

NEW

2013



991 GT3

1989



930 LE

2006



997 GT3 RS

PORSCHE 911 BUYER'S GUIDE

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

1963-67



911 2.0 SWB

1970



911 2.2S

1987



3.2 Carrera Clubsport

1997



993 Carrera S

COLLECTOR'S EDITION

Welcome to...

PORSCHE 911 BUYER'S GUIDE

For over 50 years, 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 buying one.

The Ultimate Porsche 911 Buyer's Guide Second Edition 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.



PORSCHE 911 BUYER'S GUIDE

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Porsche 911 Buyer's Guide Second Edition

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Part of the
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911
THE PORSCHE MAGAZINE
bookazine series



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Porsche 356

Get it for
£75,000-£300,000

Performance

★★☆☆☆

Maintenance costs

★★★★☆

Rarity

★★★★☆

Value

★★★★☆



RISE OF THE SPEEDSTER

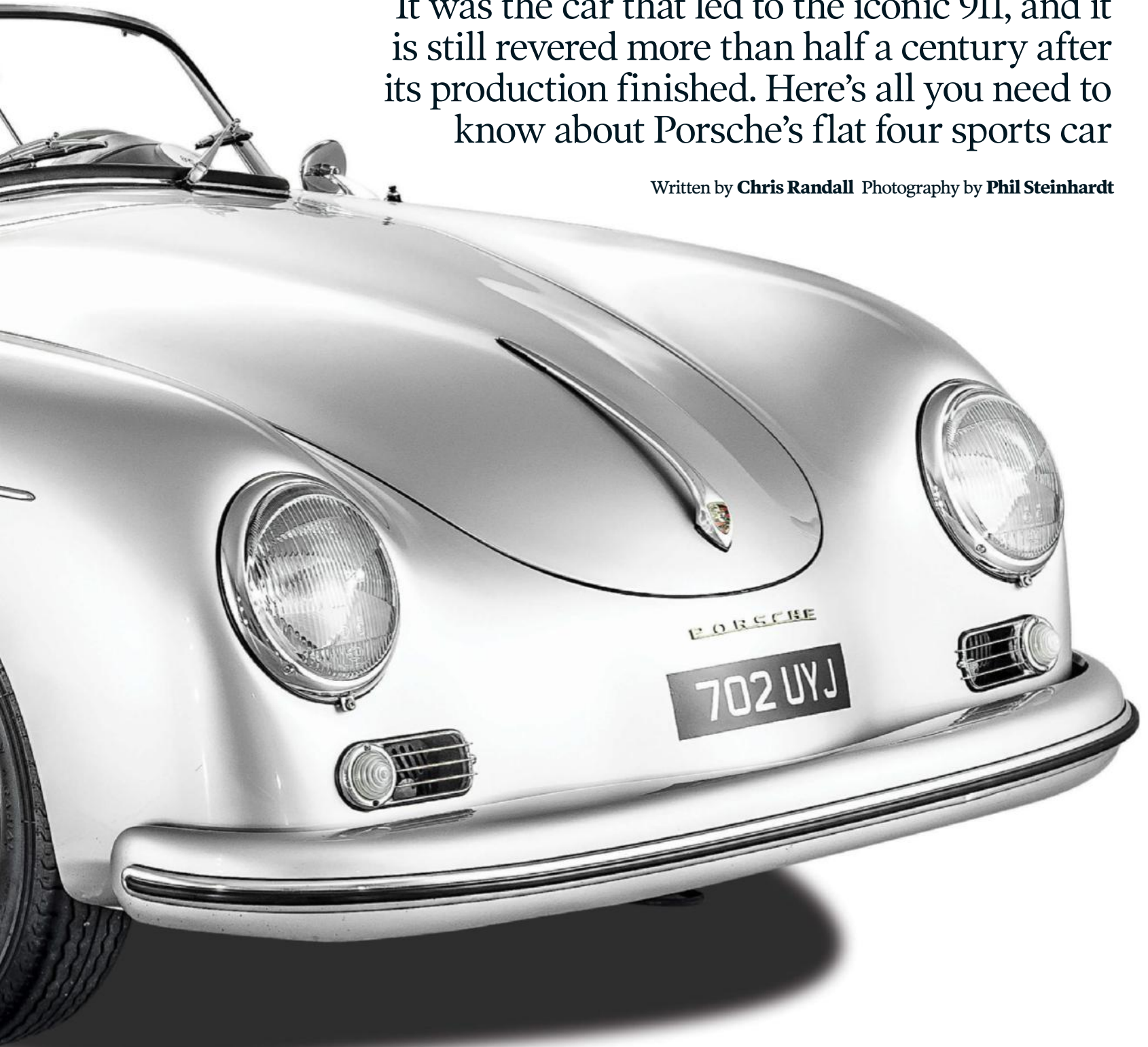
Admired by film stars and fashionistas alike, the Speedster was the brainchild of the influential Max Hoffman, importer of Porsches for America. His idea was for a stylish and lightweight open top model that could be used on road and track, and after a difficult gestation it was launched in the US in 1954. With a 1.5-litre engine and a body designed by Reutter, equipment levels were minimal in order to keep the price down, while a simple, removable windscreen and lightweight bucket seats with fixed backrests enhanced the sporting allure. More than 1,000 were sold in Pre-A form, with the 356A version arriving in 1955 with a larger, 1.6-litre engine. It was revised again in September 1957, the biggest year for sales, but by 1958 those sales were beginning to dwindle and production would come to an end the same year when it was replaced by the Convertible D (the D referring to coach builder, Drauz). The vast majority were left-hand drive, but some right hookers were built and are highly sought after today.



