NEW

997.2 Carrera

993 RS

2.4 S

PORSCHE 911 BUYER'S GUIDE

YOUR ULTIMATE GUIDE TO THE GREATEST PORSCHE 911s OF ALL TIME

964 Carrera

996.1 Carrera

911 Carrera 2.7

991.1 GT3 RS

COLLECTOR'S EDITION

100% UNOFFICIAL

Digital Edition

FUTURE

NINTH EDITION

Welcome to...

PORSCHE 911 BUYER'S GUIDE

For 58 years and counting, the Porsche 911 has been a motoring icon. Produced in many iterations including Carrera, Turbo, GT3 and Rennsport in Coupe, Cabriolet and Targa body styles, the 911 has captivated the heart and soul of many as the sports car par excellence.

Since the 911's 50th anniversary in 2013, values across the board have risen sharply. Rare and exotic models have attracted truly exotic prices, while models previously considered more 'everyday' in their nature have also become collectable. As values of these cars – as well as their overall desirability – continue to soar, it is more important than ever to be scrupulous in your endeavours to buy one.

This new edition of the Ultimate Porsche 911 Buyer's Guide provides you with the means to buy the very best 911 example for your budget. With expert analysis and industry tips, this bookazine is your number one resource for buying that coveted 911, whether it be your first model, your next model, or an addition to a larger collection.

FUTURE

PORSCHE 911 BUYER'S GUIDE

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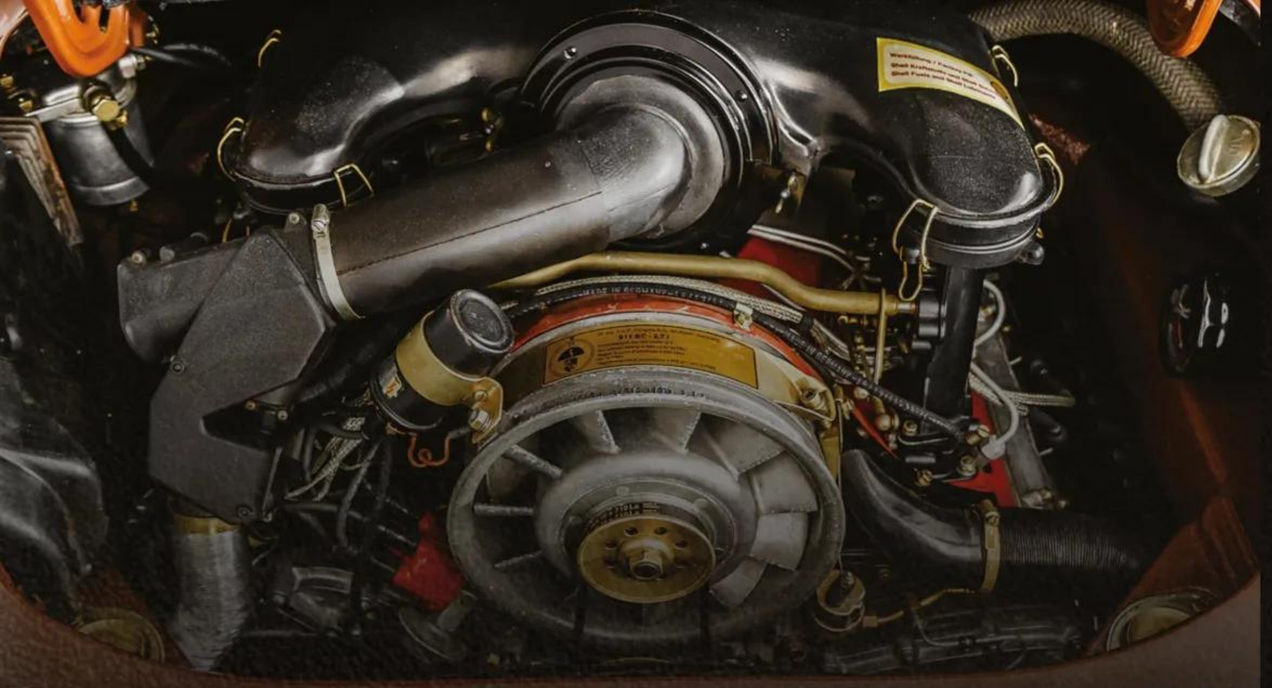

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Take a seat in the air-cooled 911 of your choice with our extensive collection of ultimate guides of each generation, featuring the 2.4S, 2.7 Carrera, 964 Carrera, 3.2 Carrera and 993 Carrera S

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The 911 RS is one of the very best performance supercars of all time. We bring you guides to three of the best from the pre-impact bumper 2.7RS to the 993 and 991.1

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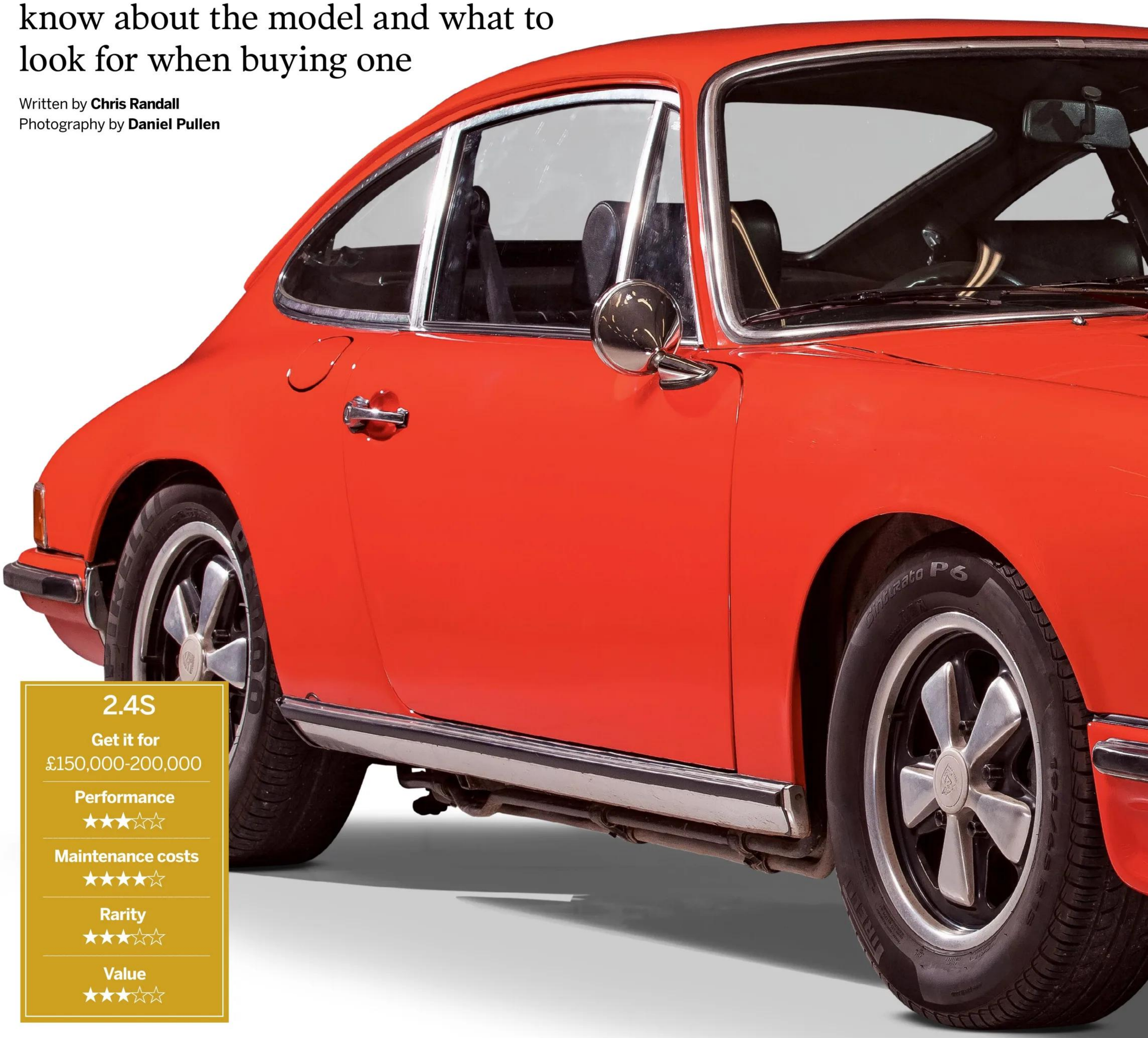
Totat
911

2.4S

The 2.4S has long been revered as one of the most desirable early classics. Here's everything you need to know about the model and what to look for when buying one

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



2.4S

Get it for
£150,000-200,000

Performance
★★★☆☆

Maintenance costs
★★★★☆

Rarity
★★★☆☆

Value
★★★☆☆

HISTORY AND TECH

Only a few years had passed since the 911's arrival when Porsche introduced a new range-topping model. The 'Super' was a clear statement of intent by Zuffenhausen, one that reinforced the Neunelfer's reputation as a proper sports car. Not only did it boast the highest power output, but the S was also the first model to receive a more focused specification that included light alloy Fuchs wheels, uprated suspension with anti-roll bars front and rear, and ventilated disc brakes. Continuous development brought more power and fuel injection, and the arrival of the E Series in 1972 introduced a larger engine. This was the 2.4S, the 2,341cc flat six now producing 190hp and a beefier 211Nm of torque. The increase in capacity was achieved by fitting a longer-throw crankshaft for a stroke of 70.4mm, and it was accompanied by a lower compression ratio (8.5:1 compared to the 9.8:1 of the 2.2S) that improved emissions and allowed the new model to run on 91 octane fuel. The steel con-rods received a different hardening treatment, there were oil jets to cool the pistons, and a more efficient oil cooler was employed. Also worth noting is that the fatter torque was produced at a peaky 5,200rpm, something that altered the way the S drove compared to the more relaxed E and T models. However, Porsche claimed identical performance figures to the previous 2.2S: a maximum of 140mph with 0-62mph in 6.6 seconds. Those figures were delivered via the Type 915 transmission with revised ratios, while buyers also had the option of the Type 925 Sportomatic gearbox (it was stronger than the Type 905 used previously). There was a minor increase in overall weight compared to the previous model, but at 1,077kg this was still a lithe car by any measure and a fitting way to demonstrate the 911's sporting credentials. Externally, the new model could be identified by the 2.4 badge on the engine lid's grille which was now painted black, and the E Series also brought with it a slightly more curious development – the external oil filler. Intended to improve the weight distribution (and handling) by relocating the oil tank, it proved confusing and unpopular and was dropped for the F Series model that arrived in 1973. That change was also accompanied by exterior tweaks that included black instead of chrome trim. Buyers could have their 2.4S in Coupe or Targa body styles, while zinc-coating the lower half of the shell brought some improvement in corrosion resistance. In all, just over 5,000 examples were produced and the 2.4 would be superseded by the G Series 911 of 1974 with its 2.7-litre engine. ➲

FIVE-YEAR VALUES (£)	CATEGORY 4	CATEGORY 3	CATEGORY 2	CATEGORY 1
JUL '15	**90,100**	**117,000**	**151,000**	**189,000**
NOV '16	**118,000**	**169,000**	**226,000**	**292,000**
SEPT '17	**82,100**	**107,000**	**149,000**	**219,000**
MAR '18	**82,100**	**107,000**	**149,000**	**219,000**
DEC '18	**77,100**	**106,000**	**136,000**	**192,000**
OCT '19	**77,100**	**106,000**	**136,000**	**192,000**

- Values spiked in 2016 following a series of high-profile auction results, not least of which was the June 2015 Bonhams sale of Richard Hamilton's car for £393,500. This wasn't indicative of the market in general, and values slipped back.
- Current values are very similar across the UK/US and European Hagerty guides. German collectors are likely to pay less for condition 4 ('Fair') cars that tend to be more numerous there.
- 12-month major auction results are in line with our guide prices, with most around our condition 2 ('Excellent') price. This is as expected, and our values are stable as a result.
- UK collectors will pay a premium for C16 RHD, five-speed manual. US collectors also pay a premium for factory air conditioning and sunroof, but -15% for Sportomatic gearboxes.

THE VALUES STORY

HAGERTY.

According to specialists, including Jonathan Franklin of Rare Car Finance, the very best examples fetch in the region of £160,000-195,000. That's for a right-hand drive S, with left-hand drive cars fetching less, as does the Targa. Don't dismiss the latter as it has a charm of its own, but it's the Coupe that buyers want while the E Series featuring the 'Oel Klappe' external oil filler are also the more desirable choice. Of course cheaper cars are out there, but as our specialists point out there's an inherent risk in buying one that may be ready for an expensive restoration. With that in mind, 'buy the best you can afford' is a mantra worth heeding.

MARKET RIVALS

If you want luxury and mile-munching comfort there are all manner of 997 and 991 models to provide that, not to mention being able to have your pick of the 992 range with enough left over for something more classic. But if you were to spend the lot on just the one car, we have a few ideas.

930 Turbo

Still the poster car for many, the combination of classic styling cues and old-school power delivery is very beguiling. That turbocharged punch might lack sophistication, but mastering this car's foibles brings plenty of satisfaction. The important thing is to find a good one; there's the threat of corrosion and expensive mechanical rebuilds ready to take the shine off a rash purchase.

964 RS

Sticking with the air-cooled theme this is a more focused offering compared to the opulence of the 930. Razor-sharp responses combine with Porsche's lightweight philosophy to deliver an incredibly engaging driving experience. Likely too valuable to take on track nowadays, and care is needed to ensure it hasn't suffered in the past. But a good one? That's special indeed.

997.2 GT3 RS

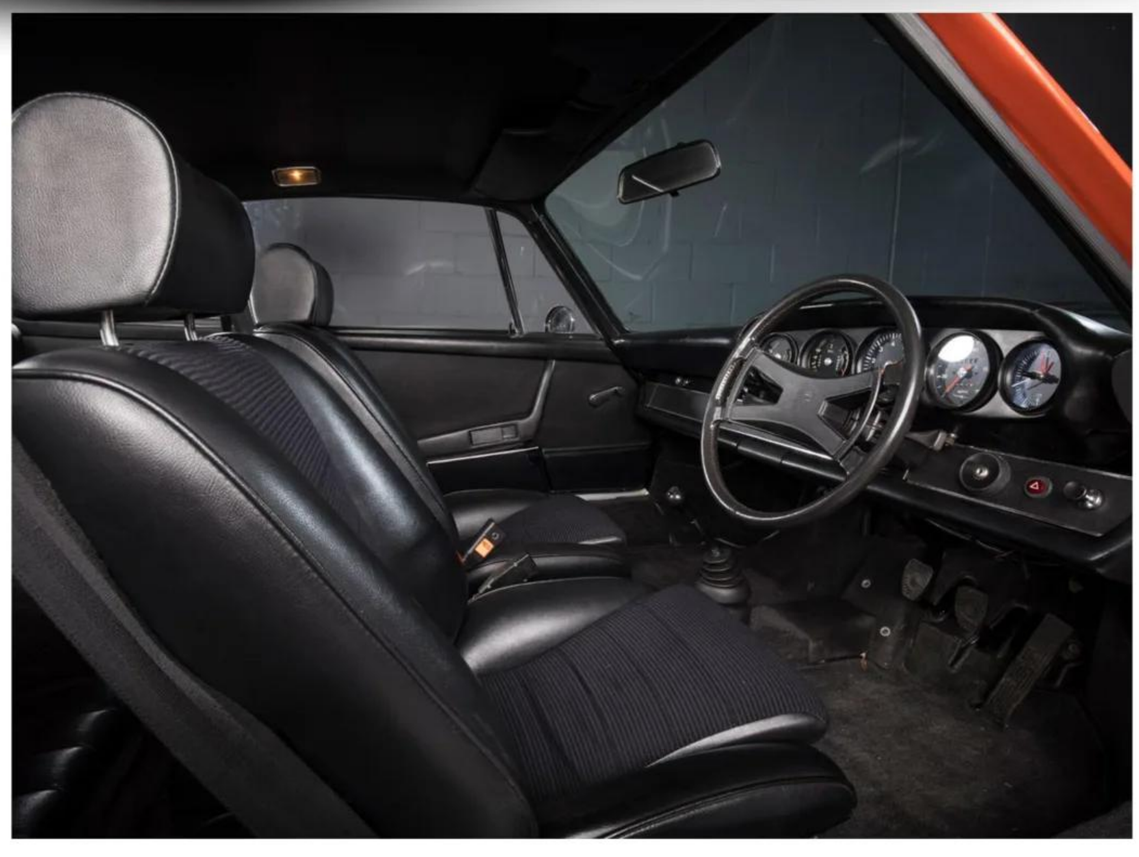
A grand choice that blends the quality of the 997 with amazing ability on the road. With 450hp on offer from the 3.8-litre motor, it's as quick in a straight line as you'd expect, but there's rather more to this car than sheer speed. A revised aero package, stiffer suspension and active engine mounts all featured, and with just 1,500 made it's both relatively rare and achingly desirable.

991.2 GT3

An epic confection that matches the 2.4S concept for today's world. Its 500hp, 4.0-litre flat six revs to a howling 9,000rpm and is considered one of the finest engines ever to be fitted to a road car. Oh yes, and you could have it with a six-speed manual gearbox. Stunningly fast and capable, it could just be all the 911 you'd ever want, though unlike the other cars in our list, values are likely to fall.

BELOW S had a more opulent interior than the T or E, and revved harder – particularly in the top half of the rev range

WHAT'S IT LIKE TO DRIVE?



Driving a 911 of this vintage is a very different proposition compared to the models that followed, and while that appears to be stating the obvious, bear with us. We've become used to ever greater power outputs, but re-engaging with the purity of a car like the 2.4S is far more rewarding than you might think. While it's easy to be seduced by outright speed, the car here is a reminder of a time when a more delicate, nuanced approach to driving was required if you were to cover ground quickly. And this S delivers on that approach in spades. For one thing there isn't the huge shove on offer with a slight flex of the right ankle that you'll get in a modern Neunelfer; you have to work the flat six harder to make progress, and the resulting noise makes for an intoxicating experience. The superb throttle response means you can meter out the power with incredible precision, and precise is exactly how you'd describe the handling. There's the richly detailed feedback delivered by the steering, and while the firmer suspension setup inspires confidence and imbues the car with real poise, it's combined with a ride that's never harsh. Forget the outright performance statistics, then, and it's an experience to savour. ➲

BUYING ONE

As we pointed out when we took an in-depth look at the 2.4T back in Issue 169, there is one unavoidable problem with a 911 of this age and that's the potential for very costly restoration. Just like the less powerful model, bringing an S back to exceptional condition will swallow the same amount of money as restoring a 2.7 RS, so the need for caution is clear. Corrosion can strike in a number of areas, and eradicating it from the inner and outer wings, sills, floors and door pillars will be neither straightforward nor cheap. While many poorer examples have been weeded out over the last few years they do still exist, and when prices were more affordable it meant that numerous cars didn't get the quality of restoration they deserved. So establishing exactly what work has been done and how well remains the number-one priority. And as we also highlighted with that 2.4T, if you're tempted by the cheaper end of the spectrum you're likely to be better off starting with an unrestored car; at least that way you won't be faced with undoing someone else's poor workmanship. If you've the slightest doubt about condition – or the provenance and history of the car – engaging the services of an expert to assess the situation is the sensible way to proceed. They will also be able to identify any deviation from the correct specification, missing period details being something that will matter to those wanting the very best.

It's also worth mentioning that the mechanicals can present expensive challenges, too. While the flat six of the S is fundamentally robust it's not without problems, some of which will be age-related while others, such as a propensity to leak oil to one degree or another, are part and parcel of ownership. A full-scale rebuild can relieve you of around £20,000, and it must be done by someone who properly understands these engines. A specialist will also ask for £5,000 or so to re-build the 915 gearbox, which can suffer from failing synchromesh; the second to third shift is often the weak spot. It goes without saying that the integrity of the body shell is the crucial factor, but don't dismiss a slightly shabby cabin as it's another area that will significantly dent the budget if you're after perfection. Ultimately, caution is the watchword before taking the plunge.

BELOW Red fan shroud was reserved for the S and RS-spec early 911s. The E got a green shroud, while the T had black

DESIRABLE OPTIONS

This isn't an area that should trouble a potential buyer today. As we highlight elsewhere the important thing is finding a car with the right history and condition, those being the things that will govern how much you will need to spend and the car's value and desirability going forward. Again, that reinforces the need to work with a relevant expert as a 911 of this age isn't a car that should be bought on a whim, or without the input of a respected specialist. Approach the buying process as taking on a piece of Porsche history, and the importance of finding the right S is clear.

> AS FOR OWNING ONE, IT GOES WITHOUT SAYING THAT THIS ISN'T A 911 TO BUY AND FORGET

ABOVE A good, manual 915 gearbox makes all the difference, though you should expect some recalcitrance until the gearbox oil warms up

INVESTMENT POTENTIAL & OWNERSHIP EXPERIENCE

With the period of market correction still very much in evidence, establishing where values might head in the next few years isn't straightforward. However, our experts do point out that the S has held up very well, so you can expect a good one to maintain its value in the medium term. And the longer term? Well that's harder to predict, but we can be fairly sure the appeal of this car isn't going to wane amongst those that appreciate the very best that Porsche had to offer almost half a century ago. As for owning one, it goes without saying that this isn't a 911 to buy and forget. Assuming it will be used and not sat in a collection – that would be a shame given its talents – it will need ongoing care to avoid costly deterioration. But keep that firmly in mind and the reward of owning a special part of 911 history will be immense. *911*

TOTAL 911 VERDICT

By the time this model arrived, almost a decade had passed since the 911 was introduced, but that did nothing to dampen the enthusiasm for what remained the pinnacle of the range. Owning an S back then was special, bringing the sort of power and prestige that might be associated with one of the GT cars today. In many ways, nothing has really changed. The 2.4S still feels special, the combination of accessible performance and handling finesse imbuing this particular model with a compelling character. It will feel a world away from the modernity of the cars that followed many years later, but for many that's exactly where its appeal will lie. And knowing that you own the very best that Porsche produced at the time can't help but add to the allure. There's no escaping the fact that careful buying is needed – with the sums of money we're talking about here you couldn't really expect anything else – but get it right and in return you'll be rewarded with a truly special driving experience.

★★★★★

THANKS The car in our pictures is for sale at Rare Cars, specialists in bespoke classic, supercar, luxury and prestige car finance arrangements for individuals all over the world. For more information visit **rarecarfinance.com**.

2.7 Carrera

Get it for
£130,000-£200,000

Performance
★★★★☆

Maintenance costs
★★★★☆

Rarity
★★★★☆

Value
★★★★★

2.7 CARRERA: MFI v RoW

Although buyers in the US could get their hands on a 2.7 Carrera, it was a different beast to that offered in Europe. For one thing, they missed out on the delights of the 210bhp RS motor, as the mechanical injection system dispensed fuel far too casually to work with the forthcoming catalytic convertors. The only option was to fit American models with what was essentially the 911S engine – the 911/93 unit that was fuelled by the far more accurate K-Jetronic system and featured milder camshafts and cast rather than forged pistons. But while it ran efficiently, it lacked the whip-crack response of the MFI engine and rather more importantly lost 35bhp in the process. Torque was also down, all of which had a predictable effect on outright performance. There was an external difference, too, the US car getting more sophisticated dampers for the 5mph impact bumpers, which made them slightly longer compared to the simpler European-spec items. Hard to value today, these cars certainly fetch a good deal less than the full-fat MFI.

2.7 CARRERA

An RS might be on everyone's wish list, but there is another way to experience that awesome engine. **Total 911** advises on buying the almost-as-rare 2.7 Carrera

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

Hugely sought after and with values already high in the stratosphere, Porsche's first Rennsport, the 2.7 RS, fully deserves its position as one of the finest 911s ever made. But with production limited to 1,590 examples, the chance to sample this exquisite confection is somewhat limited.

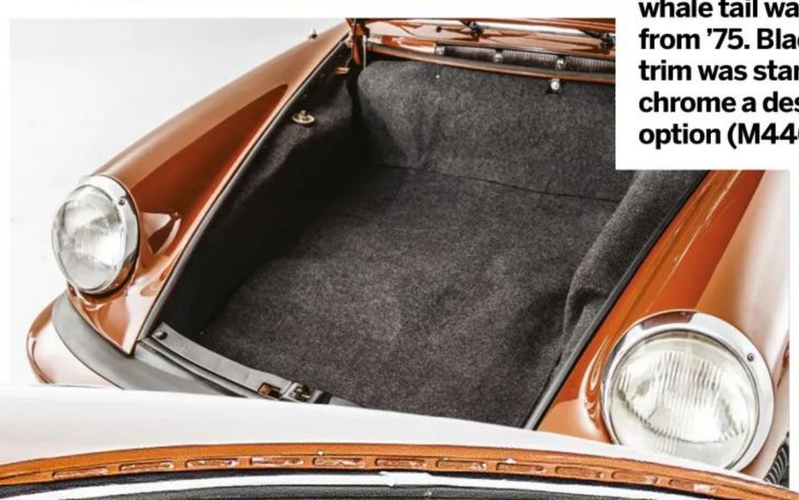
Its demise also left Porsche needing a new range-topper and it would arrive in the form of the car you see here, the 2.7 Carrera. It was hardly more numerous – 1,667 examples rolled out of Zuffenhausen between 1974 and 1976 – and examples are already fetching in the region of £200,000. But what you had was a car that blended the impact bumper, G-series bodyshell with the mechanically injected 2.7-litre engine from the RS, for some the perfect marriage. When it comes to buying one, it makes sense to start with that legendary flat six. The 2,687cc unit was the last outing for mechanical fuel injection on a Porsche road car, and managed a useful 210bhp and 255Nm of torque. With an 8:5:1 compression ratio, it also featured forged aluminium pistons and Nikasil cylinder bores, a magnesium light alloy crankcase, chain-driven valves and dry sump lubrication. And, like many aspects of early 911 ownership, originality is key so it's vital to know what you're dealing with.

Check the number stamped on the crankcase tallies up with the paperwork – if it's been ground off, that suggests replacement (the same applies to the gearbox). The good news is that the 911/83 engine is fundamentally strong, but with the youngest examples now 40 years old, some deterioration is to be expected. Corrosion of the magnesium alloy crankcase could have led to it becoming porous, and it goes without saying that a thorough examination for signs of internal wear is vital. Bear in mind that a re-build could approach £25,000 depending on the extent of the work required and it needs to be completed by someone who knows these engines – done badly and it simply won't go back together properly.

The condition of the engine ancillaries is equally important, as a major overhaul will add a substantial chunk to the final bill. A key aspect is that Bosch mechanical injection (hence the MFI moniker). Using a complex six-plunger pump, the system was reliable when new but ageing components could mean an overhaul is due, and that needs someone that understands its workings. Neil Bainbridge at BS Motorsport is such an expert, and advises that a pump rebuild alone will cost ➲

"The 2.7 Carrera blended the impact bumper, G-Series bodyshell with the mechanically injected 2.7-litre RS engine"

Model	**911 Carrera 2.7**
Year	**1974-76**
Engine	
Capacity	2,687cc
Compression ratio	8:5:1
Maximum power	210bhp @ 6,300rpm
Maximum torque	255Nm @ 5,100rpm
Transmission	Five-speed manual; rear-wheel drive
Suspension	
Front	Trailing arms with telescopic dampers; torsion bar springs; anti-roll bar
Rear	Telescopic dampers; torsion bar springs; anti-roll bar
Wheels & tyres	
Front	6x15-inch; 185/70/R15
Rear	7x15-inch; 215/60/R15
Dimensions	
Length	4,291mm
Width	1,610mm
Weight	1,075kg
Performance	
0-62mph	6.3 secs
Top speed	148mph



Early examples of the 2.7 Carrera were available with the optional duck tail, as here, though a whale tail was available from '75. Black window trim was standard, with chrome a designated option (M446)

PRICES OF PARTS

• Front bumper	£719.14
• Front wing	£749.99
• Timing chain kit	£270.04
• Clutch kit	£739.19
• Front strut insert	£181.86

VALUES

Issues of age and rarity rear their head again here and, with prices changing rapidly, meaningful valuation isn't straightforward. What we do know is that the best examples are being advertised for more than £200,000 and you could easily pay half that for something in need of major work. Anything between that is far harder to pinpoint, but you can bet on prices only heading one way.

• Project	£100,000
• Regular use	£150,000
• Concours	£200,000+

“Tired anti-roll bar bushes are often the source of knocks and clunks”

in the region of £2,000 and take a couple of days. Wear in the throttle bodies and injectors will add further cost, so be wary of an engine that doesn’t run cleanly.

The 915/06 five-speed transmission is a known quantity and not especially difficult to re-build, although some components can be hard to source and don’t come cheap. The shift isn’t especially quick, and ham-fistedness causes premature wear of the synchromesh, so look for a gearbox that changes gear cleanly and without crunching or excessive baulking. You’ll need to budget in the region of £1,200 for a basic overhaul, although it could be three times that if things are bad. As for the rest of the running gear, the MFI shared the basic layout and a number of components with the RS. That means unassisted rack and pinion steering that should feel pin-sharp, and a suspension set-up comprising of struts at the front, alloy semi-trailing arms at the rear, and Bilstein dampers and torsion bar springs all round. There were anti-roll bars at both ends. It’s a straightforward arrangement and one considered bulletproof by most specialists. Also ensure that joints and bushes aren’t worn or perished. Tired anti-roll bar bushes are often the source of knocks and clunks.

Equally important is getting the car on a ramp so that suspension mounting points can be checked for signs of rot. Fixing points for the front struts and the torsion bars can suffer, and sorting it properly will be an expensive business. The braking system employed ventilated discs all round, and were capable enough for road use. The front calipers were alloy items, shared with the RS, and can suffer from corrosion, which in turn can lead to sticking pistons. Problems here will require an overhaul, although the rear calipers were simpler items which can be replaced at a reasonable cost. Having said that, expect a four-figure bill if a complete brake refresh is required.

The Fuchs wheels – 6x15-inch items in front and 7x15-inch items at the rear (7x15-inch and 8x15-inch items were optional) wearing 185/70 and 215/60 tyres – suffer from corrosion, and while refurbishment isn’t especially pricey, clumsy attempts in the past may mean starting again. And, the date stamped on the inside of a wheel spoke is a further clue to originality.

It’s time, though, to tackle the thorny issue of corrosion, the bane of many an early 911. The G-series shell was stronger than that used previously, but despite Porsche’s attempts to better protect the metalwork, it’s susceptible to rotting away. A bad one will lay waste to your bank account, and it’s all too easy to spend thousands of pounds eradicating all traces of corrosion.

In '75 cars the dashboard, knee protection and door top trim matched the interior colour. Hubcentric steering wheels were thicker than later 10mm offset items. Note here the mono speaker mounted on the dashboard as standard

It's also vital to consider any previous work, as it's likely to have been restored at least once in its lifetime, and establishing the quality of any work and the effect that might have had on originality is key. Values weren't always so high, so previous owners might have skimped, and an unsympathetic restoration could have led to original details being lost; the original finish was scrappy in places, so is it too perfect?

As for rot-spots, every panel will need careful examination for tell-tale bubbling or evidence of previous botched jobs. The front wings rust around the wheel arch lips, fuel filler aperture and headlamp bowls, while road muck accumulates around the bumper mountings, rotting the wing from the inside. Also examine the front luggage compartment, checking the floor section, inner wings, and seams, and remove the carpet and trim, as water leaks will cause serious problems and could have affected the fuel tank and its mountings. The front scuttle and front and rear bulkheads need examination, the latter from inside the engine

BUYING TIPS

Age, relative rarity, and the sheer cost of major restoration mean that care needs to be taken if the idea of a 2.7 Carrera floats your boat. Of course, the same can be said for most 911s of this period, but as values are certain to climb, plunging in without caution could easily see defeat snatched from the jaws of victory.

