

**PURELY
PORSCHE**

**TIME TO BUY
944 S2**



**CARRERA 3.2
RESTOMOD**



GT PORSCHE

The world's premier Porsche magazine

Issue 222 February 2020 £5.50

2020's BEST BUYS

**OUR GUIDE TO BAGGING BIG
BANG FOR YOUR BUCK**

**986
BOXSTER
MODERN
CLASSIC**



H-TOWN CLASSIC & DUB CLUB

997 CARRERA 4S HITS SWITZERLAND

PHOTOGRAPHING YOUR CAR LIKE THE PROS

PLUS

OVERSIZED ENGINES
THE FLAT-SIXES PROVING THERE'S NO
REPLACEMENT FOR DISPLACEMENT



911 E TARGA RESTORATION

Imported Californian spares car turned
into sensational Slate Grey stunner

AN INDEPENDENT PUBLICATION



9 772050 182081



02

AUTOFARM
PURELY PORSCHE SINCE 1973

Serviceing

Specialising in all types of engines, from air-cooled to water-cooled, naturally aspirated to turbo-charged. We are purely Porsche. Are you?



PROJECTS & RESTORATIONS

SERVICING, ENGINES & GEARBOXES

SALES, SOURCING & INSPECTIONS

STORAGE, TRACK SUPPORT & SET-UP

New purpose built premises.

Autofarm was established in 1973, and have been dedicated to the Porsche marque ever since. We had been located at Oddington Grange since 1993, so it was time for us to find a new premise that reflected the needs and growth of the business in 2019. We are now in and would love to show you around our new purpose built buildings that are just a few miles from the old premises.

www.autofarm.co.uk

Call: +44 (0) 1865 331 234

LANGFORD LANE, WENDLEBURY, OXFORDSHIRE OX25 2NS

FOLLOW: @AUTOFARM



We are purely Porsche. Are you?

Whether you own a completely original Carrera RS, Sports Purpose 964 or modern 991 GT3, we have the knowledge and know-how to ensure your car is looked after in the best possible way. Or maybe you need a service on your Boxster or Cayenne? No problem, just give us a call!



AUTOFARM

PURELY PORSCHE SINCE 1973



FEATURES

10 OVER THE TOP

With classic Porsche prices skyrocketing in recent years, Targas represent a reasonably priced entry point to air-cooled 911 ownership.

28 2020'S BEST BUYS

Industry professionals give us their top tips regarding the Porsche sports cars offering the best bang for your buck in the year ahead.

48 GO LARGE

Owners of Porsches powered by M96 and M97 engines might feel hard done by if their cars start misbehaving. Thankfully, every cloud has a Polar Silver lining, as proved by Harteck's 996 Carrera and 987 Cayman S development vehicles, both powered by performance enhancing 3.9-litre oversized flat-sixes.

58 HERTS OF GOLD

Hitchin's H-Town Classic & Dub Club is one of the UK's fastest-growing classic car groups.

60 AHEAD OF THE CURVE

In this month's coaching article, Porsche Driving Consultant, Neil Furber, discusses vision and planning in readiness for cornering.

64 944 S2 BUYING GUIDE

What to look out for when buying what many experts consider to be the sweet spot in the huge 944 range of cars.

76 BOTH SIDES OF THE STORY

This GT3 RS-coloured Carrera 3.2 is the product of a desire to convert a street-spec air-cooled 911 into a formidable track attacker.

82 PROJECT CUSTOMS

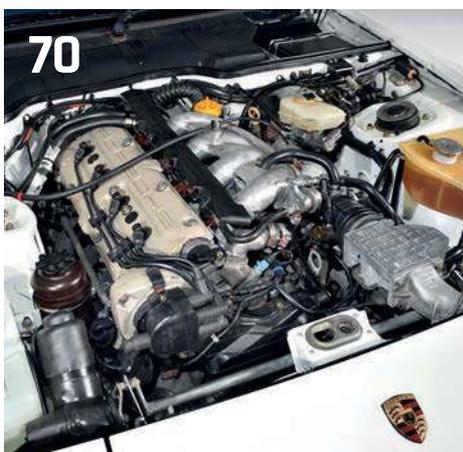
This Leeds-based prestige automotive bodyshop is going from strength to strength.

88 PHOTOGRAPHING YOUR PORSCHE

With input from industry professionals, we present twenty hints and tips to help you take better photos of your four-wheeled friend.

96 SMART MONEY

The original Boxster gave its maker a much needed shot of good fortune. Today, the same model serves as a low-cost Porsche purchase.



SUBSCRIBE TO
GT PORSCHE
SEE PAGE 64
FOR DETAILS





THE FLEET

104 944 TURBO

We pump up the volume with a raft of top-notch audio gear for the turbocharged transaxle.

110 997 CARRERA 4S

Dan's 911 sets down in Switzerland.

119 PANAMERA S E-HYBRID

Mark becomes a social media star.



REGULARS

18 NEWS & PRODUCTS

The latest from planet Porsche.

43 GUEST COLUMNS

BTCC legend and Carrera Cup hero, Tim Harvey, joins *GT Porsche* as a regular contributor.

122 DROP THE HAMMER

Action from the auctions.



CARS THIS ISSUE

- 111 718 SPYDER
- 76 911 CARRERA 3.2
- 124 911 CARRERA 3.2 SPORT
- 10 911 E TARGA
- 123 911 RSR EVOCATION
- 122 918 SPYDER
- 123 924 TURBO
- 32 928 S2
- 124 928 S4
- 70 944 S2
- 104 944 TURBO
- 38 968 CLUB SPORT
- 124 968 SPORT
- 119 970 PANAMERA
- 28 986 BOXSTER
- 57 987 BOXSTER S
- 30 987 CAYMAN S
- 48 987 CAYMAN S
- 40 991 CARRERA T
- 48 996 CARRERA
- 36 996 CARRERA 4S
- 110 997 CARRERA 4S
- 123 997 SPEEDSTER
- 38 997 TURBO
- 82 997 TURBO
- 22 TAYCAN TURBO S

GTPORSCHE

Kelsey Publishing Ltd, The Granary, Downs Court, Yalding Hill, Yalding, Kent, ME18 6AL

EDITORIAL

Editor: Dan Furr

Email: gtp.ed@kelsey.co.uk

Twitter: @DanFurr

Art Editor: Lee Caple

Contributors: Dan Sherwood, Sharon Horsley, Chris Wallbank, Ade Brannan, Emma Woodcock, Matt Woods, Neil Furber, Johann Venter

ADVERTISING

Talk Media Sales

Managing Director:

David Lerpiniere, 01732 445325

david.lerpiniere@talkmediasales.co.uk

Account Manager:

Kenny Gillam, 01732 920500

kenny.gillam@talkmediasales.co.uk

Advertising Production Executive:

Elsa Deakin, 01732 447534

elsa.deakin@talkmediasales.co.uk

MANAGEMENT

Chief Operating Officer: Phil Weeden

Chief Executive: Steve Wright

Finance Director: Joyce Parker-Sarioglu

Retail Director: Steve Brown

Audience Development Manager: Andy Cotton

Subs Marketing Manager: Debra Hagger

Events Manager: Kat Chappell

HR & Operations Manager: Charlotte Whittaker

Senior Print Production Manager: Nicola Pollard

Print Production Manager: Georgina Harris

Print Production Controller: Kelly Orriss

SUBSCRIPTIONS

A total of thirteen issues of *GT Porsche* are published per annum

UK annual subscription price: £64.87

Europe annual subscription price: £78

USA & Canada annual subscription price: £78

Rest of World annual subscription price: £85

Find current subscription offers at:

www.bit.ly/subscribe_gtp

Buy back issues at:

www.bit.ly/issues_gtp

Already a subscriber?

Manage your subscription online at

shop.kelsey.co.uk/myaccount

CONTACT US

UK subscription and back issue orderline:

01959 543 747

Overseas subscription orderline:

+44 (0) 1959 543 747

Toll free USA subscription orderline:

1-888-777-0275

UK customer service team:

01959 543 747

Customer service email address:

subs@kelsey.co.uk

Customer service and subscription postal address:

GT Porsche Customer Service Team,
Kelsey Publishing Ltd, The Granary, Downs Court,
Yalding Hill, Yalding, Kent, ME18 6AL

DISTRIBUTION

Distribution in Great Britain

Marketforce (UK), 2nd Floor, 5 Churchill Place, Canary Wharf, London, E14 5HU Tel: 020 3787 9001

Distribution in Northern Ireland and the Republic of Ireland

Newspress Tel: +353 23 886 3850

PRINTING

William Gibbons & Sons Ltd

Kelsey Media 2019 © All rights reserved. Kelsey Media is a trading name of Kelsey Publishing Ltd. Reproduction in whole or in part is forbidden except with permission in writing from the publishers. Note to contributors: articles submitted for consideration by the editor must be the original work of the author and not previously published. Where photographs are included, which are not the property of the contributor, permission to reproduce them must have been obtained from the owner of the copyright. The editor cannot guarantee a personal response to all letters and emails received. The views expressed in the magazine are not necessarily those of the editor or the publisher. Kelsey Publishing Ltd accepts no liability for products and services offered by third parties.

Kelsey Media takes your personal data seriously. For more information about our privacy policy, please visit kelsey.co.uk/privacy-policy. If at any point you have any queries regarding Kelsey's data policy you can email our Data Protection Officer at dpo@kelsey.co.uk.



GT Porsche is part of the Fast Car Entertainment family and is entirely independent of Dr. Ing. h.c. F. Porsche AG. Contents may not be reproduced in any form or stored on any electronic system without written permission. No responsibility accepted for any unsolicited material. GT Porsche recognises and abides by copyright laws and attempts to correctly credit all material used. If we have used or credited some of your work incorrectly, please contact us and we will do our best to fix the error.

**NEXT ISSUE ON SALE
FRIDAY 7TH FEBRUARY**



HAPPY HUNTING GROUND



You don't need to be a specialist dealer to realise the classic car market has slowed significantly over the course of the past twelve months. Brexit chaos and, latterly,

a general election have encouraged would-be buyers to hang on to their cash until 'the coast is clear'. Nowhere has this been more pronounced than the Porsche scene, where values have become somewhat unpredictable due to cars hanging around showrooms for far longer than we're used to. This is bad news if you're an investor (or, sad to say, trying to sell your car in a depressed climate), but good news if you're an enthusiast prepared to part with hard-earned dosh in exchange for a used Porsche – there are many bargains to be had right now.

We're not going to pretend you can suddenly go out and buy a Porsche for peanuts, but there's definitely wriggle room and an opportunity to haggle when the rate at which cars are shifting has decelerated so markedly. With this in mind, and with input from various respected marque specialists, we've compiled our list

of the Porsche sports cars we think will offer you the best balance of fast fun and value for money in the year ahead.

Considering low, medium and high budget groups (from £2.5k to £80k), we've carefully selected a Porsche for each purse. Not only that, but this issue of *GT Porsche* is littered with examples of cars that offer big bang for your buck, be it a reasonably priced route into air-cooled 911 ownership, a tidy transaxle or something more modern. We hope our suggestions encourage you to take advantage of what's become a buyer's marketplace.

Away from the used car scene, our favourite manufacturer is continuing to produce new models at a staggering rate, proving demand for fresh Porsche products is far from slowing down. The latest to roll off the assembly line is the Macan GTS, the sportiest version of the compact SUV to date. Additionally, the last 911 of the 991 generation (a Speedster, in case you were wondering) has just been built and, so I'm told by insiders at Porsche, more orders for the all-electric Taycan have been placed in the UK than in any other territory. Whatever flavour of Stuttgart-crested car floats your boat, there's never been a better time to get involved. Here's to a fun filled 2020!



Dan Furr Editor
[@DanFurr](https://twitter.com/DanFurr)

GET IN TOUCH

Email gtp.ed@kelsey.co.uk **Twitter** @GTPorsche

Facebook GTPorscheMagazine **Subscribe** bit.ly/subscribe_gtp

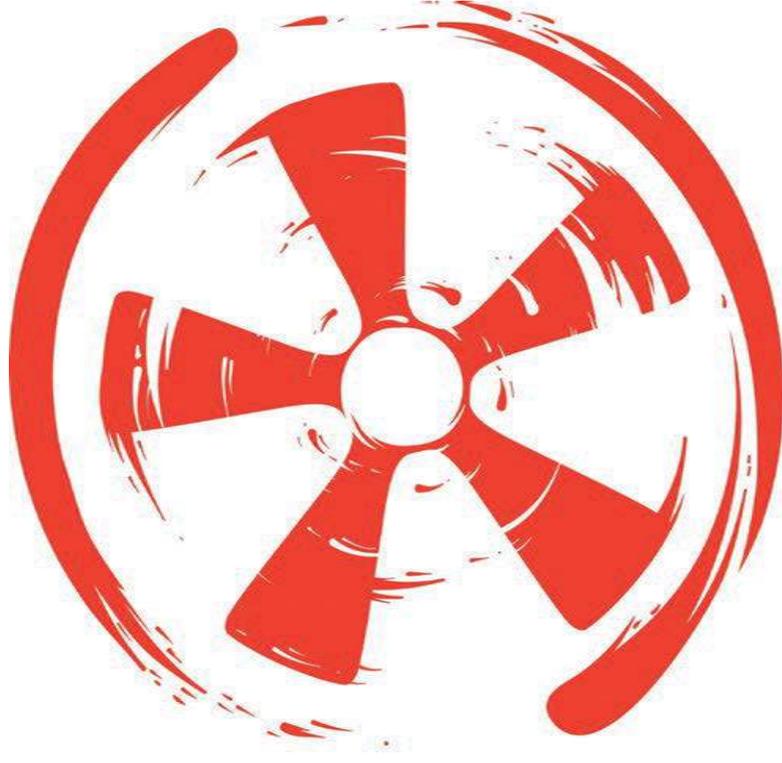
1968 TARGA FIORIO

CLASSIFICA ASSOLUTA
1. ELFORD / MAGLIOLI 907

SPORT
1. BARON WENDT / KAUSSEN 906
GRAN TURISMO
1. HALDI / GREUB 911 S

SHELL / DUNLOP

PORSCHE



PIEPERFORMANCE.

East Anglia's Independent Porsche Specialist

T: 01787 249924

W: pieperformance.co.uk

OVER THE TOP

With classic Porsche prices skyrocketing in recent years, Targas represent a reasonably priced entry point into air-cooled 911 ownership...

Words **Emma Woodcock and Dan Furr** Photography **Dan Sherwood**



FRUITS OF PASSION

911 Targa production started in 1966, ready for launch the following year. Though the model got off to a slow start, the new arrival was soon accounting for forty percent of total 911 sales in Germany. Despite the extra weight delivered by necessary chassis modifications to promote rigidity, the 911 Targa weighed just 50kg more than its closed-top sibling. Removing the early Targa's collapsible rear window helped to lighten the load and improve aerodynamics, but it didn't do much for the car's looks — when viewed side-on, it can be described as having an appearance not dissimilar from that of an *Erdbeerkörbchen* (strawberry basket)!



Following the success of the 356, the 911 had a lot to live up to. Unveiled with its 901 designation at the Frankfurt Motor Show in September 1963, the new Porsche was in the sports coupe mould of its predecessor. Unlike the older model, however, there was no cabriolet offering to get excited about, not least because 911 designer, Ferdinand 'Butzi' Porsche, wasn't the world's biggest fan of sporty drop-tops, seeing the lack of roof as a compromise to chassis rigidity and overall handling. Even so, despite the great man's reservations, sales of the glamorous 356 cabriolet in North America had been so important to Porsche's bottom line that it was deemed absolutely necessary to have *something* suitable to replace it with.

Rumour regarding proposed changes to road safety legislation in the United States – laws which would effectively ban cabriolets as a consequence of concern for occupant safety in the event of the car flipping – were perceived as serious. The suggestion never came to fruition, but it was enough to give rise to the development of a different design of fresh-air 911. The star of Porsche's stand at the 1965 Frankfurt Motor Show, the 911 Targa was equipped with a lift-out roof panel, a fixed stainless steel rollover bar and a collapsible plastic rear window. While this approach to *al fresco* motoring didn't deliver a full open-top, it resulted in the most exposed the 911's cockpit would be until the introduction of a full 911 cabriolet some seventeen years later.

Though Porsche retains Targa as a registered trademark, the Stuttgart concern wasn't the first to

adopt the design, which first appeared in 1957 on the limited production Fiat 1200 Vignale, penned by prolific sports car designer, Giovanni Michelotti. The Italian also applied semi-open-top styling to the Triumph TR4 in 1961. Additionally, the 1964 SAAB Catherina prototype and 1965 Toyota Sports 800 used similar systems before the launch of the original 911 Targa, named after the Targa Florio endurance road race, an event Porsche first entered in 1956, before going on to achieve a record-breaking eleven overall wins in advance of the race's discontinuation in 1977.

SLOW ON THE DRAW

Targa-topped 911s didn't prove as popular as their coupé stablemates (a total of 718 Targas were assembled in the first twelve months of production, with build numbers subsequently increased from seven cars each day to ten, a figure dwarfed by the fifty-five 911 tin-tops being produced), but sales were still considered impressive by contemporary sports car standards. UK buyers, however, would have to wait until 1973 for right-hand drive examples of "the world's first safety cabriolet" to land on British shores, by which time the model's soft rear window had been dismissed in favour of solid glass, the 912 Targa had been and gone and the Targa-covered 914 was already four years into production!

Porsche made its original Targa rollover bar a thing of beauty by affording it a brushed finish with a special script badge at its base. A feature that would go on to become an important part of the 911's heritage, this





PORSCHE MADE ITS ORIGINAL TARGA ROLLOVER BAR A THING OF BEAUTY BY AFFORDING IT A BRUSHED FINISH WITH A SPECIAL SCRIPT BADGE AT ITS BASE

Facing page Little is known about the history of the engine in the back end of Simon's restored Targa, a 911 originally equipped with Sportomatic

metal 'hoop' ensured the first open-to-the-elements 911 was instantly identifiable to even the most casual of car fans. The part was updated with a trio of 'gills' in 1969, drawing further attention to the model's most distinctive feature, but no matter how stylish the motoring press perceived the 911 Targa to be, many saw the distinctive silver appendage as spoiling the smooth lines of Butzi's carefully penned design, an attitude that's kept the asking prices of Targas far lower than those of their same-aged coupé counterparts, and one which has ensured entry to air-cooled 911 ownership doesn't need to break the bank.

The maths is pretty simple: the cost of a low-mileage Targa in perfect working order and good cosmetic condition can be as much as half the equivalent coupé (especially so if you're looking to join the ranks of 964 ownership). It's a fact not lost on Simon Varley, a property developer and automotive obsessive who's owned a Maserati GranTurismo, a Lotus Elise and a BMW Z8. As his car history suggests, he likes things to look 'just so'. "I've always had an eye for good design," he explains. "I really like vintage pens, classic sports cars and beautifully presented watches, including the TAG Heuer Monaco, a timepiece favoured by Steve McQueen." His passion for procuring perfectly presented products explains how he's become the proud owner of a restored 1969 911 E Targa, finished in the same Slate Grey as the *Le Mans* star's own pre-impact bumper coupé. "I'd »

FAMILY TIES

Were you aware Porsche built 2,500 912 Targas? Produced between 1965 and 1969, the four-cylinder model enjoyed the same styling as its Targa-topped 911 stablemate, though it lacked the performance of the bigger-engined Porsche. Available to buy at a much lower price point, the first 912 Targa — like early 911 Targas — featured a zip-out rear window, while later cars (from 1968) featured the more familiar domed rear glass. Interestingly, the 100,000th Porsche was a 912 Targa bought by the Baden-Württemberg police force, the law enforcement agency tasked with patrolling the home state of our favourite manufacturer. The Targa badge wasn't restricted to 911s and 912s, though. The 914 (a joint venture between Porsche and Volkswagen) was blessed with the same semi-open-top and roof hoop, and has gone on to become one of the most identifiable Porsches of all time, largely thanks to its square-edged styling, quite unlike anything else in the company's back catalogue. Targa styling was also favoured by Ferrari, with the 308 GTS being one of the most famous examples to roll out of Maranello.



Left Starting with the bare bones of an already modified 911 afforded Simon the opportunity to stray further from stock specification



long wanted to get behind the wheel of an old sports car oozing character," he tells us. "I'd been considering the acquisition of an Austin-Healey or Jaguar E-Type, but Targa-topped 911s caught my attention in eBay search results. The black roof and silver hoop looked amazing. I started researching early air-cooled 911s and immediately fell in love!"

BACK TO BASICS

Simon soon found himself at the Oxfordshire workshop of air-cooled Porsche restoration specialist, Greatworth Classics. Company boss, Angus Watt, had two air-cooled 911s available – one a coupé, the other a Targa. "The drop-top was in far worse condition than the coupé," Simon laughs. "There was no seating, no carpets, old steel wheels, wings which had been poorly widened and a non-original engine." An American-delivered Targa that had spent years in a California boneyard, this threadbare Porsche had never been intended for restoration. Instead, Angus purchased the left-hooker as a parts donor for another 911 project Greatworth Classics

was working on. "I was only ever going to strip it for the engine and gearbox," he laughs. "The car ended up sitting in my barn for the two years before Simon came along!" Bereft of everything but the bare essentials, the restoration promised to be a challenge.

Thankfully, as Angus and his team stripped the air-cooled classic back to a bare shell, they uncovered a full complement of usable, original suspension mounting points and chassis rails. Corrosion was found in other areas (but was, thankfully, fairly limited), with the slam panel and fuel tank surround receiving modest attention. Five repair panels were worked into the floor, while the flared rear wheel arches were swapped for Dansk replacement parts. "The work took place before Porsche Classic offered much in the way of OEM-specification exterior panels," says Angus. "As you'd expect, we routinely use the official parts today, though Dansk components do have their place in the market and can be bought at a very competitive price point."

Time has also been poured into the front wings, doors, boot lid and engine cover, with Angus electing to retain



AN AMERICAN-DELIVERED TARGA THAT HAD SPENT YEARS IN A CALIFORNIA BONEYARD, THIS THREADBARE PORSCHE HAD NEVER BEEN INTENDED FOR RESTORATION

Facing page

The bulk of the restoration work was carried out before Porsche Classic offered the wide variety of newly manufactured parts it does today

the original metalwork wherever possible. "It's normal restoration stuff – a lot of cutting, shaping and welding," he says. "It's just time consuming to get rust repairs right. As a case in point, the front wings and the doors demanded more spend in man-hours than the cost of buying replacement panels, but I think it's important to keep a classic Porsche's surviving parts wherever possible." Working around other Greatworth Classics projects, the disassembly, repair and reconstruction of Simon's Targa took a full twelve months.

A trip to the paint shop came next. The classic Porsche wouldn't have to travel far – to ensure consistent quality, Greatworth Classics carries out its own preparation and spraying work from the comfort of its Banbury base. In 2016, when the 911 on these pages was transformed from timeworn Olive Green to its current Slate Grey, that meant applying military grade zinc primer to each panel by hand. "We use a different system now, but the method used for this Targa project is extremely durable and ensures rust won't return." The fresh coat of colour followed. "I'm so pleased," Simon beams, overjoyed at the flawless finish. "Slate Grey looks so stylish against the new interior. To my mind, the whole car is as good I could ever hope it to get."

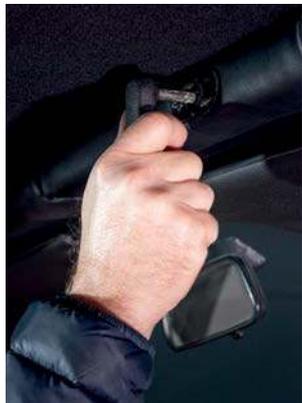
Pop the detachable roof and the extroverted cabin throbs with chrome and red leather. It's a stark contrast to the tattered shell and aftermarket steering wheel the Targa wore at the beginning of the restoration process. "This isn't a completely original car, which is why I felt free to dictate the design of the interior as I really

wanted it," Simon explains. "My Maserati and Lotus were sporting vivid red interiors and I wanted something equally bright for the 911." Using a pair of evocation front seats and a vast range of period parts sourced from the DDK forum, Garry Hall of Porsche upholstery specialist, Classic FX, has been able to indulge Simon's wishes. After extra consideration, he also asked Garry to trim the door cards to match.

To break up the hide, the car features a dashboard newly wrapped in black vinyl, custom salt-and-pepper carpets and a retrimmed Targa roof. Just like the seats, they've been subject to the Classic FX treatment, though the roof panel didn't start life with the car. "Despite our best efforts, the original Targa lid simply wasn't serviceable," says Angus. "In its place, I've donated the roof from my own 911 Targa. I'll have to find another for mine further down the line!" The wood-rimmed Moto Lita steering wheel is another donation, previously sourced from a Volkswagen camper van and plucked straight from Angus' office wall.

Most other parts required him to range far further from home; North American breakers yards, online forums and the expansive Los Angeles Lit & Toy Show (an annual gathering of more than three hundred tables stacked full of vintage Porsche and Volkswagen collectibles, literature, tools and trim) have provided everything from the fuel delivery system to the door locks and ashtray. Even the gear lever and pedals are substitutions, thanks to Simon's Targa originally making use of a long-gone Sportomatic semi-automatic »

Below Targa roof removal is a simple process, providing you've left enough room in the front to stow the panels!



transmission, but now running a rebuilt 915 gearbox. Rat-eaten service history suggests the other driveline alteration – a 2.2-litre flat-six with a PMO carburettor conversion – has been married to the car for decades. Eager to avoid overcomplexity, Simon and Angus decided to keep the robust motor in place and have done nothing more than rebuild the carbs, stem the oil leaks and complete a cosmetic renovation. “We haven’t opened the engine, so we don’t know much about it,” says Angus, “but it’s mechanically fine, with no sign of stress or strain.” A 2.5-inch Dansk stainless steel sports exhaust is the only addition. “It both looks and sounds amazing,” Simon grins.

RAISE A GLASS

Before the car could return to the road, Angus had one job left to complete: the fitting of the huge Targa rear window. This would be a high stakes game. Nobody currently manufactures replacement Targa windows and it takes two craftsmen a full working day to embed the seals, fit the studs and finesse the responding holes in the quarter panels. “You’ve got to avoid getting the wrong gaps between the brightwork, the seals and the body,” Angus advises. “It’s not a job to underestimate if you want the end result to look perfect.” “We didn’t know where this project was heading when

we started,” he continues. “Armed with the power of hindsight, we probably kicked off in the wrong place, with the wrong car! It’s a great relief to get where we are now, though, with a classic Targa both Simon and I are immensely proud of.” The reborn 911’s lucky owner is every bit as enamoured and won’t be parting with his pretty Porsche any time soon. “I intend to drive the car at every available opportunity. It’s a Porsche which puts a smile on my face. After deciding I wanted an early 911 Targa, I loved the idea of securing a restoration-in-waiting, commissioning Greatworth Classics to build it to my preferred specification. Rest assured, when the sun’s shining, I’ll be out and about in the finished car.”

While Simon elected to engage in a personal restoration project, *GT Porsche* readers happy with standard specification can take comfort from the fact a flick through the listings of specialist dealers, auction websites and sales catalogues demonstrates the wide availability of up and running classic 911 Targas, with plenty of choice as far as colour, specification, powertrain, mileage and location are concerned. Granted, the older the 911, the more likely remedial work will be required, but enjoy the fact there’s plenty of options at your disposal and a good number of specialists to help you bring your prospective purchase back to its best, should the need present itself.

Below No rain? Roof down! Simon’s restored 911 Targa is expected to cover plenty of ground



A CLASSIC PORSCHE PARTS STORY

your partner for: Porsche 356, 911/912, 964, 993
Various parts for all Porsche models



JOMAPARTS.COM

porsche classic parts

Gefusilleerdenlaan 29 - 9600 Ronse, Belgium
T +32 55 21 30 13 - F +32 55 20 70 69
info@jomaparts.be - www.jomaparts.be

Nederlands
 Français
 English
 Deutsch
 Italiano
 Português



Porsche Service & Restoration



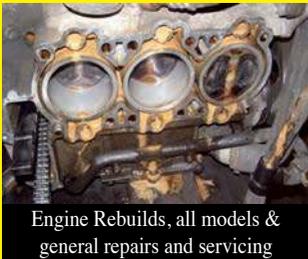
Engine and Gearbox Rebuilds

Servicing ★ Machining ★ Bodywork

Your Lifestyle, Our Profession

01295 812002

www.greatworthclassics.com



Engine Rebuilds, all models & general repairs and servicing



Gear Box Rebuilds all models



Air Conditioning



Disc Re-facing



Tyre Supply & Fitting
Wheel Alignment

RGAINDEPENDENTPORSCHE

LONDON'S MAJOR PORSCHE SPECIALIST

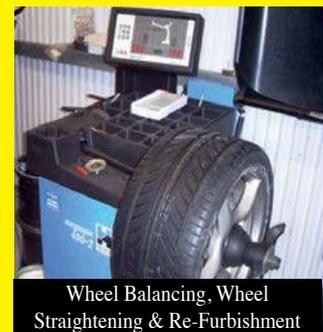
Units 32-34, Miles Street, Vauxhall, London SW8 1RY

www.rgaindependentporsche.co.uk

Tel: 0207 793 1447 Email: bob@rgaporsche.co.uk

**ALL WORK TO THE HIGHEST STANDARD
AND CARRIED OUT IN HOUSE.**

Mon-Fri: 7am-7pm Sat: 9am-6pm Sun: please call. Ask Bob for booking & advice.



Wheel Balancing, Wheel
Straightening & Re-Furbishment



Jig Repairs



Restoration & Resprays



Damage Repair
including for all insurance companies



Torque Tube Overhaul
924, 944, 968, 928



INTERCONTINENTAL GT CHALLENGE VICTORIES

Porsche claims manufacturers' and drivers' titles at Kyalami, the final round of the most important championship for GT3 sports cars...

Facing page A swift change of drivers for the GPX team, finishing third overall to secure valuable championship points

During what proved to be a chaotic nine-hour race at South Africa's Kyalami Grand Prix circuit, works driver, Nick Tandy (Great Britain), and Porsche Young Professionals, Dennis Olsen (Norway) and Mathieu Jaminet (France), dominated the action when it mattered, battling adverse weather and strong challenges from rival teams to secure victory in the final round of the Intercontinental GT Challenge. Their decisive points haul was bolstered by a third place finish for the GPX Racing squad, featuring Kevin Estre (France), Michael Christensen (Denmark) and Richard Lietz (Austria), ensuring Porsche coined the manufacturers' championship, while the drivers' gong went to Olsen, whose win at Kyalami was his second of the season, following triumph at the competition's opening round at Bathurst in Australia.

SOME LIKE IT HOT

At the first international long-distance race on the South African circuit since 1982, the 911 GT3 R, which is based on the GT3 RS road car, dominated over long stretches. After the start of the race in summery 29°C temperatures and the asphalt registering 50°C, the three GT3s campaigned by Frikadelli Racing (#31), GPX Racing (#20) and Dinamic Motorsport (#12) immediately formed a spearhead in front of the pack. After several laps, the World Sportscar Champion, Christensen, moved into the lead

with the same GT3 R GPX used to win the 24 Hours of Spa earlier this year. The car then defended the top spot.

With around two hours left on the clock, an intense thunderstorm with heavy downpours changed the order at the front. Due to essential refuelling stops behind the safety car, which had been deployed due to the treacherous conditions, the two best-performing 911s were relegated to third and fourth place. With twenty-five minutes to go, however, the steward of the meeting gave his permission for the safety car to return to its waiting post, allowing Tandy to pull out all the stops and turn in an impressive drive, demonstrating the sheer power of the GT3 R on the wet track. Having planted his Frikadelli car on pole position during qualifying, the plucky Brit managed to work his way through the field in a single lap, retaking first place and crossing the finish line with an astonishing 6.746-second lead.

Estre, Christensen and Lietz claimed third place in the GPX car, with Matt Campbell (Australia), and IMSA champions, Laurens Vanthoor (Belgium) and Earl Bamber (New Zealand) achieving an eighth place finish in the Dinamic Motorsport GT3 R. The trio lost a lot of time in the pits under yellow flag conditions, as did the #911 KÜS Team GT3 R driven by Roman Dumas (France) and his German teammates, Sven Müller and Dirk Werner, who had to settle for finishing ninth. Even so, the combined efforts of each team meant as a manufacturer, Porsche ended the race with four 911s in the top ten, proving itself the strongest of the twenty-eight manufacturers participating in the series.

The Lechner Racing #9 911 GT3 R won its class (fourteenth overall), while a 997 GT3 R fielded by South African customer team, Perfect Circle, concluded the race with a third place finish in the amateur category, adding to the excitement of what was the first nine-hour endurance race on South African soil in thirty-seven years. We're looking forward to the next one already!

Below KÜS Team's 911 GT3 R finished ninth overall, rounding out a top ten featuring four Porsche sports cars





PORSCHE COMMITS TO FORMULA E AND GT PROGRAMME

Twenty-two drivers to campaign forthcoming season

The past motorsport season has been one of the most successful in Porsche history, with titles in three of the world's most important GT championships, victories in various other series and a successful start for the works team in Formula E. Racing fans will be pleased to hear Porsche has confirmed it intends to continue its winning ways in 2020. At the eighty-eighth running of the 24 Hours of Le Mans, Porsche will again campaign four works GT cars. The two title-winning teams from the year's FIA World Endurance Championship (WEC) and the IMSA WeatherTech Championship will join forces by each fielding a brace of 911 RSRs. A one-two victory at Le Mans laid the foundation for Porsche's 2019 GT title win. At the final round of the season in June, a double podium sealed the manufacturers' title, as well as the top two positions in the team and drivers' classification.

