18 Rear: 10.5x18-inch: 265/40/ZR18 Length: 4,435mm Width: 1.808mm Weight: 1,490kg 0-62mph: 4.9 sec Top speed: 180mph



#### Gen2 997 C2 S 2008-12



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

Production numbers: 15,000 Engine 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: 8x19-inch; 235/35/ZR19 Rear: 11x19-inch: 295/30/ZR19 Length: 4,435mm Width: 1.808mm

Weight: 1,500kg 0-62mph: 4.7 sec Top speed: 188mph Issue featured: 61



#### **Gen2 997 GT3 RS** 2009-12



Issue featured: 89

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.

Production numbers: 1.500 Engine 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: 9x19-inch; 245/35/ZR19 Rear: 12x19-inch; 325/30/ZR19 Length: 4,460mm Width: 1,852mm Weight: 1.370kg 0-62mph: 4.0s Top speed: 192mph Issue featured: 110



#### **997 Speedster** 2010



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

Production numbers: 356 Engine capacity: 3,800cc Compression ratio: 12.5:1 Maximum power: 408bhp @ 7,300rpm Maximum torque: 420Nm @ 4.400-5.600rpm Brakes: Front: 350mm discs; Rear: 350mm discs. Wheels & tyres: Front: 8.5x19-inch; 235/35/ZR19 Rear: 11x19-inch; 305/30/ZR19 Length: 4,440mm Width: 1,852mm Weight: 1.540kg

0-62mph: 4.4 sec Top speed: 190mph Issue featured: 69



#### **997 C2 GTS** 2010-12



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

Production numbers: Unknown Engine 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-inch; 235/35/19 Rear: 11x19-inch; 305/30/19 Length: 4,435mm Width: 1.852mm Weight: 1,420kg

0-60mph: 4.6 sec Top speed: 190mph Issue featured: 107



#### **997 C4 GTS** 2010-12



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

Production numbers: Unknown Engine 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-inch; 235/35/ZR19 Rear: 11x19-inch; 305/30/ZR19 Length: 4,435mm

Width: 1,852mm Weight: 1,555kg 0-62mph: 4.6 sec Top speed: 188mph Issue featured: 91



#### **991 Carrera 4S** 2012-



Issue featured: 111

Same wider body styling as Carrera 4, coupled to 3.8-litre 400bhp engine. Also features six-piston brake calipers at front, as opposed to four. PTV spread torque more evenly.

Production numbers: Currently in production Engine 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: 8.5x20-inch; 245/35/ZR20 Rear: 11x20-inch: 305/30/ZR20 Length: 4,491mm Width: 1.852mm Weight: 1,445kg 0-62mph: 4.5sec Top speed: 185mph



#### 991 GT3 2013-



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

Production numbers: Currently in production Engine capacity: 3.800cc Compression ratio: 12.9:1 Maximum power: 475hp @ 8,250rpm Maximum torque: 440Nm@6,250rpm Brakes: Front: 380mm discs: Rear: 380mm discs Wheels & tyres: Front: 9x20-inch; 245/35/ZR20 Rear: 12x20-inch: 305/30/ZR20 Length: 4,545mm Width: 1.852mm

Weight: 1,430kg 0-62mph: 3.5sec Top speed: 196mph Issue featured: 104



#### Gen2 997 C4 2008-12



Numerous engine and body changes as per the Carrera, but with a wider rear end plus full-width rear reflector. New all-wheel drive was initiated from the 997 Turbo.

Production numbers: 1,384 (Coupe)
Engine 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: 8x18-inch; 235/40/ZR18
Rear: 10.5x18-inch; 265/40/ZR18
Length: 4,435mm
Width: 1,852mm

Width: 1,852mm Weight: 1,545kg 0-62mph: 5.0 sec Top speed: 176mph Issue featured: 41



#### Gen2 997 C4S 2008-12



Bodywork as per C4, but with larger engine. Utilised the 997 Turbo's four-wheel drive and PTM. Viscous coupling gives way to electromagnetically controlled multi-plate clutch.