PORSCHE 356

It was the car that led to the iconic 911, and it is still revered more than half a century after its production finished. Here's all you need to know about Porsche's flat four sports car

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



Just in case you were wondering, you are still reading Total 911. It's just that this month we decided to take a closer look at the very genesis of our favourite sports car, without which there would be no 911.

Designed by Erwin Komenda, the 356 was launched in 1948 and stayed in production for almost 20 years, the last examples rolling out of Zuffenhausen in 1966. The very earliest cars were actually constructed at Gmünd in Austria, with bodywork fashioned from hand-beaten aluminium. Narrower and lower than later models, around 50 were made this way before production switched to Zuffenhausen in 1950, the bodywork now in steel and built by Reutter. In an interesting side note, Porsche would buy Reutter in 1963, although the seat-making arm would continue separately, later adopting the

well-known Recaro name. But before we go any further, now is a good time to summarise the key developments in the 356's history.

The first major change would come in 1955 when the 356A arrived (the earlier cars now known as 'Pre-As'), featuring numerous detail changes to the body and with the option of larger engines. The 356B arrived in 1959 with further changes to the panel-work and bigger bumpers (bumper overrides were standard from mid-1956, and the twin exhausts exited through the rear items soon after), while 1964 saw the final incarnation in the shape of the 356C. The bodies were also known as T2, T4, T5, and T6 variants and were available in Coupe and open-top forms, the latter proving tricky to negotiate as an observer, as they could be had as a Roadster, Cabriolet, Speedster, and Convertible D at various

times during production. Oh, and then there were the Notchbacks built only in 1961-62. Indeed, the broad spread of models and changes make the 356 range something of a minefield and could take up the whole magazine, never mind just this feature. Around 77,000 cars were built in total during the 356's production, with the 'B' model by far the most numerous at almost 31,000 examples. There would be approximately 7,600 'Pre-A' cars, 21,000 'A' models, and over 16,600 'C' models.

Anyhow, back to the car itself and those Gmünd models aside, the bodywork was formed from a welded steel monocoque platform clad in steel panels. Easier and cheaper to make, they were simple and robust but beautifully engineered. Impressively aerodynamic, too, as Porsche brochures of the day liked to point out. They'd also grow in size over the generations, the panels

“The bodywork was formed from a welded steel monocoque platform clad in steel panels. Simple but beautifully engineered”