- **Originality:** This is going to matter, so you need to be certain of exactly what's been done in the past and by whom. Check whether chassis and engine numbers match the paperwork, while date stamps on most components are further clues to the car's past
- **Bodywork:** Corrosion of the bodywork, and the cost of eradicating it, will always be the biggest concern. The only option is to examine every inch of the bodywork to establish the extent of any problems. And don't assume that minor issues will be easy to sort: they almost certainly won't be.
- **Engines:** Although it's essentially robust, a complete rebuild can swallow £25,000 and needs to be carried out by someone who knows what they're doing. Check for matching numbers if you're investing, including the reciprocating four-digit numbers on each side of the crank case.
- **Transmission:** Unsympathetic use will take its toll, and you'll need to set aside a four-figure sum for a rebuild. Watch out for graunching synchromesh, the whine of worn bearings, or an obstructive shift that could be gearbox or clutch related.
- **Brakes/suspension:** Not a particular Achilles' heel but corrosion and age-related deterioration will mean a costly overhaul is on the cards. Perished suspension bushes will ruin the handling and cause knocks from beneath the car.
- **Interior:** Like any 911 of this era, the cost of re-trimming with original materials can mount up alarmingly. Budget accordingly if it's a bit scruffy, and make sure items such as electric windows and air-conditioning are working properly.

bay. Check the screen and side window seals, as perished items can allow water into the cabin, encouraging floorpan rust.

Both the 'A' and 'B' pillars need checking as they can corrode around the door hinges and latches, while the kidney bowls at the rear of the sills are notorious for rotting out, as are the sills themselves – the condition and strength of the jacking points are good indicators. Other areas at risk include the rear quarter panels and the front and rear valances, and if a sunroof is fitted, blocked drain holes can lead to the base of the A-pillar rotting out. On the whole, panels and repair sections are available but at a cost, which will be more if fettling is required during fitting.

Finally, it's worth mentioning those bumpers. Made from aluminium, the paint could be hiding serious pitting beneath and the only answer will be to have them stripped and shot-blasted. A replacement front item is more than £700, and removal can be fiddly. While on the bodywork, the rear spoiler for 1974 models was the 'ducktail' while cars from 1975 onwards had the 'whaletail', although both could be deleted for a cleaner look. It's worth establishing the original specification as they could have been added or removed later.

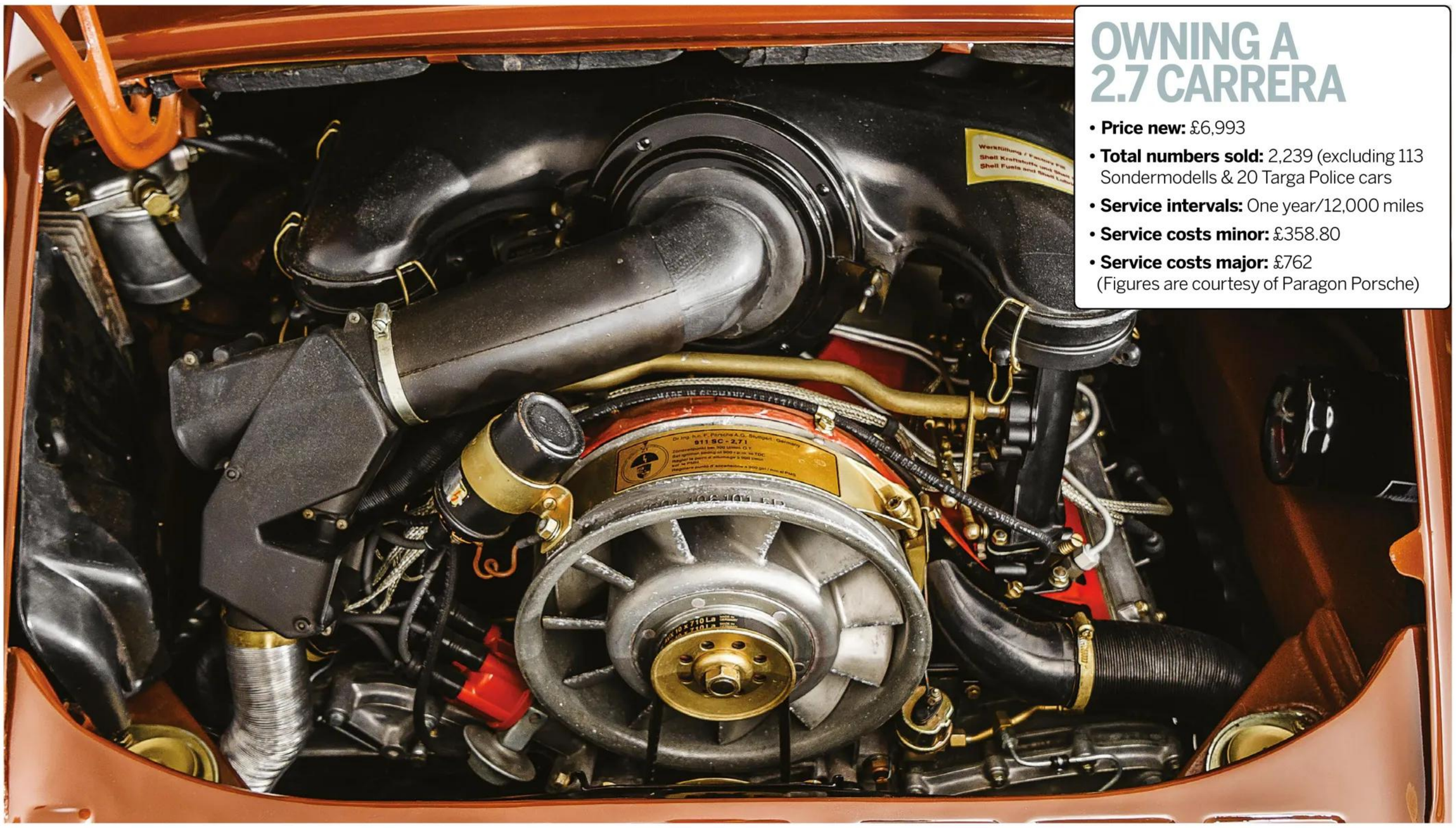
It is also worth acknowledging the existence of the open-topped Targa variant – around 600 were made and while the roof arrangement is straightforward, it's important to check the condition of the roof panel and seals. Replacing the latter isn't too costly but if damaged by cack-handed owners, they could have allowed water to enter the cabin, leading to damp carpets and the onset of corrosion. These roofless cars are also more prone to chassis flex, so get it checked. Which brings us to the interior. It's typically simple, although owners could add plenty of options such as air-conditioning or leather trim, and from 1976 Porsche made huge changes to the available choices of interior fabrics on offer. Most examples were trimmed in tweed cloth or leatherette, and the condition will be obvious. Original materials for a re-trim can be sourced, but at a price. Lift as much of the carpet as possible to check the condition of the floorpan and to ensure everything is working properly, as aged wiring and electrical connections can cause issues. Corroded heat exchangers are a common problem on older 911s, too, so check the heating operation. There's little else to worry about – it's the condition of the bodywork and engine that should be of far greater importance.

Ultimately, the 2.7 Carrera is an appealing proposition, and that RS-derived engine is a gem, but like any older 911 it takes careful buying. Originality is everything, especially with values continuing to climb, and the cost of a major restoration will be significant. So, it's vital to get it checked out before taking the plunge on this icon of the impact-bumper generation. 911

SPECIALIST VIEW

"The 1974 Carrera RS was built on the new short-bonnet G-series chassis, which incorporated a strengthened floorpan, front and rear impact bumpers, revised lighting, and other features to improve crash-worthiness demanded by the United States. For reasons of economy, Porsche manufactured all-new 911s on the same chassis. They also changed the engine specs for the '74 Carreras. The short-bonnet G-series chassis will therefore forever remain a hallmark of automotive design and this outstanding example is presented in a period hue of the wonderfully named 'Bitter chocolate.'"

Lucas Hutchings, The Octane Collection



OWNING A 2.7 CARRERA

- **Price new:** £6,993
- **Total numbers sold:** 2,239 (excluding 113 Sondermodells & 20 Targa Police cars
- **Service intervals:** One year/12,000 miles
- **Service costs minor:** £358.80
- **Service costs major:** £762

(Figures are courtesy of Paragon Porsche)

964 CARRERA

Chastised at launch for its apparent nannying technology, today the 964 is arguably the most revered 911. If you're buying one, here's everything you need to know

Written by **Kieron Fennelly**
Photography by **Damian Blades**

964 Carrera

Get it for
£60,000-£90,000

Performance
★★★☆☆

Maintenance costs
★★★½☆

Rarity
★★★☆☆

Value
★★½☆☆

HISTORY AND TECH

Once Peter Schutz had reinstated the 911, wise heads in Porsche knew it would need drastic updating. However, the steady rise in the US dollar enhancing both 911 profitability and sales removed some of the urgency as development efforts were diverted into high-tech projects, notably the 959 supercar. Major objectives were to use technologies developed for the 959 to make the 911 more advanced, notably offering four-wheel drive as developed by Audi for the Quattro, and improved aerodynamics: Porsche was embarrassed by the Carrera 3.2's Cd of 0.40 (and 0.42 for the widebody) when Ford's Scorpio and Ferdinand Piëch's new Audi 100 could boast 0.30. But whereas both saloons looked vastly different from their angular predecessors, the Vorstand decreed that the 911 was not to change above the axle line, a challenge for the stylists. Invisible to onlookers was the air-smoothed underside of the 964: this hid a completely revised chassis, necessary to incorporate 4x4 transmission and rear air suspension. The latter ultimately proved too expensive to fit and PDK, which Porsche also wanted to offer, was simply not ready, but it showed the extent of Porsche's ambitions.

However, the new 964 was fitted with an integral transmission based on the 953 Dakar-winner. This meant replacing the torsion bars with conventional strut suspension to leave room for the front differential and the torque sensors, which also activated the ABS. Another 911 first was the fitting of power steering, deemed necessary because the C4 964 would be 180kg heavier than a G50 3.2. Larger four-piston caliper brakes completed the underside where aerodynamicist Norbert Singer was seconded to help. His efforts, combined with the stylists' work reduced Cd to an impressive 0.32. Porsche even specified where the aerodynamic gains came from: Singer's faring contributed 40%, the reduced-gutter A pillars and windscreen bonding a further 25% and the rounded nose and rear bumper 30%. Development of the air-cooled flat six cost far more than anticipated. To simplify manufacture Porsche wanted a one-engine version 964 which would also be compatible with the latest Californian NOx regulations without catalyst power losses. However, reconciling more consistent combustion with greater output, but without a water-cooled four-valve/cylinder head to dissipate heat (again deemed too expensive) proved difficult. Finally, Porsche overcome this by boring out to 100mm to make 3,600cc; with a twin-plug head administered by the latest Bosch Motronic, the 964 now reached the benchmark 250bhp at 6,100rpm and offered 229lbs/ft at a sporting 4,800rpm. The 964 C4 was launched in October 1988 and the C2 a year later.

A Tiptronic version, the first automatic 911 for a decade, followed. ➲

THE VALUES STORY

Porsche shipped only about 2,000 Carrera 2s to Britain, these retailing at around £45,000 with common options. The appearance in 1997 of the completely new 996 took Porsche 911 ownership to an altogether wider constituency and the 993 became the fallback for Porsche traditionalists, weakening 964 values. Only the low-volume 964 RS or Turbo models commanded anything like their new prices and by 2005 unloved 964s could be had for £12,000 or less. The low point was reached around 2009 when £10,000 offered the choice of SC, 3.2 or 964, all in need of substantial work. Then post-recession, values of air-cooled cars started to increase: the 964 in particular proved popular, boosted of course by the appeal of Singer Vehicle Design's brilliant reimaginings of the modern classic. This led other companies to use the 964 for their own luxurious backdate projects, and so numbers of available 964s began to decrease. This has given rise to a big swing in 964 values, and today a good, non-sunroof and manual 964 C2 Coupe with low mileage will fetch very nearly six figures.

WHAT'S IT LIKE TO DRIVE?

964 enthusiasts claim it offers the best of both worlds, in terms of the modern and vintage 911 experience, and they have a point. Behind the wheel, the cabin is as familiar as ever, but the restyled instruments, slightly more logical positioning of switches and above all the new short-throw gearshift are worthwhile improvements. Underway, the larger engine offers more torque below 3,000rpm and when performance is called on, the revised gear ratios of the G50 seem particularly well chosen. On its new chassis the 964 feels altogether more sophisticated: body control is better although road noise in the cabin and refinement are little different. However, Porsche's power steering transforms behaviour: where the older Carrera's wheel could writhe in the driver's hands, transmitting every bump in the road, its steering loading up markedly mid-corner, the 964's nicely weighted assistance smooths this, yet the driver senses no real loss of road feel. In the right hands a C2 is wonderfully agile, but ultimately injudicious throttle use or simply lifting off suddenly can still make it slide. ➲

ABOVE New active rear wing raised at 50mph, lowering again at 6mph. Twin-plug flat six boosted power and efficiency, and inside, the 911's ventilation was at last simplified

MARKET RIVALS

A notional £40,000-£75,000 offers air- and water-cooled 911 possibilities.

993

The obvious alternative. More refined mechanically, its ride is improved, and quieter. The 993's aesthetics alone – that rear three-quarter aspect – will be enough to persuade some buyers. But the more raucous, frog-eye 964 will appeal to purer traditionalists.

G-body

In this bracket, SCs and 3.2s will range from useable, but requiring continuing work, to well-restored examples needing little more expenditure. Unassisted steering and less-effective brakes combine with a cruder ride to make these 911s more suitable for weekend fun than longer journeys.

997.2

£40,000 buys a good, low-mileage 350bhp Carrera or a 385bhp S with more use, but still with a clear service history. Less challenging to drive, these 2010-11 cars are still depreciating. Chasiss corrosion and normal consumables wear mean they may need significant expenditure in the medium term.

991.1 Carrera

Depreciation means prices begin not much above £40,000 for a 2012 70,000-mile, 350bhp, seven-speed manual example; most were PDK. £70,000 suffices for a high-spec 2015 S. The wider chassis gives a more refined ride and sets new handling benchmarks, but a less involving driving experience.

BUYING ONE

Specialist Philip Raby, who founded Total 911, points out that 964s are 30-year-old cars, and today how well they have stood up to or been protected from the passage of time is the most important factor. Early 964 problems involved oil leaks from the cylinder head – concerned about heat dissipation, Porsche had not installed head gaskets. Similarly, the rubber damper in the Freudenberg dual mass flywheel broke up and caused vibration. Both these problems were resolved on post-MY 1991 cars and earlier 964s have mostly been repaired under warranty. The 964's mechanics are reliable, especially the cooled flat six, a robust unit and a factor which does not always work in its favour as it can keep running even when badly out of tune, effectively delaying an evermore expensive repair. It still leaks oil, though as the engine is shrouded underneath, this is not always apparent. Often a cause of leaks, the oil pipes to the front-mounted oil tank can corrode, much as exposed brake lines will. On a restored car, all oil and brake unions should have been replaced. The G50 gearbox is vice free, but periodic changes to the Tiptronic fluid help smooth functioning.

964s do rust – rear panels and suspension mountings are vulnerable, but age-related deterioration is usually more apparent with their electrics, says Raby, who points to troublesome door-mirror electrics, especially if the standard rectangular item has been replaced by the 'tear drop' shape. Sunroofs can stick, as can the central locking, and after 30 years door-locking mechanisms will benefit from a rebuild; radios and alarms can also malfunction and cause other problems. The 964 cabin wears well – Porsche used thicker leather than on the 997 says Raby, you just have to compare how their seat bolsters wear. Frayed stitching on the steering wheel and gear knob as well as the floor mats are all easily remedied. The paint covering the 'soft-impact' bumpers becomes brittle and any substandard repairs here should be evident. The bonded windscreen surrounds rust and headlight adjusters also fail through corrosion: part of the wing structure, they are time-consuming to repair.

Paul Stephens, whose AutoArt has been building 964-based bespoke 911s since 2005, warns that mechanically, 964s are more complex than earlier 911s: "It makes them expensive to put right and though most on the market will have had a cylinder head rebuild, a compression test is still worth doing; look too at the tinware (engine shrouding) which rusts away out of sight." He also points to the base of the B pillars and suspension mountings, both costly areas to repair. ➲

BELOW 964's revised body and smoother underside dramatically improved the 911's drag coefficient from 0.40Cd to 0.32Cd

ABOVE Sports seats were optional on the 964. Seat piping and colour-coded belts came courtesy of Porsche Exclusiv

DESIRABLE OPTIONS

From Porsche's vast list of 150 add-ons, best known is the Tiptronic variant. Phil Raby is unequivocal: "Don't bother with the Tiptronic unless you are unable to drive a manual. It takes away a lot of the fun of the 964."

Rarely specified on UK cars, but usual on RHD cars exported to Japan, air conditioning (for which the air-cooled 911 was never designed) is moderately effective if working says Paul Stephens, but expensive to repair and often subsequently deleted.

Colour adds to desirability, though Stephens thinks that the optimum combination is a black body and cabin: "A black C2 with sports seats and the locking diff would be quite a combination." He adds that stored cars will need evidence that they have been serviced regularly: "A car simply garaged for a decade will need a lot of recommissioning."

ABOVE New centre console with shorter gear shifter was taken conceptually from the 959

INVESTMENT POTENTIAL

The belated recognition of the 964 means the sought-after manual gearbox C2 in particular is unlikely to lose much value, but careful purchase at the outset is essential: originality, coherent service records and of course condition are all crucial factors.

For investment grade, Paul Stephens suggests a C2 needs to be verifiably low mileage and absolutely original, with factory ride-height, wheels and interior, but these are almost pure collector cars.

Higher mileage C2s (and with proper servicing, 200,000 miles is not uncommon) bought to be driven will not lose their appeal with judicious lowering at the front, but suspension settings and rims, especially the striking Design 90s, should not be changed if the owner has resale uppermost in mind. 911

TOTAL 911 VERDICT

A 'properly sorted' C2, preferably on new struts and dampers, is great fun. It has sufficient sophistication – power steering, ABS and relatively modern underpinnings – to be eminently usable, and when mechanically refurbished still provides virtually all the performance it offered new. A 964 requires a larger maintenance budget than its simpler predecessors (which are likely to be driven less anyway) though not more than a 993 would. Subjectively, the barrel-chested baritone of single outlet 964 factory exhaust is one of the finest sounds in an already exalted Porsche repertoire: just to hear it is enough to make not only the 964 crowd, but any 911 fan, go weak at the knees.

★★★★½

> "ORIGINALITY, COHERENT SERVICE RECORDS AND CONDITION ARE ALL CRUCIAL FACTORS"

3.2 CARRERA

Long regarded as the best entry-level, air-cooled 911, the tough and reliable 3.2 remains highly desirable. Here's everything you need to know about the last impact-bumper 911

Written by **Kieron Fennelly**
Photography by **Damian Blades**

3.2 Carrera

Get it for
£50,000-70,000

Performance
★★½☆☆

Maintenance costs
★★★☆☆

Rarity
★☆☆☆☆

Value
★★★☆☆

HISTORY AND TECH

The 3.2 Carrera was the final evolution of the original torsion bar 911 of 1963. Improvements to performance, handling and economy came incrementally as Porsche developed the 911 over two decades. The flat six was conceived from the outset to be used in both production and competition cars and as such was designed to be enlarged. From 1969 it grew in stages from 1,991cc to the 3,299cc of the 1977 930 Turbo as Zuffenhausen progressively increased bore and stroke. The 3.2 was not only a development of its immediate 911 predecessor, the 3.0-litre SC, but also borrowed the Turbo's crankshaft and connecting rods, though those fitted to the 3.2 were thinner and lighter.

The new Carrera 3.2 also featured an entirely new Bosch DME and LE Jetronic injection. This combination helped to deliver not only 10% more horsepower and 5% more torque than the SC but, thanks in part to its fuel cut-off, also smoother pick-up and better fuel economy. Larger brakes completed the performance upgrades and offering a genuine 150mph top speed yet 25mpg running, the Carrera 3.2 was unique compared with supercar competitors.

When the 3.2 was launched cabin heating and ventilation were improved thanks to the addition of a second dash fan and the SC's fog lights, which always looked distinctly aftermarket, were replaced by auxiliary lights neatly integrated with the front valance; Sports seats became a no-cost option, and many Coupés were specified with electrical sunroofs. Standard wheels were the alloy 'telephone dial' variety, though the ever-popular Fuchs with 8J rims for the rear became standard for MY1988. The most significant mechanical changes to the 3.2 were introduced for MY1987: Porsche replaced its traditional 'Porsche synchromesh' 915, fundamentally a competition gearbox, with a conventional Getrag G50 item activated by a hydraulic rather than a cable-operated clutch. Porsche claimed the additional torque of the 3.2 meant that the 915 was working at near capacity (it was already fitted with its own oil cooler, which could leak). Less prone to wear and deterioration caused by drivers used to cone synchromesh who did not always fully depress the clutch, the advent of the heavier G50 marked the beginning of the end of the uncompromised, competition-based 911. In the same model year, the Cabriolet would at last acquire an electrically operated hood, instead of the manual item.

THE VALUES STORY

HAGERTY

At launch in 1983, the 3.2 Carrera retailed in the UK at £35,000, increasing by 10% before production ended in 1989. By the early 2000s depreciation meant that the best cars sold between £18,000 and £25,000, while tired and neglected specimens could be had for a third of that. Prior to the banking crash of 2008/9, a basically sound example, though in need of some body restoration, could still be purchased for £10,000. But as the economy improved, prices of air-cooled Porsches went up fast: the rare 2.7 RS which in the mid-Nineties had changed hands for £50,000 now traded at ten times that. Not even the most common air-cooled model, the 3.2, could resist this upward trend and as the cost of restoration (especially if shortcuts were taken) could readily be recovered, many of the more fatigued 3.2s disappeared, reappearing with smart new paint and other signs of expenditure. Specialists Paul Stephens and Paragon's Mark Sumpter agree that peak pricing was reached in around 2016, at which time air-cooled prices generally flattened off. In 2020, a good (though far from exceptional) or low-mileage 3.2 can sell for £40-£50,000; a tiny-mileage, full-history 3.2 Coupé might make twice that.

FIVE-YEAR UK VALUES (£)	CATEGORY 4	CATEGORY 3	CATEGORY 2	CATEGORY 1
CURRENT	**30,100**	**38,900**	**50,100**	**72,200**
NOV '19	**29,800**	**37,000**	**48,000**	**66,900**
NOV '18	**31,200**	**38,900**	**50,100**	**70,200**
OCT '17	**23,500**	**32,300**	**46,500**	**58,700**
MAY '16	**21,000**	**30,100**	**33,700**	**43,600**

- Cabriolets tend to be around 5-10% less than coupes, with Targas in between the two.
- For both US and UK guides, there's a big disparity between condition 1 and condition 4 values, showing that buyers are picky: they want the right spec, matching numbers, good colours and originality or high-quality restorations, and are willing to pay for them.
- In terms of the US/UK market, values are comparable, both standard coupe and Super Sport showing generally consistent growth over the last five years. The UK Hagerty Price Guide shows a slight correction at the end of 2019, consistent with uncertainty in the market driven by Brexit and the General Election, a trend that we saw repeated widely across many cars. The average US values have dropped a little in 2020, possibly as the result of similar market forces and COVID-19.

WHAT'S IT LIKE TO DRIVE?

With no servo to apportion effort, the sensitive driver quickly learns to appreciate the feedback of Porsche steering, which if correctly maintained will exhibit no slack and be as sharp as it was leaving the factory. Combined with the original 911's compact dimensions, this makes for a nimble car and encouraged by the zest of a healthy flat six with 230 horsepower, the enthusiastic driver can easily find themselves travelling a shade faster than intended. This is usually when the limitations of the 3.2's brakes become apparent. Modern traffic density demands a degree of anticipation on the driver's part, remembering that there is no form of traction control at all. That said, with decent 225 section rear tyres, oversteer requires some provocation in the dry, and in the wet the wise driver will modulate throttle and braking appropriately. Once he or she has developed a feel for the 3.2's high but finite limits, it is capable of swift and intensely enjoyable progress, imbuing the driver with a profound sense of involvement.

ABOVE Tea tray rear wing and front lip spoiler were part of the optional 'Sport' package

MARKET RIVALS

The £40-50,000 segment throws up several 911 alternatives:

993 Carrera

The last of the air-cooled cars, 993 devotees revere it as the best of them. More sophisticated and with a top speed of 166mph, the undeniably handsome 993 is a more advanced 911, but our specialists concur, a 993 at this price will be useable, but likely to require considerable expenditure to maintain it.

996 Turbo

Often held as the ultimate affordable supercar, a turbocharged 996 at this price should be in good order with no major spending required. An explosive performer when asked, but otherwise a relaxing GT, the 996 Turbo is recognisably 911, but likely to attract a different buyer from a 3.2 Carrera.

997.2 C2S

£50,000 suffices for a low-mileage and full-history Gen2 997S. With a manual rather than PDK, the 997 will feel distinctly related to the 3.2, sharing much of its excellent visibility and is, despite electronic systems, still an analogue 911. By now all 911s have more performance than can be used on most public roads.

991.1 C2

The seventh-generation 911 is visibly longer and wider. For many enthusiasts its size and re-engineered chassis combined with PDK (manuals are rare) take away the challenge that even the 997 offered. £45-50,000 should unearth an unmarked 2012 991 with an impeccable service pedigree.

BUYING ONE

Any 3.2 Carrera is at least a 30-year-old car, so a purchase decision, whether for a £25,000 'runner' or an apparently pristine example for three times more, will demand just as much consideration.

Paul Stephens points to the pitfalls of the cheaper end: "You can't make a silk purse out of a sow's ear." However superficially attractive a £25,000 3.2 looks, this in his view is too low.

The real trap is the seemingly 'restored' example: "Look out for the 3.2 probably purchased around £20,000 which has been tarted up to sell for twice that. I always recommend an underside inspection: efforts at patching should be evident." This will simply mask severe corrosion problems. In his AutoArt business, which has been building back-dated 911s since 2005, Paul Stephens has seen the bodger's art at first hand: "We have found filler, patches covering other patches, and corrosion can be inconsistent – not all these 911s rust in the same places. Many 3.2s were purchased during the high-rolling 1980s and then neglected in the recession."

At Paragon, Mark Sumpter agrees: "Always buy the best you can afford," he says. He too excludes the bottom end of the market, as for him the service record will be dubious if there even is one. "We will not touch a car that has more than a three-year gap in its history. Their mileometers are not reliable, so we look for evidence that the car has had regular attention. It is not enough to claim that a vehicle 'has been stored' for years. That is bad news in itself: without even knowing the storage conditions, the car will need a thorough recommissioning."

Having identified a potential £40-50,000 car, the would-be purchaser needs to scrutinise any restoration history: if the vulnerable 'kidney bowls' – the vital infrastructure between chassis and B pillar and notoriously open to corrosion – were repaired in the 2000s when this 911 was worth perhaps £12,000, the work is far less likely to have been done properly than ten years later when the value might have trebled.

The 3.2 engine rightly has a reputation for reliability. Says Paul Stephens, "These flat sixes just carry on running and given the general robustness of the whole car, owners frequently put off or neglect preventive maintenance." Neither is mileage a firm indicator of heath: "I have seen unrebuilt 3.2s running beautifully at 180,000s miles; by contrast I have known these engines fail after only 40,000 miles because they had never properly warmed up."

Both specialists are emphatic: to unearth a useable, reliable example the would-be purchaser needs to research extensively and be ready to invest in a professional inspection and, understanding the costs of restoration, not be swayed by cheaper offerings.

BELOW Cabriolet roof should be checked for leaks and tears. Electric hood mechanism was introduced in 1987

BELOW Sports seats were a no-cost option

DESIRABLE OPTIONS

The early 3.2s came with Porsche's own 915 gearbox; from MY1987, they used the Getrag G50. Mark Sumpter takes a practical view: "Don't get hung up on the 'box, judge the car as a whole." Paul Stephens agrees, adding that he prefers the 915 because the 911 car was designed around it. But he concedes that for most buyers the G50 is a better bet. "It gives none of the trouble a worn 915 does, and even then, even if the paperwork shows the 915 has had work, few specialists can recondition a 915 properly."

Stephens also counsels against cloth interiors which show wear more than leather, adding that light interiors are less desirable than black unless they were special orders. Some exterior colours are preferable to others – he dismisses red but says that black is especially popular, as are some of the obscure special-order colours, such as the metallics, because of their rarity value.

The Carrera Coupé, preferably with the sunroof, is always more valuable than the Targa or Cabrio, both prone to leaks.

ABOVE G50 gearbox (above) is more desirable than the 915 gearbox, where reverse is down and right

INVESTMENT POTENTIAL & OWNERSHIP EXPERIENCE

The strange COVID circumstances of 2020 aside, Mark Sumpter sees no repeat of the wild inflation of the 2012-15 years, but predicts that a good 3.2 with a complete history is at least likely to hold its value, though regular use, garaging and servicing are vital. Paul Stephens' feeling is that the top-quality cars have peaked: he has recently reduced the asking price of a virtually unused 3.2 Coupé by £10,000. Those middle-market examples with verifiable histories and evidence of the right attention from recognised specialists, and cars bought to be driven for enjoyment rather than to salt away, will probably remain the best investments.

> CARS BOUGHT TO BE DRIVEN WILL PROBABLY REMAIN THE BEST INVESTMENTS

TOTAL 911 VERDICT

"Modern 911s are so powerful you soon learn that for almost any manoeuvre, you never need to depress the accelerator to the floor. New customers have even admitted to me they have frightened themselves," says Mark Sumpter. "That's what I like about the 3.2. It's small, nimble and with 230bhp you can use all the performance. On the narrow, twisting roads down here (East Sussex) it's tremendous, more fun than a modern. Granted, driving a 3.2 is a workout and with primitive ventilation and heating, it is never a car for long distance, but in its element it is brilliant." Unsurprisingly, Paul Stephens agrees: "A purist who knows the early 911 will say it is too easy, but for most enthusiasts, especially as a first 911, the 3.2 is hard to beat." The specialists rate the 3.2 over its predecessor the SC, and even its successor the 964, more expensive and in Mark Sumpter's words, "not such a nice driving experience." A 993 is more refined, but heavier and more complex than a 3.2. Our nominal £45,000 buys a great deal of modern 911, but amongst the air-cooled variety, the 3.2 Carrera remains the model of choice.

★★★½☆

THANKS Thanks to First Choice Detailing for supplying the beautiful example in our pictures. For more info on FCD's services visit **firstchoicedetailing.co.uk**

993 CARRERA S

Mixing a wide body with traditional rear-wheel-drive, the Carrera S is a highly desirable 993. Here's your complete dossier of information on this collector's gem

Written by **Kieron Fennelly**
Photography by **Damian Blades**

993 C2S

Get it for
£70,000-90,000

Performance
★★½☆☆

Maintenance costs
★★★☆☆

Rarity
★★★★☆

Value
★★★★☆

HISTORY AND TECH

In Porsche nomenclature, 'S' usually denoted sporting or 'Super' and its first application to a 911 was in 1966. The 911S would set the standard as the fastest 911 until the 2.7RS usurped its crown, and the S was demoted to second fiddle before it disappeared in 1976. Subsequently there was a 911CS (Clubsport) and a 911RS (Rennsport) and even a Turbo S, but a plain 911 with an S, in this case 'Carrera S', had to wait for the mid-term facelift 993 in 1996.