For the 2020 season, the Porsche Motorsport squad for GT racing and Formula E is made up of eighteen works drivers, two Young Professionals and two Porsche Juniors. The Australian, Matt Campbell, and Frenchman, Mathieu Jaminet, from Porsche's own youth development programme have been signed on as works drivers. Both have received extensive training, initially as Porsche Juniors and then as Young Professionals in Porsche one-make cups and in international GT racing. Jaminet's fellow countryman, Julien Andlauer, who claimed the 2019 Carrera Cup Deutschland title, advances to the next phase of his racing career as a Young Professional. Two Porsche Juniors tackle the 2020 Porsche Mobil 1 Supercup – in November, Ayhan Güven beat the most talented drivers from the worldwide one-make cups at a comprehensive shootout and joins Porsche Motorsport's junior programme for the



whole of the coming season. Kiwi, Jason Evans, contests his second season as a junior.

Parallel to their job as test drivers in Formula E, Porsche works driver, Simona de Silvestro, and Porsche Young Professional, Thomas Preining, will also compete in GT racing. De Silvestro joins forces with the former Porsche Junior, Klaus Bachler, to contest the ADAC GT Masters for Team 75 Bernhard. Preining receives a regular seat in the Intercontinental GT Challenge and the Blancpain Endurance Series. In WEC, he supports the Dempsey Proton Racing Porsche customer team.

In summary, Porsche is committed to the sixth FIA Formula E Championship, 2019/20 WEC, the 2020 IMSA WeatherTech series and next season's Intercontinental GT Challenge. Ladies and gentlemen, start your engines!





PORSCHE TENNIS GRAND PRIX TOPS THE CHARTS

The Women's Tennis Association (WTA), the principle organising body of women's professional tennis around the world, has voted the long-standing Stuttgart-hosted Porsche Tennis Grand Prix as its favourite tournament of 2019. No other tennis competition has won the WTA's vote so often, with the same favourable ranking awarded to Porsche's home-held series in 2007, 2008, 2010, 2011, 2012, 2014, 2015, 2016 and 2017. Confirming their enthusiasm, four of this year's top ten players have already signed up for participation in the forty-third Porsche Tennis Grand Prix, taking place from 18th to 26th April 2020. Alongside title-holder Petra Kvitová (Czech Republic), sports fans can also look forward to watching Simona Halep (Romania), Elina Svitolina (Ukraine) and Belinda Bencic (Switzerland).

MOBIL 1 SUPERCUP SET TO SUPPORT EIGHT F1 ROUNDS

Porsche Mobil 1 Supercup will support no fewer than eight rounds of F1 in 2020. Among the fixtures is a race weekend at Zandvoort, the seaside resort town in Amsterdam, now the venue for the Dutch Grand Prix. Since its debut season in 1993, Porsche Mobil 1 Supercup has been part of the F1 support programme every season. With the extension of the F1 contract up to and including 2022, Porsche made the decision to focus on eight select rounds of the Grand Prix calendar, including trips to the legendary street circuit in Monaco and at Hungary's Hungaroring, two events that have been a permanent fixture of Supercup since its debut season. Supercup cars will also line up to compete at Barcelona, Spielberg, Silverstone and Spa. Italy's legendary Monza circuit will host the final outing of the 2020 competition.



CHRISTMAS BASH AT BICESTER FOR PORSCHE CLUB GB

Club members fill VW Doka with food bank donations

One of the most highly anticipated automotive events of the year, Porsche Club Great Britain's Christmas party at Bicester Heritage (fast becoming the home of the UK's classic car scene), took place just before we went to print. More than two thousand club members arrived at the Oxfordshire site (the best-preserved World War II bomber station in the country), bringing more than six hundred Porsches with them.

From early air-cooled cars to the latest 911s, a huge variety of Stuttgart-badged metal was on display, as was Porsche Classic's Volkswagen DoppelKabin (double-cab), which, by the end of the memorable day, was filled to the brim with donations from club members keen to help patrons of the local food bank over the holiday period.

Bicester Heritage's main hangar was the focal point of the event, complete with decorated Christmas trees and equally well decorated Porsche cars, including a

924 Turbo promoting the ever increasing availability of genuine parts for legacy models through the Porsche Classic programme. The predictable presence of various 911s in motorsport-themed liveries also provided a feast for the eyes. Chief among those in attendance was a hangar-housed club car covered in a replica of 2019's Petit Le Mans Coca-Cola RSR battle dress, itself a tribute to the look of the Bob Akin Motor Racing 935 K3, made famous at the 1983 24 Hours of Daytona, before the same team fielded a 962 in Coca-Cola colours the following year.

The club's own 1960 356 B (read all about it by ordering a copy of our December issue at bit.ly/issuesgtp) was also on display, alongside the Icon Engineering 917, a street-legal replica of the formidable Le Mans racing machine. Presented in a lick of Porsche's early factory-issue white-and-green paintwork, the amazing car will be familiar to many *GT Porsche* readers who will have seen the finished build included in the Oilcooled show report printed in our Autumn 2019 issue.



TAYCAN TAKES LEAD ROLE AT WEB SUMMIT IN LISBON

Porsche discusses the future of sporting mobility with creative leaders in Portugal

Porsche is a proud partner of the Web Summit in Lisbon, an annual event recognised as being the largest technology conference in Europe. More than 70,000 visitors from 160 countries packed lecture halls and auditoriums to hear industry professionals and innovators discuss global connectivity, intelligent technologies, changes in society and digital innovation. Lasting four days and spread across twenty-three stages, the event welcomed more than 1,200 leaders and representatives from politics and business, each presenting their vision for the future.

At the core of the event lies one simple question: which technologies will change

our lives in the coming years? Porsche is well on the way to shaping the future of sports mobility with the all-electric Taycan, which is why it came as no surprise to see the model on display during a talk about the future of automotive technology.

"We know we cannot shape the future of mobility alone," admitted Dr. Christian Knörle, Project Lead of Strategy and Innovation at Porsche. "That's why we use conferences like the Web Summit as an exchange platform and an opportunity to find new partners. At Porsche, we're not only looking to harvest ideas for the design and development of vehicles themselves, but we also hope to engage with start-ups focused on technology in the fields of entertainment,

general connectivity and smart tech around the home". Proving the point, Porsche's dedicated show stand was less about cars and more about innovative technology, such as quantum computing and AI. Together with Berlin-based blockchain start-up, Capless, and the navigation pioneers at Chargetrip, the sports car manufacturer discussed visions of the future in short tech talks and open fishbowl discussions. How do corporations and founders work together? What role does artificial intelligence play in our lives? How will it change the automotive industry? What does satellite navigation look like in the electric age?

For further information and to book a slot at next year's event, visit [websummit.com](https://www.websummit.com).



PORSCHE NAMED BEST EMPLOYER

Glassdoor, one of the world's largest recruitment platforms, has announced the winners of its Best Employer 2020 competition, with Porsche being crowned number one in Germany for the first time. Based on anonymous feedback from employees, Glassdoor evaluates working conditions, corporate culture and the effectiveness of management. "Overall, our aim is to prepare people for the advancements ahead and enable them to engage in lifelong learning," commented Andreas Haffner, Porsche's Executive Board Member for Human Resources and Social Affairs. "This is a never-ending process. With the rapid pace of change in the automotive industry, we need to continuously question our self-image, our manner of collaboration and our knowledge base. We will continue the process in 2020."



THE ULTIMATE IN PERFORMANCE UPGRADES
AT DMS AUTOMOTIVE WE'VE BEEN UNLEASHING AUTOMOTIVE PERFORMANCE FOR OVER 20 YEARS

- DMS F10 M5 (EVO DEC '15)** "730BHP, 200MPH+ TYRE-SHREDDING MONSTER"
- DMS MCLAREN 650S (EVO OCT '15)** "REAL MUSCULARITY AND THE STRENGTH OF THE MID-RANGE IS STAGGERING"
- DMS M2 (EVO SEPT '15)** "MORE POWER DOES MEAN MORE FUN"
- DMS 1M (EVO MARCH '12)** "THERE'S A REAL RIP TO THE WAY THE REVS PILE ON ABOVE 4000RPM"
- DMS 997 TURBO 3.8 PDK (EVO JUNE '11)** "DELIVERY IS ALMOST UNCOMFORTABLY FORCEFUL"
- DMS SL65 BLACK SERIES (EVO OCT '10)** "IT FEELS LIKE THE LOVE CHILD OF AN SL65 AND A PORSCHE GT2"
- DMS 135i (BMW CAR MAY '09)** THE STANDARD CAR IS GREAT BUT DMS HAVE SOMEHOW MANAGED TO TAKE IT TO THE NEXT LEVEL"
- DMS 997 TURBO 3.6 (EVO SEPT '08)** "IT'S EPIC, HILARIOUS AND ADDICTIVE IN EVERY GEAR, YET DOCILE WHEN CRUISING"

BELOW IS A SMALL SELECTION OF OUR MORE POPULAR UPGRADES:

AUDI
 RS6 4.0 T V8 » 700+BHP (+DE-LIMIT)
 RS6 V10 » 680+BHP (+DE-LIMIT)
 2017 R8 V10 » 650BHP (+DE-LIMIT)
 R8 V10 » 592+BHP (+DE-LIMIT)
 RS4/RS5 » 488+ BHP (+DE-LIMIT)
 RS3/TTRS » 420+ BHP (+DE-LIMIT)
 RS3/TTRS (NEW) » 480+ BHP (+DE-LIMIT)
 S3 / GOLF R » 375+ BHP (+DE-LIMIT)
 3.0TDI (ALL MODELS) » 315+ BHP
 3.0 BI-TDI (ALL MODELS) » 380+ BHP
 Q7/A8 4.2 TDI » 400+ BHP

BMW
 M2 » 435BHP (+DE-LIMIT)
 M3/M4 » 540+BHP (+DE-LIMIT)
 M5/M6 » 730+BHP (+DE-LIMIT)
 X5M/X6M » 730+BHP (+DE-LIMIT)
 X5M50D/X6M50D » 450BHP
 M135i/M235i » 410+BHP
 i8 » 415BHP
 120i/220i/320i/420i » 275+BHP
 116D/216D/316D » 160BHP
 118D/218D/318D » 225BHP
 120D/220D/320D/420D » 240BHP
 328i/428i » 295BHP
 335i/435i » 410+BHP
 330D/430D/530D/730D » 360BHP
 335D/435D/535D » 395+BHP
 550i/650i » 555+BHP (+DE-LIMIT)
 640D/740D » 395BHP (+DE-LIMIT)
 X530D/X630D » 360BHP
 X540D/X640D » 395BHP

MERCEDES-BENZ
 A45/CLA45 AMG » 420+BHP
 AMG GT/GTS » 560BHP (+DE-LIMIT)
 C43/E43/GLC43 AMG » 455BHP
 C63/63S 4.0T AMG » 620+BHP
 C63 6.3 AMG » 530+BHP
 500 4.7 BITURBO (ALL MODELS) » 498+BHP
 63 AMG 5.5 BITURBO (ALL MODELS) » 700+BHP
 55 AMG KOMPRESSOR » 600+BHP (+DE-LIMIT & SUSPENSION LOWERING)
 S65 » 780BHP (+DE-LIMIT)
 SL65 AMG » 690BHP (+DE-LIMIT)
 SL65 BLACK » 720BHP (+DE-LIMIT)
 SLK 55 AMG » 420BHP
 200 CDI (ALL MODELS) » 173BHP
 220 CDI (ALL MODELS) » 230BHP
 250 CDI (ALL MODELS) » 260BHP
 C300 HYBRID » 285BHP
 C300E » 350BHP
 C400/E400 » 400BHP
 350 CDI (ALL MODELS) » 315BHP
 420/450 CDI (ALL MODELS) » 358BHP

ALL 2017 RANGE ROVERS AVAILABLE
 RR 50SC/SVO/SVR STAGE1 » 600+BHP
 RR 50SC/SVO/SVR STAGE2 » 650+BHP
 2.0/2.2 DIESEL (ALL MODELS) » 220+BHP
 RR 4.4 TDV8 » 395 BHP
 RR TDV6 3.0D » 305+ BHP
 RR SDV6 3.0D » 350+BHP
 DEFENDER 2.2 » 180BHP

PORSCHE
 996 TURBO/GT2 » 600+ BHP
 997 TURBO 3.6 » 625+ BHP
 997 GT2 RS » 670+ BHP
 997 TURBO/S 3.8 INC PDK » 611 BHP
 997 GT3 RS » 480 BHP
 991.2 GT2 RS » CALL
 991 TURBO/S (ALL MODELS) » 750+BHP
 991 GT3 3.8 (ALL MODELS) » 490+BHP
 991 GT3 RS 4.0 (ALL MODELS) » 525+BHP
 997 CARRERA S » 376+ BHP
 997 CARRERA PDK » 368 BHP
 997 CARRERA S PDK » 400+ BHP
 997 CARRERA GTS » 435 BHP
 991 CARRERA (ALL MODELS) » 500+BHP
 991 CARRERA S (ALL MODELS) » 500+BHP
 991 CARRERA GTS (ALL MODELS) » 540+BHP
 BOXSTER/CAYMAN 718 GTS » 420+BHP
 BOXSTER/CAYMAN 718 S » 420+BHP
 BOXSTER/CAYMAN 718 » 380+BHP
 BOXSTER/CAYMAN 981 GT4 » 430+BHP
 BOXSTER/CAYMAN 981 GTS » 375+BHP
 BOXSTER/CAYMAN 981 S » 345+BHP
 CAYENNE GTS » 450 BHP
 CAYENNE TURBO 4.5 » 565+ BHP
 CAYENNE TURBO 4.8 (ALL MODELS) » 650+ BHP
 CAYENNE TURBO S 4.8 (ALL MODELS) » 650+ BHP
 CAYENNE 4.2 DIESEL » 450+ BHP
 CAYENNE 3.0 DIESEL » 318+ BHP
 MACAN S » 420+BHP
 MACAN GTS » 440+BHP

MACAN TURBO (ALL MODELS) » 480+BHP
 MACAN S DIESEL » 318+BHP
 PANAMERA TURBO » 600+ BHP
 PANAMERA DIESEL » 305+ BHP

EXOTIC / MISC
 FERRARI CALI T » 660BHP
 FERRARI F12 » 780+BHP
 FERRARI 599 » 647 BHP
 FERRARI 488 » 750+BHP
 FERRARI 430 » 525 BHP
 MCLAREN MP4-12C » 700 BHP
 MCLAREN 650S » 720 BHP
 MCLAREN 675LT » 750BHP
 MCLAREN 570/S » 680+BHP
 AVENTADOR » 750+BHP
 HURACAN LP610 » 650BHP
 GALLARDO LP560 » 600+BHP
 BENTLEY 4.0 T V8 » 700BHP
 BENTLEY GT/F-SPUR » 680BHP
 GT SPEED / SUPERSPORT » 690+BHP
 BENTAYGA W12 » 700+BHP
 MASERATI GHIBLI 3.0S PETROL » 470 BHP
 MASERATI GHIBLI 3.0 DIESEL » 312 BHP
 MASERATI GT/QPORT » 438 BHP
 MASERATI GT S / MC » 479+ BHP



MORE BHP EQUALS LESS RPM EQUALS MORE MPG



UK & WORLDWIDE INSTALLATION CENTRES

WWW.DMSAUTOMOTIVE.COM

UK: 0800 030 5555

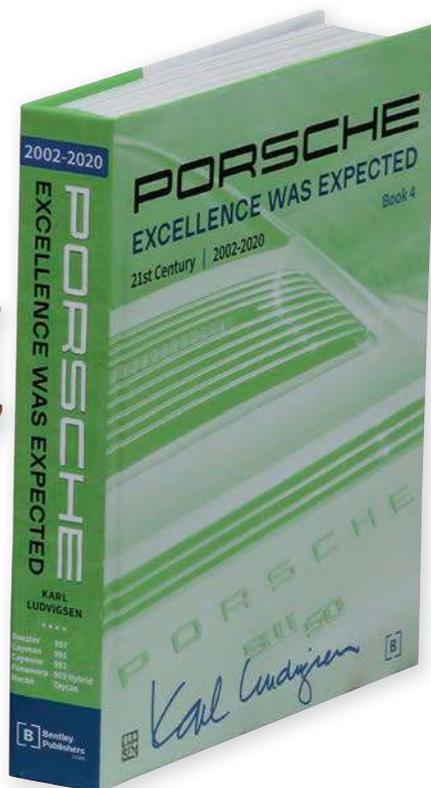
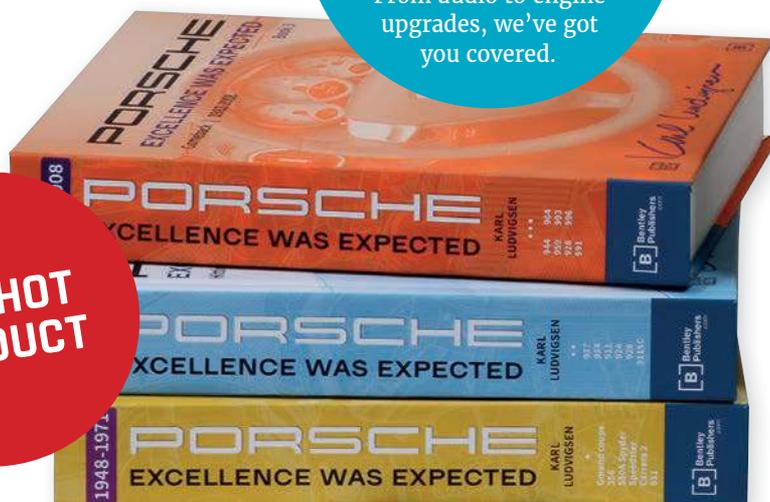
INT: +44 800 030 5555

SALES@DMSAUTOMOTIVE.COM

PORSCHE PRODUCTS

Each month, we present exciting parts and services designed to benefit you and your four-wheeled friend. From audio to engine upgrades, we've got you covered.

RED HOT PRODUCT



▲ PORSCHE: EXCELLENCE WAS EXPECTED

Porsche: Excellence Was Expected, Karl Ludvigsen's masterwork, is the unrivalled history of the Porsche company, its cars, and the firm's motor racing heritage from the first Gmünd coupe in 1948, through its sixty years as an independent manufacturer, to its continued success with the 2020 Taycan under the auspices of the Volkswagen Group. Make no mistake, this is the ultimate reference library of all things Porsche.

Over four decades ago, the first edition of *Porsche: Excellence Was Expected* was hailed as the definitive archetypal marque history. Updates in 2003 and 2008 continued to enhance the title's enviable reputation. For this final update, the first in over ten years, Ludvigsen reviewed newly available Porsche archival material, conducted new in-depth interviews and unearthed many fresh facts, allowing new and surprising interpretations of many aspects of the Porsche company and its products. Now totalling four volumes, 2,834 pages and with nearly 3,000 photos

and illustrations, every page of this all-new release has been revised and redesigned – new text, images, tables, graphs and illustrations feature throughout.

The first volume, *Surpassing Expectations*, covers the period 1948-1971. Comprising forty-two chapters, it documents Porsche's origins, the design and development of the 356, four-cam cars, Porsche in FI, the birth of the 911 and contesting the big races. Book two, *Hitting the Apex*, features thirty chapters covering 1967-1989. The 914, 917, Le Mans victories, return of the Carrera nameplate, turbocharging, front-engined models, V8s and Group C racing are all examined in great detail.

The third book, *Comeback*, includes twenty-nine chapters spanning the years 1982-2008. The 944's huge volume production, the arrival of the 959, Porsche's return to FI (as an engine supplier), the end of the air-cooled era, Boxster development, Cayenne product lines and the Carrera GT are all scrutinised, while the collection's

fourth and final hardback, *21st Century*, presents a further thirty-one chapters looking at Porsche history between 2002-2020. RS Spydys in LMP2, water-cooled 911s, the four-door Panamera, 981, Macan market success, the 919 E-Hybrid's domination of endurance racing, the all-electric Taycan and Porsche's intentions for future product development are all laid bare.

Widely regarded as the gold standard of automotive books, *Porsche: Excellence Was Expected*, is the essential element in every Porscheophile's reference library. The complete collection weighs in at almost 14kg, highlighting just how much has been packed into every volume of this beautifully presented quartet of hardbacks from celebrated automotive publishing house, Bentley Publishers. We won't pretend the cost is chump change, but the reward is priceless. Dig deep and enjoy.

Price £524.95

Visit bentleypublishers.com or look for deals on Amazon



ITG PROFILTER FOR 991 GEN II

The development of this ProFilter from filtration specialist, ITG, was a painstaking task due to the complexity of the 991.2's standard airbox, but by retaining the host vehicle's end caps, it's possible to slide this fantastic filter into place without having to worry about cutting or compromising expensive factory hardware. Manufactured from ITG's Tri-Foam, a material with a proven ability to trap a large amount of fine dust without reducing airflow capacity or efficiency, the complete filter assembly consists of a stainless steel wire mesh, a coarse outer-layer, a medium-grade mid-layer and a fine inner layer, all totally resistant to water, fumes, oils and fuels, including racing juice.

Price £132

itgairfilters.com or call 02476 305386



SURFACE TRANSFORMS CARBON-CERAMIC BRAKE DISCS

Offering weight savings of up to seventy percent (typically 20kg of unsprung weight), improved handling and driveability, reduced brake wear, outstanding performance (even from cold), less noise, reduced vibration, three times the heat conductivity of premium offerings from rival manufacturers, optimum performance in both wet and dry conditions and the ability to be safely refurbished up to three times, these state-of-the-art carbon-ceramic two-piece brake discs from Liverpool-based engineering outfit, Surface Transforms, are wholly manufactured in the UK and are available to order for a variety of modern Porsches direct from independent specialist, Ninemeister. Stringent manufacturing standards ensure the production of top-quality discs, which are formed from next-generation carbon-ceramic material. They're not cheap, but they're extraordinarily effective.

Price £10,200

ninemeister.com or call 01925 242342



POWERFLEX HERITAGE COLLECTION BUSHES FOR 924 AND 944

Those who wish to overhaul their 924 or 944's suspension system with new-age polyurethane bushes in place of tired factory rubber might be forgiven for thinking they're stuck with brightly coloured parts to play with. Fortunately, performance bush manufacturer, Powerflex, understands many transaxle owners like to retain OEM looks, even when improving upon standard specification with superior replacement parts. Everything from lower control arms, anti-roll bars, rear axle carriers and even trailing arms are catered for, each bush available in black as part of the Powerflex Heritage range, as opposed to the traditional yellow or purple of the firm's Road Series products. The same level of performance is guaranteed, with each part specified to shore-rated material according to its fitted location and requirements, thereby ensuring improved suspension performance without discomfort or vibration.

Price From £29.90

powerflex.co.uk or call 01895 460033

EIBACH PRO-STREET MULTI COILOVERS FOR 987 BOXSTER/CAYMAN

Offering both height and damping adjustability, the latest evolution of Eibach's Pro-Street suspension system is now available for the 987-generation Boxster and Cayman.

Comprising ZF Race Engineering monotube gas dampers matched to Eibach

springs, the kit provides a single adjustment point, controlling both compression and rebound damping, even after installation. Ultra-precise responsiveness, highly optimised corner handling and top-level performance in every driving situation are the clear, noticeable qualities of a perfectly adjusted Pro-Street Multi system, which allows a ride height drop of between twenty and fifty millimetres.

Price £2135

eibach-prottime.de or call 01455 285851



▶ PIONEER TS-WX70DA COMPACT SUBWOOFER

This space-saving active subwoofer integrates digital bass control for deep, dynamic low-end frequencies via two selectable modes, producing 200 watts of strong, rich bass you can feel without sacrificing boot space. Users can easily control and customise each model directly from the supplied remote control, with sound fed by both high (speaker line) and low (RCA line) input signals. Easy to install and awarded the EISA Award for best in-car active subwoofer, the TS-WX70DA should be on the shopping list of any audiophile looking to improve the sound of their Porsche's in-car entertainment system.

Price £297

pioneer-car.eu or call 0208 836 3500

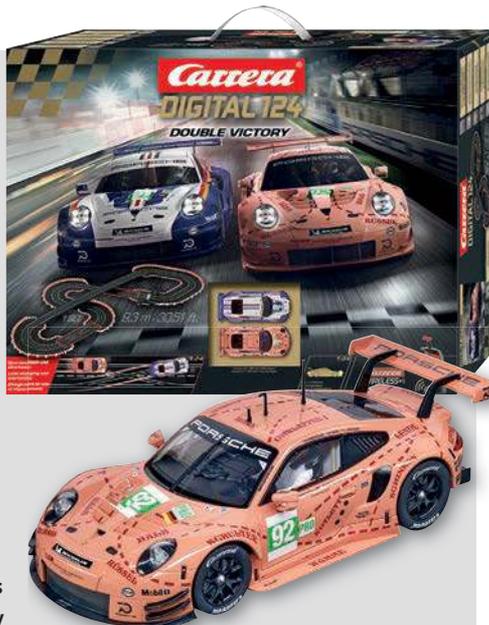


▶ CARRERA DIGITAL 124 'DOUBLE VICTORY' RACE SET

To mark Porsche's seventieth anniversary, two 911 RSRs hit the 24 Hours of Le Mans in classic racing liveries, scoring impressive class wins. This new 'Double Victory' racing set from remote-control car company, Carrera, includes both 911s in 1:24 format, a 9.3-metre racing circuit (featuring high-speed curves and extra-wide track for optimum drifting), individual speed and braking settings for each car, lane changing, overtaking at the push of a button, two wireless controllers, a charging station, guardrails and the ability to expand the set to allow four cars to race simultaneously. Active lights and safety car functions are neat features, as is the inclusion of batteries to enable you to enjoy the action from the moment you unpack the box. The set is suitable for children aged ten years and older. Big kids are bound to love it, too!

Price £450

jadlamracingmodels.com or call 01749 671809



▼ EBC BLUESTUFF BRAKE PADS

Bluestuff is EBC's intermediate trackday and race brake pad compound, making it the material of choice for many Porsche owners participating in motorsport. Due to its excellent cold friction and controllable behaviour, Bluestuff – recognised for being manufactured to NASCAR specification – became a big hit in North America and Asia following product launch, but remained the reserve of racing machines in Europe due to a lack of R90 homologation for road use. We're delighted to report Bluestuff has recently been approved for road cars in both the UK and mainland Europe, making this excellent EBC product unique in being the first truly track focused pad suitable for high performance street cars. Pleasingly, there's no requirement for owners to inform their insurance company following fitment of R90 approved pads. Bluestuff brake pads are available for a wide

range of Porsche models, including air-cooled and more recent 911s, Cayenne, 356, 959, all transaxles, 986 and 987-generation Caymans and Boxsters.

Price From £60

ebcbrakesdirect.com or call 01604 286028



MISHIMOTO TURBO BLANKET

Designed to reduce toasty engine bay temperatures, Mishimoto's new turbo blanket features a volcanic lava rock outer layer (yes, really) and a 96% silica fibre inner layer for optimum heat management. Rated to 982°C direct heat and 1093°F radiant heat, with an interior rated to a maximum temperature of 1260°C, this easy-fit cooling blanket is available in T25, T28, T3, T4 and T6 sizes.

Price £122.05

mishimoto.co.uk or call 01384 9897476



SUBSCRIBE!

Have each and every issue of *GT Porsche* delivered direct to your door (at no extra cost) by subscribing to the magazine. You'll get a big discount off cover price and you'll receive the mag before it hits newsstands. Plus, you'll be kept informed of our latest special offers and discounts. Well, what are you waiting for?!

Price Special offer: £21.99

bit.ly/subscribegtp



HOT WHEELS 944 TURBO

Debuting for the 2020 Hot Wheels line-up, this 1:64 scale die-cast 944 Turbo is finished in Guards Red with painted Porsche crest, headlights and taillights. There's even a rear Turbo script badge finished in black, although the rear spoiler remains body coloured. The massive wheels (PR5, named after designer, Phil Riehlman, and in production since 2000) look a little odd, but for seven quid, you can now own a 944 Turbo that fits in your pocket. Nice!

Price £7

Search eBay or Amazon



GTECHNIQ C4 TRIM RESTORER

C4 utilises a chemical bond to become an extension of the plastic molecule it's designed to protect. The coating swaps part of its molecular structure with the surface molecules of your car's faded black trim. This means you have a protective coating of unparalleled durability, restoring grey exterior plastic back to black. Unlike many trim products on the market, C4 is an exceptionally thin (circa 30 nanometres) optically clear film. This means the product won't add an unattractive gloss finish to the treated surface. Instead, it restores all but the most faded trim to 'as new' condition. Order from Gtechniq's website.

Price £22.50

gtechniq.com or call 01604 962553



Complete Suspension Packages

Build yours at ElephantRacing.com

3 clicks... Done!

The screenshot shows the Elephant Racing website's Suspension Builder interface. At the top, there is a navigation bar with links for Home, About, Contact, Careers, News, Tech Topics, and Shopping Cart. Below this, a secondary bar features the company logo, a tagline 'Advanced Suspension Systems For Porsche Cars Design & Development', a globe icon with 'Fast Shipping Worldwide', and contact information 'Sales & Support +1.408.297.2789'. A dropdown menu shows model years from 911 to 944, and a search bar is present.

Suspension Builder

1 Select Year & Model
Year: 2004
Model: 996/997/986/987 (selected)

2 Select Your Package
Street Performance 2

3 Review & Approve
Add, update, or remove parts using the tables below

Add To Cart

Front

Rear

PACKAGE CHARACTERISTICS

RIDE COMFORT	41
PERFORMANCE	63



+1 408.297.2789
ElephantRacing.com
Santa Clara, California, USA
Fast Worldwide Shipping



2020's BEST BUYS

Industry professionals give us their top tips regarding the Porsche sports cars offering the best bang for your buck in the year ahead...

Words **Dan Furr** Photography **Dan Sherwood, Andy Tipping, John Colley**

986 (1996-2004)

The game-changing roadster that secured Porsche's future with inspiration from the brand's past...

The first-generation Boxster marked a radical change in the direction of Porsche sports cars, as well as a seismic shift in the manufacturer's fortunes which, frankly, were in dire straits as the 1990s got underway. Threats to the dominance of European brands in the compact sports car sector were coming thick and fast from The Land of the Rising Sun, with Honda, Toyota and Mazda chief among the invaders, the latter's MX-5 going on to become the best-selling two-seat convertible sports car in history. Porsche's product line was looking dated, not only from an aesthetic perspective, but also technologically – increasingly strict emissions legislation in Europe and North America meant continued production of air-cooled engines was no longer viable.

Ironically, it was a classic Porsche that

provided the blueprint for the future of the brand's output. Launched in 1969 as a replacement for the 912, the distinctively styled, square-edged, mid-engined, two-seat, rear-wheel drive 914 roadster looked completely at odds with the sleek, curvaceous lines of the range-topping 911, but the 914's amazing chassis dynamics and cute character scored Porsche almost 120k sales during a seven-year production cycle. A winning formula for the aforementioned Japanese car makers, the mid-engine, rear-wheel drive, two-seat layout had remained absent from Porsche's product line since discontinuation of the 914 in 1976. The Boxster brought it back with a bang.

For further information regarding 986 product development, the model's rich history is outlined in detail on page 96 of the magazine you're holding in your hands. Suffice to say, the first Boxsters

were launched with 2.5-litre water-cooled flat-sixes in 1996, before a hike to 2.7-litres of displacement in 1999 and the accompanying introduction of the 3.2-litre Boxster S, taking power closer to 250bhp with a sprint to 60mph from rest in 5.9 seconds (if opting for a manual cog swapper). The 986 line-up received a facelift in 2002, with new airflow equipment propelling the range-topping S triumphantly toward the 260bhp mark.

Blighted by exaggerated claims of premature engine failure, the 986 (and the 996-generation 911, developed alongside the Boxster) can be bought at low price in the current climate, making a well-maintained example a bargain buy. "You can pick up an early 2.5-litre Boxster for £2.5k, but I'd recommend splashing out more for an S-badged 986," says Gary Conway, head of London-based supercar tuning and service specialist, GCAP Performance, acknowledging an S in good, original condition can be yours for four grand. "They're brilliantly balanced cars, which is why they're so good for track work. They're also excellent platforms for tuning projects, with chassis and ECU upgrades turning an already lively Porsche into a

THE MID-ENGINE, REAR-WHEEL DRIVE, TWO-SEAT LAYOUT HAD REMAINED ABSENT FROM PORSCHE'S PRODUCT LINE SINCE THE DISCONTINUATION OF THE 914 IN 1976





£2.5k -
£8.5k



much more powerful pocket rocket. It's difficult to see what other premium sports car offers so much open-top fun on four wheels for such little expenditure."

Danny Kaye, Workshop Manager at independent marque specialist, Revolution Porsche, concurs. "986 Boxsters are massively overlooked, forever in the shadow of the 996-generation 911 and later models," he muses. "You can buy an absolute belter of a 986 for a bargain price. Also, the design of the car is closely related to the classic 550 Spyder racing machine," he adds, before confirming his 986 of choice is the Anniversary, a special model marking the 550's fiftieth birthday. This brilliant

Boxster includes a wealth of model-specific trim, including GT Silver Metallic paint (as showcased on the Carrera GT supercar), special grey or cocoa brown leather, updated interior paintwork, premium BOSE audio equipment, eighteen-inch two-tone five-spoke alloys, a sports exhaust system, uprated suspension and a unique identity plaque. Only 1,953 examples were built, but a fair number made their way to the UK, where you can currently pick one up for between eight and nine grand.

"I'm sure the Anniversary is going to go up in value," Danny suggests. "It's such a good car. If was in the market for a 986 Boxster, it's the one I'd hold out for."



987 (2004-2012)

The second Boxster refreshed Porsche's mid-engined product offering and spawned a seriously cool coupe capable of delivering 911-esque levels of performance...

