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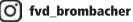
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Manualist Bennett rejoices at the return of the self-

Manualist, Bennett, rejoices at the return of the selfshifting option for the 911, albeit on Porsche's terms

Fast forward to the News pages and you will see that the manual gearbox is back for the 911. That's the long-awaited option of a manual 'box. The story goes that it will be available in the US first and will then filter through to other markets. Oh, and it will only be available on the Carrera S models and as a no-cost option. Well, I suppose we manualists should be grateful for the crumbs, but it does put paid to the notion of a manual, base model 911, also known as 'journo spec!' Although if Porsche does decide to build a 911T based on the 992, I would hazard a guess that they would surely option it with a manual 'box.

But why does it matter, and why do we bang on about it so much? And does anyone really care, apart from motoring journalists and a tiny fraction of buyers? Well, it matters because the manual gearbox is about control and interaction and

An auto is an auto. It does it for you, it's black or white, up or down

if you really enjoy driving, then that matters.

I don't claim to be some sort of master of the manual, but I could happily bang on about gearboxes that I have known, from a four-speed Ford Rocket 'box to a Getrag G50 and plenty in between (915 anybody?). That might sound slightly weird, but I certainly couldn't tell you much about the autos that I've driven over the years. An auto is an auto. It does it for you, it's black and white, up or down. Sure, they've got faster and they're not as slushy, which is impressive, and they've got a million ratios, but they've got no soul, no skill required or coordination. Driving a Porsche should be an immersive experience. We've been robbed of steering feel in the name of economy and packaging. Throttle response is blunted by fly-by-wire and turbos, even a handbrake is a thing of the past (amazing how you miss them). The manual gerarbox is the last piece of direct mechanical communication we have. That's why it's important.











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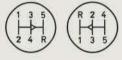
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ALL THE PORSCHE NEWS AND VIEWS

Stillborn F1 engine project could power Porsche's hypercar of the future * Manual gearbox returns for the 992 * Fassbender goes racing * Special edition

Cayman GT4 * Porsche ponders post car future



PORSCHE PREPS F1-STYLE POWERTRAIN FOR NEW HYPERCAR

Follow-up to the 918 Spyder to be petrol-electric, not pure EV

Is this the next Porsche hypercar and the successor to the stunning 918 Spyder? Officially, no. These are mere renders. But Porsche's chairman Oliver Blume spoke earlier this year of plans to produce a follow up to the 918 and now further details of Porsche's next hypercar have emerged including an F1-derived powertrain.

That's right, according to sources inside Porsche, Formula One power is on the cards for its next ultimate sports car. If that seems unlikely given Porsche doesn't participate in F1, cast your minds back to late 2017 when we brought you news that Porsche was evaluating a tilt at the world's premiere motorsport category as an engine supplier, possibly partnered with Williams.

Porsche ultimately decided against that particular adventure in favour of the arguably more forward looking Formula E series. But work had already begun on a powertrain compatible with F1's current rules, which involve a petrol-electric hybrid system based around a 1.6-litre turbo V6. It's that very powertrain Porsche insiders indicate is being developed for this new road-going application. Putting an F1 powertrain into a road car is, of course, a huge technical challenge, even in the context of the series' prevailing rules which put a premium on longevity and reliability. But if Porsche does indeed take this route, it will likely be beaten to market by Mercedes with its AMG One hypercar, which is also due to harness F1 power for the road.

Allegedly, Porsche's F1 unit originally started as a 2.0-litre engine designed to replace its V4 Le Mans engine from the 919 Hybrid, only to switch to 1.6-litres when F1 became the target. The engine







has thus been in development in some form for at least two years. Earlier this year, Porsche's motorsport boss Fritz Enzinger revealed a team of 40 engineers had been working on the project, which he said was, "not only on paper but also hardware." In other words, actual working engines rather than just computer designs, have been created. The engine is, "complete and running on the test bench," Enzinger says.

Of course, if that much is known, there's no word on the powertrain's detailed specifications. It's hard to imagine it won't be significantly more powerful than the 918 Spyder, however. That car developed a total system power of 887 metric horsepower or around 875bhp from a 4.6-litre atmospheric V8 and a pair of electric motors. With the 918 acting as a metaphorical backstop, the new car will surely develop somewhere north of 1000hp.

Moreover, if history provides any kind of yardstick, then the new hypercar will probably crank out at least 1250hp. After all, if you take the step from the 612PS Carrera GT to the 887PS 919 Spyder as a guide, then expectations of at absolute minimum several hundred additional horsepower follow. What's more, with several electric hypercars like the Rimac C_Two offering up to 2000hp, the market has moved on dramatically even since the 918 appeared in late 2013. Likewise, without the limitations imposed by F1 rules, Porsche is free to utilise a much more powerful electric motor and a larger battery to boost performance.

Of course, there's plenty of form at Porsche when it comes to competition engines in street cars. The modern 911 GT models have typically used race-derived engines, starting with the hallowed Mezger unit. But the Carrera GT offers an even closer parallel. That car's 5.7-litre V10 was originally intended for a Le Mans racer. But just like Porsche's more recent F1 flirtation, the project was cancelled before it ever hit the race track only for the engine to be reborn in the Carrera GT. Arguably the most surprising thing about all this is not the F1 powertrain but that Porsche isn't going pure electric. After all, Porsche is making a major push towards electrification generally, has launched its first EV in the Taycan and is expected to replace the 718 twins with an electric sports car around 2023.

The problem is the size and weight of existing lithium-based battery technology. Porsche doesn't think it's good enough for a pure-electric hypercar. Porsche's sports cars boss, Frank Walliser, says that current EV tech is great for acceleration times, but less optimal for handling, usability and repeatable performance. "I don't think that would work with technology at its current state," Walliser says of a pure-electric hypercar.

The final question is that of launch timing. You won't get a word out of Porsche on the matter officially, but the car is likely several years away. It was 10 years between the launch of the Carrera GT and the 918 Spyder. If that's repeated, expect an F1-powered hyper-Porsche around 2023.



MANUAL GEARBOX FOR LATEST 911 CARRERA

Only in the USA, for now

Porsche has announced the availability of a seven-speed manual gearbox for the latest Type-992 iteration of the iconic 911 Carrera. However, the new transmission option is only being offered in the USA. What's more, Porsche has reserved DIY shifting for the Carrera S model. The manual transmission is not being offered for the base Carrera.

Speaking to 911&Porsche World, Porsche GB said the manual gearbox would indeed be coming to the UK and other European markets but declined to specify when. Intriguingly, in the USA the manual option is described as attracting 'no additional charge'. The manual gearbox has always previously been the base configuration for the 911 Carrera and thus effectively attracted no additional cost. But in the past, Porsche has charged extra for any automatic option, be that Tiptronic or PDK. Now both manual and PDK transmissions are simply same-price options. More specifically, Porsche says the seven-speed manual comes paired with a standard Sport Chrono Package. That includes Dynamic Drivetrain Mounts, PSM Sport Mode, auto rev-match function and the mode switch on the steering wheel, the latter allowing the driver to select between Normal, Sport, Sport Plus and the customisable Individual mode. Sport Chrono is a £1646 option on the Carrera S with PDK, which goes some way to justifying the price parity.

As on the previous generation 911 Carrera S and 4S models, the manual transmission versions come with a standard mechanical limited-slip differential including Porsche Torque Vectoring (PTV), replacing the fully variable, electronically controlled limited slip differential that is standard on the models equipped with PDK.

As for performance, Porsche says the Carrera S fitted with the manual gearbox gets to 60mph in 'around' four seconds and hits over 190mph. The manual Carrera S weighs in at 1495kg. For the record, the Carrera S with the PDK box and Sport Chrono hits 62mph in precisely 3.5 seconds and goes on to 191mph. It also weighs 1515kg, and so going with the manual option makes for a 15kg weight saving over the PDK car.

Porsche says the manual option can be ordered now in the USA, with deliveries expected in the spring. Porsche GB would not confirm specifics, but said the offering in the UK would be 'consistent' with that in the US. So, expect manual to be a 'no cost' option and likewise to be restricted to the Carrera S.

911 manualists rejoice, the 'box is back. But only if you live in America, and only if you spec it on a 992 Carrera S

OUR TAKE

PORSCHE'S MANUAL MACHINATIONS

At last, the latest 911 Carrera can be had with a manual gearbox. Except, you can only have it with the Carrera S, not the base Carrera. And for the time being it's only available in the USA, although it will be coming to the UK eventually.

Meanwhile, Porsche now wants to charge you as much money for a conventional manual transmission as it does for the complex, robotic PDK gearbox. OK, Porsche is chucking in Sport Chrono with the manual 'box, an option that normally costs

you £1646 on the Carrera S. But apart from the dynamic engine mounts that come with Sport Chrono, that mostly amounts to a few lines of code for more aggressive mapping options.

At the same time, models like the latest 911 Speedster, admittedly based on the previous-gen 911, are available exclusively with a manual gearbox. Likewise the latest 718 GT4 and Spyder models, though PDK will supposedly be coming for those mid-engine twins.

Observed in the round and especially considering that the base Carrera isn't getting the manual gearbox, it looks like Porsche is increasingly positioning manual as a premium option. Assuming Porsche's combustion cars survive in general for a fair few more years, it wouldn't be a huge surprise to find that manual makes the next step from 'no cost' option to something that actually attracts a surcharge.

In many ways, that makes sense. The vast majority of customers already choose PDK when given the option. A preference for manual is pretty much the reserve of a certain narrow breed of purists. They're arguably the type of driving enthusiast who would pay a premium if required. So, why not charge them more? The only snag involves low-end 718 models. It's tricky to pitch manual as something premium and exotic while you're fitting it to poverty-spec 718s as standard.

But then the 718 is apparently not long for this world. Roughly three years from now it is expected to be replaced by a pure electric sports car and the problem of manual market positioning will disappear along with the 718's combustion engine. At which point, Porsche will have carte blanche to pitch manual however it likes.

Once, naturally aspirated engines were the norm, turbo engines the premium option at Porsche. Now everything's turbocharged bar a few low-volume, big-ticket specials. Odds are, manual gearboxes are heading the same way.



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ACTOR MICHAEL FASSBENDER TAKES ON LE MANS WITH PORSCHE His racing exploits recorded for posterity on YouTube

"I've just always felt drawn to going fast into a corner – and fast out – and just naturally felt connected to it. And now I want to go to the ultimate place." So says Hollywood actor Michael Fassbender of his ambitious attempt to race at Le Mans, which is currently being chronicled on YouTube.

If that sounds improbable, the Irish actor has won behind the wheel of a Ferrari 488 Challenge in the Daytona Ferrari Challenge series in the US. What's more, Fassbender, whose screen credits include antihero Magneto from the X-Men universe, has none other than Porsche guiding his route to Circuit de la Sarthe.

The whole thing is being recorded for posterity by Porsche and showcased on its official YouTube channel. The first season has already begun and it shows Fassbender undergoing intensive training courtesy of the Porsche Super Sports Cup series in Germany, where he's behind the wheel of a 911 GT3 Cup car for the Porsche-affiliated Manthey Racing Team. Fassbender's racing career began in late 2016 when he began training for the Ferrari Challenge. He reportedly scored a podium at his first race. In his second season, he upped the ante to one win and five podiums out of 11 races.

The first few episodes of Michael Fassbender: Road to Le Mans are compelling viewing, with Fassbender falling off the track, crashing into competitors and generally looking out of his depth in what is presumably a more competitive series than the Ferrari Challenge, albeit the footage is no doubt edited to up the drama. The content is surprisingly gritty and candid, given it's on Porsche's official channel, with Fassbender unloading numerous expletives and the sense of scrutiny highly elevated.

"I think it's the history of the place. I think it's the drivers that crashed there, or competed there, or won there. To be a part of that would be, you know, unbelievable," Fassbender says of Le Mans.

Multiple series of his exploits are implied, but it's not clear whether the aim is an assault on Le Mans in 2020 or beyond. It may be the case that the precise timing of his Le Mans debut depends on his progress in the Super Sports Cup. However, Fassbender is seen in an early episode test driving the 911 RSR that he will presumably be campaigning at Le Mans. What we can say for sure is that the production is very high quality and authentic. A must watch, we reckon, regardless of whether you are a fan of the actor himself. Actor, Michael Fassbender, following in the tracks of McQueen and Newman and aiming for a Le Mans assault in 2020

PORSCHE UNLEASHES LIMITED EDITION 718 CAYMAN GT4

But it's only for Germany

We all love a special edition Porsche. But it's even better when it's a special edition based on an already limited access model. Enter the new 718 Cayman GT4 Sports Cup Edition.

Porsche says the 'sporty and exclusive' model celebrated its premiere as part of a special event for Porsche fans at the Hockenheimring on 12 October, 2019. Part of a larger 'Sportscar Together Day' event, with the new GT4 derivative Porsche is celebrating both the opening of the new Porsche Experience Centre Hockenheimring and the season finale of the Porsche Sports Cup. The 718 Cayman GT4 Sports Cup Edition is available for a limited period from October 2019 but exclusively from the 88 German Porsche Centres.

The GT4 Sports Cup Edition is offered only in Black and White with multiple red highlights to provide a distinctive contrast and underline the motor sports design. On the driver's side, a red double stripe with Porsche branding extends over the entire vehicle. This is complemented by a red Porsche logotype on the rear wing. Its supports are painted in Guards Red.

A red stripe with integrated '15' numbering also decorates the side view. It's styled to mimic a race number and refers to the anniversary of the Porsche Sports Cup, now in its 15th year. The 20-inch wheels are painted black (satin gloss), while the rim flange is finished in Guards Red. The brake calipers and badging on the rear are in black.

Based on a black leather and Alcantara interior, various highlights in red also create a link to motorsport in the cabin. Along with decorative stitching on the dashboard and door panels, the seat belts and door opener loops are also in Guards Red.

A red centre panel made of Alcantara distinguishes the driver's seat from the passenger seat. Other features include the Alcantara steering wheel with red 12 o'clock marking and the black gear lever with red shift pattern. The trim elements in the doors, dashboard and centre console are finished in black brushed aluminium.

The decorative trim on the passenger's side and the door entry guard made of carbon bear the lettering '718 Cayman GT4 Sports Cup Edition', while the centre console armrest is made of Alcantara and features an embossed 'Porsche 15 Jahre Sports Cup Deutschland' logo. The package is completed by individual floor mats with leather border in black and Guards Red stitching as well as the steering column trim in Alcantara. All very appealing and a pity it won't be available in the UK.



It's a special edition of a special edition. The 718 Cayman GT4 based 'Sports Cup Edition,'will be available in Germany only



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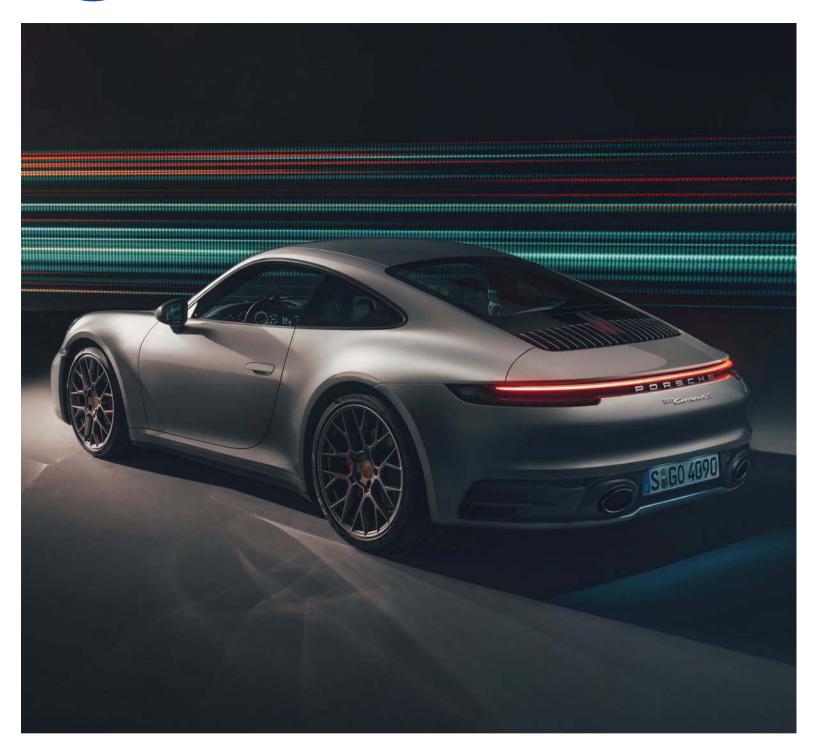
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PORSCHE PONDERS POST-CAR FUTURE

But sales revenues from cars are up...

Porsche is looking to a future where its customers don't necessarily buy cars. The reason why? Whether it's the quest to reduce emissions, driverless pods or just ride sharing, the biggest trends in personal transport all point in the same direction, and that's away from private car ownership. Porsche, put simply, needs to respond.

"Cities want to reduce traffic, therefore we have to look for solutions which fit our brand. Shared mobility is not enough – it will not bring us significant profit share," Porsche's finance and IT boss Lutz Meschke revealed recently. "If you want to get a piece of the cake, you have to think about investments in other brands or in traffic solutions. Just to talk about Porsche cars to get the right fit for future mobility, that's not enough. We must think about investments, starts-ups, to get profitability in other businesses," he says.

"Today our customers are willing to buy two, three, four Porsches, but in future, maybe they will buy one or two and for mobility in cities, they will use other services. We have to think about business models that can balance these potential losses," Meschke explains. But how will it all work in practice for Porsche? The company already runs a car subscription service in a few cities in the USA and plans to roll the service out to cities in Europe and Asia over the next two years, or so. But Meschke reckons that's merely a good starting point.

Meschke doesn't give any details but says that the solution for Porsche to maintain revenues will not involve selling cars. One day, most of Porsche's profits, he predicts, will come from something other than cars. If that is ultimately inevitable, it's also slightly shocking to hear a Porsche executive saying it here in 2019.

That's true not least because Porsche has just set a new record for revenues courtesy of, yes, selling cars. In the first nine months of 2019, Porsche AG once again increased its sales revenue, operating profit, deliveries and number of employees.

Sales revenue grew by seven per cent to 20.49 billion euros compared with the same period in 2018. Deliveries grew by three per cent, with over 202,318 Porsches finding homes by the end of September. During 2019, Porsche's workforce also increased by seven per cent to 34,675 employees.

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TIME TO CHANGE UP

A product inspired by something reimagined? Give it up for Stuttgart Classica's new gearshift kit for 993 and 964 models. It replicates the look of the shift in Singer's megabucks '911 reimagined' restomods. But these are no cheap knock offs. The stick itself is hewn from aircraft-grade steel and it's topped with a CNC-lathed and hard black anodised aluminium billet gear knob. The rubber boot, meanwhile, is a genuine Porsche item and the whole shebang is finished off with a high quality injection moulded ABS plastic trim insert. You can acquire the entire ensemble for £495 plus VAT from stuttgartclassica.co.uk. Or you can grab the surround for £148 plus VAT and the surround and gaiter for £195 plus VAT. Shipping is free for the UK and from £30 for worldwide orders.



QUACK QUACK

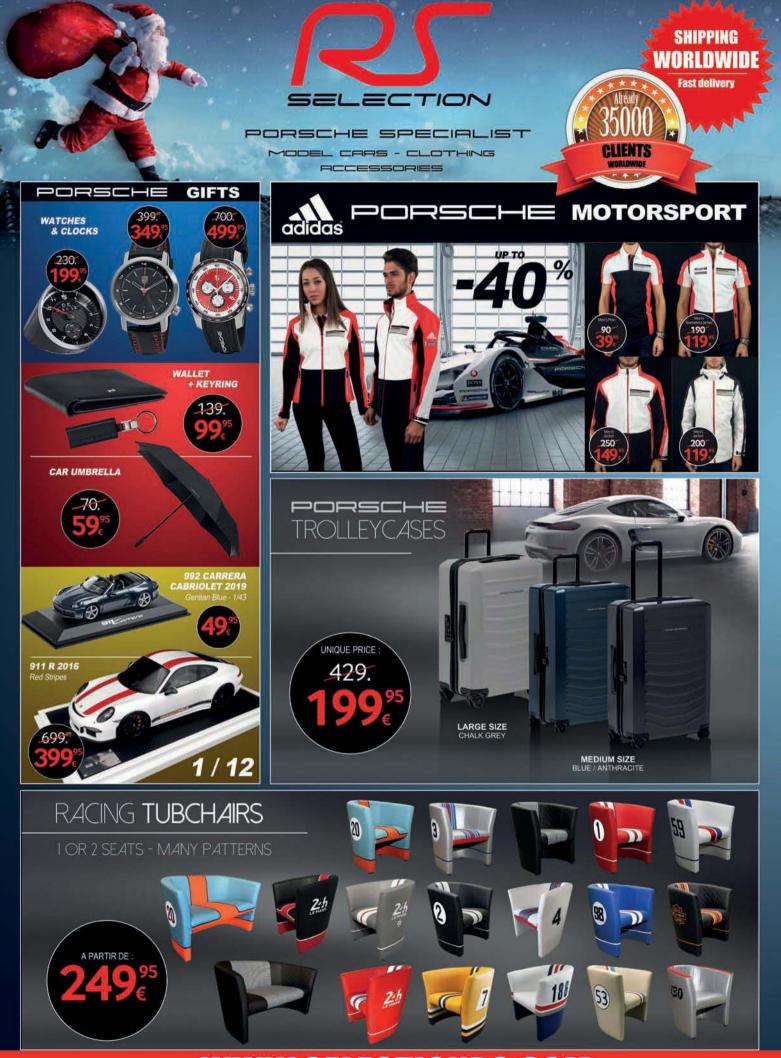
With later models reverting to more traditional styling cues, including round headlights, the 996 is in many ways the most modernist of 911s. But it still looks great with a ducktail spoiler. If you agree, Stuttgart Classica can sort you out with its new ducktail designed for narrow body 996s. The standard version is based on a glassfibre weave, however Stuttgart Classica also offer Kevlar and carbon-fibre options. The ducktail is likewise available both with and without a third brake light. If you're an air-cooled owner, don't despair, Stuttgart Classica makes ducktails to suit a wide range of models, including '1973 RS' style for pre-impact bumper cars, 964 and 993 versions and its Singer DLS-style option. The 996 'tail in glassfibre kicks off at £845 plus VAT from stuttgart-classica.co.uk.



OHLINS FOR AIR-COOLED

We're familiar with Ohlins' tasty coilover kits. They're perhaps best known in a watercooled context, though we've caught wind of air-cooled compatible kits before. But nothing this comprehensive. Not even close. Stuttgart Classica is now offering this complete Ohlins-based suspension system for air-cooled 911s. The list of components is enormous. But potted highlights include the obligatory struts and springs, in this case with threaded RSR-style front struts, plus top mounts, bump steer kit, torsion bearings, spacers, lock rings and a rear shock tower reinforcement kit. Oh, and the price? Unfortunately, the sordid matter of money cannot be avoided and the asking here is £8995. Quality, as they say, doesn't come cheap, even from **stuttgart-classica.co.uk**.





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LIGHTING UP

In most ways, the appeal of an air-cooled 911 is because it's old and, well, objectively a bit crap. Make it modern and competent and what you gain in ability you lose in character and charm. Up to a point, at least. One area where most would agree there are improvements to be had at no cost to character involves lighting. There's nothing terribly charming about not being able to see the road ahead. Enter Rennline's LED headlight conversion kit. It's available for air-cooled 911s from 1965 right up until 1994 and in a variety of styles from either the classic or updated hot rod look. The lights are said to require a simple 10 minute installation and all necessary accessories are included with prices from \$1250 plus taxes and shipping or ballpark £950 in old money from **rennline.com**.





WHAT A TOOL

Lost tool bags are standard fare in the world of classic cars. Like a lot of original kit, you could also make an argument that the quality of the period pieces is sub-par by modern standards. Enter Porsche Classic's newly developed tool bags. Initially offered for 356s, the range has been expanded to include 914, 912 and 911 G models. The design and materials have been upgraded, but the tools themselves are manufactured by the original supplier. Where the tools used to be tucked away loosely in compartments and prone to slipping out, they're now perfectly secured in allocated slots. By way of example, the 356 tool bag is priced at around £485 in the UK and \$510 Stateside. Head for www.porsche.com and select Porsche Classic from the Services & Accessories menu to find out more.



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Porsche's classic tractors have a certain esoteric appeal to serious fans of the marque. If that sounds like you, get a load of this quirky advent calendar, an official Porsche product. The idea is simple enough. Instead of 24 chocolatey treats hidden behind pop-out windows, the calendar contains precisely that many boxes, each enclosing part of the tractor. They snap and screw together to create a detailed 1:42 scale model of none other than the 1962 Porsche Master 419, otherwise known as the 'Red Nose'. The kit even includes a sound module enabling you to 'start' the engine at the touch of a button (AA batteries not included). An accompanying book with information and instructions is also thrown in. Grab it just in time for Christmas for the tempting price of £39.95 from **design911.co.uk**.



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HEY, 'OMBRE...

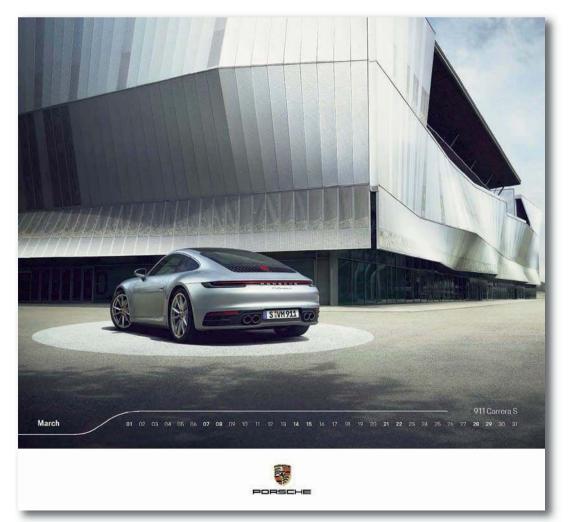
May we present the new Ombre Light Weight Blouson jacket from the official Porsche shop. In simple terms it's a water-repellent bomber. But this is a Porsche product so there's much more to it than that. Highlights start with sandwich quilting in an exclusive racing-inspired chevron pattern and filled with Freudenberg Comfortemp synthetic hollow fibres, which efficiently trap air to

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CLEARLY A GOOD YEAR

Resistance is futile. The years just keep sailing on by. With 2020 upon us, why not track the next 12 months courtesy of the new official Porsche calendar. In total, 13 images showcase Porsche's latest and greatest. Porsche says the pictorial elements in the paint colours of the vehicles are incorporated into the puristic backgrounds. The moods of the locations are likewise said to reflect the individual character of the vehicles and show how multifaceted sports car fascination can be. In other words, the cars mirror their surroundings. Or vice versa. Anywho, the Porsche calendar is also available as a practical app with various calendar functions via both Apple App Store and Google Play. The calendar itself is yours for €39.95 or £35 from selectionrs.com.



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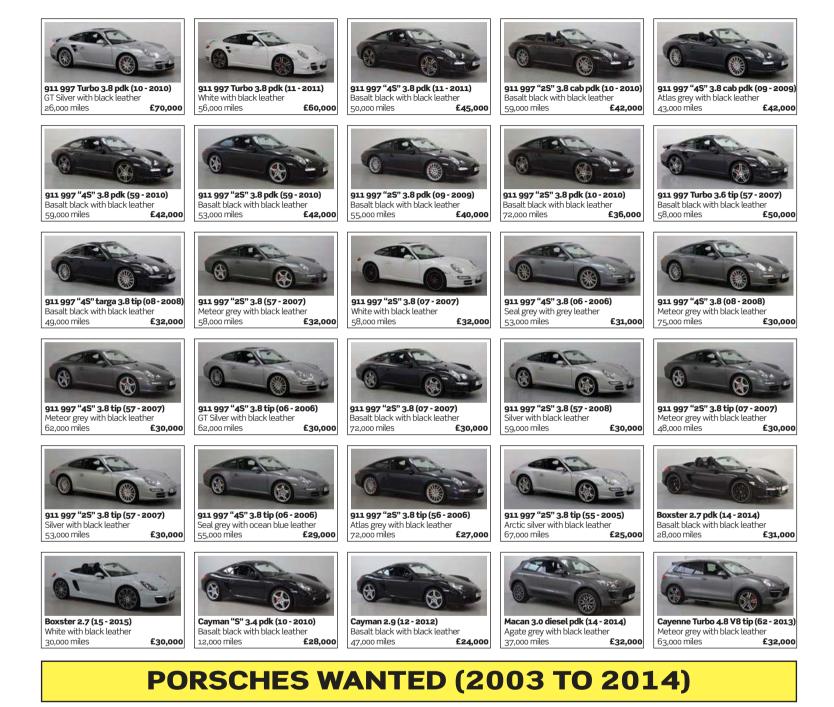




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THE KIDS DON'T CARE

We are going through climatic, not to mention dramatic times, which bring up all sorts of questions and future projections. The whole future of the car and what it will be powered by, is just one.

Electric is clearly some sort of future, diesel is clearly dead and the notion of banning petrol engines, or the manufacture of, by some predetermined date is clearly just political posturing. Anyone that really knows the score knows that all power sources will be rubbing along together for some time yet.

Porsche is talking about an all-electric future, with the internal combustion engine reserved for the GT cars and super specials. I don't really care one way or the other. I've got my old Porsche in the garage and, at my age, always will. I may go electric in the future, with some sort of runabout.

Porsche's traditional demographic is old farts like me and probably like the people who read this magazine and – no offence – the people

who write it. What I wonder, is who is going to be buying Porsches, electric or otherwise, when we've all shuffled off.

Well, it's worth bearing in mind and Porsche must be wondering, because I'm pretty sure that the next generation don't really care too much about personal mobility or cars in general. Indeed, they are being actively encouraged not to care too much and that will have a big impact on product lines for manufacturers. Survival will be about diversification.

I'm sure there's a plan, I'm sure Porsche can see this rather more clearly than me and the whole VAG empire for that matter. Porsche has a brand name that's second to none and a culture of innovation. But then again, that disruptor Elon Musk got the jump with electric cars and big co's like Porsche can be slow to respond.

We keep saying it, but the future will be nothing less than interesting. James Cannon, via email

EXCELLENCE DELIVERED

I'm not a wealthy man. I can't be, I run a Porsche. So the thought of spending £450 on a book took some inner persuasion. Indeed, in a fit of man maths, I funded said book purchase, by flogging a pile of redundant books on fleaBay. Well, I figured I might need the space as well.

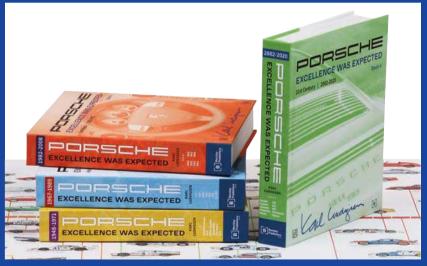
Of course, I'm talking about Karl Ludvigsen's monster tome, Excellence Was Expected, so beguilingly reviewed by Andrew Frankel (*911&PW* Dec, 2019 issue). Is he on a cut, perhaps? I jest, of course.

I have an original copy from many years ago, but the latest five volumes is an amazing achievement and truly the 'Bible' of analogue Porsche publishing. I seem to be learning something new on every page.