The 993 was the evolutionary descendant of the 964 which had arrived at a time when Porsche's financial woes were beginning. The 964's disappointing sales led to a fundamental reappraisal of the 911: in the performance stakes it was still class-leading, but in terms of handling and refinement, critics felt it was falling behind competitors. Plans for the 993 were laid in 1989 as soon as new broom engineering director Ulrich Bez arrived and the objective, challenging given Porsche's impoverished resources, was clear enough: refine the 911 to extend its appeal while reinforcing its '911-ness,' that palpable collusion between driver and car which had so characterised the 911 from the outset.

Porsche was barely profitable and plans to revise the roof line, countersink the exposed windscreen wipers and update the cabin never materialised. Nonetheless, Tony Hatter's fared front wings and smoothed and subtly flared haunches met universal approval; all the road tests commented on the more secure handling endowed by the new rear suspension, the multi-link configuration which would underpin at least two more 911 generations, and above all the much-improved ride and refinement. A systematic lightening of reciprocating parts and better breathing enhanced both smoothness and the 3.6's power and torque; Japanese consultants brought improved manufacturing techniques and the 993 not only cost less to make than its predecessor, it proved more popular and started making profits again. Its success encouraged Porsche to reprise the Turbo-look 911 of the 1980s. The 1995 4WD 993 C4S used the wider Turbo bodyshell (without the spoiler), suspension and brakes and the Turbo's leather interior, but the Carrera's naturally aspirated 3.6. Capitalising on the very favourable response, a year later Porsche added a lower-cost version, the C2S, which also featured the Turbo body but otherwise used standard C2 running gear and interior, though it was distinguished by a striking split rear grille, a clever homage to the original (356) Carrera 2. ➲

THE VALUES STORY

When new, the C2S was priced at £65,450, against £61,200 for the Carrera 2 or £64,500 for a C4. Its sister in the fully equipped C4S was £74,795, £5,000 more even than the 993 RS. Made in the last year of 993 production (the final wide bodies left Zuffenhausen in July 1998, by which time 996 production was already well established), the S was an exclusive model line in which the cars generally covered low mileages. Neither the C2S nor its sister fell below the £30,000 barrier during the 2000s and the best examples soared to significantly over £100,000 in the 2014-6 boom. Jonathan Leach of Cridfords says that prices pushed up artificially, as most Porsche values were at that time, tended to fall as quickly. The S models were not exempt from this, but their rarity – 3,049 C2Ss and 3,772 C4Ss were made – has caused both wide bodies to appreciate in a far more sustainable way since then. They are iconic 911s and the best will still go for six figures, but a C2S tends to play second fiddle in values to the C4S, which although usually regarded as less desirable because it is 4WD, does in fact sell for more, says Leach. Porsche specialist Phil Raby, who has been writing about or selling 993s almost since they were new, observes that these are rarely seen models and concurs that S pricing is more likely to go up than down.

WHAT'S IT LIKE TO DRIVE?

A well-maintained 993 is very satisfying to drive. The steering, firm initially, seems to lighten at higher speeds and displays that tremendous feel and accuracy, the Porsche hallmark. In town, the gearshift can feel heavy, throttle take-up is not always seamless and the 993 follows the air-cooled 911 tradition of being slightly unhappy in stop-start traffic. Here the four-speed Tiptronic is smoother, but once the road opens up, the driver will want the Getrag manual, whose six perfectly chosen ratios makes the most of the VarioRam engine's torque curve and 285 horses. As with the steering, the gearshift too becomes easier and moving up and down through the 'box is an essential part of the agreeable interaction between man and machine. Although a far from quiet car, the engine fan is a constant reminder there is no water jacket. Using the Turbo body means the S has a stiffer chassis than the plain C2, while its rear-wheel-drive element means it is the enthusiast's choice over its C4S sister. Weighing only 30kg more than a plain C2, the Carrera S feels firmer than the C2 and on uneven roads, body control is perceptibly improved.

ABOVE That beautiful split rear grille is unique to the 993 C2S evoking the original 356 Carrera 2

MARKET RIVALS

In all markets the Carrera S has a particular cachet, and this is even more apparent in the UK. Prices fall between £70,000 for a Tiptronic C2S to £90,000+ for a fully optioned manual C2S. The £70-£100,000 bracket certainly opens a broad swathe of other 911 possibilities.

991 Carrera T

At around £70,000 for a 2018 model this, the most 'traditional' of the modern 911s, might appeal to a C2S buyer, though its everyday practicality could be offset by its far larger dimensions. The modern models have nothing like the visibility of earlier 911s, and the Carrera T will also depreciate significantly, like most current Porsches.

3.2 Clubsport

A rare 911 even in LHD, a Clubsport is a deeply satisfying but more demanding drive for the price of a concours 2S; exciting car though it is, the Clubsport's rudimentary equipment level and raucous engine make it altogether less suitable for longer distances than the more refined (and just as quick) C2S.

997 Turbo S

£80,000 buys a ten-year-old, low-mileage example, equipped with PDK-only, which makes for more relaxed progress. Brilliantly conceived 650 horsepower supercar that it is, the Turbo S, also subject to higher depreciation and maintenance costs (and unexploitable power), might seem extravagant to a classic enthusiast.

911 SC

An exceptional SC at £70-£80K is an alternative to a higher-mileage C2S. Purists may rate the vintage driving experience over the 993, but the SC might be a shade too vintage for later 911 fans. A good SC presents more of a challenge than a C2S, but potentially more fun only for the kind of buyer who had considered a Clubsport, but found it beyond their budget.

BUYING ONE

The C2S model is simply a version of the 993, so the usual 993 caveats apply. A solid OPC or recognised specialist maintenance history is vital and it should be consistent. Mark Sumpter of Paragon Porsche usually turns away from cars with more than three-year gaps in their history. That said, the 2S was a premium priced special and usually covered far lower mileages, enjoying a rather more cherished existence than the plain C2, some of which had to work hard for their living, especially as the 993 was notably reliable.

Corrosion is not the fundamental problem that dogs 3.2s or earlier 911s, but 993s themselves are old cars now and inevitably suffer the ravages of time. Rust can occur around the windscreen and rear window, though on a well-presented car, this area should already have received attention; more insidious is corrosion inside the rear bumper which will require substantial dismantling to repair. A worn clutch reveals itself by being unpleasantly heavy – the 993's pedal was never light, and declutching only at the end of its travel; dampers too will be less efficient after two decades, but the service record should show evidence that these components have all been renewed. Similarly, the vulnerable front valance may have been replaced at some point. If it is not realigned precisely this suggests a complacent body shop and should prompt further investigation, but a little used and correctly presented £100,000 Carrera S should display none of these worn 993 faults and drive almost like a new car.

BELOW Most 993 C2Ss were optioned with 6-speed manual transmission but 4-speed Tiptronic was available, as here

BELOW The interior of this special model is carried over from the standard 993 Carrera

DESIRABLE OPTIONS

Full leather upholstery and (functioning) air conditioning are the most sought after. Most if not all C2Ss were specified with 17-inch wheels and many with the Sport suspension (M31) which lowered the ride height. Another option worth seeking out is the limited slip differential (MP08) which much improves the 993's traction out of tight bends. A special-order colour, for example Ocean blue metallic, is also worthwhile, but the Tiptronic cars are worth 30 per cent less than manuals, observes Jonathan Leach, adding that the auto 'box does not suit a classic 911, which is unlikely to be commuting in traffic anyway. When they were new, the Turbo spoiler was a popular option, but they may now seem ostentatious to some tastes.

ABOVE RIGHT As a late-production 993, all C2Ss came equipped with a VarioRam flat six

INVESTMENT POTENTIAL & OWNERSHIP EXPERIENCE

The specialists blanche at the notion of a 911 as an investment – 'it's a sports car to be driven' they cry in unison. That said, it is clear that in the long term, some 911s have done better than others.

Those who bought, say, a 2.4S at the height of the boom in 2016, or earlier a 964RS when it was almost a craze, may yet be waiting to break even, but the smart money is usually on the models that had very limited production runs. The Clubsport (340 made for worldwide markets) or the Turbo-bodied 3.2s and 964s are examples – cars which for years, unlike the 2.7RS, tended to escape attention. The 993 Carrera S, a 911 that was always exclusive, falls very much into this category.

In Phil Raby's opinion a handsomely optioned C2S is unlikely to lose value in the current climate where financial pundits foresee growth in non-monetary investments such as art and classic cars.

TOTAL 911 VERDICT

The most technologically evolved air-cooled 911, aesthetically the 993 is further enhanced by that wide body, which emphasises its striking profile and rear three-quarter aspects – especially without the Turbo spoiler. The wide body cars are the most aspirational 993s, purchased above all for their looks. At 1,400kg, the weight penalty over the narrow-bodied car is negligible and Porsche performance data indicates the only loss was 3mph from top speed.

Jonathan Leach adds, "The 993 2S is not just special, it is a very usable sports car. You can drive it to the limit of its performance." Still relatively low-profile compared with more famous or exotic 911s, the 993 Carrera S offers the discerning enthusiast a driver-focused, potentially better-handling 993 which is also a discreetly exclusive 911 and of course, the pinnacle of the air-cooled Porsche.

★★★½☆

> "A HANDSOMELY OPTIONED C2S IS UNLIKELY TO LOSE VALUE"

WATER-COOLED

996.1 Carrera 052
996 Carrera 4S 060
997.2 Carrera 068
991.1 Turbo S 076

PARAGON
approved cars

996.1 Carrera

Get it for
£12,000-£20,000

Performance
★★☆☆☆

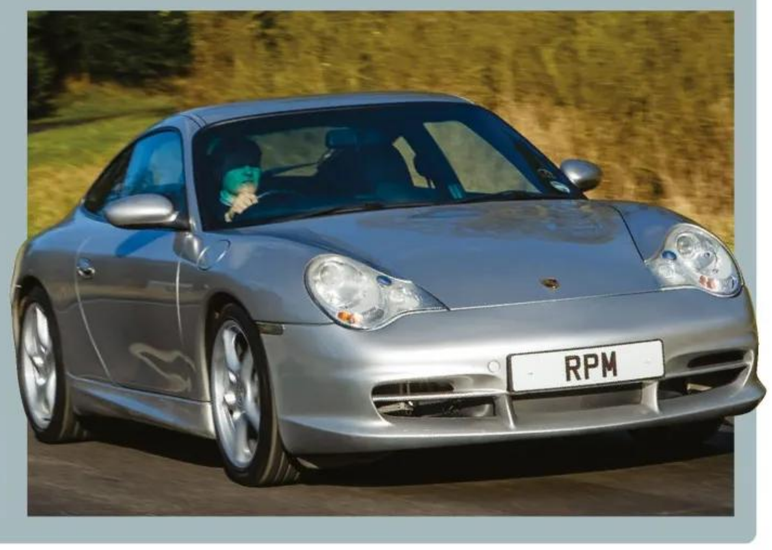
Maintenance costs
★★☆☆☆

Rarity
★☆☆☆☆

Value
★★★☆☆

THE GEN2 996

With some of the brouhaha surrounding the water-cooled 996 having died down, it was time for a round of updates. The Gen2 model arrived in 2001, with the biggest difference being the adoption of a 3.6-litre motor boasting more power and torque, as well as Variocam Plus that operated on both inlet and exhaust camshafts. Considered less prone to failure than the earlier 3.4, it provided a useful step up in response and performance despite an overall weight gain of around 25kg. The looks came in for some subtle tweaks too, with re-profiled bumpers and the use of Turbo-style headlamps with clear rather than orange indicators. The covers for the front and rear compartments got electric releases rather than cables, while the Cabriolet would see the plastic rear window replaced with heated glass. 2002 model year cars also benefitted from cabin improvements in the form of an opening glovebox lid and cupholders, while the ventilation system and cabin plastics were improved. New engine aside, the changes were modest but effective, and kept the car fresh until the arrival of the 997 in 2005.



996 CARRERA

Representing a seismic shift in the 911's evolution upon release, the Gen1 996 Carrera is now a vastly accessible Porsche purchase – but there's much to look out for when searching for the perfect example, as **Total 911** investigates...

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

After its launch at the 1997 Frankfurt Show, the new 996 left sections of the 911 faithful underwhelmed with the new direction Porsche had decided to take with the car. The design was the work of Pinky Lai and Harm Lagaay, and was in itself a marked change of direction for the evergreen sports car, following on as it did from the more classic proportions of the 993.

Firstly, it had grown in size over the outgoing model, carrying an additional 185mm in length and 30mm in width, although it was 50 kilograms lighter than the 993, weighing in at 1,320 kilograms in Carrera 2 form. It was also 45 per cent stiffer and more aerodynamic, boasting a drag coefficient of just 0.30. In fact, it was a good deal smoother than its predecessor, with a windscreen now raked at 55 degrees rather than 60, and a sleeker nose cone incorporating what would become known colloquially as 'runny egg' headlamps.

Likewise, the shape of the front bumper had been tuned to manage the airflow that passes over the twin radiators before it exits from the wheel arches, instead of beneath the car. Combined with the electrically raised rear spoiler that popped up at 75mph, Porsche claimed low levels of lift at both axles. However, with an increase in size and an ever-luxurious interior, some were worried that their favourite sports car was morphing into more of a long-distance GT, but it was the new engine that was to cause the most angst.

In a move considered sacrilege by many, the M96 3.4-litre flat six was now cooled by water rather than air, a development necessitated by the need to meet ever more stringent emissions and drive-by noise regulations. Porsche had no choice if the 911 was to continue to flourish, and they took the opportunity to update the powerplant, which in Gen1 form managed a useful 300bhp.

The four valves per cylinder used hydraulic lifters and were operated by chain-driven camshafts. There was VarioCam variable valve timing for the inlet camshafts, and a two-stage resonant inlet manifold was employed. The latter was fitted with a butterfly valve controlled by the Motronic engine management – an arrangement that brought notable improvements in low-rev torque and top-end breathing. Also new were knock sensors for each cylinder, forged aluminium pistons and connecting rods that were forged in one piece before being snapped for a perfect fit. Further improvements were made to the lubrication system, an ➲

“IN A MOVE CONSIDERED SACRILEGE BY MANY, THE M96 3.4-LITRE FLAT SIX WAS NOW COOLED BY WATER RATHER THAN AIR, A DEVELOPMENT NECESSITATED BY THE NEED TO MEET EVER MORE STRINGENT EMISSIONS AND DRIVE-BY NOISE REGULATIONS”

Model Year	996.1 Carrera 1998-2001
Engine	
Capacity	3,387cc
Compression ratio	11.3:1
Maximum power	300bhp @ 6,800rpm
Maximum torque	350Nm @ 4,600rpm
Transmission	Six-speed manual or five-speed Tiptronic, rear or four-wheel drive
Suspension	
Front	MacPherson strut; coil springs; antiroll bar
Rear	Multi-link with telescopic dampers; coil springs; antiroll bar
Wheels & tyres	
Front	7x17-inch, 205/50/17
Rear	9x17-inch, 255/40/17
Dimensions	
Length	4,430mm
Width	1,765mm
Weight	1,320kg (Coupe)
Performance	
0-62mph	5.2 secs
Top speed	174mph

Clockwise from top left: the 'runny egg' headlamp design; spoiler-mounted brake lights; fixed aerokit spoiler option; the famous rear badge

CARRERA TIMELINE

1973
The Carrera badge appears for the first time on the 911, at the time denoting the top-of-the-range Rennsport model.

1984
The SC, which replaced the Carrera 2.7 and 3.0, makes way for the 3.2 Carrera, its electronically managed flat six pushing out a healthy 231bhp.

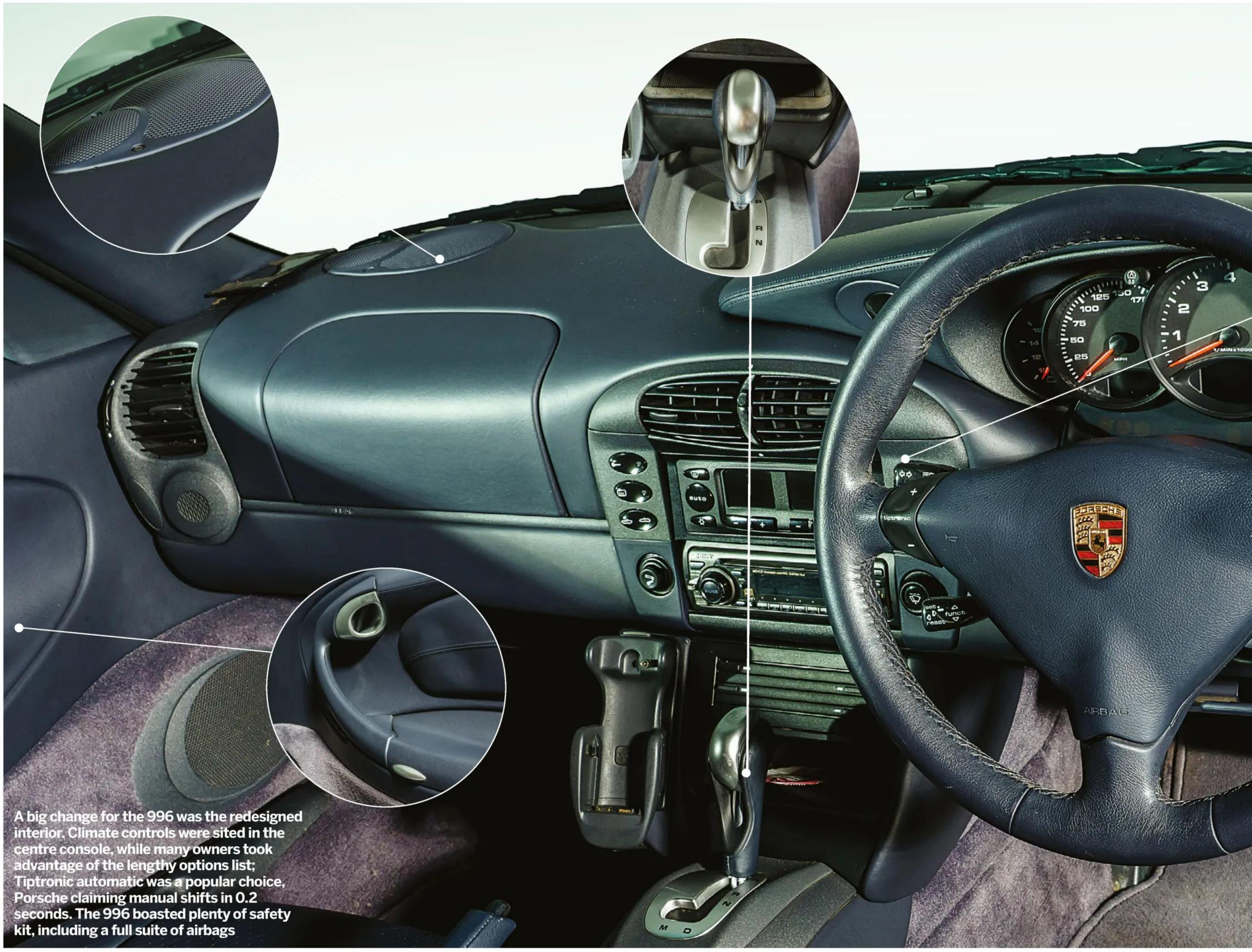
1989
The arrival of the 964 heralds a major overhaul for the 911, and the Carrera is the first model to benefit from four-wheel drive.

1993
As the last of the air-cooled cars, the 993 Carrera is guaranteed a place in Porsche history. It's also the first model to carry Carrera S badging.

1998
Water-cooling arrives courtesy of the 996. Not everyone is convinced and engine problems are a concern, but it's a great entry-level 911 now.

2005
Many consider the 997 Carrera to be a return to form. Styling is less slippery than on the 996, although the M97 engine is similar to the M96.

2012
The 991-model Carrera and Carrera S arrive, the 3.8-litre DFI engine showing how far things have come for the model.



A big change for the 996 was the redesigned interior. Climate controls were sited in the centre console, while many owners took advantage of the lengthy options list; Tiptronic automatic was a popular choice, Porsche claiming manual shifts in 0.2 seconds. The 996 boasted plenty of safety kit, including a full suite of airbags

integrated dry-sump arrangement that saw oil lines cast directly into the block and heads that avoided the likelihood of leaky external pipework. Porsche also fitted twin catalytic convertors that used metal rather than ceramic internals, which the company deemed more efficient.

Much has already been written about this engine's apparent propensity to explosively self-destruct, but there was no doubting the technical advances that were made. Once again, a dual-mass flywheel was bolted to the crankshaft and helped feed drive to a choice of transmissions. The manual was a six-speed unit that had been beefed up with double-cone synchromesh and a cable-operated shift, while those after a more relaxing experience could opt for the five-speed 'Tiptronic' automatic. Left in 'Drive', it was capable of smooth and responsive gear changes, but for more control it needed the lever nudging left into manual mode, where you could use the wheel-mounted buttons.

Porsche claimed that shifts were achieved in just 0.2 seconds – rapid at the time, but a world away from the millisecond response of today's PDK units. The Carrera 4 that arrived in 1999 used a viscous coupled four-wheel-drive setup that incorporated Porsche's 'Automatic Brake Differential' system as well as 'Porsche Stability Management' (PSM, which became an option for the C2 at the same time). Just five per cent of drive was sent to the front wheels in normal running, although up to 40 per cent of power could be shuffled forwards if slip was detected. Choosing the C4 brought few penalties; overall weight rose by 55 kilograms, weight distribution was now 40/60 compared to 38/62 for the C2, and the front luggage compartment shrank slightly, requiring the fitment of a deflated spare.

Just as much attention had been paid to the rest of the running gear, the 996 being fitted with an aluminium-rich MacPherson strut front suspension and a multi-link arrangement mounted on a separate alloy subframe. The latter was dubbed the 'Lightweight-Stable-Agile' system, but whatever the acronym it certainly contributed to the confidence-inspiring handling. The 996 stopped well too, courtesy of larger cross-drilled and ventilated discs squeezed by four-piston Monobloc calipers (black on C2s, silver on C4s), backed by the Bosch 5.3 ABS. The hydraulic power steering required just 2.98 turns between locks, while the cast-alloy wheels were 17 inches as standard, although many buyers were enticed by the optional 18s.

Extensive changes were also wrought on the inside, where the previously haphazard control layout was replaced with something more befitting the 911's position among the sports car elite. The distinctive five-dial instrument pack was still present and correct, the tachometer still dead ahead and now incorporating a digital speed readout, but controls for the hi-fi and climate control were now logically grouped in a new centre console.

> MUCH HAS BEEN WRITTEN ABOUT THIS ENGINE'S APPARENT PROPENSITY TO EXPLOSIVELY SELF-DESTRUCT, BUT THERE WAS NO DOUBTING THE TECHNICAL ADVANCES THAT WERE MADE

BUYING TIPS

A 911 of this type needs to be in nothing short of perfect condition, and signs that it might not have received anything approaching fastidious care should have you running a mile. The cost of sorting a bad one is likely to prove stratospheric, so you have been warned.

- **Bodywork:** Rust shouldn't be an issue, and is likely to result from poorly repaired accident damage. Stone-chipping is common though, and watch for damage to bumpers and condensation inside light units.
- **Engine:** The 3.4-litre engine is much maligned, but serious issues will likely have occurred by now. It's worth checking the history for evidence of major work, but a specialist inspection is best to search for symptoms of scored bores or RMS leaks.
- **Transmission:** Hard-worked manuals can suffer from weak synchromesh and pop-out of gear. The notorious IMF bearing will show few symptoms before failing, though check for oil leaks between the engine and transmission.
- **Suspension/Brakes:** Wear and tear is likely to be the main concern, and complete refurbishment is a costly job. Budget accordingly if it has been neglected.
- **Cooling system:** The front-mounted radiators and air-conditioning condenser are prone to rot thanks to a build-up of detritus. Check they are clear and that there are no signs of leaks.

The heating and ventilation system itself was much improved, and buyers could choose from a wide range of entertainment options featuring additional speakers and amplifiers and a six-disc CD changer mounted in the front compartment. And while not everyone was sold on the build quality (although it has actually proved quite robust), there was no doubt that the 996's cabin was a refined and luxurious place to be.

Plenty of leather was applied to the seats and surfaces, and a raft of modern conveniences on the options list, which many buyers found hard to resist – hence the number of examples littering classifieds today – and there was always the lure of the Porsche Exclusive programme. In one final split from the past, the pedals were no longer floor hinged, this last remaining 911 idiosyncrasy confined to the history books, although the new car did get a much roomier footwell.

Of course, Porsche weren't about to forget those that liked blending rear engine thrills with wind in the hair, and the Cabriolet duly arrived for the 1999 model year. The multi-layer cloth hood could be raised or lowered in 20 seconds, all at the push of a button located adjacent to the ventilation controls. In a bid to ensure perfect sealing at speed, opening the doors would see the window glass drop two millimetres before lifting snugly against the roof seal when the door was closed.

The system worked too, with impressive refinement on offer at motorway pace with the roof raised. If there was a penalty to be paid for al-fresco enjoyment, it was the 75 kilograms or so added by the folding roof mechanism, although in reality there was a negligible effect on performance. Those wanting greater security and weather resistance also benefitted from a standard aluminium hardtop weighing just 33 kilograms, although fitting it was a job for at least two people.

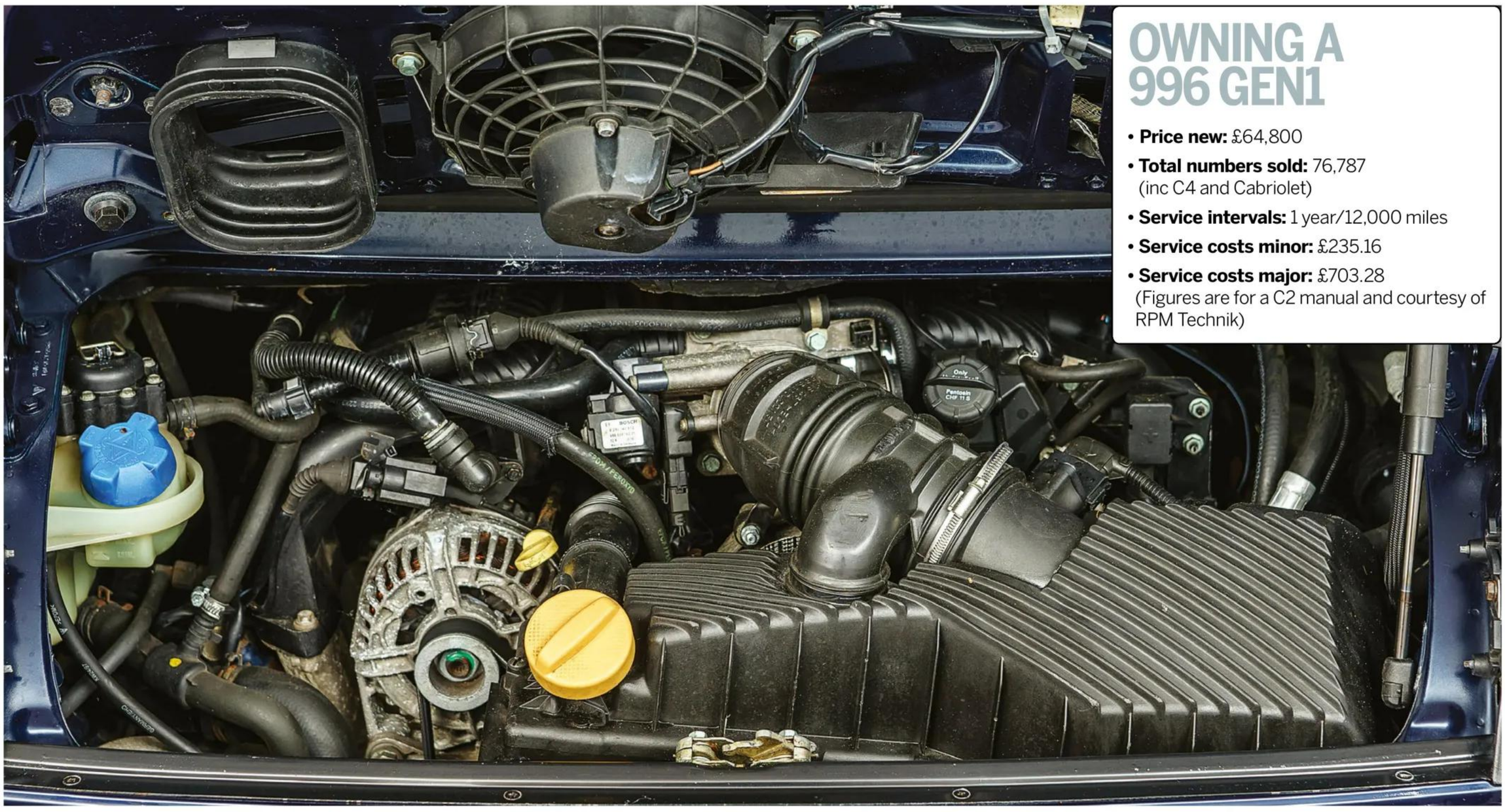
Safety credentials were boosted by the Porsche Side Impact Protection system (POSIP), while in 2000 all models got the improved Bosch Motronic 7.2 engine management system with a drive-by-wire throttle. Known as 'E-gas', the system had been fitted to Carrera 4 models from the start. So where does all that leave us? Well, first off with a 911 that continues to divide opinion, even although it's fast heading for two decades since launch. Secondly, with one that – for the time being – still offers a cost-effective way into 911 ownership. The 996 wasn't perfect, and a combination of water cooling and a reputation for expensive engine problems soured the experience for many would-be buyers, but changes were needed, and as always Porsche ultimately delivered. 911

> THOSE WANTING GREATER SECURITY AND WEATHER RESISTANCE BENEFITTED FROM AN ALUMINIUM HARDTOP WEIGHING JUST 33 KILOGRAMS

SPECIALIST VIEW

"The 996 hasn't always been the most desirable model, but it does offer tremendous value for those looking to enter 911 ownership. They need maintaining properly though, so you need to be sure you can afford to keep it in top condition. Of course, you must be aware of the potential for engine problems, although not all cars are affected. There are also quite a few on the market, so it's hard to predict how Carrera model prices will develop short term, but the model to keep an eye on is the Turbo. It's a lot of car for the money, and that would certainly be my choice."

Jonathan Franklin, Rare Cars



OWNING A 996 GEN1

- **Price new:** £64,800
- **Total numbers sold:** 76,787 (inc C4 and Cabriolet)
- **Service intervals:** 1 year/12,000 miles
- **Service costs minor:** £235.16
- **Service costs major:** £703.28

(Figures are for a C2 manual and courtesy of RPM Technik)

"I'VE GOT ONE"

"To me, the word 'Carrera' conjures up the Eighties icon. Fast-forward, and I now own one from a newer generation. This is by far the best car I have owned. For what is a supercar of its day, it is comfortable, spacious, performs well and can take daily use like a modern hot hatch. For my particular car, the body colour and Turbo wheel combination looks fantastic, and the four-wheel-drive system gives it that added level of on-road stability. It inspires confidence in its ability to cover ground at speed, and mine, coupled with the Tiptronic gearbox, makes this an effortless GT car."

Rob Clarke

996 CARRERA 4S

The 996 has its detractors, but the C4S is an affordable route into wide-body ownership. It's time for a more in-depth look...

Written by **Chris Randall**
Photography by **Neil Godwin**

996 Carrera 4S

Get it for
£22,000-35,000

Performance
★★★☆☆

Maintenance costs
★★☆☆☆

Rarity
★★☆☆☆

Value
★★★★☆

Background to the 996 C4S

'Turbo look' is a familiar part of the Neunelfer enthusiast's parlance, but you have to head back to 1984 for its first appearance. Back then, it meant the M491 option for the 3.2 Carrera, a car that featured familiar mechanicals clothed in the wider-hipped shell of the groundbreaking Turbo, and it soon became clear that Porsche had hit on a winning recipe.