After the success of the first-generation Boxster, the 987 had a lot to live up to. The same 914-inherited, mid-engined, rear-wheel drive, two-seat configuration was carried over to the newer drop-top, but it looked far more modern thanks to the eradication of the controversial 'fried egg' headlights, which had angered so many Porsche purists during 986 and 996 years of production and looked dated not long after being introduced. The 987's front end didn't feature the round(ish) lights featured on the 997-generation 911, though. Instead, designer, Pinky Lai, took influence

from the Carrera GT supercar's nose. He also added larger vents to the 987's rear quarters and expanded the wheel arches to accommodate nineteen-inch rims.

Like the 986, the 987 was clearly a close relative of its corresponding 911, but the need for Porsche to save money on design and assembly wasn't as pronounced as it once was, allowing both the new Boxster and the manufacturer's flagship model to carve identities of their own. Even the arrival of the 987 Cayman fastback coupe in 2007 didn't stifle the 997's considerable sales, though marque specialists will admit the 'mini 911' is, in many respects, much better value for money.

"The 987 is really good fun to drive," smiles independent Porsche sales specialist, Philip Raby. "While I always appreciate being behind the wheel of a 911, there's no getting away from the fact you can buy a 987 that's much newer and carries lower mileage than whatever 911 is being advertised for the same money. This is great news for marque enthusiasts who are working with modest budgets, but want to enjoy quality time in a really capable Porsche. That said, it's worth noting the low price of these cars means many have been in the hands of people who don't want to spend on the required servicing and maintenance. Put it this way, don't

£7k -
£25k



be tempted to buy a 987 just because it's cheap. Spend a little more on one with solid service history, keenly observed maintenance intervals and a complete lack of dodgy aftermarket modifications. Doing so will bag you a superb Porsche that'll bring you much in the way of enjoyment, but won't cost a packet to run."

Early 987s were available with a base model 2.7-litre flat-six producing close to 240bhp, while the Boxster S received a 3.2-litre version of the same engine adding an extra forty ponies. As is the Porsche way, both engines were updated a couple of years into production, the entry-level 987 offering a slightly reduced 0-62mph sprint time, the S enlarged to 3.4-litres and a slight boost in power to 291bhp. A major revision of the range came in time for the 2009 model year, however, with Tiptronic S transmission ditched in favour of the now celebrated PDK (Sport Plus) seven-speed system and the standard Boxster engine increasing to 2.9-litres of displacement and well over 250bhp. S power output was now rated at an impressive 300bhp.

THE ARRIVAL OF THE 987 CAYMAN COUPE DIDN'T STIFLE THE 997'S CONSIDERABLE SALES, THOUGH MARQUE SPECIALISTS WILL ADMIT THE 'MINI 911' IS, IN MANY RESPECTS, MUCH BETTER VALUE FOR MONEY

Chris Lansbury, head of Suffolk-based Porsche maintenance, servicing, tuning and sales outfit, PIE Performance, cites the RS60 Spyder as his favourite 987. "Without doubt, it's a future classic," he tells us, citing the model's limited series production (1,960 units, in recognition of Porsche's win at the 1960 12 Hours of Sebring), CT Silver Metallic paint, Carrera Red leather, red fabric roof, nineteen-inch Sport Design wheels, Sport Chrono package, model-specific all-red rear light clusters, Porsche Active Suspension Management (PASM), switchable sports exhaust and S-inherited 300bhp power output as key selling points. "Don't get me wrong, a 3.4-litre 987 is a cracking car," he

beams, "but if your budget extends to an RS60, don't think twice. Not only will you have all the benefits of 987 ownership, you'll also be investing in a sports car that should reward you with a rise in value as time progresses."

Whatever 987 you're considering buying – Boxster or Cayman – be sure to scrutinise the car's service history. "It's vitally important," stresses Phil. "Engine rebuilds aren't cheap, so make sure everything is exactly as it should be," agrees Chris. "You don't want to buy a car owned by a seller who has skipped service intervals and scrimped on running costs." You have been warned!

For further information, read our 987 Cayman S buying guide by pointing your browser at bit.ly/issuesgtp and ordering a copy of the July issue of *GT Porsche*.



£8k -
£15k



928 S2 (1984-1987)

Arguably the sweet spot of 928 production, currently depressed prices means the S2 offers a massive amount of Porsche for your money..

In almost every conceivable way, the original 'land shark' was light years ahead of the grand tourers being offered by Porsche's rival manufacturers. Even today, more than four decades on from launch, the 928 is quite unlike any other car, its integrated bumpers oozing aerodynamic appeal. Combining sporty performance, long-distance cruising capability and class-leading comfort, the front-engined, V8-powered Porsche even bagged the coveted European Car of the Year award, the only sports car to have done so in the entire history of the competition.

The earliest 928s (Pascha trimmed, if

you're lucky!) made use of a 4.5-litre eight-banger, while the last-of-the-line GTS was powered by a 5.4-litre evolution of the same lump. Somewhere in the middle lies the S2, a 306bhp 4.7-litre variant of the 928 available from 1984 and benefiting from Bosch LH Jetronic fuel injection, a twin-head distributor linked to a high-output EZF ignition system (allowing a higher compression ratio and increased torque), ABS brakes (the first for a Porsche) and a raft of improved safety features.

Interestingly, the S2's V8 was the final version of the engine to include only sixteen valves. Hydraulic tappets are used, and the camshafts are belt-driven, resulting

in what was the longest timing belt ever seen on a series production car. The block is made from Alusil, a material that makes for tough cylinder bores and low wear. In other words, these engines will conquer huge mileage with ease, rewarding with largely fault-free motoring and 410lb-ft torque.

Most 928s (more than eighty percent of total production volume) are equipped with an automatic gearbox befitting the nature of a grand tourer, but where early 928s feature a three-speed unit, the S2 was blessed with a four-speed that continued to be used throughout 928 production, well into the 1990s. Developed primarily by Mercedes-Benz for its SL range, the four-



speed is known for its 'lazy' operation, but if the unit is used to its full potential, an equivalent 928 equipped with a manual transmission will require an extremely skilled driver to keep up.

The manual gearbox offered on the S2 was a five-speed with a dog-leg racing shift pattern (reverse is where first would ordinarily sit). Like the automatic, the manual gearbox is a robust bit of kit. A limited-slip differential was also offered as a cost option to original buyers, so keep an eye out for this desirable upgrade when scanning the classifieds.

928 interiors have always featured leather. Most cars display half-leather seats

featuring cloth pin-striped centres. The seats are hardwearing, but check to make sure the claimed mileage of the car ties in with the condition of its upholstery. Full leather was available as an option, and included a trimmed dashboard, centre console, roof lining and sun visors. This is, however, incredibly rare specification and cost a huge sum of money when new.

Like all models in Porsche's transaxle family of cars, the 928 S2 offers performance and practicality in equal measure. A huge, covered luggage area will keep your suitcases hidden with room to spare, while the rear cabin is far more generous than a same-age 911. If all of this

has you rushing online to check popular auction websites for available S2s (and why wouldn't it?!), we recommend you look for cars built from late 1986, when Porsche began fitting four-piston callipers and bigger discs to the chin-spoilered, rear-winged wonder. Commonly referred to as the '86-and-a-half' in 928 enthusiast circles, it's the model with all the bells and whistles prior to the introduction of 1987's 928 S4, which was powered by a comparatively complex thirty-two valve, five-litre, eight-cylinder powerplant.

As reported in last month's issue of *GT Porsche* (order a copy at bit.ly/issuesgtp), a scan of the used car market highlights how 928 prices are depressed right now, making it a good time to bag the V8-powered Porsche grand tourer you always promised yourself. S2 prices start at eight grand. For that, you'll get a fully operational car in need of a little TLC, proving the 928 delivers a huge amount of Porsche for the money. Reassuringly, a dedicated army of enthusiasts will be on hand to offer advice regarding any required remedial work.

THE FOUR-SPEED IS KNOWN FOR ITS 'LAZY' OPERATION, BUT IF THE UNIT IS USED TO ITS FULL POTENTIAL, AN EQUIVALENT 928 WITH MANUAL TRANSMISSION WILL REQUIRE AN EXTREMELY SKILLED DRIVER TO KEEP UP

968 (1991-1995)

The final evolution of a product line starting with the 924, the 968 has forged its own path as a Porsche worthy of your attention...

As mentioned earlier in this article, at the close of the 1980s, Porsche's coffers were looking decidedly empty. With no available cash to develop an entirely new model to replace the massive-selling – but fast fading – 944, Porsche decided to press on with yet another evolution of what was essentially a long-in-the-tooth advancement of the 924's original design. Having already worked through two generations of the 944, the new-for-the-1990s transaxle was intended to be launched as the 944 S3.

By the time S3 development was in full swing, Porsche's design team – led by Dutch stylist, Harm Lagaay, who'd had a hand in the 911, 924, 944 and BMW Z1 projects before going on to pen the Boxster, Cayenne, 993, 996 and Carrera GT – had used so many new components ("eighty percent of the new car's mechanical parts are either significantly modified or completely replaced") that Porsche's marketing men felt an entirely new moniker was better than trying to link the new model to the outgoing 944 S2. Consequently, Porsche's new sports car was unveiled as the 968.

Unfortunately, not even slick styling designed to differentiate the 968 from its predecessor (and give the then on-sale Porsche range of cars common design features) prevented the majority of casual motoring fans from mistakenly recognising the 968 as a 944. Indeed, we've lost track of how many times we've heard frustrated 968 owners tell us they

continually have to correct error makers, and that's without mentioning the fact most observers outside of Porsche circles don't even know the 968 exists. Of course, fewer than thirteen thousand worldwide sales in four years doesn't help matters, especially when 944 production totals more than ten times that figure. So why does the last-of-the-line transaxle model deserve your spend in 2020?

"The 968's brilliant combination of performance and practicality is matched by fantastic speed and excellent handling," says Mikey Wastie, co-owner of Boxengasse-based Porsche specialist, Autofarm. He's not wrong – in the early 1990s, Porsche test driver and two-time World Rally Championship victor, Walter Röhrl, declared the 968 Club Sport to be the best-handling sports car the brand had ever produced. With unmolested examples available to buy right now for little more than £25k (you'll need to add an extra £100k if you want a Club Sport-badged Carrera 3.2), the 'CS' is a very tempting proposition for those who aren't obsessed with the idea of getting behind the wheel of a 911. "Plastic skirts can hide corrosion and power steering pumps are known to fail," says Revolution Porsche's Danny Kaye. "I have to agree with Mikey, though. The 968 is a superb sports car and a brilliant all-rounder. In many respects, it's a better Porsche than the 944 Turbo, even without Club Sport specification."

Powered by a development of the 944's three-litre inline-four, the 968 was the last new front-engined Porsche before the arrival of the Cayenne SUV in 2003.

PORSCHE TEST DRIVER AND TWO-TIME WORLD RALLY CHAMPIONSHIP VICTOR, WALTER RÖHRL, DECLARED THE 968 CLUB SPORT TO BE THE BEST-HANDLING SPORTS CAR THE BRAND HAD EVER PRODUCED



£10k -
£35k



It was also the last four-cylinder Porsche until the introduction of the 718 Boxster in 2016. The firm's new Variocam variable valve timing system debuted on the 968, before going on to become a feature of the 993-generation 911. Tiptronic transmission was also new to Porsche, albeit rolled out on the 964, but we'd recommend only seeking a 968 with a six-speed manual gearbox. It shouldn't be hard – most 968s left dealer showrooms with manual transmission, not least because unlike the later, more refined Tiptronic S systems of water-cooled 911s, Porsche's early experiments with the system resulted in cars that, if we're being honest, weren't all that great to drive unless all you wanted to do was cruise at a steady speed.

Notwithstanding turbocharged 968s produced in single-digit volume, the track-

focused Club Sport sits at the top of 968 model range, though a 'middle ground' between the regular 968 (which was available in cabriolet and coupe bodies) and the Club Sport exists in the form of the UK-only Sport, which is essentially a Club Sport with creature comforts reinstated to help British drivers cope with the horrific state of the nation's roads. Oddly, the Sport was almost six grand cheaper to buy than a standard 968 when new, though a case of role reversal exists today: expect to pay at least £10k for a standard 968, add another £6k for a Sport and budget the cost of a rotten 911 SC coupe for the purchase of a solid, cared-for 968 Club Sport.

Whichever variant of this brilliantly designed coupe you end up with, however, rest assured, you're in for an immense amount of fun on four wheels!

996 (1997-2004)

A low-cost route into 911 ownership, the first water-cooled, naturally aspirated Neunelfers aren't deserving of their tarnished reputation outside of those in the know...

Over the course of the past year, prices of used Porsches have been unpredictable," sighs RPM Technik Sales & Marketing Director, Greig Daly. "Generally speaking, the cost of these cars has softened, but there are small pockets of Porsches that have remained resilient. My overriding advice is, as always, buy the Porsche that really makes your heart skip a beat. This way, any short-term market fluctuations are irrelevant and you can enjoy the car as the manufacturer intended." Sage advice from a man who spends his working life providing enthusiasts with their dream

drives. "Those who know me will think I sound like a broken record, but standard, two-wheel drive 996 Carreras with manual gearboxes have held up better in the last twelve months than many other Porsche models. New 911s are far more automated than many sports car drivers like, and whilst it's true to say some people instinctively dismiss the notion of buying a 996 due to hysteria created by overblown horror stories published online, the reality is that is that a standard 996 Carrera is a sweet-handling 911. It's a model powered by a naturally aspirated engine, boasts relatively lightweight construction and offers great value for money at a low price

point, but putting the cost of a tidy 996 Carrera to one side, the real win is in the way the model handles. I really wish more Porsche enthusiasts could experience time behind the wheel of a well sorted 996. They'd be seriously impressed."

Whereas previous 911s had been evolutions of what had come earlier, the 996 was the first new chassis platform since Ferdinand 'Butzi' Porsche's original 911 concept came to fruition in the early 1960s. Largely through necessity rather than choice, the 996 shared development with the 986 Boxster and featured a water-cooled engine. Porsche purists were up in arms, but those in specialist circles

£12k -
£20k

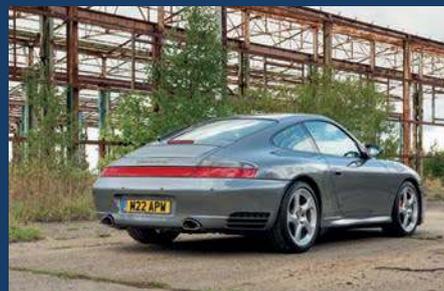


will tell you these naysayers are wrong to dismiss the 996. "Early 3.4-litre cars in good condition are hard to find, but they're a great all-rounder and fantastic for tuning," says Autofarm's Mikey Wastie. "The 996 has had so much unfair press concerning engine bearing failure and bore scoring issues that purchase prices have stayed low. Factor in an abundance of tuning parts, not to mention the fact specialists love playing with the 996 platform, and you'll soon realise just what good value for money these cars are right now."

The 996 was initially available in rear-wheel drive layout as a coupe or cabriolet developing a shade under 300bhp from its 3.4-litre flat-six. Four-wheel drive variants followed, as did the 3.6-litre 996 Turbo, though every specialist we spoke to said the smart money is on naturally aspirated 996s, be they all-pawed or no. "I can't recommend the 996 Carrera 4S highly enough," grins Grant Pritchard, Managing Director at M96/M97 engine specialist, Hartech. "It's a truly amazing 911 for the money. The four-wheel drive



For further information about the 996 and 997 Carrera 4S, order a copy of the Autumn edition of *GT Porsche* by hopping online and visiting bit.ly/issuesgtp



system keeps the car totally planted to the road and the Turbo body looks fantastic." He reckons the 996 C4S is better suited to the UK road network than the 996 Turbo, too. "Think about the amount of traffic on Britain's throttled highways," he says. "The Turbo is great, but there are increasingly few opportunities to experience the full performance potential of a turbocharged 996 on UK roads due to the sheer number of cars at every turn. I've owned both Turbo and naturally aspirated 996s, and in my opinion, the Carrera 4S is the best of the bunch. It even makes use of Turbo brakes and suspension."

Introduced in 2002, along with styling changes and increased capacity to 3.6-litres across the range, the Carrera 4S also gets the thumbs up from Revolution Porsche's Danny Kaye. "Mechanically, it's a great car," he confirms. "The Turbo body looks fantastic, handling is brilliant, it's a

good platform for tuning and the low cost of buying a 996 Carrera 4S makes it the perfect 911 for daily use."

As anyone who has even the faintest interest in 911s will know, intermediate shafts, rear main seals, brake pipes and bore scoring are mentioned shortly after talk about the 996 begins. These are, of course, areas you need to be concerned with when buying, but a pre-purchase inspection from a reputable specialist and an awareness of the facts (see our article on page 48) will pay dividends. "High mileage cars can be bulletproof, low mileage cars can have problems and vice versa," says Danny. "Suspension components take a pasting, especially the lower control arms. Additionally, incorrect alignment can make any 996 drive like a pig, but allow enough budget to sort these niggles and you'll have a really rewarding Porsche in exchange for not a considerable amount of spend."

FOUR-WHEEL DRIVE VARIANTS FOLLOWED, AS DID THE 3.6-LITRE 996 TURBO, THOUGH EVERY SPECIALIST WE SPOKE TO SAID THE SMART MONEY IS ON NATURALLY ASPIRATED 996s, BE THEY ALL-PAWED OR NO



£20k -
£50k

997 (2004-2012)

A massive seller available in a high number of trim options to suit different budgets and driving styles, the 997 is a true Porsche fan favourite...

Prior to record-breaking 991 sales, the 997 was the most successful generation of 911. "It's easy to see why," says Phil Raby. "Everyone raves about the 3.8-litre S-badged 997s, but even the entry-level 3.6-litre variant is great. The 3.6 flat-six is a more rev-happy, more willing engine. It's more than enough for fast-road fun." He goes a step further in his analysis of naturally aspirated 997s. "I firmly believe the best 997 free of forced induction is a boggo, narrow-bodied Carrera. I'd want no sunroof, no electrically operated toys, less gadgets and the launch model's eighteen-inch wheels, which help the 997 chassis to handle better than nineteens. As far as the 997 is concerned, less really is more."

In keeping with tradition only previously broken by the 996-generation 911, the 997 was a direct evolution of its predecessor, although major styling updates (including a return to round headlights and a more satisfying interior) gave the impression the newer 911 was far more than a step on from what came before. That's just as well, because exaggerated stories concerning the 996's mechanical reliability meant Porsche's flagship model needed a new image for a new era.

Launched with Phil's preferred 3.6-litre lump, the 997 Carrera would soon be joined by an S version, providing a 3.8-litre engine, additional power, sports suspension and a sports exhaust. Both 3.6 and 3.8 997s were offered in four-wheel

drive flavour, as well as convertible, Targa and coupe body styles. "I like the 3.8-litre S cars," confirms Grant Pritchard at Hartech. "To my mind, these are the last 911s that really require you to do the driving, as opposed to newer 911s, which do much of the work for you. Besides, 3.8-litre first-generation 997s are great value right now, with some examples being offered for around £20k, providing you're prepared to look hard enough."

While Porsche made efforts to address some of the faults owners experienced with M96 and early M97 engines throughout 996 and the 997's first few years of production, it wasn't until a change to the entire 997 line-up and a new flat-six design in 2009 that concerns



were put to bed, which is largely why a second-generation 997 will set you back up to double what you'd pay for the equivalent early car. And if you're thinking of emptying your wallet for £40k or more, you might want to consider the fabulous first-gen 997 Turbo, which doesn't suffer any of the 'traditional' 996 and first-gen 997 engine woes.

Debuting in 2006 at the Geneva Motor Show, the 997 Turbo featured model-specific styling, unlike the 996 Turbo, which had shared its bumpers and other exterior trim with the same-generation Carrera 4S. The turbocharged 997, while making use of the same four-wheel drive body as the 997 Carrera 4 and 4S, utilised a development of the same 3.6-litre,

twin-turbocharged flat-six found in the 996 Turbo, which, in turn, was inherited from the 911 GT1 race car. In 997 dress and assisted by a duo of BorgWarner Variable Turbine Geometry (VTG) turbos, the engine produces 473bhp and up to 502lb-ft torque. "For sure, the 997 Turbo is a sharper handling and more aggressive car than the 996 Turbo," admits GCAP's Gary Conway. "The GT1-derived 'Mezger' engine doesn't come packaged with the problems M96/M97 are known to suffer from, and a 997 Turbo isn't silly money to maintain," he adds, before confirming a there are plenty of examples out there for under forty grand. "The tuning potential for these engines is massive. Recirculation valves, custom mapping,

hybrid turbochargers, derestricted exhausts. You can have a 997 pumping out 700bhp on a stock engine, all for change out of £50k, and that includes buying the base 997 Turbo to start with, though you'll need to budget far more if you're thinking about taking ownership of a Gen II Turbo."

"I'm a big fan of the 997 Gen II GTS," says Chris Lansbury at PIE Performance. "Many 997 fans dream of owning a GT3, but the GTS is a better all-round car, providing the same exhilaration. It's like all the best bits of the 997 range in one superb package: Turbo body, two-wheel drive, centre-lock wheels, an upgraded 3.8-litre, naturally aspirated engine and well over 400bhp on tap." A four-wheel drive variant followed, but consensus is that the two-wheel drive GTS is the one to buy. "To be honest, all second-gen 997s are worth keeping an eye out for," says Greig Daly at RPM Technik. "From a base 3.6-litre model to a GTS, all of them are straightforward 911s to maintain and can quickly adapt from daily drivers to weekend warriors. The oldest Gen IIs are now in need of a bit more love and attention come service time, but they're still well worth buying and caring for."

IF YOU'RE THINKING OF EMPTYING YOUR WALLET FOR £40K OR MORE, YOU MIGHT WANT TO CONSIDER THE FIRST-GEN 997 TURBO, WHICH DOESN'T SUFFER ANY OF THE 996 AND FIRST-GEN 997 ENGINE WOES

991 (2011-2019)

Another major overhaul of the 911 platform, the 991 marked the move of Porsche sports cars into a new age of automotive development...

At 2011's Frankfurt Motor Show, the seventh-generation 911 was launched as a replacement for the massive-selling 997, but while the earlier car was an evolution of the 996, the 991 was – like the first-water cooled Neunelfer – a new chassis platform, marking only the third time in five decades the 911 had been so extensively revised.

With every new generation, the 911 gets bigger, and though the 991 cuts nowhere near the footprint suggested by the broad shouldered 992, the 991 looks distinctly larger than the 997. In truth, overall length is only 70mm greater and the wheel base increased by just 100mm, but a newly developed rear end set the wheels further back, a move designed to provide improved weight distribution (and, therefore, much better handling), but one having the effect of a much longer 911.

"I keep looking at 991 Turbos and 991 Turbo Ss and thinking how much car you get for the money," says Greig Daly at RPM Technik. "Most of these cars are still covered by their Porsche warranty and, generally, have been well looked after. I recall the Turbo S being tested in a magazine back in 2013. The outright lap time of a first-gen 991 Turbo S was the same as a 991 RS, which right now, will set you back £70k more. I'm not going to pretend a Turbo S is involving in the same way as an RS, a model that dances and sounds amazing, but that's an astonishing statistic and helps people to understand just how much performance the Turbo S is capable of giving."

Launched with a 3.4-litre flat-six producing near 350bhp and 288lb-ft torque, not to mention a choice of seven-

speed manual or PDK gearboxes, the 991 range soon expanded to include the inevitable Carrera S and its 3.8-litre engine (adding 50bhp). The tasty GTS sandwiched itself between the Carrera S and the track-ready GT3, with the rest of the line-up punctuated by Targas (welcoming the return of that iconic silver roll hoop), convertibles, four-wheel drive variants and Greig's flavours of fancy: the Turbo and Turbo S. The second-generation 991 was launched in 2016 in time for the 2017 model year and features updated bumpers, new exhausts, new exterior lighting and a new, three-litre twin-turbocharged flat-six.

Hang on a minute! Less displacement? Surely not! 'Fraid so. Ever-stricter emissions legislation makes it increasingly difficult for manufacturers to achieve big bhp without killing teddy bears (or something), which is why the 991 found itself kitted-out with a more compact engine. Fret not! The reduction in cubic capacity was compensated by the appointment of a duo of punchy turbochargers.

"Even the oldest 991 is amazingly capable in this increasingly digital era of driving," enthuses Autofarm's Mikey Wastie. "That said, no car makes me smile as much as a Carrera RS 2.7," he laughs. "It might sound like I'm throwing a curveball, but if you've got cash to settle a high Porsche price tag, then you really should consider buying this legendary classic 911. It's a model only truly appreciated when you're hammering along with steering wheel and shifter in hand!"

If an air-cooled 911 isn't your thing, the 991 Carrera T might tickle your fancy. Currently available for seventy grand or so, the T (that's *Touring*, in case you were wondering) offers the base Carrera's powertrain, Sport Chrono,

To read our extended article about the 991 Carrera T, grab a copy of the September edition of *GT Porsche*, which, along with all back issues, is available to order from bit.ly/issuesgtp



THE 991 FOUND ITSELF KITTED-OUT WITH A MORE COMPACT ENGINE, THE REDUCTION IN CUBIC CAPACITY COMPENSATED BY THE APPOINTMENT OF TWIN TURBOCHARGERS

£45k -
£80k



Porsche Active Suspension Management (PASM), optional rear-wheel steering, PDK transmission, gorgeously trimmed interior, lightweight glass, Sport-Tex seats, reduced amounts of sound deadening material, a mechanical differential, specially coloured Carrera S wheels and the removal of all in-car entertainment equipment and rear seats, a move designed to get the car's weight down for Porsche product literature, but one easily reversed as a no-cost option at the original point of purchase. As we outlined in the story gracing the cover of the September issue of *CT Porsche*, this last-of-the-narrow-bodied-911s is a fantastic car, albeit other worldly when compared to the original 911 T, which was the least powerful 911 ever produced! Nonetheless, if the 992 is too new for you, but you're in the market for a modern 911 with excellent road holding abilities and a hint of 'track attack', you could do plenty worse than buying an example of this now-discontinued special edition.

THANKS

RPM Technik
rpmtechnik.co.uk

Autofarm
autofarm.co.uk

GCAP Performance
gcappformance.co.uk

Revolution Porsche
revolution-porsche.co.uk

Hartech
hartech.org

PIE Performance
pieperformance.co.uk

Philip Raby Specialist Cars
philipraby.co.uk

THE SILVER BULLET IN BRAKING

EBC Brakes Racing's new track day and race pad material, RP-1™, offers extreme braking performance at a lower cost compared to other race pads on the market.

KEY FEATURES:

- Superb modulation gives unprecedented control and feel throughout each braking event
- Extremely low wear rate with stable friction coefficient, even under the harshest on-track driving conditions
- Pads come thermally bedded, eliminating 'early-life' fade and minimising bed-in time
- Stainless-steel backing plates reduce heat conduction, lowering caliper operating temperatures

RP-1®



LOVE IT OR RETURN IT

For a limited time only, every set of RP-1™ pads is sold with a 'Love it or Return it' warranty. Tried these pads but don't like them? Return them to EBC for a full refund (T&Cs online).



UNPARALLELED BRAKING PERFORMANCE

EBC **BRAKES**
RACING

For full product listings, visit our website:

www.ebcbrakes.com

TIM HARVEY

A poorly 956 engine, a credit card, a set of pistons, a dizzying number of laps and a rollercoaster of emotions...

Happy New Year everyone, and welcome to my new *GT Porsche* guest column! I'm thrilled to have this opportunity to engage with you, not least because I've been a lifelong Porsche enthusiast and a long-standing reader of this fine magazine. I'm looking forward to bringing some interesting thoughts on ownership, driving exploits and racing in the coming months. To be honest, barely a day goes by when I'm not doing something Porsche related, especially as I now have a new role as driving consultant and brand ambassador for RPM Technik.

Many people know me purely for my BTCC exploits, but I've been involved with cars in both work and play all my life. As a child, I had a poster of the 930 hanging on my bedroom wall, the car's distinctive 'whale tail' forever etched in my memory. I went on to build Tamiya models of the same Turbo and played with every Scalextric Porsche variant with my equally enthusiastic elder brother. I think that's where my competitive racing instinct started! Ownership of Porsche cars would obviously have to wait, but a brief inventory includes a 3.2 Carrera Sport, 944 Turbo (written off by my wife - I've never forgiven her!), a 968 Club Sport, numerous RWD Carrera and Carrera S-badged 911s, a 997 GT3 and my current 991 Gen II GT3 and GT3 RS.

As far as racing is concerned, I've competed with 911s in Carrera Cup GB (from 2003 until 2011), but also British GT, Porsche Supercup and various endurance events around the world. My earliest Porsche racing experience, however, was with Charles Ivey, the eponymous Porsche retailer in Fulham, who, in the late 1980s, operated a Group C racing team. It was largely funded by South African, Wayne Taylor, who subsequently went on to have a hugely successful motorsport career in the USA and runs his own IMSA team to this day. Charles' car was a Tiga CG287 powered by a 956 twin-turbo engine and pitched against plethora of very fast, very frugal Spice Engineering racing machines in the C2 class.

The 1998 World Sportscar Championship saw Group C at its zenith, with factory teams

from Jaguar, Mercedes, Nissan, Porsche and Toyota, as well as a host of incredible privateer outfits. Our car was hugely fast, but used too much fuel. Consequently, in pursuit of C2 glory and after only a couple of races, Wayne jumped ship to join a team running the all-conquering Spice car. This left Charles and myself, together with the wonderful John McNeil (responsible for operating the Ivey racer), to devise a new plan to help us realise our ambition of competing at Le Mans and continuing in the championship. I drafted in as many co-drivers as possible to help pay the bills, but at the 1000km of Silverstone (the precursor to Le Mans), Porsche provided us with an updated ECU, leading to disaster. Intended to help save fuel, the swap encouraged the engine to destroy all six pistons in practice!

Whilst the team removed the busted engine, I visited the official Porsche spares truck in the paddock. With credit card in hand, I purchased a complete piston kit for a cool £1,754. Cheap in today's money, but a fortune to me at the time! Charles took the engine back to Fulham and rebuilt it overnight, allowing us to complete qualifying and the entire race with no further mishaps. Needless to say, our old ECU was reinstated for peace of mind.

We scraped together enough money to get to Le Mans and, whilst normal protocol would have been to practice with an old engine and use a fresh one for the race, we only had the one unit at our disposal. It didn't even get treated to a rebuild before the trip to Sarthe! Nevertheless, we ran highly competitively at the event, largely thanks to how fast the car was on the famous Hunaudières straight, topping out at 235mph. I took care of qualifying, started the race, drove at night into dawn and finished the event in one of the most emotional experiences of my racing career. We also went on to complete the 1000km of Brands Hatch in the same year, again without an engine rebuild. I've no idea how many miles the turbocharged lump completed on that set of pistons, but I've always said buying them was the best £1,754 I've ever spent!



Tim Harvey is a best-known for being 1992 British Touring Car Champion and for being crowned Carrera Cup GB champion in 2008 and 2010. He's contested the 24 Hours of Le Mans four times, competed in British GT and currently serves as a presenter for ITV4's extensive BTCC coverage. He's also a driving consultant and brand ambassador for independent Porsche specialist, RPM Technik.

Twitter @timharvey7
Instagram @timbo_harvey

NORMAL PROTOCOL WOULD HAVE BEEN TO PRACTICE WITH AN OLD ENGINE AND USE A FRESH ONE FOR THE RACE



The Single Best Performance Upgrade for Late Model Porsches.

New Pikes Peak Record!

OPTIMA Batteries X BBi Autosport Porsche Turbo Cup - "Lucy" Conquered Pikes Peak International Hill Climb in Time Attack 1 (Second Place Overall) shattering previous TA1 time by 13.43 seconds with a new Record Time of 9:23.72 driven by Raphael Astier. Turbo Cup was equipped with an IPD 82mm Turbo Plenum. Congrats to all involved!



Photo Credit: BlaqRocket

IPD Porsche Intake Plenums

- Power & Torque Gains up to **40 WHP**
- Larger Throttle Body Plenums Available
- Tested, Challenged & PROVEN!!!
- Dimpled Surfacing for Improved Laminar Flow
- Increased Air Velocity with Patented Merge
- Decreased Temps with Improved Heat Dissipation



100% Money Back Guarantee

Visit: ipdplenums.com



MARK WILLIAMS

Unlike Ford's recent behaviour, Porsche badge engineering isn't something sports car fans should be upset about...

Porsche has made an all-electric car. Unless you've been under a rock for the past few months, or haven't been paying attention to our newsstand-leading coverage of this extraordinary machine, the variant of Taycan our favourite manufacturer has launched with wears a Turbo badge. The internet appears to have gone into meltdown over this decision. Can we all calm down a little? Allow me to explain why you shouldn't feel the need to register dissatisfaction.

For some time, *Turbo* has been little more than a branding exercise. Yes, I know the same badge has been stuck to Porsche rumps for the past forty years, but the truth of the matter is, when buying a new 911 Turbo, you're announcing to the world you've bought a super-expensive version, not 'just' a Carrera. After all, almost all road-going 911s have been turbocharged for the past few years. Of course, I appreciate the distinction here is that there is an actual turbocharger (or two) nestled in the rear, but come on, people. Get with the programme! The Taycan wearing a Turbo badge is merely a way of Porsche extending a familiar model hierarchy to a new product line. We should be no more offended about an all-electric car wearing a Turbo badge than we are the fact a Boeing 747 can't seat that many passengers.

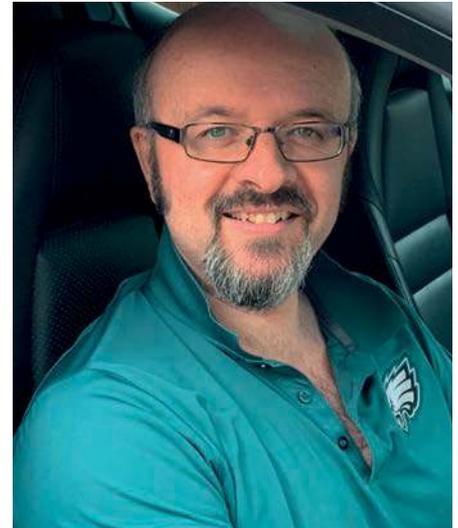
Turbo tells the world you've got the clout and the cajones to choose the top model when buying a Porsche (and yes, I'm well aware Turbo S has leapfrogged Turbo in the product line-up, but you know what I mean). There is, however, a recent automotive development utterly deserving of your disbelief. I'm talking about Ford's decision to launch an electric SUV. Wondering what's so alarming about the Blue Oval boys producing a battery-powered five-door crossover? The fact it's being marketed as a Mustang.