Without wishing to sound too much of a crawler, the combination of Excellence and a monthly fix of *911&PW*, is all the Porsche goodness I need.

Malcom Stanners, Brighton

Steve Bennett replies: Wish I could afford a copy...



WELL OIL BE...

I always enjoy the techy pages at the rear end (should that be big end) of 911&PW. There's something quite voyeuristic about other people's woes. The pics of the Carrera 3.2 under restoration at Auto Umbau (Tech Topics, 911&PW Nov 2019) were fascinating and terrifying in equal measure and a reminder as to why I'm going to leave classic 911s to braver souls than I.

I can, however, vouch for the Millers Oils analysis service, as used by Chris Horton in the same issue, to work out what was what with the oil in his Mercedes van.

I use Millers oil in my 996. It's very popular with some quarters of the 996/M96 community. When I change the oil. I always cut the cartridge filter in half to see if there's any obvious contamination. So far, all good.

However, like Chris, I thought I would take this one step further and send a sample of the oil off to Millers for a once over. I'm not quite sure what I was looking for and, as Chris points out, perhaps ignorance is bliss, but a lot of 996s seem to be suffering from crank bearings wearing out at around 100,000-miles, so perhaps a higher than normal lead content in the oil would point to an advanced state of wear. My 996 is coming up to that mileage, after all.

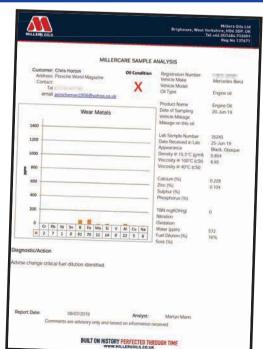
I awaited the results, with some trepidation. What was I going to do if that turned out to be the case, or there was some other unwelcome metal element present in higher than normal quantities?

I'm sure you can see where this is going... The results showed my oil sample to be in good health, which in turn means my engine is in good health, which in turn means I can sleep at night. Phew!

In short, I can recommend the Millers service, but I would understand if you decided that you'd rather not know!

Harry Mason, via email

Steve Bennett replies: I think I'd rather not know!



Forearmed is forewarned, as they say. Alternatively, you may not want to know the secrets your oil is keeping from you...



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911&PW WRITERS ON MATTERS PORSCHE OR OTHERWISE

THE USUAL SUSPECTS

Our occasional contributor tags along on an HRCR visit to the new Tuthill Porsche premises. Be warned, nostalgia is rife in what follows. We can't stop him when he starts rambling on...

TUTHILL'S 'GREENHOUSE'

Those of us whose particular pleasure comes from inflicting mechanical and structural mayhem on their Porsche (by which I mean going rallying) will know intimately – or will at least have heard of – Francis Tuthill's greenhouse.

From incarnation, the rambling glass structure acted as 'stores' for a large amount of the Oxfordshire based company's Porsche and VW stock of used and re-claimed parts; engines, gearboxes, body panels, all were lined up where once seedlings thrived in a former market garden. Engineering and body work took place in a collection of buildings across the yard that expanded as business grew.

I've got news. Francis' greenhouse is no more. As of a few months ago a massive and modern-style building with Siberian

Larch feature cladding occupies the space, housing almost all of the Tuthill Porsche operation that has grown way beyond what I – and I suspect Francis – thought possible when I first visited Wardington over 30 years ago.

When my local Northants and Bedford branch of the Historic Rally Car Register announced they had organised a visit to the new premises I thought it a good idea to tag along and see how things have changed. The new building is magnificent, with showroom, extensive offices, engine build room, stores, staff canteen, and a massive central full-height workshop which, on my rough count, must have room for upwards of forty cars. Oh yes, there's also a rest room and (soon to be complete) fitness room that Tuthill's 40-plus staff can use out of hours!

Rally success has allowed the Tuthill concern to grow considerably in the past three decades. When we visited, the 911s of the Below Zero Ice Driving programme had returned from their winter activities in Sweden, work was underway on customer cars being prepared for various rally and race events around the world and four cars (3x911, 1x356) were under preparation for November's Classic East African Safari Rally, a bi-annual event that Tuthill cars have dominated since its inception in 2003. Several race cars being readied for the next round of the international 2.0L Cup for shortwheelbase, two-litre 911S models.

Tucked away in a corner, almost ignored by the HRCR rally hounds, was a significant element of future plans: an immaculately turned out Singer retro-Porsche, the 964 based model that the US company likes to refer to as a 're-imagined 911'. Tuthill Porsche, Richard Tuthill explains, has the contract to prepare bodyshells for European specification Singers that will be built up with engines developed by Williams Racing, a project befitting such a fine new building. (I think you read that here first.)

Richard Tuthill, now very much the front man, carries out the introductions for our visit then hands over to 'Dad' for our tour whilst he hurries off for a 'phone call that obviously involves another time zone. I follow the herd, taking in the new surroundings, and the original buildings still in operation for bodyshell preparation which, doubtless, will one day be replaced by another new build. And my mind wanders back...





PAUL DAVIES 911&PW's roving correspondent

Tuthill's very smart new Oxfordshire premises, with Siberian Larch feature cladding, no less. A 'Grand design', indeed



Say what you like about them, but 911 & Porsche World's elite squad of journalists and Porschephiles have opinions aplenty on all manner of automotive matters. And this is where they get their two-pages' worth



STEVE BENNETT



BRETT FRASER







JOHNNY TIPLER

DANTRENT



JEREMYLAIRD

'ONLY FIX IT WHEN IT BREAKS'

Late eighties Francis gave me some verv sound advice. I took my (newly acquired) 912 along to Wardington hunting for seats that would not go into random recline mode and he suggested I have a rootle in the loft above the workshop. Nothing came of this search, but Francis did go for a ride in the car and pronounced it sound: 'Porsches can be expensive to restore and this one isn't worth much. Drive it, enjoy it, and only fix it when it breaks'. I've tried to abide by those words ever since.

(Note to Francis: I sold the 912 in 2004 for £9k. Now a good one's worth upwards of three times that figure.)

Francis should have been a farmer, but he only lasted two terms at agricultural college before he set out to drive to Australia. Things didn't quite work as he planned, but he did buy his first Porsche, a 356 Cabriolet, in Beirut, Lebanon, and try to get it back home in (and on) a VW van, but it proved too heavy. When he did, eventually, get Down Under he picked up valuable experience working in VW dealerships and so, back in Blighty, began to fettle VWs for a living.

Come 1977 he decided to take his own Beetle on the second London to Svdnev Marathon, setting out with a spare halfengine and other essential parts bolted to the rear parcel shelf. By Paris he'd changed

REMEMBER WHEN

Two names leap out when I start trawling the Tuthill Porsche website. There's news that Richard Jackson was joint winner of the last Classic East African Safari in 2017 driving - of course - a Tuthill prepped 911 sponsored by Welcome to Yorkshire.

Richard, I know of old. Back in my Cars and Car Conversions magazine days he let me drive his Datsun 240Z rally car, followed some time later by his Porsche 911, in fact the ex-McCartney brothers 2.8 litre Carrera RS with some serious UK and Irish provenance. We hammered around a quarry somewhere in Kent (which was owned by Trials legend Mike Cannon if you want to know) for a cover picture before I set out to return it to Yorkshire.

So far in my long life I've only been caught and fined for speeding once. Yep, that 911 rally car, heading north on the A1 in a Porsche that had a low ratio final drive that meant it struggled to make three figures. Actually it was worse, the date was late 1975 and I was (only just) exceeding a temporary 60mph limit imposed because of a fuel availability crisis.

Still, it wasn't Richard Jackson's fault, and (belated) congratulations on that Safari victory, only joint because of an administrative error although he did win a clear majority of the sections.

Blast from my past Number Two: John Buffum. The self-same web search revealed Tuthill prepared a car for the US driver to

engines by the roadside in one hour and forty-seven minutes, and by Tehran had replaced the spare engine with one flown out to Iran on the flight deck of an airliner. (Try and do that now.) After rolling the car half way across Australia he and co-driver Anthony Showell finished 35th.

Next time our man went to Australia it was in a self-prepared 911 on the '93 London-Sydney, and he drove it to outright victory. Seven years later he finished second on the event, co-driving no less than Michele Mouton in the self-same Porsche. They last these Tuthill cars! During the early years Francis rallied a

lot: in 1981 he was the first private entrant to finish the RAC Rally of Great Britain, in the days when it really was the Rally of Great Britain. Tuthill Porsche, however, got serious in the mid-'80s when it landed a deal to rebuild Porsches for the Rothmans Rally Team run by David Richards' DR Autosport outfit, later to become Prodrive. At the same time it was evident that historic rallying was becoming big, and the 911 was a winning car. The rest through marathon rallies all

over the world, the British Historic Rally Championship and showcase events with star drivers such as Stig Blomqvist, Jim McRae and Walter Rohrl - is now part of Tuthill history.

Francis says he's now retired and son Richard runs the show. To me he still seems pretty much involved, especially when older cars and air-cooled engines are involved. When we meet for the HRCR tour he tells me he's just had a stock of old VW and Porsche spares delivered and his Beetle rally car in the corner he's recently loaned to Irish ace Cahal Curley. I reckon he's still having a load of fun.



Francis Tuthill may have stepped back from his eponymous business. but he's still clearly having a lot of fun!

contest this year's Monte Carlo Historique. Rated as the best rally driver ever from the USA, John competed on many European and World Champion events in the '70s and '80s, including a stint as a British Leyland works team driver in a Triumph TR7 V8.

Come 1984 John was at the wheel of a works Audi Quattro on the Acropolis Rally in Greece, where Yours Truly was pounding the teleprinter keys on behalf of the Rothmans Rally Team.

Rothmans were kindly employers and had rented me a whole bungalow in the complex where the rally was based, so Mrs D and two children were rushed out for a spot of sunning

and fishing while I got on with work. Eight years old Guy Davies got friendly with Buffum and so early one morning he got the ride of his life alongside the American ace on a practice rally stage in a full-house, 300bhp, Group 4, Quattro. When you're in short trousers life doesn't get much better! Much belated thanks to JB, and

sorry about that



Monte which turned out to be a non-finish. RIP

The recent passing of two friends deserves mention for their Porsche connections:

Tom Madigan, my old mate from California who edited off-road magazines, was a personal friend of USA dragster stars, and wrote the definitive tome about Porsche Can-Am ace George Follmer.

Colin Wilson, former rally editor of that magazine I mentioned earlier who went on to do important things at the RAC Motor Sport Division and, most especially, co-drove Harold Morley on the first ever UK competition outing of the 2.7 Carrera RS back in 1974.



Far left: Davies Junior gets a ride with John Buffum. Left: Davies Senior yumping on the front cover of CCC



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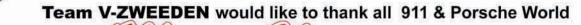
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SINES

FRANKEL

A chance to drive the lesser known 961 Le Mans car leads to a less than comfortable encounter with its original pilot, Kees Nierop. Elsewhere, extended seat time in the new 992 convinces our man, Frankel, of a return to traditional 911 values



ANDREW FRANKEL The Porschephile

A LESS THAN CHATTY DRIVER AND THE PORSCHE 961

ne of the better parts of what I admit is already a fairly blessed occupation is that with reasonable frequency I get to talk to my heroes, and because most of them are inherently kind individuals, most are happy to talk back. I guess because there are so many of them and where my interests lie, as a group I have probably spent more time talking to old Porsche racers than anyone else. What's more I have felt more privileged being able to sit down with and chat to the likes of Jacky Ickx, Derek Bell, Richard Attwood, Brian Redman, Jochen Mass than climbing into the driving seat of any road car I have tested.

Of them all, only one didn't want to talk back. In fact he didn't want to talk at all. He is a Dutchman named Kees Nierop, and while you may struggle to recall him now, 32 years ago he was a paid up member of the factory Rothmans Porsche team, getting ready to race a works 962C at Le Mans. But in practice his team mate Price Cobb slid on someone else's oil, hit the wall and shattered the car into tiny pieces, emerging somewhat miraculously unhurt.

But while Cobb was able to blag a drive in a Richard Lloyd 962C, Nierop would have been off games were it not for another works Rothmans Porsche already entered into the race. This was not a 962 but a 961. A what? I call it a 961, but in fact it was the 961, the one and only racing 959 ever built by the factory. The first four wheel drive car to race at Le Mans, it was powered by a similar water-cooled flat six engine to the 962 but in a car with a tiny wheelbase and the merest fraction of the downforce generated by the Group C prototype.

The car had actually won its class the year before, coming seventh overall and beaten only by purpose-built Group C machinery, so perhaps Nierop was not too despondent about his blameless demotion. Seventeen hours in, however, he had rather more to be unhappy about. Steaming down the far from straight straight that leads away from Mulsanne Corner, Nierop was approaching Indianapolis at top speed and needed to brake and downshift for the right hand curve ahead. Except when he did the rear axle appears to have locked solid and pitched the car into a spin no driver in the world would have saved. The known facts are that there was a big impact after which Nierop still tried to recover the wrecked car back to the pits, only giving up the fight when team manager Peter Falk got on the radio to tell him what everyone else with a view of a television screen already knew: the 961 was on fire. Nierop baled out and the 961 burned. What caused the accident? I've spoken to some who insist Nierop wrong-slotted and that's what locked the axle, and others who'll tell you equally assuredly that the transmission simply failed. But it's all on YouTube so you can judge for yourself.

As for me, the moment I realised I was going to be the first person outside Porsche to drive the car since its restoration, I decided I needed a first-hand account. So I called Nierop and left a message. No reply. I called again and again until I got the impression he was perhaps not that keen to talk. So with an editor baying for the story, I did something of which I am not proud: I called one last time but concealed my number. He picked up.

The conversation was short and unedifying. To say that Nierop didn't want to talk about the 961 is putting it mildly. 'You're driving the car, you write the story' was by some margin the most constructive advice he was prepared to offer. Which I duly did. It turns out he was under the impression that, as the last person to drive the car before the accident, he was on a promise that he'd be the first to drive it after the accident, even if that was decades later. If so, I understand why he was somewhat miffed.

As for the car itself, how they turned the Porsche 959 into a 961 provides a fascinating insight into how Porsche goes racing. And bear in mind throughout that in their mind what they did was a very simple evolution. There had been a plan to do something far more complex and effectively create a 959 silhouette racer, but cost got in the way.

So they took the 959 and first threw away all that nifty technology that had made it famous in the first place. Out went the anti-lock brakes, the adaptive dampers and variable ride height control. The rear diff went, too. All that stayed was the variable four wheel drive system with its 20/80 front to rear torque split and three further settings to cover all possible track and weather conditions.

Naturally the entire interior got binned and with it all the gadgetry that had helped make the 959 so luxurious on the road, but also so heavy. Over 1600kg heavy by most estimates. That on its own was



The 961 might have looked like a 959, but it was a far simpler device. The four wheel drive system remained, but the engine reverted to a basic, twin-turbo spec, swapping the road car's driveability for sheer 680bhp power

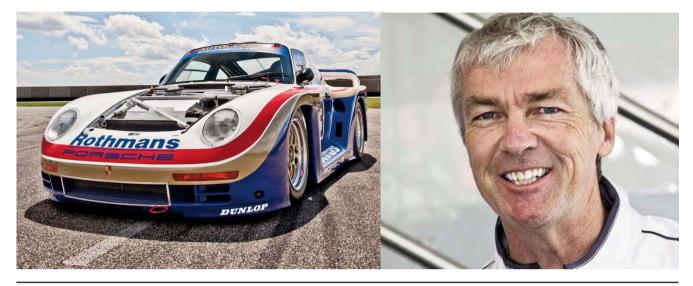


never going to be enough so the entire body was reclothed in wafer-thin Kevlar and Aramid panels. The finished car weighed a far more respectable 1170kg.

Next on the agenda was power. I've read elsewhere that Porsche simply slotted a 962 engine into the back of the 961, but it's not true. Yes, they were related and both had air-cooled blocks and water-cooled heads, but the 961 motor was actually a modified 959 unit. You can tell easily enough because the 961 retains conventional heads, while the 962 used an individual head per cylinder. And while the 956/962 motor would run at a number of

capacities from 2.65 to 3.2-litres, the 959 and 961 only ever had 2.85-litre motors.

The biggest difference between a 959 and a 961 engine was the replacement of the former's innovative sequential turbochargers with a pair of KKKs the size of footballs. With the need to provide boost at low revs and part throttle gone, all that mattered was power. And it worked: the 961 motor provided 680bhp at 7800rpm, some 230bhp more than the 959 and, with the weight loss, a power to weight ratio more than twice that of the 959. What would such a device, with almost no aero and a 911's wheelbase be like to drive?



If Kees Nierop was less than chatty, it could be that he was on a promise to be first behind the wheel of the rebuilt 961, not Frankel!

NEW 992 IS A RETURN TO 911 FORM

ince we last met l've spent a couple of days trying to drive the wheels off a 992. I've driven one on a track before, but it was a pre-production car in bad weather at Hockenheim and I could really only do drifts for the camera and not proper laps. But now I've spent two days, one in Snowdonia, one at the Anglesey circuit and am now reasonably confident that if the 992 had a flaw in its dynamic make up. I'd have found it by now.

It doesn't. What I find so staggering is the C2S I was driving is the meat and two veg of the 992 range, or at least it will be when it is completed. In 992 terms there is nothing special about it at all. And yet its poise and balance were pretty much flawless. On track it was fast, it was consistent, it understeered really very little and, if you were so minded, would slide until it ran out of rear Goodyears. Which it duly did. It reinforces the point I've made before about how much more accessible is the 992 than the 991. Even a stock 991 is a fine handling car, but needs to be provoked into revealing the playful side

of its character. By contrast the 992 is full of fun from the first corner.

I then borrowed the same car for another job and got to live with it for a week. Did the school run, filled its boot with animal feed, sat in heavy traffic and basically used it like an owner. And apart from some far too small icons on the central screen, it excelled in that diametrically opposed discipline, too. The more time I spend in them, the more I think the 992 will be remembered as one of the greatest 911 eras of all, so long as the Turbos, GT3s and so on maintain these standards. This C2S is certainly the best standard 911 I've driven since they started being cooled by what you drink rather than breathe. Which is well over 20 years now.

One last point on this: the C2S I drove was not made that way by Porsche ticking every juicy option box. Yes, it had four-wheel steering and adaptive dampers, but that was about it. No ceramic brakes, no active roll bars. If I was speccing one myself I'd think very hard indeed about whether such items really are worth the thousands that they cost.



There are no flaws in the 992's dynamic make up, according to Frankel. A return to form for the 911? It would seem so. And, as is often the case, less is more when it comes to options



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money. The Porsche is also mechanically sound. For \$39,9



1975 Porsche 9115 Targa is available in an excellent color combination of light yellow with a tan interior. It comes equipped with a 3.0 liter with a manual transmission and Fuchs wheels. The car was with the same owner for many years. The Targa and has a lot of potential and is an excellent opportunity to climb into vintage Porsche ownership.

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YOU AND YOURS: JOHN GEARING

GEARING UP

Being based in Hong Kong places John Gearing perfectly for a shot at the gruelling Peking to Paris long-haul endurance rally. In a couple of years, he plans to go for it in his 911SC, and he recounts how he came to buy the standard car and immediately take it rallying

Words: Johnny Tipler Photography: Antony Fraser, John Gearing, Tom Fitzsimmons

ohn Gearing works in the Hong Kong fashion industry – think Lee and Wrangler jeans, for example, but he also enjoys classic rallying. It was while back home in bonny Scotland a couple of years ago that he came across this 911SC standing in Border Reivers' Loch Lomond showroom. Unadorned with stickers, it was love at first sight, and on another visit six months later, he bought the car. 'You know how it is with cars, right? Well, you're bound to, you fall in love with them, and you can't get them out of your head.' Tell us about it!

That was the situation with that car: I wasn't in the market for a 911SC at all, though I like Porsches and I've always owned one or another for years and years. But I couldn't get the SC out of my head, for various reasons.' One such was that he was doing assorted classic rallies in different cars, principally an MG Midget, in Asia, the UK and in Europe, but felt the need to be rallying a Porsche of some sort. The SC at Border Reivers represented what he was looking for, in that it was the right vintage for classic rallying, but it wasn't a basket case that needed doing up, or

someone else's cast off. 'I did the maths, trying to justify a full rebuild and rally conversion, because I knew that, if I was going to buy a Porsche for that purpose, I needed something that was really solid but not concours, because if you buy a concours car you're going to wreck it, or at least get loads of stone chips. But this SC was smart, it was shiny, it was solid, but it wasn't perfect – it definitely wasn't concours – so it was ideal, really.'

'Mechanically,' John concedes, 'it's completely standard. The interior's been hollowed out, and we replaced the electric windows with those leather strap-secured plastic windows, because the electric windows weigh a lot and they're something else to go wrong; when you're on a nineday rally you don't want unnecessary things to go wrong, so the simpler it is the better. We also stripped out the centre console, and of course the engine lid is now a glassfibre ducktail, and the only other thing I've done is replace the bonnet catch with Dzus fasteners, because the lid is apt to pop up quite easily when you're going over a rubbishy road at speed, so replacing that with bonnet pins made sense. You have to

have an external ignition cut-off switch. Otherwise it's only cosmetic stuff, and mechanically it's pretty much as it came out the factory.'

Certainly, when I had a go in it recently up the Duke's Pass in the Trossachs it felt great, and perhaps a bit quicker and a little bit livelier than most standard SCs. 'Yes, I think that's Tom at Border Reivers working his magic for me,' suggests John; there are no actual mechanical changes, but you're right, it drives very nicely and is good fun.'

John recounts his recent rallying adventures with the SC. 'We did alright on the Scottish Malts; it's run over five days and roughly 1000 miles through the Central Highlands. My son James navigates - we did the London to Lisbon together in the Midget - and we're hardly professionals, we're just in it for the giggles, but we finished in the middle third. The car handled it brilliantly, and was perfect for an event like that.' The next event was a bit more hard-core, though: 'The Icelandic Saga was eight days driving around Iceland, and the fact that we actually finished is an achievement, because 30 per cent of the crews dropped out, or their cars failed. We

John Gearing and his classic rally 911SC. Being Hong Kong based means he's perfectly placed for a crack at the Peking to Paris rally in a couple of years' time



did finish, but I stopped doing the stages because the Iceland roads were so bad, and the car was not prepped for that. The potholes were big, and if not on gravel, you were on volcanic rocks, and they're flying all over the place. It was really rough, and a pretty unpleasant experience, so we were just checking in at the main check points, to preserve the car really, and in order to stay in the event and say that we'd finished it. Essentially you were circumnavigating the island on Highway 1, going off periodically on the special stages, which were the killers. But that road is fantastic; it's long, curving, wide, and it's a really beautiful road that goes on forever, and nobody lives there so there's no other traffic. I would do it again, but I'd make sure the car was set up fundamentally differently. We were doing 30km stages up and down mountains on entirely un-metalled roads; it's not forest tracks, you're talking about volcanic rock and potholes, and on top of that the Iceland weather is really harsh, and makes the Highlands feel positively balmy!'

Next year - 2020 - John is up for two events with his SC. Firstly, the Three Castles Trial in Wales (threecastles.co.uk), which is a fairly gentle regularity, and at the end of the year, Le JOG. organised by HERO (heroevents.eu/events-schedule), which is more of a marathon. However, he still has the big one up his sleeve: 'Really, the end

66 I wasn't in the market for a 911SC at all, but I couldn't get it out of my head, for various reasons, like **7**

game is the Peking to Paris in 2022. Mind you, there are a couple of others that could replace that: Fred Gallagher set up Rally the Globe, and they have a dozen or so really good-looking events programmed (rallytheglobe.com/rallies), including the Road to Hanoi. And, as somebody who has spent so long in Asia, I'd love to do that, so I might end up changing my ambition from doing Peking to Paris to the Road to Hanoi. But, ultimately, what I really want to do is one of those long-distance endurance rallies, and the idea is to get the car ready in stages to do that. Right now, I've got a very competent car for your bog-standard rally, but next year I want to up the game a bit with Le JOG, and then a bit more in 2021 with the Sahara Challenge, and then finally get it totally prepped for a great big 2022 Peking to Paris type of event. I love getting involved in these things."

His enthusiasm is infectious. I'm almost tempted to revisit the Peking to Paris myself (endurorally.com), contemplated once upon a time with an Amazon (a Volvo, that

Family affair: John,

with co-driving son,

and wife, Hannah

and Charmaine

Gearing

At home on the rough stuff, although Iceland flagged up some suspension deficiencies. Middle: 3.0-litre SC engine a tough unit, ideal for endurance events



YOU & YOURS









is, although Mrs T would also qualify...). As for John's SC, it's one of the lustiest examples that I've had the pleasure of driving. Inside, there's a hand-held fire extinguisher, a navigator's Brantz module, map storage pockets in the driver's door, and an RS steering wheel is the cockpit's crowning glory, which is otherwise standard-issue SC. The sun-strip across the top of the windscreen means that you don't have to mess about with sun visors, and it also cuts the field of vision to as much as you actually need to see.

It's effortless to drive at a cruising pace; the 915 shift is in good shape, and I'm doing most of the Duke's Pass in 2nd and 3rd, which is also an indication of the tightness of the turns. It tracks faithfully through the wiggly bits; you can aim it right at the apex and it turns in accurately. It has the ride of a standard car and takes all the bumps and undulations in its stride, but you create the drama when you want to, such as on the dirt road we use for part of the photoshoot. It's impressively responsive on the throttle, and on loose gravel it's very easy to kick the tail out and catch it again. benefit of emissions levels, a feature that disappeared in 1980 and would surely be disposed of in a meaningful tune-up. And, in John's tenure, that will surely come. An epic adventure in Iceland, circumnavigating the island on Highway 1

66 For the transcontinental epic, the SC will be made rather more robust

It's clear that the point of a standard SC that you can go out and have some fun with, without having to spend huge amounts of money on a rally car, is that at this level it'd be easy to put it back to standard and you haven't compromised it at all. It's so standard that, on the left-hand side of the engine bay, with its distinctive damper bracket, is an air injection compressor that pumps air into the exhaust system for the For which event, though? I suspect the Road to Hanoi will simply be a taster for the Peking to Paris; it's too much on his doorstep. For the transcontinental epic, the SC will probably need to be seam-welded and turned into something altogether more robust. Then the standard SC will be a distant memory, fated for all time to be a rally car. From now on, John will be gearing up accordingly. **PW**

Below: John shares his rallying adventures with his son, James. Left: Tipler having too much fun!









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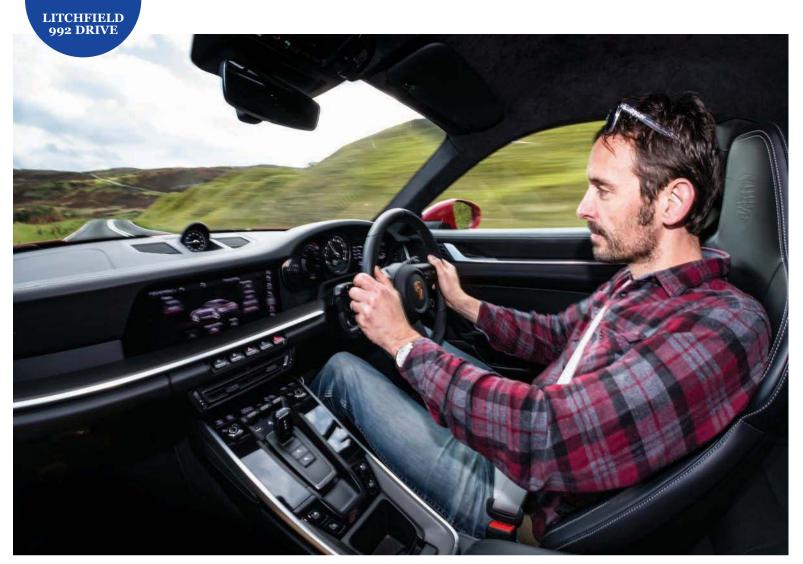


Words: Dan Trent Photography: Antony Fraser and Chris Wallbank/Litchfield

LITCHFIELD 992 DRIVE

LITCHFELD Go looking for the catch if you want but Litchfield's 572bhp

Go looking for the catch if you want but Litchfield's 572bhp upgrade for the 992 Carrera S and 4S unleashes the wild side in Porsche's new 911



ay what you like about Porsche switching to turbocharged engines but the possibilities it offers skilled tuners like Tewkesbury-based Litchfield Motors are seemingly limitless. With a background in four-figure horsepower upgrades for the Nissan GT-R crowd, Litchfield knows a thing or two about making already fast cars even more so. And doing it properly, with the engineering discipline and resources to ensure you're not setting a ticking timebomb in your engine bay. Put simply, these guys know their stuff and stand by their work to make those first steps into the tuning world as worry-free as possible.

This is important as the company moves into the Porsche world, where tuning culture is less prevalent than it is in the Japanese car community, at least for current product. It's a smart move for Litchfield, given many owners of GT-Rs and the like find their tastes in cars maturing, even if their appetite for horsepower remains as strong as ever. 911 Turbos are an obvious next step on their car ownership ladder and Litchfield's toe in the water for Porsche tuning centred on upgrade packages for the 991 generation. The real gamechanger, however, came with the arrival of turbocharged 3.0-litre motors in the back of second-generation 991s, opening the tuning market to any Porsche with a Carrera badge on the back.

This inspired Iain Litchfield's purchase of his own 991.2 Carrera T, partly because he'd always wanted a 911 but also because he's a canny businessman with an inquisitive engineering mind and sensed an opportunity. We were incredibly impressed with that car when we drove it a year back in the December 2018 issue and for good reason, a combination of remap and freer breathing exhausts unleashing near-500bhp potential from the more modest 365bhp [370ps] stock output. More than the numbers what stood out was the maturity of the delivery, the sense being that the engine was built for this power all along. Which, funnily enough, it seems it was.

While remaps and extra boost are stock in trade for the likes of Litchfield what shocked him most about Porsche's first application of the 3.0-litre turbo in the 991.2 was how restrictive it had made the exhaust system. Tubular manifolds, racing cats and four-wheel drive as seen here and you're basically getting Turbo performance for a Carrera price before the senior model has even hit the market.

The head start gained from developing tuning packages for the 991.2 meant Litchfield was able to hit the ground running with the 992, given the engine is fundamentally the same but comes as standard with bigger turbos (equivalent to those on the 991 GTS, albeit with a new 'mirrored' installation) and freer breathing on both induction and exhaust sides. More sophisticated piezo injection and electronically controlled wastegates also permit more precise fuel and boost control, On the road, the Litchfield modified 992 offers a devastating turn of speed, with seemingly no trade offs

66 You're basically getting Turbo performance for Carrera money

a choice of aftermarket backboxes from Remus and Akrapovic released significant extra power before he'd even plugged in the laptop and looked into the engine's brain, lain recognising the fact Porsche had quite reasonably left itself considerable headroom for future upgrades. Headroom he readily exploited.

Round two and it's time to do the same to the 992, the pickings richer still with a deceptively simple sounding plug-in upgrade taking the Carrera S and 4S from stock 444bhp [450ps] and 390lb ft of torque to 572bhp and 480lb ft. Yes, the same horsepower as a 991 Turbo S. Without any hardware changes. Combined with the 4S's in a further gift to skilled fettlers like Litchfield. Porsche's own hardware improvements for the 992 therefore address the relatively restricted nature of the 991 installation, suggesting lain's belief the 3.0 turbo motor had been somewhat pegged back in that original application was correct. This time around he simply has more scope to play without any need to change mechanical components.