Model Porsche 356A

Year 1955-1959

Engine

Capacity 1,582cc

Compression ratio 7.5:1

Maximum power 60hp @ 4,500rpm

Maximum torque N/A

Transmission Four-speed manual, rear-wheel drive

Suspension

Front Telescopic dampers with torsion bar springs and anti-roll bar

Rear Trailing arms with telescopic dampers and torsion bar springs

Wheels & tyres

Front 4x15-inch; 5.60-15

Rear 4x15-inch; 5.60-15

Dimensions

Length 3,950mm

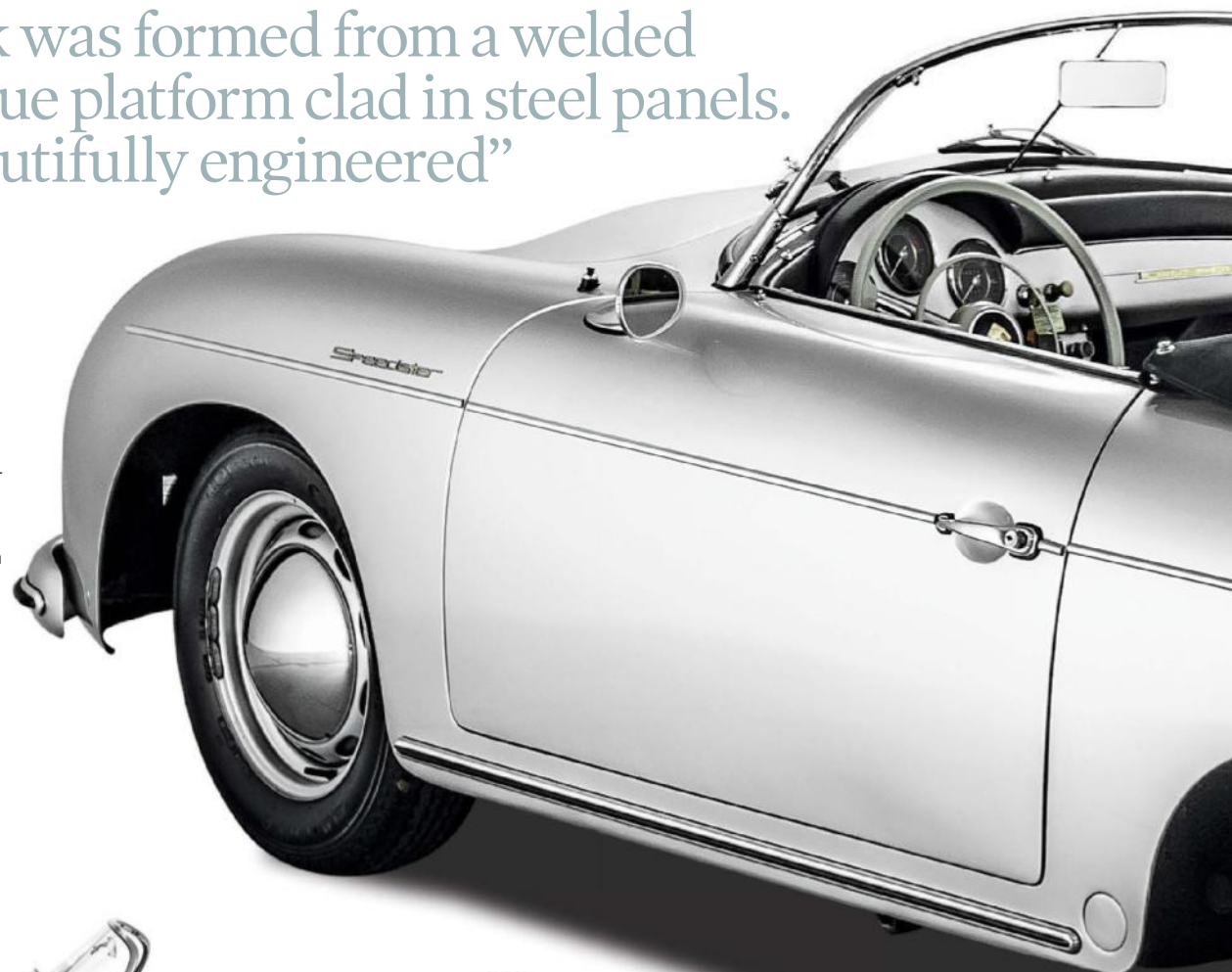
Width 1,670mm

Weight 850kg

Performance

0-62mph 16.5 secs

Top speed 100mph





Development of the 356 throughout its near two-decade lifespan included new body panels, a revised windscreen, more chrome decoration and even windscreen washers by the early '60s

PORSCHE 356 TIMELINE

• 1948

The 356 is launched. The first models are built at Gmünd and feature hand-beaten aluminium bodies

• 1950

Production is shifted to Zuffenhausen and the bodies are now steel and built by Reutter

• 1954

The stylish Speedster is launched. Film star looks guarantee its place in Porsche history

• 1955

The 356A arrives with bigger engines, changes to the bodywork, and a curved windscreen

• 1958

The Speedster ends production, replaced by the Convertible D

• 1959

There are further changes to the bodywork and engines for the arrival of the 356B

• 1964

The final iteration, the 356C, is launched. Numerous detail changes are made, while disc brakes feature for the first time

• 1966

Production of the 356 ends with around 77,000 sold in almost 20 years





“The 1,600cc engine of the 356A took over 16 seconds to reach 0-60mph”

taking on a flatter and slightly less curvaceous form, and by the time the 356C ended production, additions included twin ventilation grilles in the engine cover, opening front quarter-light windows, and delightfully neat tear-drop rear lamps. A further distinctive feature of the 356's development was the shape of the windscreen. Initially of a split design, it would become the 'bent screen' before a curved item was adopted for the 'A' model onwards. Externally, the early cars were also quite austere in appearance and it wasn't until later on that more chrome and additional styling flourishes would brighten its distinctive look.