Production numbers: 7,910 (Coupe)
Engine 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: 8x19-inch; 235/30/ZR19
Rear: 11x19-inch; 295/30/ZR19
Length: 4,435mm

Length: 4,435mm Width: 1,852mm Weight: 1,555kg 0-62mph: 4.7 sec Top speed: 185mph Issue featured: 111

#### \*\*\*\*

#### Gen2 997 GT3 2009-12



Production numbers: 2,200

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

Engine 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: 8.5x19-inch; 235/35/ZR19 Rear: 12x19-inch; 305/30/ZR19 Length: 4,460mm Width: 1,808mm

Weight: 1,395kg 0-62mph: 4.1sec Top speed: 194mph Issue featured: 99

#### \*\*\*\*

#### Gen2 997 Turbo 2009-13



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

Production numbers: 3,800
Engine capacity: 3,800cccc
Compression ratio: 9.8:1
Maximum power: 500bhp @ 6,000rpm
Maximum torque: 650Nm @ 1,950-5,000rpm
Brakes: Front: 350mm discs; Rear: 350mm discs
Wheels & tyres: Front: 8.5x19-inch; 235/35/ZR19
Rear: 11x19-inch; 305/30/ZR19
Length: 4,450mm
Width: 1,852mm
Weight: 1,570kg

Width: 1,852mm Weight: 1,570kg 0-62mph: 3.4 sec Top speed: 194mph Issue featured: 90

#### \*\*\*\*

#### **997 Sport Classic 2010**



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

Production numbers: 250
Engine 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: 8,5x19-inch; 235/35/ZR19
Rear: 11x19-inch; 305/30/ZR19
Length: 4,435mm
Width: 1,852mm
Weight: 1,425kg
0-62mph: 4,6 sec

#### **997 GT3 RS 4.0** 2010



The engine was upgraded and aerodynamically tweaked too, with the angle of rear wing increased and dive planes on either side of the front nose. A future collectors' gem.

Production numbers: 600
Engine 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: 9x19-inch; 245/35/ZR19
Rear: 12x19-inch; 325/30/ZR19
Length: 4,460mm
Width: 1,852mm
Weight: 1,360kg
0-62mph: 3.5 sec
Top speed: 193mph
Issue featured: 115

#### **997 918 Edition 2010**



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

Production numbers: 918
Engine 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: 8,5x19-inch; 235/35/ZR19
Rear: 11x19-inch; 305/30/ZR19
Length: 4,435mm

Length: 4,435mm Width: 1,852mm Weight: 1,585kg 0-62mph: 3.3sec Top speed: 195mph Issue featured: 74

#### **997 GT2 RS** 2010-11



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

Production numbers: 500
Engine 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: 350mmdiscs
Wheels & tyres: Front: 9x19-inch; 245/35/ZR19
Rear: 12x19-inch; 325/30/ZR19
Length: 4,460mm
Width: 1,852mm
Weight: 1,370kg
0-62mph: 3,5 sec
Top speed: 205mph

#### **997** Turbo **S** 2011-13



Production numbers: 2.000

Top speed: 187mph

Issue featured: 57

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

\*\*\*\*

Engine 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: 8,5x19-inch; 235/35/ZR19 Rear: 11x19-inch; 305/30/ZR19 Length: 4,435mm Width: 1,852mm

Weight: 1,585kg 0-62mph: 3.3sec Top speed: 195mph Issue featured: 98



#### **991 Carrera** 2011-



First of the newest and latest Gen7 911, takes styling hues from 993. Redesigned chassis with lengthened wheelbase reduces overhang of engine.