Without wishing to get too technical lain and his colleagues have exhaustively tested their maps on their in-house dyno, lain impressed at how Porsche's latest engine management is precise enough to maintain the most efficient 'lambda one' air/fuel ratio

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DESIGN **911**

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of 14.7:1 throughout the powerband. As a manufacturer it needs this lean mixture to hit ever stricter emissions targets. For tuners less constrained by such requirements and who know how to manipulate these qualities it's a gift.

"An air/fuel ratio that would have previously melted a turbo engine is now targeted across the board because it gives exceptional efficiency and economy,' explains lain. "You need incredibly sophisticated control of the combustion to achieve that, which Porsche does with its latest ignition systems and works really well. And makes it really easy to get more power. A traditional turbocharged car would only run lambda one on light throttle, shifting to a richer mixture to the point where on full power you'll be in the low 11s. Because Porsche runs such a lean mixture we can then richen it up, opening the door for more boost and all the rest." Raising the question, can the rest of the powertrain cope?

"All Porsche stuff is massively overengineered," says lain, pointing out that this

is still early days in the 992's evolution, the engine and transmission has been designed through economies of scale to be compatible with whatever more powerful models eventually join the range over the model's lifespan. Experience with megahorsepower GT-Rs means Litchfield understands the importance of making sure transmission and other components are up to the job, the pride they take in their work meaning they are about a lot more than easy-win power gains. Suffice to say he has no concerns for the 992 and reckons it will comfortably handle the 600bhp-plus he sees there for the taking with further modifications to exhaust and the rest. In bang for buck terms though an extra 128bhp for £1194 installed seems like a no-brainer

Where the 991 Carrera T we drove previously benefited from a more extensive range of hardware changes to exhaust, suspension and geometry as well as the remap, the 992 Carrera 4 S you see here is stock bar the plug-in power boost. Which is handily representative of what an owner might want of their first step onto the tuning ladder, given it requires little more than plugging in a laptop and a bit of set-up. That obviously makes it noninvasive and entirely reversible, should discretion require it.

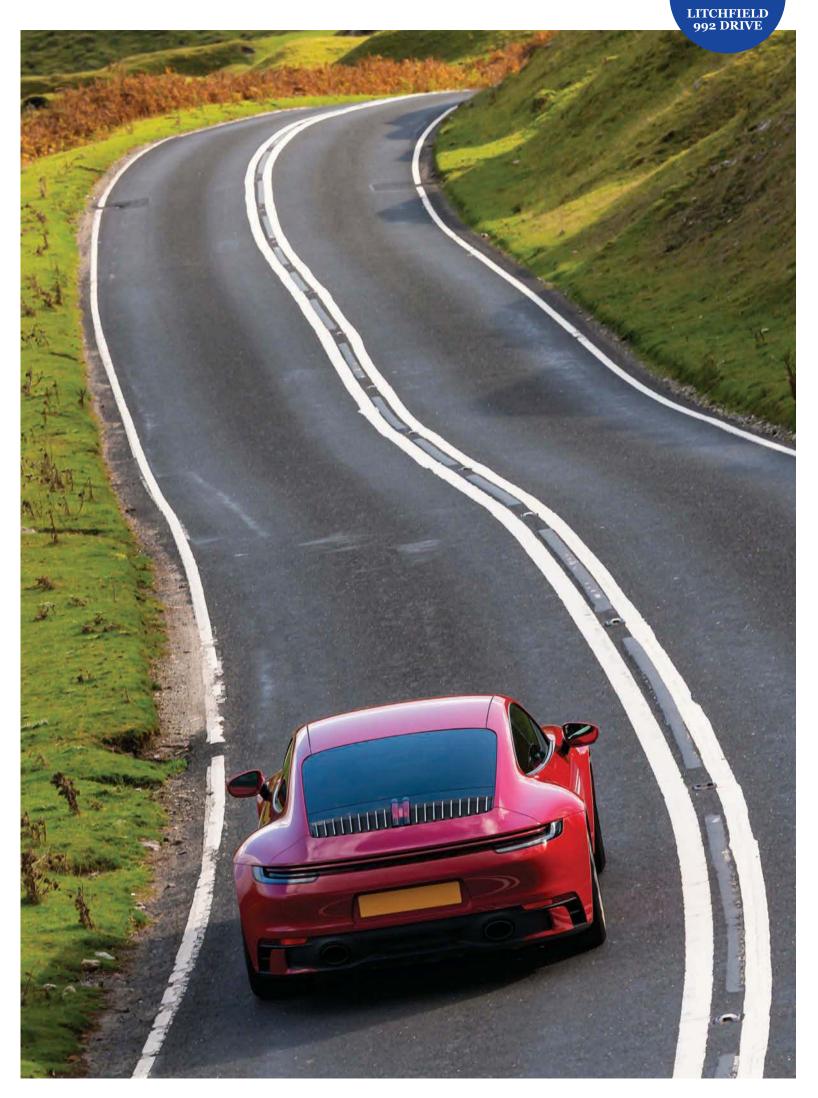
It helps Litchfield's case that Porsche itself feels confident enough in its latest 3.0litre turbocharged motor to celebrate its forced induction, rather than try and hide the fact to appease those disturbed by the switch from naturally-aspirated power. Much as the 991 Turbo was more expressive than its more binary 997 predecessor, the 992 seems less afraid about deploying exciting rushes of boost and soundtrack its progress with more extrovert whooshes and chuffs from the engine bay. This is a good thing.

Boost has been increased from 1.2 bar to 1.5 when required but it's testament to the quality of Litchfield's set-up work you don't really notice it at normal road speeds. This sounds like damning with faint praise but the way the upgrade is seamlessly integrated into the standard power delivery is a mark of maturity and the long hours on the dyno, the power and torque curves post-conversion following those of the stock set-up, just with bigger numbers. Which is to say when you're just cruising about the Litchfield 992 feels much like any other 992, just a particularly healthy one. Where the magic happens, or more accurately, the hard work. Porsche's own conservative approach to air/fuel ratios and boost means that the power is there, it just needs to be unlocked

Left: You can't really call it an engine bay any more. In fact from this angle, it kind of looks like a 'boom box'! Anyway, lurking below the fans is a 3.0-litre, twin turbo, flat-six fettled to produce 572bhp









You'll no doubt be familiar with the basics of the car, which is to say it feels bigger, more luxurious and more sophisticated than the 991 it replaces. But still like a 911, the seating position slammed to the floor, the interior sober but functional and beautifully finished and the driving experience just the right side of involving. Some may argue – not unreasonably – it's shifted a little further down the mature GT end of the scale but there's just enough of the bob and weave still in the package for it to feel authentic. And sharper than ever.

As in the stock car, things get progressively more aggressive and exciting with each clockwise turn of the wheelmounted drive mode controller. Wet and Normal dial the response back to sensible levels for cruising and mooching. But life's too short and Sport and Sport Plus are where the real excitement lies, and where the Litchfield Carrera 4 S shows its mettle.

For a turbocharged engine throttle response is superb and the appetite for revs outstanding. Where most modern motors have given their best by 5000rpm the Porsche flat-six is just getting into its stride, the incentive to keep it on the boil and up in the revs revealed by the instantaneous way it responds to the loud pedal. What the Litchfield modifications bring is a savagery not present in any factory Carrera, setting a pretty high bar for the new 992 Turbo to clear when it does arrive. Because, let's face it, if the best part of 600bhp is a remap away it's going to have to do something properly spectacular.

This uprated 4S, fully optioned with PDCC, four-wheel steering and all the Sport Chrono goodies, is a teasing taste of what Porsche may have in store for us. Want to enjoy a thrilling sense of surging boost before stuff goes all blurry? Simply haul ingear from 2000rpm and enjoy the fleeting anticipation of turbos spooling up before that huge mid-range clout is deployed. Can't be bothered to wait? Click the left paddle a couple of times, watch the rev needle jump a couple of numbers and, with a few rpm on the dial, the Litchfieldenhanced motor is ready with a devastating turn of speed the moment you touch the throttle. For an even more ludicrous hit of acceleration hit the Sport Response button and brace vourself...

The contrast of this performance with the relatively understated surroundings of a 'mere' Carrera is genuinely laugh out loud impressive, and this car has a turn of speed that would catch even senior supercars napping. Iain's confidence the transmission and chassis are built for it already bears out as the roads get twistier and more technical, too, the 992 willing to show its

more playful side with a little more commitment by seamlessly combining fourwheel steered agility in slow corners with genuine throttle adjustability on the exit. We're not talking showboating slides or clouds of tyre smoke. Just the power and torque to really test the power-shuffling allwheel drive system and mechanical grip of the chassis. A test it responds to with real eagerness and a willingness to tighten its line under power you don't sense at regular speeds in the standard car.

If you didn't know better you'd swear this package was a factory upgrade, given how seamlessly it operates with the stock 992 underpinnings. Certainly, it highlights the potential in the car Porsche will deliberately (and reasonably) be keeping a lid on this early in the new 911's evolution, before unleashing its own more potent versions down the line. For those impatient and unwilling to play by Porsche's long-term product strategy this simple, plug-in upgrade offers instant gratification and proof this new 911 has a whole lot more to give, both in terms of by-the-numbers performance and (perhaps more importantly) raw excitement. That Litchfield is able to unlock so much extra potential with such a deceptively simple upgrade is testament to both its tuning skills and the quality of the source material Porsche has provided. PW

The 911 is getting ever more pumpedup and muscular and Litchfield's 572bhp upgrade just adds to that appeal

We love the interior (left), and there's a manual option on the way next year in the UK. We can't wait for that!



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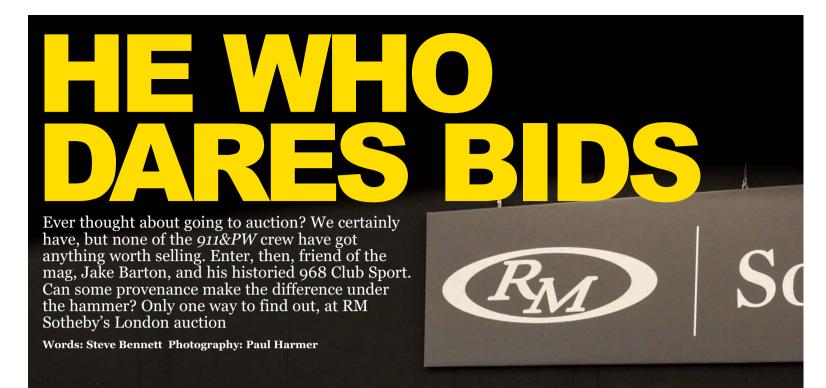


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Left: In the room at RM Sotheby's London auction in October. Above: 968s don't come much better than Jake's, particularly with its factory history. But how would that translate under the hammer?

Below: From the

see transporting

really exotic stuff

Right: Bernie was

he didn't buy anything

there, but we're told

valeters to Olympia

in one of those fancy

CARS trucks that you

or a magazine that writes about the auction scene every month, we've been somewhat lacking in actually getting stuck in, whether that is buying or selling at auction. Oh, your editor has some previous when it comes to buying sheddy old 944s on eBay, but that's all a long time ago and doesn't really count.

No, what really counts is being at the sharp end of an auction, the sharp end actually being in the room as a seller or a buyer. However, there are two problems here for 911&PW operatives at the moment. One being that none of us is in the market for a new Porsche and the other being that not many of us have anything really worth putting into auction either. Fortunately, we know someone who does.

Enter, then, friend of *911&PW*, Jake. You may remember we featured Jake and his 968 Club Sport a couple of issues ago (*911&PW* Nov 2019) in the 'You and yours' slot. The story started innoculously enough. Jake buys said 968 CS in 2001. It's a LHD German import in Speed Yellow, the definitive CS colour, thanks to all the press cars being in said shade. The 968 was the cult track day car of the day, when track days were the big thing and Jake used his accordingly, as well as annual trips to Le Mans with his mates, including your editor (that's me).

Over the years, Jake gradually turned what was a good 968 CS into an absolutely pristine 968 CS. And in doing so, as is so often the way with pristine cars, it got used less and less, plus the lure of driving round and round in circles waned, and those trips to Le Mans fell off the calendar. It became, in Jake's words, something of a "museum piece."

So, after 18-years of ownership and with other projects on the horizon, he decided to

sell it, which is where things start to get interesting on the road to market.

Without wishing to retread old ground, Jakes's 968 CS had been hiding a few secrets. The aforementioned Speed Yellow paintwork and its launch colour association gradually became a matter of some interest, as did its early service history, which suggested a very active life in its first year. Indeed, so active that it notched up 38,800kms and was serviced exclusively at the Porsche dealership that sits opposite the Porsche Museum and the gates of Werk 1, and all on the same invoice number. Well, it the chassis number to an actual plate was proving elusive. It could have been one of a number of factory press cars, with plates starting with S-LM, some of which had carried out more glamourous roles than others. Again, without wishing to retread old ground, it was jokingly suggested that a picture of Walter Rörhl driving Jake's 968 CS would probably emerge...

And then a pile of eBay sourced German car mags from 1991 arrived and there was a group test featuring Walter driving a bunch of fast, contemporary coupes including a Speed Yellow 968 in *Auto Zeitung* magazine. Jake's

66 What really counts is being in the room as a seller or a buyer

was certainly conceivable.

Discussing the likelihood that Jake's 968 was possibly a press or marketing car, I offered to put the case to the ever-helpful Jens Torner at the Porsche Museum archive. Armed with the info that we had, plus a chassis number, Jens confirmed that Jake's 968 was indeed a press car and fired over a selection of very familiar, early '90s press shots. Of the various press cars, though, Jens couldn't confirm which one it actually was and what it had been used for.

No matter, Jake carried on the search on the ever-helpful internet. In a corner of Porsche's expansive site he came across a pic of the engine bay of his car, clearly showing its chassis number ending with 815075. Jens was then able to link Jake's car with other press images, but actually matching car? The pics certainly suggested so, as did other contemporary road tests using the same car and its S-LM 5402 plate. As it turns out, the evidence had been under our noses, but then so often you can't see the wood for the trees. Small, but neatly noted was the plate number: S-LM 5402 on the inside cover of the service manual. Proof enough? Pretty much.

Further sleuthing and scans from the archive of another German car mag, *Auto Bild*, featuring S-LM 5402, produced the final conclusive evidence in the form of a clear engine bay shot linking chassis number to plate. K190 RBK and S-LM 5402 were the same car, which turned out to be the go-to press machine for the majority of the road tests and features that the 968 CS starred in during 1992. It was also recognised to be the 14th 968 CS off the production line, too.







All of this was very interesting indeed and certainly would have remained hidden had not Jake decided to sell and so prompting the detective work. This particular 968 CS was now not only an immaculate example of the breed, but it also had a back-story and some significant provenance, and with that, value. With this in mind, the question of how to realise this reared its head.

Say what you like about the auction scene, but it has rather transformed the classic and collector car market in recent years. It's clearly become a very powerful buying and selling tool that has served to both distort at the top end yet, more recently, bring some reality to the lower end and middle ground when it comes to values. It's certainly not a place for the uninitiated, whether a buyer or a seller, but for the latter with the right car, then an auction is possibly the best route to maximise a potential profit.

Well, at least that's the conclusion that Jake and his counsel (me) came to, after much deliberation. Why? Well, we reasoned that this was a one shot opportunity and, for maximum exposure to what is now a worldwide collector's market, then an auction would achieve the best result.

Sure, he could have gone private, but it would have been a bold move to nominate a price for this particular car, only for it to stall and then become tainted as that 'overpriced 968 CS.' Much better, if slightly riskier, to let the market decide. After all, it would only take a couple of battling bidders to get into a fight for a top price to be realised. Top price? Blimey, now you're asking, but somewhere along the way £40,000+ seemed about right in the great scheme of things... Walter with Jake's 968 back in the day. This is the history and provenance that we were banking on...

Left: Free whisky from the preceding whisky auction could only help loosen up the bidding. Below: Spot the interlopers: Bennett (left) and Barton. Opposite page: Historics' Fabian Hine



AUCTIONS: THE BEGINNER'S GUIDE 911&PW's resident auction observer, *David Sutherland*, talks you through the ins and outs of the auction world

Auction "virgins" wandering around the September RM Sotheby's sale at London's Olympia and spotting Bernie Ecclestone sitting close to the rostrum might have wondered if they were way out of their depth. If one of the world's greatest wheeler-dealers frequents car auctions, surely they're for the big boys only?

No, because car auctions, classic or modern, all work on the same basis and are easy enough to engage with. You just have to know the ground rules.

You just have to know the ground rules. You're probably aware of the ethos of auctions: you buy what you see, and market forces ensure you don't pay more than the true value (unless you are stupid enough to get swept into a bidding war). For sellers it's a great way to get your car in front of a potentially large number of buyers, and you don't have a string of tyre kickers turning up at your house. But the devil is in the detail.

The most important aspect to be aware of is the addon costs at auction, as these are often misunderstood. For example Surrey-based Historics Auctioneers, which for the want of a better description we'll call a "local" auction, charges a "buyer's commission" on top of the actual hammer bid of 10 per cent, to which 20 per cent VAT is added. So that Porsche 968 you might have thought you got for £10,000 will actually cost £11,200.

Buyers' commissions vary between auction houses, Silverstone Auctions in Warwickshire charging buyers 12.5 per cent (plus one per cent extra for online bids), while Anglia Car Auctions in Norwich charges six per cent on classics. The international auction house, RM Sotheby's, which stages many auctions in the US and Europe, charges a 15 per cent buyer's commission (plus a £150 "bidder's fee") on the first £200,000 of the hammer and 12.5 per cent on the rest, so your winning bid of £500,000 on, say, a Porsche 959, becomes over £581,000 by the time you load it onto the trailer.

Presumably to attract "consigners", selling commission is often, but not always, lower than for buying. Silverstone Auctions charges five per cent, Anglia Car Auctions six per cent. And there is likely to be an entry cost on top, Historics asking £230 plus VAT fee for the catalogue entry, including professional photography. RM Sotheby's charges a (negotiable) eight per cent on sales, so the seller of our imaginary £500,000 959 is going to take home approximately £450,000, while RM Sotheby's banks a tidy £107,500 or so from both ends of the deal. The seller of a £10,000 car sold at Historics would net around £8500.

Commission rates apart, the more you know about how the auction works, the more likely you are to get a good result, buying or selling, and one of Historics' most experienced auctioneers, Fabian Hine, is always happy to advise the nervous and inexperienced. 'Sit down with a cup of coffee and read through the catalogue, there's nothing horrible in there,' he promises.

Fabian is often asked by sellers if they should set a "reserve" (a pre-determined amount, below which the car will not be sold), and there are differing viewpoints. Acknowledging that Historics does not allow reserves on cars expected to sell for under £10,000, Fabian says, 'If a car has no reserve, this will cause a flurry of bidding because people think they will steal the car for £10 – but that never happens!' He also feels that a car higher up the price range needs a reserve: 'The lack of a reserve on an expensive car can create a bad impression.' At international auctions the threshold is higher, RM Sotheby's not usually allowing reserves on estimates under £100,000.

The reserve should not be confused with the pre-sale estimate, the upper and lower amounts an auctioneer expects a car to sell within. Although frequently cars either don't reach the lower figure, or crash through the upper one. The auctioneer won't reveal the reserve, and no seller with any sense will either, but it's safe to assume that it's somewhere in between the lower and upper estimate figures. The pre-sale estimate can be quite a contentious aspect, because sellers sometimes choose the auction house they'll use based on which one offers the highest estimate.

If you're scared about buying at auction, Fabian suggests a no-purchase visit to a sale to get the feel of it – which proceeds at breakneck speed, most 'lots' dealt with in under two minutes. 'Just don't wave to anyone, it could be very expensive,' he jests. In fact Historics even lays on free seminars for auction novices to explain how things work, and what they need to do. Furthermore, Historics also offers an on-site, independent inspection service, costing £200 to £400 depending on the car.

TO AUCTION WITH A 968

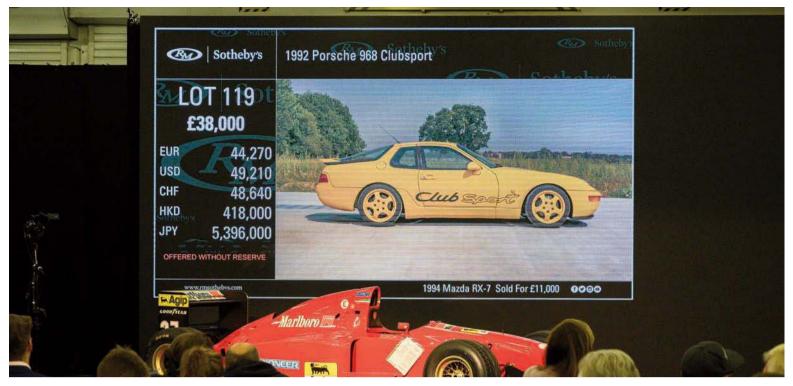
Auctions tend to be intense affairs, but there can be humour, too. Fabian recalls the couple that attended one sale, each intending to buy the other a particular car as a present, both ignorant of their partner's intention. "They arrived together but were on the opposite sides of the room and bid the car up an extra £3000!' he laughs. On realising what had happened, Fabian cancelled the sale, and re-presented the car later in the day. 'It then made a higher price, but neither of the couple bought it!' he says.

Auctions don't suit everyone, but in recent years they have become much more welcoming to those outside the motor trade. Once any old scrap could be disposed of at auction – it still can, but it has to be described honestly and accurately. And classic sales in particular are increasingly offering preview days that are almost as much for entertainment as they are for checking out cars; Historics for example holds most of its sales on the Brooklands Museum site, so a visit there can be part of the day. Some even sell nice coffee rather than vending machine liquid sawdust.

Decide on the car you want to bid on, research its typical price beforehand, set yourself a budget and don't exceed it, or at least not by very much, and you could end up with a good car at a nice price, probably the equivalent of the "trade" price as opposed to the "retail", or forecourt price.

If selling, consider spending a few quid on a valet, as simple cleanliness can really can make a difference to the price achieved, and will definitely make it sell more easily. Don't be tempted not to declare faults, as most bidders will spot the problem anyway, and the auction house, which has a duty to describe the car truthfully, will not be amused. Get an auction venture right, and you'll like it and might become an auction regular – just like Bernie!





Were we right? Was this a car with provenance and history that would appeal? Presumably the response of the auction world itself would be telling. It's in an auction co's interest to be selling premium machinery, to maximise its own profits, and as you will see as this story progresses and from the accompanying sidebar, they can be pretty impressive.

The auction scene is full of 'players', and we reckoned that Jake's 968 would surely be worth a spot in the sales catalogue of one of the bigger auction houses. And so it proved with RM Sotheby's showing immediate enthusiasm for handling the sale and offering two potential auction slots to agonise over: London Olympia in Oct 2019, Essen in April 2020. Each was deemed a good fit for the 968 as both featured a significant 'youngtimer' modern classic element, as well as the highend stuff.

In the end it came down to timing and the need to 'move on and make a decision,' as Jake put it. London won on the basis that location was probably irrelevant to a degree in what is a worldwide market. The right car would sell no matter where it was, albeit on the right platform. RM Sotheby's London Olympia auction was certainly that, with an exotica and rarity packed catalogue, topped off by a barn find Lamborghini Miura that was expected to fetch £1m+. Oh, and to sweeten the deal, RM Sotheby's was prepared to waive the entrance fee, in recognition of the fact that this 968 CS would enhance its catalogue.

So deal done then, we were going to auction. I mean, what could possibly go wrong? There's always the safety net of a reserve? Er, no, not in this instance. RM Sotheby's has of late been running no-reserve auctions on anything expected to fetch sub £100k, with much evidence based results to back up their assertion that reserve prices catalogue and came up with a glowing sales pitch, not too difficult given the car's condition and history. Jake, meanwhile, attended to any last minute stuff and then delivered the 968 to RM Sotheby's dedicated detailer in Chobham, Surrey for a pre-auction pamper. From there it was taken by a CARS covered trailer to Olympia. Oh, and if you're wondering, these are costs that are borne by the seller, but Jake figured it was logistically worth it.

Costs? Well, we've been building up to the grubby business of money. Again, as you will

66 Deal done, we were going to auction. What could possibly go wrong? **7**

generally supress the market and bidding, whereas a no-reserve tends to animate it. So we were going to auction and it was going to sell, no matter what and at any price. Slightly scary! The good people at RM were confident, but were we? With nothing yet signed and sealed, there was still time to pull out, but Jake displayed hitherto unseen balls and pulled the trigger.

Decision made, the RM crew dispatched a snapper to take some pretty pics for the

see from the accompanying 'beginner's guide', they can vary depending on the auction house, but the basic figures for this particular auction are thus: A seller's fee of 10% and a buyer's premium of 15%.

Although this is a no-reserve auction, RM Sotheby's, like most auction houses, have issued a guide price for the catalogue with a lower and upper estimate. Obviously, we're rather interested in this and encouragingly they value the 968 at between £41,000 to Below left: Bidding underway. Bennett pulls his pensive face. Jake's partner, Rachel, definitely looks worried. Jake is strangely nonplussed. Below: The final figure. Not bad, eh?



The car's the star. It's auction time. It takes probably a minute and a half, if that, but it's nerve racking stuff



With so many deals done on the phone. or online, it's great to meet the buyer. Even better, he's a friend of 911&PW. Mark Wegh (right) is a prominent European collector and the main man at Porsche Centrum Gelderland. He was attracted to 'our' car by its history and provenance. It will go into his collection and, I dare say, he won't mind if we drop in and visit it sometime

FACTS AND FIGURES: PORSCHE 968 CLUB SPORT WITH ADDED WALTER FACTOR

Auction entry fee: FOC Guide price: £40,000 to £51,000 Selling price: £41.000 Selling price + buyer's premium: £47,250 Seller's fee: £4100 RM Sotheby's seller's fee + buyer's premium, overall return: £10,250 **Buyer's overall** return: £36,080

£48,000. Wowza! But, be aware the final listed price includes the buyer's 15% premium, which can rather skew things in terms of real market value. Again, I refer you to the accompanying sidebar, because this can make a big difference when the bidding gets serious for the really valuable stuff.

The build up, it seems, has taken months. Which is because it has. But we're getting towards the sharp end now. The cars are in situ, the champagne reception and viewing the night before has perhaps softened a few potential buyers up. The moment of truth is fast approaching. Just one more sleep.

Olympia is buzzing. The hammer is falling on the last of the lots in the preceding whisky auction, which we don't pretend to understand, except that £40,000 is clearly a lot of money for a bottle of something that will never be drunk. But perhaps no more daft than a few million quid for a car that will never be driven. Still, the stuff is being dished out free at the London Whisky Co bar for punters and sellers, which will help with bidding/celebrations/commiserations depending on the outcome.

There's time for some tyre kicking and plenty to see. The Miura's projected value is in its 'barn find' unrestored state, which is a 'thing' these days. There's a GpB Lancia Delta S4 which competed on the 1985 RAC Rally, which is another star lot. Oh, and there's Bernie Ecclestone, too, with a very bored looking wife in tow. He cuts a rather lonely figure, but then we were too scared to go and talk to him as well. There's plenty of Porsches, of course, and 'our' 968 is looking good under the spotlight. Jake has even had some German plates made up, displaying the original number plate, which is a nice touch.

Being London and RM Sotheby's, there is thankfully none of the razzmatazz that seems to accompany the big Stateside auctions. 'Our' 968 is 19 lots in, so it's going to be over fairly quickly. I'm nervous on Jake's behalf. This is high stakes stuff for some country boys from Suffolk in the big smoke, and while the 968 will be one of the cheaper lots, even if it makes its higher estimate, a sales crash will mean our hunch as to its provenance and perceived value was delusional. Or even greedy, some might say.

There are a few 'bellweather' cars going through before the 968. A BMW E30 M3 makes a strong £50,000 or so, which is good. But we're spooked by a LHD 996 GT3 that falls at £36,000, well below its lower estimate, and a 991 GT3, with just 1500kms on the clock, which also stalls at below its guide price, even with the buyer's premium added on. Moment of truth. Lot 19. The 968 is on the big screen. We're standing to the back of the seated bidding area. To the right is the bank of phones, presumably with hungry bidders on the other end. And then there's the internet bidders. Is our buyer in the room?

Bidding starts at £20,000 and races at quite a pace to the mid £30ks. This is exciting and nerve racking in equal measure. Then there's a lull. It's stuck at £36,000 for seemingly an age, but it's mere seconds. donated cars for features. In fact, it's hard to think of a better outcome.

And it's not the only 968 CS in Mark's collection. He already has one Speed Yellow example, but he was drawn to Jake's early off the line status and its provenance and history. And a good price? Well, the hammer may have fallen at £41,000, but with the 15% buyer's premium added, the official selling price becomes £47,250, setting a new standard for a 968 Club Sport and a long way from the £12k Jake paid some 18-years ago. It's also one of the few cars that reaches close to its upper guide estimate price on the night. Indeed, the sales for most Porsches have been very poor. A sign of the times, perhaps?

And what does our hero take from all this? Well, once Jake's 10% seller's fee is deducted from the £41,000 selling price, then £36,080 finds it way into his bank

Bidding starts at £20k and races at quite a pace to the mid £30ks

The jovial auction duo pick up the tempo, throw in a Walter reference and we're off again, jumping by £500 at a time. £40,000 comes quickly, then £40,500. Any more? We sense a slowing as if we're down to the final two bidders duking it out. The hammer falls at £41,000. Thank god that's over!

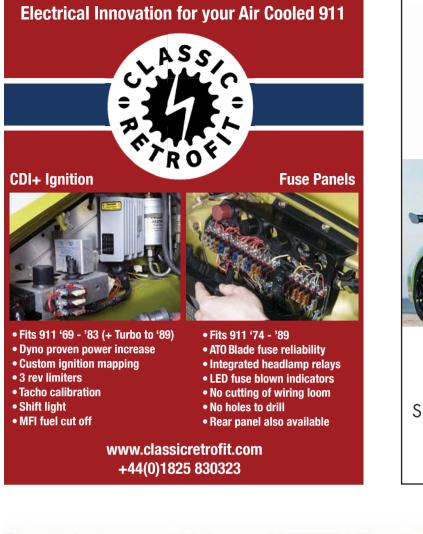
There is a shaking of hands for a job well done and a slight bewilderment. What now? Who's the buyer? Is he here, because it would be great to talk to whoever it is, rather than watch the car disappear to a faceless or overseas phone or online bidder.

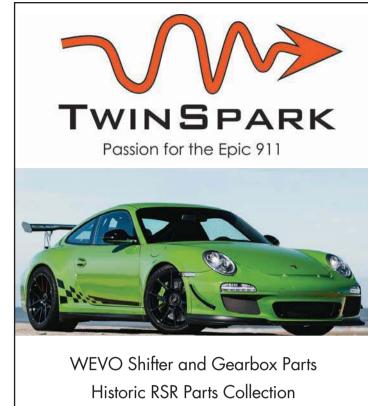
And he is in the room. In fact he's standing next to his new car and he seems familiar as I approach to doorstep him. In the Porsche scene, Mark Wegh is a well-known collector as well as being the main man at Porsche Centrum Gelderland in Holland. We've featured him and his collection in *911&PW* before and he's generously

account, still a very good price for a 968 Club Sport and probably rather more than he could have achieved as a private seller and nothing like the adventure.