But if you thought the model designations were complicated, the engine range was even more bewildering. Take a deep breath: the air-cooled, flat-four units were available in capacities of

1,086cc, 1,131cc, 1,286cc, 1,290cc, 1,488cc, 1,498cc, 1,582cc, 1,588cc, and 1,966cc (I think that's all of them!). Availability depended on the model and age of the 356, but essentially the engine grew in size as the generations progressed. Power outputs were modest to say the least, the smallest engine putting out just 40bhp, although the Pre-A would ultimately boast up to 70bhp in Super form, while later generations managed to achieve a more Porsche-like 130bhp.

The all-alloy engines were fed by a pair of Zenith, Solex, or Weber carburetors – again, it depended on model, and the early cars had single-choke items with twin-chokes adopted soon after – with either OHV or DOHC valve gear depending on model type, while the 1,300cc featured Porsche's clever chrome-dot

lined cylinder bores that reduced friction. Over the years, further innovations would arrive including the use of Biral liners for the cylinders and a forged crankshaft. As you'd expect, the performance on offer was some way short of the mind-bending numbers we've become accustomed to with the 911. Even with a 1,600cc engine fitted, a 356A would take just over 16 seconds to crack the 0-60mph benchmark, and would manage just 100mph flat out. Mind you, that performance was delivered with a character that made sheer numbers something of an irrelevance.

As for the rest of the driveline, the rear wheels were driven via a single plate clutch and four-speed manual gearbox, with the early models fitted with Volkswagen units that lacked synchromesh. It would be 1953 before double-declutching could be dispensed with, the 356 getting a patented Porsche 'Servo Synchromesh' transmission that was subjected to regular updates over the years for greater quality and driveability. It would spawn Type 644 and Type 716 versions,



the former utilising a single-piece aluminium casing rather than the previous split item.

Derived originally from the Volkswagen Beetle, the suspension was simple yet effective in the best Porsche tradition. Up front was an independent set up featuring telescopic dampers and laminated torsion bars along with an anti-roll bar, while the rear utilised the same dampers and torsion bars located by trailing arms. Swing axles would arrive later for the rear, along with a compensating leaf spring, and while the handling of a 356 was considered by some to be tricky at the limit, it rewarded a delicate approach and time spent learning how to get the best out of it. Much like the 911, then. Volkswagen also provided the worm and nut steering box for the 356, although it would be replaced by a ZF worm and peg system in 1955 that had a quicker ratio, and that would also feature a hydraulic damper to reduce kick-back, through a rim that was now larger to reduce steering effort. As for stopping the lightweight sports car, things were a little more low- ➔

Equipment was scarce on the minimalist 356 Speedster, with its flat-four engine revving to around 4,500rpm. Porsche would later revive the iconic Speedster concept on the 911 in 1989



BUYING TIPS

Useable and a delight to drive, it is no wonder the 356 is so desirable today. But with the potential for huge restoration costs, this is a car that should never be bought in haste. If ever a car deserved the phrase 'buy the best you can afford', it's this one.

- **Choosing one:** While the size of your bank balance may play the biggest part in your decision, it's worth thinking carefully about the model you want. If you plan on regular use, you may be better off with a later, more powerful variant.
- **History:** Never buy a 356 without knowing the history and how it's been cared for. With so many variations and changes over the years, research is crucial in ensuring the car you're looking at is what it claims to be. Getting it wrong could be very costly.
- **Bodywork:** A 356 will rust just about everywhere, and you need to pay close attention to the wings, inner and outer sills, floor, and bulkhead to name just a few areas. Eradicating all traces of corrosion will cost a fortune, and full restoration could approach six figures.
- **Engine:** Make sure you know what engine is fitted as the range is complex. The units are reliable with proper maintenance but be extremely wary of excessive oil leaks, smoke from the exhaust, or an engine that runs badly. Don't be fooled into thinking their simplicity translates into low re-build costs. It doesn't.
- **Running gear:** Availability of parts is good, so overhauling the suspension, brakes, or steering isn't a problem (cost aside, that is). But lack of regular attention, such as greasing suspension components or brake adjustment, will soon lead to deterioration.
- **Interior:** Probably the least problematic area of a 356 purchase. Generally durable, a decent trimmer can sort most issues. Look out for wiring in poor condition or bodged 12-volt conversions.