Not since the days of British Leyland, when grey suits and bean counters attempted to sell us something purporting to be a 'luxury Allegro' has such a contradiction and hideous aberration been readied for the road. Then again, perhaps I'm just as guilty of badge snobbery as the very people who are furious

at Porsche's decision to decorate a distinctly non-turbocharged car with Turbo branding? Maybe it's time for me also to remove those anger lenses, replacing them with pragmatism. After all, in fairness to the folk at Ford, how are they supposed to make an EV SUV sexy? Like the socially awkward school swot who has noticed a pimple on his hooter just before leaving home to attend a local disco, they're already on the back foot. Stamping *Mustang* on what is fundamentally a battery-driven family car removes some of the impact of the facial carbuncle, and whilst you now won't necessarily want to dance with it, you will at least wander up and have a chat.

It's labelled as Mustang, but doesn't look anything like a Mustang. You'll probably be a little intrigued. I dare say some of you are already considering a test drive. Maybe you wouldn't have given the very same vehicle a second thought had it been released with *Active E by Ford* or some other such vanilla name attached to it? Just to be on the safe side, Ford has added *Mach-E* to its new Mustang SUV's nameplate. Oooh!

As editor Dan points out in his introductory piece to this issue of *GT Porsche*, more Taycan sales have been registered in the UK than in any other territory, which goes some way toward highlighting Britain's love for the Stuttgart brand, a fact long known by the enthusiast community, not least thanks to Porsche Club GB's status as the largest officially recognised Porsche Club in Europe. Nevertheless, Porsche may face an uphill struggle with Taycan in the long run, representing, as it does, a seismic shift in thinking behind the largely listen-to-the-heart mindset which, generally speaking, informs a Porsche purchase. By this, I mean many petrol lovers are going to have a hard time getting their head around the idea of investing in an expensive box of batteries. It is, therefore, entirely understandable that Porsche wants to give its new car the best start in life by adding such an iconic nameplate. I'm not quite ready to forgive the marketing men at Ford, though.



Mark Williams is a *GT Porsche* contributor, best known for documenting the turbulent relationship he has with this 970 Panamera S E-Hybrid, as featured in our 'fleet' pages. In addition to sharing his experiences in print, he's also an occasional YouTuber. Hope online and watch his videos!

Twitter @MarkWGTP
YouTube Mark's Cars or visit bit.ly/markscars

TAYCAN WEARING A TURBO BADGE IS MERELY A WAY OF EXTENDING A FAMILIAR PORSCHE MODEL HIERARCHY

CLASSIC CAR TRACKER

FIT IN SECONDS NO WIRES

WE ARE A UK BASED COMPANY WHO HAVE BEEN IN THE TRACKING BUSINESS FOR OVER 10 YEARS.

USED AND TRUSTED BY UK POLICE FORCES

5 STAR REVIEWS!
★★★★★

CONTROL YOUR TRACKER



FEATURING

- ◆ LIVE REAL TIME TRACKING
- ◆ UP TO 4 MONTHS ON ONE CHARGE
- ◆ FULLY SET UP READY TO TRACK
- ◆ LIVE ALERTS
- ◆ LOG ALL YOUR ROUTES, SPEEDS AND RUNNING HOURS

SEE THE WEBSITE FOR MORE

ULTRA LOW RUNNING COSTS WITH NO HIDDEN EXTRAS UNLIMITED LIVE REAL TIME TRACKING FOR 12 MONTHS IS INCLUDED. AFTER THE FIRST YEAR THERE IS A OPTIONAL RENEWAL COST OF £60 (THAT IS LESS THAN 17 PENCE A DAY). THIS GIVES YOU COMPLETE UNLIMITED TRACKING FOR ANOTHER WHOLE YEAR!

WWW.BACK2YOU.COM

**CALL US NOW ON:
0800 009 6366**

MAG33 10% ONLINE DISCOUNT

BACK2YOU



WA WALKER'S
AUTOTECH
BMW, PORSCHE & MINI SPECIALISTS



We specialise in service, diagnostics and repairs for Porsche & BMW vehicles.

*Purpose built facility in Wisborough Green, West Sussex

*Main dealer trained technicians

*Porsche PIWIS & Autologic Diagnostics

*Loan Vehicles available

*Customer waiting area

Visit our website for latest service offers and carefully selected used cars for sale.



workshop@walkersautotech.co.uk

01403 751646

www.walkersautotech.co.uk

@walkersautotech.co.uk

20
PRE-OWNED PORSCHEs
always in stock



HOME
of the
ENTHUSIASTS
for over
33 YEARS



60
SPORT/LUXURY LOW KM VEHICLES
always in stock



SEGAL MOTORCAR
COMPANY

1641 LANGSTAFF RD UNITS 1-3
CONCORD • 416.587.1198

info@segalmotorcar.com



FIVE MINUTES WITH ANDY WALKER

This month, we take time out to chat with the Managing Director of Sussex-based Porsche and German marque specialist, Walker's Auto Tech.



When did you start Walker's Auto Tech?

I established the business back in 2010. Over the years, I'd gained significant workshop and business management experience in roles for prestige car dealerships, knowledge which provided me with the confidence to start my own company supplying sales, maintenance and tuning services for German marques. As time went by and Walker's Auto Tech grew, I recruited highly skilled ex-Porsche technicians, enabling the company to provide the same level of expertise to Porsche customers as we do for BMW owners.

Whereabouts is Walker's Auto Tech based?

We're in Billingham, West Sussex. I bought a derelict building and thoroughly refurbished the place, adding six ramps, office space and a sales showroom with space for eleven cars, though we store many more of our sales vehicles in an off-site location.

Why should a Porsche owner choose Walker's Auto Tech over an Official Porsche Centre?

We have the same in-house technician experience, much of the same diagnostic equipment, plus the added knowledge of the wider VW-Audi group of cars, but we can also offer aftermarket upgrades, including suspension, brakes and even ECU mapping, the latter thanks to our status as an agent for recognised Porsche tuning outfit, Ecotune. We will also happily fit and test parts customers supply to us.

Which Porsches do you specialise in?

Water-cooled cars. Chiefly 911s and Boxsters, but we also maintain many Panameras, Cayennes and even a few 944s. Importantly, my team has extensive experience working on M96 and M97 engine rebuilds, which is why we see many 996 and 997-generation 911s pass through our workshop.

How many members of staff do you employ?

Walker's Auto Tech is currently made up of myself, three dedicated technicians, a parts advisor, a sales advisor and a part-time office administrator. With the business continuing to grow at rapid pace, I'm looking to recruit more technicians with Porsche and wider German marque experience in the near future. We're a friendly team, which is one of the reasons we see so much repeat business from customers in West Sussex, but also from those living much further afield. We're happy to welcome customers into the workshop and talk them through every aspect of the job being carried out on their car. The personal touch goes a long way. In fact, most of the cars in our showroom have been owned by Walker's Auto Tech customers. With this in mind, buyers can be assured we know the history of each of our sales vehicles inside out.

What's your favourite Porsche?

I currently own a first-generation 996 GT3. It's a great car, but my favourite Stuttgart speed machine is the amazing 996 Gen II GT3.

Can we follow your adventures online?

CT Porsche readers are invited to find out more about Walker's Auto Tech, the services we provide and our sales cars by visiting walkersautotech.co.uk. You can also follow us on Facebook, where we post seasonal offers, such as discounted air-con servicing.

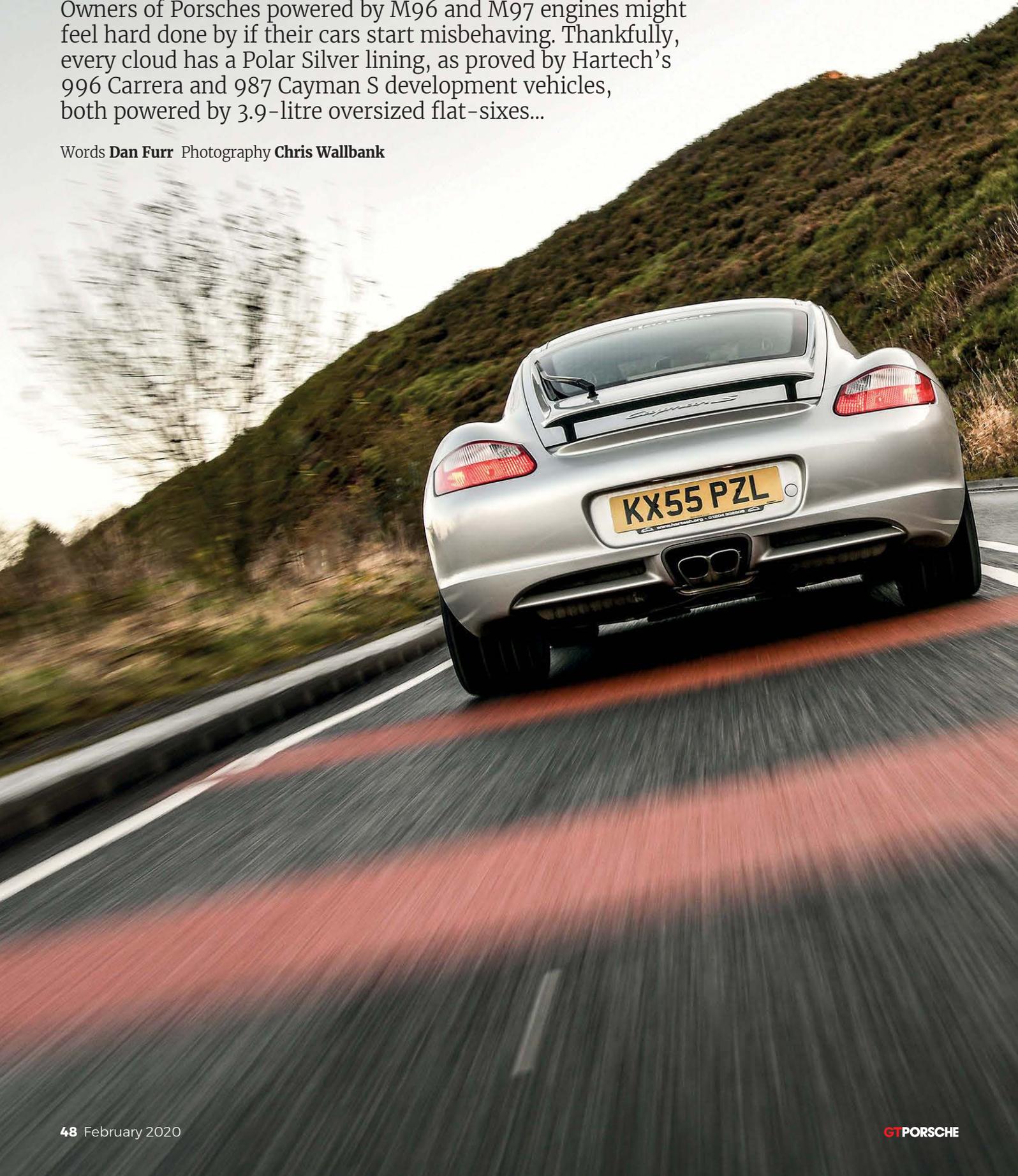
Thanks for your time, Andy. It's appreciated! ■



GO LARGE

Owners of Porsches powered by M96 and M97 engines might feel hard done by if their cars start misbehaving. Thankfully, every cloud has a Polar Silver lining, as proved by Hartech's 996 Carrera and 987 Cayman S development vehicles, both powered by 3.9-litre oversized flat-sixes...

Words **Dan Furr** Photography **Chris Wallbank**





This issue of *GT Porsche* concerns itself with 2020's best buys. If you've taken note of our 'ones to watch out for', you'll be aware the list is made up entirely of water-cooled Porsches. More specifically, the 986, 996, 987 and 997

reign supreme. There's no denying these are brilliant cars returning a huge amount of pleasure for every pound spent, but as anyone with even a passing interest in Porsche products will know, they're also models blighted by a reputation for engine failure. We're not going to pretend there aren't Porsche pilots who have suffered ownership of an early water-cooled Boxster, Cayman or 911 with a faulty flat-six, but it's worth retaining a sense of perspective – for every unlucky Porsche owner shouting about a negative experience, there are tens of thousands of others who have enjoyed hassle-free fast-road fun.

In an attempt to find out the fact behind the fiction 'once and for all', we paid a visit to the Bolton headquarters of independent M96/M97 engine specialist, Hartech. Renowned for its team's now fifteen-year programme of industry leading research and development concerning these water-cooled lumps and their inherent weaknesses, there really is nobody better to quiz, as proved by how widely accepted Hartech paperwork accompanying a Boxster, Cayman or 911 is as a confidence booster to prospective Porsche purchasers.

Before we get into the reason why Hartech has become the go-to specialist for owners of poorly Porsches with M96 and M97 engines, it's important to identify the mechanical problems Porsche introduced to its sports cars during a ten-year period of factory cost cutting. "All

THREE DIFFERENT TYPES OF IMS BALL BEARING WERE USED DURING M96/M97 ENGINE PRODUCTION

engines wear," says Hartech's Managing Director, Grant Pritchard, philosophically, "but through extensive analysis, we've identified five key faults triggering ninety-nine percent of M96/M97 engine rebuilds. Out of the five, two are entirely random, two are progressive and one is a bit of both," he adds, before drawing a deep breath and beginning his pitch.

"Let's start with the random stuff," he begins. "First, timing chains have been known to fail. I need to stress this is a rare occurrence, but it happens. Second, and probably the fault most *GT Porsche* readers will have heard about, is Intermediate Main Shaft (IMS) bearing failure." An IMS is used to transfer power between crankshaft and camshafts. At one end of the IMS sits a plain bearing, while the other end is fitted with a ball bearing. Three different types of ball bearing were used during M96/M97 production, starting with a dual-row ball bearing in 1996. A smaller single-row ball bearing was introduced three years later. These ball bearing are the causes of failures. "The IMS and its plain bearing are submerged in oil during »

normal operating conditions.” Grant continues. “The ball bearing is filled with grease protected from the engine oil by a seal. Differences in manufacturing tolerances can result in running-in material mixing with the grease and wearing out the bearing prematurely, usually resulting in early failure. If the bearing lasts for several years, however, there’s a good chance it will continue to operate long into the future without fault.”

He goes on to explain how early bearings were a little too small, though M96 engines from engine number 69507476 and M97s from 68509791 (2005 onwards) were equipped with a bigger bearing proving largely faultless. “Hartech remanufactures the original IMS shafts – for both roller chain and Hyvo cam chain models – to fit the bigger bearings, thereby eliminating the problem of IMS failure at the point of each rebuild. We also open the bearing to allow lubrication by the engine oil bath in which it sits,” Grant confirms. “In truth, a low percentage of all engines with the smaller bearing have suffered failure. It certainly isn’t guaranteed to happen, but bad news spreads fast – it only takes a few unlucky owners to post horror stories on internet forums for the true number of affected engines to become grossly exaggerated.”

If a positive can be drawn out of the situation, it’s that fear of failure contributes to the continued low cost of buying an M96/M97-propelled Porsche, but what of the two progressive faults Grant spoke of? “We’re talking about wear caused simply by the action of using the car,” he says. “As I mentioned earlier, all engines suffer wear and tear through general operation. M96/M97 cylinders become

more ‘oval’ as time goes by and as mileage increases. Eventually, they can’t take what’s being asked of them and crack. There’s no single cylinder at fault here – in terms of ovality, they all wear. It’s a well-documented problem.” And the final progressive fault? “Crankshaft bearing failure,” he frowns. “If a cylinder cracks, damage is relatively isolated, which is why we’re relaxed about taking preventative measures. It’s a non-interference fault. Don’t worry about it. Just get out there and enjoy being behind the wheel of your Porsche. Obviously, you don’t want a cylinder to crack and should take steps to prevent it happening if you’ve already commissioned a specialist to take the engine apart for other remedial work, but the damage caused by a cracked cylinder is limited.” Unfortunately, crankshaft bearing failure is a different story altogether.

SIGN OF THE TIMES

“To cut a long story short, Porsche adopted hardening methods during crankshaft production that only treat the outer, shallow part of the metal, as opposed to more traditional methods which harden the entire crankshaft. With bearing failure, engine shops have traditionally been able to regrind cranks and fit bigger journals, but with worn M96/M97 cranks, soft metal is exposed. A regrind is out of the question.” We wonder if there are any tell-tale signs of failure. “Not really,” Grant shrugs. “The only thing you can do is err on the side of caution. We’ve stripped thousands of these engines, and as a rule of thumb, we predict an early Boxster, Cayman, 996 or 997 engine will



Above 996 Carrera and matching 987 Cayman S enjoy rock solid reliability and a huge rise in power across the entire rev range



Facing page Grant takes time out to chat to Dan about the truth behind M96/M97 failures and Hartech’s latest exciting projects



WHEREAS A CRACKED CYLINDER SPELLS INCONVENIENCE, CRANKSHAFT BEARING FAILURE SIGNALS COMPLETE DISASTER



be carrying heavily worn crank bearings at 80k miles, with failures registering from 95k miles. Of course, you'll always get the guy driving around in his million-mile 987 dismissing concerns from specialists, but look hard enough and you'll also find owners with engines suffering crankshaft failure much earlier than we'd expect. As a case in point, we recently took on a car with a destroyed engine at 75k miles, though it had led a hard life and was driven with less mechanical sympathy than we'd recommend!"

Whereas a cracked cylinder spells inconvenience, crankshaft bearing failure signals complete disaster. "A damaged crankshaft can put one of these Porsches beyond economical repair," Grant sighs. "Put it this way, a new crank from Porsche is going to set you back more than three grand, and that's before you've calculated the cost of repair work." And what work it is. Not only does a wrecked crank have the potential to write-off an engine's bottom end by contaminating oil, it can also throw a connecting rod and, in extreme cases, push a piston through the block. Some M96/M97 crank failures have even led to a destroyed cylinder head. "In the ideal world, you'd recognise failure was going to take place a week before it happens and get the car booked in for a mechanical overhaul," Grant reasons, "but, sadly, things don't work like that. All you can do is accept the fact cylinder wear and crankshaft bearing wear are going to happen and work out how you're going to deal with the situation." We'll come on to this in a moment, but »





what's the fifth and final Hartech point of concern for owners of cars kitted-out with M96/M97 engines? "Bore score," Grant replies. "It's a combination of wear and tear and randomness, but much like IMS failure, there are many negative stories about this condition online, making people think all engines suffer, which is nonsense. The cause of scoring is piston rings wearing the standard Lokasil bore material until it gradually releases small, hard, gritty pieces of silicon that rub between the piston and cylinder bore until oil washes them away. Earlier engines featured a hard-coated piston that could resist resulting damage, but EU legislation enforced the move to a softer coating that could be worked away or penetrated by the silicon particles, eventually leading to a scored bore."

Of course, buying a car that's already had an engine rebuild with steps taken to prevent failure is ideal. You can relax! But what if you're not in this fortunate position and you're either thinking about buying an early Boxster, Cayman, 996 or 997, or are already in possession of one of these cars? Should you be worried? That's a difficult question to answer. While trying to 'mythbust' by providing an overview of common M96/M97 complaints, including their cause and effect, plus trying to impress upon the *GT Porsche* faithful how occurrences of IMS failure and bore scoring are nowhere near as prolific as forum posts might suggest, we're at risk of having the opposite effect simply by laying bare everything you should know about Porsche's engineering design flaws.

That said, if as Grant suggests, you think of timing chain and IMS bearing failure as low risk, with cylinder ovality and crankshaft bearing wear being the result of high mileage, then common sense kicks in and two obvious solutions present themselves: set your sights on cars that have covered little distance or think about a rebuild before problems occur.

JUMPING FROM 3.4 OR 3.6 LITRES TO 3.9 LITRES GENERATES A HUGE BOOST IN PERFORMANCE

The second of those propositions can be difficult to stomach. After all, if you've paid between ten (maybe less) and twenty (maybe more!) grand for your M96/M97-powered Porsche, do you really want to be spending another few thousand fixing a problem that has yet to materialise? Probably not, but recognising cylinder ovality and crankshaft bearing failure as less a case of 'if' and more a case of 'when', it'd be wise to start thinking about correction work before either occurrence, especially if you're in charge of an early Boxster, Cayman, 996 or 997 approaching 100k miles and you plan to keep the car for another few years. Petrolheads, however, like to

Above Formerly 3.4-litre Cayman S is now a super-lively 3.9-litre road racer

Facing page The Hartech team has installed thousands of its bespoke cylinders and carries out all design, engineering an manufacturing in-house at the firm's Bolton base



see tangible benefits and reward for investing in their four-wheeled friend. This is entirely understandable. After all, spending a small fortune on a yet-to-implode engine and experiencing no behavioural difference in the resulting drive is a difficult pill to swallow. Fortunately, Hartech's oversized engine programme is a brilliant way of incentivising the move and a no-brainer if you're already faced with an unavoidable rebuild.

WINNING FORMULA

Unlike most tuning, which provides a relatively small benefit in a narrow area of your car's engine power band, an oversized flat-six will deliver more torque, power and driveability throughout the entire rev range. All Hartech engine rebuilds make use of Nikasil-plated aerospace-grade alloy closed-deck cylinders (as per the ultra-reliable CT3 and Turbo versions of affected 911s) in place of the standard (weak) Lokasil open-deck cylinders. Coupled with new timing chains, new plastic chain guide rails, a late IMS and its accompanying bearings, new crankshaft bearings, special pistons and rings developed by Formula One suppliers, a basic cylinder head overhaul and extensive testing, the result is a rock solid powerplant for your Porsche, as demonstrated by Hartech fitting more than three thousand of its special cylinders without subsequent failure. Moreover, Hartech-built flat-sixes have won the Porsche Club Championship, as well as Boxster BRSCC Porsche Championship, competitions demanding ultra-reliability regardless of how hard cars are driven.

Peace of mind is clearly assured when commissioning »



the company to rebuild your Porsche's engine, but for only £2,000 more than the cost of a standard rebuild, you can increase displacement to a whopping 3.9-litres. That's a significant hike from the 3.4-litres of a stock 996 Carrera or 987 Cayman S (like the development cars we tested) and results in a massive improvement in both mid-range torque and top end bhp whilst radically improving acceleration, driveability and all-round performance far more impressively than most conventional tuning practices. And, of course, it's all done without straining the engine and at acceptable cost, especially if you're considering or need an M96/M97 rebuild anyway. Moreover, for a low sum, you might be able to buy an early water-cooled 911 with an already faulty engine, making Hartech's offering even more attractive. "You can't fault the engineering logic or the low cost of oversizing an engine when you're faced with having to shell out for a rebuild to address weak spots in the M96/M97 design," Grant suggests, "but I appreciate money sometimes muddies the decision making process, especially when you're talking about preventative work, as opposed to corrective work." Nevertheless, as outlined earlier, if you're considering keeping hold of your water-cooled Boxster, Cayman, 996 or 997 for the foreseeable future and plan to cover a decent number of miles, an oversized engine upgrade is a brilliant bolt-on for a standard rebuild, and one likely to reward you in terms of resale value – while

it's impossible to predict what will happen to the Porsche market in the years ahead, there's a definite trend of M96/M97-driven cars with accompanying paperwork from Hartech selling quickly and for a much higher premium than those without. It's a clear testament to the quality of the company's work, its roots in motorsport and aerospace industries, its in-house design and manufacturing, its advanced engineering practices and its focus solely on engine repairs and rebuilds.

Hold up a sec. It's all very well us telling you jumping from 3.4 or 3.6 litres to 3.9 litres generates a huge boost in performance, but what if you're in charge of, say, a 997 Carrera S already making use of a 3.8-litre flat-six? Is an extra 100cc really worth depleting even more of your bank balance than a standard rebuild? "We recognise drivers of cars with smaller engines will experience greater performance gains through a much bigger increase in displacement," Grant admits, "which is why our research and development programme is continuing apace." He's referring to an exciting new increase in capacity for 3.8-litre flat-sixes, work his team is currently testing. We'll be keeping tabs on this project, so expect more news in future issues of *GT Porsche*. In the meantime, we're off to enjoy more bombing around the rural surroundings of Bolton in the 3.9-litre 987 Cayman S and 996 Carrera development cars the Hartech team has thrown us keys to. It's just a shame we've got to give them back!

Below You'd be hard pushed to realise these unassuming silver Porsches were making use of reworked flat-sixes with significantly increased capacity





986 3.2-3.7 | 996 3.4-3.7 | 987 3.4-3.9 | 996 3.6-3.9 | CAPACITY CONVERSIONS

Build slots now available



T: 01204 302809 E: auto@hartech.org www.hartech.org

9e **Nine Excellence**
Independent Porsche Centre



WORKSHOP

- Porsche Fixed Price Servicing.
- Courtesy Cars.
- Repairs and MOTs.
- Engine and Transmission Rebuilds.
- Restorations.
- Pre-Purchase Inspections (PPI).
- Detailing and Aftercare.
- Alignment and Geometry.

UPGRADES

- 9e Performance Packages.
- Exhausts.
- Suspension.
- Brakes.
- Tuning.
- Engine Builds.
- Parts.

SHOWROOM

- Please check our website for current stock.
- We buy and sell all Porsche models.

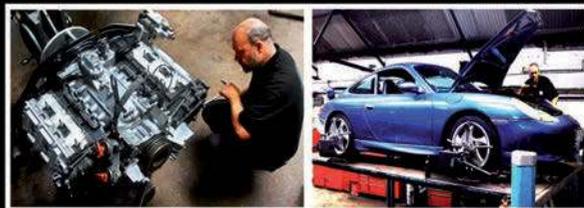
All Porsche models covered.

Fully trained Porsche technicians.

Professional showroom and workshop.

Unit 3, Axiom Business Park,
41 Balcombe Road, Horley,
Surrey, RH6 7HF

www.NineExcellence.com
01293 226 911
Info@NineExcellence.com



- Servicing
- Repair
- Corner Weighting
- MOT Station
- Rebuild
- 4 wheel alignment



www.brauntonengineering.co.uk

Tel: 01271 814144



**Devon
Porsche**



911virgin.com

01895 255 222



Buying a car

Our stock of around 40 used cars including high quality photos of each vehicle. Updated several times daily. There are also tips on buying a Porsche which could save you money.



Selling a car

Things to consider if you are selling a car, in particular, scams and potential pitfalls to avoid. Five minutes spent reading this could save you from disaster.



Porsche contacts

Useful contacts - if you are looking for somewhere to get your car serviced, repaired or insured. There is even a section where you can read about our racing antics and general news.

Cars wanted for immediate outright purchase

CCTV42

01895 233 311

Professional quality CCTV for self installation

www.cctv42.co.uk

GT PORSCHE

NEXT ISSUE ON SALE FRIDAY 7TH FEBRUARY

**SUBSCRIBE TO
GT PORSCHE**

**SEE PAGE 64
FOR DETAILS**



CLASS WARS

**987 BOXSTER S
MEETS ITS RIVALS**

FIND YOUR NEAREST STOCKIST www.bit.ly/storegtp

HERTS OF GOLD

Hitchin's H-Town Classic & Dub Club is one of the UK's fastest-growing classic car groups...

Words and photography **Dan Furr**

How many classic cars can you squeeze into the centre of a North Hertfordshire market town? If you're keen to find out, hop onto Facebook and search for H-Town Classic & Dub Club. One of Britain's fastest-growing classic car enthusiast groups, members gather on the last Monday of every month at the market square in historic Hitchin, a town with fast links to London, the Midlands and the South East, and a location recently depicted as the home of *Doctor Foster*, the character played by Suranne Jones in the bafflingly popular BBC drama of the same name.

Felix Camfield-Walker, a familiar face in Hitchin and proprietor of local hair salon, Farley's, established the club in 2017 after struggling to find an enthusiast group catering for all makes and models of vintage vehicle. After setting up a Facebook page and inviting everyone in Hitchin and the surrounding area to attend the first of what he hoped would develop into monthly meets, a total of thirty-four classics pulled into the car park of the pub hosting the event. Early Volkswagens, air-cooled Porsches, a Citroën 2CV, a beach buggy (remember those?!), various MGs, Fords and even a chap riding a Lambretta showed up.

Clearly, Felix wasn't the only petrolhead in Hertfordshire craving the existence of an informal car club, which is why he contacted Hitchin Initiative, a highly effective partnership founded to ensure the town thrives through the efforts of businesses, community organisations, residents and the local authority. His request was to occupy Hitchin market square on the last Monday of every month, thereby allowing a far greater number of cars and owners to attend meets than the pub could accommodate.

Pleasingly, the idea was welcomed, and every one of H-Town Classic & Dub Club's gatherings has taken place in the centre of Hitchin since that time.

Today, the club's reach has extended far beyond the borders of North Hertfordshire – from a strong start, the number of attending vehicles has more than tripled, with the record currently at 150 cars counted. Occupying the market square, overflow car parks and the surrounding cobbled streets, visitors and their retro rides travel to Hitchin from afar, with members of less active clubs enjoying the fact H-Town Classic & Dub Club hosts its brilliant free-to-attend meetings all year round.

WONDER WHEELS

As the club's name suggests, a high number of Volkswagens make an appearance at each get-together. Indeed, Felix was using a fifty-year-old Beetle as his daily drive when the group was founded. It should, then, come as little surprise to discover each H-Town Classic & Dub Club meet welcomes a high number of Porsches, from air-cooled classics, including the 356 and early 911s, through to water-cooled Neunelfers and transaxle models. The 924 and 944 are particularly well represented, as is the 964, 996, 997 and the first two generations of Boxster. There's much more to H-Town Classic & Dub Club than German cars, though. Happily sitting alongside the split-screen campers, Karmann Ghias, old Golfs, M-badged Bimmers, and Mercedes SLs, you'll find the same eclectic mix of metal witnessed at the club's very first meet, with the added spice of vintage Ferraris, American hot rods, Minis, more French fancies and a range of Japanese joy toys. With the club going from strength to strength, maybe it's time you set the controls for the heart of Hitchin?!

JOIN THE PARTY

You don't have to own a cool car to attend an H-Town Classic & Dub Club event. An enthusiasm for vintage vehicles and an open mind is all that's required! The meets take place on the last Monday of every month. Punch postcode, SG5 1DR, into your satnav.





THE NUMBER OF ATTENDING VEHICLES HAS MORE THAN TRIPLED, WITH THE RECORD CURRENTLY AT 150 CARS COUNTED



Above A strong turnout of 911s is guaranteed at every free-to-attend meet

Left H-Town Classic & Dub Club's informal vibe makes its gatherings suitable for all the family

Facing page Sports cars of all makes are welcome to fight the Porsches in attendance for the affections of visitors to Hitchin's market square



Above Felix and his team are keen to keep the club's monthly meets in the heart of Hitchin, despite an ever growing number of participating cars

Right H-Town Classic & Dub Club regulars, Rafe Abrook and Sian Duddy, with a recent copy of the world's premier Porsche magazine!



Facing page Standard and modified cars are welcome to attend each get-together



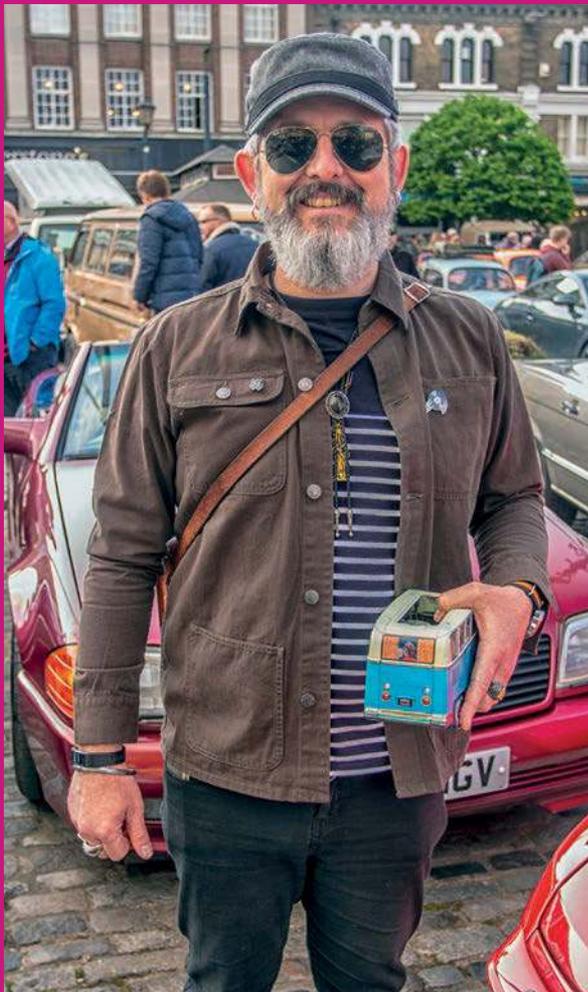
H-TOWN CLASSIC & DUB CLUB





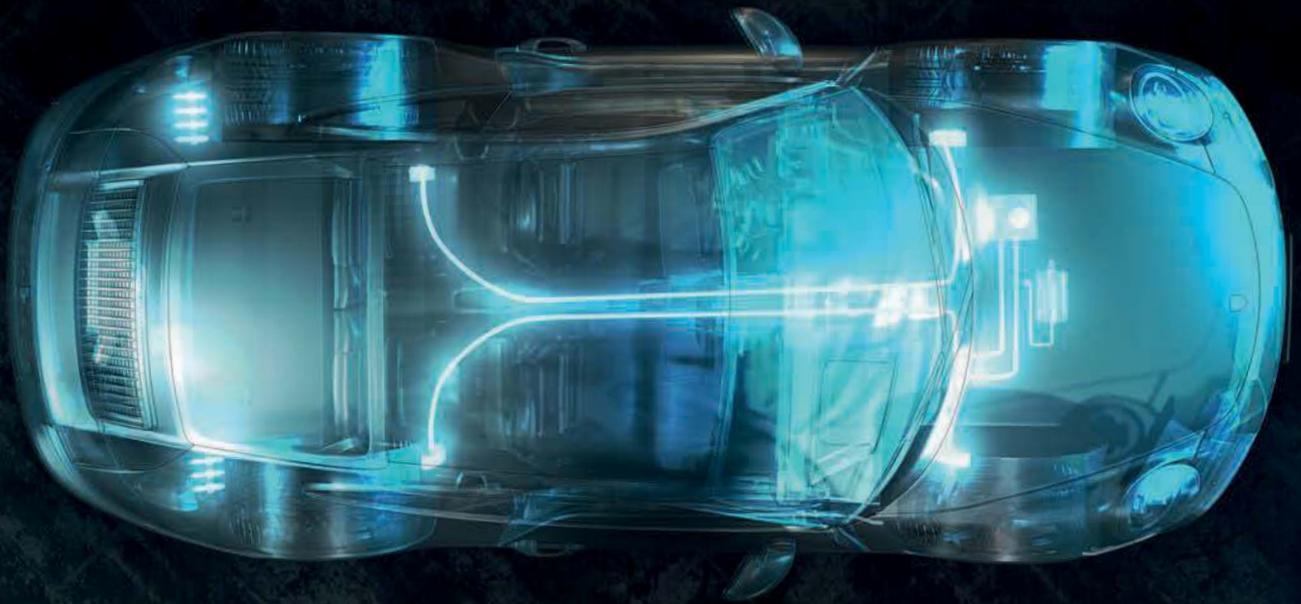
Above The many watering holes and eateries surrounding the market square remain open during H-Town Classic & Dub Club meets, but, alas, not the local jewellery store

Right Club founder, Felix, collecting loose change from visitors in order to raise vital funds for local charities



Bottom A former GT Porsche feature car not likely to be leaving the square any time soon





Total transparency.