Risky business? Well, you certainly need to go in with your eyes open and be very aware of the numbers, especially in a noreserve scenario. Most cars did make their estimated price, but only with the help of the 15% buyer's premium, which is factored in to the lower and upper guide estimates. It kind of skews things and needs to be taken into account when you're getting excited about auction results, as we all have. That big figure is not what the seller sees.

From 911&PW's vicarious perspective it's been an interesting and fun experience and proof – if any were needed – that to succeed at auction, these days you need to have something to offer that stands out from the crowd. **PW**





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THE FIRST IMS BEARING FIX

IN SUSPENSE

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Ever wondered how different suspension kits might handle/feel? So have we, so together with the 996 forum from 911uk.com, we assembled a cross-section of users' 996s with set-ups from standard to highly modified and brought in the experts from Center Gravity and Race Technology to help out

Words: Steve Bennett/Chris Franklin Photography: Antony Fraser





Left and above: The 996 is easily the most modern generation. This cross-section of cars and owners from the 911uk.com forum sums up the enthusiast status of the 996 ow here's an ambitious plan. How about we get a bunch of 911s together and compare suspension options? Indeed, how about we make them all 996s, because the 996 model is the most modded 911 at the moment.

Actually, in some respects, I'm pleased to say it wasn't actually our/my ambitious plan, but I might have been partially responsible.

No, I'm going to blame Mike Aldren, who is an active player on the popular 911uk.com forum. Mike, like some other forum members had followed my ramblings about fitting and tuning the Ohlins R&T suspension kit on my 996 C2, as I went from an out of the box set-up to my own, tuned for me, solution. Well, that's the thing about coilover suspension systems, with seemingly infinite adjustment and a range of springs to choose from.

But what works and what doesn't? Well, that's when it starts to get tricky. This is what Mike was pondering. He had fitted the 30m handling circle, using data-logging equipment from Race Technology. From a subjective point of view, I would drive a few cars on track to form my own seat of the pants view.

An observational point of view first, though. Not surprisingly, given that owners and cars were representative of an enthusiasts' forum, each was in pretty good condition, with suspension in good shape. That's not always the way with 996s, or modern Porsches in general, because the suspension is complicated and prone to wear. When it's good it's good, and when it's bad it's horrid! All cars presented well, with the basics in good order. No creaking coffin arms, no knackered top mounts etc.

What each car had, then, was a different take on suspension, from standard, to Porsche's own M030, to aftermarket springs/dampers to full coilover, with differing spring rates. Just about all the cars had been set-up on a full rig, so geometries were consistent. Indeed plenty had been

66 What works and what doesn't? That's when it starts to get tricky

very same Ohlins kit that I had, and found that the out of the box spring rates were too stiff for typical Brit roads. Well, too stiff for him anyway. That's the thing, it's a very subjective matter.

He wondered what other folk were using and so put it out to the other forum members, plus suspension set-up experts, Center Gravity. Oh, and to me as he was keen to try my set up, too. Equally, we were keen to join in and try other folk's solutions.

And so Mike gathered a representative bunch of 996 owners at Bruntingthorpe Proving Ground, where we would put the runners and riders through various tests and try and come up with some definitive answers, although it soon became clear that suspension is a subjective matter.

Chris Franklin from Center Gravity would conduct tests on the road, his right-hand man, Pete, would measure lateral grip on a set up by Center Gravity although it should be said here that CG has no particular allegiance/alliance with any aftermarket suspension company. They purely fit and set up suspension, and are happy to advise and work with a customer to achieve a solution, something I can vouch for since it took some three trips and various spring rate experiments before I was happy.

Most of the owners and cars present have gone with their own gut feeling on spring rates. But also represented is RPM Technik's own 996 CSR EVO, which is the closest we have here to an off the shelf solution, RPM Technik being the specialist that's most associated with 996 mods and now 35 cars into its own build range. Needless to say, you can buy a complete car from RPM, deliver them your own for work, or cherry pick from a tempting parts list, like the KW/RPM Technik suspension kit fitted to the purple CSR EVO.

And perhaps, not surprisingly, the CSR EVO was the standout track car, set up as it was mainly for track work and featuring RPM's own geometry. It was the car I could have driven round and round all day, on its Michelin Cup tyres. But that doesn't tell the full story, as Chris's road results will testify.

Mike's car, with its out of the box Ohlins R&T, felt just like mine did, when I first had the kit fitted. Great on track, but way too stiff on the road. Conversely he felt mine was too soft. I must admit to feeling the same at times, put after a spirited drive to and from Bruntingthorpe on some typical undulating B roads, I reckon it's spot on for UK Tarmac. It went pretty well on the track, too, and despite being the only 996 present on 17in wheels, and with the softest suspension and not being particularly ride height low, it didn't do too badly on the lateral grip test either.

Ian Pye's Bilstein PSS9 equipped 996.2 C2 shone on the track, too, set up as it was for track days, but also showing great compliance.

Tommy Lee's Koni/Eibach combo looked the business but proved that you can go too low and too stiff, as Chris's results prove.

Jamie Summers' cool looking Fuchs shod machine was an interesting diversion, featuring DesignTek coilovers from Design 911. There was little to fault this, particularly from a value for money perspective.

Of the factory suspended cars, it was interesting to sample Peter Gutteridge's M030 spec 996.2. I hated the M030 on my car, when I got it, but I wonder now whether it was the rest of the suspension that was at fault, and not the M030 in isolation? Still, too late now, and besides, I wouldn't have had nearly so much fun and spent nearly so much money! In short, Paul's car felt just fine...

The one totally standard 996 Carrera 2 was a rather lovely example belonging to Paul Baddams, but by his own admission, the dampers were rather tired. However, I don't blame him for wanting to keep it as it is. After all, we can't modify everything.

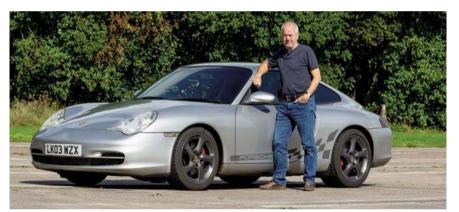
So read on for the runners and riders and Chris Franklin's illuminating assessment from the driver's seat, complete with unique dessert-based ride and handling analysis.



THE PLAYERS

Mike Aldren 996.2 Carrera 2 Suspension: Ohlins R&T coilovers Spring rates F&R: 60/120Nm Ride height: M030 Tyres F/R: Pirelli P Zero Rosso 225/40x18, 285/30x18

Chris says: Neutral turn in, quick to change direction. Corners flat and eagerly with tight, controlled ride on undulating road. Jerky, sometimes uncomfortable on broken roads. Eventful, granular steering feel. Lemon juice ride quality.





Peter Gutteridge 996.2 Carrera 2 Suspension: Porsche M030 Spring rates F&R: 26/53Nm Ride height: M030 Tyres F/R: Michelin PS4 225/40x18, 275/35x18

Chris says: Good turn in and positive direction change. Handled undulations well, likewise broken surfaces. Good showing from factory option suspension. Mostly lemon from a sorbet point of view!

Stephen Coote 996.2 Carrera 2 Suspension: Ohlins R&T coilovers Spring rates F&R: 40/90Nm Ride height F&R: 29/36 Tyres F/R: Michelin PS2 225/40x18, 285/30x18

Chris says: Neutral turn in, quick to change direction. Corners flat and tightly controlled on undulating road and seldom uncomfortable on broken roads. Lemon sorbet ride quality (with cream).







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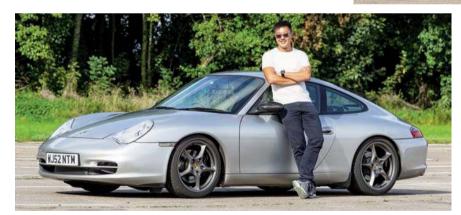
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Paul Baddams 996.1 Carrera 2 Suspension: Standard Bilstein Spring rates F&R: 26/53Nm Ride height: Standard Tyres F&R: Michelin PS2 225/40x18, 285/30x18

Chris says: Balanced turn-in, alert changes of direction, tight pitch and roll. Rides and breathes with road undulations. Comfortable enough. Occasional broken road inputs get into car. Ice cream and lemon sorbet ride..





Tommy Lee 996.2 Carrera 2 Suspension: Koni Special Active/Eibach lowering springs Spring rates: 34/90Nm Ride height: Very low! Tyres F&R: Michelin PS2 225/40x18, 285/30x18

Chris says: Neutral turn-in. Lightning change of direction. Corners eagerly, overly tight controlled ride. Very jerky – uncomfortable jerky feel on smooth and broken roads, crashy, with pitch and roll changes. Senses every nuance of the road. Ultra sharp, undiluted lemon and lime juice ride.

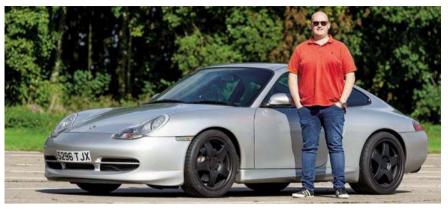
Jamie Summers 996.1 Carrera 2 Suspension: DesignTek coilovers Spring rates F&R: 50/70Nm Tyres F&R: Goodyear Eagle F1 Aysm 3 225/40x18, 265/35x18

Chris says: Quick to change direction, flat cornering. Tight, controlled ride on undulating road, busy, but not uncomfortable on broken roads. Pleasing feedback from steering. Lemon sorbet ride.



Ian Pye 996.1 Carrera 2 Suspension: Bilstein PSS9 coilovers/Eibach anti-roll bars Spring rates F&R: 50/90Nm Tyres F&R: Michelin PS3 235/40x18, 295/30x18

Chris says: Neutral turn-in, quick to change direction and very flat cornering. Well managed ride on undulating road, lateral head toss, not uncomfortable on broken roads. Heavy management of broken road displacements. Lemon sorbet ride quality.





John Gamston

996.1 Carrera 4 Suspension: Standard Spring rates: 26/53Nm Tyres F&R: Michelin PS4 225/40x18, 265/35x18

Chris says: Balanced turn-in, alert changes of direction, a little pitch and roll forgiveness. Rides and breathes with road undulations. Comfortable, seldom broken road getting into the car. Ice cream and custard ride.

SUSPENSION SHOOTOUT

Neil Hammet 996.1 Carrera 2 Cabriolet Suspension: Ohlins R&T Spring rates F&R: 40/90Nm Tyres F&R: Michelin PS2 225/40x18, 285/30x18

Chris says: Neutral turn-in, good rate of change of direction. Pitch and roll managed well and allowing less frenetic communication of road surface. Less eventful, very seldom uncomfortable, managing broken road. Vanilla sorbet, with cream, but controlled ride. My favourite!







Steve Bennett 996.1 Carrera 2 Suspension: Ohlins R&T Spring rates F&R: 40/60Nm Tyres F&R: Michelin PS2 205/50x17, 255/40x17

Chris says: Balanced turn-in, good change of direction. A little roll in corners. Relatively flat, breathes with road undulations, although a little low frequency pitching, breathing. Not upset by broken road, little of road conditions get into cockpit. Pleasing, effortless ride. Ice cream and strawberry sorbet ride..





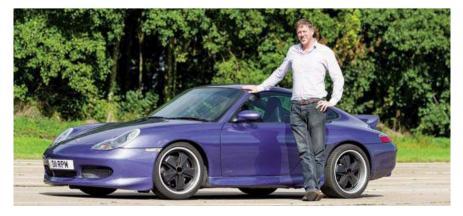
RPM CSR EVO 996.2 Carrera 2 CSR EVO Suspension: KW Variant 3, Clubsport CSR, with adjustable antiroll bars

Spring rates F&R: CSR Tyres F&R: Michelin Cup Track Connect 235/40x18, 295/30x18

Chris says: Neutral turn-in, quick direction change, corners flat, tight, controlled ride on undulating road, jerky in pitch, but not uncomfortable. Visceral event, but not shocking. Track bias over road, where it excelled. Lemon sorbet ride quality.

Darren Anderson 996.1 Carrera C2 CSR Suspension: KW Variant 3 coilover CSR Spring rates F&R: CSR Tyres F&R: Michelin PS2 225/40x18, 285/30x18

Chris says: Neutral turn in, quick to change direction, corners flat, eagerly. Tight, controlled ride on undulating road. Busy, seldom uncomfortable on broken roads. Pleasing feedback from steering. Lemon sorbet ride.



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THE EXPERT'S VIEW

Chris Franklin from suspension set up and fitting experts, Center Gravity, took to the road to analyse exactly what was going on with the various suspension systems. The findings are illuminating



'm in the office when a call comes through from 996 C2 owner, Mike Aldren. Mike mentions that he's not happy with the ride quality of his 996 with newly fitted Ohlins suspension. There's a great plan to get various 996 owners from the popular 911uk.com Porsche forum together, to try out various different suspension set ups. Maybe we could lend a hand to single out the handling traits (comfort) of the cars. I'm afraid, very afraid.

We know that handling and ride quality is a highly subjective subject, so we'll have to objectively measure it. What do we measure? It feels as difficult as measuring fog, or calculating the probable number of knots produced while untangling iPhone charging and headphone cables.

So, have we got a plan? Yes. The plan, then, was to evaluate each car objectively, and hide behind the results, without having to choose my favourite (we are experts at Center Gravity, apparently). While drivers were seat hopping into other cars, we would objectively measure. The automotive industry has constantly wrestled with the ride comfort versus handling conundrum. You cannot have both and a compromise is made, which we have to live with.

We decided with limited facility for testing, Bruntingthorpe Proving Ground

afforded us a place to group the cars, with sufficient area to use for handling (grip testing) and access to B roads outside the track.

Two driving tests were planned: We would make a 30m G-Circle and with the help of the chaps from Race Technology data logging, we would do some measuring. Each car was driven around a marked circle at a prescribed speed, while still in control. This was supposed to be non-destructive and kind to our cars.

Comfort was measured using a test route (UK B road) at sedate speeds and an accelerometer. It would measure the power and speed of the thump from the suspension, as it dealt with the road bumps. The data would be arranged to show acceleration and its direction (sideways, fore-aft and up-down) and the frequency of the thumps.

Suspension design and car design (frontengine, rear drive, rear-engined, rear drive...beam axle, independent suspension, live-axle, double wishbone, MacPherson strut etc) give us varying degrees of control, dynamics, management of grip and comfort depending on the vehicle's intended use.

Each test reveals unsurprising data and results given the sameness of the cars evaluated. The first to be evaluated was the shock test results, for which Mike was most interested. The frequency domain vibration test results tell us another story, so too the grip test.

SHOCK TESTING THE 996

Here's an analogy. Give your buddy queuing in front of you a hard shove in the back. Whilst giggling, they will probably turn round and thump you! In the pursuit of science, you pushed his body using unnecessary **FORCE** and their body moved or **ACCELERATED** forward. Their head was last to start to move, shock, horror, possibly mild whiplash!

Automotive engineers have done tests on their buddies for the sake of science to see what shocks are comfortable. Vehicle designers have used the results in their car suspension design and development. The shocks are produced in response to the car wheels and suspension resolving bumps in the road. Engineers have described these shocks one way as 'head-toss' events. This is because the driver felt more discomfort in the head and neck, rather than the torso. The table shows the results of engineer testing on real people – probably a bunch of students, paid by torture in cars being tested on a test rig. Chris Franklin from Center Gravity knows a thing or two about suspension and was able to differentiate between the varying set ups



Above: Lateral G was measured on a 30m circle. Middle right: Graph showing roll, pitch and heave is perhaps the most illuminating. That peak for Tommy's ultra-low machine represents its busy handling!

COMFORTABLE G THRESHOLD

Axis	Car motion	Acceleration g (m/s ²)
х	Roll	1.0
z	Pitch	0.25
у	Heave	0.75 Peak frequency 1.5Hz

Roll axis: side-to-side Pitch axis: fore/aft Heave axis: up/down

OUR EXPERIMENT

For simplicity, we decided to measure the vibrations as a measure of ride comfort (the accelerations in each axis) using a tri-axis accelerometer built into that most wonderful of gadgets: an iPhone, running the Vibsensor app. The iPhone can measure accelerations up to 2g at 100 times a second. It was placed under the passenger seat and set on the floorpan. Each car was driven on a standard route at 50mph, where possible.

< Runs	Data	Edit
Points: 65,894)19 (01:14 pm) Length Gaps: none 0 Hz Units: g	: 10 min 58 sec
ISD: X (0.1) Ý (Resonances: X: 0.018 Hz (Y: 0.012 Hz (.23) Y (0.49) Z (1.74) 0.09) Z (0.11) 0.088), 0.4 Hz (0.0029) 0.097), 0.46 Hz (0.0009 0.039), 1.4 Hz (0.0023)	9)
	((0.096) Y (0.081) Z (0.	
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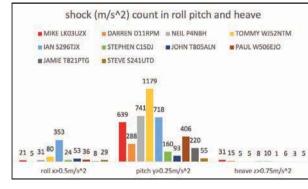
The Vibsensor data (above) was exported and analysed using the above guidelines, producing a table for each car and then plotting them in a chart. So, we counted the number of each thump in each of the three directions above a certain force.

Table example count of g shock events for Mike Aldren's 996 C2

Number of times 21 639 31	Limit in m/s^2 Roll>0.5 Pitch>0125
31	Heave>0.75

Each 10 min road-test was using the same driver (me), same road, same duration at the same speeds. We can compare cars in terms of number of shocks we got. There were variations though, each square inch of road travelled was not repeated, with duration and speeds varying slightly.

UNCOMFORTABLE SHOCKS IN ROLL PITCH AND HEAVE PITCH



Industry engineers conclude the driver is more sensitive to roll and pitch shocks. The driver is further sensitive to pitch (fore-aft of nod) or, if you like, the fore-aft swing of the fluffy dice hanging from the rear view mirror.

The car with the most pitch events higher than our guideline is Tommy's ultra-low Koni/Eibach C2. The least is Steve's Ohlins equipped machine, with its softer than most springs.

UPS AND DOWNS

The driver can better cope with heave

shocks, to a point (dictated by the frequency being less than the ³/₄ hits per second). The cart shows most of the cars rarely convey these shocks in heave, although we don't mention their frequency. Mike's and Darren's respective cars do show more up/down shocks than the others. Non-sports cars, however, would show almost no heave events (except for the early Audi A3 Sportline suspension I remember of old!). You can see that the trend for most cars in the chart is an average of nine shocks greater than ³/₄ m/s2. This we would find is an accepted norm for sports cars.

ROCK AND ROLL

The uncomfortable sideways push speed threshold of 1m/s2 was used, but modified in our analysis to 0.2m/s2, so we could show data for our cars. Most cars show relatively fewer events than the pitch data. This reassures us that even our sports cars' suspension doesn't compromise an industry standard. Tommy's and Ian's cars are

notable as they are higher than the average count for the other cars.

PORSCHE BOBBY NOSE

Our comfort threshold for pitching is said to be 0.25m/s2 lower than it is for roll and heave. Automotive engineers are very particular about this character. The 911 is renowned for its

pitchy nature, compared to, say, front engine sports saloons. No surprise then that pitch shock events feature in our chart. Mike, Tommy, Neil and Ian's cars feature a higher number of shock events than the average shown for the other cars.

SHAKE RATTLE AND ROLL

Mix shock events of roll, pitch and heave and we have a comfort recipe dictated by our cars' response to driving on typical UK roads. The chart shows an overall norm for



all our cars and those that are well below the norm and above. Most noteable are Mike's and lan's cars, with shocks in three directions. Noteable for relatively lower shocks than the rest is Steve Bennett's flying carpet car!

THE VERDICT

The 911 is a sports car, with sports car suspension, whether in standard or modified form. Drive it on a circuit, or perfect Italian Alps roads, or super-smooth A road Tarmac and the shock events fade as we have fun. But that's not typical of our UK roads.

The evaluation route for our test was a typical Brit B road, with some relief, roadworks, scars, bends and cambers, most of which was driven at 50mph, for reasons of repeatability.

The effect of shock-events diminishes with the car's velocity, so we feel it less as we go faster. However, we have limits and other traffic to consider, so forced to drive at lower speeds. The sat-nav industry uses 50mph as an average speed to calculate journey times, so we thought that a reasonable choice for test.

Taking Mike – because all this is his fault, after all – he feels that his car's ride is harsh, with its Ohlins dampers and out of the box spring rates of 60Nm front and 120Nm rear. We might agree there's something in the chart to qualify his observation compared to the other cars. Mike did experience rides in other cars on the day, so has a target ride comfort in mind.

So, this is a subjective topic, for which our response may be 'well, I think it's just fine,' or 'in the Alps...' or 'at Silverstone...'. Comfort and road holding are at opposite ends of the handling spectrum, where we the driver choose what is acceptable for how we enjoy our cars.

Folk have asked me – as the supposed expert – what my favourite car of the day was? Well, it was Neil's Cabriolet because it 'felt just fine.' Could you have derived that from the chart?

WHAT WE LEARNED AS ENGINEERS

Here's a non-exhaustive list, in no particular order, of factors we found affect how a car manages road bumps

a departure from the norm for some cars.

That's mainly because of the differing

suspension, wheels and tyres. Certain

response to bump. More of that below.

There's also another side to the story that

applies to Neil's car. Further analysis of the

affect ride comfort and handling of the 911.

vibration data revealed qualities that also

frequency, is the cornerstone of vibration

data to be able to explore our own cars

analysis. We collected enough of the right

further. Perhaps 911&Porsche World will do

a follow up in the near future, to see how

this info has been used. PW

The repeated cycle of shocks, or their

combinations do emphasise the cars'

Fresh tyres with tread are more forgiving, than old and worn Tyre profile and wheel diameter affect ride quality High spring rates convey more shocks than low rates Higher damper rates are needed for higher spring rates A worn damper is less able to manage the bump and rebound caused by the bump Shock events (roll, x-axis) increase with more negative camber Damper travel – or lack of it – affects ride quality Stiffer anti-roll bars tend to produce higher roll, pitch and heave shocks on a bumpy road Sports cars have more or less everything learned above Not surprisingly perhaps they were all pretty good on the track, even Bennett's softly sprung creation

CONTACT

Center Gravity centregravity.co.uk Race Technology race-technology.com **RPM** Technik rpmtechnik.co.uk 911uk 911uk.com **Ohlins** ohlins.com Eibach eibach.com Koni koni.com Bilstein bilstein.com Designtek design911.co.uk KW kwsuspensions.co.uk

Stand out in lateral G test is the RPM Technik CSR EVO with its stable platform and grippy Michelin Pilot Cup tyres





CSR-028 is a prominent example of a new breed of CSR. In Brewster Green non-metallic, this CSR had a bare metal respray & colour change from the Arctic Silver original colour.

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Cayman S (981)

Carrara White • Black Leather Sport Seats PDK Gearbox • 19" Cayman S Wheels Switchable Sports Exhaust • 15,994 miles 2015 (65)

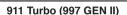
£40,995



911 Carrera Sport Targa

Grand Prix White • Dark Blue Leather Seats • Manual G-50 Gearbox • 16" Fuchs Wheels • Fully Electric Seats • 22,373 miles • 1988 (F)





Basalt Black • Black Leather Seats PDK Gearbox • 19" Turbo II Wheels Touchscreen Satellite Navigation 31,778 miles • 2010 (10) £69.995



911 Turbo (996)

Lapis Blue • Dark Blue Leather Seats Manual Gearbox • 18" Turbo II Wheels BOSE Sound System • 75,992 miles 2002 (02)

£39,995



911 GT3 (996)

Guards Red • Black Leather Bucket Seats Manual Gearbox • 18" Sport Design Wheels · Air Conditioning · 29,552 miles 1999 (V)

£79,995



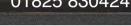
911 Carrera 4 GTS (997)

Meteor Grey · Black Half Leather Sport Seats • PDK Gearbox • 19" Centre Lock Wheels • Touchscreen Satellite Navigation • 23,987 miles • 2012 (12) £62.995



Boxster 718

Guards Red • Black Seats with Alcantara Inserts • PDK Gearbox • 18" 718 Boxster Wheels • Bluetooth Phone & Music 9,528 miles • 2016 (16) £35.995





911 GT3 Clubsport (996)

Guards Red • Black Nomex Bucket Seats Manual Gearbox • GT3RS Front Bumper & Rear Spoiler • Carbon Interior Pack 43,336 miles • 2004 (53)

£74,995



Cayman GTS (981)

Guards Red · Black Half Leather Sport Seats • PDK Gearbox • Touchscreen Satellite Navigation • Switchable Sports Exhaust • 23,125 miles • 2015 (65)





911 Carrera 4 S (996)

Polar Silver • Black Leather Seats Manual Gearbox • Sports Exhaust 18" Turbo II Wheels • 32,118 miles 2002 (52)

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GRAND GRAND TOUR

Suave and serene, Ruf's brand new Grand Tourer is among the least extrovert cars to emerge from Pfaffenhausen. Based on the 991 gen 2 GTS, it's an amazingly competent car that espouses modernity with a sprightly vitality that's absent in the standard model

Mo ZK 23

0

Words: Johnny Tipler Photography: Antony Fraser

uf Gran Turismo! There's a certain logic to it and, surprisingly, there's never been a Ruf bearing the GT designation until now. Sure, there was a 996 based RGT, but in the complex roster of Ruf suffixes, the latest offering from the Pfaffenhausen stable is, concisely, labelled the GT. Somewhat remarkable that they've left it so long to apply those revered – if previously overused – initials, given that all Ruf models are Grand Touring cars in the best traditions of, well, grand touring. Too obvious, perhaps. Some Rufs are slightly more opulent than others, but they're all fast, luxurious cars that you wouldn't hesitate to cross continents in, and the Ruf GT very much hits the bullseye in that department. Now, on our annual pilgrimage to south Germany, we take the grand tour.

The Ruf GT is based on the gen 2 991 GTS, and was created for the 2019 Geneva show, so it's very much this year's model. 'It's based on the twin-turbo Carrera engine,' says PR Marc-André Pfeifer, 'but with our upgrades installed. It's the first step to a Ruf car, one that you can use every day, but one that's not as hardcore as some Ruf models. It's still pretty fast, given it has only (!) 515bhp, and it's got a lot of



torque. It has a wide power band because of the turbocharged engine, plus a lightweight stainless exhaust system, and the car itself is very light (1450kg) with the manual gearbox.'

The GT can be configured according to customer preferences, with two- or fourwheel drive, for example, or 7-speed manual or 7-speed PDK transmission. Its 3.0-litre flat-six is based on the GTS's twinturbo unit, but power rises from 444bhp to 515bhp at 6500rpm, with torque rated at 476lb ft at 3500rpm, enabling it to do 62mph in 3.4sec, which is slightly quicker -0.2s - than the fastest 991 GTS with 4WD and PDK transmission. A Ruf build means anything is possible. However, this particular car's owner opted to retain the standard suspension, though of course it does have the Ruf engine and braking upgrades. Ballpark price of the GT is round about €350,000.

The Geneva car was black with black wheels, while this one is white, sporting Ruf's own five-spoke 20in wheels, shod with Michelin Pilot Sport Cup tyres, 255/30 ZR 20 front and 325/25 ZR20 rear. The frontal treatment is typical Ruf, with a GT2style grille topping the sweep of the front panel, a pair of circular vents in the lower quarters of the valance, with carbon-fibre lower lip and splitter. Prominent on the lid is the striking new Ruf shield badge, based on the Pfaffenhausen coat of arms. The GT is also fitted with Ruf's door mirrors, and finished with a ducktail engine lid - which reminds me of a similar one that Alois gave me for my own 996 a few years back. The difference with that is the GT also sports a cantilevered wing that soars above the ducktail spoiler, the profile of which is subtly contoured. There are prominent air vents in the rear-threequarters of the rear valance, with two sets of twin tailpipes emerging

either side of the slatted carbon diffuser.

It is quietly understated in most respects; there's no ID on the rear lid, while in the cabin the only giveaway as to its identity are the slim white bands along the doors, across the centre line of the dashboard and around the centre console, and on the back side of the shift gaiter is a little GT badge. It has Alcantara lining the ceiling and the A-, B- and C-pillars, which conceal the integral Ruf roll cage, with drilled aluminium alloy pedals and a left foot-rest monogrammed with Ruf. Yellow belts provide a splash of colour, while the distinctive black-and-white Houndstooth check inserts to the Ruf sports seats offer a classic twist. A discussion ensues as to the correct name for, er, houndstooth tweed: it could be pied-depoule, apparently, meaning hen's foot. Personally, I'll stick with the doggy analogy.

Meanwhile, in the cosy rotunda at Ruf's Pfaffenhausen HQ, we're chatting with Ruf GT is 991 GTS based. Rear features traditional Ruf ducktail rear lid and an attention grabbing, cantilevered wing

Not that you can see it, but engine has had a modest power increase (by Ruf standards) from 444bhp to 515bhp. Below: Subtle GT badging





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Marcel Groos (Alois's son) and press officer Marc-André Pfeifer. Verena Proebst is here, too, and as curator of nearby Automuseum Adlkofen, and whose dad Walter raced Porsche 910 #001 and a 908 Spyder back in the day, she's keeping a weather eye on the classic elements of our tale.

Depending on the spec required, the Ruf GT is one of the firm's less radical models and therefore not as labour intensive to produce as cars such as the CTR or SCR. But, as Marcel points out, 'in fact, there's generally a waiting list for all the cars, because we are mainly concentrating on production of the new CTR4, but the back order for modern cars is not too long.' The CTR4 production facility is based on another site behind Ruf's busy PC (people regularly drive the 60-miles from Munich to have work done) and servicing and restoration building on the opposite side of the flower-bedecked roundabout that coincidentally forms a hub for the company's increasingly multifaceted operations. Pfaffenhausen's peripheral light industrial conurbation has grown considerably since we first started coming here, maybe 15 years ago, and it was Ruf's expansion that started the ball rolling. But

the new CTR facility can only come on stream when the model is finally signed off: the yellow pre-production model we drove last year remains the single CTR4 completed – while the blue version currently gracing the showroom is complete though currently for display only. Meanwhile, Alois the perfectionist is susceptible to a constant stream of ideas and tweaks suggested by associated designers and engineers. So, they can't commit to starting production until all possibilities for further modifications are exhausted.

The discussion moves on to the extent of the Ruf operation; on our visit it's clear that the buildings opposite the showroom and service block are undergoing modification. There's another facility adjacent to one of Ruf's hydroelectric power stations in a neighbouring village which serves as a prototype assembly shop, though generally Ruf's carbon-fibre body panels are manufactured by an outside source. 'We don't do that in-house because for the moment it's not logical to get into fabrication at that level with all the specialised equipment and environments we would need. We need to be sure of the continuity, because once we've started production we

don't want to compromise our targets and schedules.' Marcel indicates another development on the opposite side of the ubiquitous Pfaffenhausen roundabout: 'there is a possibility that we could house the whole restoration department there, and that would create more space in the service centre, though equally it could be for the CTR production; so, for now, we wait. Clearly, they're in the throes of some fairly radical departmental rationalisation. 'We also have to take care of our workforce; we have to decide how many technicians we will need to build the CTR4 over the next two years, and they will need space to park their own cars, and a bigger place for them to have lunch; so these are now the things we need to nail down, because otherwise vou end up building something new every year and we don't want to be doing that.' At this point my colleague is rendered helpless by the spectacle of salad-filled Pretzels presented for our lunch: there's no logic...