tech for the majority of 356 production, because at each corner you'd find hydraulically-operated drum brakes. Measuring 11 inches in diameter and with 72 axial cooling fins, the drums were aluminium with steel liners. Disc brakes wouldn't appear until the arrival of the 'C' model and it all seems like a long way from the world of ABS and 'Big Reds'. Most versions used steel wheels in either 15-inch or 16-inch diameters, although the designs varied over time, and some models ran on desirable Rudge wheels with knock-off spinners. All told though, these sort of incremental but carefully considered improvements were very much at the core of the Porsche ethos, and would stand the company in very good stead for the development of the 911.

Turning our attention to the interior, clicking open the lightweight door revealed a cabin that, while delightfully simple, was also superbly assembled. Seats were compact bucket affairs, while the closely-grouped dials were set in a metal dash that was usually painted the same colour as the body, and there was the minimum of switches. Indeed, Porsche were already championing the safety and ergonomics of the 356, with features such as the dash-top foam pad and paint finish on the switches aiming to reduce unwanted reflections. Electrics were by a six-volt

system for most models, although some versions had switched to 12 volts by 1958. The slim-rimmed steering wheel, spindly gearlever, and floor-hinged pedals would all be instantly familiar to the driver of an early Neunelfer. Rear passengers were catered for, but in reality the tiny seats were of little use and were best folded down to provide additional luggage space, there being almost none available in the compact nose which housed a fuel tank of 11-12 gallons and a spare wheel. Of course, it won't come as any surprise that Porsche improved equipment levels during the 356's lifetime, and later models boasted refinements such as a steel sliding sunroof, an electric clock, lockable glovebox, an internal fuel cap release, and windscreen washers.

Unfortunately, we've barely been able to scratch the surface when it comes to this special car. Throughout production, developments came thick and fast and attempting to cover them in any detail would require a heck of a lot more space than we have here. However, even the most cursory of looks reveals a car that was every inch a proper Porsche, one that provided a superb foundation for the models that you normally see amongst these pages. Boasting legendary quality and a very special driving experience, it's hardly any wonder they are so sought after today. **911**

SPECIALIST VIEW

"Though there are many examples of the 356 on the market at any given time, finding an example with an immaculate appearance and impeccable history will guarantee you a very sought after Porsche that's simply oozing in classic charm. Our Speedster has undergone an exceptional restoration and will make for a great addition to any classic collection as the 911's predecessor."

Jonathan Franklin,
Hexagon Modern Classics





OWNING A 356

- **Price new:** £2,277 (356C 1.6-litre Coupe)
- **Numbers built:** c77,000
- **Service intervals:** N/A
- **Service costs minor:** £358
- **Service costs major:** £762
(Figures are courtesy of Paragon Porsche)