Clear service pricing from Porsche.

Our new service pricing packages now include scheduled maintenance such as changing brake fluid, filters, spark plugs and drive belts. Quality service at clear prices to save you time and money. Find out more at [Porsche.co.uk/servicepricing](https://www.porsche.co.uk/servicepricing)

Service by Porsche.
High performance is in our DNA.



PORSCHE

SUBSCRIBE TODAY

ON THESE SPECIAL OFFERS

OFFER 2. UK PRINT EDITION

6 ISSUES FOR £21.99



SAVE
26%



TO SUBSCRIBE TODAY

Simply visit shop.kelsey.co.uk/gtp

Or call our team on **01959 543 747** & quote offer code GTP0120

Hotline open: Mon - Fri 8.30am - 5.30pm.



AHEAD OF THE CURVE

In this month's coaching article, Porsche Driving Consultant, Neil Furber, discusses vision and planning in readiness for cornering..

Those of you who have been following my *GT Porsche* driver coaching series may have noticed a few teasers eluding to future articles. One of the biggies was in my piece focusing on gear shifting and braking finesse. Published in the August 2019 issue of the magazine (order a copy at bit.ly/issuesgtp), it glossed over vision and planning upon approach to a corner. Let's take a close look at this key feature of effective driving.



DRIVING FORCE

Neil Furber is *GT Porsche's* resident driving expert. With a background as a mechanical engineer in Formula One, he brings a unique technical insight to driver coaching. Splitting his time between the French Alps and the UK, Neil coaches drivers through his brand, Drive 7Tenths (drive7tenths.com) and is also a Porsche Driving Consultant at Porsche Experience Centre Silverstone. Have a question about coaching? Email him at enquiries@drive7tenths.com.

LOOKING, BUT NOT 'SEEING'

There's a lot more to cornering than simply arriving at the bend, braking, shifting down gears and steering. Even with excellent core technique and a layer of smoothness, it's the planning from well ahead that unlocks the artistry (in some cases, even whilst accelerating out of the previous bend!). Planning, however, is nothing without effective vision. This is the cornerstone of good driving. Without it, almost everything else will be compromised.

Effective vision is not just about eyesight. Your depth (distance) and field (range from centre) of view is extremely important. Moreover, your ability to 'dance' the eyes from one point of interest to another quickly and effectively is crucial.

Many commuters fall into the habit of 'auto-pilot' with a near-blank stare set to the car in front or a limited distance ahead of the bonnet. Interestingly, the adopted gap to the car in front often corresponds to this distance, which helps explain why so much of the traffic we see is all too close for comfort. One can



observe a sort of 'latch-on' from a driver to the car in front. Dropping back and increasing your depth of view to accommodate a range from just outside your Porsche to as far as the horizon — and everywhere in between — will give you more opportunity to look for useful information when driving. Increasing your field to accommodate much more width (as well as height and more regular use of the mirrors) will enrich things still further. After all, there are

often clues behind hedges or deep in side roads that can make all the difference.

Yet even this is only the half of it. Looking from point to point is all very well, but it's the 'seeing' that counts. What you see tells the story of what has happened or, more importantly, what will happen. Of course, what you 'see' is dependent on what you 'look' for. Hazards and essential information will vary depending on environment.

VISUAL LINK CASCADE

This brings us nicely to what I like to call the Visual Link Cascade. Simply put, this is the process of using vision and planning to prepare the next few steps of your drive. It's the essence of what's known as 'Advanced' driving, but I prefer to think of it as essential for good driving.

Let's take an example. Perhaps we're driving down a rural road for the first time. It's a cool, early autumn Saturday morning and it rained heavily overnight, but the sun is out. There are plenty of young trees and light vegetation lining the road, which is fairly dry. As we accelerate away from the previous bend, we can see a sign with black and white chevrons in the far distance. They point right and there's a wall of dense, mature trees ahead. Working the eyes back towards us in a side-to-side sweeping motion, we observe a short narrow brick-lined bridge, and closer still, a signpost with two red-bounded triangular signs: road narrows (above) and double bend, first to the right (below).

Already, we've used our full depth of view by looking as far ahead as the eye can see and 'looked' for specific signage to identify more of what's to come. Now we know the bridge is the narrowing referred to by the sign. Afterwards, there will be a very tight right-hand bend (the combination of the bend

sign and the chevrons is significant). More importantly, we can deduce there's a second tight bend to the left a short distance later. This is a great start, but there's plenty more to do before we arrive at the next corner.

Starting another scan from the (now closer) distance back towards us, and this time with a much wider field of view, when looking through gaps in the vegetation, we can see

ploughed open fields to the left of the trees ahead and bushes forming a sparse hedgerow for a short distance ahead to our right. The length of this hedgerow is likely to indicate the length of intermediate straight between the two bends.

But wait! There's a red tractor not far from where the second bend appears to be in what looks like a partially ploughed field...



NEXT MONTH

Walking the tightrope: the famous 'limit'



I LOVE IT WHEN A PLAN COMES TOGETHER!

So far, we've used effective vision to gather the majority of available information, not only on the road itself, but also in the immediate surroundings. This is where the cascading starts. We'll link the various visual clues to potential outcomes ahead via a series of appropriate questions and likely answers.

- Since it was wet overnight and the sun isn't that strong, could it be wet and slippery once in the shade of the trees in the double bend?
- If the tractor finished ploughing the other field before switching to the right side of the road, could there be (wet!) mud on the road ahead on the next longer straight?
- Being a Saturday, could there be slow-moving cyclists or a faster-moving sports car on the road ahead and coming towards us as the road narrowing and (potentially wet) curves make things a little more complex? Fresh horse poop in our lane?!
- Is there a sight line through the vegetation to gauge the second curve position and shape?
- What lateral position should we adopt for the bridge and just before the corner?

- What sort of speed and gear is most appropriate for each feature?
- Are there any potholes we should avoid, or could there be fallen branches in the road from the mature trees after last night's heavy rain and wind?
- How much grip do the tyres have for normal braking (and a potential emergency stop) in the potentially wet area of the bends?
- Which steering method is best (see the July 2019 issue of *GT Porsche*) for the expected radius of the two bends?

This list certainly isn't exhaustive, but it serves to give an idea of how much can be done on the approach to what, at first glance, looks like a fairly simple straight and tight bend scenario. Clearly, the speed with which you can see and process information is crucial, and learning to prioritise and form short-cuts for regular scenarios is also helpful.

Finally, we need to turn the visual information and appropriate questions into a plan of action (and perhaps a plan B in some cases). Even then, as things unfold, there

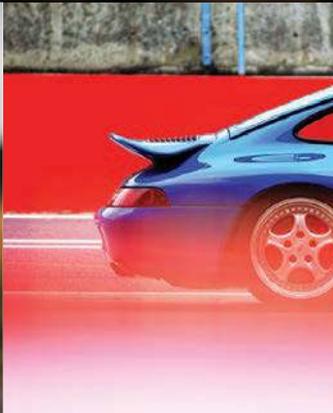
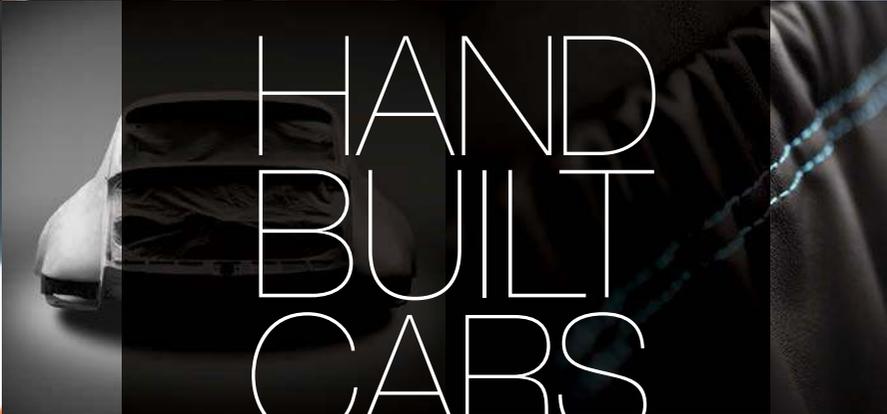
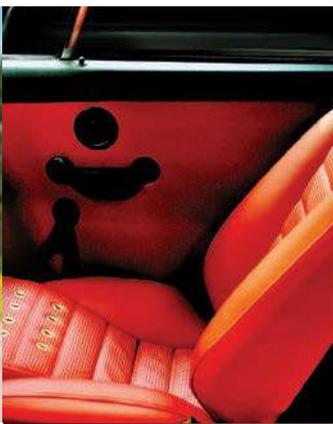
could be extra information or an unexpected occurrence. And, of course, we need to keep speed appropriate and the chassis balanced during cornering.

Although this is a road-focused scenario, the Visual Link Cascade can be a useful tool on the track, too. The information and questions can vary, but the vision, processing of information and final decision making is much the same.

FURTHER READING

If the above scenario has been of interest, you may wish to hit Amazon or your local book shop for a copy of *Roadcraft*. Used by the police to train police, it's the recognised bible for 'Advanced' and emergency response driver training and is good reading for those who wish to push their road skills to a more advanced level.





NINEMEISTER
WARRINGTON | ENGLAND

944 S2 (1989-1991)

Offering the simplicity and grunt of a large displacement inline-four with the added benefit of Turbo styling...

Words **Dan Furr** Photography **Matt Woods**

Last month's *GT Porsche* article celebrating the 944 S2 generated a huge amount of positive reader feedback, so much so that we decided to pull together a buying guide dedicated to what many transaxle enthusiasts and Porsche specialists consider to be the best incarnation of the big-selling, front-engined, water-cooled 1980s icon.

Launched in 1982 as a purely Porsche project following the joint Volkswagen-Porsche parentage of the 924, the wide quartered 944 not only inherited its basic shape and styling from the older car, but also much of its interior trim. Anybody stepping into the new Porsche's cabin space, for example, would have noted the decidedly dated presence of the 924's square dashboard and dials. Porsche would get around to updating the 944's cockpit and exterior styling for the launch of 1986's 944 Turbo, when forced induction was joined by a redesigned front end and a beautifully presented 'oval' dash.

Drivers of naturally aspirated 944s would have to wait a further three years for these age-defying features to be rolled out across the range, at which point, engines free of forced induction were boosted to three-litres of displacement. The launch model's 2.5-litre inline-four was briefly enlarged to 2.7-litres prior to the rollout of the three-litre lump, which arrived with a new model designation: 944 S2.

At first glance, this new breed of 944 looked exactly like the Turbo. Power wasn't far off, either. Where the Turbo kicked out close to 220bhp (an updated Turbo in 1988 added an

extra thirty ponies) from its eight-valve beating heart, the S2 produced 208bhp from what was the world's largest four-cylinder production engine. The S2 also received an updated transmission better suited to the demands of the torquey three-litre unit, which helped the Turbo-kitted new arrival to reach 62mph from rest in just 6.8 seconds, topping out at 150mph. Helping to keep power planted was a sporty suspension package with a desirable cost-option limited-slip differential. Flat-faced Design 90 alloys were fitted as standard equipment.

The S2 introduced a cabriolet to the 944 line-up for the first time, though coupes outsold drop-tops by a ratio of almost three to one. S2 sales on the whole, however, were good, with almost twenty thousand units shifted worldwide in the two years preceding the arrival of the 944's successor, the 968, in 1991. This was exactly the injection of cash Porsche needed at a time when the company was in serious financial difficulty.

Such high volume production means you won't have trouble getting hold of a 944 S2 to call your own today. Furthermore, a wide range of paint colours and interior finishes were available to Porsche customers when the model was being offered in main dealer showrooms, meaning not only are there plenty of available S2s currently waiting for a new home, you can be choosy about the look of the Porsche you're thinking about buying. Flick through the following pages for an overview of what you should be aware of before arranging a test drive.

SELDOM SEEN STAR

Prior to the launch of the S2 Cabriolet, sixteen prototypes were produced. These concept drop-tops are now recognised as among the rarest Porsches built.

Right S2 inherited 944 Turbo styling, both inside and outside the car

Below FrazerPart is a useful resource for genuine new and used Porsche spares, including incidental trim for the 944 S2





ENGINE

944 S2s make use of the M44/41 front-mounted, water-cooled, three-litre, DOHC, sixteen-valve inline-four, an engine delivering 207lb-ft torque. Well maintained examples with average mileage should provide plenty of hassle-free motoring, but make sure you check the vehicle's paperwork for documentation supporting claims of renewed timing belts and tensioners, which should be changed every 48k miles or five years (whichever is soonest).

The belt drives only the exhaust camshaft. The inlet camshaft is driven by a chain linked to the exhaust camshaft. Problems don't tend to occur with the chain (although it can wear), more so the plastic tensioner supporting it, which can become brittle with

age, cracking and causing the chain to slip free. The resulting damage is much the same as if the rubber belt snapped – a seriously compromised valvetrain. Regardless of what the seller tells you, it's best practice to change the chain and its tensioner at the same time as belt intervals. If the car you're looking at hasn't had this work done, consider it to be living on borrowed time and factor the cost of remedial work into the price you're prepared to pay.

While we're on the subject of belts, there's a toothed belt running between the balance shafts and the crankshaft. Again, this is another serviceable component. Failure will result in a lumpy-running engine, so replace all belts at the same time.





HISTORY

Make sure you paw through all documentation supporting claims of servicing and maintenance in accordance with Porsche's recommended intervals. Demand to see receipts or invoices proving the seller's suggestion of repair work and replacement parts. Be wary of any unexplained periods of the S2 you're looking at being off the road. If in doubt, have a full inspection carried out by a marque specialist. If you're in an owner's club, check to see if this is a service you can take advantage of as a benefit of membership.

Enter the 944 in question's details into the DVLA's online vehicle enquiry service (visit bit.ly/dvlaenquiry). It's free to use and will give you key information about the Porsche you're looking at. Additionally, take a few minutes to view information held on the DVLA's excellent MOT history database (bit.ly/dvlamot). Another free service, it'll provide you with information relating to all passes, fails, advisories and mileage at the time of each test. Check to make sure the details match what's on the car's accompanying paperwork. Don't be afraid to ask questions.

CABRIOLET ROOFS WERE AVAILABLE IN A RANGE OF COLOURS, THOUGH BLUE CANVAS TO MATCH BLUE INTERIORS WAS A POPULAR OPTION, ESPECIALLY ON WHITE CARS



BODYWORK

Regardless of trim, 944s like to rust. Check along the sills (both inner and outer sills are known problem areas for these cars) and behind plastic trim. Examine wing bottoms, door bottoms, have a poke inside wheel arches, along the boot floor and the bottoms of rear quarters. Look around the windscreen for signs of a compromised seal or bubbling paintwork. Similarly, have a good look at the sunroof seal, if applicable. Even the youngest S2 is getting on for thirty years old, so these rubber gaskets might not be performing as well as they once did. Fortunately, replacement parts are cheap and easy to come by from independent retailers.

Cabriolet roofs were available in a range of colours, though blue canvas to match blue interiors was a popular option, especially on white

cars. The fabric may have faded with time and prolonged exposure to UV rays. Recolouring and repair kits are available from soft-top restoration specialist, Renovo, but if DIY isn't your thing, speak to a specialist (such as Simon Walters at Cambridge Concours) who can carry out the required remedial work for you.

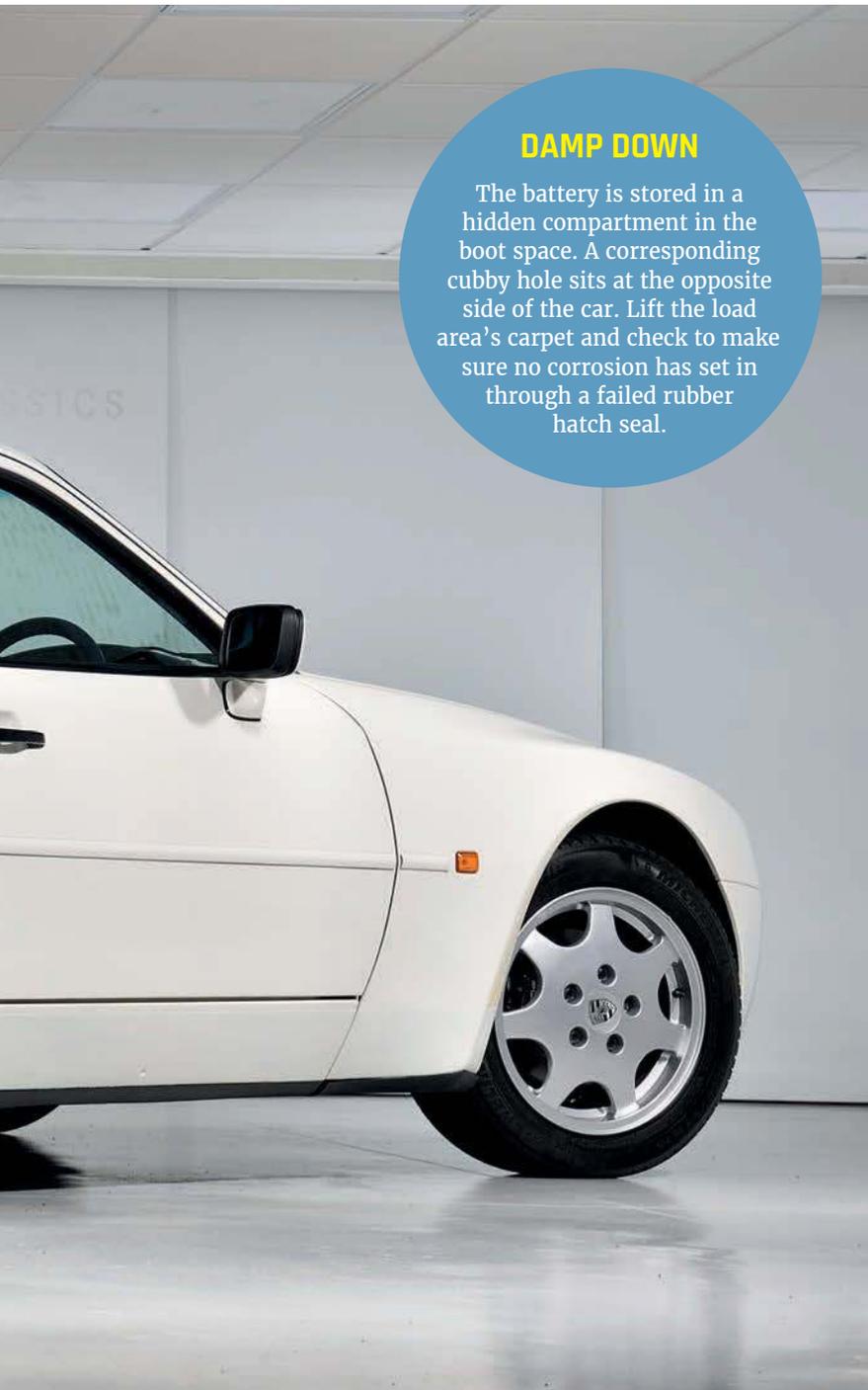
Lift the boot carpet where it raises against the back panel around the top of the spare wheel. You should discover a factory-applied paper sticker outlining all of the car's original equipment. If the sticker is missing, examine paperwork to see if there's any evidence of a rear end shunt and subsequent repair work.

All 944s suffer corrosion around the lip of the front panel, where it meets the top of the bumper. This area is a magnet for stone chips, so look closely.



DAMP DOWN

The battery is stored in a hidden compartment in the boot space. A corresponding cubby hole sits at the opposite side of the car. Lift the load area's carpet and check to make sure no corrosion has set in through a failed rubber hatch seal.



BRAKES, SUSPENSION AND GEARBOX

944 transmissions don't tend to throw up problems, although it pays to listen out for whining noises, which might suggest bearings need to be replaced. Replacement parts are available at low cost from Heritage Parts Centre and Design 911. The same fault might also be encouraging the gearbox to sweat transmission fluid, so get on all fours and have a good look beneath the S2 you're pawing over.

Higher mileage cars may be in need of a replacement clutch, so be sure to observe how easy your prospective purchase is to get in and out of gear, as well as how smooth shifting is while on the move. The same age/mileage condition also affects the effectiveness of suspension components. With this in mind, pay special attention to how the car behaves when driven over sleeping policemen or bumps in the road. Any knocking sound or vibration felt through the chassis or steering wheel indicates bushes are past their best. You can opt for OEM replacement parts or 'fit and forget' polyurethane bushes from Powerflex. Worn engine mounts may produce the same complaint.

S2 aluminium brakes are good, though old pads and tired backing plates can cause calipers to stick. Again, the 944's popularity means all parts are readily available. 944 maintenance specialist, Retro Restorer, is on hand to carry out all your S2 servicing, mechanical and bodywork repairs.





ELECTRICS

Hey, you! What's that sound? Not the original stereo system, that's for sure. It's highly probable the factory head unit has been replaced with an aftermarket 1990s CD player and standard speakers are long gone. Check to make sure the door cards haven't been butchered in the process. Also evaluate all in-car electrical systems, including seat movement, switchgear, heater controls and the effectiveness of air-conditioning. Extend your testing to electric window operation, exterior mirrors, central locking and, importantly, remote hatch unlocking. If the lid doesn't pop up, the fault might be a duff solenoid, but the catch itself might have come unfastened, requiring you to climb into the boot via the rear seats in order to open manually.



STOCKS AND SHARES

Unless the fabric in your S2 is especially rare, a replacement interior might prove more cost effective than repairs. Speak to 944 breakers, including Woolie's Workshop, about their current stock.



INTERIOR

It's the 1980s! Why go for boring old black, brown or Linen leather when you can have, er, indigo. Pop on your Ray Bans, comb your mullet and get ready to drive all the way to Rumbelows for an Amstrad hi-fi. In fact, why not buy a ZX Spectrum while you're there, such is the generous luggage space you've got at your disposal in a 944 S2.

We've said it before and we'll say it again: Porsche's transaxle range of cars offers a superb balance of practicality and performance. The huge hatch at the rear of an S2 coupe is more than big enough to carry your suitcases on holiday, while the hardwearing seats and door furniture up front will withstand plenty of abuse, although we advise you to check side bolsters for signs of wear where previous owners may have dragged their jeans in and out of the seats.

Fabric seat centres were often optioned with Porsche script displayed across them. This material can become worn and discoloured without proper care. It's also expensive to replace. Speak to a specialist trimmer.

PARAGON

paragongb.com



PARAGON

The Natural Choice for Porsche

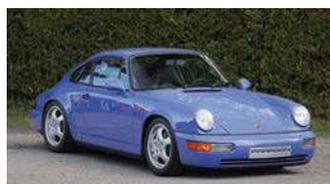
01825 830424



911 RS Touring

Jet Black • Black Seats • Manual Gearbox • Fully Restored • Matching Numbers • 15" Fuchs Wheels 1973 (L)

£574,995



911 Carrera RS (964)

Maritime Blue • Triple Tone Leather Bucket Seats • Manual Gearbox • 17" Magnesium Cup Wheels • Roll Cage 96,328 kms (59,855 miles) • 1992 (J)

£209,995



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 GT3 Clubsport (996)

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

£74,995



911 Turbo S (997)

Basalt Black • Black/Cream Leather Seats • PDK Gearbox • 19" Turbo II Wheels • Sport Chrono Pack with Sport Plus • 45,318 miles • 2010 (10)

£74,995



911 Carrera 2 GTS (997)

Basalt Black • Black Leather Sport Seats • Manual Gearbox • 19" Centre Lock Wheels • Touchscreen Satellite Navigation • 35,151 miles • 2011 (11)

£64,995



911 Carrera 2 (991)

GT Silver • Black Leather Seats • Manual Gearbox • Touchscreen Satellite Navigation • 19" Carrera S III Wheels • 13,167 miles • 2014 (64)

£57,995



Cayman GTS (981)

Guards Red • Black Half Leather Sport Seats • PDK Gearbox • 20" Carrera S Wheels finished in Grey 23,125 miles • 2015 (65)

£54,995



911 Carrera 2 GTS (997)

Carrara White • Black Half Leather Sport Seats • PDK Gearbox • 19" Centre Lock Wheels • 61,083 miles 2011 (11)

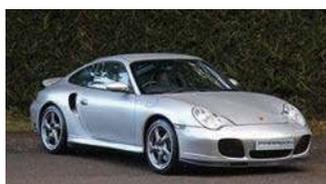
£54,995



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 Turbo (996)

Arctic Silver • Dark Blue Leather Seats • Tiptronic Gearbox • 18" Turbo II Wheels • Heated Seats 62,324 miles • 2002 (02)

£39,995



Boxster 718

Rhodium Silver • Bordeaux Red Leather Seats • PDK Gearbox 20" Carrera Classic Wheels 17,125 miles • 2016 (16)

£37,995

At Paragon, we have superb in-house workshop and preparation facilities. Each car is supplied fully serviced with a new MOT and our 12-month/12,000-mile comprehensive parts and labour warranty.

See more of our current stock at paragongb.com

BOTH SIDES OF THE STORY

This GT3 RS-coloured Carrera 3.2 is the product of a desire to convert a street-spec air-cooled 911 into a formidable track attacker...

Words **Johann Venter** Photography **Kian Erikson**





Being desensitised to shocking imagery is a symptom of living in a world dominated by social media, but there are still things out there capable of stopping you in your tracks and taking your breath away. The 997 GT3 RS-coloured Carrera 3.2 you see on these pages, for example. Popping up on Instagram, photographs of the zesty paintwork, aggressive front end and gorgeous interior drew us in, as did the lowered stance, BBS split rims, the chunky bumpers, 935-style door mirrors and slim rear roof spoiler.

The car belongs to South African petrolhead, Fabian Vettinger, who told us the majority of work was carried out under the watch of the orange road racer's previous owner, Víctor Ferraz, a Porscheophile with a string of heavily modified 911s to his name. "I wanted to have fun with an air-cooled 911 at the track," Víctor recalls. "I was keen to participate in gymkhanas and sprint events organised by Porsche Club of South Africa. Consequently, I bought a 1986 Carrera 3.2 from a seller in Cape Town. The car was whale-tailed, equipped with a 915 gearbox and finished in grey. I paid for my new toy unseen, which wasn't necessarily the wisest move, but I had a good feeling about what the owner was telling me, a hunch vindicated when my new Porsche proved itself to be in excellent condition thanks to the care of dotting previous owners." As if to prove the point, the seats were needlessly being protected by sheepskin covers.

The perfect presentation of the Carrera's cabin furniture was a bonus, but not a deal-breaker. "I knew they'd be ripped out by Ludi Kitsman, head honcho at Boksburg-based Porsche racing specialist, Classic Connection," continues Víctor. "A small company with a stellar reputation for restoring and updating air-cooled Porsches, it was Classic Connection who I entrusted to convert my newly acquired Carrera 3.2 into a track-friendly road racer."

Ridding the car of bulk, Ludi ditched the pristine seats, air-conditioning equipment, the spare wheel and whatever else wasn't needed. "The intention was to make the car rough and ready for the track, with the addition of Porsche script stripes for a bit of fun," shrugs Víctor, "but when Ludi removed the engine and completely stripped the interior, I realised we had the perfect opportunity to ramp things up a notch. That's when I suggested a switch to the GT3 RS colour, which, in turn, led to an unintended bare metal respray."

PARTS OF THE PUZZLE

The seventeen-inch BBS Le Mans wheels were sourced from the USA and promptly refurbished, the centres powdercoated satin black. Offering bigger room to fit bigger anchors, they now wrap around a Brembo GT brake kit with six-piston calipers at the front and four at the rear. The rims were fitted with Bridgestone Potenza RE55 semi-slicks in readiness for track work, with 205/50 and 255/40 profile selected for the front and rear hoops respectively. Koni Sport adjustable dampers were planted in each corner, complemented by tie-rods and torsion bars lifted from a 930 Turbo. The ride height was then dropped 50mm before bespoke geometry was dialled in, with a bump steer kit and strut brace from Porsche parts specialist, Elephant Racing, helping to focus handling.

Fibreglass IROC-style bumpers – the front add-on with intakes filled by Hella LED fog lights – work with the aforementioned 935-inspired door mirrors and roof spoiler to promote the racing theme, which is indicated by the addition of the letter R to the cool Carrera's rear nameplate. "Ludi completely rebuilt the engine, adding new pistons, camshafts, valves and a custom stainless steel exhaust system," stresses Víctor, keen to impress upon us the fact





STATUS UPDATE

In 1984, the Carrera 3.2 was a much needed update for the 911 range following the expiration of the massive-selling SC. Reviving the Carrera nameplate for the first time since 1977, the Carrera 3.2 featured a punchier engine, which Porsche claimed shared few parts with the SC's three-litre flat-six. New brakes, electrics and suspension equipment marked the Carrera 3.2 from its predecessor. Production continued until the arrival of the 964 in 1989.

Above Cockpit retains just enough in the way of creature comforts to ensure civilised regular road use

his car has a decent amount of 'go' to match its obvious 'show'. "To further reduce weight, the heat exchangers were deleted," he adds. The finished pipework was ceramic coated to keep toasty temperatures at bay, while a free-flowing silencer, a custom oil cooler and a Wevo short shifter joined the party. "The Wevo item has vastly improved the driving experience," Victor explains. Renowned for the effectiveness of its pre-964 911 short shift kits, the company's products are designed to promote rapid and more accurate shifting during spirited driving, both on and off the track.

Lightweight Sparco racing buckets replaced the tidy factory seats, with matching safety harnesses, a half roll-cage, lightweight carpet and bespoke lightweight door panels (complete with aluminium fasteners and 964 RS door pulls) contributing to the shedding of an estimated 120kg. Aluminium Porsche racing pedals and an Alcantara-trimmed MOMO steering wheel complete the cabin's transformation to semi-race specification, with an Alpine head unit reminding us Fabian's ride still needs to perform ably as a comfortable road car. To that end, the factory sunroof and electric window functionality have also remained in situ.

Eighteen months after the project started, Victor and his wife headed out on a short break to Dullstroom, a small town in the Mpumalanga province. "It was the first



Left Carrera 3.2 flat-six has been completely rebuilt alongside a stripped and reassembled 915 manual gearbox

proper outing for the car following completion of the build," he tells us. "The long, sweeping bends through the hills and valleys en route to our destination provided the perfect platform for shakedown of the newly appointed chassis gear. I was blown away by the sheer level of grip when navigating tight corners. The rear never stepped out, even when provoked! The Wevo shifter was also a game-changer, making me feel like a professional driver working my way up and down the gears in and out of the road's many exciting twists and turns." There was only one problem, and it's one many GT Porsche readers will be familiar with. "The completed car was too nice to use at the track! I was totally besotted and feared ruining the showroom-fresh Porsche I'd ended up with!" There was also the challenge of his neighbourhood's rapidly increasing volume of traffic. "Gauteng is the smallest province in South Africa with the highest number of cars per square kilometre, a statistic that isn't getting any better. Add to this the arrival of my first child, and I found myself appreciating my 3.2-litre track-friendly road racer more and more as an ornament in my garage. I knew I had to set the car free."

FROM ONE TO ANOTHER

It's difficult to part with anything you've poured your heart and soul into, but the blow is softened if the new custodian of your custom creation promises to cherish and care for your pet project. Better still if it's a Porsche prepared for track work and the new owner is committed to using the car as intended. "It's producing close to 250bhp," says Fabian, who bought the awesome air-cooled classic through local sports car broker, Lemon Garage. "It's not the quickest Porsche in the world, but it's no slouch." A trip to the top of Signal Hill in Cape Town proves the point.