Enough talking: next, we head out into the familiar Swabian country roads where we can rely on minimal traffic and stretches of smooth blacktop for the action photos. As you would expect with a modern Ruf, the power delivery is spontaneous and Every manufacturer/tuner must have a first rung of the ladder and for Ruf it's currently the 991 based Ruf GT

Some white detailing lifts the largely black interior. Seats have Ruf's houndstooth inserts





MARKET FORCES

Inevitably, the current classic car market comes in for scrutiny. 'We recognise that the classic car market in Europe is flattening off, though it is still high in the USA,' says Alois Ruf's son Marcel Groos. 'I can't wait to see what happens when the Asian market opens up, with an import allowance for old timers. That means potentially 3 billion people entering the market, which will double the number of customers who are currently interested. But, at the moment, many people are buying these cars just to re-sell, to make a fast Euro, as we say, and it worked for two years if you had a very special car, but now everybody thinks that his car is special because it's got red stitching or whatever, and they try to sell you everything as special editions. My next headache could be that I want a GT3 or whatever as my road car, but then Porsche will limit production and I shan't be able to afford it. And the ones they do release will never be driven, so that, after three years, you'll see 60 different cars advertised with between 0- and 2000km, because no-one is driving them. And in the first place you probably need to already have a Boxster Spyder or a GT4, otherwise you're not allowed to buy the RS. They are made to be driven, even more than regular cars, but the way we orientate the marketing, the way we sell the cars, turns everything upside down.' He warms to the theme: 'Then you go to a Porsche meeting or trackday, and you'll see 50 GT2 RSs, and 20 of them have less than 2000km because they came on a trailer; what's wrong with people? Why are they buying this car? Most of the people who would love to have the car to drive it, they are completely out of the market. I'm sure Porsche are doing the best thing for themselves in monetary terms, but you can't help but wonder if they said, yes there's an RS version of this model, but we're not going to restrict the numbers; if you want to order an RS, just order one, and then there won't be any after-market hiking of the price, and they'd also probably sell more cars.'

CONTACT

RUF Automobile GmbH Mindelheimer Straße 21 D-87772 Pfaffenhausen Tel.: +49 82 65 911 911 info@ruf-automobile.de **ruf-automobile.de** Thanks to Eurotunnel for facilitating our subterranean passage via Le Shuttle to Le Continent



colossal, the revs soar well into the high numbers, 6- and 7000rpm, though I can also cruise nonchalantly at 3000 rpm in 6th, and I'm also noticing a bit of 7th on the longer transit sections. The curves are calling. As I set it up for the nicely open Sbends, I don't think I've driven anything quite so fast through here; it really is delivering towering performance, smooth and perfectly controllable, the steering so precise and light, and all the while it's got this huge head of steam available. And then when I brake and downshift through the gears to turn around at virtually no kph, it's entirely compliant.

Irresponsible or not, you have to see just how quickly you can go in a car like this (provided there's no other traffic in sight). On the straight stretch between turnarounds, let's

say a quarter of a mile, I very nearly nudge 250kph, and in other less frenetic runs I achieve 7th gear, too, while the relatively big drop in revs between 6th and 7th declares this to be a cruising ratio. The regular reader will be aware that in order to provide the snapper with ample opportunities to get the money shot the driver is obliged to make several passes in front of the camera, requiring a safe turnaround at either end of the passage. Doing this once or twice tends not to attract too much attention. But do it ten or 12 times, and people start to take notice. And so it was: I became aware that an ancient hatchback had shuffled down an adjacent lane beside 'my road', and a middleaged woman had got out to watch. Cornering shots in the bag, we were about to do the panning routine when Rafael, our Ruf rep,

took a call from base, saying that our activities had been relayed to the local police. Happily, Marcel fielded the call and defused the situation. We did change location, though.

Summing up, the Ruf GT is best of both worlds: it's the daily driving supercar, and it's also the peerless Grand Touring car; one you drop your kids off at school in, and, come the hols, you head for the beauty spots. It looks the part, too. It's absolutely secure at very high speeds, yet docile in an urban environment or when pootling is required. All Ruf cars are like that to a certain extent. But the GT is rather different. It's a canny augmentation of a perfectly competent stock machine that contrives to exceed the standard model's parameters without proclaiming its prowess too overtly. Leave that to the driver. **PW** Above and below: Distinctive Ruf five spoke wheels are something of a design classic. Polished pipes add some bling to the monochrome look



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The Ruf 993 turbo R is faster and more acute in every dimension than the production car that spawned it – rather like a standard 993 Turbo that's been given some training in the gym

2K 9930

Words: Johnny Tipler Photography: Antony Fraser



estrained dynamism: that's the 993-based Ruf turbo R. Although Ruf cars are always ahead of the game in terms of performance and structural integrity, Alois himself has always adhered to the classic 911 look, to the extent that his latest incarnation of the illustrious 1987 Yellowbird, the carbon-fibre 2018 CTR4, looks like the original Yellowbird on steroids. In similar vein, if you lust after the subtly curvaceous 993, Ruf will build you a car called the Ruf turbo R. Based on the widebodied 993 Turbo, this model was in production at Pfaffenhausen between 1994 and 1997, but, if you must have a new one today, they'll create it for you.

Apart from the retrospective image, the turbo R spec (note the lower-case 't' in turbo) comprises the twin-turbo 3.6-litre flat-six, producing a stirring 490bhp at 5500rpm and 479lb ft torque at 4800rpm. Likes to rev, then. Stats claim 0–62mph in 3.6sec, 124mph in

11.8sec, and top whack of 204mph (329kph). It has four-wheel drive, six-speed manual transmission, with firmer springs, uprated Bilstein shocks and thicker anti-roll bars, rolling on 18in Ruf alloy wheels and (at the time) Potenza S-02 tyres. Today's test car runs 8.5J and11J 19in Ruf alloys, shod with Michelin Pilot Super Sports, 245/35 ZR19 front and 305/30 ZR19 rear.

The turbo R is very of-a-period, in that you've sat yourself in a classic car rather than a modern state-of-the-art Ruf – though, nudge to self, this was the bee's knees 20 years ago. The 993 Turbo always projected angelic innocence; the upright headlamps of the trad 911 were suppressed, the curves of the body less overt, contriving a less aggressive demeanour and, up to a point, the turbo R presents much the same image. The sensuous curves of the broad-hipped 993 are enhanced by Ruf's tripartite intake front panel with its jutting chin piece, door mirrors, aero sills and vented rear valance, while the fulsome rear wing containing the slatted intercooler and fan grille, with finned lip as perimeter, looks like an elaborate piece of confectionary from a cakeshop.

Unlike the CTR1 and CTR2, and indeed other turbo Rs, the rain gutters were not sliced from this turbo R's roof edges, while Ruf hallmarks present in the recognisably 993 Turbo cabin include monogrammed instruments and green-numbered gauges, floormats, steering wheel and sports seats with a couple of USB ports a nod to the modern age. A full roll-cage is unobtrusively incorporated inside the cabin, with door beams and strut-brace, beefing up the shell's torsional rigidity no end. Though not a new creation, the dark blue turbo R we're running todav has been 'refreshed', as PR guv Marc-Andre Pfeifer puts it. 'If you want a 993 turbo R you can have a brand new one in 2020, but right now we've got a long waiting list for classic models!'

Out and about, our Ruf guide, Rafael brings

The 993 based Ruf turbo R is very much of its time, compared to the digital Ruf GT of the preceding pages. And it's very fast!

Classic, compact and cosy interior. Green numbered dials are classically simple







us to a stretch of Bavarian blacktop where we haven't shot before. Again, some pleasantly swooping ups and downs, including an offcamber downhill left-hander where the turbo R drops sharply as I take it at pace - a moment when it feels most like a competition car set-up. Steering is very light and requires only slight input to change direction. The normal 993 Turbo is a lively car, but this is more malleable, more responsive, certainly to changes of line. The 6-speed G50 shift mustn't be hurried, though. It's exceptionally fast, too, when taking the revs right round to 6000rpm in the middle three gears, and it has brakes to match - 322 x 22 and 28mm vented and drilled discs with four-pot calipers. The turbo R is alive in every sense, from the feel through the steering wheel, a little surprising given the all-wheel drive chassis, while the feedback from the ride via the firmer dampers is reassuring. Its throttle response and sensational acceleration are thoroughly entertaining. It certainly makes its presence felt; it's noisy, and though it doesn't quite backfire, it certainly popples amiably on the overrun and the turbos almost shriek between shifts. The boost gauge, which is housed where the clock would be in the normallyaspirated version, is busier than an AI Jolson hand-wave session

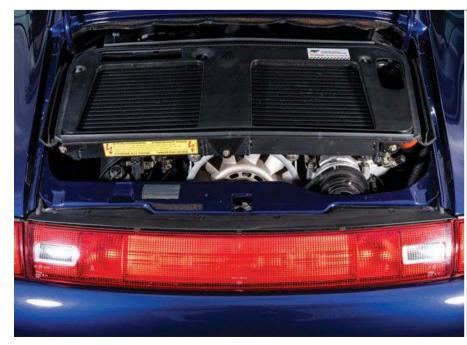
Back at base, we discuss its raison d'etre. Historically, the turbo R was the 15th model in Ruf's creative lineage, and could be ordered as a complete Pfaffenhausen special or, more mildly, a tuned and massaged 993, with Ruf accoutrements. 'Originally,' Marc recalls, 'we offered the turbo R as a power upgrade for the 993, including the turbochargers, camshafts and exhaust system. It was an economical package that was very good value. It was about a week's work, so you could drop off your car on Monday and pick it up on Friday, and suddenly you had another 100 horsepower. And subsequently, we offered the turbo R as a complete car with Ruf bumpers and the integrated roll cage as well as the mechanical enhancements. The car you drove today is almost a complete turbo R package, which means you have the integrated roll cage, which makes a big difference to the rigidity of the chassis. With the new cars it's not a super big point anymore, but up to a 993 it made a super big difference to the whole torsional stiffness. We would also change the gear ratios, and if somebody insisted on having the max gear ratio we would change the 5th or 6th gear to give them that. To go up to 350kph was a big thing in the '90s, so there was a big issue with tyres, and we needed to find a tyre

manufacturer (Bridgestone) who would give us the clearance for top speeds above 300- or even 350kph, and give us the paperwork that says we are allowed to use this tyre at those speeds. So, that's the history of the turbo R, which was a bit before the 993-based CTR2, which became our top car with more than 500bhp. The turbo R was still officially 490bhp.

'Of course, we would recommend customers to upgrade more aspects of the car, better brakes, better suspension, but you could just purchase the engine upgrade, and that was basically the big opener because we very quickly had a package that was more or less an instant upgrade.' He estimates that more than 100 clients went for that with the turbo R. 'The factory 993 Turbo S came out at the same time, with 450bhp, prompting 993 Turbo owners to look for possibilities to upgrade without spending another DM200,000, and while the Ruf turbo R looks less intimidating than a 993 Turbo S, with 490bhp it performs better.'

The Ruf 993 turbo R is a great car for someone who shares Alois Ruf's penchant for classic 911s, and who wants more athleticism than the standard 993 Turbo offers. And I'll take that as my cue and perhaps head off to the gym as well. **PW** A deeper front spoiler and those 959 style slats front and rear say 'Ruf' over a standard 993 Turbo. Plus, of course, the Ruf five-spoke wheels

Below left: Massive intercooler dominates the engine bay. Engine mods include cams, turbos and exhaust to produce 490bhp







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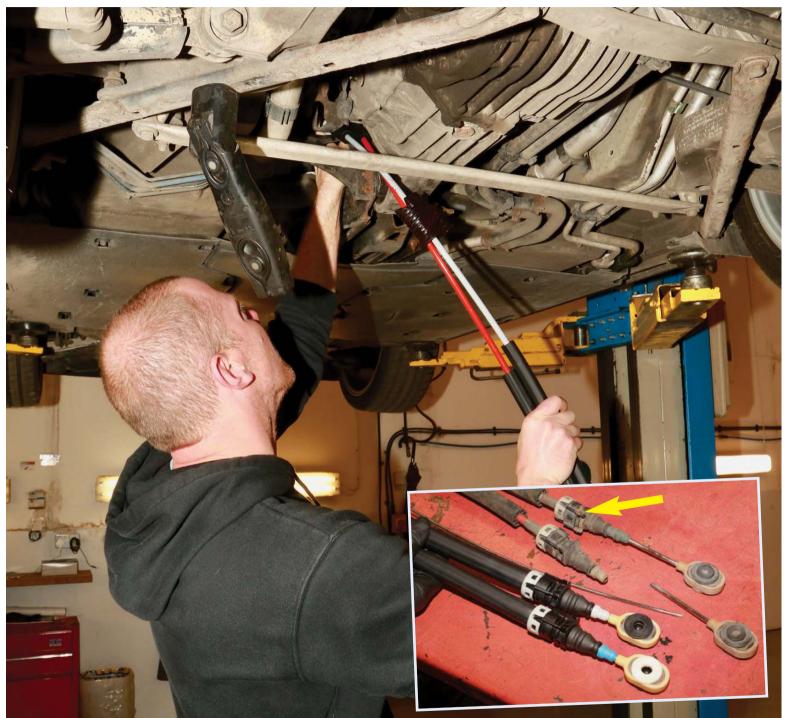
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TECH: HOW TO

THE MISSING LINK Suddenly losing your Porsche's manual gear shift, whether it leaves you stuck in forward, reverse or neutral,

Suddenly losing your Porsche's manual gear shift, whether it leaves you stuck in forward, reverse or neutral, is not a happy experience, but more often than not it's simply a breakage in one of the two cables connecting the lever in the cabin to the oily bits at the back. That knowledge alone won't get you home, but it's a relatively simple and inexpensive repair. Cheaper than a new gearbox, anyway. Story and photographs by Chris Horton



aving your car break down is frustrating at the best of times, and perhaps even more so when it involves the loss of something as relatively uncomplicated but also as fundamentally necessary as, say, throttle action, or the ability to change gear. Many years ago, I came to a rather sudden halt at the side of the M40 motorway – luckily without mishap – in a Mark 2 VW Golf,

simply because the end of the accelerator cable had somehow become detached from the pedal. (I had been in lane three at the time, so it was quite an exciting 'landing'.) And only last week Mrs Horton was out – on her own, many miles from home – in our VW Passat, when one of the intercooler pipes worked loose, with a worryingly loud bang, and again leaving the engine running but unable to rev above idle.

We can all empathise with Maundrell &

Co's Alex Rogers, then, driving to work in the Oxfordshire-based company's 997 Carrera 2 project car (of which more in future editions), when one of the two gearshift cables broke without warning, leaving the transmission effectively stuck in third. That 3.8-litre engine famously has plenty of torque, and much of Alex's route is across open downland with little traffic, and certainly no stop-start jams, but pressing on and hoping for the best could ultimately 997 (and 996 etc) gear-shift cables are simple and robustlooking devices, but breakages are all too common, usually where spiral-wound middle section meets solid gearbox end. Situation is further complicated by feeble clip (arrowed) into mounting bracket

In order to access the upper ends of the gear-shift cables it is necessary first to remove the entire central tunnel finishing trim. These photos show the many hidden screws in this particular car, but be aware that others may be slightly different depending on model year, specification, and so on. Either way, make sure that you have found and removed all of them before attempting to lift out the plastic moulding, and take great care not to break any of the plastic screw covers – use only plastic tools to prise them out. Gear-lever surround has to come off, too, as well as the side pieces from the fascia. These have clips that demand you pull them to the rear to disengage (arrows); force them in any other direction and they will almost certainly break

1111



Frankly, this preliminary part of the job is all a bit of a palaver, but actually quite satisfying when you get it right and know that, because of your diligence, everything will go back together again exactly as it is supposed to. The various electrical connections are another minor hurdle. Again, don't just force them: there will most likely be a locking clip to release before the plug and the socket can be separated – and make sure you have good lighting so you can see exactly what you are doing

PRACTICAL PORSCHE

TECH: HOW TO



finally out of the way we could see immediately that it was the right-hand cable that had broken. Still a little more dismantling to do, though: the handbrake lever, secured with three M8 nuts, has to come out, for a start. Cables to rear brakes unhook quite easily from the balance bar at the rear of the assembly, but again don't forget the

have had all sorts of undesirable consequences - and quite possibly the need for a new clutch. So the tow-truck it was. And late for work, of course

Lucky for the rest of us. though, because with the car back at base it gave me the

opportunity to follow the replacement of the cables from start to finish and, I hope, to pass on the grisly details here. Whether, as usual in these circumstances, it is a DIY prospect or not will depend upon a number of factors, including your ability safely to

gain access to the underside of the car. (And such that you can also reach up above the front end of the transmission. to where the cables enter the cabin.) But at least when you have studied the photos and the accompanying text you should

THE KNOWLEDGE

Refreshingly, there is not a lot of additional detail you need to know about this one. The cables come from Porsche as a pair – for this particular vehicle part Porsche as a pair – for this particular vehicle part number 997 424 041 01, and priced at £113.59 plus VAT. That is arguably rather annoying if you need only one, but the obvious truth is that the second probably won't be too far from breaking, so best get it over and done with. Until the next occasion, anyway... It is also highly likely that both cables will have

become too loose a fit in their metal securing brackets on the side of the transmission, thanks to their flimsy plastic clips ageing and 'relaxing'. (Bizarrely, it's the gear-lever ends, inside the cabin, and thus well away from any obvious heat source, that have equivalent and seemingly more robust metal clips. Go figure.) You might even find that they have been previously secured with tie-wraps, and it is an eminently sensible precaution to adopt the same method when you fit the

new cables – or to encourage your chosen specialist to do so. (And any good one surely would anyway.) In terms of labour you will – or should – be looking at paying for around three hours. If tackling the job yourself you will need only the usual hand tools, but merically a set of The programming for the but specifically a set of Torx screwdrivers for the number of such fixings securing the centre tunnel trim inside the cabin. (And removing and refitting that is arguably the most time-consuming and certainly the most tedious part of the entire process.) In theory you will also require the special Porsche tool to set the gear lever itself in the correct position before connecting the upper end of each new cable, but there is a devastatingly simple way around that hurdle – details in the photographs.

Part of the car's rear undertray has to come off, too, so be prepared for rusted and thus seized (and quite possibly broken) fixing studs on the underside of the

body shell. Those can be replaced if they do snap – albeit with some rather specialised welding gear; talk to Robin McKenzie at Auto Umbau about that – but generously spraying the securing nuts with penetrating oil before you start work should help avoid the problem. And be prepared, as well, to find all sorts of other minor – or even not so minor – problems while you are delving about in this area. Corroded brake pipes are the most likely, but so too the connections in the longitudinal coolant pipes and, as in this example, damaged and/or leaking air-

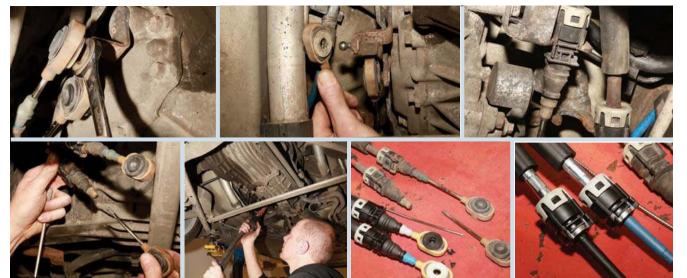
conditioning lines. (See this month's *Tech Topics*.) Our thanks to Maundrell & Co for their help with this feature, and particularly to senior technician Darren Gardiner and workshop manager Rob Clarke. Гhe company is based in Letcombe Regis, near Wantage in south-west Oxfordshire. Call 01235 762033, or go to maundrells.co.uk.



To disconnect the cables from the gear shift, push forward the two spring-loaded mouldings and twist. This will lock them in a position such that you can then lift the serrated end of each cable out of its channel. To preserve adjustment of the gear lever, and thus avoid having to use Porsche tool when refitting the cables, scribe a line on the channel section to indicate the front end of the serrated plastic part. Gently squeeze together the 'ears' on each cable's securing mechanism, and lift it up and out of the bracket. Push rubber grommet through hole in body; be careful not to damage or disturb the main battery cable (arrow)

Lower end of each cable is a simple push-fit: a rubber bush over a metal ball on the selector arm on the gearbox. Easiest way to release them is by inserting a suitable spanner and twisting or levering, as here. Once again, squeeze together the ears on the securing device (top row, far right) and pull the cable out of its reaction bracket. Breakage is typical, says Maundrell technician Darren Gardiner: where the spiral-wound middle section of the cable meets the solid lower end. Old cables can now be pulled down and clear of the car. Oddly, it's the upper ends of the cables that have what look to be the more robust metal springs in their securing mechanisms (far right). The lower ends, which surely experience more heat, have equivalent plastic jobs. Installing the new cables is a simple reversal of the above procedure. The trick is to lubricate the grommet (a new one comes with the cables, so it doesn't matter if you damaged the old one while extracting it) with rubber grease, inside and out, to allow everything to slide home more easily. And use only a blunt tool to push it gently from beneath. The cabin end of the

grommet is shaped such that you will see when it is fully home; gently ease it the last few millimetres with a pair of pliers, if necessary. It's a good idea to secure the lower ends of the cables into their brackets with tie-wraps: those Porsche clips alone are really not overly secure, say the experts. Green tool (below right) is the Porsche gadget for resetting the gear lever. Not required here, because Darren had marked the plastic channels, as described earlier (arrowed); and in truth not even suitable, because this car has a nonstandard 'short' shift. Release the locking devices, check that vou can select all gears, and the job's done. Well, almost:



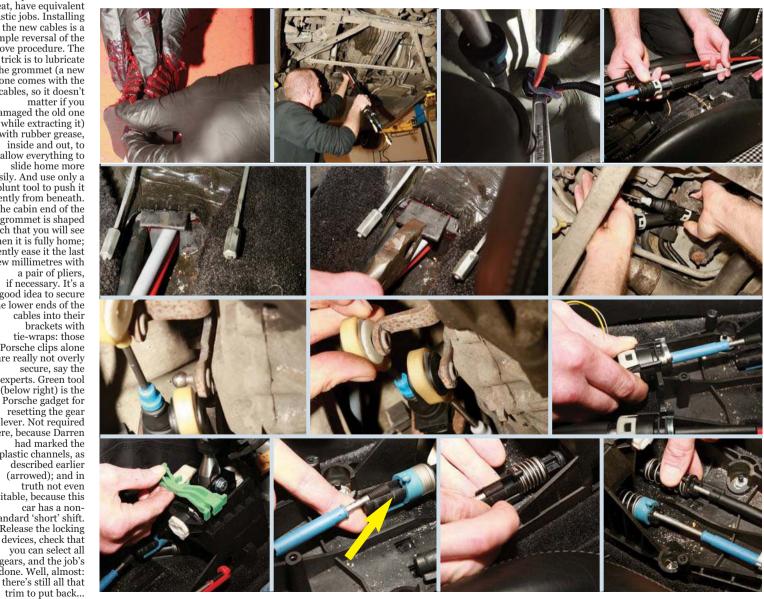
have a far better idea of what you might be letting yourself in for. Or why it might be better simply to hand the job over to a professional and to let them get on with it.

In case you have a feeling of déjà vu, by the way, we covered a broadly similar iob in the October 2017 edition of the magazine,

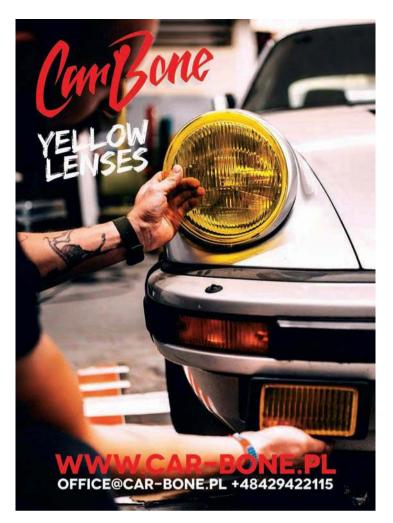
when Porsche-Torque's Sid Malik dealt with a 996-model 911 GT3 in which the equivalent cables, and thus the gear lever, had become increasingly stiff to operate another quite common problem, and itself often a harbinger of a breakage, of course. Unsurprisingly there are both similarities

and differences between the two cars - in the 996 the cables are attached to the righthand side of the transmission, in the 997 to the left; and in the 996 GT3 they often work loose from their mounting brackets on the gearbox – but, even so, it's a tale that surely bears repetition. PW

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GUEST TECHNICAL SPEAKER:

CHARLES NAVARRO Charles Navarro is the co-founder and owner of LN Engineering, based in Momence, Illinois

Charles Navarro is the co-founder and owner of LN Engineering, based in Momence, Illinois, about an hour's drive south of Chicago. With many years of experience in both air-cooled and now water-cooled Porsches – including the manufacture of the well-known Nickies cylinder barrels – he is ideally placed to offer words of wisdom to anyone thinking of buying a pre-owned Boxster, Cayman or 911. And, no less importantly, what to do after that

orsche's first generation of water-cooled Boxster and 911 models – the 986 and 996 – as well as the later 987 Cayman models, represent great value, and are an excellent choice for first-time Porsche owners. Even so, a quick Google search might scare some people away from buying any Boxster, Cayman and 911 model from 1997 through 2008 with either the M96 or M97 engine. RMS, IMS, AOS, intermixing, or cylinder-bore scoring, to name just a few, are common areas of concern that potential or current owners should familiarise themselves with.

When establishing your budget, set aside a minimum of \$5000 - \$6000 (currently around £4000 - £5000) for preventative maintenance. The older the car or the higher the mileage, the more you will need to allow for possible issues. Likewise, very low-mileage cars, or those that have been used for circuit driving, will need extra attention.

Buy as good a car as you can afford, and don't fall in love with the first one you find. Start with a proper pre-purchase inspection – carried out before you buy the car! – by a shop familiar with these models. This includes dropping the sump, bore-scoping the cylinders and carrying out a manometer test, among other checks that typically aren't part of normal pre-purchase inspections. Tony Callas, a member of the PCA Technical Committee, has created his Callas Rennsport Pre-Purchase Inspection Guidelines to assist prospective buyers. (See the end of this article for the PPI guidelines.)

An oil filter inspection and dropping the oil pan to look for foreign object debris (FOD) allows for pulling an oil sample for analysis. Regular testing allows you to get a very good picture of the engine's and the oil's health beyond visual inspections done during the PPI. For accurate results, you'll want to make sure the oil has at least 1000 miles on it, and to have a laboratory experienced with Porsche engines to provide the analysis. Elevated levels of wear metals can be early indicators of potentially expensive engine failures. For example, a sample flagged for elevated silicon and aluminium levels can potentially indicate cylinder-bore scoring.

Now that you have found a car, carried out a pre-purchase inspection, and taken the plunge, how do you know that you are making the right choice, and what can you do to minimise the risk of expensive repairs later on down the road?

With the results from your PPI in hand, first and foremost, preventative maintenance is key.

Lubricating oil. The single most important thing you can do is to change your oil regularly – oil is cheap, and engines are expensive. An oil-change interval of 5000 miles or six months is ideal in most cases. For those wanting a Porsche A40-approved oil, Motul 8100 X-Cess 5w40 can be used, or Driven DT40 for those out of warranty. Short drives, cold climates and circuit use mandate more rigorous service intervals with further reduced oil-change intervals. Rear main seal – or RMS for short. Today this is by and large a nonissue. Most of the engines incorrectly machined were pulled out of circulation early in their life, under warranty. Symptoms include oil leaks seen at the joint face between the crankcase and transmission. The genuine Porsche PTFE seal has proven reliable, if the engine is correctly machined. Whenever you have the transmission out, always replace the RMS – with the proper installation tool – after testing the engine with the factory RMS go/no-go tool.

Intermediate shaft, or IMS. The IMS is nothing new. The Führmann quad-cam 547 engine used in Porsche's 550 and 356 models, and similarly the Mezger flat-six engine used for more than 50 years, all have an intermediate shaft. They used an oil-fed plain bearing, just like connecting-rod and crankshaft main bearings.

In the M96/M97 engine, however, a sealed ball bearing was used rather than a plain bearing, with no service interval or currently available factory replacement part. The IMS problem is well documented, with the single-row bearing found in 2000–2005 model years the subject of the Eisen class action lawsuit and subsequent settlement. (See **eisenimssettlement.com** for more on this, but be aware that it applies only to cars and owners in the US.) Symptoms are typically non-existent, and failures occur with little or no warning, often at idle. An IMS failure generates FOD that contaminates the entire engine and causes collateral damage.

The IMS can be replaced only as a proactive service, not a reactive one, so once it starts to fail, engine overhaul is required. Most replacement IMS bearings have service intervals as well, so it is important to know which bearing was used, as well as when and if it needs to be serviced again.

The Porsche Club of America has a four-part YouTube series about the IMS, filmed at the Knowledge Gruppe, with expert analysis from Jake Raby of Flat 6 Innovations. See http://bit.ly/pcavideos. Jake's Rennvision YouTube channel and Facebook pages provide further insight into these engines. Go to http://bit.ly/rennvision.

Vehicles and engines manufactured in and after the 2006 model year have a larger-diameter, non-serviceable bearing that cannot be changed without engine disassembly. Although some believe invasive procedures to extract the larger bearing are necessary, there is no need to change this bearing or to add forced oiling. LN Engineering's directive to extend bearing life is to remove the grease seal from the factory bearing, allowing oil from the engine sump to cool and lubricate the original bearing.

DMF, or dual-mass flywheel. The DMF is a wear item and is designed to absorb engine and drivetrain harmonics. When replacing the RMS, IMS and clutch, the dual-mass flywheel must be checked for the correct spring-back using the LuK diagnostic tool. If faulty, the DMF should be replaced with only a genuine Porsche or OEM (LuK) dual-mass flywheel, along with a new clutch, pressure plate and throwout





LN ENGINEERING

ARE YOU READY FOR THE TRACK?

Any vehicle that is going to be autocrossed or tracked should have a thorough mechanical and safety inspection.

When you choose to take your car on the track or to an autocross event, a few extra steps must be taken. First and foremost, more frequent oil changes are required. Switching to a race oil, even if you are not racing, is highly recommended to protect the engine at higher loads and temperatures from stresses not experienced in normal driving.

Adding a two-quart deep sump to protect the engine from oil starvation, upgrading to the Motorsports air/oil separator, as well as adding a power-steering cooler are recommended. CSF radiators including the central third radiator and supplemental gearbox cooling are important for proper thermal management.

Do not install aftermarket software that raises the rev limit, because these engines are known to have connecting-rod bolts that can stretch and fail with repeated operation at rotational speeds higher than the factory intended.

Conclusions? Do your homework, have a PPI carried out, and buy the best car you can afford while banking for essential repairs and preventative maintenance. Most of all, drive and exercise your Porsche daily. And simply enjoy it, of course!

Top: An oil analysis can be used to spot impending problems.Clutch replacement should by correct LuK OEM item. Right: LN Retrofit IMS bearing for peace of mind, or standard bearing at very least



(or release) bearing, again genuine Porsche or OEM (Sachs).