Continuing with both the 964 and 993 generations, it debuted on the car you see here in the latter part of 2001, before going on sale the following year. Buyers were asked to pay around £65,000 for the privilege if they opted, as many did, for the optional Tiptronic gearbox – £25,000 less than the amount asked for the full-fat Turbo – but that didn't stop more than 23,000 of them signing on the dotted line. Today, according to Paragon Porsche's Jason Shepherd and RPM Technik's Greig Daly, £27,000-£35,000 will secure a very nice Coupe. Viewed in the context of the savage depreciation that afflicts many modern cars, that's impressive for a 911 that's a decade and a half old, and quite astonishing value given the looks, performance and desirability on offer. What attracted many original buyers were those more muscular looks that came courtesy of an additional 60mm of rear width and the front and rear bumpers from the Turbo. The front item was re-profiled to account for the fact that the blown model's rear spoiler was missing, and there were no air intakes on the rear haunches, but the C4S did gain a full-width reflector strip between the rear lights, along with the same style of alloy wheel (although these featured solid rather than hollow spokes). The new model also shared the Turbo's 10mm-lower suspension setup – albeit slightly retuned and softened – and the 'Big Red' brakes with 330mm discs. Otherwise, it was standard C4, which meant a viscous-coupled four-wheel drive system with Porsche Traction Management (PTM) and a 320bhp 3.6-litre flat six that could be paired with six-speed manual or five-speed Tiptronic transmissions.

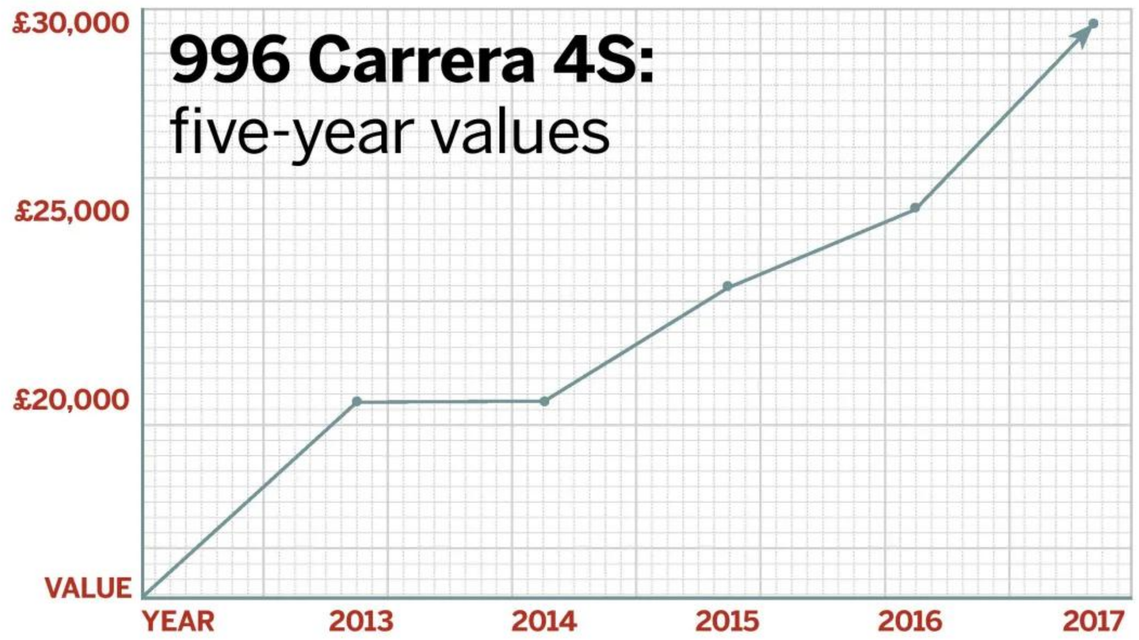
The extra width did bring a marginal performance penalty, adding 0.1 seconds to the 0-62mph sprint and lopping 3mph from the top speed (now 5.1 seconds and 174mph respectively) compared to the C4, but it was of no consequence in reality. A Cabriolet version was also offered, and reckoned to account for around a third of total sales, but the C4S would prove relatively short-lived as the 997 arrived in 2004. ➲

ABOVE AND RIGHT Rear spoiler automatically deploys at 75mph; Primitive PCM1 screen narrower than PCM2 found on later MY 2004 996s and onwards

What's it like to drive?

The C4S is no stranger to the pages of this magazine. As recently as issue 152, Kyle Fortune pitted it against the pricier – and much quicker – 996 Turbo, and came away from the encounter more than a little impressed by what the C4S had to offer. Yes, the Turbo was ferociously quick, but the C4S countered with a less daunting driving experience, one where you could maker fuller use of the power on offer. But it wasn't just about speed, as he also relished the greater delicacy when it came to responses and feedback, commenting on the "enjoyable balance between the chassis and the way the flat six delivers its power". Add in a slick manual gearbox and well-matched control weights, and it was, said Kyle, "So much more than the sum of its Turbo-look parts." ➲

> THE TURBO WAS QUICK, BUT THE C4S COUNTERED WITH A LESS DAUNTING DRIVING EXPERIENCE



996 Carrera 4S:
five-year values

MARKET RIVALS

We know that 996 prices are on the rise, but the value offered by a tidy C4S still seems remarkable. While that's good news in many respects, it does mean the choice of other 911s available for similar money is somewhat limited

996 C2/C4

Being the first water-cooled Neunelfer was always going to mean a difficult start, and a reputation for unreliability and expensive engine failures didn't help. With values depressed, it became the generation of choice for those on a budget, but times are changing. C4S money could get you a very low miles C2/C4.

997.1 Carrera

The replacement for the 996 moved the game on, impressing owners with a blend of refinement and strong build quality. Benefitting from more compact dimensions compared to the 991, it meant the 997 felt wieldy when the going got twisty, and it was quick enough in entry-level form compared to the 996 C4S.

Air-cooled

The money required for a good C4S will just about secure an air-cooled car, but you'll be heading into riskier territory. Left-hand drive and/or high-mileage examples exist, but care is needed to avoid a costly project. You might unearth a gem, but it would be unwise to buy without specialist advice.

RIGHT Example here has narrower standard seats that are heated (optional), wider Sports seats were also optional

Running costs

Given that previous issues of **Total 911** have covered 996 engine matters at some length, there's little need to labour the point again here. Suffice to say that the health of the motor is paramount, and as age and mileage take their toll, it would be prudent to invest in a thorough pre-purchase inspection before you commit. Respected specialists Charles Ivey Ltd charge £370, for example, and it would be money well spent if you have any doubts over the history of the particular car you're considering.

With that concern satisfied, regular maintenance is both straightforward and reasonably priced; expect to pay around £220 for a quick change of oil and filter at a specialist, with RPM Technik asking £300 for a 12,000-mile check and £1,080 for the bigger 96k service. If you do decide to take the plunge without a professional inspection then check the history for evidence of IMS or RMS upgrade/replacement, and ensure there's no sign of hesitation or uneven running, which can be down to failing coils or air-mass meters, or problems with the VarioCam. You'll also want to keep a close eye on the temperature gauge during the test drive, as the nose-mounted radiators are prone to corrosion, something that also affects the air-conditioning condensers. Parts cost £470 and £292 respectively, so budget accordingly if you think replacement might be imminent.

Transmission-wise, neither gearboxes nor four-wheel-drive system should give trouble unless abused, although the threat of stomach-churning bills (£11,000 for a new Tiptronic, for example) means exercising a degree of caution. £1,100 for a fresh clutch is about par for the course, but while that Tiptronic 'box is considered bullet-proof, make sure the steering-wheel shift buttons and instrument panel display function correctly. Sharing suspension and brakes with the Turbo means the potential for heftier bills, so ensure regular fettling hasn't been neglected, as fresh discs and pads all round will be £1,384 at RPM (it would be £212 less for a C2 by way of comparison), with a replacement front caliper costing £611. New lower front suspension arms ('coffin' arms) are £272, with front dampers coming in at £523.

In terms of bodywork, even the earliest examples ought to be in fine condition, so be very suspicious of any that aren't. Don't be surprised if the front end has been the subject of local re-painting, as stone chips are a common problem, but be wary of damaged bumpers, as they aren't cheap, while a replacement hood is going to set you back the best part of £2,000 before fitting, so check the condition and operation.

Lastly, the cabin; any wear or abuse should be obvious, but make sure that there are no issues with the electric windows or PCM system, as both can play up with age. ➲

DESIRABLE OPTIONS

Buying one of these new might have saved a wad of cash compared to the full-fat Turbo, but that doesn't mean that owners were short-changed when it came to specification. Reflecting its position towards the top of the 996 range, the cabin of a C4S was a fine place to be with extensive leather trim and the likes of climate control, upgraded hi-fi and electric seats all fitted as standard. Plenty of luxury, then, but what do the experts think when it comes to spec?

Manual gearbox

There were plenty of owners who preferred the Tiptronic self-shifter – arguably a Cabriolet, thus equipped as a rapid and relaxing sun-trap – but both Greig Daly and Jason Shepherd would pick one of the rarer manual cars. The six-speeder boasted a slick shift and ratios that perfectly exploited the flat six's prodigious power and torque outputs.

Sports seats and exhaust

Another choice from both of our experts, and common options on many a 911 before and since the 996's arrival. The greater bolstering and adjustment of the seats add comfort to the car's mile-munching credentials, while for many the C4S's switchable exhaust system is one of the best 911 soundtracks.

Infotainment

Plenty of C4S buyers were tempted to splash out on the Porsche Communication Management system with its integrated satnav, trip computer and audio. It's just as popular today, although Daly says the dated appearance may detract from the cabin's appeal. A matter of personal taste, then, but it's hardly a deal-breaker.

Colour and trim

Once again this comes down to taste, but the combination of Seal Grey Metallic paint and black leather is a great combination according to Shepherd. Rarer colours, such as Guards red, are still appealing, but it's probably worth steering clear of lighter interior hues and wood finishes.

ABOVE Extensive choice of interior colours, seats and trim packs, including aluminium or carbon fibre as here, mean specs vary greatly from one C4S to another
LEFT Quad exhaust tips were a Porsche Tequipment option, standard tips were twin oval

Before you buy

While corrosion shouldn't be a factor, even the newest C4S is more than a decade old, so it pays to be cautious. It goes without saying that a thorough check of the history is required to ensure no major accidents lurk in the car's past, and check that those unique bumpers are undamaged, as replacements are pricey; the front one costs £835 before painting and fitting, for example

With modest values come the danger that previous owners may have skimped on maintenance, so check that service stamps aren't missing. And while the 3.6-litre engine was less prone to RMS and IMS issues, evidence of replacement or upgrade is good news. RPM Technik can upgrade the latter for around £900 if it's done at the same time as clutch replacement.

Check that engine and cabin cooling systems are healthy. Muck building up around radiators and air-con condensers leads to corrosion – conscientious owners should have cleared them regularly – and replacing the whole lot will get very expensive indeed.

The 'Big Red' brakes mean larger bills come replacement time; specialists will charge around £1,300 for fresh discs and pads all-round, so it's a good bargaining point if a refresh is imminent. The suspension is trouble-free providing it's not been neglected by a penny-pinching owner, although worn front lower arms are a common issue. If they need replacing then Paragon Porsche sell good-quality alternatives to the OEM items, saving around £100 per side and with a two-year warranty.

While not quite feeling hewn-from-solid, cabin quality was still impressive, so there's little reason to be lumbered with a scruffy example. Key areas to check are the operation of the PCM system where fitted, and the electric windows, which can be prone to failing motors and regulators.

BELOW Front radiators can be prone to corrosion if not regularly cleared of road debris

> WHILE THE 3.6-LITRE ENGINE WAS LESS PRONE TO RMS AND IMS ISSUES, EVIDENCE OF REPLACEMENT OR UPGRADE IS GOOD NEWS

TOTAL 911 VERDICT ★★★★★

It's not often that the words '911' and 'bargain' are mentioned in the same sentence, but that's what we have here. Sure, the 996 has its critics, and there are plenty of enthusiasts for who it will never be an option, but for those that are convinced, the C4S is a very sound choice indeed. The Turbo-aping looks are a major part of the appeal, but set that aside and you're still looking at a very capable Neunelfer, one that merits a four-star rating from us for very good reason.

LEFT Turbo-look body with usable everyday performance means a good 996 C4S is already a modern classic

Investment potential & ownership experience

This car is all about that Turbo-look, and judging by how quickly they leave showrooms, there's no doubt that today's buyers are drawn to the more muscular appeal of this particular 996. An added attraction is the sheer value offered by what is a very capable Neunelfer, and while the rises in value have been relatively modest, it's a steady climb that looks set to continue. Both Shepherd and Daly are full of praise for the styling, with the latter describing it as arguably the best looking 996 and one that he'd very much like to own himself, while Charles Ivey's Alvaro Crego also reports significant interest from buyers and is equally keen on the way this car looks. Aesthetics aside, the C4S also boasts strong and accessible performance, and running costs are reasonable compared to the Turbo, plus there's a level of comfort and usability that make for an enjoyable daily driver. But as Shepherd points out, the key is to buy a good one and maintain it; follow his advice, and its desirability should make it a safe place to put your money. 911

997.2 Carrera

Get it for
£35,000-£50,000

Performance
★★★☆☆

Maintenance costs
★★★☆☆

Rarity
★★☆☆☆

Value
★★★☆☆

997 CARRERA S

Since the arrival of the 993, Carrera buyers with an extra wodge of cash to spend have had the opportunity to tick the box marked 'S'. And so it was with the Gen2 997, the extra £7,000 asked by Porsche securing a rather tasty specification that centered around the larger 3.8-litre motor that was still directly injected but boasted 385bhp and 420Nm of torque. The S had handy improvements over Carrera models, and enough to cut 0.2 seconds from the 0-62mph sprint (it was down to 4.5 seconds with PDK) and ensure a top speed just below 190mph. The bigger engine also featured further tuning of the intake system and increased cooling capacity. And that wasn't all, as the extra money bought larger 19-inch wheels, PASM suspension with a 10mm lower ride height, and beefier brakes with larger, red-painted calipers along with larger pads and thicker discs up front. You could choose your S in Cabriolet form, too.

997.2 CARRERA

Blending adept dynamics with everyday usability was the 997's hallmark, and it was to receive some choice upgrades in Gen2 form, now available for under £50k

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

CARRERA TIMELINE

1973
The Carrera name appears for the first time on the legendary 2.7 RS, boasting 213hp. 1,590 produced

1984
More than a decade on, Porsche launch the 3.2, one of the most successful Carreras. Values risen rapidly. 70,044 produced

1989
A raft of modern tech heralds the arrival of the 964, with ABS and power steering. 4WD model appears first. 19,484 produced (C2)

1993
More traditional styling marks out the 993 Carrera, which manages a healthy 276hp from the 3.6-litre motor. 38,626 produced

1998
Probably the most divisive model yet, the 996 brings water-cooling to the 911 and those familiar IMS and RMS issues. 56,733 produced

2004
Something of a return to form, the 997 is hugely accomplished and quick in entry-level 330hp form. 25,788 produced (Gen1)

2011
Larger, loaded with technology and more comfortable, the 991 generation is launched. Unknown number produced

Ever since the 964 arrived back in 1989, there has been a decision to make before signing on the dotted line for a new Neunelfer, and that's whether to choose a car driven by two wheels or four. Capable as it is, the latter usually brings with it a penalty in terms of weight and complexity, so if all-weather security isn't a priority and you prefer an arguably purer 911 experience, then rear-wheel drive it is. Fast forward 20 years and that decision brings us to the 997 Carrera in Gen2 form, a model launched for the 2009 model year and one that was to introduce 911 buyers to some new technology.

THE CHANGES FOR THE GEN2 997 C2 BEGAN AT THE BACK WHERE THE CHAIN-DRIVEN 3.6-LITRE FLAT SIX BOASTED IMPROVEMENTS IN BOTH POWER AND TORQUE

The changes for the Gen2 began at the back where the chain-driven 3.6-litre flat six boasted improvements in both power and torque over the first-generation car. An extra 15bhp and 20Nm respectively boosted outputs to a very useful 345bhp and 390Nm, resulting in a 0-62mph time of 4.9 seconds and a 179mph top speed. Of lightweight alloy construction, the revised unit featured chain-driven camshafts with VarioCam Plus variable valve timing and lift on the inlet side, and a dry sump lubrication system with electronically controlled on-demand pumping to boost efficiency.

The real interest, though, came with the addition of the DFI system, which injected fuel at up to 120 bar and allowed a notably higher 12.5:1 compression ratio. Euro 5 compliant, the new unit boasted a reduction in CO_2 emissions of nine per cent and six per cent better economy in manual form; claimed figures were now 225g/km and 29mpg combined. Impressively reliable and with no bankrupting IMS or bore-scoring issues to worry about, there's few concerns for the buyer as long as the example you're looking at is accompanied by a detailed service history and a fat wad of bills.

With the last cars barely four years old, regular maintenance at an OPC is quite likely, but specialist servicing isn't prohibitive, with RPM Technik charging £375 for a 20,000-mile check and £953 for the bigger 60,000-mile service. The latter includes a clutch oil change for PDK-equipped cars, adding £100 to the bill, but it's also worth ensuring that spark plug changes haven't been ignored; the rear bumper and exhaust silencers need to be removed for this so you're looking at around £300 all in if done separately.

A switchable Sports exhaust was optional and one worth having for the richer sound, but it's worth checking that the valve works and the noise actually changes when you press the Sport button. Keep an eye out for aftermarket items, too. And while the C2 is perhaps less of a track weapon, it's advisable to get an over-rev check done; regular readings in the 4-6 range are evidence of over- ➲

Model 997.2 Carrera 2
Year 2008-2012

Engine

Capacity	3,614cc
Compression ratio	12.5:1
Maximum power	345bhp @ 6,500rpm
Maximum torque	390Nm @ 4,400rpm
Transmission	Six-speed manual/ seven-speed PDK; rear-wheel drive

Suspension

Front	MacPherson struts with coil springs and anti-roll bar
Rear	Multi-link with telescopic dampers; coil springs; anti-roll bar

Wheels & tyres

Front	8x18-inch; 235/40/ZR18
Rear	10.5x18-inch; 265/40/ZR18

Dimensions

Length	4,435mm
Width	1,808mm
Weight	1,415kg

Performance

0-62mph	4.9 secs
Top speed	179mph

The 997 brought about modern looks in a traditional package, though active rear wing was similar in shape and design to 996. 997 had the biggest boot space yet on a 911, and Sport exhaust was now a popular option

PARTS PRICE CHECK

• **Headlight**	£966.52
• **Wheel (18-inch, front)**	£802.35
• **Coolant radiator**	£238.59
• **Front brake caliper**	£498.56
• **Front suspension strut**	£315.15
• **Electric window motor**	£330.26

Prices are inclusive of VAT and come courtesy of Paragon Porsche

997.2 C2 VALUES

According to Greig Daly at RPM Technik, current prices make for a relatively affordable 911, and you can expect to pay from around £35k for an early Gen2. That will secure an example from late 2008/ early 2009 with around 60,000 miles on the clock, but you'll need to spend another £20k if you want one of the last models, which should be in immaculate condition. Cabriolets add a further £2,000-£3,000 on average. And it seems that where PDK-equipped cars were once worth a bit more, that's changing as buyers are favouring three pedals again.

• **Early**	£40,000
• **Late**	£55,000

enthusiastic use. Transmission-wise, a six-speed manual gearbox was standard and shouldn't exhibit any problems unless subjected to ham-fisted abuse. The clutch should last 50,000 miles and will cost £1,100 to replace.

> INSIDE, THE GEN2 997 CARRERA OFFERS A BEAUTIFULLY CONSTRUCTED AND OPULENTLY TRIMMED CABIN THAT HAS PROVED AS LONG-LASTING AS IT IS COMFORTABLE

But one of the most significant changes for the Gen2 was the arrival of the seven-speed PDK transmission, a complex dual-clutch unit that replaced the earlier car's Tiptronic gearbox. Inherently reliable, it needs a £150 oil change every six years, so ensure this has been done on the earliest examples; if a new unit is needed you're unlikely to see any change from £15,000 once labour and VAT are taken into account, so any hint of trouble should ring the loudest of alarm bells.

Carried over from the Gen1, the aluminium-rich suspension is by MacPherson struts at the front and the multi-link LSA axle at the rear. The 20mm lower Sports suspension was an option when new, as was the Porsche Active Suspension Management (PASM) system, so it's worth checking whether the original owner ticked those boxes. There's little concern other than listening out for a creaking from the front, which signals lower arm bushes past their best – a complete new arm is around £280 – or the rattling of worn anti-roll bar bushes. It is, though, worth ensuring that the dampers on an early car aren't ready for replacement, especially a PASM-equipped example; new front dampers for those are almost £500 apiece so all-round replacement is pricey.

In terms of reliability, it's much the same story for the brakes. The C2 was brought to a halt courtesy of 330mm discs at both ends, clamped by four-piston Monobloc calipers that were fashioned from aluminium and with a black finish. It's worth checking that the inner faces of the discs aren't exhibiting corrosion on a low mileage example but there's little to worry about otherwise. Replacing the discs and pads at both ends will result in a four-figure bill from a specialist so it's good news if they've been refreshed recently. Only the most serious (or wealthy) road or track warriors would have opted for the optional Porsche Ceramic Composite Brakes (PCCB) for their C2 and the huge cost of replacement means they are best avoided today.

There's nothing to worry about when it comes to the steering though, so you can just

Left Standard specification on the 997.2 C2 included Sound Package Plus, tyre-pressure monitoring and PCM with a 6.5-inch touch screen. Other options could be specced, such as cruise control, TV tuner, navigation, 13-speaker BOSE audio and more sporting seats

revel in the oily-smooth feedback from the hydraulically assisted variable ratio rack. But it is worth scrutinising the wheels for signs of impact damage as town-bound cars could have suffered from clumsy parking, which may have knocked suspension settings awry. Wear to the inner edges of the tyres is another giveaway that all is not well, so budget for an alignment check; £265 will get you a health-check and geometry adjustment at RPM Technik and it's money well spent if you're to get the best from a 997.

Externally, the changes for the Gen2 car were harder to spot and mostly came in the form of a nip and tuck here and there to freshen things up. There are certainly no corrosion woes to worry about, so it's a case of ensuring no accidents lurk in the history and checking for stone chips around the nose; it's common so don't be surprised to discover a record of local re-painting.

Bi-xenon headlights were standard along with LED units at the rear, and both are pricey so it's worth checking for any damage; replacing ➲

BUYING TIPS

The 997 has a reputation for excellent quality and trouble-free ownership. Indeed, a late example is barely four years old so condition should be perfect, but get a specialist inspection for peace of mind.

- **Bodywork:** No inherent concerns here. Ensure the panels and paintwork are in top condition. High-mileage cars are likely to have stone chips, and check exterior trim and light units as they are pricey.
- **Engines:** Check the service record is complete. An over-rev check will establish previous use, but the new DFI motor means no concerns over IMS failure.
- **Transmission:** Both manual and PDK transmissions are tough and reliable in normal use. Replacing the latter will be a wallet-draining experience so avoid problems at all costs. Clutches on manuals last around 50,000 miles so budget accordingly.
- **Brakes/suspension:** The stoppers are well up to the task but are four figures to replace. Hard used examples could be ready for an overhaul, so haggle accordingly if you detect any creaks or clunks.
- **Interiors:** Excellent build and material quality means issues are rare. Check for scuffed trim on early high-milers and make sure everything works. It's worth taking the time to establish the exact specification.

a damaged headlight with the dynamic cornering function fitted will cost nigh-on £1,000 for the part alone so you've been warned. And as always with a 911, you'll want to think hard before taking the plunge on a car with an extrovert colour scheme – the standard 997 palette didn't offer anything too outrageous but the more sober metallic hues are the safest re-sale bet.

And like the 996 that preceded it, this one was available in Cabriolet form with a fully-electric hood that folded away in 20 seconds and at up to 30mph. With a replacement top costing around £2,000 before fitting, it's worth examining it for any damage caused by envious passers-by. An aluminium hardtop was a pricey option, and one worth having, but ensure both it and the mounting points are unmarked. Cold weather could adversely affect the side window seals so ensure sticking glass hasn't caused damage, and make sure the windows drop the requisite couple of millimetres when the door is opened. A rear wiper is a desirable find, too.

Inside, it was business as usual, with the 997 offering a beautifully constructed and opulently trimmed cabin that has proved as long-lasting as it is comfortable. Indeed, only wilful neglect will lead to any hint of shabbiness, in which case you should walk away as it simply isn't worth the bother. A trickier matter is establishing the specification because, as always, Porsche had a hefty options catalogue on hand with which to tempt buyers. Many couldn't resist the lure of goodies including a TV tuner, navigation, 13-speaker BOSE audio, cruise control, and more sporting seats, so spend time finding out exactly what's fitted to the example you're looking at. And bear in mind that Porsche Exclusive opened up a whole other avenue of choice when it came to trim and colours.

Suffice to say you should have no trouble finding the specification you want, but we'd advise a chat with a specialist to ensure you're not paying over the odds nor landing yourself with a specification that could prove hard to sell. The standard spec was actually quite generous with Sound Package Plus (nine speakers and 235 watts of aural delight), tyre-pressure monitoring, and PCM with a 6.5-inch touchscreen all included, and there's no reason why it shouldn't all be working perfectly today. Ultimately, whether it's a 911 for daily use or weekend entertainment, the Gen2 997 will fit the bill very nicely. Even better, a car that's been looked after shouldn't prove prohibitively expensive to run, either. A somewhat tempting proposition, then. 911

SPECIALIST VIEW

"These cars are very popular stock as they are at a price point that is achievable for many, with running costs that are manageable and could even be described as low! The Gen2 997s have the DFI engine, which so far has proved to be a very reliable unit, something that buyers of 997s generally are wary of. Plenty of buyers we speak to would rather take a higher mileage Gen2 3.6 rather than run the gauntlet with a Gen1 C2S because of this, plus the performance is very similar. As long as you buy from a reputable specialist, you can't go too far wrong with one of these, and they are one of my favourite 911s."

Greig Daly, RPM Technik

OWNING A 997.2 C2

- **UK Price new:** £63,070 (Coupe)
- **Total numbers sold:** 10,500
- **Service intervals:** Two years/20,000 miles
- **Service costs minor:** £375
- **Service costs major:** £953

(Figures are courtesy of RPM Technik)

991.1 TURBO S

The Turbo S is an immensely capable all-rounder, and the first-gen 991 represents outrageous performance for the money right now. Here's everything you need to know before buying one...

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

991.1 Turbo S

Get it for
£70,000-90,000

Performance
★★★★★

Maintenance costs
★★★★★

Rarity
★☆☆☆☆

Value
★★★★★

HISTORY AND TECH

It was almost 30 years ago when the Turbo S badge first appeared, that model being the 964 that arrived in 1992 and was soon revered for its pace, rarity and sheer desirability. It would be used on each of the succeeding generations and by 2013 it was the turn of the Gen1 991. Available in Coupe and Cabriolet forms, it was an outstanding confection that combined towering performance with a lavish specification. The outright speed – 197mph, and the 0-62mph sprint ticked off in just 3.1 seconds – was delivered by the same 3.8-litre engine as the standard Turbo, a unit boasting a pair of variable geometry blowers and that produced 560hp at 6,000rpm. 30 more horses than before, there was the same increase in torque for a maximum of 700Nm available between 2,100 and 4,250rpm. By comparison, the 660Nm of the Turbo came at 1,950rpm, so the S engine delivered its twisting force over a very flexible range. And to demonstrate that Porsche hadn't forgotten about improving efficiency, claimed fuel economy was improved by up to 16 per cent at 29.1mpg. The increase in outputs might have been simply a matter of software tweaks but they were mighty effective, especially when transferred to the road via the quick-shifting, seven-speed PDK gearbox and Porsche's new electro-hydraulically controlled four-wheel-drive system. Porsche Torque Vectoring Plus was fitted as standard, as were Porsche Dynamic Chassis Control, active rear-wheel steering, centre lock wheels and PCCB stoppers. Buyers also benefitted from the Sport Chrono Plus package that included dynamic engine mounts. Tipping the scales at just over 1,600kg it was amongst the heavier 911s to roll off the Zuffenhausen production lines, but the substantial boost in power and torque more than made up for that. And anyone opting for the open-air charms of the Cabriolet didn't need to compromise when it came to performance; just 0.1 seconds was added to the claimed 0-62mph time while impressive aerodynamics for a soft-top (the Cd was 0.31) meant the maximum speed was unaltered. Choosing a Turbo S didn't come cheap, but it's unlikely that buyers would have felt short-changed. Not when they opened the door at any rate, the cabin displaying a richness of materials that couldn't fail to impress. Smothered in leather, it featured the likes of high-end audio and 18-way adjustable Sports seats. It was a fittingly opulent environment from which to enjoy the supreme grand touring abilities of the Turbo S. ➲

ABOVE RIGHT Carbon pack was a popular interior trim choice, though some went for brushed aluminium

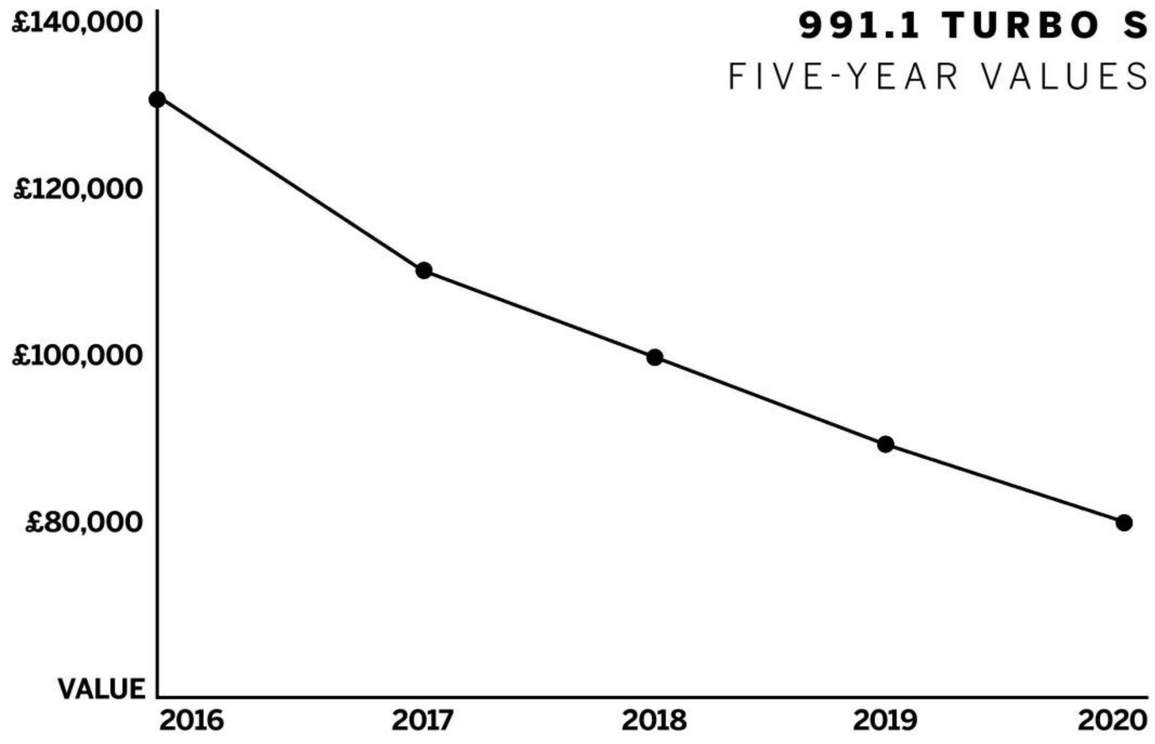
WHAT'S IT LIKE TO DRIVE?