Watching the sun come up over the South Atlantic Ocean and propelled onto the downhill stretch of road past Lion's Head mountain, we're firmly clasped in the Sparco seats, which are set so low in the car that you might as well be sitting on the floor. Some dexterity is required to climb into them, but once strapped in, a hand clenching the MOMO steering wheel and another on that wicked short shifter, feet find themselves planted on the racing pedals and you're in another realm. The engine screams through the uninhibited exhaust, the note far deeper and more pronounced than expected. Power delivery from the 3.2-litre lump is smooth and progressive, the engine quickly whining to 5,000rpm, though throttle input is short and sharp due to the high number of twisties, each encouraging enthusiastic use of the Wevo kit. The downward slalom becomes choppy where the road surface ripples at its edges, but balance is restored to The Force by the bump steer system, which limits scuttle through the steering wheel. And before we know it, we've crossed over Camps Bay Drive (an exciting, bumpy road offering amazing views of mountain and sea) and the car is chasing up the side of Table Mountain. The engine howls at full chat, turn-in is quick, the brakes offer swift stopping power at the slightest touch and we have every confidence in the assured back end, which shows great composure, not once twitching, even through the tightest of bends at speed.

At long last, we enter the last stretch of mountain road, affording us a final stint of short throttle bursts, heavy braking, rapid cog swaps and swift rotations of the smooth steering wheel. It's a visceral, exhilarating drive and one we're thankful Fabian allowed us to experience. And who knows? He might even share photos of the day across his social media channels! ■

Below Mountain roads along South Africa's Atlantic sea board provide a stunning backdrop for a fast-road blast





PROTECTION
COMFORT
STYLE



BETWEEN YOU AND THE OPEN ROAD

ULTIMATE PLUS PAINT PROTECTION FILM

XPEL **ULTIMATE PLUS**™ is a protective clear film for your Porsche paintwork, preventing unsightly swirl marks, stone chips, gravel rash, bug acids and more. Ask for it by name **TODAY**.

COMPLETE PROTECTION, UNSEEN.

PRIME XR PLUS AUTOMOTIVE WINDOW TINT

Our latest nano-ceramic automotive window tint which is capable of blocking out up to 90% heat inside the cabin, all whilst protecting you and your passengers from damaging UV rays. Available in multiple shades. Complete with a lifetime transferable warranty.

**COMFORT & PERFORMANCE
REDEFINED.**



TO FIND YOUR LOCAL
CERTIFIED XPEL INSTALLER
CONTACT XPEL UK





PROJECT CUSTOMS

www.projectcustoms.co.uk

f / PROJECTCUSTOMSLIMITED t / PROJECTCUSTOMS1 @ / PROJECT_CUSTOMS



PROJECT CUSTOMS

This Leeds-based prestige automotive bodyshop is going from strength to strength thanks to outstanding workmanship and a friendly approach to customer relations...

How do you know when you've reached the very top of your game as a vehicle bodyshop and paintwork specialist? If you're Leeds-based Project Customs and have McLaren-badged machinery visiting your premises on a weekly basis, it ought to at least hint you're heading in the right direction!

After cutting his teeth in various bodyshops in and around Leeds, Craig felt there was a gap in the market for a

trusted paint specialist that could not only deliver faultless work when dealing with prestigious vehicles, but also one that could offer a personal touch – removing the headache of inconsistent end results and making the customer experience as straightforward and comfortable as possible was key to ensuring repeat business. Though the high number of premium vehicles Project Customs welcomes into its workshop is constantly increasing, it's important to note the

same attention to detail and excellent workmanship is applied to all cars the company's small, dedicated team work with, regardless of make or model. It's this superb service, coupled with value for money and, of course, turning out excellent work time and time again, that keeps customers coming back.

"There really isn't a target make or model for Project Customs, though gaining status as a McLaren-approved dealer in December 2018 proves the firm isn't your average



bodyshop,” Craig smiles. “Project Customs is still the only approved McLaren bodyshop in Yorkshire and the Humber, which means we more or less cater for the whole of the east coast of England”.

Top Project Customs was asked to refresh the appearance of this 997 Turbo by treating it to a Gen II rear bumper, matching lights and fresh paint

BRAND IDENTITY

The company also recently became a dealer for ABT Sportline, a tuning company based in Kempten im Allgäu, Germany, dealing with Audi and its related Volkswagen Group marques. Additionally, Project Customs has extensive experience working with Ferrari, Lamborghini, Porsche, Bentley, Maserati, Aston Martin, BMW and Noble cars.

Project Customs can trace its roots back to 2014, when Craig founded his own company, CR Motorsport, and went into partnership with rim restorer, Elite Wheel Repair, to form a formidable force in the world of prestige automotive bodywork. It didn't take long for Craig's work to explode in popularity, leading to changes in directorship and CR Motorsport taking full control of the formerly joint business. Wheel repair and refurbishment services »

Overleaf Craig and Kane carefully reassembling the turbocharged Guards Red road rocket



**CASE STUDY:
997 TURBO**

Of all the cars Project Customs has worked its magic on in recent weeks (think Ferrari 599 GTO, 458 Speciale and a host of other exotic sports machines), this Guards Red first-generation 997 Turbo caught our eye. In good overall condition for an eleven-year-old 911, 50k miles covered from new had generated a series of stone chips. The work carried out included a strip of the car, including bumpers, door mouldings and handles (glass remained in place due to rubber seals being in excellent condition with no chips or corrosion detected around them), masking, preparation for a 'facelift' of the rear end to 997 Gen II Turbo specification, an exterior respray on all panels, a full refit — including the new LED rear lights and back bumper — and a flat and polish to showroom standard.

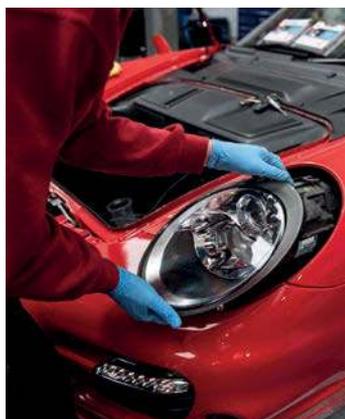
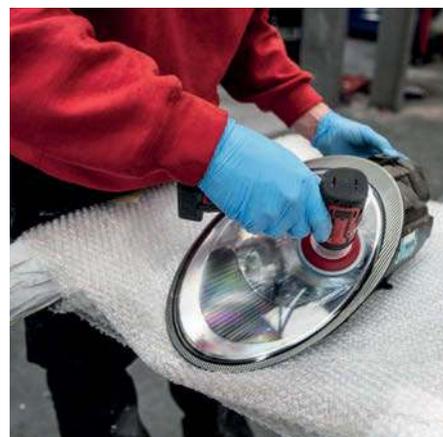
were phased out, enabling the company to focus solely on automotive bodywork repair and restoration, a service complemented by a dedication to providing direction through expert opinion. "We always advise customers whenever there's the potential to reduce costs," Craig confirms. "Moreover, clients are encouraged to visit us for a chat concerning the options available, dialogue which ensures the job we carry out meets agreed requirements, thereby ensuring complete satisfaction for all concerned," he adds, before telling us that in addition to major bodywork repair and restoration, Project Customs also offers paint correction and ceramic coating services.

MOVING ON UP

"The business goal for us has always been customer satisfaction," stresses Craig, who is ably assisted by lead painter, Kane Callaghan, a talented technician who has acted as Craig's right-hand man from the start and recently became his official

business partner, enabling a further hike in productivity without compromising the quality of the company's output. Sarah, Craig's wife, is also an important member of the team, acting as Accounts and Product Manager. "Without customers, you have no business, and without satisfaction, you have no customers," he continues. "To ensure Project Customs clients leave happy with a job well done, my team and I are straight-talking from the outset. If a customer tells me we have impossible timescales to work with, it's important for us to confirm the proposed deadline is unfeasible. This way, everyone can work to a realistic project plan, which ends up being hugely appreciated, both by us and our client."

Continuing to grow, Project Customs thinks of its customers as friends. "It feels personal because it is. It feels friendly because we are," Craig smiles. "We're a small team, but we're a good team. More importantly, it's the most efficient team I've ever been involved with." ■



CONTACT

Project Customs
Unit 5, New Craven Gate
Industrial Estate, Hunslet,
Leeds, LS11 5NF

projectcustoms.com
info@projectcustoms.com
0113 245 0371

Care about your car? You're in *safe hands*.

Trust **Project Customs** – the **premier bodyshop**
and **paintwork specialist** – to offer only the very best
when it comes to your pride and joy.



Watch the full respray of this
Porsche 911 Turbo here!



McLaren
Approved Bodyshop

ABT
SPORTSLINE
Authorised Dealer

Unit 5, New Craven Gate Ind. Estate, Leeds, LS11 5NF
tel: 0113 245 0371 info@projectcustoms.com

PROJECTCUSTOMS.com

/ @project_customs_leeds / Project Customs Leeds

PROJECT CUSTOMS

JANUARY SALE

NOW ON!

6 ISSUE JUST £19.99

PLUS COLLECTORS' EDITION BOOKAZINE!



JUST £19.99

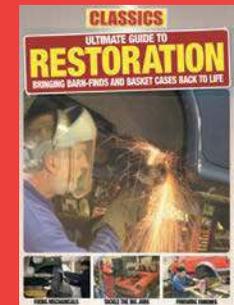
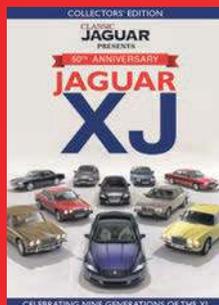
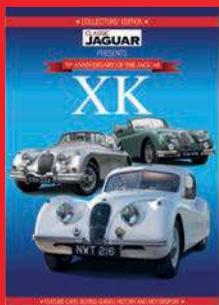


JUST £19.99



JUST £19.99

CHOOSE YOUR COLLECTORS' EDITION BOOKAZINE!*



*SELECTED BOOKINES AVAILABLE WITH THIS PROMOTION

ONLINE: SHOP.KELSEY.CO.UK/JS20

CALL US: 01959 543747 AND QUOTE OFFER CODE: JS20

(OPEN MON - FRI 8.30AM - 5.30PM. CALLS ARE CHARGED AT STANDARD NETWORK RATE)

Terms and conditions: You will be asked to select your bookazine of choice at purchase. Offer ends 7th February 2019. Available to UK direct debit customers only. Savings based on full UK cover price. Your subscription will start with the next available issue. Prices correct at print and subject to change. Please allow up to 28 days for deliver of your bookazine. Bookazine choices are on a first come first served basis. For full terms and conditions and overseas charges visit shop.kelsey.co.uk.

Your Club



Porsche Club Great Britain is the only official Porsche Club in the UK and belongs to the worldwide community of Porsche Clubs recognised by Porsche AG.

Founded in 1961, the Club operates for the benefit of its 22,000 members and warmly embraces every model of Porsche.

Join online at porscheclubgb.com or call 01608 652911



Porsche Club
Great Britain





Words **Ade Brannan and Dan Furr**

Photography **Ade Brannan, Dan Sherwood, Matt Woods, Chris Wallbank and Andy Tipping**

20 TOP TIPS FOR PHOTOGRAPHING YOUR PORSCHE

There's no two ways about it, taking photographs of your Porsche can be a tricky business. Poor lighting, incorrect camera settings, adverse weather, clutter in the background of your shot and the temptation to apply dodgy filters can all be contributing factors in making your best efforts look less like what you'd see on the cover of a magazine and more like the kind of snap you'd find buried in back-page classifieds.

Thankfully, technique is something you can improve greatly with a few pointers from a professional photographer. Also, the beauty of trying your hand at automotive photography is that you already have the car, a location can be almost anywhere you fancy parking, and we're pretty sure you'll have something to take a photo with, even if it's only a smartphone. And unlike mastering portrait or wildlife photography, your subject isn't going to wander off - it'll sit patiently until you've got the money shot!

The hints and tips we've compiled across the following pages are aimed at the keen amateur who wishes to capture good photographs of their Porsche. We're keen to see how you get on after reading what we've printed on the following pages, so be sure to share the photos you've taken by emailing editor Dan at dan.furr@kelsey.co.uk, or by posting your work to the *GT Porsche* Facebook page. We can't wait to see what you've got to show us, and there may even be prizes for the best photographs we receive...



1 TYPES OF CAMERA

It's all very well reading about how to take a decent photograph, but what equipment should you be using?

DSLR

DSLR stands for Digital Single Lens Reflex. In other words, a DSLR combines the optics and mechanisms of a single-lens reflect camera with a digital imaging sensor, recording images to disk instead of making use of photographic film. DSLRs offer seemingly endless lens options, ultimate ergonomics and the best options of speed and user control.



BRIDGE

Also known as a superzoom, Bridge cameras are comparable in size and weight to DSLRs, but usually lack an optical viewfinder. Furthermore, Bridge cameras don't allow you to swap lenses. As the name indicates, they were introduced as a bridge between point-and-click compacts and DSLRs, but are rarely seen in use following the massive decrease in DSLR purchase prices in recent years.

SMARTPHONE

The killer of camera sales! Many modern smartphones have excellent image-taking capabilities, but absent physical controls, inconsistent results, a lack of optical zoom and tiny sensors can limit how well your photos will look. Smartphones are great for day-to-day snapping, and it's true to say the technology is progressing with every passing minute, but for those of you wanting to achieve the best results possible, you should be spending your money on the industry standard of a DSLR.



THE PROFESSIONAL TOUCH

Ade Brannan has been shooting cars for magazines (including *GT Porsche*) longer than we care to remember. The proud Scot learned his trade working alongside his photographer father and by studying at the prestigious Glasgow School of Art. A petrolhead all his life, Ade has forged an enviable career as an automotive photographer, a job that sees him travel all over Europe pointing his camera at some of the most desirable cars in existence. For further information, and to contact Ade directly, visit ABcarpix.com



MIRRORLESS

A mirrorless camera delivers quality almost as good as a DSLR and offers a compact body with interchangeable lenses. A lack of optical viewfinder and slow image processing speeds, however, makes mirrorless cameras less desirable than a similarly priced DSLR.

COMPACT

Not everyone can afford to shell out for a DSLR. Entry-level compacts used to rule the roost, but smartphones are now being made with such good photographic hardware and software (plus immediate connectivity to image sharing websites and social media) that the compact is dying out fast. Even so, handy to keep in your pocket, a compact offers good optical zoom.



2 LENSES

Different types of lenses can dramatically alter the way you take photographs. For example, wide angle lenses are great for interior shots, where you need to try to capture as much detail as possible in a confined, awkward space. A long lens is great for showing off a car's lines after you've put a short distance between you and your Porsche. The same lens is good for selective detail shots.

If you can afford to buy one, lenses with wide apertures for short depth of field can deliver superb effects and pen up a whole new world of hand-held, lowlight options. Zooms are, of course, the norm, but fixed 'prime' lenses are often favoured by pros. Less distortion and wider apertures are the two main advantages here, not to mention a cost lower than what's usually applied to a zoom — a classic 50mm f1.8 lens is compact, can be bought for around the £100 mark and gives the same (or better) performance than many zooms operating with a similar focal length.

Many choose to ditch the lens that comes shipped with their DSLR, though a good replacement zoom is likely to cost just as much as your camera body.



3 ALLOW TIME

A car photo shoot is a time consuming activity, especially if you're trying to learn the basics as you go along. Not only do you need to allow enough time to capture all the photos, but you'll need to consider whether the location you've picked is going to provide you with enough time to shoot without you being forced to move. Avoid areas likely to be plagued by traffic, and don't forget to ask permission if pitching up to take photos on private land.

4 PREPARE YOUR CAR

It might sound obvious, but there's no point trying to capture a photo you'll be proud of if your subject matter isn't up to scratch. Make sure the car is clean inside and out (that includes the engine bay) and make sure you take quick detailer and microfibre cloths with you if shooting 'on location' — road fallout and mud will quickly undo your good work. Rid the cabin of clutter, dangly air fresheners, dashcams and junk stuffed into door cards. Remove worn or dirty floor mats while you're shooting. Nobody wants to see dirt, unless it's intentional.



5 LOCATION

A good location is crucial, but you don't have to park in front of a stately home. Think about the type of car you have and its history. Does an area of outstanding natural beauty make sense for a backdrop? Probably not. A gritty, urban scene is likely to be more appropriate for an angry road car. Likewise, shooting a race car in its natural habitat (at the track) makes a lot of sense. Outside a palace? Less so.

That said, with experience, you can make almost any setting work if you keep it free of clutter. Avoid capturing lampposts, other cars, passers-by, traffic cones, signage and rubbish. If pillars or white road lines are unavoidable, attempt to make them a considered part of your overall composition (see separate boxout). Try short depth of

field (the distance between the nearest and furthest objects giving a focused image) to blur the background, or make the car fill the majority of the frame in order to include as little of the surrounding area as possible (although if doing this, ask yourself why you've bothered spending time trying to find an impressive backdrop in the first place).

In short, try to find a location that complements the character of your car — avoid taking photos that look like they've been captured en route to the weekly shop! Once you've settled on a location, stick with it — lighting and other environmental factors will change dramatically between locations, and the last thing you want is for your carefully crafted photos to look as though they were taken by different photographers on different days in different places.



6 COMPOSITION

The rule of thirds may be as old as the camera itself, but it's a well-used formula for good reason. Having your car squeezed close to the edges of the frame makes for uncomfortable viewing. Besides, your lens edges are danger zones for distortion. Give your car space to breathe in the frame. Think about using objects as furniture in the photo. Place 'props' in the foreground to give your photos a sense of depth. Shaping the composition in this way will lead the viewer's eye where you want it to go. Try turning your camera a few degrees instead of shooting perfectly horizontally or vertically. You'll be amazed at the difference it makes. Of course, plonking your car dead centre is a simple shot and can have a big impact, but to make continually interesting and varied shots, imaginative compositions need to be employed.



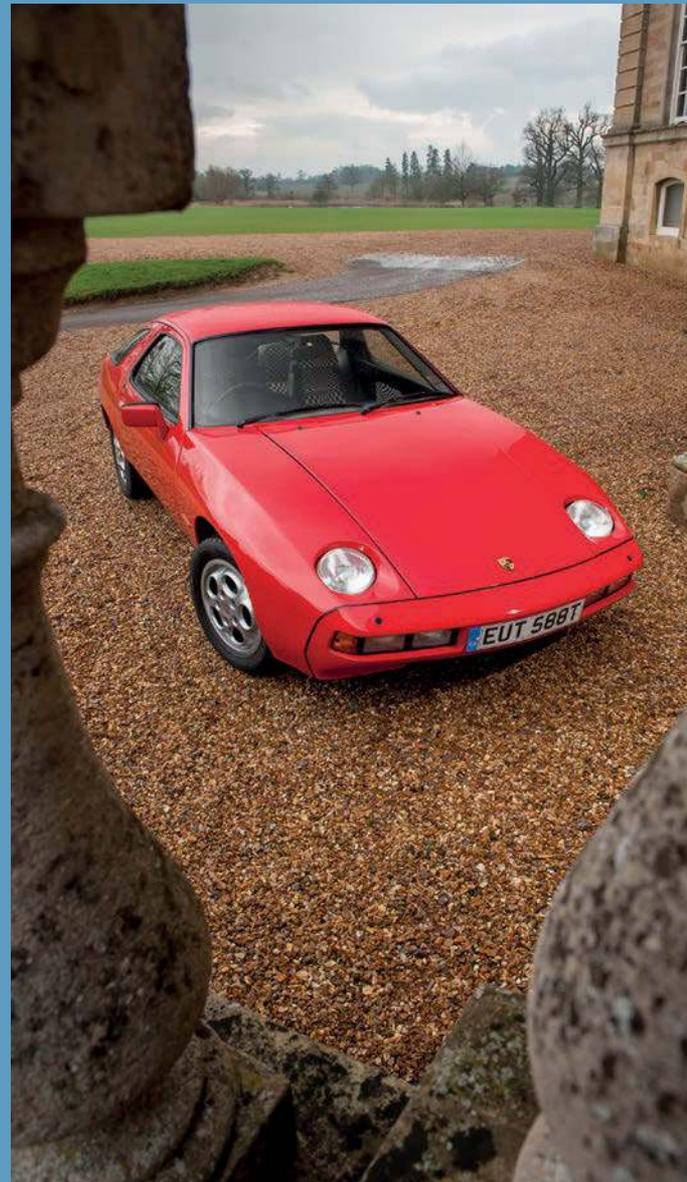
7 WHEELS

Think about how the front wheels of the car are positioned. Add a bit of lock (but not full lock) to ensure the viewer sees more of the visible front rim face. Doing so will make the car look more dynamic, it'll show off the wheels and it'll ensure you don't end up with more exposed tyre than alloy.



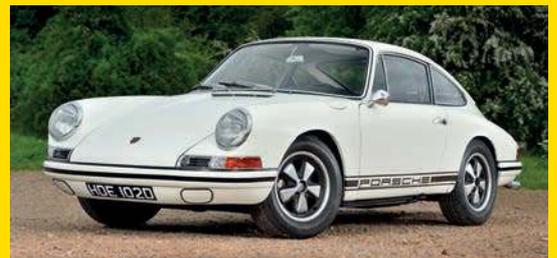
8 MIX IT UP!

Don't simply stand in front of your car taking the same three-quarter shot over and over. Get low down, climb up high, shoot from far away, zoom in, shoot close, shoot wide. Make use of the live view on your camera when positioning it in places which prove difficult for you to get an eye behind the viewfinder. Be imaginative! After all, the more inventive you are, the better your finished photographs will be, and that's what you're trying to achieve.



9 SHORT DEPTH OF FIELD

When taking photographs of your Porsche using short depth of field, use the effect appropriately. Opening your lens up to f2.8 or even wider can look superb (it's also very 'current'), but on a front-facing three-quarter shot which you may wish to use for a large print, there's nothing worse than the majority of the car being out of focus. To combat this complaint, angle the car to ensure one of its sides dominates the image. This way, you can still shoot 'wide open', but you'll have the benefit of keeping the entire car sharp.





10 OWNER SHOTS

If you're taking photographs of a mate's car, make sure you include them in the shoot. Be it a simple shot of the proud owner standing beside their prized Porsche, working on the car, sitting in the driving seat or sprawled across the bonnet in their Speedos (ooer!), injecting personality into a photo can make a big difference to the feel of the finished shoot. Use your friend's inclusion as an excuse to secure a location that has relevance to them, and don't be afraid to share focus between owner and car. Additionally, don't be afraid to ask your willing subject to smile – you'll be amazed at how many people adopt a super-serious look when you point a camera in their face. Nothing projects happiness like a grin from ear to ear!



11 INTERIORS AND ENGINE BAYS

These areas can be difficult to capture. Darkness and small details means you'll want to utilise as much soft light as you can. A diffused flashlight produces good results. Lightpainting (high-intensity shots made by moving a hand-held light source (ordinarily an LED light bar) around the subject while the camera captures with a long exposure) can also work wonders. Avoid harsh direct sunlight – shadows can be very strong and might make a balanced shot virtually impossible to realise.

As mentioned earlier, ensure the cabin is free of junk, but also make sure the steering wheel is straight. It's an easy mistake to make, especially if you've turned the steering wheel in order to angle the wheels in your exterior photographs. In short, make sure you return the steering wheel to its default position before you start taking pictures inside the car.



12 SHOOT STEADY

A good stance (for you and the car you're taking pictures of!) is essential when holding your camera. You'll want as little movement as possible in order to avoid unwanted 'shake', so don't be afraid to rest your elbow on something close-by. Grip your camera body and lens with confidence.

When working with longer exposures, a tripod is necessary to avoid blurring. In the absence of a tripod, you might like to improvise by resting the camera on something static. Check the image on your camera's preview screen to ensure the picture you've captured is nice and sharp.



13 IMAGE MANIPULATION

To a lesser or greater degree, most photographers use digital imaging software to manipulate the image they've taken. While there's nothing wrong with doing so, be mindful of applying too much in the way of post-production. You don't want your images looking like completely unnatural CGI renders. In truth, you want the photo to be as close to perfect as possible before you load it into whatever computer programme you plan to use.

15 LIGHTING

Being a 3D object, a car can be difficult to light properly. Shooting in flat overcast daylight is easy, but what about when the light is stronger or when you want to give the car more shape? You might also be faced with the possibility of having to contend with sporadic sunshine drastically altering your photos as natural light bursts in and out of cloud cover. There's much to consider.

If shooting outdoors, think about where the sun is shining when it

comes to positioning the Porsche being photographed. Have a friend drive the car around you. To get a sense of which position works best, observe how the light and shadows change on the car's bodywork.

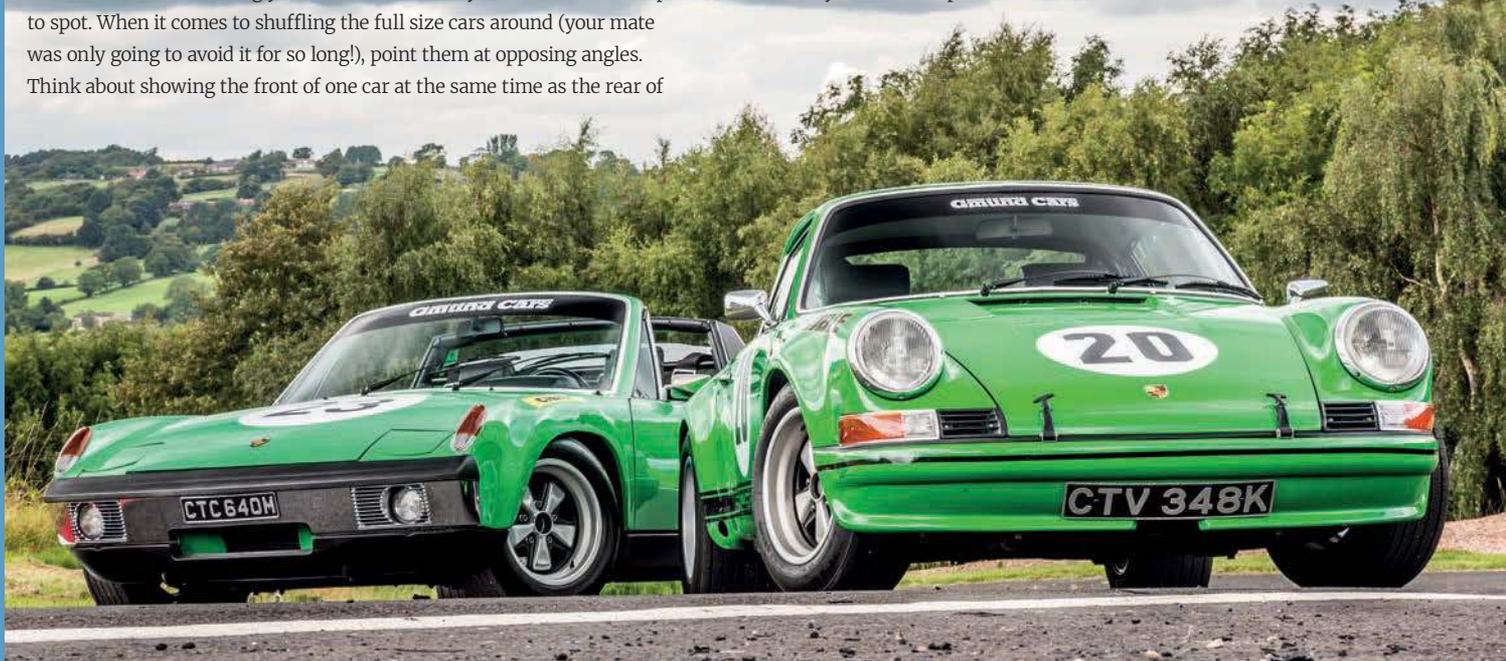
The main thing to watch out for are harsh reflections and lighting hotspots. Little sparkly spots can look nice, but huge blown-out areas of white light simply highlight swirl marks and look awkward. Repositioning the car or bouncing light off a nearby surface can massively reduce hotspots.

14 MULTIPLE CARS

You're confident you've got what it takes to shoot your own Porsche, but you'd like to include your mate's car in the next set of photos you take. Don't do the obvious and put the cars nose to nose. Doing this utilises a small percentage of the total frame available, and usually results in a photo that looks as though two cars have collided in a particularly undramatic crash! Our advice is for you to have toy cars to hand. Play about with them, putting each in a different position. This will help you to visualise the photo before you take it, plus it's a lot easier than asking your mate to constantly move his car from spot to spot. When it comes to shuffling the full size cars around (your mate was only going to avoid it for so long!), point them at opposing angles. Think about showing the front of one car at the same time as the rear of

the other. Try to catch the second car in shot when taking details of the first. You want the shoot to look like there were two cars present, so there's little point in shooting each car on its own.

If you like the idea of photographing more than two Porsches at once – hello to all you club photographers out there – then bear in mind the more cars in shot, the higher your shooting position will need to be. Put it this way, if you attempt to shoot a group of cars at normal standing height, the cars at the back of the shot will likely be difficult to see due to those at the front taking up most of the frame. Buy yourself a stepladder and you'll immediately be able to capture more of what's on offer.



16 TAKING DIFFERENT TYPES OF ACTION SHOT WHEN POINTING A CAMERA AT YOUR PORSCHE

a) PANNING

Panning is essentially the method of shooting a passing car from the roadside. Top tip: get as far back from the road as possible and focus on a single point of the Porsche you're shooting as it flies by. Move with the car and fire off multiple shots. Experiment with shutter speeds and you'll soon be shooting cars that look as though they're travelling much quicker than they are.



b) CAR-TO-CAR

Often delivering the most dramatic and authentic-looking results, car-to-car shooting is the act of hanging out of the window – or boot, if you're feeling brave – of a moving car while taking photos of the other. The main issue here is safety, but strap yourself in and you should have nothing to worry about. To achieve the best results, both cars need to be travelling at the same speed, and the tracking car needs to be a few feet further ahead of the Porsche being photographed. Experiment with taking photos at different heights. More often than not, the lower the camera, the better the shot.



c) RIG SHOTS

The most complex action shot is captured by utilising a 'rig'. You can make your own rig using suction cups, box metal and a camera mount, although professionally manufactured rigs are available to buy online. In essence, a rig is a giant pole with a camera on one end and suction cups fixed to the car at the other. With a long exposure (usually ten seconds or so) the photo of the car will be super-sharp, while wheels and the background look mega-blurred. To avoid vibration introducing blur to the photo, the engine is switched off and the car is pushed at snail's pace from the side or behind (be careful not to capture anybody at the back of the car in your shot). The driver has to remain completely still at all times, but the resulting image will look superb. The only thing left for you to do is edit out the rig and its reflections in your preferred image software.





18 FILTERS

A massive range of camera hardware filters can be put to good use at the point you take a photo. One of the most popular filters is a polariser. This simple, low cost, adjustable add-on reduces reflections over non-metallic surfaces, increases colour saturation,

applies better contrast and eliminates glass 'white out' without affecting the overall colour balance of the shot. A polariser does, however, reduce light being caught by the camera, meaning this particular filter isn't always suited to indoor photography. As mentioned earlier, careful positioning of the car is key, especially when using filters.



17 THE DETAILS

Be aware of details. Nobody wants to see a nicely lit shot of an awesome alloy wheel if the Stuttgart-crested centre cap is upside down. Likewise, ensure there isn't a dollop of mud (or worse) stuck to the tyre. Chrome-covered parts are also worth paying special attention to – you don't want to view your photos later, only to be presented with your reflection in every shot. Don't be afraid to put distance between yourself and the subject, zooming in rather than risking getting up close and inadvertently including yourself in the photo.

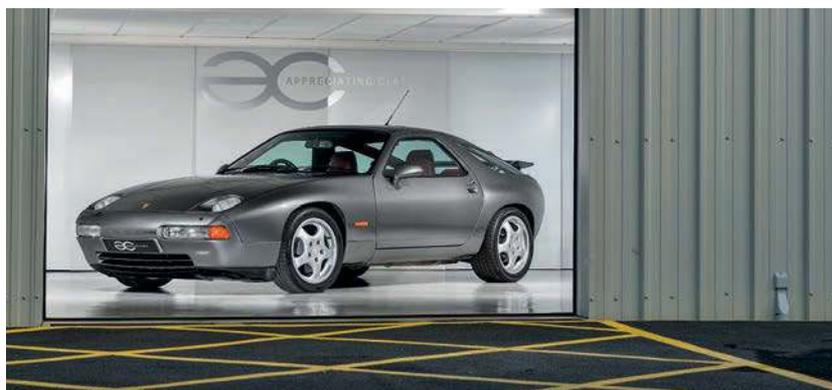


19 TIMING IS EVERYTHING

Take action shots after you've finished with the rest of the shoot. Cars get dirty easily and owners almost always get carried away showing off in front of the camera! Unless light is fading fast, bag the statics first.

20 ASK THE EXPERTS

Don't be afraid to ask professional photographers for their advice and opinions on your work. They're busy chaps and chapettes, so don't assume they'll get back to you with immediate effect, but most snappers have a social media presence to showcase their images and are happy to discuss the gear they use, as well as the techniques they adopt to achieve the kind of photos you see in magazines. Similarly, don't hesitate to join Facebook groups and forums dedicated to discussing camera hardware and image editing software. Manufacturers and retailers of the products you'll be using are surprisingly accessible, especially if they think there's a sale to be had. Good luck!



CONTACT

Canon canon.co.uk
Manfrotto manfrotto.co.uk

Nikon nikon.com
Samyang samyanglensglobal.com

UK Digital ukdigital.co.uk
Lencarta lencarta.com

SMART MONEY

The original Boxster gave its maker a much-needed shot of good fortune. Today, the same model serves as a low-cost Porsche purchase...

Words **Richard Gooding and Dan Furr** Photography **Various**



Porsche may have made its name presenting rear-engined speed machines, but the manufacturer's mid-engined models have peppered its illustrious past. Indeed, the very first Porsche – 356 number one – carried its engine in the middle, while the brilliant 914 proved the same configuration was still worthy of attention more than two decades later.