AOS, or air/oil separator. The AOS is a crucial component of the crankcase ventilation system and applies a vacuum to the crankcase to separate oil from scavenged air. When operating properly, the oil is separated and oil-free air is routed back through the intake. When an AOS fails, the engine can ingest oil through the intake, potentially causing damage. Symptoms include billowing white smoke or audible whistling caused by air being sucked past the rear main seal. The AOS can be tested using a manometer, and should be replaced as a maintenance item using only the genuine Porsche part. The AOS vent and oil-filler tubes should also be replaced at the same time to prevent vacuum leaks that can cause engine damage.

Intermixing. This, as its name suggests, is when coolant and oil contaminate each other. There are several sources of intermixing, the most likely being cracked cylinder heads or cylinders, often following water-pump failure. Less common is intermixing from an oil-cooler failure.

If the water pump has recently been changed because of a failure, it is not uncommon for cylinder heads to crack even months later due to impeller material obstructing coolant flow through them. Blown head gaskets are not a common source for intermix unless the engine has been severely overheated and run without coolant. Symptoms include oil in the coolant expansion tank, or coolant in the engine sump.

The water pump should be replaced every four years or 50,000 miles, using a genuine or OEM pump, prior to failure, because replacement after failure will most likely be followed by cracked cylinder heads, which are very expensive to replace as they cannot be successfully repaired. Never use a water pump with a metal impeller because they can fail and permanently damage the engine case, requiring engine replacement.

Cylinder failures are one of those things that you can't predict or always prevent. The primary cylinder issues concerning all models with the M96 (and M97) include slipped sleeves, cracking and scoring, with scoring being the most prevalent issue followed by cracking that is more common in 3.4-, 3.6- and 3.8-litre engines.

Keep the engine cool with the addition of a low-temperature thermostat when replacing the water pump. Be sure to clean the radiators annually of accumulated road debris that reduces cooling-system efficiency.

It is rare to come across engines with slipped sleeves, as many of these units have been removed from service, but the problem stems from the factory installing repair sleeves in the bores of some M96 engines prior to the 2002 model year.

Because scoring is the most common issue, symptoms include a single sooty tailpipe, excessive oil consumption, or piston noise (commonly misdiagnosed as noisy valve lifters/tappets). Scoring typically occurs on bank two first. However, Boxster models with the 2.5-, 2.7-, and 3.2-litre engines, and the base 2.7 engine in the Cayman, rarely suffer from cylinder scoring.

Observations made over the last decade by Flat 6 Innovations have pointed us in the direction that ethanol fuels may be leading to fuelinjector issues, finding many scored cylinders paired with bad injectors. Where ethanol-free fuels are not available, regular fuel-system treatments with additives to help protect against engine and fuel system damage from ethanol-enriched fuels and the use of top-grade fuels are recommended.

Monitoring fuel-injector trim values may indicate an injector problem or a vacuum leak that can cause cylinder washdown that leads to scoring, but replacing injectors with new units rather than rebuilding them as part of a preventative maintenance regime may be a wise decision to prevent damage from future failures.

Lastly, a manometer test, along with a compression and leakdown test, are excellent indicators of ring seal and overall engine health. What more can you do?

It's a good bet that if you carried out a pre-purchase inspection and have taken care of the aforementioned areas of concern in advance, you will most likely have many years of trouble-free service. **PW**



Special thanks to Tony Callas and Jake Raby for their assistance and contributions to this article. Tony owns and operates Callas Rennsport, is a member of the National PCA Tech Committee, and instructor for the Knowledge Gruppe and Worldpac Training Institute. Jake owns and operates Flat 6 Innovations and is the founder of The Knowledge Gruppe and Rennvision, providing training and technical assistance to industry professionals and enthusiasts. Charles Navarro is the co-founder and owner of LN Engineering, developer and manufacturer of precision performance components including its trademark Nickies cylinders. Charles Navarro and Jake Raby are co-developers of the patented IMS Retrofit and IMS Solution. LN Engineering is a proud sponsor of the Porsche Club of America and PCA Club Racing.

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1997 993 Carrera 2 S manual £89,995 70,177 miles. Bilstein B12 suspension, 18" Fuchs alloys, custom 'retro' interior



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2007 997 Turbo Tiptronic S £50,995 42,429. Basalt black with Stone grey extended leather. Sports Chrono.



2014 981 Cayman S manual £37,495 24,540 miles. Sports Exhaust, PDLS, 20" Sport Techno alloys, PASM.



2012 981 Boxster S PDK £28,495 55,285 miles. Carrera red full leather, Sports Chrono, Sports seats

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TECH: SPECIALIST

LA WOMAN = LA DISMANTLER

LA Dismantler: Today the 'man in charge' is a woman. Meet Sarah Dakarman who's carrying on the good work of her late husband, Todd, in the world of Porsche dismantling for parts

Words and photography: Matt Stone



arah Dakarman is about six feet tall, sans heels. Her sunny disposition matches her long curling naturally blonde tresses. She's highly

educated, a mother of four, and a former PTA president at her kids' schools. Ms. Dakarman is thoughtful and well spoken. Her life is filled with the daily triumphs, tribulations and challenges facing many career women. And she loves cars.

And her 'day job' is the ownership and operation of an all Porsche recycling/wrecking/breaker's yard. Bet you didn't see that one coming! Then suspend your disbelief.

When Sarah and her late husband Todd launched LA Dismantler (LAD) nearly 30

years ago, she never dreamed she'd end up owning and running the business alone. When Todd passed away unexpectedly in May of 2017, that's exactly the life and business challenge she faced. LAD began as an outgrowth of a Honda/Acura dismantling business they already ran. Todd owned and drove Porsches, and when he needed parts for his own car. he did what he knew: purchased a wrecked 911 for the parts he needed, then sold off what he didn't, not only recouping his investment, but earning a modest profit. So they began dabbling in the recycling of Porsches. Sarah recalls that the demand for that business began to grow organically and exponentially, until at one point they elected to get out of the Honda/Acura side of things

and cast a new business strictly dedicated to Porsche sports cars.

LA Dismantler's main and public location sits on busy Glenoaks Boulevard in the San Fernando Valley area of Southern California packed with acres and miles of wrecking yards. LAD's compact but efficiently packed and stacked facility can handle a maximum of about 300 cars and their associated parts. It's a fascinating sight to walk down the aisles of the yard between cryptesque racks of wrecked Porsches, most of them dusty, dirty and sun baked. But don't worry about damage to those expensive, fragile leather interiors, as all the soft stuff has been stripped out, labelled, inventoried and stored inside, along with powertrains, instrumentation, engine management

Basking in the LA sun, LA Dismantler's stock is mainly at the modern end of the Porsche spectrum A 991 GT3 on the ramp is not your average breaker and should yield some serious parts for some lucky folk. Right: Sarah Dakarman has carried on the business that she and her late husband, Todd, started nearly 30 years ago



computers and entertainment systems.

Sarah somewhat wistfully comments that "many people have no idea how much is involved when a life and business partner passes away." She freely admits that early on there were a few, thankfully rare moments when she considered just chucking the whole thing and doing something else. But she helped birth LA Dismantler, she enjoys the Porsche community, and knew the business, so she decided to retool the company and herself to make it all work in this new singular environment. Some of the changes and evolutions she's wrought since early 2017 are things she'd thought of and even planned on, as the company's previous Vice President and back office manager.

Others were foisted on her out of immediate necessity. For example, most of the company's social media presence was more personal accounts and profiles, in her or her husband's name, so she set about events to tacitly demonstrate that LA Dismantler was around and very much open for business, and that her hand was firmly on the tiller. Nearly everyone in the Porsche parts and accessories business

PRACTICAI PORSCHE

She admits to a few times when she considered chucking the whole thing

rebranding everything putting the company's face most forward. "And I just needed to 'get out there," meaning to actively attend Porsche and business knows Sarah, and she knows them. She's friends – or at least friendly – with many of them.

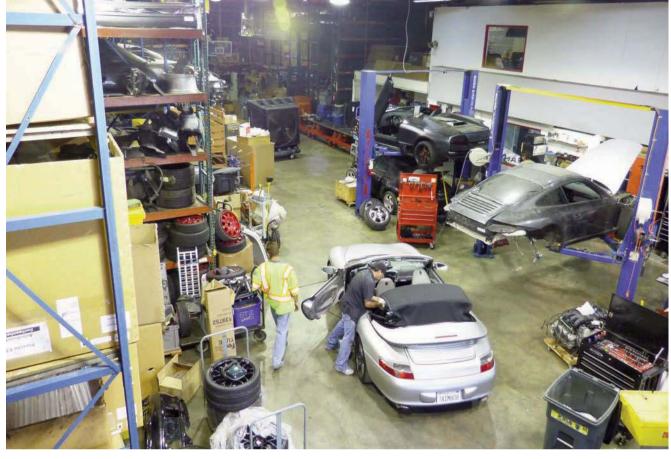
She's also somewhat expanded the



Open house at LA Dismantler attracts a goodly collection of customers with an eye for some bargain Porsche parts

TECH: SPECIALIST

It's not all Porsches. That's a Lamborghini on the lift in the background



company's inventory bandwidth. Previously, LAD didn't buy anything much older than a Carrera 3.2 whereas now 911s from the balance of the '80s and even back into the '70s are fair, and desirable, game. Most with one eye open and one eye closed." She believes that a business opportunity exists with these models, and wants to meet the needs of these customers, but is currently restricted by the size of her facility,

66 911s from the balance of the '80s and back to the '70s are fair game

(although not all) of the inventory comes from insurance totals. Sarah also seeks out Cayman and Boxster models.

She gets calls and demand for Panamera and Cayenne inventory as well and admits that she "looks at the 'four-door' Porsches and its somewhat tightly packed confines – adding that "LA area real estate is very expensive and I have to be careful about the investment in more property, and more staff to handle additional lines. As it is, my current forklift won't carry those bigger cars, so the investment into these spaces would be considerable." She further recognises that there is demand, and opportunity, in filling the parts needs of 914, 924 and 356 owners, and keeps her mind open to all of these options as the business evolves, including what impact the hybrid and pure electric Porsche models will have on the scene.

LAD currently employs about 15 staff, a mix of men and women, and the staff count can range up to 20 depending upon need and demand. Another of the first things she did after assuming the sole role at the helm was to retool the employee base a bit, admitting that there were a few folks there simply not destined to work out on a long term basis. And that other skills were needed. So a few faces went, and some new ones arrived. Another major item on her

No shortage of cars and stock to dimantle, but then LA must have more Porsches per square mile than just about anywhere else in the world



Fire damaged, but only at the rear. Exhaust systems have plenty of life left in them. Good thing about the LA climate is that nothing goes rotten



'to do' list is the development of a robust parts inventory management system. "We generally know what we have on hand, and most people know where to find stuff, but it's not detailed or precise. The old inventory system lived largely in Todd's brain, and her clients, vendors, and the Porsche community. She says that in most part she does, and that people generally treat her appropriately. She recalls times in the past when people she spoke to on the phone assumed she was the company receptionist

66 She now laughs at assuming the mantle of "Da car woman"

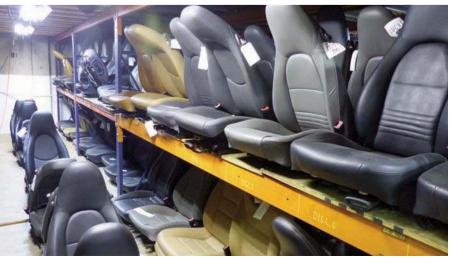
obviously we don't have that access any more. And just sending staff out into the yard to hunt for things isn't efficient in any way. So this is a big upcoming project." We asked Sarah if she feels respected by or Todd's secretary, and it galled her a bit when someone didn't believe her about something, but once talking with her somewhat Type A husband their tone would change completely as if all of a sudden they

were being told the truth." Yet she harbours no ill will over it, dismissing the notion: "That's their problem - and if they want to internalise it that way, it's not my fault." Sarah's late husband was once nicknamed "Da car man" and she now laughs at assuming the mantle of "Da car woman." Although she doesn't pound the @MeToo table, she's confidently proud of the fact that the world is realising "that women can own and run nearly any type of business, and can be as entrepreneurial as anyone." She actively supports a variety of women-inbusiness initiatives and educational engagements and even though LA Dismantler is her business and livelihood, it's all done with one underpinning mission: "Our goal is to keep Porsches on the road."

PRACTICAI PORSCHE

Which, of course, is neither exclusively a man nor woman thing. **PW**





CONTACT: LA Dismantler

LA Dismantier 9819 Glenoaks Boulevard, Sun Valley, California, 91352 USA Phone/Text/Web: 818/767-7243 sales@LADismantler .com ladismantler.com

Right: Are you sitting comfortably? Racks of seats in very decent looking condition

TECH: PROJECTS

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CAYMAN KEEPS ITS COOL

Our resident 'Tried and tested' tyre kicker, Kieron Fennelly, reflects on another year of generally reliable Cayman 981 ownership, save for a dicky cam sensor and some overly diligent warning lights



arely had I submitted last year's report in which I see heaped praise the on 981 Cayman's reliability than an engine check light appeared. 'See garage' it said. I was half way up the M40 at that point and, as I could discern nothing amiss, I pressed on to my Midlands appointment. But on the way home I detoured via Northway Porsche. The laptop diagnosis, after analysis of several fault codes, was a cam sensor. Reset, the checklight stayed off, but I left the car with Northway anyway as in the technician's view such a failure usually manifests itself as an intermittent fault. Indeed, in the previous weeks I had noticed a momentary stutter from cold. A normal characteristic in the days of carbs and chokes, but a sign not all is well with a modern fuel injection system. Northway carried out an oil service as well, but the cam sensor added over £200 to the bill between the additional 90 minutes' labour needed and the requisite replacement part.

I motored on serenely into 2019, but was

dismayed when a 'top up coolant' warning appeared 1500 miles after the previous incident. Our 1 Series BMW regularly issued this warning and would require half a litre of cooling fluid so I was perturbed that our other twenty-first century motorcar was exhibiting the same symptom. But investigation revealed the Cayman's coolant level was normal. Paul Stevens of independent Purely 9 obligingly plugged his device into the diagnostic port and once again, the possible fault codes required some interpretation, but as none really made sense and the coolant level was unaffected, he reset the checklight and suggested I carried on. He did not think it would recur and in ten months it hasn't.

Up to the 997, the flat six engines operated at around 90°C; the 981/991 generation runs at a rather higher 110°C, all in the name of better combustion efficiency and lower CO2 output. However, when the engine is driven hard, or Sport/Sport Plus modes are selected, the DME intervenes to lower operating temperature to a more timehonoured 90°C; once higher demands are



2013 CAYMAN 981

Occupation: Freelance writer Previous Porsches: Two Current Porsche: Cavman 98 Mods/options: Standard **Contact:** kieronfen@talktalk. This month: A cam sensor and coolant warning light mystery. All sorted

Mr and Mrs. The Karmann Ghia belongs to Mrs Fennelly. Suppose you could call it an ancestor of sorts to the Cayman

Touring in Europe, where more of the Cavman's performance can be exploited





The 2.7 Cayman 981 might be classified as basic Porsche motoring, but it's all relative. Simple pleasures and all that no longer being made on the engine, it reverts to a higher temperature/less CO2 operation. Paul's hunch was that the complexities of the sensor system had caused one to trip over momentarily another which caused a false message to be sent, hence the checklight. But the episode did raise the whole subject of coolant monitoring from the cabin.

When the 991 generation was introduced the cars acquired the switchable multifunction dial which when in engine-function mode showed the (new) higher operating temperature. However, Porsche was apparently so overwhelmed with calls from worried owners that their 911 was running with a coolant temperature of well over 100°C (as indeed it was intended to), that on post 2012 models (and subsequent 981s) the coolant reading was fixed not to exceed 90°C even if the actual temperature was ten or fifteen degrees higher as it should have been. An apparently classic 'dumbing down' move which coming from Porsche surprised me: I hope I am wrong. Interestingly, the oil temperature reading which often reaches 110°C in normal running has not been censored. For comparison, BMW and other makes have long dispensed with any kind of coolant temperature gauge in all their lesser models. Today's driver is expected to rely on engine checklights, so if these fail... Incidentally, after extensive but fruitless pressure testing I resolved the fluid loss in our 1 Series myself with a drop of Ba'rs Leaks, left over

Sitting next to classic 914 is a reminder that there's no such thing as a small Porsche anymore from those carb and choke days. I don't think I would have tried this with the Cayman though!

In September, I made my annual pilgrimage to Stuttgart and points further south. At the risk of stating the obvious it is always good to reach Germany and finally not to have to worry about blanket speed limits any more. Of course there are plenty of restricted stretches, 100, 120 or 130kph on the Autobahnen, but these usually coincide with places where visibility, complex junctions or traffic density - much of the network is two-lane - would make attempting to go any faster impractical. In my observations, the locals generally obey the limits in the knowledge they can go faster elsewhere. On a visit to a Goodyear tyre test facility I met people from DEKRA, the German road safety organisation, and I asked François Chaleil who manages DEKRA's French test site about the difference in attitude to speed limits between France and Germany. He gave the usual 'power of the German auto industry lobby' reply, but then added intriguingly that accident rates on derestricted Autobahnen were no worse than on the restricted sections... I think it was Philip Hammond as minister of transport who floated the idea of an 80mph (equal to the continental 130kph) limit for UK motorways, but that boat has alas definitively sailed.

So to enjoy a Porsche properly, trackdays or driving in Germany seems to be the only solution. Even though the 2.7 is the least potent flat six it is still a revelation when its legs are stretched. The peak torque figure is a mere 214lb ft and accelerative action does not start until 4500rpm, but from there it flies to peak power at 7400rpm. The novelty, and it never wears off, is being able to do this in the higher gears and accelerate far into three figures without the feeling that your arrest and incarceration for years are imminent.

PRACTICAI

The junior Porsche remains an excellent travelling companion, and one which has – apart from scaring me with the aforementioned false alarm – behaved itself. A routine service at 41,000 miles in December was my only bill in 2018. The bolster on the driver's seat has suffered scuffs and I wonder whether inferior quality materials are used on the 981 because 991 upholstery seems to wear better. The boot/bonnet release on the door threshold has lost some of its trim, but I've seen this fault on 911s as well.

The Cayman is not a 911 and occasionally I hanker after a 997 gen 2, but that would entail spending at least £10,000 more for an older Porsche which would also be more expensive to run. My 993 became a weekend only car and it seemed pointless having it laid up much of the time which is why I traded it for a 987. The 981 loses some of the intimacy of that car's cabin and, sitting on much wider rubber and the 991's longer chassis, its handling leaves little for the average driver to correct, but it is just as wonderful on twisting roads: life behind the 981's wheel is a privileged place to be. **PW**





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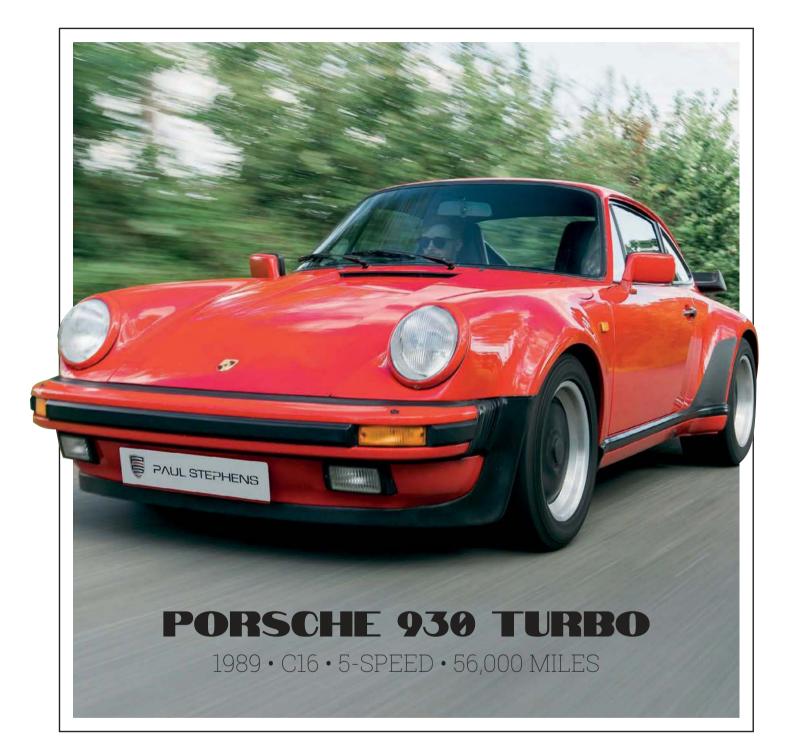
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TECH: PROJECTS

ALL HAIL THE FLYING PIG

Founder of the Bangernomics movement, James Ruppert, went out and bought a cheap Cayenne, so you don't have to. Nearly two years in and it's been money well spent



dmit it. You thought that the Bangernomics Cayenne S had expired in a fairly spectacular fashion and I'd kept it all very quiet. Or at least broken it for parts and been summarily sacked by this mag for dishonouring the badge. Nothing of the sort, it is rapidly burning itself into my Bangernomics soul as one of the best vehicles I've ever gone out and bought. It isn't as if I drive it daily, that's Mrs Bangernomics job, and so far no substantial complaints.

Last time you read about what I refer to as the Flying Pig, it had passed through a colossally expensive service. Deservedly so as it turned out. New rear brakes, a set of Falken tyres and really it felt brand new. The specialist though did say that there was the whiff of coolant, but could not see if there was a leak at all. Nothing to worry about. Then one day at 101,300 miles Mrs Bangernomics left our compound and then had to return to base minutes later. The dashboard indicated that there was a coolant shortfall. And what a shortfall. The 5 litre can I had in the garage wasn't full, but I did use an awful lot of litres in order to rebrim it. I kept my fingers crossed that it was a weeping rubber hose rather than a breached block. I checked the water before every single journey.

There was a leak. It would wee out some fluid all the time. From the smell and touch it was coolant, which is at least better than expensive synthetic motor oil. This was a persistent drip to the extent that I plonked some cardboard underneath. So at 101,500 miles I asked my excellent local garage to take a peek under the multiplicity of engine covers. They burrowed as far as they could and apart from confirming that there was a leak somewhere at the back of the engine and dribbling down the gearbox, they could not pinpoint it. There were a couple of upsides to this exploration. Firstly, they charged £0. Probably because I give them a ton of work, which more than pays for their Christmas party. Also, the leak was small enough to live with. Otherwise simply investigating further and removing most of the front end of the vehicle would inevitably cost a millionty pounds.

I know this because I did get some feedback from owners of similar Cayennes and related models. I was sent a truly terrifying picture of an Audi Q7 which needed a 20p plastic pipe renewed and that involved the complete removal of most of the front end of the vehicle. Apparently there is an official fix for the 20p plastic pipe whereby it is replaced by a metal one. Like I said, we can live with this, but then something amazing happened. It stopped doing the leak thing. I didn't add Radweld, crack an egg in the radiator or do anything else really stupid. I prayed hard to the great god Ferdinand, so that must have worked.

Otherwise all is good, although my daughter could still detect the aroma of wet dog. It seemed an opportune moment to dig

JAMES RUPPERT

CAYENNE S

Occupation: Freelance writer/Bangernomics originator Previous Porsches None Current Porsche: Covenne V8 S

Cayenne V8 S **Mods/options:** Standard **Contact:** info@bangernomics.

This month: A coolant leak fixes itself. A recall, an MOT, a small service and a generally trouble free life with the Bangernomics Cayenne

If you were hoping for a tale of misery from this cheap Cayenne experiment, then you'll be disappointed. Still, he who dares wins and there's plenty of time yet for something to go wrong

Porsche Centre perks: Free wi-fi, coffee, biscuits and some excellent reading material, plus a recall induced free fix for the auto 'box selector cable





Colourlock leather kit uses proper Porsche leather dye. It's easy to use and resurrected the hard used front seats. But then that's the great thing about leather, it's endlessly restorable out the Colourlock leather restorer kit that I had been meaning to try for some time. After all, 103K miles down the line and although the leather was looking pretty good, it seemed like a good moment to cheer things up a bit. Colourlock uses proper Porsche leather dye and it really brought out the best in the hard used front seats. On a bright Saturday morning we got stuck in and it was dead easy to do. We couldn't be more pleased with the results and you know what, one unplanned for side effect was that the dead dog smell pretty much went away. That was a good thing considering what happened next.

My daughter runs a vehicle from the top of the Volkswagen Group tree in the shape of a 2015 Golf. That needed a service and the issue was how on earth would she get to work? It is complicated. I did the school run for many years, so happy to reboot that, but her work is complicated so needed a vehicle. I am the owner of many interesting vehicles that some should call classics, but is she interested in those? Obviously not. Her mum's cool Cayenne? Oh, yes. She was 21 at the time and we spoke to our insurance company who were happy to cover her on our policy for four days for less than fifty quid. You couldn't hire a rubbish car for that.

Me: "Did you at any point fully exercise your mother's Cayenne, you know, drop a few gears?"

Daughter: "It would have been rude not to".

At least I have raised my child properly, plus the Cayenne came home in one piece, so all was very good.

Far more worrying was an imminent MOT

and a letter from Porsche. The recall number was R/2019/204 and there were 11,745 vehicles affected by it. This recall was issued on July 29th, 2019. Basically it is all about the automatic gearbox as the selector lever plastic cable may break. The remedy is to replace the plastic sleeve on the selector cable. All we had to do is book it in with our local dealer that isn't very local at all. It would require over an hour of driving, so not quite sure how I would cope.

PRACTICAL PORSCHE

Meanwhile, the Cayenne, at 104,456 miles, was booked in for the MOT. I also told the garage to give it a little light service and that was simply fluids and filters and came to £200. The great news is that the Flying Pig lives to spend yet another year climate changing the planet with its marginal fuel consumption. Well, someone's got to keep BP and co going.

We had the full dealership experience at Porsche Cambridge, which was nice. Being caught in a rush hour A14 accident related snarl up meant I was an hour late, but they were super professional and booked the Flying Pig in for the recall work. There was free wi-fi and coffee and some rather excellent reading material courtesy of 911&PW. The Cavenne was all done and dusted in an hour. However, they did have a list of extra things they would love to have done as there are some fault codes buried in the system, which would cost a lot of money to look into further and the front discs are a bit thin and will need seeing to at the next serious service. Nothing we can't live with then.

At the time of writing we are very happy with the Flying Pig. According to the daily driver though it could be a bit more blue in colour, as its grey is rather dull and boring. Otherwise it is the perfect vehicle for us. Yesterday it carried a rather large kitchen base unit from a DIY warehouse to home. Last week it took us to London and back for a significant birthday celebration. This year it helped our daughter get to work. That makes it a multi-purpose vehicle in my eyes with terrible mpg.

Excellent. Let's get another year out of this icon. **PW**

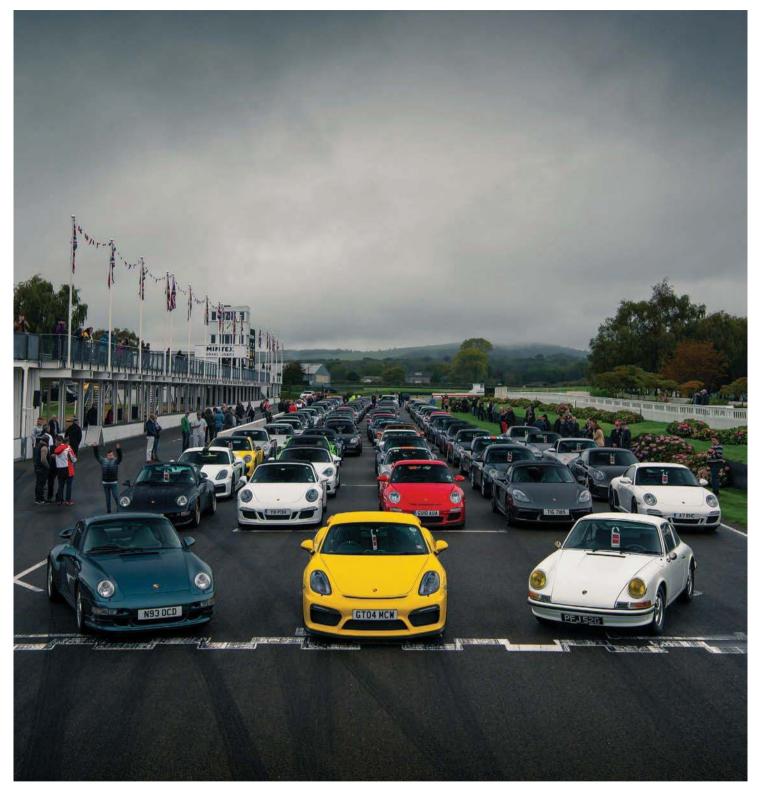
James Ruppert's (well, it's Mrs Ruppert's, really) Cayenne, with his other, some might say, original SUV

CONTACT Colourlock colourlock.com Website contains handy how to tutorials on all types of leather restoration





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TECHTOPICS With 911 & Porsche World's consultant editor, Chris Horton





PRACTICAL PORSCHE



POLYLOCK: YOUR EXHAUST'S FLEXIBLE FRIEND

Suddenly, I seem to keep coming across all sorts of Porsche exhaust issues. There was that combined Milltek/Maundrell installation on a 997 in the September 2019 issue, then the Spyder Performance/Auto Umbau collaboration on a 996 in December. And now this ingeniously neat repair (below) for another 997, brought to my attention by Maundrell's senior technician, Darren Gardiner.

The car in question, a plain but quite tidy Carrera, was suffering from corroded 'flexi' pipes between the catalysts and the silencers - as are many others these days, as they accumulate both years and mileage. Unfortunately, however, these sections which in the 996 are covered with a woven metal mesh over their convoluted inner profiles - are integral with the silencers, and so a full repair would mean, well, almost a complete exhaust system.

But then Darren, knowing that his customer would be understandably resistant to spending that kind of money, discovered on-line the very aptly named everyexhaust part.com, and as a result obtained this ingenious repair tube. Polylock, it's called, and as you can probably guess from my pictures, its spiralwound construction enables it to be bent, by hand, to radii suitable for most typical exhaust-system requirements - and certainly for this one. Many pre-formed rigid bends and other useful end-fittings are readily available, too.

The flexible pipe is available with an internal diameter ranging from 30mm all the way up to 125mm, and in lengths from 250mm to fully 10 metres. Here just a single metre of the stuff would be required, allowing – as long as Darren was careful with his measuring and cutting – a generous enough 500mm per side. Cost? A modest £50 or so, including carriage and VAT.

Unfortunately. I have no photos of Darren excising the rotten pipework - indeed, the engine was running in order to test the installation by the time I arrived (for something else), and shot these photos - but it should be obvious enough what is involved. The only slightly tricky part of the installation is neatly cutting out just enough old pipe, but not too much, and at the lower end salvaging enough of the plain end of the original flexible section to allow it to be welded to the end of the Polylock. That can be joined to the catalyst with a standard Porsche doublebolt tube clamp, as here, and the usually unseen upper end to the silencer with a common-or-garden 'U'-bolt.

A bodge? In some ways, yes, perhaps. But at a total cost of around £250 including labour, against perhaps £2500 *plus* labour for two

new silencers from Porsche, it would be a wealthy and frankly profligate 996 (or 986. 987 and 997) owner who took the latter route. And the fact is that you are doing nothing that could not be reversed if at some point you did want or need - to fit new silencers. I would certainly give it a go and I wish I'd had the wit to seek out this useful product myself a few months ago, when my Mercedes Vito van needed similar attention. It could have saved me a lot of time, effort and cash.