Production numbers: Currently in production Engine 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: 8,5x19-inch; 235/40/ZR19 Rear: 11x19-inch; 285/35/ZR19 Length: 4,491mm Width: 1,808mm Weight: 1,380kg



#### **991 Carrera S** 2011-



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

\*\*\*\*

Production numbers: Currently in production
Engine 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: 8.5x20-inch; 245/35/ZR20
Rear: 11x20-inch; 295/30/ZR20
Length: 4,491mm
Width: 1,395kg
0-62mph: 4.5sec
Top speed: 188.9mph
Issue featured: 114

#### **991 Carrera 4** 2012-



Issue featured: 114

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

\*\*\*\*

Production numbers: Currently in production
Engine capacity: 3,436cc
Compression ratio: 12.5:1
Maximum power: 3500hp@7,400rpm
Maximum torque: 390Nm@5,600rpm
Brakes: Front: 330mm discs; Rear: 330mm discs
Wheels & Kyres: 8.5x19-inch; 235/40/ZR19
Rear: 11x19-inch;295/35/ZR19
Length: 4,491mm
Width: 1,852mm
Weight: 1,430kg
0-62mph: 4.9 sec
Top speed: 177mph
Issue featured: 98

#### **991 Turbo** 2013-



The new Turbo marks the introduction of rear axle steering, plus PDK-only transmission to forced induction 991 models. Rear fenders 28mm wider than C.4

Production numbers: Currently in production Engine capacity: 3,800cc Compression ratio: 9.8:1 Maximum power: 520hp @ 6,000-6,500rpm Maximum torque: 660Nm @ 1,950-5,000rpm Brakes: Front: 380mm discs; Rear: 380mm discs; Wheels & tyres: Front: 8.5x20-inch; 245/35/ZR20 Rear: 11x20-inch; 305/30/ZR20 Length: 4,506mm Width: 1,880mm

Width: 1,880mm Weight: 1,595kg 0-62mph: 3.4sec Top speed: 195mph Issue featured: 109



#### **991** Turbo **S** 2013-



Top speed: 197mph

Issue featured: 115

0-62mph: 4.8sec

Top speed: 179.6mph Issue featured: 83

Same dimensions as 991
Turbo, but with a tweaked map
to provide an extra 40hp. Usual
Turbo options as standard,
including centre-lock wheels,
PCCB. PDCC and Bose sound.

Production numbers: Currently in production Engine capacity: 3.800cc Compression ratio: 9.8:1 Maximum power: 560hp @ 6,500-6,750rpm Maximum torque: 700Nm @ 2,100-4,250 Brakes: Front: 410mm discs: Rear: 390mm discs: Wheels & tyres: Front: 9x20-inch; 245/35/ZR20 Rear: 11x20-inch; 305/30/ZR20 Length: 4.506mm Width: 1,880mm Weight: 1,605kg 0-62mph: 3.1sec



#### **991 Anniversary** 2013-14



Top speed: 188mph

Issue featured: 112

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

Production numbers: 1,963
Engine capacity: 3,800cc
Compression ratio: 12.5:1
Maximum power: 400bhp@7,400rpm
Maximum torque: 440Nm@5,500rpm
Brakes: Front: 340mm discs; Rear: 330mm discs.
Wheels & tyres: Front: 9x20-inch; 245/35/ZR20
Rear: 11.5x20-inch; 305/30/ZR20
Length: 4,491mm
Width: 1,852mm
Weight: 1,420kg
0-62mph: 4,5 sec



#### 991 GT3 RS 2015-





#### PORSCHE 997 - TURBO, C2S, TARGA, CARRERA

2010 - 997 GEN II TURBO COUPE PDK (BASALT BLACK) 20,000 Miles Sand Beige Leather Interior, PSM, PASM, PCM, Touchscreen Sat Nav, CD Changer, Sport Chrono Package, Three Spoke Multi Function Steering Wheel, White Dials, Porsche Vehicle Tracking System, Xenon Headlights, 19" Turbo Alloy Wheels (GEN II), Full Porsche Service History