You'll hardly be surprised to hear that the Turbo S feels every bit as quick as its on-paper performance would suggest. It's a devastatingly effective way of covering ground, but it's not just about outright punch. Sure, it has huge reserves of that, but it's the way it delivers that performance that's so impressive. The PDK transmission is both smooth and incredibly quick-witted, making it the perfect partner for both a B-road blast and covering hundreds of miles in one relaxed sitting. But if you are intent on enjoying its massive pace, the flat six revs smoothly and rapidly to its 7,200rpm cut-out, while the PCCB discs provide all the stopping power you could ever need. Both grip and stability are exceptional whatever the conditions, and the ride quality is wonderfully smooth. The electrically assisted steering takes some feel away, but we were impressed by the way the rear-wheel steering delivers additional sharpness and engagement at more modest cornering speeds. Factor in the supreme comfort and luxury, and the Turbo S is a very compelling package indeed.

THE VALUES STORY

HAGERTY

The first deliveries of the Turbo S arrived in the UK in September 2013 with a price tag of £152,000. To put that into perspective, Porsche was asking an additional £22,500 compared to the 'regular' Turbo, and should you have preferred the Cabriolet that would have been another £8,700, please. These were big numbers and whether the S represented good value was a question we ourselves asked at the time. But seven years on and according to RPM Technik's Greig Daly, this was a 911 that certainly didn't avoid the gradual slope of depreciation. Today, a Coupe wearing 35,000-40,000 miles will set you back in the region of £75,000-85,000. Around £70,000 should secure a high-mileage Coupe, while you can add £4-5k for a Cabriolet. Jonathan Franklin of Rare Car Finance agrees with this assessment, adding that the Turbo S will look even more desirable if prices slip a little further. But as Daly himself points out, these figures do represent an awful lot of car for the money. ➲



MARKET RIVALS

Tempting though the rounded talents of Turbo S undoubtedly are, the same sum of money does introduce a few rather interesting alternatives, ranging from the focus of a GT model to the more luxurious approach of a GTS, plus an opportunity to experience the air-cooled end of the 911 spectrum.

991.2 GTS

With its turbocharged 3.0-litre 9A2 engine the GTS offered an additional 30hp and 50Nm compared to the 991.2 Carrera S, so there's no shortage of performance. Okay, so the punch isn't quite as explosive as the Turbo S but you're unlikely to be disappointed, plus there's the promise of an equally lavish standard spec, and a 2017/2018 RWD car is within budget.

997.1 GT3

Featuring a 3.6-litre motor carried over from the 996 GT3 – revved to a spine-tingling 8,400rpm – drive was sent to the rear wheels via a six-speed manual gearbox with shorter ratios. Adjustable suspension with PASM was standard, and if you want a 997 that engages like few others then look no further. A more focused choice than our featured Turbo S, but its dynamics are superb.

997 Turbo S

The 997 Turbo S represents the same sort of ownership experience as the 991.1. It's a great daily driver, plenty powerful enough, and arguably more special than the 991.1 as it's a run-out model with a unique spec (whereas the 991 Turbo S was marketed at the same time as the Turbo). Just don't expect its PDK transmission to be as intelligent or as fast as the latter.

964 C2

They just keep rising in value, don't they! A £20,000 911 around nine years ago, now a well-sorted 964 C2 Coupe, non sunroof and with manual transmission will cost you around £80,000 if it's sub 100,000 miles. A totally different proposition to the 991.1 Turbo S, you won't use it daily but a 964 will better look after you financially over a period of three to five years.

RIGHT 18-way Sports Seats Plus were a welcome addition to the Turbo S's repertoire. Wear-wise, the interior has fared well over seven years

BUYING ONE

The first thing worth mentioning is numbers. While Porsche is unable to confirm how many of these were sold in the UK, it is likely that around 30 to 50 examples are for sale at any one time, with the vast majority of those being Coupes. Their numbers are vast, so you've plenty of options to consider when in the market for one. Some will boast extended Porsche warranty, which we'd recommend, but plenty will have slipped out of the dealer network. In any case, an independent inspection is recommended, as the bills for these cars can be eye-watering.

Needless to say, the maintenance history should be spot-on, with main dealer stamps in the service record, or perhaps specialists for the earliest examples. Either way, there really shouldn't be any concerns about mechanical condition. There's been the odd gripe about the PDK transmission, with a handful of owners suffering from oil leaks, so this is worth checking, but that aside specialists certainly aren't experiencing any major problems, and a few cases of faulty sensors (there are lots of them on the Turbo S!). A good car though should require nothing more than the replacement of consumables such as brake pads and tyres.

Naturally, a check of the PCCB discs is wise: they last well but a replacement is shockingly expensive – you'll pay five figures. Externally, high-mileage cars could be suffering from the odd stone chip, but thanks to the quality of the materials and assembly, the cabin should be in near perfect condition, with only a light shine to the driver's seat leather and steering wheel. And while it would be sensible to check that all of the cabin tech is working – there are reports of occasional niggles with infotainment and climate control systems – it's unlikely any major problems will surface. Overall, the first-generation 991 seems to be proving robust and reliable. ➲

ABOVE Excellent lighting was ensured with the standard-spec PDLS+

ABOVE LEFT Side air intakes feeding intercoolers were reprofiled from 997 with no middle slat. This design would follow onto the 991.1 GT3 RS

LEFT Sport Chrono Pack came as standard on the 991.1 Turbo S

DESIRABLE OPTIONS

The Turbo S was very well equipped as standard, as you'd have hoped given the extra £22k required compared to the Turbo, but there were still plenty of option boxes to tick for owners. And many did, so you shouldn't have any trouble finding a car with a wealth of desirable extras. With those likely to fare better come re-sale time, Jonathan Franklin advises buying an S with the strongest specification possible. The likes of a sunroof and audio upgrade are all popular (Bose or Burmester), and we heartily recommend the Sport wheel over the non-Sport item with clumsy push-button steering wheel shifters. As for colour, it's no real surprise that black and silver were popular hues, but according to Greig Daly there's no harm in considering something a bit different.

ABOVE PDK serves as an excellent tool for extracting big power from the Turbo S's 560hp 9A1 engine when called upon, also offering the dexterity of a 16 per cent improvement in MPG

INVESTMENT POTENTIAL & OWNERSHIP EXPERIENCE

A 991.1 Turbo S isn't a 911 that should be thought of as an investment, as our five-year average values chart testifies. RPM's Greig Daly notes that the very last examples may still be subjected to further, slight depreciation in the years ahead. Jonathan Franklin of Rare Car Finance adds that, in any case, the Turbo S is always going to be desirable, which adds confidence when it comes to parting with your own money for one. As for ownership, there's no reason to think that it will be anything but immensely satisfying, though the bills that come with it are as big as the performance.

Comfortable, blisteringly fast and superbly constructed, it's a remarkably complete package though, and as we've previously mentioned, you won't find another modern supercar providing this kind of performance in this kind of price bracket. Perhaps the one question mark is whether you feel it's worth paying more for that S badge compared to a regular Turbo, but we'd argue the premium is worth it for the abundance of additional kit. 911

TOTAL 911 VERDICT

It's true that not everyone was convinced by the 991 when it first arrived, the increased dimensions and seemingly greater focus on comfort and luxury leading some to wonder whether their favourite sports car was losing its edge. The Turbo S certainly wasn't the rawest of drives, playing into the role of relaxing mile-muncher, but it certainly doesn't want for spec, and the explosive performance on offer quickly banishes any thoughts of softness. The abilities of the powertrain are deeply impressive, and when the right road presents itself the S delivers thrills aplenty, just like a 911 should.

★★★★★

> COMFORTABLE, BLISTERINGLY FAST AND SUPERBLY CONSTRUCTED

THANKS to Paragon GB for supplying the exemplary example in our pictures. For further information on the car visit **paragongb.com** or call +44 (0) 1825 830424

TURBO

930 Turbo LE 086
964 Turbo 3.6 094
993 Turbo 102
997.1 Turbo 110

BLUE DETAILS

turbo S

HEXAGON
MODERN CLASSICS

930 LE

Get it for
£120,000-140,000

Performance
★★★★☆

Maintenance costs
★★★★★

Rarity
★★★★★

Value
★★★★★

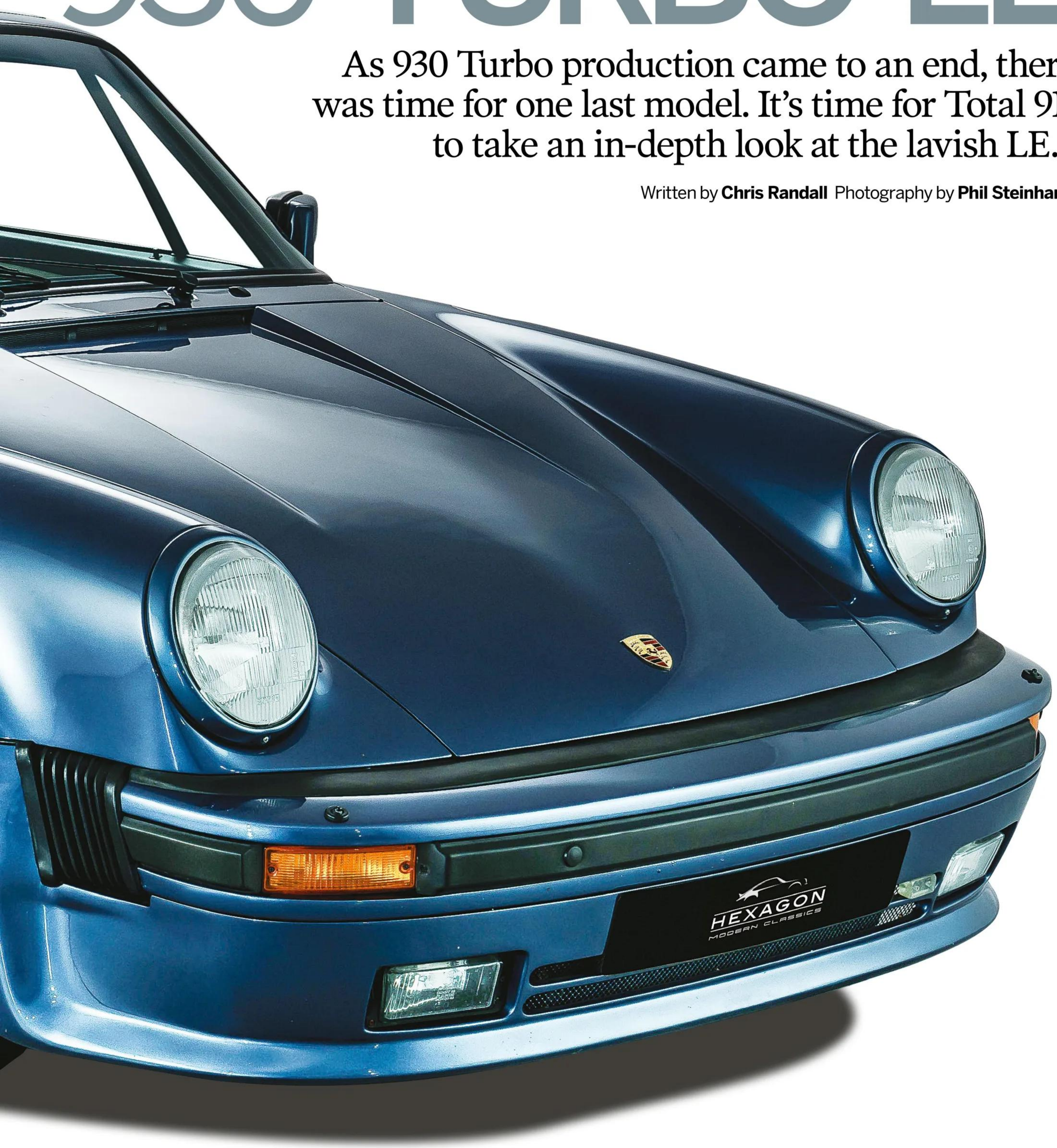
964 TURBO S

Never one to miss a trick with something special, Porsche repeated the 'limited edition' feat with the 964 Turbo platform. Introduced in 1992, just 80 examples of the superior Turbo S left the factory, but unlike the 930, the changes were a little more extensive. First off, it was put on a strict diet, with 180kg being shed thanks to lightweight panels and glass, and the removal of much of the luxury kit. Items such as electric windows and seats and air-conditioning were strictly off the menu. It looked the part on the outside too, benefitting from lower suspension, a purposeful body kit comprising front and rear spoilers from the Exclusive catalogue and air intakes in the rear wheel arches – oh, and gorgeous 18-inch Speedline rims. But even more serious changes were reserved for the hand-built engine, the addition of the X88 Power Kit bringing a larger turbo and valves, as well as tweaks to the ECU. The results were 381bhp and 490Nm of torque, 61bhp over the regular Turbo, and a 180mph top speed.

930 TURBO LE

As 930 Turbo production came to an end, there was time for one last model. It's time for Total 911 to take an in-depth look at the lavish LE...

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



If you're a car enthusiast of a certain age then there's every chance your bedroom wall was adorned with a poster of the 911 Turbo, probably pinned right next to one of a white Lamborghini Countach. It's no surprise, of course, because the Turbo was a bona-fide supercar, its chunky Fuchs wheels and tea-tray spoiler more than capable of making a schoolboy's heart beat that little bit faster. But just like growing up, changes were afoot, and by 1989 a new generation of 911 was waiting in the wings. The 930 Turbo needed to go out on a high, which brings us to the car you see here: the very special LE.

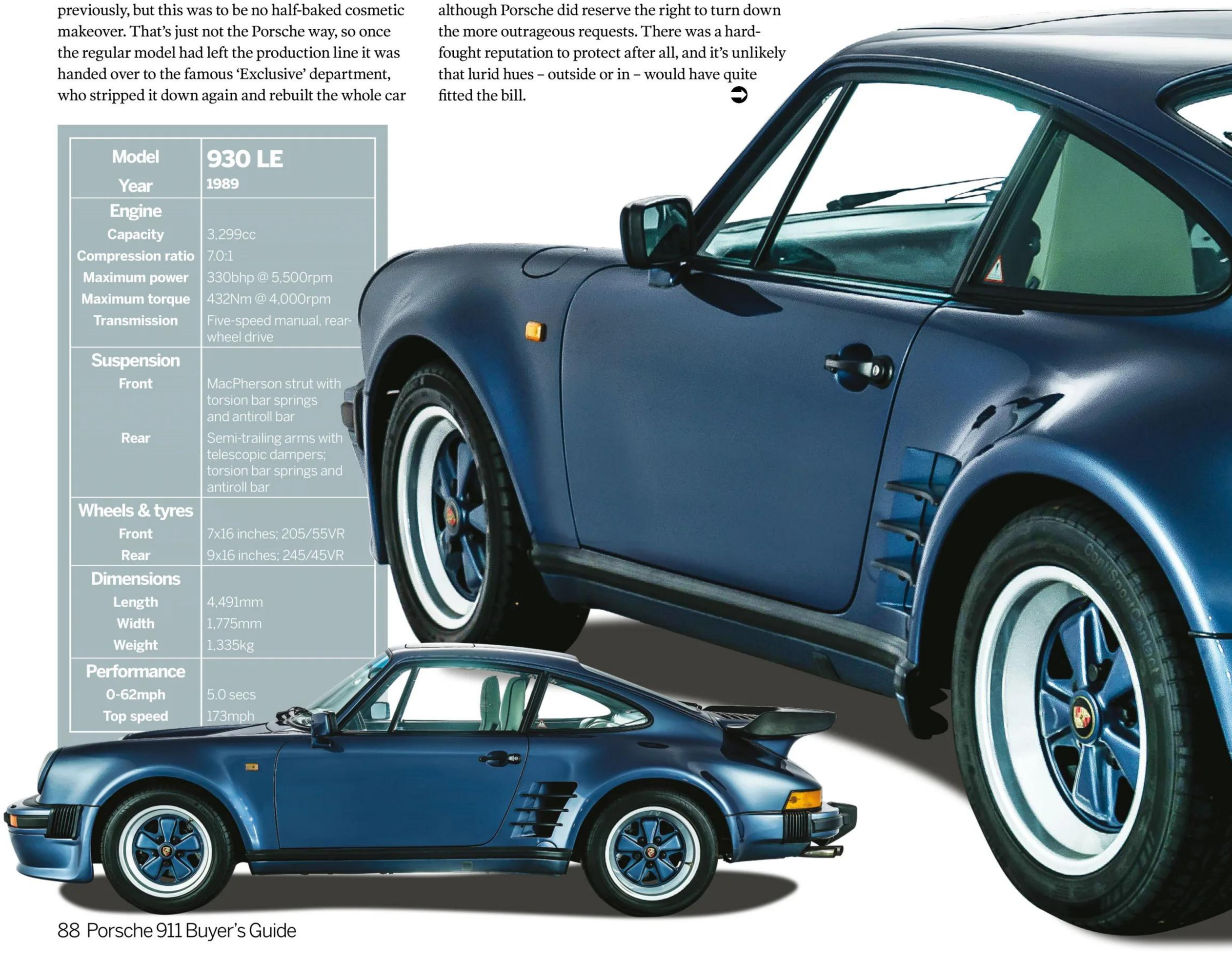
And for once, 'limited edition' meant just that. Just 50 examples were made – in Coupe form only, with each Porsche centre being allocated one car – and it arrived in March 1989, boasting a bold price tag of £84,492. Unsurprisingly, Porsche had no trouble shifting all 50 cars, just 14 of which were right-hand drive. That price was a whole lot more than the £27,000 or so that a regular Turbo had cost a decade previously, but this was to be no half-baked cosmetic makeover. That's just not the Porsche way, so once the regular model had left the production line it was handed over to the famous 'Exclusive' department, who stripped it down again and rebuilt the whole car by hand, incorporating a host of unique upgrades, including any special requests from buyers.

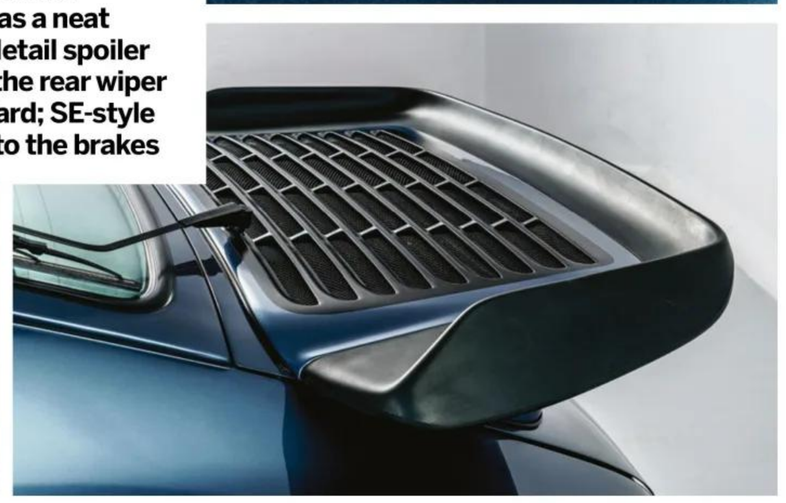
Externally, it was still clearly a Turbo, and utilised the same galvanised body shell with a ten-year anti-corrosion warranty, but Porsche had taken things a bit further with the styling, starting at the front, where it now sported a deeper, more jutting air dam incorporating rectangular fog lamps and a single-slatted intake to feed air to the newly integrated oil cooler behind. The expansive rear wheel arches also benefitted from the straked air intakes found on the SE that were intended to direct air to the rear brakes, while dual exhaust outlets on each side poked from the rear apron, replacing the paired item of regular Turbos. The iconic 'tea tray' spoiler remained though.

The colour palette was essentially standard Turbo, although there was plenty of scope for something different if you had deep enough pockets, the 'Exclusive' engineers giving buyers pretty much free rein when it came to choosing paint and interior trim, although Porsche did reserve the right to turn down the more outrageous requests. There was a hard-fought reputation to protect after all, and it's unlikely that lurid hues – outside or in – would have quite fitted the bill.

"THE TURBO WAS A BONA-FIDE SUPERCAR, ITS CHUNKY FUCHS WHEELS AND TEA-TRAY SPOILER MORE THAN CAPABLE OF MAKING A SCHOOLBOY'S HEART BEAT THAT LITTLE BIT FASTER. BUT JUST LIKE GROWING UP, CHANGES WERE AFOOT"

Model	930 LE
Year	1989
Engine	
Capacity	3,299cc
Compression ratio	7.0:1
Maximum power	330bhp @ 5,500rpm
Maximum torque	432Nm @ 4,000rpm
Transmission	Five-speed manual, rear-wheel drive
Suspension	
Front	MacPherson strut with torsion bar springs and antiroll bar
Rear	Semi-trailing arms with telescopic dampers; torsion bar springs and antiroll bar
Wheels & tyres	
Front	7x16 inches; 205/55VR
Rear	9x16 inches; 245/45VR
Dimensions	
Length	4,491mm
Width	1,775mm
Weight	1,335kg
Performance	
0-62mph	5.0 secs
Top speed	173mph





(Clockwise from top left): Power was boosted to 330bhp; badge under the whaletail was a neat touch; the whaletail spoiler remained, but the rear wiper was now standard; SE-style intakes fed air to the brakes

THE SPECIAL TURBO TIMELINE

1989
Essentially an SE without the slantnose, just 50 930 Limited Edition models were made, one for each OPC at the time. 330bhp and a special bodykit were standard.

1992
The addition of the X88 Powerkit boosted the 964 Turbo S engine to 381bhp, while weight was down by 180kg. It was extremely fast as a result, and just 80 were made.

1998
The 993 Turbo S was the final model for the air-cooled generation. With 450bhp and a manual gearbox, it was very quick and luxurious, with a big spec and lashings of carbon inside.

2004
With PCCB brakes as standard, the 996 Turbo S also benefitted from larger turbos and tweaks to the ECU and intercoolers. 450bhp got it to 60mph in just 4.2 seconds.

2010
Put a deposit on a 918 Spyder and you got the opportunity to buy a matching 997 918 Edition. Green paint highlights and 530bhp featured, and yep, you've guessed it – just 918 were built.

2014
Porsche celebrated 40 years of Turbo this year with a 991 Turbo S GB Edition. Only available in the UK, all tweaks over a standard 991 Turbo S were cosmetic.

Lavish standard spec included electrically adjustable leather seats and power operation for the windows, mirrors, and sunroof; gold crests adorned the steering wheel and shorter gear lever, while the gold plaque celebrated 14 years of turbocharged 911s; Blaupunkt stereo was standard but many owners opted for the latest Eighties tech in the form of a CD player

If you lifted the be-spoilered engine lid, you would find the expected M930/60 3.3-litre flat six nestling beneath the air-to-air intercooler, fitted with Bosch K-Jetronic fuel injection and a single KKK turbocharger. Featuring an aluminium alloy crankcase, Nikasil-coated cylinder bores and a single camshaft per bank, the unit was more than capable of handling the 300bhp that was possessed by the regular Turbo. But this most special of 930s needed a little more to separate it from the pack, so it received the same revisions as the flatnose SE, namely a small increase in boost pressure, more aggressive camshaft profiles along with a slightly larger intercooler, and a freer flowing exhaust that saw power lifted to 330bhp at the same 5,500rpm, with torque peaking at an impressive 432Nm at 4,000rpm.

A compression ratio of 7.0:1 remained unchanged from the regular 930 Turbo, as did the 6,700rpm red line. The result was stunning pace, with the top speed rated at 173mph and the 0-60mph sprint despatched in a claimed five seconds. This was partly down to the LE's relatively lithe 1,335 kilogram kerb weight despite its hefty spec, but it's a quick speed by any measure, and by way of perspective that's 997 Carrera pace for the same accelerative benchmark.

Playing a part in helping to get that power to the road was the five-speed G50 gearbox and hydraulically operated clutch that became common to all Turbos from 1988, in addition to a standard limited-slip differential. Incidentally, that gearbox had been a very welcome addition to the Turbo range, having already been available on normally aspirated Carreras since the previous year, the new unit ridding the 911 of the slightly recalcitrant four-speed gear change. Not only that, but the wider spread of ratios vastly improved driveability, as well as having the effect of helping to minimise the lag that had since added a layer of trickiness to the whole experience.

However, unlike today's iterations with their driver-protecting, acronym-laden drivelines, this still wasn't a 911 to be trifled with. There was still a substantial amount of weight slung behind the rear wheels – weight distribution was 39/61 per cent front to rear – and the job of keeping things under some semblance of control fell to the same torsion bar-sprung independent suspension found beneath regular Turbos. With MacPherson struts up front and semi-trailing arms aft, it was a familiar sight beneath 911s, although it had recently benefitted from improvements that included fatter antiroll bars and firmer dampers. The changes brought useful reductions in body roll, as well as less pitch and dive.

Stopping duties were the responsibility of the same servo-assisted – although ABS-free – brakes, along with cross-drilled and ventilated discs front and rear of 304mm and 309mm diameter respectively. These were clamped by four-piston alloy calipers, while the deliciously feelsome unassisted rack and pinion steering also remained, although the LE now rolled on 16-inch Fuchs ➲

> THE RESULT WAS STUNNING PACE, WITH THE TOP SPEED RATED AT 173MPH AND THE 0-60MPH SPRINT DESPATCHED IN A CLAIMED FIVE SECONDS

BUYING TIPS

It's 25 years old, so caution is going to be needed. Regular usage is always good for older examples, and isn't a problem as long as it's been religiously maintained, but even cars that have been stored away in collections may need re-commissioning. Take great care either way, as restoration bills will be large.

- **Provenance:** Originality is everything with limited-number cars like these, and be sure you're buying the real thing. An OPC or specialist can decipher the identification plate for peace of mind.
- **Corrosion:** Rot affects a number of areas, and is costly to put right. The wings, sills and boot floor are key areas, but getting it on a ramp is advisable.
- **Engines:** The flat six can suffer from broken cylinder head studs and oil leaks. Also, make sure the turbo is healthy, with no signs of blue exhaust smoke.
- **Heating:** Corroded heat exchangers are a common issue, and renewing a complete system – including exhaust – will cost comfortably in excess of £2,000.
- **Low mileage:** Lack of use can cause issues, including binding brake calipers. A specialist overhaul will be needed, so budget accordingly.
- **Interiors:** Watch out for non-functioning electrics and broken air-con, which are costly to repair. Make sure the leather trim is undamaged and that LE-specific badging is present and correct.

alloys wrapped at the rear with broad 245-section rubber. Additionally, colour co-ordinated wheel centres were a no-cost option.

So far so special then, but Porsche hadn't forgotten about the inside when it came to this particular 930. In fact, even for those that hadn't been tempted by personalised trim options, there was a raft of unique touches included to remind owners that they had purchased something considered most lavish with their nigh-on £85,000. The heavily bolstered sports seats were electrically adjustable and came smothered in top-quality leather, and there was a smattering of hide on the handbrake lever and gear knob. The latter sat atop a shortened, less wand-like lever, and the knob itself was embellished with a gold Porsche crest, as indeed was the boss of the three-spoke Porsche steering wheel.

Another addition unique to the LE was a gold plaque that sat at the base of the centre console, proudly marking the Turbo's 14-year lifespan, while the rich standard equipment list included Porsche's 'System 1' remote-control alarm system, electric windows and central locking along with air-conditioning and a top-tinted windscreen. Not that most buyers stopped there of course, many dipping into the options catalogue to add extras, such as an electric sunroof and mirrors and seat heaters plus other personal touches.

Let's face it: if you were going to spend this sort of money on such a special 911, why not blow your sizeable bonus and make it as lavish as possible? Aural enjoyment was provided by a Blaupunkt Berlin radio/cassette player as standard, although those that considered themselves at the cutting edge of late-Eighties audio could choose a radio/CD player as a no-cost option – perfect for listening to your Dire Straits CD, perhaps, as you made big-money deals on the in-car phone.

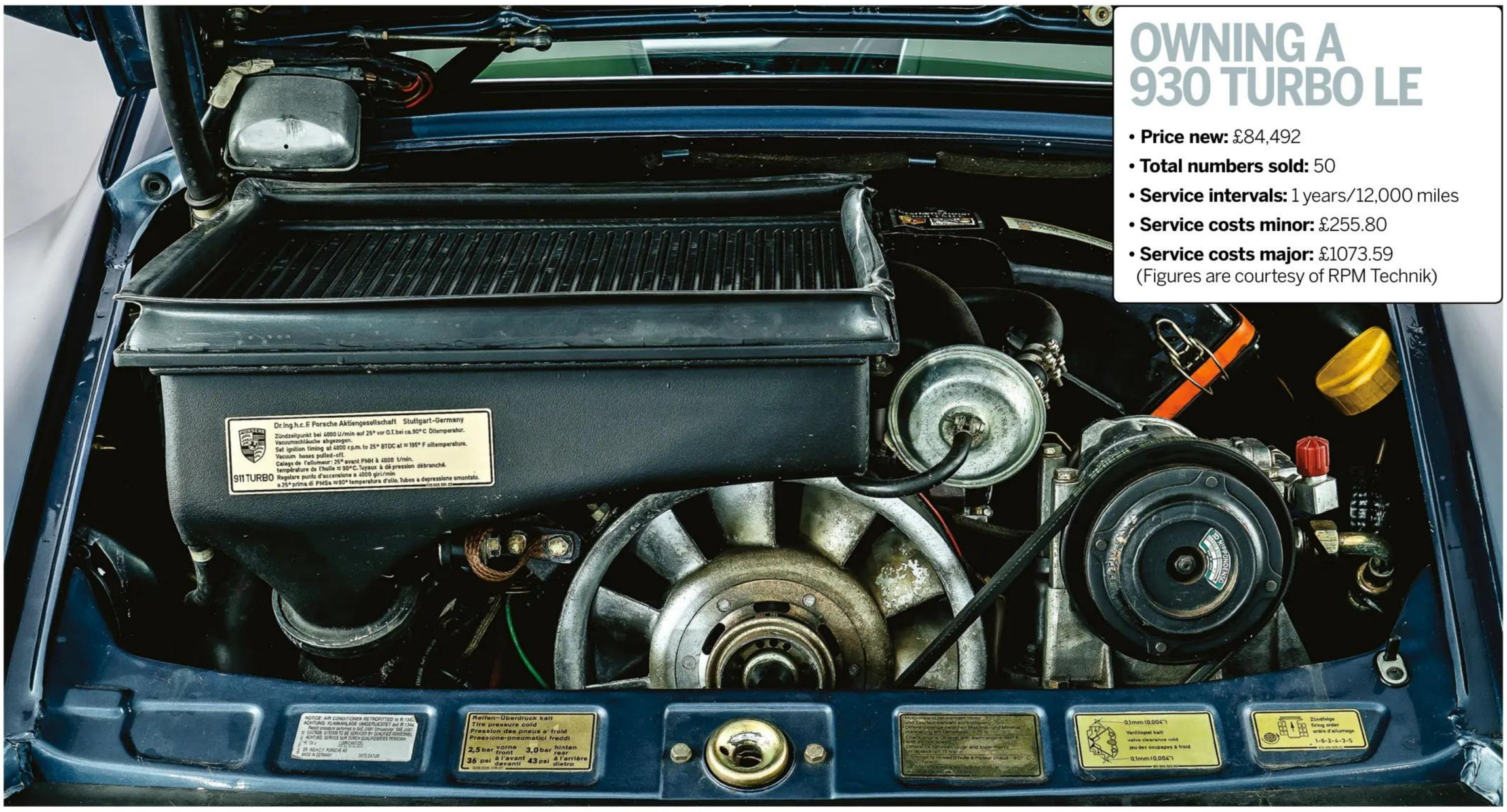
Eighties clichés aside, though, this was a very special 930 Turbo indeed, and one that was more than fitting in the way it represented a celebration of the end of an era-defining supercar. The cars that followed might not quite have been pin-up material, but turbocharging was now firmly routed into part of the fabled 911 legend, helping to cement its status as a model that us Porsche enthusiasts have looked forward to ever since. The Turbo LE was special right from the off in 1989 and it's arguably even more special today thanks to its provenance and lavish specification, marking it as the ultimate 930 and, quite possibly, one of the most collectible Porsche Turbos of all time. 911

"THIS WAS A VERY SPECIAL 930 TURBO, REPRESENTING A CELEBRATION OF THE END OF ONE OF THE ERA-DEFINING SUPERCARS"

SPECIALIST VIEW

"Like many older 911s the 930 Turbo is already sought after, so a model like the LE with just 50 made is always going to be ultra-desirable. They certainly don't hang around for long when they do come up for sale and values are already running at around £30,000 more than the regular Turbo. I'd certainly expect this gap to grow in the future, so the LE offers good investment potential, and without doubt this is one Porsche 911 to keep a very close eye on in the coming years."