For more information on Polylock go to everyexhaust part.com. Maundrell & Co, offering extensive workshop facilities, as well as used-car sales, is located in Letcombe Regis near Wantage in south-west Oxfordshire. Call 01235 762033, or go to maundrells.co.uk.

Oh, and while we are still on the subject of useful websites, I urge you to have a look at vehicleclips.co.uk. You can probably guess what that specialises in. In truth, it appears to list only one specifically Porsche item, but quite a large number of the often easily broken plastic clips and other fasteners used throughout other Audi and VW vehicles, and many of which are either exactly the same as the Porsche parts, or can certainly be used in their place.

You will be pleasantly surprised at the prices, too, especially if you have ever bought small items like these from a main dealer. Sign up for a trade account - and the requirements don't seem to be overly demanding - and the bulk-pack prices can bring unit costs down to mere pennies. I am currently stocking up on a number of clips for my Vito and the E39 BMW 5-series - and even the daily-driver Passat has a few items of trim that will benefit from being put back on with the 'proper job'.



Flexible exhaust-pipe repair sections, such as this Polylock from everyexhaustpart.com, have been around for many years, but would you have known where to get some for your Porsche without this helpful suggestion from Maundrell & Co's Darren Gardiner? No, neither would we! But around a metre of the stuff made quick and inexpensive work of fixing a customer's 997, which otherwise would have needed two new silencers, at many times the cost. Photo on the right shows how the original concertina-style section normally situated between the catalytic converter and the relevant silencer was cut down to provide an adaptor sleeve, and then secured with a neat double-bolt clamp. In this vehicle the upper end of the Polylock has been secured to the silencer with a somewhat lower-tech but just as effective (and normally unseen) 'U'-bolt





TECHTOPICS With 911 & Porsche World's consultant editor, Chris Horton



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PRACTICAL PORSCHE



MAKING ALL THE RIGHT CONNECTIONS

This rather unpleasant-looking device (below right) is, as some of you will no doubt realise. one of the main coolant-pipe connections from the nether regions of a 997; in this particular instance the Maundrell & Co project car featured in this month's howto story (The missing link; pages 86-89). It's one of a number found in all of these mid-period and later watercooled Porsche models, and was intended to simplify (in other words to cheapen) the assembly process.

And in that context the logic behind it is impeccable. Instead of needing laboriously to tighten an old-fashioned worm-drive clamp (as in the earlier 996s and 986s), the factory workers simply pushed the male end into the female end until. by virtue of various slots and projecting lugs, and not least the stainless-steel spring-clip, they clicked and locked into position. Job done, in probably a tenth of the time it used to take, and on to the next one. Clever stuff.

Trouble is, the only part of the assembly that the car's design engineers bothered to specify in that corrosionresistant stainless steel was the aforementioned clip. The mating metal ferrules, or sleeves, call them what you will, are basically plain old plated steel, and in the presence of both the generally water-based coolant inside them, and all too frequent bombardment from the outside with moisture from wet roads, unsurprisingly they eventually begin to corrode and split. And then to leak. Not so clever.

When that happens there is no long-term alternative but to drain the coolant and to replace the affected items. At the front end of the car – which is where the problems usually start – that means removing or at least lowering the suspension crossmember. Reckon on around £500 for the parts, £50 for fresh coolant (which should go some way to minimising further corrosion from the inside, at least) and perhaps as much as £500 for five hours' labour. And VAT, of course. And you thought IMS bearings and crankshaft oil seals are a big thing in these cars...? Think again.

Interestingly, the same kind of connection is used, for exactly the same reasons, for the intercooler pipes in most, if not all, later VAG models equipped with turbochargers - 996s and 997s included. I know this because just a few weeks ago my 2004 VW Passat TDI disgraced itself in the wilds of Cumbria by blowing off the hose from the turbo to the base of the intercooler, in part simply because one 'leg' of the relevant clip had broken off, presumably the result of metal fatigue. The lugs on the male ferrule on the rubber pipe had started to wear away, too.

Suffice it to say that the surprisingly loud bang when one of these hoses lets go, even with only around 1.0 bar pressure inside it, is quite unnerving, as was - in my case - the almost complete lack of engine power. So I urge those of you with forcedinduction 996s and 997s, and perhaps the equivalent 991s and even 992s, to bear that in mind. Or to suggest to your chosen Porsche Centre or independent that all such connections are carefully checked and if necessary replaced before they fail. It's one of those numerous points that you will find in no service schedule, but which in truth is almost as important as checking your tyre pressures or wheel-bolt security.

Another interesting 'feature' beneath the Maundrell Carrera was this air-con pipe (bottom row of pics) – or to be more precise the ingenious repair to said air-con pipe. Again, many of us are depressingly familiar with the problem of the hard lines in 996s and 986s, where they pass near the right-hand rear corner of the floorpan, being squashed by careless use of a trolley jack, or even a professional garage lift.

Porsche addressed that problem in the 997 and 987 by repositioning the pipes slightly inboard, as here, but the unfortunate truth is that, despite being electro-plated for protection, they can still corrode. In this car the culprit, apart from some obvious previous neglect, was the elegant but also rather complicated device securing the pipes to the floorpan, which had allowed moisture to build up around the metal, with obvious consequences.

Replacing this section of the pipework would have entailed removing the entire powertrain, but workshop manager Rob Clarke was able to call upon the nearby Swindon branch of hose and pipe specialist Pirtek to come out and replace the corroded piece with a special union. It's not - yet - ideal because, as I pointed out, the pipe is now rather close to that light-alloy crossmember (typically, the stud for the offending bracket had rusted and broken off, and there wouldn't be room for the original one anyway), but it should be easy enough to wrap the affected area with a thin piece of rubber sheet to prevent chafing. And then to spray everything with wax to prevent any further corrosion. Either way, this particular

car is by its very nature a work in progress (I'm due back there in a few days' time, to watch it being given a full set of KW suspension and Eibach adjustable coffin arms; more on that in a few months' time), and the air-con pipework is going to need some minor attention in at least one other area. (See photo below of an obviously leaking joint near the jacking point.) And purists might denounce that repair as a compromise at best. But it would certainly work for me, and in the highly unlikely event that concours-standard 997s ever become a 'thing', there would be nothing bar the cost and the not inconsiderable effort involved - to stop anyone fitting a genuine Porsche pipe. PW



Top two photos: first, one of several corroded coolant-pipe connections in the Maundrell & Co 997. For a short-term repair it is sometimes possible to cut off the two mating sections and, by stretching the rubber hose, secure it over the smaller diameter of the metal pipe with a worm-drive clip. Next, the broadly similar connector in the intake trunking of Horton's VW Passat, here with a new hose and horseshoe clip after the originals let go on a road trip. Bottom row: Carrera's air-con pipes, repaired in situ after original corroded inside its bracket. Far right: leaking union another job for the near future



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BUYERS' GUIDE

PORSCHE 968

If there was ever a "forgotten" Porsche, the 968 launched in 1992 is a likely holder of the title. It was the last of the four-cylinder "transaxle" series that started with the 924 in 1976, and was effectively a stopgap model until the Boxster arrived.

Although said to be 80 per cent new, the 968 looked like a 944 with a 928 makeover, due to its lid-less pop-up headlamps and smoothed out body with its cleaner, more integrated front and rear bumper, less square-rigged wheel arches, and more streamlined door handles and mirrors. Under 13,000 968s were made in the four years until 1995, and just 1043 were officially imported to the UK.

For a long, long time the 968 was pretty much unwanted on the used market, prices derisory compared to the 911's. But of late these front-engined four pots have been finding more favour, so if you're among those who can now see their appeal, what do you need to know when buying one?

The 968, built at Zuffenhausen rather than at Neckarsulm by Audi as was the

944, benefited from comprehensive engineering improvements. The principal development on the 944 S2's 16-valve engine was the first use of Porsche's VarioCam camshaft timing that increases torque by varying the timing of the inlet valves in relation to the exhaust valves. The 2990cc 'big four' came in a single spec: 240bhp, a 15 per cent increase over the 944 S2, and 225lb ft torque at 4100rpm – the highest twisting force of any non-turbo 3.0-litre engine, it was claimed.

The gearbox graduated to six speeds, and the 968 was an early user of Porsche's four-speed Tiptronic gearbox, with fully automatic or sequential modes. The suspension was basically tautened up to 944 Turbo standards, while the adoption of 911-style Cup wheels allowed bigger, four-piston brakes (with anti-lock standard). The basic wheel size was 16-inches, with the customary differing front and rear tyre profiles, 205/55 and 225/50 respectively. The Sport pack ran 17-inch wheels with harder suspension. In the cabin, changes over the 944 were limited to a new steering wheel and some minor adjustments to instrumentation. While the powertrain did not vary, Porsche offered four distinct models: the standard coupe, Sport, Club Sport, and Cabriolet.

In January 1993 the tastiest model was added, the Club Sport, the first use of the 'CS' name since the lightweight 911 Carrera 3.2 in 1987. It had Kevlar framed bucket seats, no rear seat, reduced sound deadening, simpler door trims, a lighter battery and alternator, cable rather than electric tailgate release, no boot light, and manual windows and door locking. Wheels were 17-inch, one-inch diameter bigger than standard, running 225/45 front tyres and 255/40 rears, while the suspension was dropped 20mm, and the dampers firmed up.

The last arrival was the 968 Sport, in early 1994, aimed at those who wanted a more lithe 968, but not the Club Sport's added firmness. It had 17-inch wheels and Club Sport suspension, but more modest equipment than the coupe and hence was cheaper.

USEFUL TO KNOW

A Thames Valley based Porsche specialist with a thorough knowledge of transaxle Porsches, and does race/trackday prep, too **ninexmotorsport.co.uk**

Augment Automotive Well established workshop in Cinderford in Gloucestershire with deep specialisation in four-cylinder, front-engine Porsches. Offers useful modifications for ease of ownership **augmentautomotive.co.uk**



OVERVIEW

The 968 engine has the same feel as the 944 unit, but in the transformation the big four lost the slight bottom end coarseness and also gained a sportier, more vibrant tone. It is a delight, in a now old-fashioned way, and the perfectly balanced handling is as enjoyable as ever. And thanks to its durability, nearly 25 years since the last was built, it remains a practical sports car. 'Overall they're pretty good, you could still use one as an everyday car,' comments James Hilliard, director at independent Porsche specialist Ninex Motorsport in Maidenhead in Berkshire.







SPECIFICATIONS

Porsche 968 Coupe/Sport/Club Sport/Cabriolet Engine Power Torque Brakes Wheels, Coupe, Cabriolet Sport/Club Sport Tyres, Coupe, Cabriolet Sport/Club Sport o-62mph Max mph Built All figures from Porsche

2990cc 4-cyl, twin cam, 16 valves 240bhp@6200rpm 225lb ft@4100rpm Ventilated discs, anti-locking 7Jx16-inch front, 8Jx16-inch rear 7.5Jx17-inch front, 9Jx17-inch rear 205/55 ZR16 front, 225/50 ZR 16 rear 225/45 ZR17 front, 255/40 ZR17 rear 6.5 sec (Tiptronic 7.9 sec) 156mph (Tiptronic 153mph) 1992-1995

THE PROBLEMS

Engine

The engine is very strong and has stood the test of time, but its longevity is dependent on proper maintenance, insists James Hilliard. 'Check the belts history, because the camshafts lose their teeth and slip on the cogs. The engine then runs really rough, or stops.' One belt drives the exhaust camshaft, and the other drives the balancer shafts, so these being in good condition is critical.

Also check the oil pressure gauge: 2 to 2.5 bar at idle, and 4 to 5 bar at around 2100rpm is what it should be. And look at the condition of perishables, rubber hoses and HT leads.

Transmission

The gearbox should be quiet, as gearbox pinion bearings can be an issue. The clutch operation should be smooth and without judder, and look for any oil leaks from the gearbox. However, James reports that the main transaxle issues are the two differential bearings and the front pinion bearing which can became very rumbly even if failure is unlikely.

Suspension

There are no major weaknesses, but sheer age introduces complications, with, for example, the rear of the car likely to sag due to weakened torsion bars, while on the suspension mountings that support the rear axle, the bonding can fail, causing the rubber to separate from the metal mounting. At this stage all rubber bushes could have expired, or close to it.

Brakes

As on the 944, the 968's brakes routinely suffer 'plate lift' on calipers, seized pistons if the car isn't used for long periods, and corrosion on the calipers and on the inner faces of the discs. If the brakes judder under use, or the pedal isn't firm under pressure, you know they need attention.

Bodywork

The 968 resists corrosion well, James having seen many with no rust at all. 'If a 968 has garaged and cared for it may not have any rust all all,' he says. 'Most rust spots have developed where the bodywork has been repainted.' However, on heavily used 968s, side skirts can conceal corrosion - in

WHAT YOU'LL PAY £8000-£9000: Entry level for 968s, only a few at this price

£13,000-£18,000: Good cars with high mileage, histor

£18,000-£25,000: Good, sub-75,000-mile models

£25,000-£30,000: Near pristine 968s, and usually the starting price for an unmodified Club Sport

£30,000-£40,000: Low mileage Club Sports the best are seen for up to £50,000

particular, inspect the rear area forward of the rear wheels, as these can rot and are expensive to repair. Front wings can rust near the bottom, and the paint on the plastic bumpers and plastic side skirts can fade. The fuel pipes that run underneath can and do corrode, so look out for badly carried out fuel line replacement.

Electrics

The 968 is generally good in this area, it being mainly a question of ensuring everything works: that gauges read, that lights illuminate, and that the headlamps don't vibrate and move, indicating broken headlamp mountings, that the wipers don't judder, and park correctly. The fascia back lights can become dim as the silvering wears off, and check windows go up and down smoothly, as often the passenger side ones start to seize through lack of use.

Interior

Look for wear on the seats, especially the driver's, and make sure all the dash trim is in place. The hazard switch mounting can break, the switch just falling through. PW

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Porsche 356 B T6 Coupe 1962, Manual Gearbox, RHD, Signal Red with Red leatherette interior.



Porsche 356 T5-B Coupe 1959 3.8L, Manual Gearbox, LHD, Heron Grey (6007) with Red leatherette interior.



Porsche 356 1600S Cabriolet 1962, Manual Gearbox, LHD, Ruby Red with black leatherette interiors.



Porsche 911T 1973 Coupe 2.4L, Manual Gearbox, LHD, Sepia Brawn with Dark Brown interior.



Porsche 930 Turbo Carrera 3.0L 1977, Manual Gearbox, LHD, Sahara Desert with Cork leather interior.

Telephone:

SOLD AT AUCTION

Contrasting auction results for *David Sutherland* to report this month, from a bargain priced 911 GT3 at £40,250 which was £10,000 below expectation, to the £607,500 paid for a Porsche Club GB member's Carrera GT

PORSCHE CARRERA GT

ynonymous with Porsche's endurance racing programme, particularly at Le Mans where the sports car maker had triumphed some 17 times, the design of the Porsche Carrera GT is firmly rooted in its motorsport lineage. After success in 1998 at the famous 24-hour race, a team of engineers started work on a new mid-engined V10 model utilising advanced technologies and materials. However, the project was soon put on hold as the company decided to focus its energies in a different direction with the introduction of a new SUV, the Cayenne.

Fortunately, the Carrera GT project was kept alive, and a prototype was shown at the 2000 Paris Auto Show eliciting such a positive response that Porsche was virtually obliged to commit to a limited production run of 1500 cars. But by the end of that production run in 2006, only 1270 cars had been built, making it rarer still.

With its 5.7-litre, dry-sump V10 (producing around 612bhp) sitting low in the carbon-fibre chassis, the Carrera GT weighed in at 1380kg and was capable of 0-60mph in 3.5 seconds, with a top speed of 205mph. Open the driver's door and you are immediately aware that this is a totally focused, seriously fast Porsche with the sense of function only just lightened by the

Beechwood gear knob, a nod to the famous Porsche 917 and its racing past.

This European-delivered example has covered just 4300 miles from new and is finished in the dramatic combination of Basalt Black with a matching black leather interior. Having lived for the first year of its life in Germany, this Carrera GT then spent the following years in Italy, regularly being maintained during that period as confirmed by its detailed service records.

The vendor acquired this special car in January 2018 and it's been in his care ever since. Porsche Reading, the acknowledged GT specialist, has looked after it and in March of this year carried out the annual maintenance service along with converting the lighting for UK roads, all of which is fully detailed in the

accompanying history file. Fitted with the full

carbon pack and accompanied by both sets of keys, this UK-registered example had been treated to full body paint protection (£7000), boasts a set of bespoke fitted Porsche luggage, and was ready for its next owner to cherish and enjoy. With its removable top,

howling naturally-aspirated

PORSCHE CARRERA GT Sale lot no: 418

Year: 2005

Chassis no: WPoCA29875L001361 Auction: Silverstone Auctions Porsche Sale in association with Porsche Club Great Britain

Where: Dallas Burston Polo Club, Stoneythorpe Estate, Southam,

Warwickshire When: September 21, 2019

Pre-sale estimate £600,000-£650,000 (\$779,000-\$843,900) Sold for: £607,500 (\$788,700)

V10, unmistakable styling, and classleading driving dynamics, the Carrera GT offers unrivalled performance and excitement and, with its Italian counterpart, the Ferrari 'Enzo', fetching premium prices, these cars are to be taken seriously.



Carrera GT is one of the last of the old school supercars and requires serious driving commitment, not to mention a modicum of talent

PORSCHE 911 TURBO (930)

uch of the Porsche 911's development had resulted from the factory's racing programme, and it was the then Gp4 homologation rules, which required 400 road cars to be built, which spurred the development of 'Project 930' - the legendary 911 Turbo. In production from April 1975, the Turbo married a KKK turbocharger to the 3.0-litre RSR engine, in road trim a combination that delivered 260bhp for a top speed of 155mph. But the Turbo wasn't just about top speed, it was also the best-equipped 911 and amazingly flexible - hence only four speeds in the gearbox - being capable of racing from a standstill to 100mph in 14 seconds.

The Turbo's characteristic flared wheelarches and 'whale tail' rear spoiler had already been seen on the 3.0 RS model, while the interior was the most luxurious vet seen in a 911, featuring leather upholstery, air con and electric windows. More refined than hitherto yet retaining its high performance edge, the Turbo sold in the thousands, becoming the definitive sports car of its age.

This matching-numbers example was delivered new by Raffay in Germany in October 1976. It is one of the first 100 cars of the 1977 model year, finished in the rare and

wacky colour of Viper Green metallic. This car is not equipped with air con or the standard sunroof and is the only known example that was delivered in the combination of Viper Green with matching interior. In total, only a few dozen cars were produced for the 1977 model year in Viper Green.

The Turbo moved to the Netherlands in 1993 and after several years of use was taken off the road. It was unused for 11 years until purchased by the current owner in 2016.

A professional restoration was immediately commissioned. The body was stripped back to bare metal by hand, revealing that the car was completely damage-free. It was then professionally restored and re-sprayed. Accident-free 3.0-litre 930s are rare, as many drivers were caught out by the car's turbo lag, which could make it tricky to drive. With the Type 930 Turbo's arrival, Porsche started to provide specific driver training. These driving courses still exist.

The engine was completely overhauled and everything that showed wear has been replaced. The chassis likewise has been overhauled together with the brakes and electrics. The green interior remains original even the original Blaupunkt radio is still present, complete with a microphone to record dictation 'en route' that would later be

PORSCHE 911 TURBO (930)

Sale lot no: 41 Year: 1976 Chassis no: 9307700066

- Engine no: 6770082 Auction: Bonhams, The Zoute Sale Where: Knokke-Heist, Place Albert de Knokke Le Zoute, Belgium When: October 9, 2019 Pre-sale estimate: £100,000–£150,000 (\$129,800–\$194,700)
- Sold for: €117,300 (£100,900, \$131,000)

typed up by a secretary.

The car is also equipped with the original exhaust and wheels, and has new tyres. It has the original toolkit; an original service booklet (not filled in); and the original compressor for the tyre pump. An official Porsche Certificate of Authenticity accompanied the car

Viper Green metallic a rare colour for the 930 Turbo. This car is original right down to the Blaupunkt radio



PORSCHE 356 B SUPER 90 CABRIOLET BY REUTTER

he Porsche 356 B was unveiled at the 1959 Frankfurt motor show. It brought a facelift to the increasingly sophisticated and highly desirable German sports car. To help meet the requirements of its most important export market, the United States, Porsche's designers changed the car's profile by raising its front wings and headlamps. New bumpers with large vertical guards that were mounted several inches higher at both ends provided better parking protection.

During the evolution of the 356 B, the body nomenclature changed in 1962 from T5 to T6; the newer design brought a larger front boot lid with a squared-off front edge, a larger chromed bonnet handle, two engine-cooling grilles, a redesigned instrument panel with improved instrument

view mirror, a better inside rear view mirror, a redesigned fuel tank that provided increased luggage space, and a relocation of the fuel filler to the top of the right front wing, eliminating the need to open the front lid for access to the fuel tank cap.

The 356 B was offered in coupe, roadster, and cabriolet styles. The cabriolets were quite luxurious vehicles, as they were equipped with standard leather seats and a thickly padded folding top. All these variants could be had with a choice of three compact and efficient aircooled OHV engines: the 60bhp Normal, the 75bhp Super, and, like the example offered here, the very potent Type 616/7 'Super 90', so named for its peak power at 5500rpm.

The Super 90 gained its muscle from a higher-lift camshaft, a 9:1 compression ratio, and a pair of larger, 40mm Solex PII down-draft carburettors. Engine lubrication was upgraded for better longevity, and a stronger Hausermann clutch package was adopted. With this more powerful engine and a kerb weight of less than 900kg, Super 90s were claimed by the factory to be capable of a 116mph top speed while returning 27mpg. Large finned-aluminium drum brakes provided more than adequate stopping power.

The car sold here, Chassis 155389, was completed at the Porsche factory on 30

PORSCHE 356 B SUPER 90 CABRIOLET BY REUTTER Sale lot no: 125

Year: 1961 Chassis no: 155389 Engine no: 802972 Gearbox no: 46493 Auction: RM Sotheby's London Auction Wher: Olympia, Kensington, London When: 24th October 2019 Pre-sale estimate: £110,000-£150,000 (\$141,100-\$192,500) Sold for: £120,750 (\$154,900)

June 1961. A left-hand-drive Europeanspecification example, it was delivered in 6007B Grey with black leather interior. Though its earliest history is unknown, the car was recently fully restored in Italy and presented beautifully. Retaining its original engine, it remains in excellent condition.

They don't come much better than this 1961 356 B Super Cabriolet

AUCTION WATCH



PORSCHE 911 GT3 (996)

ollowing the release of the 996 generation 911, Porsche's first 996 variant intended either for spirited road use or the racetrack was the GT3. The Hans Mezger-designed 3.6-litre engine derived from the Le Mans winning GT1 was rated at 360bhp and 7200rpm, providing 60 additional horsepower over the base 3.4litre engine. The car was also fitted with adjustable suspension and a unique body kit, including a dual-plane rear wing. The interior featured sports seats and the deletion of some trim deemed non essential in an attempt to keep weight down.

The 996 GT3 is an incredible drivers' car and won the coveted *Evo* Car of the Year award in 1999, beating Ferrari's 360 Modena into second place. Indeed, years later, the same magazine would place the 996 GT3 Mk1 above the Mk2 for driving pleasure, placing it third in the all-time drivers' car ranking behind the Pagani Zonda and Lotus 340R (we quite liked it, too! Ed).

This 996 GT3 is an early version. Sold new in France via Raulet Automobiles in Le Mans, this GT3 has been well maintained throughout its life and boasts 15 stamps in its original service book – all via Porsche main agents or specialists. Accompanying this GT3 was a range of invoices for service and maintenance from Porsche main agents or specialists. Indeed, in just the last few years, invoices totalled more than €6000.

This car has been enjoyed as intended and maintained to a standard in which this enjoyment can continue with the next owner. Such a highly regarded car warrants

PORSCHE 911 GT3 (996) Sale lot no: 114

Year: 2000 Chassis no: WP0ZZZ99ZYS690281 Auction: RM Sotheby's London Auction Where: Olympia, Kensington, London When: 24th October 2019 Pre-sale estimate: £50,000–£60,000 (\$64,200–\$77,000) Sold for: £40,250 (\$51,700)

a place in any Porsche collection, but would surely be best placed where the new owner uses this superb car as intended.



Track focused 996.1 GT3 sold for a very reasonable £40,250 at RM Sotheby's London Auction

The images and descriptions of the 911 GT3 and 356 appear courtesy of RM Sotheby's (+44 (0)20 7851 7070, www.rmsothebys.com); the images and description of the Carrera GT appear courtesy of Silverstone Auctions (+44(0)1926 691141, www.silverstoneauctions.com); the images and description of the 911 Turbo appear courtesy of Bonhams (+44 (0)20 7447 7447, www.bonhams.com). Sale prices include the buyer's premium.

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356

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356 Porsche for sale

1965 356C Coupe, car is a show car but a great driver, 9 out of a 10, have cared for said car 40 years, serviced and maintained very well, needs a new driver who really wants a real nice collectable car, worth more than asking price. Tel: 561 633 5901. Email: garyr356@aol.com (Florida, USA). £85,000

P0120/018







911 997 Carrera 2S 3.8

2005 (05), 355 bhp, 63,000 miles, rare spec of Arctic Silver with full extended terracotta leather and sunroof. Purchased from RSJ Sportscars December 2018, FSH, plus extra annual oil change last April. New front tyres, rears half worn, new discs and pads all round, new plugs and coil packs, new control arms, new water pump, coolant and belts, new rear springs. Tel: 01159 521622. Email: genneton4@aol.com. £21,750 P0120/004

996 C4S Tip 65K

Arctic Silver with black embossed leather, FSH, IMS upgrade. Excellent condition, unmarked original Turbo wheels with new tyres, suspension refresh with new top mounts and coffin arms. New radiators, PSM, air con, Bose, sat nav, Park Assist and telephone, memory seats with Porsche mats. Two keys, loads of paperwork, really clean car that has been looked after very well. Tel: 07790 779407. Email: sammuhsin@hotmail.com (Tyne & Wear). £27.000 P0120/019



3.2 911 Carrera Coupe

£59.995

1985, mileage 90,750, full service history with a well respected Porsche specialist, recent flawless MOT, the colour combination is Grand Prix White with black Napa leather with white piping and Porsche script in head rest. I have owned this classic for 19 years and enjoyed every minute of having it, this classic 911 is a fantastic example of a well looked after Porsche. My classic has never been used in the wet weather and it has always been garaged with a custom made car cover, it also comes along with a full Porsche tool kit, loads of receipts, additional information on request, more photos on request, view by appointment only. Tel: 07908 294121. Email: xanderdavies1@aol.com.

P0120/017

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PRACTICAL PORSCHE

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911



Immaculate low mileage Porsche 996 C4S Tip with Hartech rebuild Only 52K miles with the all important Hartech full engine rebuild and additional correct upgrades at 34K miles with receipts to back up (£16K). FSH with comprehensive records, Arctic Silver with full unmarked Metropole extended leather interior (dash, doors etc), Alcantara headlining, factory switchable sports exhaust, sunroof delete, matching almost new Pirellis and is in pampered showroom condition. MOT'd 1 year, drives as good as it looks, mature PCGB owner. Any inspection, lack of use forces sale, may consider a Panamera in p/ex, no agencies. Tel: 07563 908217. Email: crgmtchll@sky.com (Fife). £23,250

P0120/010



DEALER TALK: PARAGON PORSCHE

He's always been a Porsche man, and his very first 911 taught him a valuable lesson – always buy the best example you can. Hence since founding Paragon Porsche 27 years ago, Mark Sumpter has focused on offering just that: the best condition cars at every price point



You could soon be paying less for your used Porsche, although you might not be aware of it. In 2020 The Financial Conduct Authority is introducing a ban on dealers and car "brokers" charging commission linked to the interest rate customers pay on loans to buy cars, a move it says will save buyers £165m a year across the industry.

Banning this type of commission means that when dealers provide finance for the cars they're selling, they'll no longer have a financial incentive to point customers to the deal with the highest APR interest rate. Research showed that many customers were confused by car finance options and were therefore an easy target for hungry sales staff, and often paid more interest than they had to.



PICKED OUT FROM THE **CLASSIFIEDS**

This month's Buyers' Guide is on the 968, and since we last looked at this "transaxle" Porsche several years ago rises have risen, and most are above £15,000. But we found one from an all makes classic car dealer, Sussex Sports Cars in Lewes in East Sussex (+44 (0)1273 477778), a 1994 Cabriolet stickered at £13,950. If you like the Cabriolet version of the 968 – and the

NEW PORSCHE BOXSTER WINS WHAT CAR? BEST SPORTS CAR AWARD JANUARY 10 2013

droptop 944/968 is something of an acquired taste – and you are fine with Tiptronic transmission you could stop searching, because this seemed to have it all. Two owners, just 42,000 miles, and a full service history with work carried out by North Yorkshire independent Porsche dealer, Specialist Cars of Malton. It's a good colour, too, dark blue over grey leather, and there's been an update to phone/iPod compatibility. The description summed it up as 'cherished', and in the photos it certainly looked it.



What and when was your first Porsche job?

I was working at a Ford and Jeep dealership in the early 1990s and both myself and our bodyshop manager ran 911s, and had them parked around the side of the building. This led to other Porsche owners calling in to see if we could service their cars, and after several such conversations, I decided that the way forward was to follow my passion for Porsche and I set up Paragon as my first Porsche job.

Where have you progressed to since then?

Paragon has organically grown and we've been fortunate to grow to the right size to offer the very best customer service to our loval clientele. The team has also grown in number over the last 27 years - some of the team have been with us from the beginning.

What's the cheapest, and most expensive Porsche you've had in stock recently?

The cheapest recently was a 987 Boxster - serviced by us for the last decade or so, and sold for £12,995. The most expensive was the delivery-mileage Carrera GT which went for £750,000.

If you were buying your "first Porsche", what would it be?

If money was no object, a 911 Carrera. In many ways they are the essence of what makes Porsche great. But whatever the model, ensure you buy the very best example you can afford.

What warranty do your customers get on cars they buy?

We provide a fully comprehensive 12month/12,000-miles parts and labour warranty with every Porsche, which is included in the price.

How many of your customers come back to you for another Porsche? We have a huge amount of

repeat business and recommendations. It's gratifying seeing someone who bought their first Boxster from us come back years later for their first 911.

What's presently the best

Value used Porsche? You would struggle to go wrong with a 997-model 911 Carrera or Carrera S, which give the authentic 911 experience without a huge capital outlay. For people who want to spend a little more, a 996 or 997 Turbo are also fantastic value supercar performance at a very realistic price.

Which is the used Porsche everyone wants?

For us it's not so much the model but the price range. The busiest part of the market is £20,000-£60,000. This can encompass a wide range from a Boxster through to some great air-cooled 911s.

Name a Porsche model you think will make a great financial investment

We are loathe to predict the future and we like to think of Porsches being purchased to drive and enjoy. If you want to match that with a solid financial investment then you may consider anything produced in low numbers, for example the

996 or 997 GT3, and of course the 996 GT2.