911 2.0-Litre

Get it for
£150,000-£250,000

Performance

★★★★★

Maintenance costs

★★★★★

Rarity

★★★★★

Value

★★★★★



THE 911L

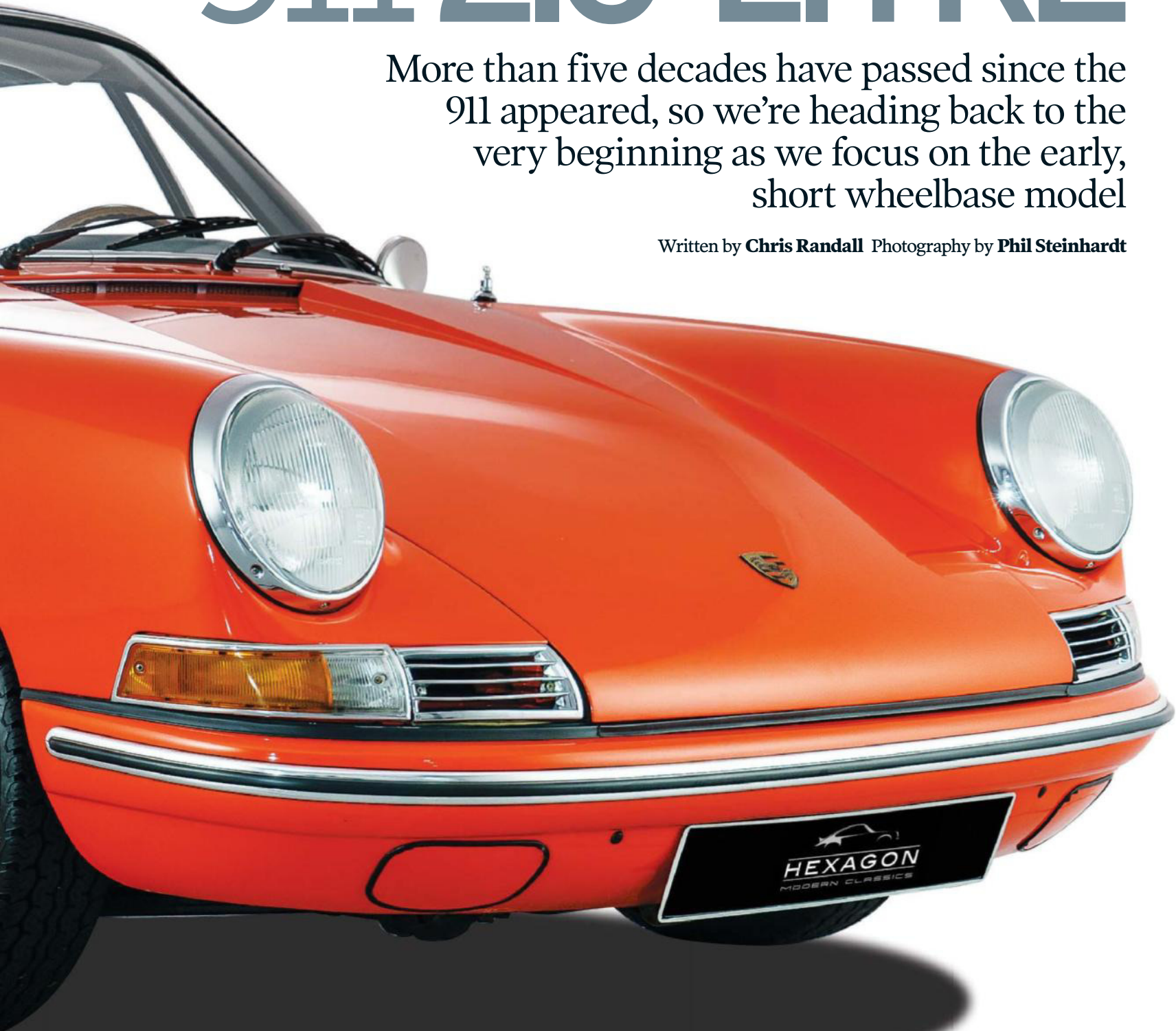
With US sales booming, the fact the more powerful 'S' couldn't meet new, stricter emissions legislation was becoming a problem. In fact, it forced Porsche to introduce the 911 in 'Luxury' specification, a model that would only be on sale from 1967 to 1968. Still, with 130bhp and Weber carburettors, it was also fitted with a rudimentary system of air pumps to clean up the exhaust gases, and came with the dual-circuit braking system demanded by the US market. Brakes were the ventilated 'S' items and it also retained all of the kit fitted as standard to that model. The 'L' also benefitted from some exterior tweaks including polished aluminium window frames and push-button door handles, while inside the wood fascia trim had gone, and there were now black bezels around the instrument gauges on the dashboard.



911 2.0-LITRE

More than five decades have passed since the 911 appeared, so we're heading back to the very beginning as we focus on the early, short wheelbase model

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



As the 911 gets bigger, faster and ever-more luxurious, it's easy to forget that there was once a much simpler way. Nothing epitomises that more than the car featured here, a 911 shorn of the electronic driver aids and the clever aerodynamic enhancements we've become used to seeing with every new generation. Scrolling back half a century brings us to this, the short wheelbase (SWB) 911.