Jonathan Franklin, Rare Cars



OWNING A 930 TURBO LE

- **Price new:** £84,492
- **Total numbers sold:** 50
- **Service intervals:** 1 years/12,000 miles
- **Service costs minor:** £255.80
- **Service costs major:** £1073.59

(Figures are courtesy of RPM Technik)

"I'VE GOT ONE"

"The 911 LE has given me tremendous pleasure over the past year. We took the car to Le Mans Classic in June and I was fortunate enough to participate in a lap of the circuit to celebrate 40 years of Turbo. The car was fantastic on the circuit's long straights and I was able to exercise the terrific thrust and punch that this model is renowned for.

The 330bhp and extra gear that this model possesses over pre-'88 930s means that fast cruising, especially on foreign roads, is an absolute pleasure. Being one of just 50 models produced, its exclusivity is often admired by Porsche aficionados too."

David Newton

964 Turbo 3.6

Get it for
£150,000-£170,000

Performance
★★★★☆

Maintenance costs
★★★★☆

Rarity
★★★★☆

Value
★★★★☆

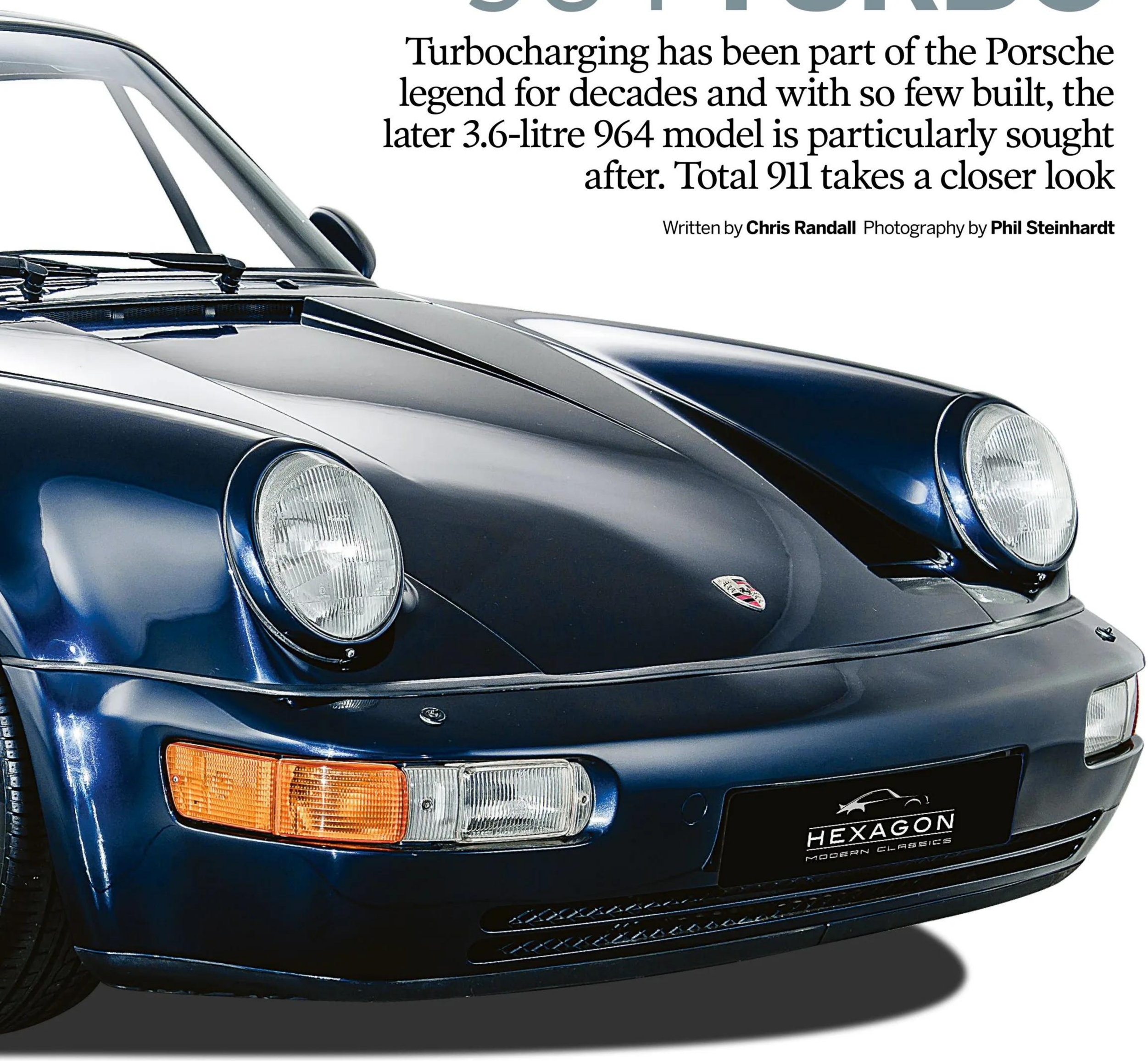
TURBO 3.6 S

Having launched a Turbo S version of the 3.3-litre car at the 1992 Geneva Motor Show, it's perhaps no surprise that Porsche would look to repeat the trick with the outgoing 3.6-litre model. Built by Porsche Exclusive, there's the usual debate over the actual numbers produced, but the most accurate story seems to be 93 examples with 76 of those in flat-nose 'Flachbau' form and 17 with the standard front. The majority utilised the same headlamps as the 968 coupe, but interestingly the cars for the Japanese market received a front end more reminiscent of the 930 SE. The engine – now known as the M64/50S unit – benefitted from the X88 upgrade which resulted in 385bhp and would receive a raft of changes that included a re-designed sports exhaust system, a larger KKK K27 blower, a larger intercooler and alterations to the cylinder heads, valves and valve timing. A different clutch and flywheel also featured. Costing around £130,000, the 'S' also received a different design of front and rear spoiler along with air intakes in the rear wings.

964 TURBO

Turbocharging has been part of the Porsche legend for decades and with so few built, the later 3.6-litre 964 model is particularly sought after. Total 911 takes a closer look

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



Regular readers of this magazine will need little reminding of just what a step change the 964 generation represented when it came to the evolution of our favourite sports car. It was a model that ushered in a whole new era, one that was smoother and more aerodynamic – the drag coefficient of standard models was a creditable 0.32 – not to mention a great deal more rigid than the 3.2 Carrera it succeeded. There was an electrically-operated rear spoiler for the first time, and even greater changes beneath the skin with 911 buyers getting their first taste of power-assisted steering, anti-lock brakes and a more modern suspension arrangement to replace the torsion bar springs of old. However, despite the introduction of a new 3.6-litre, 'M64' engine, what the range lacked was a turbocharged variant. In fact, it would be around a year before one arrived and when it did, it was equipped with an updated version of the 3.3-litre motor from the 930, albeit one that promised greater performance according to Porsche. Neither the media nor the Porsche faithful were entirely convinced, and it took until the Paris Motor Show in the autumn of 1992 before a blown variant of the larger flat six engine was unveiled.

With the 993 waiting in the wings, the 3.6 Turbo was on sale for barely a year with Porsche building just 1,437 examples (the number of right-hand drive variants is hard to pin down, estimates ranging from around 50 to 150 examples depending on who you ask). Valuable and sought after today, just what made it so special? Well, the first thing was the engine – dubbed M64/50, it was a unit that had come in for some major modification compared to that found beneath the engine lid of standard 964s. With a 100 millimetres stroke and 76.4 millimetres bore (an extra three millimetres and two millimetres respectively), the headline numbers for the Bosch K-Jetronic injected and catalyst-cleansed 3.6 were an impressive 360bhp at 5,500rpm and 520Nm of torque at 4,200rpm, increases of 40bhp and 70Nm over the earlier 3.3. The compression ratio was raised slightly to 7.5:1 and while still utilising the single KKK turbocharger and intercooler from the smaller engine, it was deep inside the flat-six where the real changes had been made. The M64 crankcase effectively remained the same but the pistons, con rods and crankshaft were all upgraded to cope with the extra power, the latter also receiving a vibration damper for smoother running. The cylinder bores were Nikasil coated and stainless steel rings had been added to improve the sealing of the cylinders, effectively ➲

"With the 993 waiting in the wings, the 3.6 Turbo was on sale for barely a year with Porsche building just 1,437"

Model	**964 Turbo 3.6**
Year	**1993-1994**
Engine	
Capacity	3,600cc
Compression ratio	7.5:1
Maximum power	360bhp @ 5,500rpm
Maximum torque	520Nm @ 4,200rpm
Transmission	Five-speed manual, rear-wheel drive
Suspension	
Front	MacPherson struts with coil springs; anti-roll bar
Rear	Semi-trailing arms with telescopic dampers; coil springs; anti-roll bar
Wheels & tyres	
Front	8x18-inch; 225/40/18
Rear	10x18-inch; 265/35/18
Dimensions	
Length	4,250mm
Width	1,775mm
Weight	1,470 kg
Performance	
0-62mph	4.8 secs
Top speed	174mph

Though the teatray wing from the earlier 3.3-litre 964 Turbo remained, the 3.6 was treated to 18-inch lightweight Speedline wheels sitting under a wide body that sat some 20mm lower to the floor

THE AIR-COOLED TURBO TIMELINE

1974
The 3.0-litre 911 Turbo with 260bhp is revealed at the London Motor Show in October, receiving huge acclaim

1977
Porsche announce the revised version with power hiked to 300bhp courtesy of a bigger 3.3-litre engine and an intercooler

1990
964 Turbo is launched, first generation cars appearing with a modified version of the 3.3-litre engine and 320bhp

1993
A blown 3.6-litre unit is fitted. Based on the standard M64 engine, power is up to 360bhp joined by lower suspension and 18-inch wheels

1995
993 Turbo arrives with more power and fitted with twin-turbochargers. Four-wheel drive and 'Big Red' brakes help keep things under control

1998
With air-cooling about to disappear, the 993 Turbo S is a fitting finale. Manual only, 450bhp is enough for a 186mph top speed and 0-60mph in a whisker over 4.0 seconds

“The upshot of all this work was a 964 Turbo that now boasted some mighty impressive performance figures”

curing the engine’s propensity to leak oil.

The rocker arms and shafts were carried over from the 3.3, but new camshafts were fitted to operate the two valves per cylinder, a more aggressive profile increasing the valve lift on both intake and exhaust sides, and the cam timing had also been altered. The intake valves themselves were as found on the 3.3 but the exhaust valves that were increased in size to 42.5 millimetres were now made from ‘P25’ steel and no longer sodium filled. While we are on the subject of the cylinder heads, they now boasted just one spark plug per cylinder, the twin distributors and dual plugs of the standard engine ditched for the new application. The plugs themselves were long-life items and the distributor drive was modified too. The heads also allowed for the addition of secondary air injection as part of the emissions system, with an air pump driven by a belt from the camshaft.

The lubrication system was essentially the same dry sump arrangement found on the standard M64 engine, although it received minor modification in order to provide an additional oil feed to the turbocharger. Alterations to the throttle body and a re-mapped ignition ECU completed the mechanical changes, while the engine and gearbox themselves now sat on revised hydraulic engine mounts. The upshot of all this work was a 964 Turbo that now boasted some mighty impressive performance figures, with a top speed raised to 174 miles per hour and the 0-62 miles per hour sprint despatched in an internal organ-rearranging 4.8 seconds. Not only that, but Porsche also claimed that the plumper torque curve noticeably reduced turbo lag, while economy was improved by somewhere in the region of five per cent. It’s probably fair to say that the former would be more important to owners than the latter. To cope with the added power now heading for the rear wheels, the clutch came in for some beefing up, as did the driveshafts, and the 3.6 was fitted with the five-speed manual G50/52 transmission and a dual-mass flywheel. Also standard for the new model was a limited-slip differential that featured carbon plates for greater durability, with a locking ratio of 20 per cent under power and 100 per cent on the over-run.

The opulent 964 Turbo 3.6's cabin is well appointed, with electrically adjustable front seats covered in an abundance of supple leather. A five-speed manual transmission was of course compulsory

Needless to say, Porsche ensured that the new car would stop as well as it went and that meant the fitment of 322 millimetres discs at the front and 299 millimetres items at the rear, both ventilated and cross-drilled and clamped by aluminium alloy four-piston 'Big Red' callipers with larger brake pads. Bosch ABS was standard. Suspension-wise, the 3.6 Turbo still featured the basic 964 arrangement of struts up front and semi-trailing arms at the rear, and incorporated anti-roll bars at both ends and twin-tube gas dampers. However, with the M030 suspension package as standard, the new car sat 20 millimetres lower than the 3.3 and the spring rates had been stiffened by some 12 per cent. Standard wheels fitted to the 3.3 were replaced by rather more dramatic looking 18-inch Speedline rims of a three-piece design. An inch wider at both the front and rear – measuring eight and ten inches respectively – they wore 225/40 rubber at the front and 265/30 at the rear.

BUYING TIPS

Relative rarity in 911 terms should mean that cars have been pampered, but there's no guarantee. Given their value, a forensic examination before purchase is a must.

- **Bodywork:** Expect it to be immaculate – be wary of any thing that isn't. Look closely for signs of mismatched paintwork signifying previous repairs, and make sure you know what was done.
- **Engine & Transmission:** Strong if looked after, though broken cylinder head studs are worth checking for. Specialists recommend having a cylinder leak-down test to ensure the head and cylinders are healthy. Be wary of any modifications, unless you're sure of their provenance. The gearbox is considered bomb-proof in normal use and the LSD shouldn't give trouble.
- **Running gear:** A steel plate within the alloy brake calliper can lift due to corrosion, so get them checked. At the time of writing, rear axle strut bushes (at the camber and toe adjustment point) were unavailable. They were £650 new. Watch for perished front wishbone bushes too – you'll need two of them at £500 each including VAT.
- **Wheels:** Those Speedline rims are lovely, but they can suffer from corrosion and may have been refurbished. They aren't cheap to replace – around £1,500 each.
- **Interior:** Aside from signs of wear and tear, there's little to worry about. Check everything works, especially the heating and ventilation system as it's known to play up.

It's perhaps no surprise that the exterior of the new car would receive attention too, buyers keen to ensure that onlookers were aware of the fact that they'd parted with almost £73,000 to get behind the wheel of this final 964 iteration. The first thing to give the game away would have been the more flared wheel arches, the result of a 25 millimetres increase in width to cope with the wider track and fatter wheels, and the particularly keen-eyed might also have spotted the more aerodynamic 'Cup' door mirrors and the rear bumper that featured the same centre section as the naturally aspirated 964 RS.

Less obvious would have been the re-profiled undertray beneath, and the fact that the drag coefficient had increased from 0.32 to 0.35. Still, with those split-rim wheels, fixed rear spoiler and lowered stance, little more adornment was needed to denote this particular 964 as something very special. Mind you, if a nosey passer-by had peaked through the windows, they would have certainly noticed the opulent interior that Porsche had endowed upon this new Turbo variant. The basic cabin architecture might have been familiar from the rest of the 964 range – think classic five-dial instrument pack, centre console and electronically controlled heating and ventilation that actually worked – but it was smothered in soft leather. The sports seats were electrically adjustable and were matched by a lavish standard specification that included electric windows and central locking, an alarm and immobiliser, air-conditioning, a top-notch hi-fi and a trip computer. As with all 964s, driver and passenger air bags were standard as well – the former still fronted by a slightly ugly steering wheel – but there was still some scope for buyers to add to the kit count, an electric steel sunroof and upgraded sound system being amongst the most popular choices.

Today, this coveted iteration of the Turbo breed commands very high prices, and it takes only the briefest skim of the facts and figures to realise why. Not only is it relatively rare – a fact guaranteed to get 911 enthusiasts like us drooling – but, more importantly, it's immensely capable. That engine packed a sledgehammer punch, but still managed to be civilised and controllable when you weren't in the mood, while the chassis modifications provided the 3.6 with supreme ability at maximum attack. Together with those looks, it's a very potent recipe indeed. 911

"Today, this coveted iteration of the Turbo breed commands very high prices"

SPECIALIST VIEW

"Any Turbo is of course a special 911 but the 964 in later 3.6-litre specification is even more so. With only a very short production life, numbers of these are low, particularly for a right-hand-drive car as we have here. We've also been lucky enough to sell one or two examples with the ultra-desirable X88 Powerkit option.

Boasting great power that's usable on our roads, the 964 Turbo 3.6 holds provenance as it's the last 911 Turbo to utilise that single turbocharger, just like the original 930."

Jonathan Franklin, Rare Car Finance

OWNING A 964 TURBO 3.6

- **Price new:** £72,294
- **Numbers built:** 1,437
- **Service intervals:** 1 year/12,000 miles
- **Service costs minor:** £358
- **Service costs major:** £528 (£900 with spark plug change)

(Figures are courtesy of Paragon Porsche)

"I'VE GOT ONE"

"I recently purchased a 964 Turbo 3.6 from New Zealand after falling in love with a photograph of what I believe to be the most beautiful 911 that Porsche made.

The engine has been rebuilt and I have taken the liberty of lowering it ever so slightly as I feel that 964s sit a tad high.

My journey is almost complete and I can't wait to enjoy my 'factory fresh' 964 Turbo, getting to experience that unbelievable rush of torque whilst sitting in a well-built engineering masterpiece, soaking up that proper 'old school' 911 leather smell. As you can imagine, excited doesn't quite cut it!"

Richard P

993 TURBO

993 Turbo

Get it for
£100,000-£120,000

Performance
★★★★★

Maintenance costs
★★★★☆

Rarity
★★★★☆

Value
★★★★☆

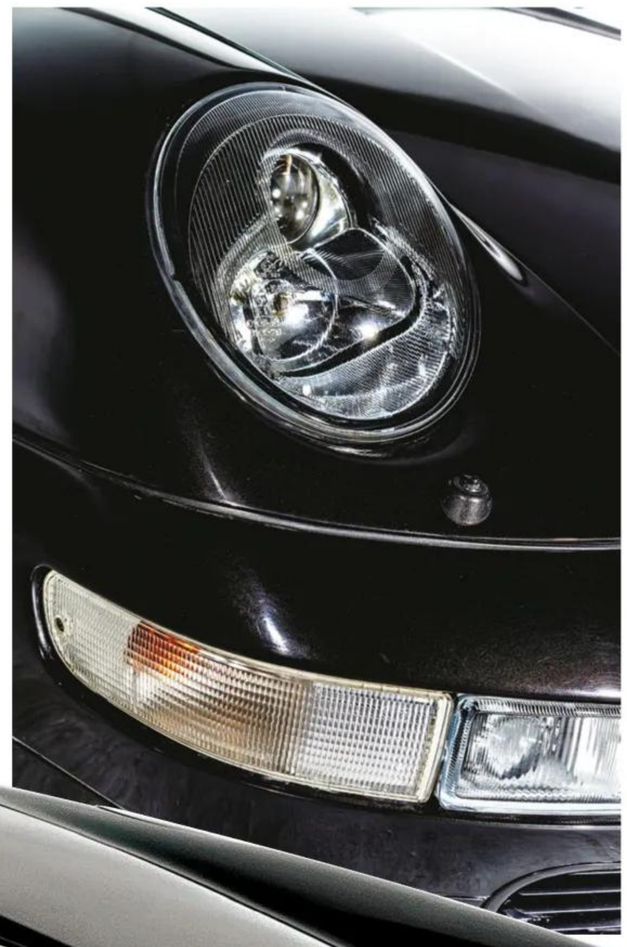
'Big red' brake calipers made a huge statement as to the Turbo's unwordly performance for the time

> IT WOULD STAY IN PRODUCTION UNTIL 1998, AFTER THE WORLD HAD BEEN INTRODUCED TO WATER-COOLING

A turbocharged 911 is a special car indeed, and being the last of the air-cooled models, the 993 Turbo deserves a closer look as its value has soared

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

Model Year	**993 Turbo** (1996)
Engine	
Capacity	3,600cc air-cooled flat six
Compression ratio	8.0:1
Maximum power	408bhp @ 5,750rpm
Maximum torque	540Nm @ 4,500rpm
Maximum torque	Six-speed manual; four-wheel drive
Suspension	
Front	MacPherson strut; coil springs; antiroll bar
Rear	Multi-link with telescopic dampers; coil springs; antiroll bar
Wheels & tyres	
Front	8x18 inches, 225/40/ZR18
Rear	10x18 inches, 285/30/ ZR18
Dimensions	
Length	4,245mm
Width	1,795mm
Weight	1,500kg
Performance	
0-62mph	4.3 secs
Top speed	180mph



In issue 110, we subjected the 993 Carrera to the Ultimate Guide spotlight, and it's worth briefly recapping that model's place in the 911 story. Launched in 1993 and styled by Tony Hatter, it would prove to be a big leap over the outgoing 964 generation.

This was not only due to its looks – which more closely reflected the classic 911 outline – but also the host of technical improvements it contained. Chief among them were a bodyshell that was claimed to be 80 per cent new and a lot stiffer (it also featured bonded front and rear screens and quirky, centrally pivoting wipers); a revised 3.6-litre engine that would host a new VarioRam intake system, and a new multi-link rear suspension layout that would finally lay to rest the ghost of tricky handling.

It was a model that would prove to be hugely popular, with more than 75,000 examples being sold. But since first adopting the technology for their road cars back in 1975, the company found themselves without a turbocharged model in their line-up, the 964 Turbo having ended production in the early part of 1994. Step forward the new 993 Turbo, launched in 1995 for the 1996 model year, and a car that would stay in production until July 1998, after the world had been introduced to the idea of water-cooling courtesy of the divisive 996.

Only available with the Coupe body, from the outside it was instantly recognisable as being special, blending the smooth new look of the 993 with a subtle helping of aggression. At the front was a unique front bumper and apron that was deeper and featured three substantial air intakes to feed the radiators and brakes. Slats on the outer edge of the spoiler also contributed to the carefully tuned aerodynamics by smoothing the airflow around the front wheels.

Head to the back, and you'd be confronted with a whaletail-style fixed rear spoiler in place of the pop-up item – needed because of the intercoolers that sat beneath – and a deeper rear apron housing twin exhaust outlets. Sitting between the new extremities were curvaceous rear wings that added a couple of inches to the overall width, and a new design of sill cover that flared outwards as they approached the rear arches, giving the side profile a more purposeful and hunkered-down look. Further distinguishing the new car from its normally aspirated brethren was a body-colour moulding above the rear screen that housed the high-level brake light, which was standard on UK cars.

So Porsche's designers had nailed the looks, but what of the mechanicals? Starting with the engine, the M64/60 unit benefitted from many of the improvements applied to the 3.6-litre motor

TURBO TIMELINE

1974
The 3.0-litre 911 Turbo with 260bhp is revealed at the London Motor Show in October to huge acclaim

1977
Porsche announces a revised version, with 300bhp thanks to a 3.3-litre engine and intercooler

1979
Production of the 930 generation Turbo ends with over 21,000 sold, making way for the new 964

1990
The 964 Turbo is launched. Gen1 cars appear with 320bhp and a modified 3.3-litre engine

1995
The 993 Turbo arrives, with more power and now fitted with twin-turbochargers

2001
Power rises to 420bhp with the arrival of the 996, the first of the water-cooled Turbo engines

2006
The 997 Turbo introduced with 500bhp. It would later spawn an 'S' variant with more power and PDK

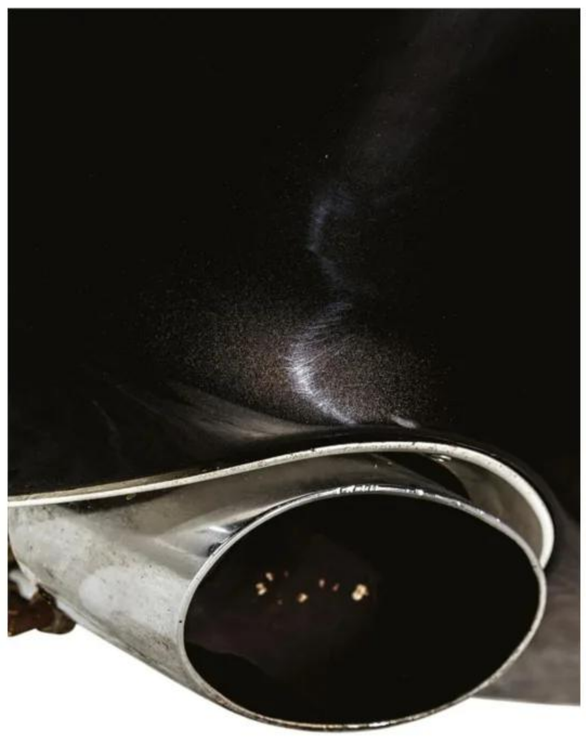
2013
Porsche announces the 991 Turbo with 520bhp and four-wheel steering as standard

SPECIALIST VIEW

"The 993 Turbo is a stunning car, one which the market has always loved, and I dare say will continue to. The curves of the modern classic 993 shape, but with a motor that packs a properly modern punch, means it appeals to a broad spectrum of customers. Being four-wheel drive, it is also a usable machine that, if desired, could be a daily driver as well as a weekend special. With production under 6,000 worldwide, there aren't many around, and if you are lucky enough to have bought a Turbo S a few years ago (only 345 were produced) then they are solid investments. The usual scary running costs can apply, and look out for cars that have been crash-damaged, but providing they have been maintained on time and with someone who knows their 993s, high-mileage cars can be a bargain. An inspection before you buy is a must with this one."

Greig Daly, RPM Technik

Five-spoke Turbo alloy wheels were hollow-spoked, while C4S items were solid



The reflective strip connecting the rear clusters also housed the reverse and fog lights, and wouldn't appear on a 911 again until the 996 C4S, 997.2 C4 and the new 991 C4

> TOPPING THINGS OFF WAS A REVISED EXHAUST SYSTEM WITH A CATALYTIC CONVERTER FOR EACH BANK OF CYLINDERS AND FOUR OXYGEN SENSORS FEEDING BACK DATA

found in standard 993s. Revisions over the 964 model included lighter pistons and connecting rods, a stronger crankshaft, plus hydraulic valve adjusters operated by a single overhead camshaft per bank. There was also greater use of magnesium alloy and plastics for key components and a much-improved lubrication system, but Porsche would go further still for the new Turbo. The dual spark plugs were replaced with some single items, while out went the single KKK K27 blower, to be replaced by a pair of smaller K16 units with vacuum-controlled wastegates that improved response at low rpm, backed by a pair of intercoolers that sat on top of the flat six.

The cylinder heads were now forged rather than cast and with redesigned mountings (the cylinder barrels revised for improved cooling) and the pistons – Grafal-coated to reduce piston noise under high loads – travelled a further 5mm into the combustion chamber area, which helped minimise internal stresses. Stronger connecting rods, a ceramic coating for the larger inlet and exhaust ports and sodium-filled exhaust valves completed the transformation. Also new was a revised Bosch Motronic 5.2 engine management system that incorporated OBDII on-board diagnostics, and a knock control system that not only upped the compression ratio from 7.5 to 8.0:1, but also enabled the new model to run on 95 or 98 RON fuel. Topping things off was a revised exhaust system with a catalytic converter for each bank of cylinders and four oxygen sensors feeding back data. The result of all this technical wizardry was 408bhp, 540Nm of torque and headline performance figures that quoted a 0-60 sprint time of less than 4.5 seconds and a maximum speed of a cool 180mph.

Although bereft of the carbon fibre trim bestowed on the 993 Turbo S, the cabin of the 408bhp 993 Turbo still made for an opulent environment with an array of leather. In terms of performance – and in classic Porsche fashion – the short-travel pedals are mounted close together, providing ample means for heel and toe under concerted driving. Transmission was six-speed manual

TURBO S

Should you have found yourself contemplating the purchase of a 993 Turbo but wishing that it was just a bit more powerful and, well, exclusive, then you were in luck. In 1998, Porsche chose to celebrate the end of air-cooled 911 production by introducing the Turbo S. Courtesy of a new exhaust and other tweaks, power was increased to 450bhp and torque to a slightly bonkers 585Nm, enough to reduce the 0-60 time to a fraction over four seconds with a maximum speed of 186mph. Externally, the Aerokit II brought new spoilers on the front and rear, there were air intakes ahead of the rear wheel arches and special script on the engine lid.

Additionally, the interior was smothered in leather and carbon fibre trim, and there was a lengthy list of standard kit – including bigger brakes – making this the most luxurious 911 yet. And the price, if you needed to ask, was in the region of £130,000.

The 993 Turbo came with luxurious Sports seats as standard equipment, ensuring the driver remained in a suitably fixed position even when committed through corners

Impressive numbers indeed, but that power needed to be deployed and, via a dual-mass flywheel, duties were handed to a six-speed manual gearbox (the G64/51 unit – there was no Tiptronic option thanks to that torque) and the lightweight four-wheel drive system in the Carrera 4. It was a sophisticated setup that utilised a viscous coupling as its centre differential, as well as incorporating Porsche's 'Automatic Brake Differential' technology that braked a spinning wheel and diverted torque to the wheels that did have traction.

One notable addition to the driveline was a power-assisted clutch mechanism, the higher clamping pressure needed to cope with the power likely having made things uncomfortable for any driver unlucky enough to find themselves in a traffic jam. Porsche's answer was to use the power steering pump to charge an accumulator, the stored pressure being released to the clutch slave cylinder as required. The reduced effort and shorter pedal travel made things more manageable and less likely to result in bulging left leg muscles. Interestingly, the power steering (and associated clutch hydraulics) used a special mineral oil rather than the ATF found in most systems, a difference that had potentially expensive consequences for anyone who forgot. Accurate rack and pinion steering was retained and the suspension essentially carried over from the standard 993, albeit with some strengthening of the ball joints and a degree of adjustability. There were MacPherson struts at the front and the new multi-link setup – the 'Lightweight-Stable-Agile' arrangement mounted on a cast alloy subframe – that impressed everyone when the 993 was launched. Unsurprisingly, where the Turbo did depart from standard was in the braking department, the system comprising larger 322mm cross-drilled and ventilated discs squeezed by four-piston alloy calipers, the latter notably dubbed 'big reds'. Bosch ABS was standard, and also new were a set of hollow-spoke 'Technologie' alloy rims that were friction-welded for strength and lightness, measuring 18 inches in diameter and wrapped in a choice of wide Pirelli P-Zero Asimmetrico or Bridgestone S-02 tyres.