2010 - 997 GEN II TURBO COUPE (CARRERA WHITE) 19,000 Miles Metropole Blue Leather Interior, Manual, PSM, PASM, PCM, Touchscreen Sat Nav, BOSE Surround Sound System, CD Changer, Xenon Headlights, 19" Turbo Alloy Wheels (GEN II), Full Porsche Service History

2007/56 - 997 TURBO COUPE MAN (GT SILVER) 26,000 Miles
Full Black Leather Interior, PSM, PASM, PCM, Sat Nav, BOSE Sound System,
CD Changer, Chrono Pack Plus, Xenon Headlights, 19" Turbo Alloy Wheels, Full
Porsche Service History.

2008 - 997 TURBO COUPE TIP S (BASALT BLACK) 19,000 Miles Black Leather Interior, PSM, PASM, PCM, Sat Nav, BOSE Sound System Porsche Crest Headrest, Xenon Headlights, Full Porsche Service History

2007 - 997 TURBO COUPE TIP (BASALT BLACK) 47,000 Miles
Black Leather Interior, Sports Chrono Package, PASM, PSM, PCM, Sat Nav,
White Dials, Porsche Crested Headrest, Traction Control, 19" Turbo Alloy Wheels

2010 - 997 GEN II C2S COUPE MAN (BASALT BLACK) 15,000 Miles Full Black Leather Interior, PSM, PASM, PCM, Touchscreen Sat Nav, White Dials, BOSE Surround System, Multi Function Steering Wheel, Xenon Headlights, 19" Split Trim Alloy Wheels, Full Porsche Service History

2007 - 997 TARGA 4 MANUAL (COBALT BLUE) 44,000 Miles Grey Leather Interior, PSM, PCM, Sat Nav, Rear Park Assist, 19" Split Rim Alloy Wheels, Full Service History (Just Been Serviced).

2007 - 997 CARRERA 2 COUPE MAN (METEOR GREY) 41,000 Miles Black Grey Leather Interior, PSM, PCM, Sat Nav, BOSE Sound System, Alcantara Headlining, 19" Carrera S Alloy Wheels, Full Service History.

#### PORSCHE 996 - TURBO

2005 - 996 TURBO "S" COUPE MAN (GT SILVER) 56,000 Miles Black Leather Interior, PSM, PCM, Sat Nav, BOSE Sound System, 4 CD Changer, Carbon Pack, Alcantara Headlining, 18" Turbo Alloy Wheels, Full Service History.

2003 - 996 TURBO COUPE MAN (POLAR SILVER) 70,000 Miles Dark Metropole Blue Leather Interior, PSM, PCM, Sat Nav, BOSE Sound System, Sunroof, Alcantara Headlining, 18" Turbo Alloy Wheels, Full Service History.

#### PORSCHE 993 - TURBO, C2S, C2, C4, CARRERA

1996 - 993 TURBO COUPE MAN (MIDNIGHT BLUE) 21,000 Miles Grey Leather Interior, Electric Windows, Electric Mirrors, Air Conditioning, Becker Radio Player, 18" Turbo Alloy Wheels, Full Main Dealer Service History.

1995 - 993 CARRERA COUPE MAN (BLACK METALLIC) 111,000 Miles Sand Beige Leather Interior, 6 Speed Manual, Sports Seats, Sunroof, Electric Windows, Electric Mirrors, Air Conditioning, 17" Alloy Wheels, Full Service History.

1997 - 993 C2S COUPE MAN (ARCTIC SILVER) 71,000 Miles Varioram, Metropole Blue Leather Interior, White Dials, Sony Single CD Player & Radio, Air Bag, Air Conditioning, Factory Fitted Alarm System, 18" Turbo Alloy Wheels, Turbo Spoiler, Fully Documented Service History.

1995 - 993 C2 COUPE MAN (IRISH BLUE METALLIC) 109,000 Miles Black Leather Interior, Porsche Immobiliser 9 UK Supplied Car (C16), Full Service History.