In the 1980s and 1990s, Porsche's transaxle range provided the entry point into ownership of a Stuttgart-crested car, but a new 'people's Porsche' was required as the turn of the century drew near. The seeds were sown at the 1993 Detroit Motor Show, where the stylish Boxster concept was revealed. Despite being tucked away at a far corner of the main exhibition hall, the new car stole the show. Motoring hacks swiftly reported on the low-slung ride height and curves in all the right places. Porsche's shining star evoked memories of the legendary 550 Spyder, not to mention the model's racing success, and promised an open-topped vision of the future.

These ripples of excitement came at exactly the right time for Porsche – the start of the 1990s saw the company at an economic low. Only 23,000 of the firm's cars found homes during 1991's fiscal year, less than half the number sold in 1986. A loss of DM240-million was reported in 1992, but just three years after the Boxster concept debuted, the new two-seater sold like hot Swabian apple cake. Indeed, Porsche sales bumped 32,000 units in 1996, with Boxsters accounting for more than fifty percent of the four-wheelers leaving main dealer showrooms.

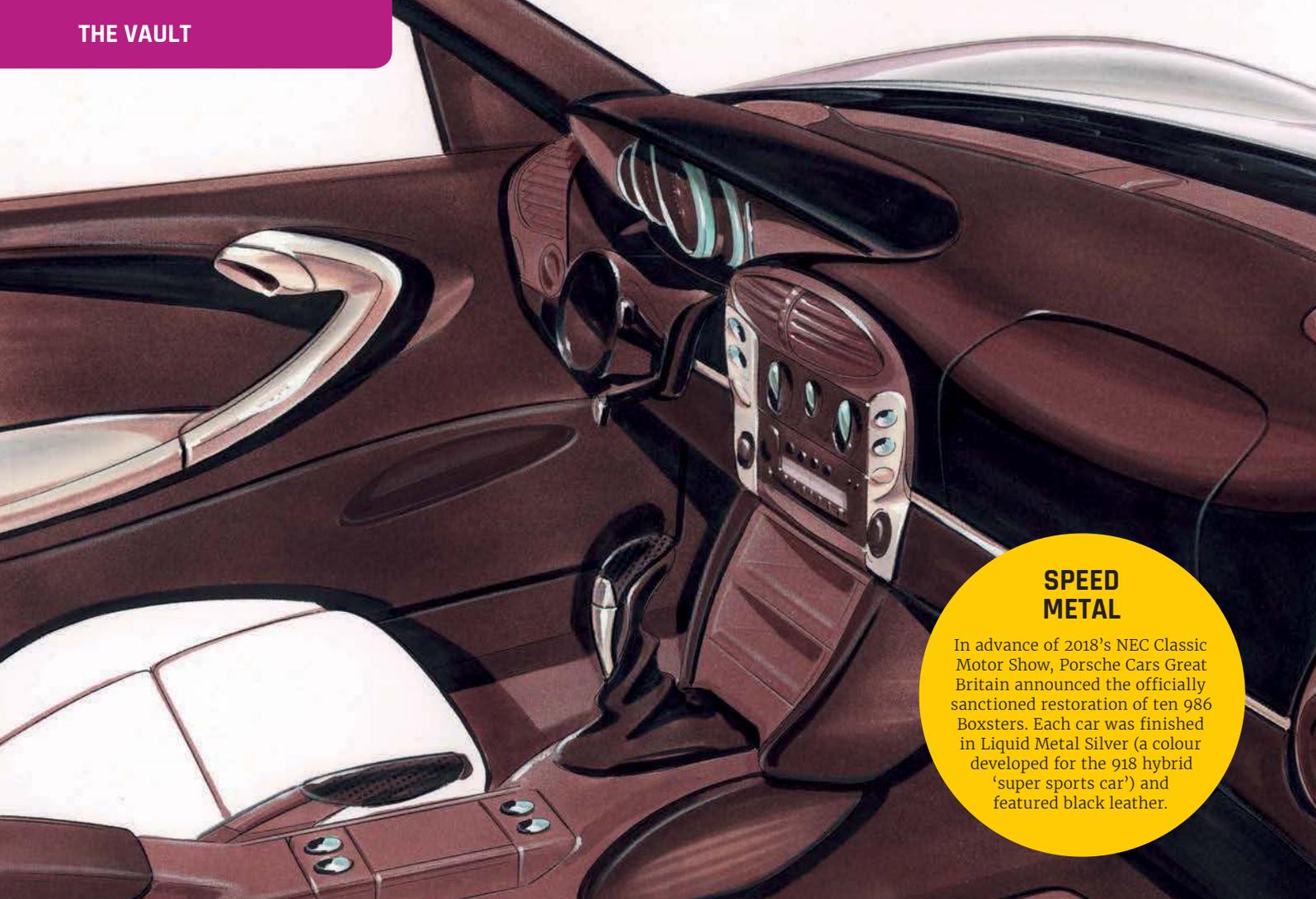
A DRASTIC REDUCTION IN THE NUMBER OF FAULTS FOUND ON EACH CAR

Development of the soft-top superstar began in 1991, when plans were announced to discontinue production of Porsche's front-engined, water-cooled 928 and 968 models. Porsche styling supremo, Harm Lagaay, adopted a concept inspired by elements of the 356 Speedster, 718 RSK and 550 Spyder. Penned by designers, Grant Larson and Pinky Lai, the new roadster's design was reworked until frozen in 1993. Just like the 914 (and the 550 before it), the resulting Boxster adopted a mid-engined layout, but boasted twice the power of its Targa-roofed ancestor.

The new car was listed as the 986, with the Boxster designation being a combination of the words *boxer* (the engine format) and *roadster*. Prototypes hit the street in 1994, with production beginning at the former 928 assembly plant in Stuttgart. Additionally, contract manufacturer, Valmet Automotive, produced Boxsters for Porsche in Finland.

Controversially, the 986 shared many components with the then-unreleased 996. This exercise in bin-borrowing was deemed essential to keep the development costs of both new Porsches at the absolute minimum. It worked – the Boxster was instantly recognised as the latest addition to a list of the manufacturer's lifesaving »





SPEED METAL

In advance of 2018's NEC Classic Motor Show, Porsche Cars Great Britain announced the officially sanctioned restoration of ten 986 Boxsters. Each car was finished in Liquid Metal Silver (a colour developed for the 918 hybrid 'super sports car') and featured black leather.

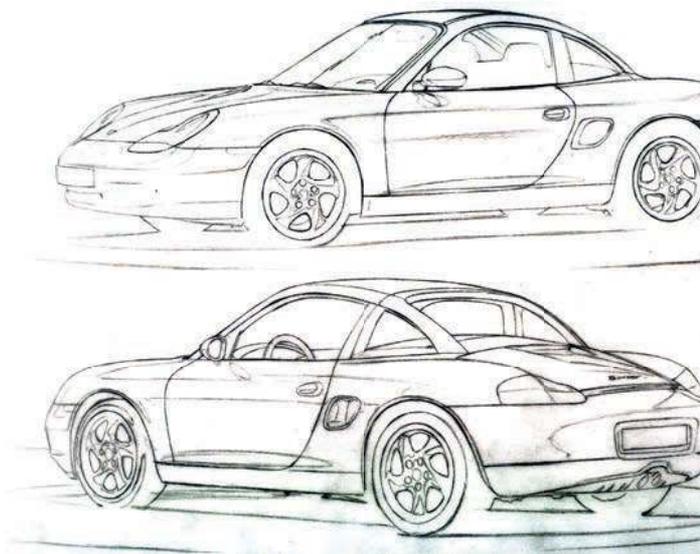
models, but this streamlining of production can't be credited entirely to factory bosses in Stuttgart. In 1992, Porsche enlisted the help of engineers at Toyota in a bid to make revolutionary changes to the German marque's antiquated manufacturing processes. The Japanese firm's Just-in-Time (JIT) production methods amount to a 'pull' system of providing the different processes in the assembly sequence with only the kinds and quantities of items required and, crucially, only when needed. The primary objectives of the approach are to save warehouse space, ditch unnecessary cost-carrying and to improve overall efficiency, which means organising the delivery of component parts to an employee's individual workstation just before each item is required for installation. This is in stark contrast to what was happening at Porsche, where guys on the assembly line were reported to be digging through bins or searching hard-to-reach shelves for the parts they needed when working on each car.

JAPANESE DREAM

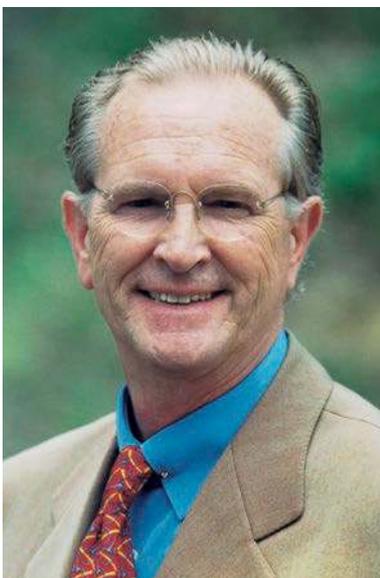
The impact of Toyota's influence was immediate. Porsche announced better productivity, lower costs, smarter methods of assembly and a drastic reduction in the number of faults found on each finished car, but being brought back from the brink of bankruptcy (and not for the first time) in this fashion came at a non-monetary cost: many 911 fans failed to understand why the 986 and 996 were being developed in partnership with one another.

Above and right 986 Boxster study drawings created in the early 1990s

Facing page Model development at Porsche's styling offices in Stuttgart, with lead designer, Harm Lagaay, pictured below



Right The 986 Boxster concept, complete with low side air intake, was presented at 1993's Detroit Motor Show



To many, it was bad enough Porsche was adopting water-cooled engines for its sports car output, but to dilute the 911's essence further by co-developing the 993's successor with a 'lesser' model? Sacrilege!

Of course, the 996 would prove itself far more powerful than the 986 in standard trim, even though the Boxster's mid-engined layout, highly tuneable chassis and the availability of performance boosting engine enhancements would see the roadster outgun the flagship Porsche given the opportunity, making the 986 Boxster, in many respects (and just like its follower, the 987), a smarter buy than the same-age 911, both then and now. Nevertheless, as can be seen throughout the manufacturer's history, Porsche was keen to ensure its evergreen Neunelfer remained at the very top of the company's product range, irrespective of the performance potential of other models released into the wild.

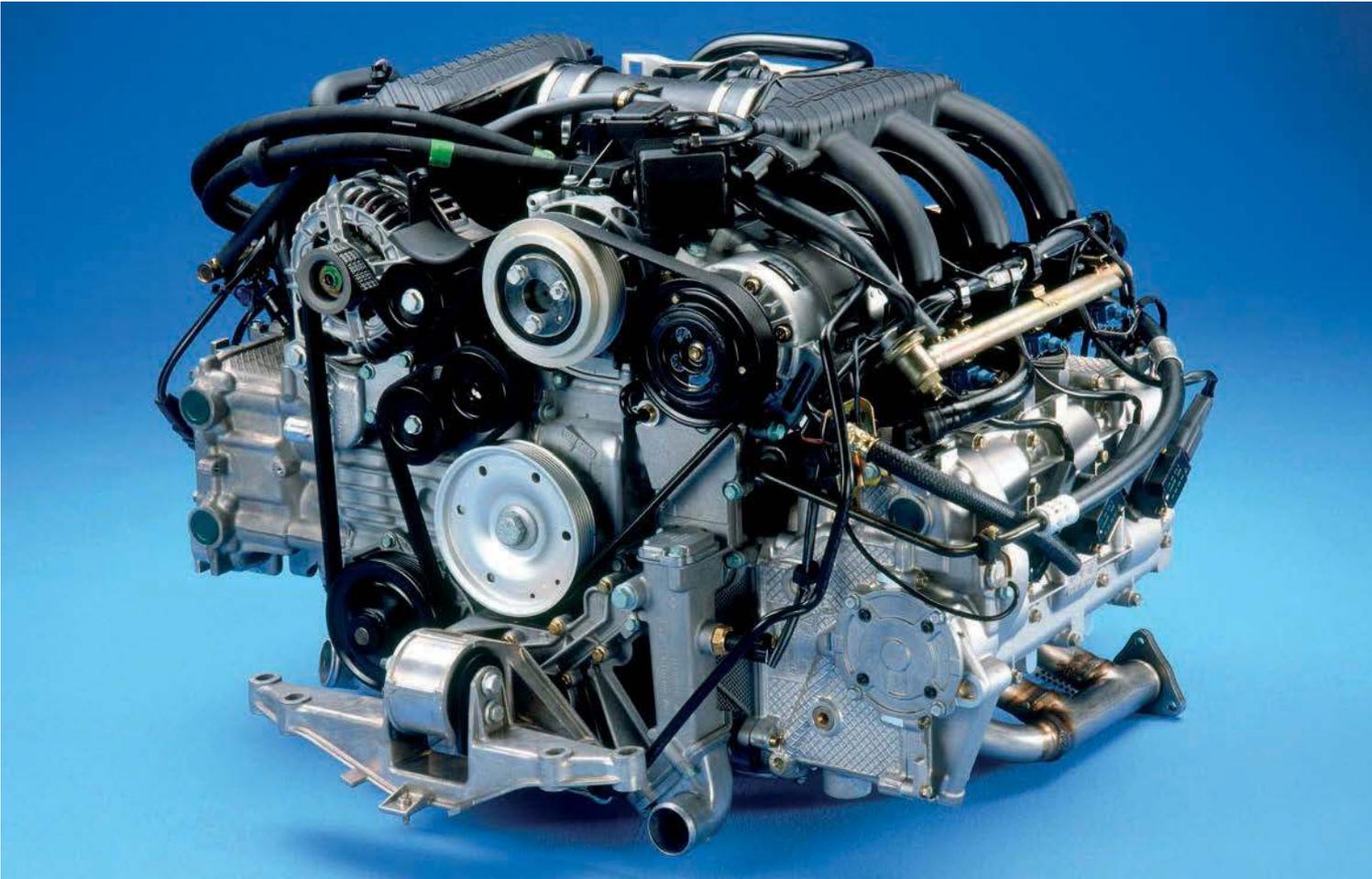
The front-end structure of the 986 was almost identical to that of the 996. Shared bonnets, wings and cabin furniture saved valuable coin at the factory. Even so, as the first 'clean sheet' design from Porsche since the launch of the 928 nearly twenty years earlier, the Boxster's significance rose above muttered misgivings from 911 purists. As if to prove the point, fast-forward to the present day, and the Boxster is considered an essential part of the Porsche portfolio, replacing the 944 as the most popular Stuttgart-badged product until the arrival of the Cayenne SUV. 911 die-hards might not have been too enamoured »

YOUNG AT HEART

As any proud 914 owner will tell you, two-seat and mid-engined Porsche production sports cars are nothing new. Wind the clock back to the mid-1980s, though, and you'll discover factory engineers experimenting with a pre-Boxster mid-engined concept car. The Type 984 'Junior' was in development between 1984 and 1987. Compact, lightweight, super-curvaceous, featuring bug-eyed headlamps and making use of a smooth rear deck, the little sports machine was both aerodynamic and economical. Inspired by a design study carried out for Spanish manufacturer, SEAT, and developed for the low-price end of the sports car market, the 880kg prototype Porsche was intended to target younger drivers as an entry point into Porsche possession. A 125bhp, two-litre boxer motor sat behind the heads of occupants, while an innovative folding hard-top roof system was situated skyward. The global economic downturn towards the end of the decade ended the 984 project prematurely, but as you can see on the pages before you, the model's legacy lived on when the 986 Boxster arrived a few years later.

**A PHENOMENALLY ENJOYABLE STEER AND MORE THAN
TOOK THE FIGHT TO ESTABLISHED SECTOR RIVALS,
INCLUDING THE MAZDA MX-5 AND BMW Z3**





by what they were seeing, but the 986 delivered exactly what Porsche needed, providing a return to good fortune and, therefore, ensuring the survival of the 911. In fact, by 2007, as far as individual sales were concerned, Toyota's invaluable help had assisted Porsche in becoming the industry's most profitable car maker.

HIT FOR SIX

Unlike the 914, the 986 was afforded six-cylinders from the off. The 914/6 proved the inspiration, with the Boxster nabbing a 911 engine from the get-go. The 2.5-litre M96 water-cooled flat-six was the first powerplant to be used, detuned to a modest 204bhp, but providing enough 'go' to match the 'show'. The 0-60mph dash was seen off in 6.9 seconds with a top whack of 149mph. Of course, the boffins at Zuffenhausen knew the advantages of a mid-engined layout, which is why the 986's low centre of gravity, near-perfect weight distribution and neutral handling ensured it enjoyed limpet-like grip and was able to skate around corners. No featherweight, it proved a phenomenally enjoyable steer and more than took the fight to established sector rivals, including the Mazda MX-5, BMW Z3, Mercedes-Benz SLK and Toyota MR2. A five-speed manual cog-swapper was standard equipment, with Tiptronic transmission and steering wheel shift controls available as an option.

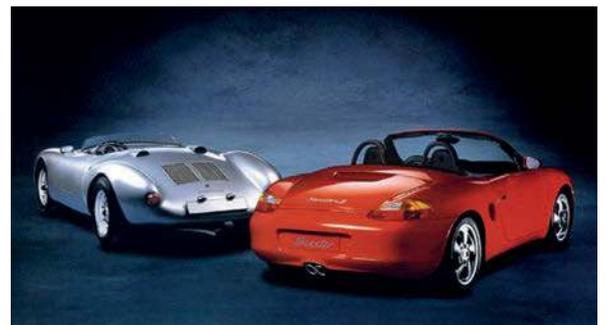
It may have been less powerful than the 996, but those who thought the 986 neutered were pleased to see a »

Boxster

Top The base model Boxster's 2.5-litre flat-six



Right Period press releases were keen to promote the 986 Boxster's link to the 550 Spyder





hike in horsepower and displacement in 1999. Coinciding with the 55,000th Boxster produced, changes included the standard 986 engine growing to 2,687cc and 220bhp. If that still wasn't enough, a 3.2-litre lump powered a new Boxster variant – stealing sales away from the 996 Cabriolet, the Boxster S was a 986 range-topper. Additions included an extra gear ratio and uprated suspension. Seventeen-inch rims and larger cross-drilled brakes were 996 cast-offs, while twin tailpipes, an extra radiator slot in the front valance and a model-identifying badge at the back ensured the new Boxster was easily spotted. As was the case with the base 986, reviews were unanimous in their praise for the Boxster S, with one well-known media outlet referring to the new arrival as “mind-blowing”.

BOXING MATCH

The Boxster recipe was once again revised in 2002. External changes were limited to smoked indicators, clear side repeaters, more defined bumpers, new exhaust tailpipes, fresh wheels and a glass rear window set as standard equipment. The interior gained a glove box and a new steering wheel. A revised intake fed the engine with cool air, helping to deliver more power – the entry-level

Top With the money you'd saved buying a 986 Boxster over a 996-generation 911, you could splash out on personalised upgrades from the Porsche Exclusive Manufaktur service

Bottom left Celebratory 986 to mark the fiftieth anniversary of the 550 Spyder in 2003

Bottom right Held in partnership with Porsche Club GB, the 986 Restoracing competition features a packed grid of Boxsters prepared for action by Official Porsche Centres in the UK

986 now pumped out 228bhp, while the £38,450-priced Boxster S delivered 260bhp, 164mph and a 0-60mph sprint of just 5.7 seconds.

Ahead of the 986's discontinuation in 2004, a limited-run model designed to celebrate the fiftieth anniversary of the 550 Spyder was launched. Limited to 1,953 units (d'ya see what they did there?!), all examples built wore CT Silver Metallic paint, produced 266bhp and were trimmed in cocoa brown leather. These commemorative cars featured a high-end BOSE sound system, two-tone eighteen-inch alloys, 5mm wheel spacers, a Boxster S exhaust and an M030 sports suspension package. A numbered plaque on the centre console highlighted each car's place in the production run.

It's plain to see Porsche pulled no punches with the original Boxster. Consequently, the 986 proved itself a knockout. Like the 914 many years beforehand, the new car was immensely popular, and with a total of 164,874 units produced, it topped Porsche's sales chart until the Cayenne SUV leapfrogged its way into the big league. A pivotal cog in Porsche's wheel of independence, the 986 remains a heavyweight piece of Zuffenhausen heritage and one of the scene's biggest bargains.





**ENGINE REPAIR
SPECIALISTS**

REBUILDS

FROM £2,300 +VAT



**BOOKINGS
NOW BEING
TAKEN**

986 | 987 | 996 | 997 Cayman

996		3.4-3.7	} Capacity Conversions
996		3.6-3.9	
987.1		3.4-3.9	
986		3.2-3.7	

www.hartech.org

T: 01204 302809 E: auto@hartech.org

NORTHWAY PORSCHE LIMITED

INDEPENDENT PORSCHE SPECIALISTS

GRANGE PLACE, GRANGE LANE,
BEENHAM INDUSTRIAL AREA,
BATH ROAD, READING,
BERKSHIRE, RG7 5PT



*Repairing and servicing of Porsches
for over 20 years*

*USED PORSCHE IN STOCK AND WANTED FOR
OUTRIGHT PURCHASE*

TELEPHONE: 0118 9714333 MOBILE: 07831 424911
EMAIL: INFO@NORTHWAY.CO.UK WWW.NORTHWAY.CO.UK

**ADVERTISEMENT
DOESN'T COST
IT PAYS**

CALL: 01732 920500

KENNY.GILLAM@TALKMEDIASALES.CO.UK



HP PORSCHE

**SPECIALIST IN ALL
THINGS PORSCHE**



- Fixed Price Servicing
- Engine & Transmission Rebuilds
- Restoration
- Full Diagnostic Facilities
- Pre-Purchase Inspection



Mobil 1

Tel: 020 8500 2510 Email: info@hpporsche.co.uk

www.hpporsche.co.uk

181 FOREST ROAD, HAINAULT, ESSEX IG6 3HZ

PUMP UP THE VOLUME

It's time for a complete overhaul of the resurrected 944 Turbo's in-car entertainment system before upholstery work gets underway...



DAN FURR

With my 944 Turbo doer-upper carted from Retro Restorer

in Banbury to my workshop in Cambridgeshire, I could start to piece together the in-car entertainment equipment that will populate the freshly painted Porsche's cabin. As regular readers will know, the turbocharged transaxle's seats, door cards, dashboard, rear quarter panels, headlining, carpets, boot space and pretty much everything else that can be trimmed is due to be treated to a makeover. The new audio gear I've readied for installation, however, will require modification to standard door, dash and rear end components, which is why it was important to plan ahead in a bid to avoid regrettable reverse-engineering after the cockpit has been kitted-out with newly upholstered fixtures and fittings.

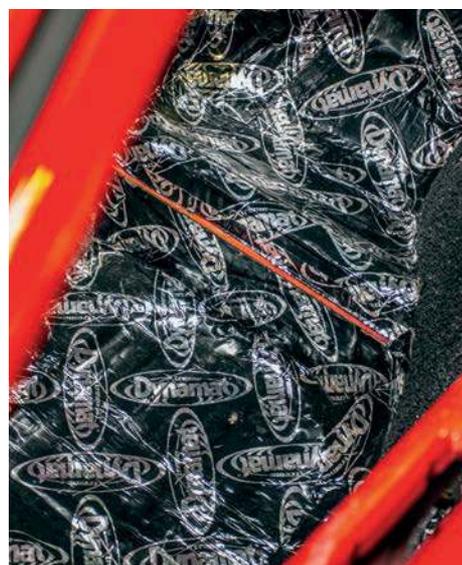
At the hub of any in-car entertainment system is its head unit. My 944's standard single-DIN item was replaced by an aftermarket CD player many moons ago, but in the interests of introducing thoroughly modern functionality, I decided to get hold of a AVIC-Z920DAB double-DIN navigation and multimedia receiver from car audio giant, Pioneer. Not only does this flagship offering from the company include detailed built-in European navigation maps, it takes smartphone connectivity to a whole new level thanks to built-in WiFi, allowing simple integration with Apple CarPlay and Android Auto. Dual USB, HDMI, SD

card, dual camera inputs, multi-colour illumination and wireless mirroring also get a look-in, as does a thirteen-band graphic equalizer and gold-plated RCA connectors to deliver the highest audio quality possible.

A motorised, seven-inch, 24-bit, full-colour, multi-function touchscreen delivers the immediate 'wow factor', but the 944's dashboard is only designed to accept a single-DIN head unit, right? Well, dear reader, here comes the first of the required modifications to Porsche's original design. The largely redundant cubby hole immediately below the space for the standard head unit offers just enough additional room to accommodate a double-DIN unit if the dividing shelf separating the two storage areas is forcibly removed. At first, I was concerned the depth of the Pioneer part would be too big for the liberated space (the Porsche's centre console is designed to face upwards), perhaps fouling the transmission tunnel, but a trial fit proved I had nothing to worry about, giving the green light to crack on with stockpiling more audio gear.

FLOATING ON AIR

At this point, I enlisted the help of Gerry Conway, head of Air & Sound, one of the UK's most prestigious in-car entertainment and security system installation outfits and an arm of supercar maintenance and tuning specialist, GCAP Performance. From its Notting Hill base, Air & Sound has produced some of the UK's biggest, wildest and most





SMALL STEPS

The first automotive entertainment system is thought to be a car radio demonstrated at the 1904 Louisiana Purchase Exposition in St Louis, though it would be another two decades until vacuum tube technology and voltage correction systems made in-car radio commercially viable.



recognised in-car multimedia builds, many commissioned by the world's biggest consumer electronics and audio equipment manufacturers for exhibition cars. Needless to say, with Gerry on board, the comparatively simple setup being mapped out for my 944 Turbo was in safe hands.

His arrival at my workshop followed the successful covering of the car's interior in Dynamat Xtreme vibration-cancelling thermoacoustic lining at automotive upholsterer, Awesome Classic & Custom. The floor, roof, inner rear quarters, boot floor, transmission tunnel, inside the doors and against the bulkhead were all given the Dynamat treatment, not only to »



Previous spread
New audio wiring was plumbed into the car's cabin, while donor Turbo door cards will be used in place of damaged originals

Left Centre console has been modified to accept the new Pioneer double-DIN head unit

Below Prolonged water damage has killed the factory front speakers



make the most of the sound that'll be produced by my choice of in-car audio equipment, but also to make the cabin a quieter, less noisy place to be when the volume is turned down.

The factory door speakers were totally destroyed by water ingress when the car was left motionless for many years in its previous owner's garden. In truth, tiny, shallow speakers installed in 1986 aren't exactly suited to a modern setup, which is why I paired the Pioneer head unit with a fantastic selection of performance audio components from product catalogue of American mobile audio engineering firm, JL Audio. First up, a pair of the firm's Evolution C2-650X coaxial speakers to replace the ruined factory noise makers. Promising sparkling high-frequency detail, smooth mid-range and powerful mid-bass thanks to real silk dome tweeters and precision engineered woofer designs benefiting from JL Audio's world renowned woofer design experience and advanced modelling systems, this pair of powerful speakers are in the 6.5-inch format native to most vehicles. Most vehicles outside of

Porsche's transaxle range, that is. Here comes the next modification!

The hole in each door panel to house the standard speaker is a tall ellipse directly in front of the window rail. Not only is the shape incorrect for the JL Audio coaxials (and pretty much every other speaker on the market), but the increased depth of the new components means the back of the speaker fouls the window rail. Obviously, we can't remove the window rail, which is why Gerry made use of custom mounts to allow the new speakers to sit more or less where the factory parts once lived, but proud of the soon-to-be-trimmed door cards, which will now be subjected to cutting for custom speaker apertures and mounting points. Surprisingly, the speaker hole in the door itself needs very little modification to accept the width of the C2-650X's woofer.

FIT TO DROP

With the position of the new front speakers nailed, it was time to look at where we'd house the JL Audio RD400/4 four-channel Class D full-range 400W amplifier and nifty



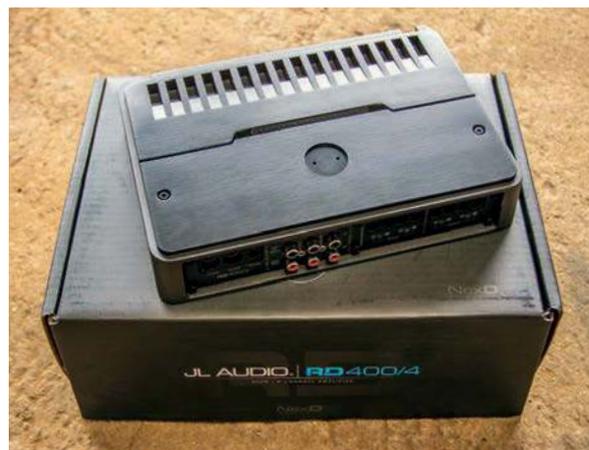
Above and below
The factory speaker apertures aren't big enough to accommodate the new JL Audio coaxials, which will foul the window rail, hence Gerry's cardboard-aided design (CAD)!

CPT108LG-W3v3 enclosed subwoofer system I'd bought to accompany them. As far as the sub is concerned, JL Audio's UK distributor, Celsus, told me a popular place to house the part is in the 944's offside inner quarter, a seldom-used void perfect for the compact size of the ready-to-roll boombox. While snaking high-quality audio wiring through the body of my Turbo, however, Gerry noted the car's spare wheel well being exactly the same width as the subwoofer's carpeted and extensively braced enclosure. Helped by the fact the car's space-saving spare wheel was in my garage at home, he proceeded to modify the upper spare wheel mount to act as a support for the subwoofer before lowering it into place. We couldn't believe just how good the fit was. It's as though this particular subwoofer was designed specifically to fit in the spare wheel well of Porsche's transaxle models!

This revelation freed up the aforementioned rear inner quarter cavity to house the amplifier, which will be positioned on a custom mount. "What about the boot carpet sitting >>



Left The speaker apertures will require slight modification, with the speakers sitting forward on custom door card mounts



over the subwoofer driver?" I hear you cry. It's time for another interior mod!

A hole the same size as the subwoofer driver will be cut into the boot carpet. The mesh grille protecting the driver will be removed, leaving it exposed. The mesh grille will then be reattached atop the carpet, essentially screwed down from above using the existing mounting holes, through the carpet and into the subwoofer enclosure, having the effect of a stealth-like domed mesh grille protruding from the soon-to-be-created carpet. The amplifier and associated wiring will be hidden from view, but totally accessible through the luggage area's side panels.

THE MAGIC OF GOLD

One of the last remaining pieces of the puzzle concerned the rear speakers, which Gerry supplied during his visit. Here, the original Porsche parts (if fitted) are the same size as what's on offer today, hence the simple installation of Phoenix Gold Z-series 120W 4x6-inch coaxials, which plugged straight into the factory wiring. The looms at the front needed work, however, but Gerry took them

away to his workshop in London to modify in advance of final fit and finish, which will take place following the refit of the interior.

Meanwhile, Pioneer sent an FM to DAB converter, a universal double USB socket and a DAB antenna to accompany the all singing, all dancing head unit. The twin USBs will be a welcome addition to the car when fitted, offering slick charging points for my mobile devices, while the DAB add-ons are there to assist where standard classic car aerials can't cope with the demands of modern radio. Additionally, Gerry fashioned a custom head unit frame for the butchered centre console. It'll be trimmed along with the dash and centre console itself, providing a slick surround for the multimedia head unit, resulting in what we're confident will look like a factory install.

With the foundations laid for the installation of the new audio equipment, work on the retrim can progress in earnest. I'm super-excited to share details of this next phase of the build with you. Keep 'em peeled for next month's *GT Porsche* project pages. Stay tuned!

Above JL Audio subwoofer enclosure is exactly the same width as the 944's spare wheel well, making it the perfect place to house the carpeted and braced boombox

Top Phoenix Gold speakers are a direct fit in the rear inner rear quarter panels



THANKS

JL Audio UK
jlaudio.co.uk

Pioneer UK
pioneer-car.eu

Celsus UK
celsusgroup.eu

Air & Sound
airandsound.co.uk

Dynamat Europe
dynamateurope.com

- BESPOKE TUNING
- REMAPPING
- PERFORMANCE EXHAUSTS
- TURBO CONVERSIONS
- SERVICING
- MOTs
- DIAGNOSTICS
- BODYWORK
- TRACKERS
- IMMOBILISERS
- REPAIRS



GCAP

PERFORMANCE

“UK’S NO.1 PORSCHE TUNING SPECIALIST”



020 7229 3325

WWW.GCAPPERFORMANCE.CO.UK

6 POWIS MEWS, NOTTING HILL, LONDON, W11 1JN

The UK's Best Used Car Warranty

Warrantywise

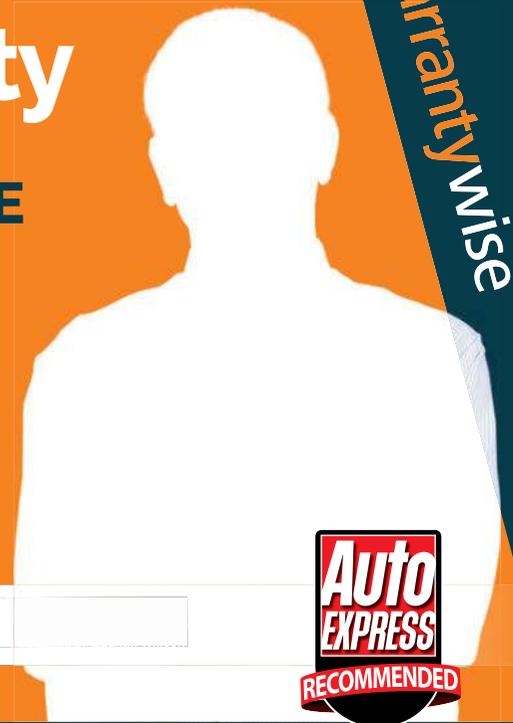
WORRIED ABOUT EXPENSIVE CAR REPAIR BILLS?

Warrantywise gives you total peace of mind when your car goes bang! We cover every make and model of vehicle and all of our plans include car hire, hotel & onwards travel expenses and recovery as standard.