Buyers opting for the Turbo were also treated to the full range of interior improvements Porsche had heaped on the 993, from an impressive solidity of construction to top-quality materials. The new and vastly improved electronically controlled climate control system with dust and pollen filters was standard, as was leather upholstery on just about every surface, while owners could choose from electrically adjustable seats or manual sports items. As befitting the new range-topper, there was plenty of standard kit, including electric windows and a sunroof, central locking, an integrated alarm system and a hi-fi, along with a trip computer that was home to a digital boost pressure gauge.

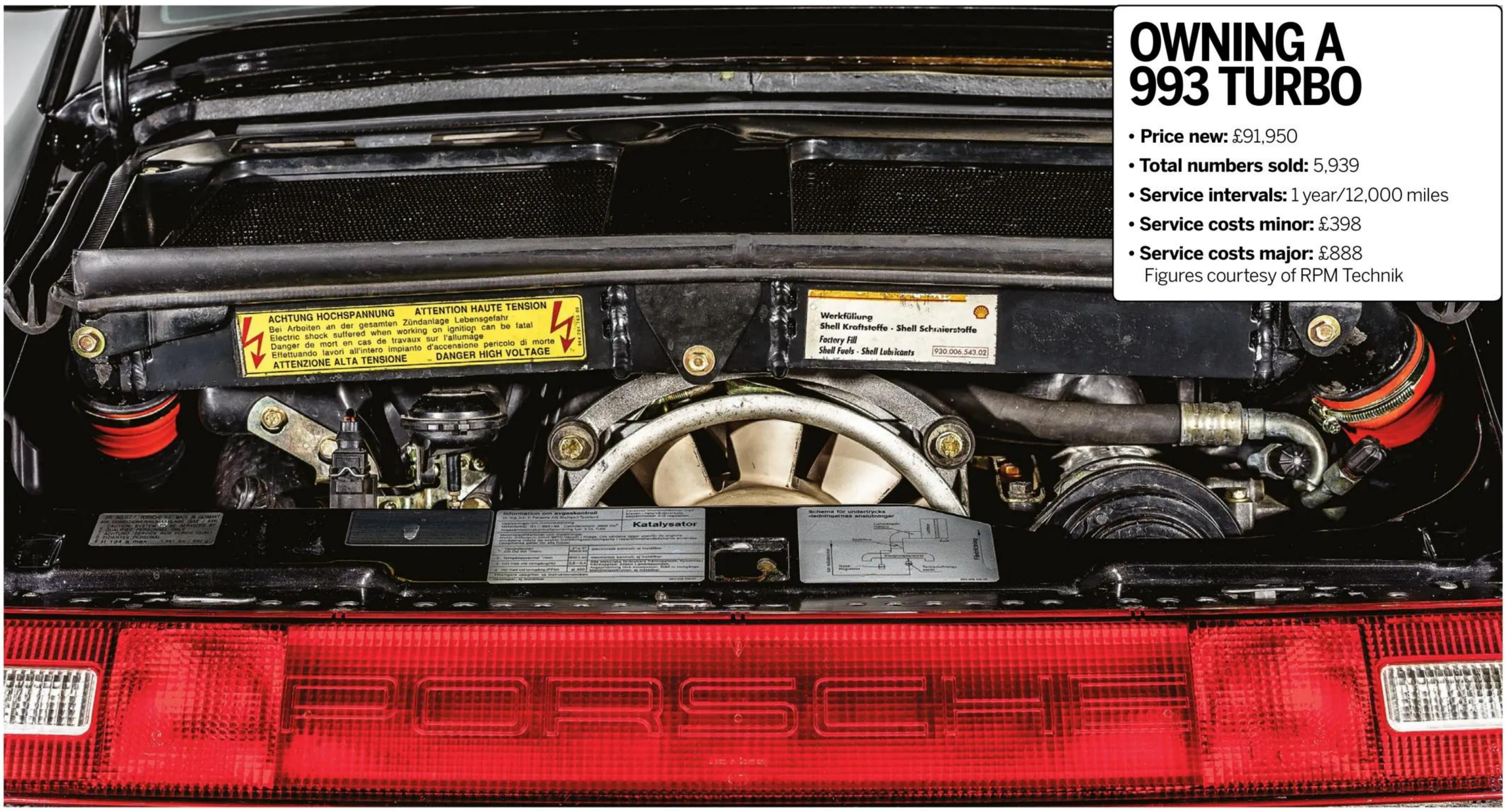
To remind owners of the money they'd spent, various 'Turbo' scripts were scattered around the cabin, including – in a nod to earlier Turbo models

BUYING TIPS

Impressive build quality was a 993 feature, but it's the engine that's the star here, and with this sort of power and performance on offer you should run a mile from anything that looks neglected.

- **Bodywork:** Few corrosion worries, but condition is everything, so it needs careful examination. Replacing Turbo-specific parts will be expensive, and accident damage is always a possibility.
- **Engines:** Bulletproof in normal use, but rebuild costs will be eye-watering. Expect a fat sheaf of servicing bills for peace of mind, and keep an eye out for oil leaks or worn turbos.
- **Transmission:** Like the engine, it's strong and reliable, but any odd noises should cause alarm bells to ring. Replacing the clutch is expensive, so watch for any slippage or signs that the hydraulic assistance is faltering.
- **Suspension/Brakes:** No particular vices, but hard use will eat pads and discs. Be sure to check the condition and budget accordingly if an overhaul is due.
- **Interior:** A well-cared for example should be pristine, but it's worth ensuring that everything works as intended, particularly the air conditioning.

BUYERS OPTING FOR THE TURBO WERE ALSO TREATED TO THE FULL RANGE OF INTERIOR IMPROVEMENTS THAT PORSCHE HAD HEAPED ON THE 993



OWNING A 993 TURBO

- **Price new:** £91,950
- **Total numbers sold:** 5,939
- **Service intervals:** 1 year/12,000 miles
- **Service costs minor:** £398
- **Service costs major:** £888

Figures courtesy of RPM Technik

– being embroidered in the back of the left-hand rear seat. Moreover, it hardly needs adding that a raft of options were available to owners looking to personalise their car further, not to mention inflate a starting price that was over £90,000 when new, a substantial £20,000 or so more than the 964 Turbo it replaced, like the chance to tick the box for the expensive 'Litronic' gas discharge headlamps. Thankfully, given the monstrous pace on offer, Porsche had also equipped the 993 Turbo – indeed, all 993s – with plenty of safety kit, including driver and passenger airbags, as well as a bodyshell that had been strengthened in strategic areas.

Ultimately, the result of this fettling was a seriously impressive 911 that fully deserved its place in a line of turbocharged models stretching back 20 years. The 996 would move the game on once again, of course, but in the meantime the generation featured here is very much one to relish. **911**

"I'VE GOT ONE"

"I purchased this car from a customer in 2007 after he originally brought the car in for us to take a look at the hydraulic tappets. Since then, it's developed into an ever-evolving project: while the head was off, we decided to tear the engine and gearbox down to the last nut and bolt for a full rebuild. The Bilstein shocks were then serviced, the turbochargers reconditioned and the car treated to new tyres and brakes as part of the overhaul. The 993 Turbo is still quick by today's standards, and signals the end of an era – the best of the best of air-cooled – before it all changed with the 996."

Nick Fulljames, Redtek engine specialists

997.1 TURBO

The 997.1 was the last Turbo that could trace its origins to the original 930, and makes for a great-value buy today. Total 911 presents everything you need to know about it...

Written by **Kieron Fennelly**
Photography by **Damian Blades**

997.1 Turbo

Get it for
£45,000-£65,000

Performance
★★★★½

Maintenance costs
★★★★★

Rarity
★★½☆☆

Value
★★★½☆

HISTORY AND TECH

The first-generation 997 inherited its engines from the 996. However, from the outset in 1999, for the first time since the original 930 the 911 Turbo did not use a blown version of the naturally aspirated 911 flat six, but what was almost a bespoke engine. Porsche's engineers knew the M96 of the 996 would not be suitable for circuit racing as oil starvation occurred above lateral forces of 0.7g, speeds readily attained with competition tyres. Yet a production 911 that could not go racing was unthinkable. The Motorsport department thus developed a specific engine for GT3 competition. This was a hybrid unit which took the seven-bearing alloy crankcase of the 964-993 and used a water-cooled head which was derived from the 959 and the GT1. Making generous use of Nikasil, titanium and expensive aluminium alloys, Porsche could not hope to recover the cost of this engine through its GT3 programme, but realised the cost could be amortised by making this engine the basis of the forthcoming 996 Turbo. For the 997.1 Turbo, there were no fundamental changes to the engine design, but its compression ratio was further lowered to 9.0:1 to take into account Porsche's new Variable Turbine Geometry (VTG). Clever software controls developed by Weissach allowed the turbine vanes to turn, akin to feathering an aircraft propeller, according to how much boost was called for as the 911 was accelerating. This more precise utilisation of turbocharger energy not only meant a wastegate was no longer required, but resulted in enormous extra boost, increasing the 997 Turbo's power output from the 414bhp of its predecessor to 473bhp. VTG allowed an Overboost (via the optional Sport Chrono and limited to ten seconds) which momentarily pushed maximum torque from 620Nm to 679Nm. Cd remained at 0.31 and use of aluminium door panels and framework kept weight to 1,585kg, no greater than the 996.

Like previous Turbos, the 997.1 used the stiffer C4 body, but handling dynamics were enhanced by a more sophisticated control system which simultaneously coordinated traction management (PTM) varying drive between the front and rear axles, damper settings (PASM) and the standard stability control (PSM). The cabin was almost indistinguishable from any other 997; full leather was standard, as was Porsche's latest navigation software, but adaptive seats, Tiptronic, and even parking sensors were still extras. ➲

THE VALUES STORY

Porsche built 15,629 of the 997.1 Coupés and 6,100 Cabriolets between 2006-08. This was a faster rate than the 996, of which 20,000 were made over five years. Whereas it took six years for 996 values to fall to half the £86,000 new price, the 997, which without options began at £98,000 (and a six-month waiting list), did not reach the halfway point until about 2016; since then, values for lower-mileage cars have remained mostly stable. Northway Porsche has several 997.1 Turbos 'on its books,' cars that it maintains and has sold and re-sold over the years. The Berkshire-based specialist reckons the pandemic slowed the market almost to a standstill during 2020 and sellers lowered prices to generate interest. The general upturn in consumer confidence forecast for mid 2021 will almost certainly be reflected in stronger 997.1 Turbo pricing for the better examples.

WHAT'S IT LIKE TO DRIVE?

The 997 Turbo is a breathtaking performer. Low speed ride is firm, but road unevenness is smoothed out by the suspension and the emphasis is clearly on refinement, quite different from the 997 GT3. Depress the accelerator gently and speed picks up; give it more of a shove and the 997 shoots forward with such alacrity that the first lesson learned is that anything approaching full bore acceleration needs careful planning and space. The variable vane turbines abolish turbo lag, which has been replaced by a seemingly linear delivery of thrust. Given its head, from 2,000rpm, the 997.1 accelerates in an undiminished wave of torque which does not slacken until about 6,000rpm. Most were ordered with the Tiptronic gearbox, here in its final iteration before PDK. An understandable choice given that most drivers might prefer to keep both hands on the wheel in view of the ballistics at their command. Porsche in fact claimed a fractionally faster 0-62mph time for the automatic as the five ratios were better suited to the torque curve. But with the manual gearbox and especially with the optional short-shift, the enthusiast will relish the response of this now distinctly analogue supercar. ➲

ABOVE VTG, first adopted on the 997.1, is still used in the 911 Turbo today. Sport mode, PASM and Sport Chrono all add some modernity to an otherwise classic cabin

MARKET RIVALS

In the £45,000-£60,000 bracket where the 997.1 Turbo falls, the choice of other 911s is not lacking:

997.2 Turbo (PDK only)

£58,000 nets a higher-mileage 997.2 Turbo. The Gen2 was visually almost unchanged, but Porsche had worked on the spring rates as well as replacing the 'Mezger' engine with a turbocharged version of the new 3.8 of the 997 C2S.

991.1 Carrera S

The 991, larger in all dimensions and its plush cabin a distinct step-up from the 997's, is a very different animal. It's a smoother, extremely rapid GT, with 400bhp on tap, but a less visceral experience than a 997 Turbo. On a steeper depreciation curve than the 997.

991.2 Carrera

Stretching the budget a little buys a 2016 Cabrio on offer at Northway for £61,495. This manual transmission, 9,000-mile example offers an almost new 911 in its latest turbocharged guise. The cheapest 911 to run here, this is the most practical purchase though still likely to depreciate.

996 GT3

A price of £55,000 usually means a 60-70,000-mile car which may have had some track use. The GT3 shared the Turbo's Mezger (minus turbochargers) but that is all they have in common. The 996 GT3 is rare – 350 in the UK against six times as many 997.1 Turbos, and the more solid investment.

BUYING ONE

In 2021 the 'Mezger' 997 Turbo is by most standards an old car, of an age where anonymous, mass-produced diesel SUVs and hatchbacks are often written off as economically unrepairable. A Porsche of course is engineered to different standards, but components corrode and wear out, so the caveats that apply to any 997 apply equally to its Turbo brother. A Porsche has a sophisticated suspension: after a decade and more, bushes fail, control arms slacken, struts and dampers become fatigued. Exposed brake pipes corrode, as do engine coolant pipes, and the records of a correctly maintained car should show this pipework has largely been replaced at least once. The exhaust system is particularly exposed to road spray and the manifolds will be 'fused' to the engine after 15 years if they have not been replaced or re-bolted.

An expensive purchase at the outset, 997 Turbos will usually have had correct, probably OPC maintenance for their first eight to ten years, but as values reached their lowest, some cars will have dropped out of the OPC or Independent Porsche circuit and missed routine services. These obviously are the examples to identify and avoid.

Paul Stacey of Northway has worked on the 997 since it was new. The 'Mezger' engine he says is "bullet-proof." He has known one or two instances where timing chains stretch, but their subsequent rattle is more an irritation than a sign that serious investigation is needed. The engine's greatest vulnerability seems to be corrosion of the centres of the turbocharger housing. If identified early enough the housing can be replaced, a long and expensive task. If the corrosion extends beyond a certain point, dismantling is impossible and the only recourse is to get an entire new unit for which Porsche charges £3,000. A mild-steel-bodied tandem suction pump is attached to the cylinder head and this can rust through, again this is an expensive (£800) replacement.

997s of both generations have long dropped out of OPC showrooms and the best source for most buyers is a reputable Independent. Ray Northway for example had lost count of the number of used Porsches offered to him that he has turned away because their histories are obscure. Mark Sumpter of Paragon works on the same principle. Northway also dislikes aftermarket modified cars ("rarely done properly"), a useful caveat for almost any 911 buyer. A Porsche upgrade is different: "Porsche's short shift on the Turbo is far better than anything anyone else makes," says Paul Stacey.

Once again, a long-term successful purchase boils down to condition and service history and a strong element of trust in the seller. A larger maintenance budget than for a non-Turbo 911 also needs to be part of the purchase decision. ➲

RIGHT 997.1 returned the 911 to more traditional aesthetics with rounded headlights. Body was again shared with C4

BELOW Manual transmission is rare on the 997.1 Turbo. Three-spoke multi-function wheel is nice to hold, the buttons unintrusive for fast driving

DESIRABLE OPTIONS

For a £100,000 car, the 997.1 Turbo was not generously equipped, but as ever Porsche tempted buyers (and as ever, did so very profitably) with a comprehensive extras catalogue. The 997 was the last Turbo to offer a choice of manual or Tiptronic shift – its successors would offer PDK. The Tiptronic option cost £1,961. Adaptive seats cost £674, seat heating £269, and Porsche charged £126 for the privilege of embossing them – and £476 if the buyer fancied the carbon interior trim. Amongst the sporting options were £753 for a locking differential and ceramic brakes for a not inconsiderable £5,349. Autocar's road testers especially appreciated the Sports short shift (a reasonable-sounding £380) which allowed them to change gear "with a flick of the wrist," and the Sport Chrono, the Turbo's party trick and a £1,015 extra. Perhaps the most practical option was one of the least costly: £325 Park Assist.

ABOVE PCM 2.0 in the 997 is considered dated tech today, though hopes are high Porsche will unveil a modern navi replacement soon

INVESTMENT POTENTIAL

With perhaps 2,000 997.1 Turbos delivered to the UK, there is no shortage – so despite its 'final Mezger' status, this model is unlikely to be the investment grade material that a 997 GT3 represents, let alone special editions like the 997 Sport Classic. Paul Stacey says that the Mezger Turbos with the best potential are the rarer, manual gearbox cars, especially the Coupés. These cars, he states, are more sought after than the (frequently) Tiptronic-equipped Cabriolets. 911

> **MEZGER TURBOS WITH THE BEST POTENTIAL ARE THE RARER, MANUAL GEARBOX CARS**

TOTAL 911 VERDICT

Where else can you buy a 195mph supercar you can use every day?' was the rhetorical question in Autocar's glowing 997.1 Turbo road test of June 2006. 15 years on, Paul Stacey observes that "pound for pound, for performance nothing else compares," to explain why the market will still pay £55,000 for a Porsche that is vintage by today's standards, to the uninitiated looks like any 911, and which is costly to maintain. But for the buyer who understands and accepts these factors, Autocar's verdict, "still the all-weather supercar benchmark, astounding pace and ability mated to daily usability", says it all.

★★★★☆

RENNSPORT

2.7 Carrera RS 120
993 Carrera RS 128
991.1 GT3 RS 136

2.7 RS

Get it for
£400,000+

Performance
★★★★☆

Maintenance costs
★★★★☆

Rarity
★★★★☆

Value
★★★★☆

CARRERA RS 3.0

1974 would see a further development of the RS genre when Porsche introduced an even rarer model, so rare in fact that the right-hand-drive cars are identified by their colour alone. Just 109 3.0-litre RSs were made in total, and only six of those came with the steering wheel on the right – five came to the UK and one went to Australia. Externally, they were identified by their flared wheelarches, gaping air intake in the front air dam (with room for an oil cooler) and a Turbo-style rear spoiler. Lightweight construction featured once again, with thinner steel panels and a luggage cover, engine cover, and bumpers fashioned from fibreglass, the end result a 911 that weighed just 900kg. A bore increase to 95mm resulted in a 2,994cc motor boasting 230bhp and 275Nm of torque and that now featured an aluminium crankcase, while the transmission had its own oil cooler. The brakes were now 917-derived items with 300mm cross-drilled and ventilated discs, while the suspension featured revised mountings and geometry.

2.7 RS

Values may have softened in the last year but its sports car credentials are unquestionable, which means the 2.7 RS is ripe for a cross-examination

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

Take a look back through automotive history and there are only a handful of cars that have achieved truly legendary status. The 911 you see here – the 2.7 RS – is one of them. With 1,590 models produced and prices hitting the £500,000 mark, its position as an iconic 911 has been well and truly cemented in the minds of every enthusiast. So where to start? Well, its difficult gestation has been documented many times – the doubts of Porsche's marketing department, the determination of then CEO Ernst Fuhrmann to drive the project through, the immediate sales success – so we won't dwell on that any further here. Suffice to say, its reception at the 1972 Paris Salon and the subsequent clamour to snap up the first 500 cars fully vindicated Fuhrmann's belief.

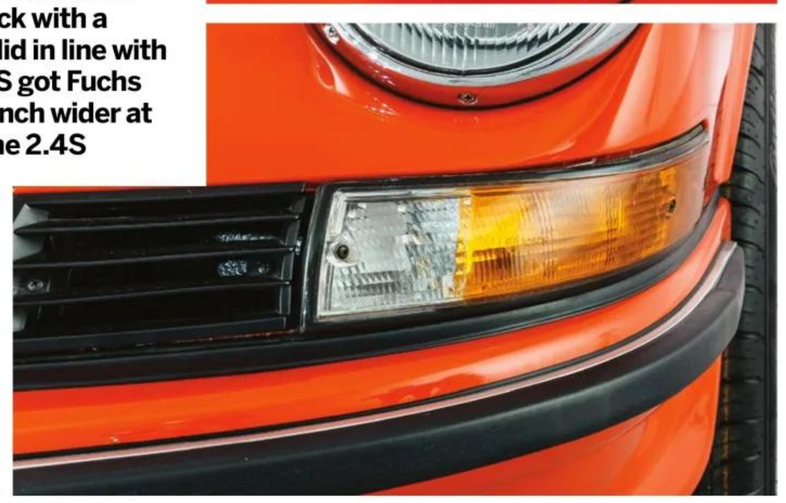
It was based on the 2.4S, and came in two distinct forms: the Sport, and the Touring (RST), designated M471 and M472 respectively. The former quickly became known as the 'Lightweight' (RSL). The number built has always been a matter of some debate, but 1,590 examples is generally accepted, comprising 1,390 of the better-equipped Touring and 200 Lightweights, although inevitably there have been conversions from one to the other over the years. But let's not get bogged down with such arguments, because what really fascinates admirers of this special 911 are the changes that Porsche made, and they begin with one of the strictest diets yet seen in motordom.

Firstly, the non-load bearing panels such as the roof, front and rear wings, and the front luggage compartment lid were formed from metal just 0.7mm thick when 1.0 to 1.25mm was the norm. And these were joined on Lightweight cars by bumpers formed from fibreglass, pleasingly unadorned items that lacked the gaping scoops and diffusers of today's cars, with just a black trim strip and a recess for the number plate up front and delicate quarter sections at the rear. The RST got a steel rear bumper instead, although the engine cover and iconic 'ducktail' spoiler on all variants were also fashioned from fibreglass. That spoiler was claimed to reduce aerodynamic lift at the rear by 75 per cent, so it was certainly effective, although it wasn't fitted to all RSs.

Weight saving on the first 911 Rennsport continued with the use of lighter, thinner glass courtesy of Belgian manufacturer Glaverbel, while underseal and sound-proofing were virtually non-existent, the rust protection applied only to the wheelarches on early RSL models. And speaking of wheelarches, ➲

“THE NUMBER BUILT HAS ALWAYS BEEN A MATTER OF SOME DEBATE, BUT WHAT REALLY FASCINATES ADMIRERS OF THIS SPECIAL 911 ARE THE CHANGES THAT PORSCHE MADE, AND THEY BEGIN WITH ONE OF THE STRICTEST DIETS YET SEEN IN MOTORDOM”

Model	2.7 Carrera RS
Year	1973
Engine	
Capacity	2,687cc
Compression ratio	8.5:1
Maximum power	210bhp @ 6,300rpm
Maximum torque	255Nm @ 5,100rpm
Transmission	Five-speed manual, rear-wheel drive
Suspension	
Front	MacPherson strut with torsion bar springs and antiroll bar
Rear	Semi-trailing arms with telescopic dampers, torsion bar springs, and antiroll bar
Wheels & tyres	
Front	6x15 inches; 185/70/15
Rear	7x15 inches; 215/60/15
Dimensions	
Length	4,163mm
Width	1,610mm
Weight	975kg (Sport)
Performance	
0-62mph	5.6 secs
Top speed	152mph



From top right: ducktail spoiler is now a worldwide motoring icon; front vents were matte black with a matching decklid in line with 1973 MY; the RS got Fuchs that were one-inch wider at the rear than the 2.4S

THE RENNSPORT TIMELINE

1972
The legendary 2.7 RS launches the breed, and is worth a fortune today. 210bhp doesn't sound much, but the reduced weight ensured stunning performance.

1984
The SC RS was built to homologate the factory Rothmans team's rally effort. Had a Turbo body with fibreglass bumpers and aluminium doors.

1991
Launched at the Geneva Show, the 964 revives the RS moniker with both 3.6 and rare 3.8-litre variants. Power is up by 10bhp in 3.6-litre form and weight is down.

1995
Porsche reprise the RS theme with the 993, the 3.8-litre engine revised for a 300bhp output. It was rear-wheel drive only, and notable for its aggressive looks.

2004
It was the 996's turn for the lightweight treatment, the GT3 making 381bhp and 280bhp per ton. Top speed is an epic 190mph.

2006
The 997 RS was available in GT3, GT2, and rare GT3 4.0 forms. Power ranged from 415bhp to a slightly bonkers 620bhp in the GT2, the latter hitting 62mph in just 3.5 seconds.

Extra equipment in the Touring included a radio (blanked here), full carpet, and rear seats. The Lightweight was typically sparse, with even the glovebox lid and passenger sun visor removed. Door cards in the Lightweight had manual winders and a door strap rather than the handle and electric window mechanism found here in the Touring

the rears were flared by 50mm, the increase necessary to cover wider Fuchs rims.

There were plenty more weight-saving measures applied to the cabin and running gear, but the overall result was a car that in 'RS Lightweight' form tipped the scales at little over 975 kilograms, with the Touring's extra equipment adding around 100 kilograms. To put that in perspective, an entry-level Lotus Elise – hardly the last word in sybaritic sporting comfort – weighs 876 kilograms and needs a high-tech bonded aluminium chassis to achieve that. Reputedly, the later cars made do with steel panels and standard glass, as Porsche had used up all the lovely lightweight bits – and there was the occasional oddity, with some Lightweights getting opening rear quarterlight windows from the Touring and others not – but whatever the truth, the RS was a seriously lithe car. It certainly explains why it made such good use of the singing flat six that Porsche had tucked beneath that pert ducktail spoiler.

The engine – codenamed 911/83 – was also 2.4 S-based, but it too had substantial changes, not least a 6mm growth in bore from 84 to 90mm for a capacity of 2,687cc and running an 8.5:1 compression ratio. Rather than risk any durability issues, Porsche employed Nikasil-coated cylinder liners rather than the usual 'Biral' construction of cast iron cylinders surrounded by aluminium cooling fins, although the valves, connecting rods, forged crankshaft and magnesium alloy crankcase were all carried over from the 'S' unchanged.

Fitted with Bosch mechanical fuel injection, the result was 210bhp and a healthy 255Nm of torque. The power was sent to the rear wheels via the '915' five-speed manual transmission, although the ratios for fourth and fifth were longer compared to the 2.4 S. Also, and unlike the muscle-bursting items in other sports cars, the Carrera RS's clutch was a standard item that needed a stronger spring to cope with the higher output.

Of course, that low weight paid dividends elsewhere, not least in the braking department, where only modestly sized ventilated discs were required. Measuring 282mm and 290mm front and rear respectively, they seem small by today's dinner-plate standards, but they were more than up to the job of slowing this featherweight Coupe. The suspension didn't depart too far from standard either, comprising the same setup as regular 911s with struts at the front, albeit with lighter alloy components and semi-trailing arms at the rear allied to torsion bar springs all round.

Along with firmer bushes, the antiroll bars received attention, growing in diameter to 18mm and 19mm at the front and rear respectively, while Bilstein dampers replaced the usual Koni items, saving a further 7.7 pounds in the process. The deliciously light and accurate rack and pinion steering remained, while the wheels were the familiar Fuchs design that for the first time ➲

> THERE WERE PLENTY MORE WEIGHT-SAVING MEASURES APPLIED TO THE CABIN AND RUNNING GEAR, BUT THE OVERALL RESULT WAS A CAR THAT IN RSL FORM TIPPED THE SCALES AT LITTLE OVER 975 KILOGRAMS

BUYING TIPS

The 2.7 Carrera RS is right up there at very top end of Porsche acquisitions at present. As such, we're heading into price tags with many zeros here, so the normal rules don't really apply. If you have the sort of bank balance that supports the idea of buying an RS, then it goes without saying that you'll be buying it from an expert source. Anything else would be madness. However, there are some obvious points still to be considered here:

- **Prices:** The biggest limiting factor when it comes to buying. They're increasing on a weekly basis, and you wouldn't bet against the £1 million 2.7 RS by the turn of next year.
- **Provenance and Originality:** Few things are more vital with an RS so expert advice is an absolute necessity. Be fastidious when checking its history, and remember that many will have been raced. Any repair work should be to a world-class standard.
- **Restoration:** It just has to be done right, but original parts are either impossible to find or incredibly expensive. With prices as they are, a detailed restoration will certainly make sense if you can afford it.
- **Replicas:** There are plenty around, some of them very good, so perhaps this is the way to go if you want to experience a more affordable taste of the RS legend. Regardless, ensure the base car is structurally sound or you'll still face a hefty bill.

on a 911 were wider at the rear at seven inches. The fronts were six-inch items, and the RS came with 185/70 front and 215/60 rear Pirelli CN36 rubber, although later cars would switch to Dunlops.

Porsche hadn't finished with the weight saving though, and once ensconced in the snug cabin of a Lightweight, you'd become aware of how spartan things had become. The seats were cloth-covered Recaro items that could be fitted with optional headrests, while underfoot you'd find thin felt instead of carpets, covered with plain rubber mats. The rear seats were noticeable only by their absence, and it wouldn't take long before you noticed that a few other pieces had also gone missing. You'd search in vain for any sign of a passenger sun visor, glovebox lid or clock, while the door trims were vinyl panels that had straps rather than proper handles and manual window winders. Even the car's coat hooks had disappeared.

Also gone were the counterbalance springs for the luggage compartment lid, beneath which you'd find a toolkit and a compressor. The single 12-volt battery was also located up front, although things differed here too, as the Touring was fitted with two six-volt items either side of the spare wheel. The more comfortable Rennsport variant also got back all of the kit so carefully pruned from the Lightweight, including full carpeting, rear seats, a radio and electric windows, but Porsche would happily add whatever options a buyer chose, even if such luxuries weren't exactly in the spirit of the original RS brief.

You'd pay another £1,000 for the extra comfort and luxuries, although at least you ended up paying less money for less equipment rather than the opposite. There were also choices to make when it came to colours, with the option to pick from a standard palette that included period hues such as Tangerine and Emerald green or to go for the Grand Prix white that has become so synonymous with the model. And with that decision made, it was just a matter of choosing the colour of the 'Carrera' side decals that were available in red, black, blue or green, along with colour-coded wheel centres. Or, if you preferred to draw slightly less attention to your choice of 911, you could forego the script altogether. In fact, it was something of a rare feature on the darker painted cars. Whichever spec you chose, the fact remains you were buying a very special 911, one that might not have arrived at all were it not for the unshakeable belief and hard-headed approach of the talented Dr Fuhrmann. It's easy to argue the RS underpins the very legend of the 911, and the only shame is that with prices continuing to head for the stratosphere, only a select few will ever get to experience it. 911

> IF YOU PREFERRED TO DRAW SLIGHTLY LESS ATTENTION TO YOUR CHOICE OF 911, YOU COULD FOREGO THE SCRIPT ALTOGETHER

SPECIALIST VIEW

"In some ways it's hard to summarise the 2.7 RS, as the normal 911 rules aren't relevant. The one thing that is clear, though, is these cars are selling for astonishing sums of money compared to a couple of years ago, and that includes our Touring model. With a global market for cars like these, as long as the details and history are spot-on then people are willing to pay a premium, and I really can't see that ending any time soon."

Jonathan Franklin, Rare Cars

OWNING A 2.7 CARRERA RS

- **Price new:** £6,112 (Sport)
- **Total numbers sold:** 1,590
- **Service intervals:** 1 years/12,000 miles
- **Service costs minor:** £256.08
- **Service costs major:** £609.72

(Figures are courtesy of RPM Technik)

"I'VE GOT ONE"

"I've had my 2.7 RS for approximately two years, having bought it from a specialist dealer after an extensive search - and lots of patience.