393-395 Hendon Way London NW4 3LP

1997 - 993 CARRERA 4 CAB MAN (MIDNIGHT BLUE) 92,000 Miles Marble Grey Leather Interior, Radio and CD Player, Mirrors, 17" Carrera 4 Alloy Wheels, Full Service His

1998 - 993 TURBO "S" COUPE MAN (SPEED YELLOW) 60,000 Miles Black Leather/Carbon Fibre Interior, Litronic Lights, Yellow Dials, CD Changer, Yellow Seat Belts And 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, Uprated Becker CD Player, Bluetooth, Speakers, Sat Nav, 18" Turbo Alloy Wheels, Official Porsche Centre Service History.

#### 1996 - 993 C2S COUPE (BLACK METALLIC) 80,000 Miles

1997 Model (registered 12.1996), Carrera 2S (Widebody Specification), 6 Speed, Varioram, Full Grey Leather Interior, Alpine Upgraded Stereo, Air Con, 18" Porsche Turbo S Alloy Wheels, Full Porsche Evrice History, Very Clean And Cherished Weekend Car. Extremely Detailed History, With Porsche Authenticity Certificate, And One Owner Since 2004.

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

#### 1995- 993 C2 COUPE MAN (MIDNIGHT BLUE) 99,000 Miles

Black Leather Interior, No Accident Damage, Clear Lenses, Porsche Immobiliser And Spare Keys, Recent Cosmetic Paintwork To Remove Stone Chips, Porsche Document Wallet And Manuals, Electric Spoiler, Porsche Inscribed Mats, Always Garaged, C16 UK Car, Very Nice Example In Excellent Condition.

#### 1994 - 993 C2 COUPE TIP (BLACK METALLIC) 73,000 Miles

Black Leather Interior, Kenwood CD Player And Radio, Sunroof, Rear Wiper, Electric Windows/ Mirror, Factory Fitted Alarm System, 17" Alloy Wheels, Full Main Dealer And Porsche Specialist Service History.

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

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

1987 - 930 TURBO COUPE MAN (BLACK METALLIC) 140,000 Miles Deep Plum Leather Interior, 3.3L Engine, KKK27 Turbo, Alcantara Headliner, High End Sound System, Bi-Xenon Lights, Original 16" Fuchs Alloys With New Continental N1 Tyres, Full Service History With Invoices And Photographs Documenting The Full Restoration. Concours Condition Throughout.

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

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

1987 - 911 CARRERA 3.2 CAB 1989 (G50 GEARBOX) 126,000 Miles Immaculate Blue Metallic Exterior, Full Marble Grey Interior, Matching Numbers Example, Matching Dark Blue Hood, Fully Electric Softtop, Period Correct Fuchs Alloy Wheels, Comprehensive Service History, Very Original Condition, 10 Years With The Same Owner, Kept With The Same Specialist For A Number Of Years.

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1973 - DAYTONA 365 GTB/4 RHD (ROSSO RED) 38,000 Miles Black/Red Leather Interior Red Carpets, Climate Control, "Ferra Continuous History, Superb Provenance, 3 Owners From New. "Ferrari Classiche". Full 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, 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, 18" Ferrari 355 Alloys, Full Service History, Recently Serviced, This Car Has Been Known To Us For A Period Of 5 Years.

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

#### LAMBORGHINI

#### 2011 - LAMBORGHINI GALLARDO (YELLOW) 9,700 Miles

Paddle Shift Gearbox (Automatic), Nero Leather Interior, Sat Nav, Crested Seats, Aluminium Dash Dials and Fascia Trims, Tracker Fitted, Bi-Xenon Headlights, 19° Lamborghini Crested Alloy Wheels with Yellow Calligers, Full Official Lamborghini Service History, Recently Serviced, New Lamborghini Pirelli Tyres Fitted.