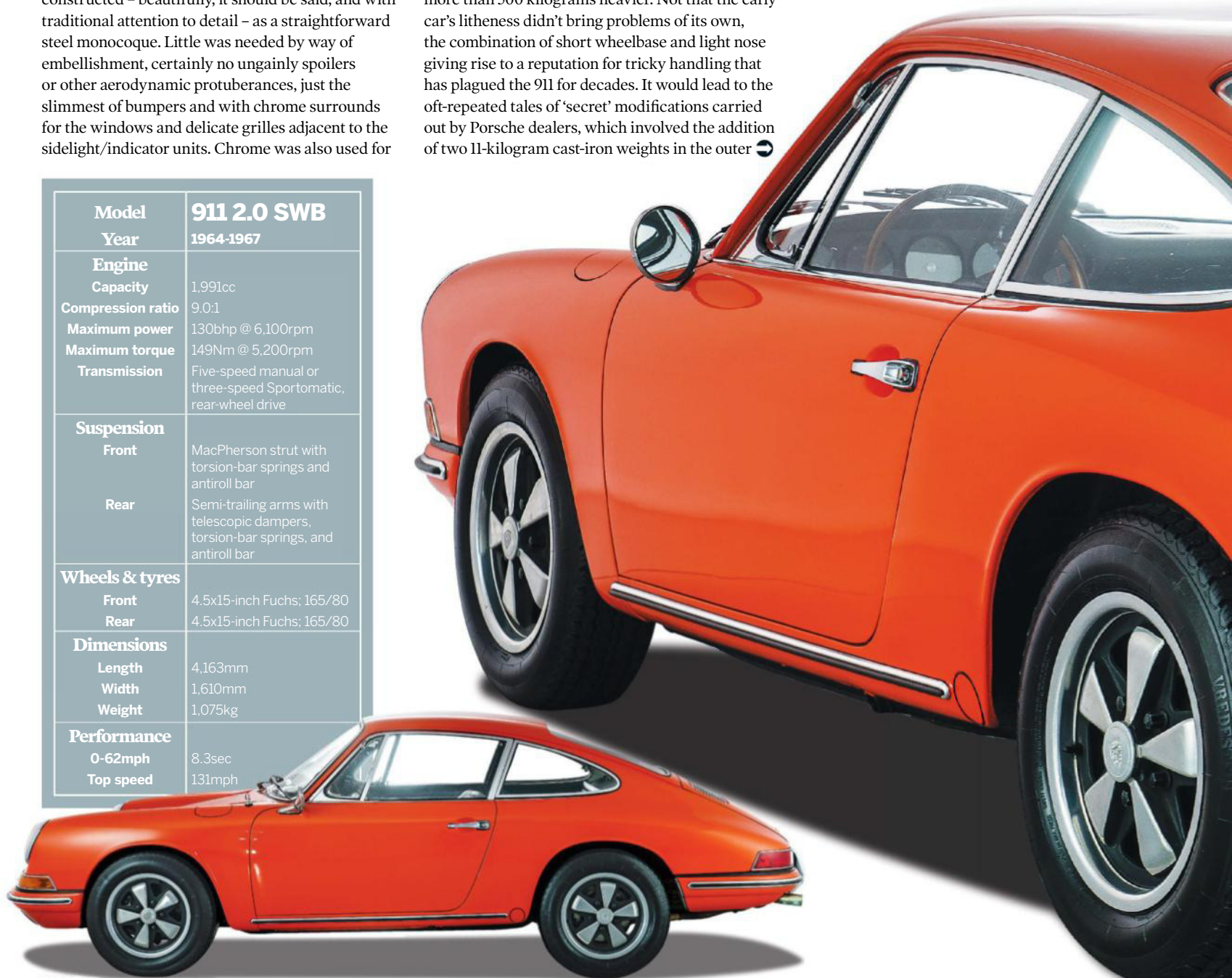
Back in 1964, when the 911 was finally launched to an expectant public, this was a sports car that looked impossibly pretty. Delicate and with a purity of line that, some argue, has been lost in the race for ballistic performance and the ability to brag about lap times, the simplicity of Porsche's approach was more than a little breathtaking. And that simplicity extended to a two-door coupe body shell that was constructed – beautifully, it should be said, and with traditional attention to detail – as a straightforward steel monocoque. Little was needed by way of embellishment, certainly no ungainly spoilers or other aerodynamic protuberances, just the slimmest of bumpers and with chrome surrounds for the windows and delicate grilles adjacent to the sidelight/indicator units. Chrome was also used for