It has been everything I wished for. In my opinion, it is the best car I've ever driven for sheer driving thrills and experience. So many things in life are a disappointment after a long wait, but this definitely isn't. My personal collection also includes a Ferrari 246 Dino, and the RS is definitely the sharper tool of the iconic pairing. To drive, it's a car you need to work with to get the most from, but when you master it, it is so rewarding to drive. Precise, exciting - it is the perfect car."

Jonathan Aucott

993 RS

As the last air-cooled Rennsport, the 993's place in the pantheon of Porsche greats is assured, and celebrating its 25th birthday means it's time for a closer look

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

993 RS

Get it for
£200,000+

Performance
★★★★★

Maintenance costs
★★★★★

Rarity
★★★★½

Value
★★★★½

HISTORY AND TECH

It might have taken Porsche almost 20 years to resurrect the Rennsport badge – affixing it to the 964 – but the 1990s was the decade when the company proved it had got its lightweight mojo back. Unsurprisingly, then, the 993 was the next candidate and the arrival of the RS in 1995 had been keenly anticipated by enthusiasts expecting great things. They weren't to be disappointed, the new model proving both achingly desirable and rare – the 1,104 examples built was less than half that of its predecessor. Of those, 227 were in Clubsport specification, with 38 coming to the UK in right-hand drive.

The first thing eager buyers would have noticed was the more aggressive appearance, the deeper front bumper and large, fixed rear wing joined by gorgeous split-rim Speedline wheels. The RS also sat hunkered to the tarmac thanks to a 30/40mm drop in ride height front/rear. But as always it was what powered this special Neunelfer that mattered to many, and that flat six was very special. The 993's 3.6-litre unit grew to 3.8 litres thanks to an increase in bore from 100mm to 102mm, a change accompanied by the likes of lighter, forged pistons and with weight shaved from other internals including the rocker assembly. There was also twin-plug ignition controlled by the latest Bosch Motronic management system. This M64/20 unit also marked the first appearance of Porsche's VarioRam variable-intake system, the result an output of 300hp with 355Nm of torque. Make full use of those figures and you'd see 172mph and the 0-62mph sprint despatched in five seconds, that pace accompanied by a spine-tingling soundtrack. Power was fed to the rear wheels via a six-speed manual gearbox and limited-slip differential. And alongside hydraulically assisted steering that was brimming with feedback, the RS also benefitted from the same multi-link rear axle that graced the rest of the 993 range, although brakes were upgraded with 'Big Red' calipers. But the mechanical specification was just part of this car's story, an RS needing to deliver when it came to purity and focus, and this iteration certainly did that. For starters, 100kg was stripped from the kerb weight with Porsche junking the luxury kit and employing thinner glass, along with aluminium for the front boot lid. Resist the temptation to put back the likes of electric windows and air conditioning and you'd be rewarded with a 911 weighing a lithe 1,280kg. And anyone wanting to go further could tick the box marked 'M003' for the Clubsport package, this version gaining a welded Matter roll cage, full harnesses for the Nomex-covered seats and a revised aero package, as seen on the example in our pictures. ➲

WHAT'S IT LIKE TO DRIVE?

Just the fact that you're sitting in an RS – and the last air-cooled one at that – is enough to crank the whole experience up a few notches, but this car is far from just a part of the Porsche history book. We've got behind the wheel on a number of occasions, each time being blown away by the level of engagement that it offers; just a few miles on a favourite road is enough to discover why this iteration is so revered. Much of that is due to the bigger engine slung out back, a unit that delivers plenty of accelerative punch matched to the sort of aural drama you can never tire of. The outputs might appear modest by recent standards, but with the added low-down torque from the VarioRam system there's no shortage of real-world performance. Allied to a slick gearshift and brakes that need a firm shove to give their best, getting the maximum from this RS is a very immersive experience. Its chassis is supremely communicative, though its firm ride means this isn't a car for anything other than performance driving. With the Rennsport ethos of rawness and purity very much in evidence, this is a special drive indeed.

THE VALUES STORY

HAGERTY.

Securing a slice of the Rennsport legend has never been cheap, but even a quarter of a century ago when this car cost £68,500 in Comfort trim it appeared something of a bargain. Quick 993s of the day were notably more expensive, but despite the settling of the wider 911 market today you'll need to spend rather more money. According to Jonathan Franklin of Rare Car Finance, a good example in that same road-biased specification carries a price tag of £240,000-260,000, that car being in right-hand drive configuration. Opt for left-hand drive and that sum could fall to around £210,000-215,000, although he does point out that the global market for this RS means that setup needn't be a major factor in your buying decision. That figure also reflects the value of less pristine cars, Franklin going on to add that a Clubsport model as here will be closer to £300,000. ➲

FIVE-YEAR UK VALUES (£)	CATEGORY 4	CATEGORY 3	CATEGORY 2	CATEGORY 1
CURRENT	**191,000**	**209,000**	**260,000**	**332,000**
APR '18	**191,000**	**209,000**	**260,000**	**332,000**
OCT '17	**191,000**	**209,000**	**260,000**	**332,000**
MAY '16	**162,000**	**189,000**	**230,000**	**252,000**
MAR '16	**161,000**	**188,000**	**228,000**	**249,000**

- Although the UK values have been steady over the last couple of years, there was a slightly higher peak in the US and European markets, but they've corrected down to a similar level. This is likely to have been because fewer examples of UK C16 spec cars reach the market here.
- As with other 911 values, we see condition 4 (fair) examples not reaching the same values on the European market as in the UK or US.
- In Hagerty's opinion, 993 RS values rose significantly in 2014/2015 and have been relatively static over the last three years. Due to their rarity and popularity as the final air-cooled 911, examples are expected to maintain their values well.

MARKET RIVALS

It'll hardly come as a surprise that anyone prepared to spend a quarter of a million pounds can expect to be faced with some extremely desirable 911s. There are some very tempting options to be found, whether you're heading back to the earlier days of the Neunelfer, or prefer something new.

2.4S

That 'S' badge carries a huge amount of appeal, and while more than 20 years of subsequent development means it'll feel very different to a 993, it will prove hugely satisfying to own. With the best Coupes fetching close to £200,000 it's clearly cheaper than the RS featured here, but it's hard not to see the same purity of purpose in the way the older car goes about its business.

997 GT3 RS 4.0

You'll be looking at a left-hand drive example for the budget we're dealing with here, but if that doesn't deter you then this is special indeed. A truly stunning incarnation of the RS breed, the 500hp 'Mezger' engine, sweet-shifting manual gearbox and razor-sharp handling responses combine to amazing effect. Beautifully engineered and incredibly desirable.

991.2 GT3 RS

We might be sticking with the RS theme here, although whether you'd swap the air-cooled appeal of the 993 for this rather more tech-laden development is a matter of personal taste. A budget of £200,000-250,000 would secure a 2018/2019 example, and if you were tempted by the modern approach you'd discover a scalpel-sharp device that handles with incredible sophistication.

991 R

Pairing the RS engine with a six-speed manual transmission had a transformative effect on the driving experience, one that just 991 lucky buyers got to experience. At the time of writing we found one example in the Porsche Approved network that had covered less than 850 miles, although at £299,000 it was at the upper end of 993 RS values. A gem for collectors.

BUYING ONE

It goes without saying that if you're about to part with this sort of money you'll want to be completely certain of the car's history and provenance. That means carrying out all of the necessary due diligence when it comes to the paperwork, employing the services of an OPC or specialist to ensure nothing vital is missed. While some of these cars will have been tucked away in collections and/or treated to a fastidious restoration, others may have led a hard life within the confines of a circuit. Indeed, specialists point out that for some RSs it may be a combination of all three (plus the possibility of having spent time abroad), so knowing exactly what you're dealing with is crucial.

And it is use on track that represents the first potential pitfall. Not much more than a decade ago it was possible to bag a car for around £50,000, so there was plenty of temptation to fully test its abilities – an exercise that may have ended in tears. Establishing any evidence of previous crash repairs is important, then. Unsurprisingly, RS-specific parts are very costly – a replacement front bumper is £1,700 before painting and fitting – and you'll want to ensure that other common 993 issues such as a creaking front screen or failed door check straps aren't in evidence. Corrosion shouldn't be a factor, but examine the screen surrounds and bumper mountings just in case. Engine-wise, the 3.8-litre unit will prove no more troublesome than any other 993 unit as long as it's been religiously maintained. Again, a specialist check is strongly advised given the potential for a five-figure rebuild bill.

And the same caution applies to the rest of the package given the cost of bringing a tired example up to standard. The 'Big Red' brakes are susceptible to internal corrosion that causes sticking pads, and a front caliper is around £1,100 if a rebuild fails to sort the problem. You'll also want to be certain that the suspension is healthy, with no signs of geometry having gone awry or perished bushes from lack of use; a pair of front dampers cost more than £1,200. Lastly, pay close attention to the condition of the Speedline rims as replacements are in excess of £1,500 each. And while there's better news inside where the sparse furnishings make it easy to spot any scuffs or damage, the values we're discussing in this feature mean that you really should expect nothing less than perfection in every aspect of a potential purchase. ➲

BELOW 993 RS's M64/20 was the first flat six engine to feature Porsche's VarioRam induction system

DESIRABLE OPTIONS

Unsurprisingly given the lightweight focus, the opportunity to add to this RS was limited. The key choice facing buyers was between Comfort and Clubsport models, although even the latter might have seen items like electric and air-conditioning fitted. The latter certainly makes for a more comfortable driving environment, while Jonathan Franklin says that colours such as Speed yellow and Riviera blue suit the car's lines and add desirability. But given the limited numbers for sale at any one time, the important thing is always going to be finding one that boasts the right history.

ABOVE Bi-planed wing was unique to the Clubsport; Comfort RSs had a flatter one-piece item

> THIS MODEL REMAINS A HUGELY DESIRABLE PART OF THE RENNSPORT STORY

INVESTMENT POTENTIAL & OWNERSHIP EXPERIENCE

The 993 RS is certainly not alone when it comes to understanding where values might head a few years from now. It's an issue that is hotly debated across the 911 spectrum, but one that has no clear answer, for the time being at least.

What can be said for certain is that this model remains a hugely desirable part of the Rennsport story, and taking into account its rarity that can only be good news for the long-term. As Jonathan Franklin points out there is certainly the potential for further growth, while the possibility of demand from the US market could add further buoyancy to values. As for owning one, the lofty values means that there's always going to be that dilemma around whether you can – or should – experience its abilities to the full.

Not to do so would be a shame, but if you can be persuaded the wealth of specialist expertise available will surely have no trouble keeping it in fine fettle. We've long admired the 993's quality, and this iteration is no different. 911

TOTAL 911 VERDICT

With a history stretching back more than half a century there's hardly a shortage when it comes to great 911s, but this one fully deserves its place amongst the very best. The RS badge always adds a particular magic, and that remains as true today as it did in 1973, but what the 993 did was demonstrate that, even 20 years on from that first model, Porsche hadn't forgotten what the ethos meant to its customers. It's an incredibly complete package, one that provides a huge level of driver engagement whilst still offering the sort of everyday usability for which the 911 is famed. That current values make that last point somewhat academic is a shame, although we certainly wouldn't blame you if a purchase as special as this one was destined for a pampered life in a collection. But experience even a fraction of its abilities and you might find that particular decision rather harder to make.

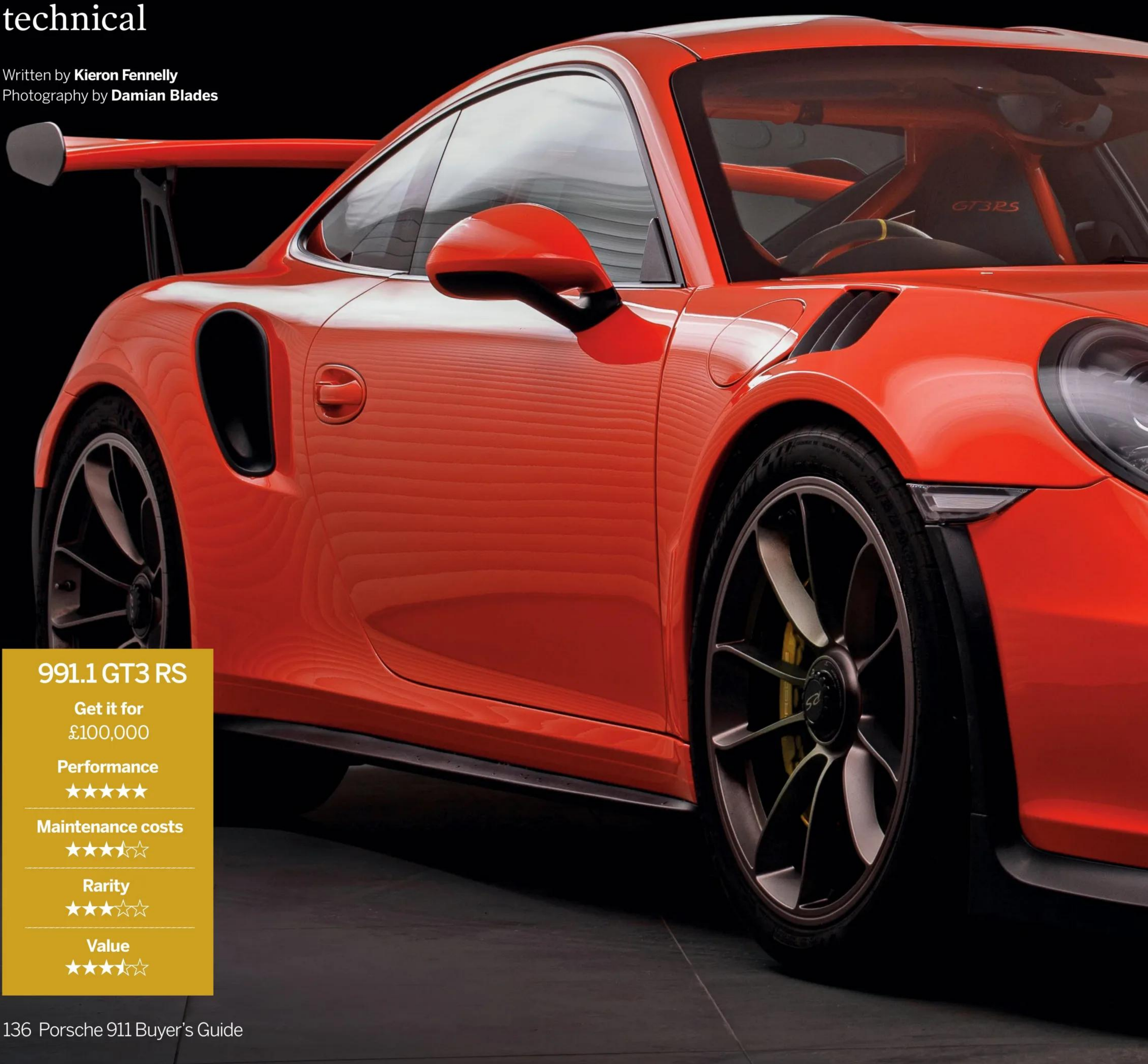
★★★★★

THANKS The car in our pictures is for sale at Rare Cars, specialists in bespoke classic, supercar, luxury and prestige car finance arrangements for individuals all over the world. For more information visit **rarecarfinance.com**.

991.1 GT3 RS

It’s the most populous Porsche Rennsport of all time, and for good reason. Total 911 presents the full dossier on the 991.1 GT3 RS, with technical

Written by **Kieron Fennelly**
Photography by **Damian Blades**



991.1 GT3 RS

Get it for
£100,000

Performance
★★★★★

Maintenance costs
★★★½☆

Rarity
★★★☆☆

Value
★★★½☆

HISTORY AND TECH

The Rennsport moniker was first applied to the 1973 Carrera 2.7 RS, and 'RS' would become the epitome of the lightened and simplified competition-oriented 911. After a pause of 18 years, two more RS versions followed, the 964 and 993 RSs, before Porsche switched its 911 racing focus to GT3 competition for the advent of water-cooling. The production 996 GT3 in 1999 was initially a standalone model, but in 2003 an RS version was added. With harder suspension, Cup manifolds (raising power by about 15bhp) and optional Clubsport cabin, the 996 RS was almost too extreme for street use, but it established a template for the three subsequent versions of the 997 GT3 RS. The RS would be a dynamically enhanced GT3, not necessarily much lighter or more powerful, but offering considerably more competition technology and aerodynamics. The final 997 RS 4.0 was a limited edition special with no GT3 equivalent.

Porsche knew that expectations would be high for the 991.1 GT3 RS. The previous 4.0, 'the last Mezger', had left fans ecstatic. They would not be disappointed: with pressure release vents in its front wings, a competition-height front spoiler and a spectacular full-width rear wing, the new 991 GT3 RS looked special indeed. Underneath that sensational exterior, topped by a magnesium roof with double-bubble profile, was an equally sensational engine: instead of sharing the GT3's 3.8, an impressive unit in its own right, Andreas Preuninger's engineers had increased the bore to 102mm to make a round 4.0 litres. Historically important because of the final hallowed 997 RS, this bespoke engine bore no relation to the revered 'Mezger', which in any case Porsche was no longer equipped to make in volume. Compared with the '9A1' 3.8 from which it was derived, its innards had been reworked with different camshafts, valve springs and pistons, and revised oilways. Above all it used a crankshaft from the same heat-treatable steel alloy as the 919's. An exotic brew of remelted steel with elements of vanadium, molybdenum, carbon and chrome, usually supplied by Böhler Edelstahl to jet-engine builders, this material was, as Preuninger put it, "a highly clean metal that is melted and solidified several times to get it as pure as possible and more durable. It makes it a horrendously expensive part, but it works." Rated at 500PS (493bhp) Preuninger indicated that the real output was nearer 515PS.

The 991.1 GT3 RS's aerodynamics were a visible advance on those of the 997 GT3 RS 3.8, and they were effective too: intensive wind tunnel testing showed venting the front wings alone contributed massively to front-end downforce, balancing the rear downforce of the big spoiler. This overcame the previous tendency of the steering to lose precision because the spoiler was pressing the rear axle down so hard. At 150kph, the new RS generated half its possible downforce, which was already more than the RS 4.0 achieved at 300kph. A rear steering axle, an option on lesser 991s, was standard. ➲

THE VALUES STORY

The 991.1 GT3's well-publicised connecting rod problem, graphically demonstrated by the fires that consumed two cars in early 2013, meant the launch of the RS version was delayed by nearly a year and the car was not finally shown until Geneva in March 2015. With the 991.2 range already on the horizon, this meant the 991.1 GT3 RS enjoyed a career of less than two years, but it proved popular: Porsche had intended to make about 2,000 units, but ended up delivering well over 4,500 and outselling the base GT3. An estimated 400 RSs were allocated to the UK with a base price of £131,296, while the Euro price was €181,960. Most UK cars ended up costing nearer £150,000 with common options. Demand for the 911 GT3 RS, absent from the market since the 997 RS 4.0 in 2011, pushed resale prices beyond £200,000, with some touching £300,000 in the height of 2015's flipper-fest madness. The advent of the 991.2 GT3 RS in summer 2018 brought them back down to around £140,000, and prices have held fairly firm in this bracket for the last year or so.

RIGHT Compulsory PDK-sport transmission brought lightning-quick shifts. Pit speed limiter button was a mere gimmick, however

WHAT'S IT LIKE TO DRIVE?

Those fortunate correspondents invited to try the new RS at Bilster Berg in summer 2015 anticipated they would need their full repertoire of superlatives. They had not underestimated. The acceleration was reported as "electrifying", 100mph in 7.7 seconds and 160mph in 23 seconds, Autocar would later record, praising the Porsche's "fluent, poised, gregarious, multi-faceted track handling."

Veteran Porsche observer Andrew Frankel went into more detail: "Grip levels are withering, the steering as good as anything with electric assistance, and traction from those sticky Michelins is simply superb. This is a car with a level beyond any 911 I have driven, and I don't mean just grip. A level that lets you drive it in another way and reach an intensity of experience no GT3 has ever imagined let alone approached."

Frankel remarked though that the RS was "not an easy car to drive extremely fast, and if you're not going to drive extremely fast, then there is little point in having one. The RS will challenge you as a driver and not be shy about punishing your mistakes." ➲

MARKET RIVALS

At £140,000, the buyer has an intriguing range of other 911 possibilities.

991.2 Turbo S

140k represents the very top price: a tiny-mileage 'S' Cabrio is advertised at £139,995, a 12,000-mile Coupé S comes in £15,000 below that: the Turbo S offers the same stupefying performance of the RS, serene where the RS is frenetic, and is the ultimate continent-crossing GT.

997.1 GT3 RS

£149,950 is Paragon's asking price for an exceptional 2007 22,000-mile 3.6 from 2007; elsewhere 3.6s and 3.8s are on offer below this. The 997 is a simpler, more analogue RS with the sought-after six-speed manual.

996 GT3 RS

Ashgood has a 32,000-mile, full-history car at £139,995: unyielding suspension makes this less attractive than the 997 RS as a road car, but its rarity (682 built in total) make this an attractive price and potential investment.

1971 2.2S

The classic choice at £140k is a Tuthill-fettled, but standard 2.2S Coupé offered by Julien Sumner. Early 911s offer immense driving satisfaction at legal speeds, yet are challenging enough, especially the almost competition-tuned 2.2 S, which develops its maximum torque at a heady 5,300rpm.

RIGHT The 991.1 RS was pre-Weissach Pack, but still came with a multi-material body including carbon front boot and magnesium roof

BUYING ONE

991.1 GT3 RSs are now five-year-old cars. If there are fewer on the market than the later 991.2 version, this is because most of them are in the hands of their third owners, who tend to keep them longer. This is the view of Mark Sumpter of Paragon Porsche who had his own GT3 RS from 2016-18, during which he drove it 6,000 miles. Sumpter points out that with almost 500bhp, which equates to 120bhp/litre, this is extraordinary output for a naturally aspirated production engine. Its highly strung nature requires more consideration than other cars, but many owners fail to recognise this, especially when it comes to running in.

"I went to the factory to collect mine," he recounts. "I always enjoy doing that anyway, but bringing it back immediately puts a steady 1,000 miles on the clock. People no longer seem to realise the importance of running in, of increasing engine speeds gradually. You still need to do that – the engine has to bed in properly for long-term reliability. I also take issue with Porsche's service schedule which leaves the first oil change until 20,000 miles or two years. I'll drop the oil after the first thousand." Sumpter also feels some drivers tend to over-rev cold engines, pointing out that Porsche now has a warning light not to exceed 3,000rpm until the oil has warmed up.

The message for potential buyers is that evidence of careful treatment in the car's early days is very valuable. Then, as many GT3 RSs of this generation have covered relatively few miles, a service record based on time rather than mileage is important, especially if the car has seen track activity, as the majority probably have. Here records of work done on wheel bearings or suspension will give clues as to the extent of any track history. Inspecting any GT3 usually involves looking for signs of damage as the result of a track 'off'. On older GT3s, Paragon does not hesitate to pull up carpets to check the quality of any possible welding. Accident damage to an RS of this vintage may involve its carbon fibre parts, and repairs will not have been cheap, and required considerable precision. Evidence of a Porsche-approved body shop is essential.

A buyer should satisfy him or herself that options such as the front-lift work correctly, that ceramic discs (if fitted) show no sign of distress such as minute cracking; a four-wheel geometry test should be part of the sale. The plexiglass rear screen can deteriorate and windscreens should be examined too. ➲

ABOVE Carbon-backed folding bucket seats offer brilliant lateral hold, as do the optional 918 fixed buckets

DESIRABLE OPTIONS

The complete GT3 RS options list ran to 22 items, in total £26,000. The most important was undoubtedly the front axle lift (£2,700) which saves the imposing but vulnerable spoiler from premature demise. Porsche's ceramic brakes, at £8,400, were the most expensive add-on and the air conditioning was an optional deletion. Any 911 gets hot inside so 'aircon-delete' is certainly worth avoiding. A roll cage is part of the standard specification, painted black or orange, as are orange seat belts. The 'Lava orange' colour scheme which features in many of the factory's pictures of its new baby set its owners back over £2,000, and the striking leather/Alcantara upholstery for the whole cabin cost an equally striking £2,650. Elegant though they are, owner feedback suggests the orange seats become grubby very quickly. At £1,400, the Sport Chrono Pack is an option worth seeking out for track day users.

ABOVE Turbo-wide body used its side intakes to feed air directly to the engine for the first time on a 911 Rennsport

“BUILT FOR DRIVING, IT IS ONE OF THE BEST-VALUE MODERN GT CARS YOU CAN HOPE TO BUY”

INVESTMENT POTENTIAL

The 991.1 GT3 RS has already exhibited significant appreciation from new, with many owners nearly doubling their money when selling their delivery-miles RS in 2015. Those manic months are well behind us now, and many speculators late to the party have ended up 'taking a bath' on the 991.1 GT3 RS as values corrected and prices plummeted to sensible levels. Though it has Rennsport in its name, the 991.1 GT3 RS is not considered a true investment piece, save for a delivery-miles car with PTS and a handsome spec, due to the significant numbers produced. Built for driving, instead it is one of the best-value modern GT cars you can hope to buy. 911

TOTAL 911 VERDICT

Andrew Frankel concluded that there was space at the top for "a crazy car, one that takes you to the edge where you feel most alive. That car is the 991.1 GT3 RS." Mark Sumpter, who has raced Porsches for 30 years and knows his GT3s, would not demur, but observes that the RS is so resolutely driver-focused, that it is not entirely practical day to day. "Over 18 months, I never minded taking it to a racing circuit as I frequently did, but its dimensions are awkward in town and it can attract rather too much attention, and I don't think all that aero has any effect at speeds we can drive here. Visibility through the back is compromised by the wing and the cabin is noisy: it's not a sociable 911." Essentially, the buyer has to be certain he or she really wants a Porsche as uncompromised as this. Many owners have tried it and quickly sold it on, which is why so many low-mileage cars – the phenomenon is now more apparent with the 991.2 RS – came on to the market in relatively short order. But if you can drive it extremely fast and bond with it as Frankel obviously could, the 991.1 GT3 RS experience is little short of sensational.

★★★½☆

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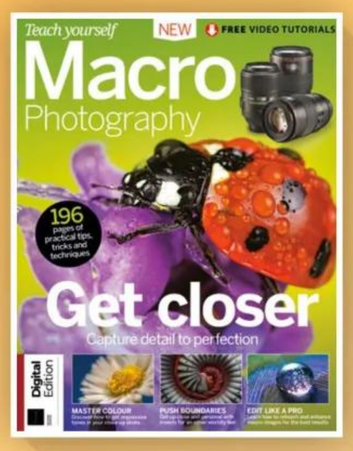

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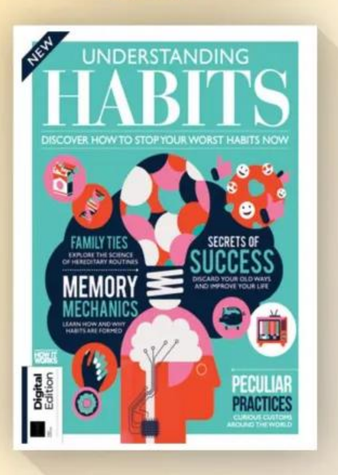

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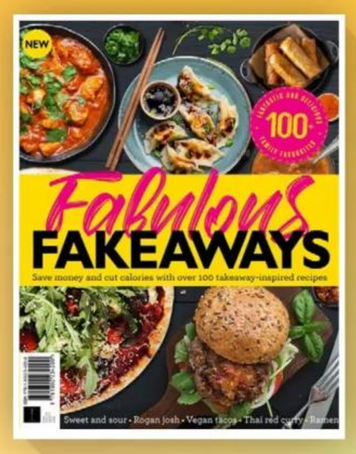

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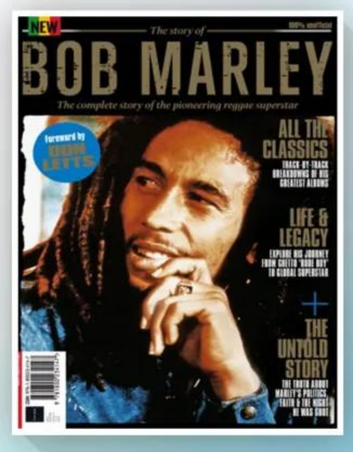

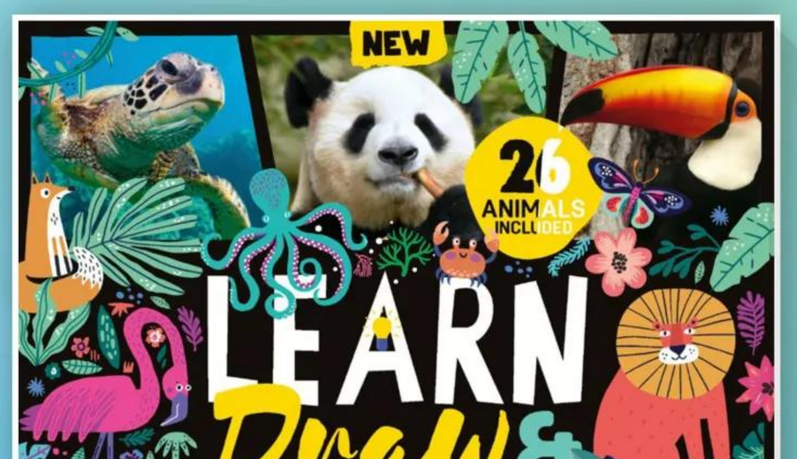

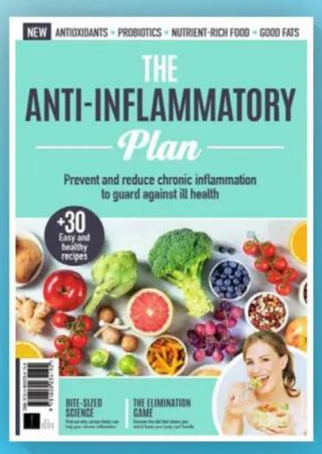

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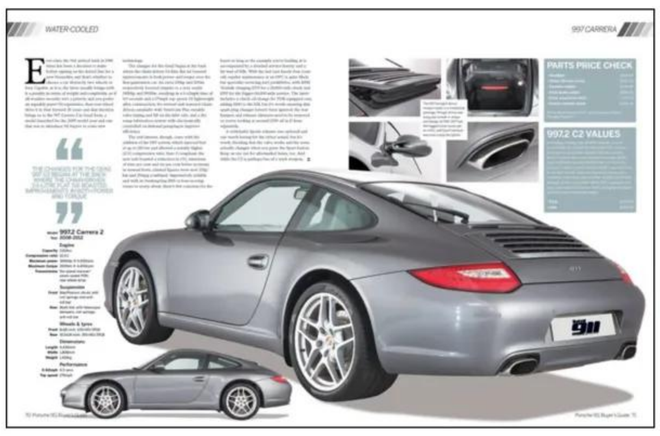

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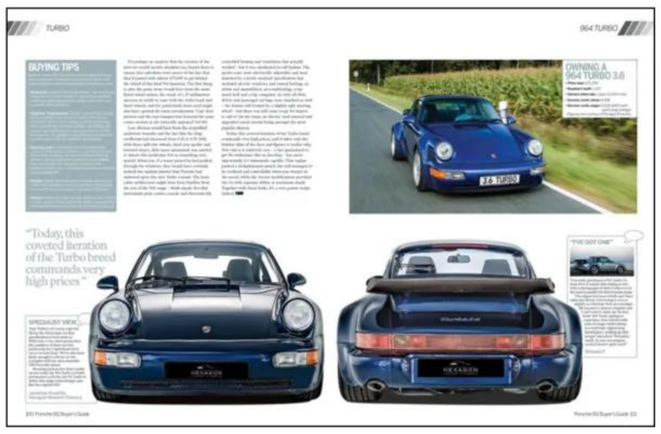

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