#### CLASSICS - AC, PORSCHE, JAGUAR, BENTLEY

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

1964 - PORSCHE 356 SUPER 90 COUPE LHD (SIGNAL RED) cc Signal Red Coachwork, Soft Beige Leather Interior, 4 Speed Manual, ent Restoration To Concours Standard, Eligible For Many European Events.

1958 - PORSCHE 356 A COUPE 1600cc (SILVER) 73,000 Miles Silver Coachwork, Green Leather Seats, Sunroof, 15" Wheels, Superbly Restored, Concours Condition.

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 Concours Standard.

#### 1962 - JAGUAR 'E' TYPE ROADSTER 3.8

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

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

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#### 1998 - FIAT BARCHETTA CONVERTIBLE MAN 51,000 Miles

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356B Roadster (4-Speed) Jet Black • Red Leather Seats • 15" Wheels with Chrome Hubcaps • Fully Restored • Matching Numbers Example • 1960



356A Coupe (4-Speed) Fashion Grey • Red Leather Seats • 15" Wheels with Chrome Hubcaps • Original Right Hand Drive UK Supplied • 1959



911 Turbo (993, 6-Speed) Polar Silver • Black Leather Sport Seats • Electric Sunroof • Air Conditioning • 55,549 miles



911 Turbo S (997 GEN II, PDK) 19" Turbo II Wheels • Sport Chrono Pack with Sport Plus • 18,124 miles • 2010 (60)



911 Carrera 2 S (991, PDK) Guards Red • Black Leather Sport Seats Plus Touchscreen Satellite Navigation • 20" Sport Design Wheels • 6,180 miles • 2012 (62)



911 Carrera 2 S (991, PDK) Carrara White • Black Leather Sport Seats 20" Carrera 'S' III Wheels • Sport Chrono Pack 7.507 miles • 2012 (12)



911 Carrera 4 GTS (997 GEN II, PDK) 19" Centre Lock Wheels • Touchscreen Satellite Navigation • 10,665 miles • 2012 (62)



911 Carrera 2 GTS (997, 6-Speed) Basalt Black • Black Leather Sport Seats 19" Centre Lock Wheels • Touchscreen Satellite Navigation • 20,598 miles • 2011 (11)



911 Carrera 2 S (997 GEN II, PDK) Meteor Grey • Black Leather Seats • 19" Carrera Sport Wheels • Touchscreen Satellite Navigation 49,836 miles • 2010 (10)



Cayenne Diesel (Tiptronic S) Turbo Wheels • Touchscreen Satellite Navigation 55,233 miles • 2010 (10)



911 Carrera 4 S (996, 6-Speed) Navigation • 18" Turbo II Wheels • 76,353 miles



911 Carrera 2 (996, 6-Speed) Navigation • 18" Carrera Wheels • 49,183 miles 2002 (52)

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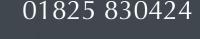


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996 Turbo Cab 3.6 "X50" (2004 - 54) Seal Grey with Black Leather, Sat Nav, 62k



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997 "2S" 3.8 Gen 2 PDK (2009 - 09)
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£45.00



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Sports Steering Assist 19" Turbo Alloys Rear Park

2005 997 C2S TIPTRONIC

eather interior 40,000 miles

Electric Sunroof Alloys



#### 2001 996 CARRERA 4 **COUPE 3.4 MANUAL**

Lapis Blue metallic with Metropole Blue Leather interior 85,000 miles Engine Rebuild Bluetooth Stereo

Leather Seats	Onboard
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with DSP	Compi

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MANUAL



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Cruise Control 19" 7 Spoke Alloys