Name a car you recently sold, but wanted to keep for yourself

Å Rubystone Red 964 RS. A simple, lightweight - the last car where you look over the iconic 911 front wings. It represents the end of an era. and it brings back memories of Spa track days.

What was your first Porsche?

A left-hand drive 1970 911E 2.2 Targa. I made the classic mistake of buying the cheapest one I could find – at that stage I really couldn't afford a 911 and it came back to bite me.

What is your all-time

favourite Porsche? The Carrera GT - the last of the "analogue" supercars. Everything I have ever loved about Porsche is encapsulated in this extraordinary, soulful piece of engineering genius

What car do you drive

every day? A Macan. I live down country lanes in the middle of nowhere and having a tough, four-wheel drive but high performance car means I get the most of both worlds. I also use it to tow my car trailer when I am heading to the track. If the weather is great I try to use my 356 or a classic 911.

Contact Paragon Porsche **Five Ashes** Mayfield TN20 6HY + 44 (0)1825 830424 paragongb.com



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Carrera 3.2 Coupe Sport

Classic Porsche Carrera Coupe Sport 1988 model in excellent condition, finished in Marine Blue with cream leather interior complete with G50 gearbox and whale tail. Porsche main dealer service history, 148K recorded mileage with previous top end rebuild at 100K. Sympathetically owned, used and maintained. Tel: 07715 174299. Email: ricontheroad@outlook.com (Bristol) P0120/042 £39,500

Superb original UK RHD 1973 911E In the best colour with many factory 'S' options inc original Sport seats, steering wheel, front valance etc, drives superbly through its silky smooth 5 speed magnesium box and rebuilt MFI engine, please call for more information and photos. Tel: 07823 483957. Email: markericwalford@yahoo.com (East Sussex) £69,999 P0120/043

911 Targa 4S

Owned by one fastidious owner from new (2008), in excellent condition. It has only covered 43,100 miles and is sold with the benefit of a full Porsche extended warranty. Targa - glass sliding roof fully opening, black leather interior, Carrera White exterior, Porsche tracking system, extended navigation system, telephone module, CD player, Bose surround sound system, ParkAssist, side skirts in white, adaptive electric Sport seats, cruise control, heated seats, manual transmission with sports shifter, Sports Chrono package, sports exhaust system, multi function steering wheel, rear console in leather, full service history. This rare motor car costing nearly £90K when new, in beautiful condition is offered for sale with full Porsche extended warranty. Tel: 07901 917089. Email: cmortonfirth@gmail.com (Newcastle). £35,375 P0120/020

<mark>o c t a n e</mark> g a r a g e

911

2003 Type 996 Coupe Tip 38K Seal Grey with black leather, good specification with sat nav and sunroof. complete service history, supplied new and maintained by Porsche Tonbridge for owner and son, reducing collection. Tel: 01732 700310 (Sevenoaks, Kent) P0120/022 £21,950

Collection condition GT3

This incredible example has had only 2 owners from new and comes with complete service history. We have each and every invoice showing the consistent maintenance to ensure the vehicle stays in original and brilliant form. Tel: 01689 660385. Email: danielbush@ prestigecarskent.co.uk (Kent). P1219/040 £62,400

912

912-6 no rust project car 1966 912-6 perfect starting point, all steel body, no rust, 5-gauge, 911 motor conversion, 915 trans. Major upgrades to the suspension components, late Mvented brakes, late aluminium cross arm, late A-arms, shocks, hubs, through body sway bar and aluminium rear trailing arms. Tel: +1 785 280 2768. Email: jason@schmitt-rs.com (USA). £9999 P0120/023

944

1992 944S2 Cabriolet

In Cobalt Blue and grey electric interior, ill health forces sale after spending one year renovating. Stripped and resprayed after new sills, wing tips etc, engine has been thoroughly serviced to the tune of £4000. Turbo twist alloys with as new N-rated tyres. This car needs viewing to fully appreciate all the work completed with invoices and photos to prove, Tel: 07774 287713, Email: paulskid.coombs@gmail.com (Wiltshire).

P0120/024

BOXSTER

Lovely Boxster

£12,000

Excellent Boxster, 69,000 miles, 1999, 2.5 litre manual, silver with black unmarked leather, 3 previous owners, roof superb. body unblemished, last two services were major, 2 keys, all handbooks, toolkit etc. Tel: 07962 108094. Email: alan@startupoffices.com (Berkshire). £3995 P0120/006

Independent Porsche Specialist

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Unit 6 Lexden Lodge Industrial Est. Crowborough, East Sussex, TN6 2NQ

OTHER MAROUES



Volkswagen Corrado VR6

1995. Subtly modified including rare Vento Cup alloy wheels, Weitec coilover suspension, Milltek exhaust, BMC air intake system and removable Momo Prototipo steering wheel. Rebuilt gearbox and engine top half. Black cloth interior. 160,000 miles. MOT September 2020. Extensive history file including original bill of sale. Tel: 07463 796312 (Surrey, near M25 J8).

P0120/007 £4750

REGISTRATIONS

PORSCHE RELAT	TED CHERISHED	
300 RS	911 MPY	
35 SYX	911 MSD	
987 MD 997 CSS	911 MXD 911 PYT	
POR 997T TON 997X	911 RWS	
POR 911K	VNZ 911	
POR 911N POR 911Y	918 MHH 5918 POR	
E944 POR	98 RSR	
WAG 9445 XXX 911C	REG 911E RED 911H	
991 PD 964 MC	VOP 9115 CAB 911X	
964 GC	A911 DPG	
930 FF B911 RSR	D911 POR J911 GTN	
RSR 911K RSR 911T	P911 SCH S911 LER	
RSR 911X	OO05 CAY	
RUF 911T 993 RUF	CAR232A GT03 AWH	
993 POR	GT03 SPJ	
A993 XXX 911 SCR	RS18 POR RS68 RSR	
911 FEG 911 FJX	RS68 POR GT68 RSR	
All held on Entitle		
for immediate transfer		

PCGB MEMBER TEL: 07730 007694 EMAIL: erha300@aol.com

RSC 964

'RSC 964' personal registration Ideal for an RS Carrera 964, currently on retainer. Tel: 07808 824080. £3500 P0120/008



Cherished plate 'R911 TUR'

Currently on car, easy to transfer the ultimate plate at a good price, R911 TUR. Tel: 07790 469507. Email: a5h911@aol.com. £3500

P0120/002

REGISTRATIONS



Registration for sale

'JJI 9115', number on retention. Tel: 07810 058297. Email: s-blakeley@sky.com. £2000 P0120/041



Personal registration 'P911 JYE' Ideal for your Porsche 911 owner or partner name Jayson, JAYNE, or Jay?? Superb private plate/cherished reg number held on a DVLA Certificate of Entitlement, ready to be assigned straight on to your vehicle or you may choose to keep it on the Certificate for up to 10 years. You can also renew it for another 10 year period 1 month prior to the expiry date (free service offered by DVLA). The price in the listing is the price you pay and includes the £80 DVLA fee if bought at the 'buy it now price', please note that this registration can only be assigned to a vehicle registered August 1996 onwards, actual pair of number plates are not included, any questions please contact me, sensible offers considered. Tel: 07703 185814. Email: simon.turner8@hotmail.co.uk.

£1250 P0120/001



Number plate Number plate for sale, 'F4C ME', call for more details. Tel: 01246 590698

Offers

P0120/014



'JAZ 5575' On retention. Tel: 07976 320340. £900 P0120/040



Porsche Boxster number plate 'P6 OXA' Porsche Boxster personalised number plate for sale, 'P6 OXA' reads 'P BOXA', please contact me for more information. Tel: 07946 607427, Email: laurencestark96@gmail.com. P0120/039 £950

AUCTION/SHOWROOM/CLASSIFIED

The fifth annual Porsche Club Great Britain auction sale saw members' cars change hands from £9000 to over £600,000, says *David Sutherland*, who noticed that the Brexit chill affecting the same sale in 2018 was still to be felt



911T, £48,375 at Silverstone Auctions/PCGB sale and below its lower estimate

There are times, we'll admit, when this Market Watch page might read like an extract from Investors Chronicle, reporting on Porsches bought for six-figure sums and spirited off to secure vaults, not to be seen again until their owners decide to liquidate some assets, and despatch them to international auction. But this month, thanks to a sale held in September by Silverstone Auctions in partnership with Porsche Club Great Britain, we can talk about Porsches sold at real world prices.

However, real world doesn't necessarily mean cheap. If you exclude the wealthy PCGB member who sold a 2005 Carrera GT for £607,500 (netting the Warwick-based auction house around £106,000 in buyer/seller fees) the average price paid including buyer's premium was £46,700. Throwing the carbon-bodied, V10 supercar into the mix nearly doubled this to £90,100.

The fifth annual Silverstone

Auctions/PCGB sale returned to 2018's venue, the Dallas Burston Polo Club in Southam, Warwickshire, and proceedings suggested that the dreaded "B" word continues to affect market confidence. Of the 33 cars entered (compared to 42 the previous year), 15 did not sell, a worse unsold rate than in 2018. No lots sparked a bidding war, only one Porsche selling for more than its pre-sale estimate, and then by a small margin: a 1991 944 Turbo Cabriolet (one of 100 sold in the UK) making £27,000, which was £2000 over expectation.

Unsolds aside, just two cars failed to reach the lower end of their estimates, a 1970 911T selling for £48,375 (£1625 short) and a 1994 UK-delivered 968 Club Sport with 98,000 miles at £21,500 (£2750). That's a surprisingly low price for one of the 179 lightweight 968s imported, and we can't help but think that while it had clearly been well maintained its "fast road/track day" brake and suspension modifications held its price back. The sale's second 968 Club Sport went unsold, its £43,000–£48,000 with a reserve presumably somewhere in between obviously too ambitious.

The star of the show, the 4300-mile, originally Germandelivered Carrera GT in Basalt Black (see 'Sold at auction') and with the full carbon pack and Porsche luggage set, which took centre stage in front of the rostrum sold for £7500 above its lower estimate figure. That price is further evidence that the once hard-to-sell supercar - even several years ago achieving its new price of around £300,000 was a struggle - has finally become properly collectable.

Another interesting price marker that only the cold reality of an auction could expose was the £63,000 paid for the 2015, 4300-mile Cayman GT4, a car that at one stage was being offered at over £100,000, a good £20,000 above its typical optioned-up list price. Dealers, including UK Porsche Centres, are asking between £72,000 and £84,000 for cars with similarly low mileages, and there are probably over 25 cars out there looking for homes, suggesting that the track fettled Cayman can no longer be called a "premium" model Porsche.

The cheapest car in the sale was the 1994 968 Sport (not to be confused with the more coveted Club Sport), the £9000 paid for the noreserve lot in Grand Prix White and with 99,700 miles about the cheapest you'll now see a decently running "transaxle" car going for. The next price up for a transaxle, this time a 1982 928S in red and with a manual gearbox, and offered with no reserve. sold for £10,688. However, a 1989 example of the manualonly 928GT with just 37,050 miles was bought for £51,750, the buyer clearly delighted. 'He couldn't stop grinning from ear to ear, and was over the moon when he finally got to sit in it after the auction had finished,' Silverstone Auctions commented.

The musician Jay Kay is a semi-regular at these auctions, and this time he was off-loading a 991-model 2015 911 Turbo S (he also sold his 1972 365 GTC/4 in the associated Ferrari sale for £219,375). It went for £106,875 – was that a good price? Being just four years old we could call it up on the Glass trade analyst app, and that price was £3700 above "Trade" price and £8500 less than "Retail", so given his five per cent selling fee and other costs perhaps the petrolhead

singer would have been better chopping it in at his local PC, as clearly his celebrity status wasn't adding value!

MARKET FORCES

The sale contained one of the cheapest 930-models we've seen for a while, a 1980 car showing 102,000 miles, and warranted by PCGB to be a genuine "Martini" limited edition. It was recently re-sprayed, and made £61,875; of late 1970s 911 Turbos have been selling for £80,000 to £100,00.

When we think of pre-911 Porsches, the mid-1950s Speedster usually comes to mind, these usually changing hands for £300,000 to £400,000 or a lot more if a special version. But the "ordinary" models can be bought for a lot less. Although it did not sell, a 1959 356B T5 coupe, a fully restored car imported from San Francisco, could have found a home for something within its £60.000-£70,000 estimate, had a bidder come forward.

And 1980s 911s haven't disappeared out of reach either, a late, 1989 Carrera 3.2 Targa with 102,770 mile secured for £32,063, just above the lower estimate. Targas of this series are a bit "Marmite", but if the Targa roof fills your sails, then this Baltic Blue car ticked the crucial 3.2 boxes: five-speed G50 gearbox, leather, an engine rebuild at 90,500 miles by AFN in London, and a recent service at JZM. Overall, the classic Porsche market is quiet - but certainly not crashing - and this allows buyers on a budget a better chance of finding the Porsche they assumed was out of reach. PW



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P0120/045

REGISTRATIONS



'K1 JOT plate'

Plate on retention certificate so £80 transfer fee already paid, rare number 1 and cuts down to nice short foot long plate. Tel: 07799 064911. Email: calder911@yahoo.co.uk. £995 P0120/047



SWANN or SWAN

Super number plate for anyone named SWANN or SWAN. It isn't often that you can get a perfect name plate, so grab this whilst you can, on a long running retention certificate. Put it on your car now or save it for later, at just £1699 it is a real bargain, excellent investment for the future, pass it on to your children, get in touch now. Tel: 07858 580557. Email: saltydog1@ymail.com. £1699

P0120/046

RS66 WOW 566

'RS66 WOW' for sale

The perfect registration plate for an RS Porsche! Looks superb on a car - WOW! Makes an outstanding car even more distinctive, on a retention certificate so available immediately. Tel: 07921 244940. Email: steve@stepheng.f2s.com P0120/052 £1300



'L8RCO plate'

'L8RCO' plate on retention certificate so £80 transfer fee already paid, new plates will have to be bought though. Tel: 07799 064911. Email: calder911@yahoo.co.uk. £675 P0120/048



'TEL 993' registration for sale Immediately available on retention certificate. Tel: 07885 108955. Email: john@selectshopfitters.co.uk. P0120/049 £2500



Rear 911 reflector This is a 911 rear reflector with built in fogs, fit '80s 911, condition is used (good). Tel: 07514 253000. Email: gcharlesworth@sky.com (West Yorkshire).

£180



Two engines for sale

1: 911 RS motor MFI 1974, recent complete overhaul including MFI pump at the cost of £2400, engine is complete with stainless heat exchangers and clutch but no main exhaust, asking £30K. 2: Porsche 356 engine, complete, excellent condition, everything including clutch but no main exhaust, asking £7000 ono. Tel: 0044 1625 582303 Email P0120/050 ericlanz356@gmail.com.

Fuchs wheels

Genuine Porsche Fuchs alloys (not replicas), two 7"x16", five 6"x16", original anodised finish, six in excellent condition, one 6" needs refurb, black centres, all with 911 part nos. Sensible offers please. Tel: 01949 861421 (Leicestershire). £1950 P0120/025



Porsche hard top Porsche 997 C4S hard top in white complete with cover and stand, hardly used. Email: eddie.seddon@btinternet.com. P0120/013 £695



BBS wheels and tyres

I have 4x BBS wheels complete with summer tyres for sale, the wheels have the gold centres and came from a Porsche 911 Carrera 4. Purchased from Carneval in 2017, these wheels originally cost just over £3.3K but will sell for £1250, the tyres are 265/35 ZR18 and 225/40 ZR18 and will come with storage covers, Tel: 07768 262862, Email: tracey.szklarek@outlook.com (Hampshire). £1250

P0120/051



Porsche 997 doors

Doors from immaculate Carrera in Seal Grey, no damage, £400 the pair. Tel: 07761 410902. Email: freyadrian@hotmail.com (London). £400 P0120/009

968 Club Sport

3 disc brake black calipers, need refurbish, buyer collects or carriage extra. Tel: Ken Coad, 01923 262960 (Watford). £300 P0120/026

Used parts for early Porsche 911

Drive shafts G-50s; anti-roll bar rear; gear shift linkage; Bosch fuel pump and filter; fuel pump lead; oil tank filler neck and cap; Bosch ignition box 0227200001 serviced; drive flanges; rev counter and speedo (early cable drive); temp gauge; clock; heater cables 90142470105; rear corner seals. Other parts available. Tel: Rob, 07989 407993. P0120/027

PARTS



Eckel roof rack

The Eckel roof rack was an original Porsche option, this one being black and dating to the '80s. Eckels is a German company specialising in roof racks, this rack is made specifically for the Classic 911 with longer legs at the back and correct angled supports to allow a flat load. It's in excellent condition and is not new, the car looks great with either skis or bikes on top. There is also a key that locks the rack and makes it secure. Tel: 01225 309161. Email: robertpinckney@hotmail.co.uk. P0120/044 £450 ono

Steering wheel multi function

From 911 991 gen 1, it's like new having steered only 20K miles, with fittings, taken off car by local Porsche dealer having swapped it for a Sport wheel. Tel: 07714 300112. £600 P0120/028

996 roof bars

Genuine Porsche 996 roof bars, complete with all fixings, as new, ideal for taking your windsurfer to the sea, or your skis to the slopes. Tel: 01905 29889 day, or 07751 468500 (Worcester). P0120/029 £120

Michelin Pilot Alpin Winter tyres

2 front tyres 245/35/20 NO, 2 rear tyres 295/30/20 NO, 1 winter use, 1000 miles approx, on 991 Carrera (Gen 1). Tel: Pauline, 07747 837775 (Co.Down). P0120/030 £400

BP4W race engine for sale

Abandoned project, BP4W block, sports recon RS head with triple cut valves, ported and polished, BP5A camshaft. Lightened flywheel, balanced 10.5:1 pistons and rods. Stripped for inspection, requires assembly, the headwork alone cost £700, will accept £1000 for the lot. Tel: 01604 750341 (Northampton) £1000 P0120/031





TRIED&TESTED

With 911 & Porsche World's resident tyre kicker, Kieron Fennelly

911 997.1 CARRERA S 2006 '56' 50,600 MILES £26,995



orsche made 212,000 997s between 2004 and 2011, but what differentiates this example is undoubtedly its black Fuchs wheels. Indeed, in Arctic Silver, it recalls the later Sport Classic which today sells for almost ten times the asking price of this 997.1. Admittedly the extra £200,000 would net the buyer fifty more horsepower and that 'double bubble' roof, but the 250 Sport Classics were always destined to spend their lives in air conditioned garages whereas this plain Carrera S has already served seven owners and 50,000 miles and is clearly ready for its next 50,000 miles.

Externally the paintwork is largely unmarked and the Fuchs, shod by newish Michelin Pilot Sports. are immaculate. Cabin materials, too, appear unworn, the carpets have that freshly laundered look and Metropole Blue leather is guite unlined except for a couple of minor creases on the driver's seat; boot and engine compartments are equally clean, although the latter has not allegedly seen a polishing cloth since RSJ, who sold the 997 to its most recent owner, valeted the car in 2016. Despite a change of ownership on average every two years, maintenance has been consistent, the service book showing scheduled attention from Leeds then Exeter PCs till March 2014 and 35,000 miles; a £2000 Steve Bull invoice dated March 2016 (47,000 miles) shows that the RMS, clutch and slave cylinder were replaced in addition to routine items, and a new coolant pump and associated pipework were fitted shortly afterwards. SCS Porsche in Honiton carried out an oil and filter change in August 2018 at 50,180 miles and in May 2019 a

new starter motor was installed. The last owner acquired the 997 from RSJ, Slough in May 2016 and, according to current vendor Philip Raby, largely kept the Carrera in his garage in Poole, covering barely 3000 miles in three years.

This example is well-specified with options such as white instruments, Bose sound pack, rear Park Assist, Litronic headlights and fully electric memory seats. An electric sunroof is trimmed in Alcantara as is the rest of the headlining, and even before turning the key this 997 with its new-feeling cabin feels very good.

Underway, this impression simply grows: the clutch is nicely adjusted and works harmoniously with the manual gearshift: for the 997 Porsche switched from Getrag to the Japanese Aisin and the shift is altogether lighter. Steering (hydraulically assisted) and ergonomics are so good you don't even think about them. Ride on 19in wheels is surprisingly comfortable: the 997 Carrera S introduced PASM as standard and Porsche engineers reportedly drove many laps of the Nürburgring to develop it. Reskin of the 996 the 997 may be, but a lot of work went into the chassis including repositioning the engine mounts and a wider track and the result is an altogether superior ride in all circumstances. Switchable PASM allows the driver to take advantage of a well-surfaced or twisting road without having to endure the harshness of an M030 lowered suspension on poorer surfaces. With the factory-fit exhaust, the 997 is vocal without overdoing it, but when the driver opens the throttle, the aural accompaniment leaves no one in any doubt that this is a 911. The

CHECKLIST BACKGROUND

The 997, a comprehensive re-shell of the 996, also turned the 'S' into a more powerful version, the gen 1 engine bored out to 3826cc and 30 more bhp. The new 911's lines met universal approval, as did the updated cabin with its tidier fascia. The intermediate shaft of the M96-7 remained though, now supported by a larger bearing. Anecdotally, the incidence of failure is very low; over 100,000 of the gen 1 997 were built. With its optional equipment, this 2006 example would have cost over £75,000

WHERE IS IT?

Philip Raby Porsche, Southbourne, PO10 8PF Tel: 01243 780389, **philipraby.co.uk**

FOR

Fine condition, low mileage, full service history, new clutch and RMS in 2016

AGAINST Not all will like the Fuchs wheels

VERDICT

Wonderful analogue 997.1 in exceptional shape

VALUE AT A GLANCE Condition Price Performance Overall

3.8 has tremendous torque and is an easy car to drive in traffic, yet pass the derestriction sign and floor the accelerator in second and take-off is thrilling. The sheer zest of the 350bhp flat six means that such behaviour is difficult to resist. The precision and purity of the entire driving experience simply amplify the impression that this 911 is much younger than its thirteen years.

An equivalent early 997.2 (9A1 engine) would cost at least £10,000 more, but with 911s of this vintage, more important than age is service history: how often has the oil been changed, has the vulnerable cooling system had the necessary renewals? Have, in other words, previous owners spent money where it matters? Bore scoring? Technicians say this can affect 997Ss of any age.

This 997.1 S is not the cheapest, but it is in fine shape and it does come with a six-month warranty: it looks irresistible for anyone seeking the traditional 911 experience in a modern context. **PW**



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With 911 & Porsche World's resident tyre kicker, Kieron Fennelly

911 CARRERA 996 3.4 TIPTRONIC 1999 'W' 103,600 MILES £14,995



ritics of Porsche's new water-cooled cars 20 years ago would have you believe the 986/996 was such a retrograde step that it would never last like its air-cooled predecessor. But time has confounded the naysayers and this column has found any number of presentable 986s and 996s all approaching their twentieth birthday still offering entertaining Porsche motoring without the need of vast restorative expenditure: this example from Philip Raby's stable is no exception.

A striking Forest Green metallic (a £1300 extra) is offset by a beige leather Savanna interior, at £1200, another pricey option, but a combination which works surprisingly well. For a twenty-year-old, 100,000 mile car, this 996 looks very impressive - the paint has lost none of its depth and sheen and is almost unmarked. The vendor says he has resprayed the vulnerable front bumper, and the fried egg headlamps which so often craze over are still clear; the all-leather interior, always an intelligent if expensive choice because it wears so well, is even more impressive: the beige Savanna, usually one of the 996's less attractive hues, goes well and extends to spotless matching carpets. Handsome sports seats and coconut mats (the originals remain with the car) complete what is perhaps the best 996 cockpit your correspondent has yet seen. There is a couple of nice period touches, too: the original clipon cupholders are still present, residing in the door pocket, and this 996 was specified with a 'nonsmoking pack' which replaced the ashtray

(remember those?) with a useful oddments tray, the 12v plug covered with a neat cap. Externally, the 18in split rims have minor corrosion and are the only area where a truly fastidious new owner might want to spend money. Tyres are P Zeros, new at the rear, slightly worn at the front; other extras include headlamp washers and a rear screen wiper and (rather ugly) rear parking sensors.

A four-owner car originally registered in July 1999 to a Peter Wood of Petworth, annual services are shown at various PCs then at Charles Ivey until 2007 and 53,000 miles at which point the Carrera started to accrue miles far more slowly, receiving attention only every other year. Indeed, by 2016 when Ivey saw the car again it had covered only 73,000 miles. A third owner added 20,000 miles before vendor Raby acquired it, attracted, he says, by its eye catchingly rare colour. He then spent £3800 on a mechanical overhaul which included renewal of brakes, coolant pipework and the IMS bearing. A fourth, SW6-based owner was also charmed by the colour and added 9000 miles on a rapid tour of Europe during summer 2019 before returning the Carrera to Philip Raby for resale claiming not unreasonably that he had nowhere in London to park it. Subsequently the vendor has had to replace only a gearbox location bush and the rear tyres.

Fully fettled and after a period of being used as it should be, this Carrera has plenty of zest: the 3.4 fires eagerly, its presence announced by a rather too vocal aftermarket exhaust. The distinctly luxurious cabin is pleasantly rattle-free, the Carrera steers

CHECKLIST BACKGROUND

In 1988 Heinz Branitzki famously hailed the new 964 as the 'Porsche for the next 25 years.' The interim CEO was wide of the mark: it would take two more generations until Zuffenhausen had a 911 for the twenty-first century and that watercooled model shared not a nut or bolt with its predecessors. What it did share, controversially, was a platform, cabin and front bodywork with the Boxster. Economies of scale and modern design brought Porsche renewed profitability and in seven years 996 sales would far exceed the 964 and 993 combined

WHERE IS IT?

Philip Raby Porsche, Southbourne, PO10 8PF Tel: 01243 780389, **philipraby.co.uk**

FOR

Striking colour combination, worthwhile extras, substantial history file and recent expenditure

AGAINST

Boomy sports exhaust; purists would prefer manual gearbox

VERDICT

Exceptional entry level 911 unlikely to depreciate further if looked after properly

VALUE AT A GLANCE

Condition	
Price	••••••
Performance	••••••
Overall	000000000

precisely with no hint of deranged geometry, and neither are there any suspicious bonks or clonks from the underside. The Tiptronic changes smoothly, the service record detailing a recalibration in 2017; obviously not as responsive as a PDK, it nevertheless does kickdown when asked and the 3.4 does its best work above 3500rpm, rushing enthusiastically to the redline. In this price bracket and mileage, water cooled Porsches often display a reluctance and even sound unhappily off-key when pushed to these revs: the sweetness of this particular 3.4 is a tribute to consistent and correct maintenance. Indeed, with the sun in the sky and the open roads of the continent, it is easy to understand how an enthusiastic owner could clock up 9000 miles in six months. For less than £15,000, this likeable, nicely appointed and increasingly classic early 3.4 simply asks for more of the same. PW







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Porsc

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PORSCHE 996 C45 * 930 TURBO * RPM 997 * 996 CARR



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October 2019 **ISSUE 307**



July 2019 **ISSUE 304**



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ISSUE 305

THE WAY WE WERE

TIME MACHINE

Editor Bennett peruses the archives of *911 & Porsche World* from days gone by. What's changed? That will be everything and nothing...

JANUARY 2013 (ISSUE 226)

t seems like the recent past, although a cover date of January 2013 means we would have been putting this issue together in Oct/Nov of 2012. When delving back in the archive, some issues are easy to recall and this is one of them. After all, when do you usually see a front cover packed full of 944s? For us it was deemed something of a risk from a sales point of view, but the image was just too strong to confine to the inside of the mag, and besides, we hoped it might inspire a few folk to look beyond the usual cover fodder.

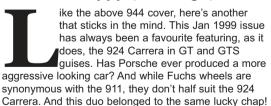
More than anything, though, is the memory of just how much fun it was to put this feature together. We had the small, but perfectly formed Blyton Park Driving Centre in Lincolnshire all to ourselves and all the cars were supplied by 944 collector, lan Gibson. They arrived on a transporter and we utilised Blyton Park's huge hangar to shelter from the elements. Yes, it rained for most of the day, but this turned out to be a bonus for dramatic, oversteer biased photography. 911&PW regular journo, Adam Towler, was the test pilot and he spent all day hanging the tail out. The front coverline wrote itself: 'Cheap Thrills!' And it still applies today, although the market for good 944s (and for 924s and 968s) is on the up. Real world thrills are not always mega bhp and unobtainable limits. Get in quick, we say.

Further fun was to be had with the dual launch of the 991 C4 and Cayenne Diesel S (a diesel Porsche? That does feel old now) in Austria. Again, it's the driving that brings back the memories, with the aforementioned Towler in the 991 and your Editor in pursuit in the Cayenne. Could the 991 get away? No



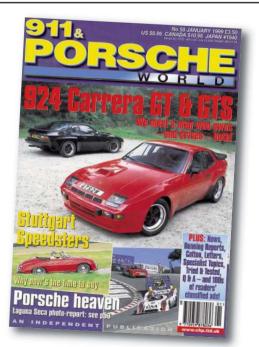
chance! Nothing to do with driving prowess, more a matter of torque. The rather feeble 991, with its peaky 345bhp, 3.4-litre engine, was no match for the Cayenne's V8 diesel with 377bhp, but more significantly 623lb ft of torque at 2000–2750rpm, compared to the C4's 288lb ft at 5600rpm. Torque talks, and the 991 was lacking.

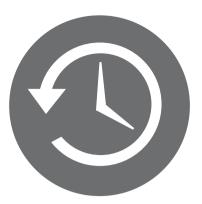
JANUARY 1999 (ISSUE 58)



In the news pages we reported that Porsche was taking a sabbatical from GT racing and Le Mans, in order to regroup and return in 2000 with a new prototype for the also new LMP class. Of course, we know now that was never going to happen, and the car that Porsche was developing actually became the V10 powered Carrera GT. We would wait 14 years for Porsche to return and win at Le Mans, and then pull out again, now in favour of Formula E.

In his regular column, Michael Cotton was speculating as to what the forthcoming and unnamed Porsche SUV might look like. Using a pic of the just launched BMW X5, which clearly took its design cues from the 3-Series Touring, Cotton suggested that the Porsche would bear a strong family likeness, too.





JANUARY 2006 (ISSUE 142)

on't look back in anger.' sang Oasis, which is all very well, but it's not Noel Gallagher who has to flick back through the 911&PW archives every

month and be tempted by the metal on offer in the classifieds. I know we make this reference month in month out, but it's hard not to feel slightly hard done by, or not to kick oneself for not second guessing the market. Regardless, if this page really was capable of time travel, as its title would suggest, then I'll snap up the 964 RS at £38,995 and a rather nice 968 Club Sport at £12,950. How pertinent is that, given the feature in this issue in which we auction a 968 Club Sport and set a new sales standard at £47,000?

Right, well that's got that out of the way. What else was lurking in this issue? Well, let's take a look at the 'Our cars' pages. Making its very first appearance was Johnny Tipler's infamous 'Peppermint Pig', an impulse buy on a visit to Roock Racing in Germany. The 'Pig' became easily one of *911&PW*'s best known project cars and Tipler's colourful calling card. You know and we know that he still misses it today.

Air cooled and classic stalwart, Keith Seume, was saying goodbye to a Porsche 928, with a mixture of 'sadness and relief.' We never really understood that brief relationship and after a protracted eBay sale, the 928 ended up in the United Arab Emirates, of all places.



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