95%
POSITIVE
FEEDBACK
★★★★★

OVER
750,000
WARRANTIES
SOLD

30DAY
MONEY BACK
GUARANTEE



Visit warrantywise.co.uk/GTPorsche or call **0800 678 3701**

Terms and conditions apply. Accurate at the time of printing.

MOVING MOUNTAINS

Dan's 997 piles on the miles in Switzerland...



DAN FURR

Exploring Lausanne in the middle of October and enjoying cloud-free skies, blazing sunshine and baking warmth, it was difficult to believe the UK was being savaged by hammering rain, plummeting temperatures and flood warnings, with some parts of Britain experiencing three weeks worth of rain in just a few hours. In contrast, all was calm and quiet across Lake Geneva, its northern shoreline a few paces from our suite at the amazing Hotel Angleterre and Residence, a beautiful, magnificently situated lakeside hotel spread across six pavilions dating from the eighteenth, nineteenth and twenty-first centuries.

As mentioned in last month's report, thanks to France's brilliant motorway network, the journey down to Lausanne from Reims was straightforward, totalling a little over three hundred miles and exactly five

hours of driving. As you can probably tell from the images I've been sharing, once off the high-speed carriageway, the scenery flanking our path into Switzerland was utterly stunning, though *GT Porsche* contributor and Porsche Driving Consultant, Neil Furber, did remind me that I needed to buy a 'vignette' if I was planning to hit Swiss motorways during my visit. I must admit, I put this thought to the back of my mind, primarily because my fiancée, Sharon, and I were planning to stick to the twisty mountain roads snaking around the lake for the majority of our stay. Of course, despite our best intentions, we ended up on the motorway when deciding to take the quick route back to our hotel after a day of spirited driving. Sure enough, we were stopped by traffic cops wanting to know why the vignette on display in our 997's windscreen was eight years out of date (yep, it would seem our Carrera 4S ventured to this part of the world when in the custody of one of the car's three previous owners).





Pleading ignorance, we were allowed to continue our journey, providing we forked out for a fresh vignette, which, of course, we did. Not that we needed it during any other point in our trip.

SOUND AND VISION

If we'd listened hard enough, I'm sure we'd have heard Neil muttering "told you so" from where he lives on the south side of the lake. It didn't take long, however, for us to hear him with much less effort – it seemed silly to travel all the way to Lausanne and pass up the opportunity to meet with *GT Porsche's* resident driving coach, which is why Sharon and I hopped into our Basalt Black 911 and »



Above A moment of rest outside the hotel before another drive around the lake

Left The lakeside Château d'Ouchy is a famous hotel built on the site of a medieval castle



Far left Out of date vignette wasn't fooling the local traffic cops





Left GT Porsche's resident driving coach, Neil Furber (left), and magazine editor, Dan Furr

Top A pit stop near the French Alps ski resort of Morzine



Left Sharon takes the controls for a stretch of the mountain road, while Dan rides shotgun in Neil's 718

navigated our way eastward around Lake Geneva, past Vevey, Montreux, and Villeneuve, following the water's edge into France and on to the Auvergne-Rhône-Alpes town of Thonon-les-Bains, where Neil was waiting to meet us in his recently purchased 718 Spyder.

Much fun ensued as the gorgeous Guards Red drop-top led the way further south, Neil taking us for a thrilling drive along exciting roads carving through snow-capped mountains past Morzine toward Les Gets, a linked ski resort within Portes du Soleil, one of the world's largest winter sports destinations, encompassing thirteen resorts between Mont Blanc and Lake Geneva. Those of you who enjoy tackling the slopes will know we arrived in Les Gets well in advance of ski season commencing, meaning most of the place was in a state of suspended animation, (as it remained until the end of November, when thrill-seeking tourists descended upon the town en masse). We knew this to be the case before arrival, and yet, our industrious guide managed to find a small coffee shop open for business, enabling us to kick back with a cup of the hot brown stuff, taking in our surroundings whilst breathing in the crisp, fresh air of the magnificent French Alps.

PARTING COMPANY

After much fun chewing the fat, laying the foundations for fun forthcoming GT Porsche editorial and generally putting the world to rights, Neil, Sharon and I said our goodbyes, hopped into our respective Porsches and headed »



northbound on the scenic D902, known as the Route es Grandes Alpes. The full stretch of the road will take you as far south as the Mediterranean, including some of the highest and most breathtaking mountain passes in Europe. We were following the road in the other direction, back towards the French-Swiss border and our temporary home in Lausanne. Our timing couldn't have been better – those beautiful blue skies I talked about earlier swiftly turned a shade of grey as dusk crept in, bringing light showers to the lake, which was as calm as when we left, save for the occasional passenger ferry carrying occupants across to Évian-les-Bains, a French spa town most famous for its eponymous mineral water.

Talking of fame, Hotel Angleterre and Residence and its sister hotels, Beau-Rivage Palace and Chateau D'ouchy, each situated alongside one another, boast more than a few claims to fame, with English comic actor, filmmaker and composer, Charlie Chaplin, taking up residence for a considerable period of time before buying a chateau in nearby Vevey. Lord Byron wrote *The Prisoner of Chillon* whilst staying here in 1816, "thereby adding one more deathless association to the already immortalised localities of the lake," as one commemorative plaque puts it.

Chaplin's family home is now a museum celebrating the life and work of this star of silent film. With many other attractions in the same direction, Sharon and I plotted another fun-filled few days for our Carrera 4S to move us along, with Queen's recording studio in Montreux and the medieval fortress of Chillon Castle high on our hit list. Of course, we couldn't drive all the way to Switzerland and not indulge our love of cheese, wine and chocolate, which is why we also planned tours of the cheese factory in Gruyere and Nestle's Maison Cailler chocolate factory in Brot. And many, many visits to local bars. We also reunited with Neil and once again ventured south, this time in the direction of Annecy, where we were treated to an unforgettable experience at restaurant and driving simulator centre, E-Motion. All this and more in my next update. ■





READY TO WEAR AND BESPOKE COVERS FOR ALL CAR MODELS

CarCoverShop.co.uk

www.carcovershop.co.uk | t.01780 654088



Soft Stretch Indoor Covers from £99



Waterproof & Breathable Outdoor from £179

PROTECTOR4 FLEECE LINED BREATHABLE FROM £112

OUTDOOR CUSTOM WATERPROOF FROM £275

CUSTOM INDOOR COVERS FROM £279

REVEAL COVERS FROM £159

AirChambers, CTEK Battery Conditioners, Dehumidifiers, Half Covers, Hardtop Stands

EXPERIENCE **THRILLING** LIVE EVENTS!

TRACTOR WORLD

22ND/23RD FEBRUARY 2020

3 COUNTIES SHOWGROUND, MALVERN

VOLKSWORLD

21ST/22ND MARCH 2020

SANDOWN PARK, ESHER

JAPFEST SILVERSTONE

3RD MAY 2020

SILVERSTONE CIRCUIT, NORTHAMPTON

CLASSIC FORD SHOW

7TH JUNE 2020

MALLORY PARK CIRCUIT, MALLORY

THE BROMLEY PAGEANT OF MOTORING

21ST JUNE 2020

NORMAN PARK

FORD FAIR

9TH JULY 2020

SILVERSTONE CIRCUIT, NORTHAMPTON

JAPFEST & TRAX DONINGTON

18TH/19TH JULY 2020

DONINGTON PARK CIRCUIT

MINI IN THE PARK

16TH AUGUST 2020

MALLORY PARK CIRCUIT, MALLORY

FORDFEST

27TH SEPTEMBER 2020

SYWELL AERODROME, NORTHAMPTON

TRAX SILVERSTONE

4TH OCTOBER 2020

SILVERSTONE CIRCUIT, NORTHAMPTON



**SAVE
THE
DATE!**



* All dates subject to change at organisers discretion.



A complete range of Porsche classic & modern
day replacement exhaust and body panels



Manufacturers of high quality exhaust systems, catalysis, heat exchangers,
body panels, chassis repair panels, oil pipes, engine heat shields, service
products and lighting.



Retail & Trade enquiries welcome

5% OFF

use online code
DANSK9
at checkout

DESIGN 911
Centre for Porsche

51 TALLON ROAD | BRENTWOOD | ESSEX | CM13 1TG

+44 (0) 20 8500 8811
www.design911.com



**We don't restore Fuchs[®] rims...
We save them !**

30 years of expertise : Straightening, soldering, polishing, anodizing, dip painting... we do it all, so your rims will look like they did when they came out of the factory... 50 years ago

**ART WHEELS - info@art-wheels.eu
www.art-wheels.eu - Tel +33 981 961 992**

ART
wheels 

TANGLED WEB

Mark finds fault with his 970 and becomes a social media star...



MARK WILLIAMS

The OPC Swindon bungee cord has again reached its full extent this month, and in response to a dead rev counter observed whilst sat in South Mimms Services one Friday evening (engine running, tickle the throttle, hear the engine note rise but eye a static needle), my 970 Panamera S E-Hybrid is about to return to the Centre's workshop. This isn't the first time the needle has presented itself as impotent, but it's happening with increasing regularity. Thankfully, I managed to film the problem on my smartphone and sent the footage to the boys in Swindon.

"Hmmm, not sure on that one. Can we have the car back?" came the reply. I await news on cause and remedy and will detail my findings in the next issue of *GT Porsche*. Regular readers will know I also committed to advising on the usage of the Wi-Fi hotspot in the car, and have since failed to do so. In truth, this is primarily because I just don't use the feature. The problem is, the hardware is tucked away in the glove compartment (does anybody actually store gloves in these things?) and is almost constantly out of sight. Couple that with pretty good 4G coverage in our part of the world and the reality is, I simply don't need my car to offer Wi-Fi. I'm not sure how much this functionality cost the original owner, but I cannot see the point. I won't be mentioning it again!

What I have mentioned is the quality of paint on my Panamera's front end, and how the evident rashing is starting to age the car. Considering it was resprayed as per most 'low nose' Porsches prior to purchase in 2017, I'd asked OPC Swindon to check the paint quality, and wasn't surprised to be told it was all fine and within expected tolerances etc. So, out came



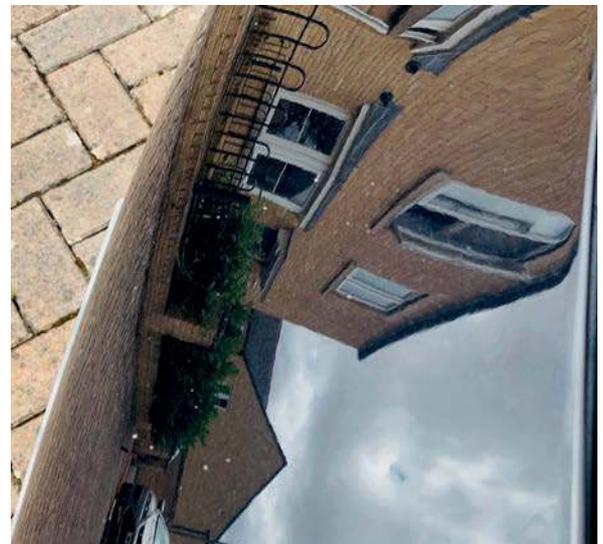
my brother-in-law's paint depth gauge one Saturday afternoon, whereupon the handy little tool reported the paint on the front wings is over twice the depth of that of the bonnet's leading edge. The boot is also a healthy depth, between 250 and 270 microns, but the bonnet is a good deal less than that, just where you expect paint to be a lot thicker. Porsche tells me that the paint on the bonnet is stronger, in order to resist the flying debris. On this evidence, I beg to differ. The readings have been sent off to Porsche and a second opinion sought.

HEAVENLY SOCIAL

In other news, I'm about to step back into the murky world of YouTube reviews and, by the time you read this article, a combined 970 Panamera ownership report and a 970/971 comparison will be uploaded under a channel entitled 'Mark's Cars'. Do please take a look and let me know your thoughts. Apologies in advance

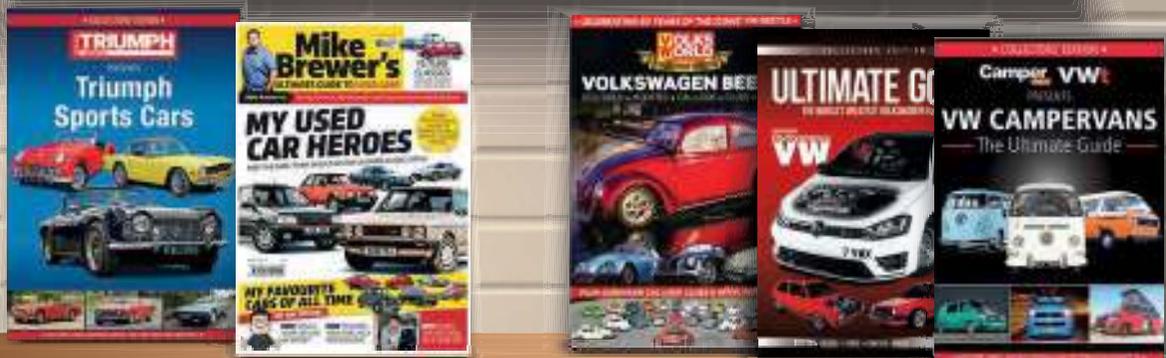
for the hat. I'll seek further practice and fashion advice in equal measure. And depending upon where the roulette wheels stops in the 971 Panamera loan car gamble from the previously mentioned dealer visit, I'll probably post a review of that car, too. More next month. ■

Above Back to Swindon OPC for Mark's Panamera, which is now showing a sleeping rev counter needle and badly chipped front end paintwork



LIMITED EDITION

MOTORING BOOKS



Shop our full range of collector's edition bookazines today – there's something for everyone!

From only
£6.99!

Visit: shop.kelsey.co.uk/category/BKZINE/MO



MAXIMISE ENGINE PERFORMANCE

used by and available from **RPMTECHNIK** and many other Porsche specialists in the UK and Europe



“ Evans Power Cool 180° keeps our engines cool, reduces pressure on the cooling system and helps deliver greater power.



www.evanscoolants.co.uk
facebook.com/EvansCoolants
instagram.com/evanswaterlesscoolants

CAMBRIDGE CONCOURS

RESTORE • PROTECT • MAINTAIN

With 15+ years experience in Pro-Detailing you can trust Cambridge Concours to provide a first class service.

What We Do:

- Leather Repairs & Trimming
- Paint Correction & Finishing
- Paint Protection Coatings
- Training & Workshops

Visit Our Social Media



Tel: 01279 814702 Mob: 07920 522005 Email: info@cambridgeconcours.com

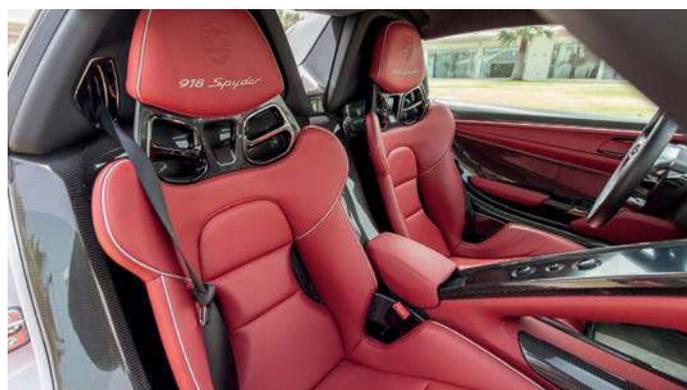


DROP THE HAMMER

From chump change to premium price tags, here's our look at what's hot (and what's not) in auction rooms...

**SUBSCRIBE TO
GT PORSCHE**

**SEE PAGE 64
FOR DETAILS**



2015 918 SPYDER

Built for the 2015 model year and delivered new to its first and only owner through Alboraq Automobiles, Porsche's official dealership in Doha, Qatar, this gorgeous Spyder is the 619th example of the 918 built. Finished in GT Silver Metallic over Garnet Red hide with Silver piping, the car was also outfitted with a number of optional extras. These include a front-end lift kit, interior fire extinguisher, seat belts in black, Burmester audio equipment, a Porsche vehicle tracking system and a smart connectivity package. Despite this exercise in personalisation,

the most impressive part of the car is its hybrid electric powertrain. Focused around a 90° V8 based upon that of the RS Spyder LMP2 Le Mans prototype, the unit is fitted with a flat-plane crankshaft, titanium connecting rods and four valves per cylinder, all promoting rapid rise through the rev range to 9,000rpm. As a result, the engine puts out 608bhp, which equates to an incredible 133bhp per litre of displacement. In addition to this, the 918 Spyder's combustion engine is supported by a pair of electric motors, with one being mated to the engine itself

and another providing drive to the front axle. These motors produce an additional 284bhp, bringing the 918 Spyder's total output to 887bhp and 944lb-ft torque. All this beef is managed through Porsche's tried-and-true PDK seven-speed transmission, and its delivery can be further refined through five driving modes, ranging from full electric to 'Hot Lap', utilising every ounce of available performance. This particular Spyder has covered just 745 miles from new, but, sadly, it wasn't enough to secure a sale at RM Sotheby's recent Abu Dhabi auction.

1977 911 RSR EVOCATION

Offered by The Market and displayed on the firm's stand at the recent NEC Classic Motor Show, this USDM 911 has been drastically overhauled from its standard specification to include a 3.6-litre 964 engine, RSR-spec coilovers, 930 brakes and a Quaife ATB limited-slip differential. A stripped interior contributes to weight of just 970kg, ensuring assured attacks of the asphalt, although the track oriented nature of the car should come as no surprise when you learn its seller is a Silverstone racing instructor. He also happens to own his own bodyshop, hence the Vaillant RSR-aping livery, which many *GT Porsche* readers will recall from the car's appearance at the inaugural Oilcooled event this year.



2011 997 SPEEDSTER



The 997 Speedster came equipped with virtually every available option, including Sport Chrono, carbon-ceramic brakes and PASM suspension. Additionally, 997 Speedsters were supplied with Fuchs-style wheels, a 70mm-shorter windshield, black seats with a chequered flag pattern, a unique aero kit and contrasting stitching throughout. Just two colours were available: Carrera White and the model-specific shade of Pure Blue. This Speedster (the 94th built) was offered at RM Sotheby's Abu Dhabi auction and has covered just 273 miles from new, but despite the amazing 'as new' condition, a buyer was nowhere to be found. Meh.



UNSOLD!

1982 924 TURBO

It's widely accepted that any Porsche with an RS or Turbo badge is money in the bank, which is why buying a doer-upper with either of these labels can make sound financial sense, even if recommissioning or restoring less exotic variants of the same model might be considered prohibitively expensive. The 924 Turbo remains the cheapest route to forced induction fun in the Porsche

portfolio, though observers will have noted a marked increase in purchase prices in recent years, making this late example something of a bargain. Recently treated to new brakes, tyres and an engine overhaul, the car is in need of cosmetic tidying, but a full history file ensured this terrific transaxle found a new home when offered at the Classic Car Auctions (CCA) December sale.

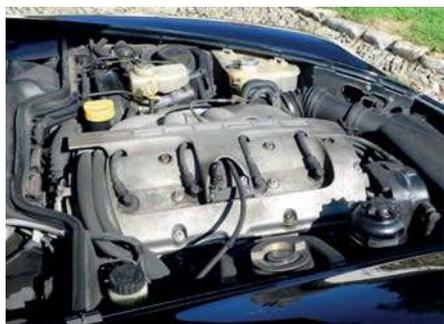
1989 928 S4

Regular readers will have followed our 'eye on the market' pages with interest, with many of you noting the apparent tumbling of 928 sale prices. Now really does seem to be the time to buy the 'land shark' you always promised yourself, with what seems like every model (from basic 4.5-litre trim to range-topping, last-of-the-line GTS aggression) available for far less than we've come to expect in recent years. Admittedly, this Marine Blue S4 has covered 155k miles, which might be enough to deter some prospective purchasers, but, in truth, Porsche's water-cooled V8 can cover huge mileage without complaint. This Linen-leathered 928 was £6,660 well spent when it sold at CCA's December sale.



SOLD FOR
£6,660

SOLD FOR
£9,973



1994 968 SPORT

This 968 Sport is the rare UK-only variant of the legendary 968 Club Sport. Produced on the same production line with similar chassis numbers, the Sport was offered with reinstated creature comforts and was produced in low numbers, making it one of the rarest modern-classic Porsches and one many driving enthusiasts consider to be the 'sweet spot' of mid-1990s Porsche production, balancing driving thrills with refined road manners. This black

Sport was offered with a full service book (most recently stamped by Strasse), a complete tool kit and tyre compressor when offered by Brightwells last month. In enthusiast ownership since 2010, the car has covered a genuine 163,141 miles, which equates to an average of only 6,526 documented miles per year since 1994. 993 indicators and side repeaters are the only recorded modification. New N-rated tyres, a fresh battery and a full MOT (with no advisories) encouraged a swift sale.

1986 CARRERA 3.2 SPORT



This Targa-topped Carrera 3.2 Sport was offered with an extensive history file at CCA's December sale, where the classic combination of Guards Red paintwork and black leather impressed participating punters. Registered on the 1st July 1986, the car was treated to new stainless steel heat exchangers and replacement kidney bowls last year, and has covered just 98k miles from new. A full MOT, Fuchs wheels and an interior in impeccable condition (the superbly presented black seats are trimmed with colour-coded red piping) form part of the semi-open-top package, a fine example of how enthusiasts can get a foot on the ladder of air-cooled 911 ownership by securing a Targa in excellent condition for the same price as a hard-top 911 in need of restoration. And, of course, winter is arguably the best time to buy a Targa or cabriolet, before prices rocket when warm weather returns (we hope!) in the spring.



SOLD FOR
£26,640

OUR ROOTS ARE TURBOS.
PERFORMANCE IS WHAT WE DO.



TURBOS & PARTS



INTERCOOLERS



SILICONE HOSES



FITTINGS



EXHAUST PARTS



CONNECTORS



GAUGES & ELECTRICS



FUELING

PLUS MUCH MORE...

-  6 Month Money Back
-  Express Shipping
-  Free Customer Service
-  Local Store in Manchester

**BEST IN SERVICE,
BEST IN PRICE!**

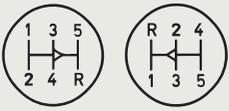
If our price is not the best, call us
and experience our excellent service.

www.TurboZentrum.co.uk

  / TurboZentrumUK

PARADIGM SHIFTER

STEALTH EDITION



For all
901/911/915s
to 1986



A WOLF in sheep's clothing, our new Paradigm Shifter- STEALTH EDITION, is everything our CARBON FIBER (CF) SHIFTER is, and less. Without the Carbon Fiber and Titanium of our CF SHIFTER, we are able to offer all the features and functionality of our CF SHIFTER, but at nearly half the cost. With our new STEALTH EDITION, you are able to run the factory shift boot and OEM-style Knob (both included), combining the ultimate STEALTH look with the ultimate precision.

\$725

SR150s



www.STOMSKIRACING.com +011(410)571-9779

Advanced Ignition Technology

- Old school look, new technology
- Plug and play installation
- Exclusive nanopulse discharge ignition
- Ignition parts for all vintage cars

permaTune
ADVANCED IGNITION TECHNOLOGY

631.909.1011

lonnie@permatune.com

Check out our all new website: www.permatune.com

CELEBRATING 50 YEARS!



DSD MOTORWERKS

old school porsche mechanics for the 21st century

Old School Porsche Mechanics for the 21st Century.

Servicing, restoration, engine builds and race prep.

Chelmsford, Essex

Tel: 01376 583075 or 07774 854 418

www.dsdmotorwerks.co.uk



OCTANE GARAGE

Independent Porsche Specialist

Servicing, MOTs, mechanical repairs/restorations, engine and gearbox re-builds, fourwheel alignment, performance upgrades. Special projects undertaken

Tel: 01892 652994 Email: info@octanegarage.co.uk

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

[www: octanegarage.co.uk](http://www.octanegarage.co.uk)



cmsporsche.co.uk EST: 1997

INDEPENDENT PORSCHE SPECIALISTS
IN TELFORD, WEST MIDLANDS - 01952 608-911



Over 20 years experience
Fixed Price Porsche Servicing (Please see our website for details), mechanical & bodywork repairs & factory P.I.W.I.S diagnostics
Labour rates from only £59.99/hour
Specialists in the supply of New & Used Parts that we have in stock for Porsches from: 1984 onwards
Porsches bought & sold in any condition: the GOOD, the BAD or the UGLY!!





01952 608-911 | www.cmsporsche.co.uk | cmsporsche@aol.com | 07831 711609

PORSCHE RELATED CHERISHED REGISTRATION NUMBERS

300 RS	991 PD	911 SCR	CAR232A	98 RSR
35 SYX	964 MC	911 FEG	XXX 911C	OO05 CAY
930 FF	964 GC	911 FJX	REG 911E	GT03 SPJ
987 MD	RUF 911T	911 MPY	RED 911H	GT03 AWH
997 CSS	X911 RUF	911 MSD	DJA 911R	RS18 POR
POR 997T	993 RUF	911 MXD	VOP 911S	RS68 POR
TON 997X	993 POR	911 PYT	CAB 911X	RS68 RSR
POR 911K	A993 XXX	911 RWS	A911 DPG	GT68 RSR
POR 911N	B911 RSR	WBZ 911	D911 POR	All on retention certificates for immediate transfer
POR 911Y	RSR 911K	VNZ 911	J911 GTN	
E944 POR	RSR 911T	918 MHH	P911 SCH	
WAG 944S	RSR 911X	S918 POR	S911 LER	

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



Hillcrest Specialist Cars

PORSCHE SPECIALIST
Service - Repairs - Sales

T: 01491 642911
hillcrestspecialistcars.com





ADVERTISE HERE

CALL KENNY ON

01732 920500

OR SEND AN EMAIL TO

KENNY.GILLAM@TALKMEDIASALES.CO.UK





Lakewell.com
CLASSIC PORSCHE INTERIORS

356 | 911 | 912 | 914 | 928 | 964 | 993
TRIM & INTERIOR PARTS TO OEM SPECIFICATION

LAKEWELL PORSCHE INTERIORS
KLEIN HEIDESTRAAT 71
B - 3370 BOUTERSEM

WEB: WWW.LAKEWELL.COM
EMAIL: INFO@LAKEWELL.COM
PHONE: +32 (0) 475 53 56 22

JANUARY SALE

NOW ON!

13 ISSUE JUST £39.99 PLUS COLLECTORS' EDITION BOOKAZINE!

SAVE 32%

FROGEYE BUYING GUIDE | **JAGUAR MK2 THREE MONTH RESTORATION!**

CLASSICS

FORD ESCORT MEET OUR LATEST PROJECT - THIS FANTASTIC MK3 1.3L

PLUS: ROLLS-ROYCE SILVER SHADOW | OUR TOP TEN TRIVIA PICKS | SHIBANI'S MK1 IMPREZA EMERGING CLASSIC | TRIUMPH ROADSTER OWNED 40 YEARS



MORRIS MINOR 51 YEARS AND 250,000 MILES

VAUXHALL CHEVRIER GSI LAST OF THE CAVALIER LINE | **DYNAMOS & REGULATORS** NEW LIFE FOR OLD TECH | **THE HELMUT BORN** HOW A LEGEND WAS BORN

JUST £39.99

SAVE 38%

E-TYPE SERIES 1 | **THE ITALIAN JOB SUPER**

JAGUAR WORLD

DECEMBER 2018 | THE WORLD'S BEST-SELLING INDEPENDENT JAGUAR MAGAZINE | WWW.JAGUAR-WORLD.COM

DREAM DRIVES From £5k to £50k
10 great buys

INCLUDING: XKE & XJ-TYPE | XJ6 SEBASTIEN & XJ6 MK2 XJ6 XJ6C & XKR

S-TYPE VS SAAB 9-5 Ford and GM's view of European executive cars

WORKSHOP IMPROVING THE JAGUAR DRIVE OF CLASSIC MODELS

COOMBS MK2 Driving a famous example of this super saloon

JUST £39.99

SAVE 32%

'69 CABRIO Preserving that cool factory original patina | **OVAL DAILY DRIV**

VOLKS WORLD

WOODSTOCK BUS 20 YEARS ON, THE '69 MONK - PAINTED BY THE ORIGINAL ARTIST - EXPOSED IN SOUTHERN CALIFORNIA

'56 BEETLE

RAGTOP RESTO

2176CC CAL STYLE STUNNER

READER'S RIDES Talk to your driveway | **DO IT!** Get a shift on Sorting gearchange issues | **READY!** Licensed to thrill VWs in Bond movies

JUST £39.99

SAVE 38%

ESCORT RS TURBO THE BLACK EDITION! | **CORTINA DELUXE** 200,000-MILE MK1!

ClassicFord

RESTORE • MAINTAIN • MODIFY | September 2019

HOME BUILT HEROES! Your stunning classic Fords - built in sheds, lock-ups and garages - plus top 10 tips for a successful next project

NO.1 The biggest and best-selling Ford mag!

INSIDE: CAPRI MK2 GHIA | CRANADA MK1 | ESCORT MK1 GT

BUY IT! ESCORT MK2 GHIA | **UPDATE IT!** GASKETS GUIDE | **REPAIR IT!** RESTORE STEELS

JUST £39.99

SAVE 38%

FATHER & SON FAMILY MINI PROJECTS | **SUBFRAM** MOUNTAINING

MiniWorld

ORIGINAL AND GREATEST MAGAZINE FOR

THE ULTIMATE CHALLENGE One man's quest to find ultra-rare parts for his 1959 Mini

60th MINI ANNIVERSARY

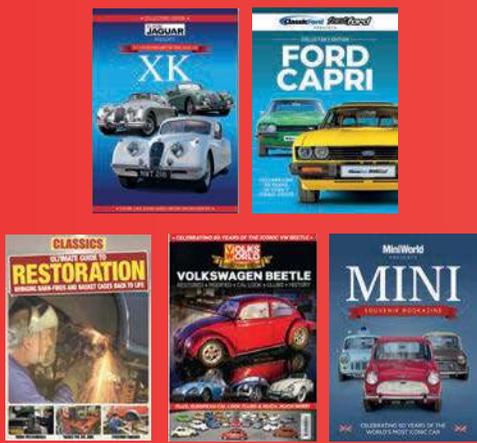
ROAD TRIP ISLE OF MAN & CORNWALL

RARE & RESTORED: 1968 MK2 AUSTIN MINI COUNTRYMAN | **OUR MINIS:** ROADSIDE REPAIRS

EVENT DIARY: YOUR GUIDE TO ALL MINI GO EVENTS | **NEW PRODUCTS FOR YOUR MINI** SHOW PICS, BEAULIEU, THISTLE FURN, AMBERLEY, DOWNTON | RPM AND MINI IN THE PARK UPDATES

JUST £39.99

CHOOSE YOUR COLLECTORS' EDITION BOOKAZINE!*



* SELECTED BOOKINES AVAILABLE WITH THIS PROMOTION

ONLINE: SHOP.KELSEY.CO.UK/JS20

CALL US: 01959 543747 AND QUOTE OFFER CODE: JS20

(OPEN MON - FRI 8.30AM - 5.30PM. CALLS ARE CHARGED AT STANDARD NETWORK RATE)

Terms and conditions: You will be asked to select your bookazine of choice at purchase. Offer ends 7th February 2019. Available to UK direct debit customers only. Savings based on full UK cover price. Your subscription will start with the next available issue. Prices correct at print and subject to change. Please allow up to 28 days for deliver of your bookazine. Bookazine choices are on a first come first served basis. For full terms and conditions and overseas charges visit shop.kelsey.co.uk.



DESIGNED & MANUFACTURED
IN THE UNITED KINGDOM

RIMSAVERS

PERFORMANCE, STYLE & PROTECTION

Cover up existing rim damage and save on wheel refurbishment costs by protecting your rims from kerb rash.

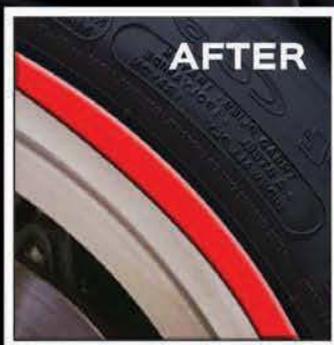
Our easy to fit kits are suitable for either DIY or professional installation.

Suitable for all weather conditions.

One size that fits most modern alloy wheels up to 22" diameter.

Made from a tough and durable UV stable plastic.

Wipe clean surface - not discoloured by brake dust.



WWW.RIMSAVERS.com

PICK AND MIX

Illustrating its VW-Porsche joint parentage, the 914 was originally launched with a 1.7-litre Type 4 flat-four in VW trim and a two-litre flat-six borrowed from the 911 T in Porsche 914/6 guise. In 1973, however, the 914/6 was discontinued and replaced by a new 914/4 (pictured) packing a two-litre version of the Type 4 flat-four. The 1.7-litre lump was replaced by a 1.8-litre unit a year later.





3,000+ PARTS ONLINE FOR AIR & WATERCOOLED PORSCHEs

EXPERT ADVICE • FAST GLOBAL DELIVERY • FREE UK SHIPPING OVER £50



CHARTWELL

THE SUPERBRAND BODYSHOP



PORSCHE RECOMMENDED REPAIRER

CHOSEN & APPROVED BY THE WORLD'S LEADING MOTOR
MANUFACTURERS TO REPAIR YOUR PRESTIGE VEHICLE

WE BELIEVE A JOB WELL DONE GIVES YOU PRIDE, TAKING THE IMPOSSIBLE AND MAKING
IT POSSIBLE DRIVES OUR NEED FOR SUCCESS. OUR CONTINUED INVESTMENT AND
DELIVERY INTO EXCELLENCE PROVIDES A SERVICE LIKE NO OTHER.

WWW.CHARTWELLS.NET

CHARTWELL HOUSE, 1 BRUNEL PARKWAY, PRIDE PARK, DERBY, DE24 8HR

01332 340972