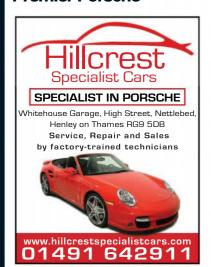


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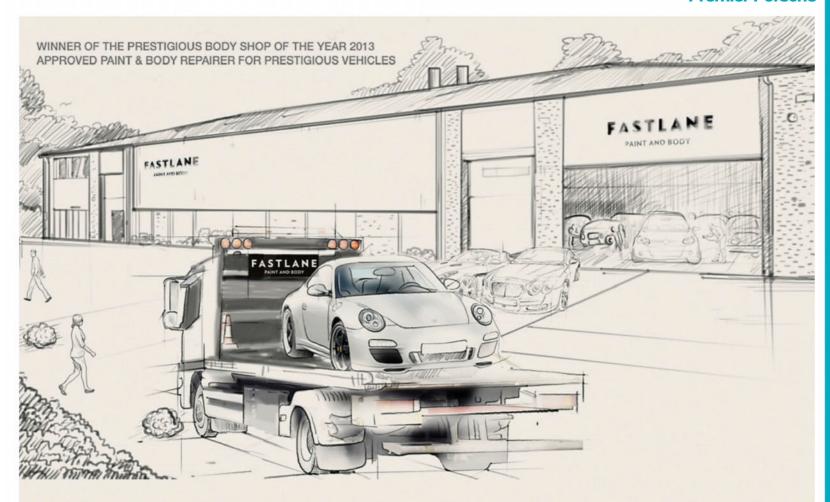


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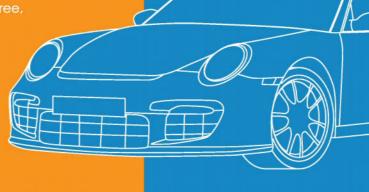


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In the world's only magazine dedicated to the iconic Porsche 911





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We lift the lid and reveal all on the kinematics behind the two open-top 991s



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Issue 119 available to buy & download from 8 October

Contents may be subject to change



#### Essential info

LOCATION: Schloss Solitude, Stuttgart LATITUDE: 48.7869° N, 9.0842° E



#### LENGTH OF DRIVE:

12 kilometres

#### POINTS OF INTEREST:

Porsche Museum, Porscheplatz; Schloss Solitude

#### FOOD AND ACCOMMODATION:

Christophorus, Porsche Museum Porsche.com/museum

#### Collecting your new 911 from the factory? A dash up to Schloss Solitude makes for a perfect amuse bouche in running in that flat six

ou've just been given the keys to your new 911 from the factory at Porscheplatz, and want to find the nearest great road to exert your new flat six on. Fortunately, there's an entertaining route not ten minutes from Zuffenhausen, situated to the west of Stuttgart's perimeter. In fact, the PR clerks at Porsche AG will be well versed in attacking the series of twists and turns on the way up the route in question, as the Castle Solitude at the top is the oft-used location for pictures accompanying a new Porsche press release.

Begin your journey by leaving the factory and turning left (remember, you're driving on the other side of the

road, so you will need to go all the way round the roundabout from the right). You'll quickly want to leave the Stuttgart traffic behind, so join the B295 for a few short minutes after heading out of Zuffenhausen. Turning off at Wolfbusch after 4.5 kilometres, you need to turn left again at the crossroads onto Solitudestrasse. This is where the fun begins. The single carriageway tracks straight forward for a mile to the start of a steep descent up a high plain, with Castle Schloss clearly visible at the summit of the horizon ahead.

Beginning the ascent as you leave the town of Wolfbusch behind you, you'll be greeted with a series of tight left-right-left turns winding up the hill – good for eking out the revs in second gear in a 991. Some corners allow you to hold the gear for longer, which will most likely make for the first time you hear the bark of that magical flat-six engine filling the leafy environment around you.

Once you reach the castle at the top, the road opens out, where there's ample room to turn around and attempt the hill's twists again.

Alternatively, you can stop and admire the views over the town of Leonberg (home of TechArt and Gemballa) and take some picturesque 'PR' shots of your own, before climbing back in that 911 and continuing the repatriation back home. A word of warning, though: avoid the route during rush hour, as the hill is susceptible to being choked by commuters.



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