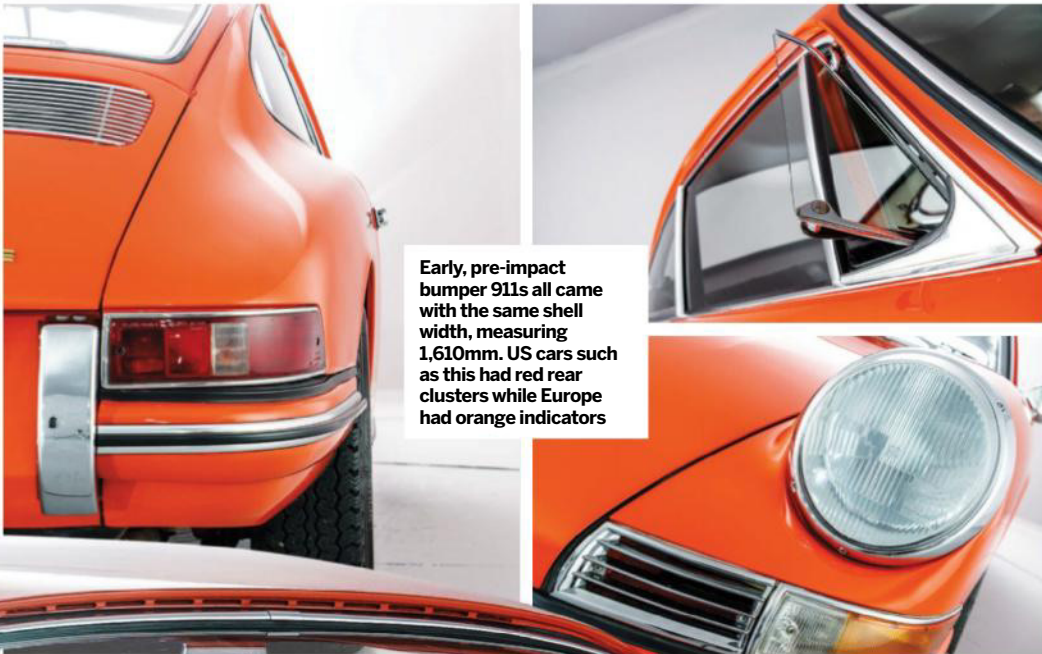
the small door mirror and handles, and the whole effect was one of neatness and understatement.

This was truly a case of function over form, and the earliest 911 was all the better for it. A Targa model would appear in 1967 with its now-iconic steel roll hoop and a zip-out plastic rear window, although this latter feature proved fiddly and 1968 saw a fixed-glass item offered as an option. But whatever the body style, the dimensions too were somewhat less than we're used to today, a SWB car measuring around 30 centimetres shorter overall and 20 centimetres narrower than a current 991 Carrera. The older car is also a substantial 241 millimetres shorter in the wheelbase – it would grow by 57 millimetres for the 1968 model – than the 991, which goes to show how much extra cabin space today's occupants enjoy. And if any further comparison were needed, a 991 Carrera is also more than 300 kilograms heavier. Not that the early car's liteness didn't bring problems of its own, the combination of short wheelbase and light nose giving rise to a reputation for tricky handling that has plagued the 911 for decades. It would lead to the oft-repeated tales of 'secret' modifications carried out by Porsche dealers, which involved the addition of two 11-kilogram cast-iron weights in the outer ➔

“
THE 'S' SHAVED 0.3 SECONDS FROM THE 0-62MPH SPRINT TIME AND ADDED 6MPH TO THE TOP SPEED, BUT THE REAL BENEFITS WERE IN IMPROVED DRIVEABILITY
 ”

Model	911 2.0 SWB
Year	1964-1967
Engine	1.991cc
Capacity	9.0:1
Compression ratio	130bhp @ 6,100rpm
Maximum power	149Nm @ 5,200rpm
Maximum torque	Five-speed manual or three-speed Sportomatic, rear-wheel drive
Transmission	
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	4.5x15-inch Fuchs; 165/80
Rear	4.5x15-inch Fuchs; 165/80
Dimensions	
Length	4,163mm
Width	1,610mm
Weight	1,075kg
Performance	
0-62mph	8.3sec
Top speed	131mph





Early, pre-impact bumper 911s all came with the same shell width, measuring 1,610mm. US cars such as this had red rear clusters while Europe had orange indicators



911: FIRST 10 YEARS

1964

The 911 goes into production with a 2.0-litre flat-six producing just 130bhp. It is the start of the making of a legend.

1967

The first 'Super' model arrives. Detailed engine changes generate 160bhp and it also receives upgraded brakes and suspension.

1969

All 911s now get an enlarged 2.2-litre motor, with power ranging from 125-180bhp. It's a substantially revised unit that brings a healthy 7.0-second 0-62mph sprint time.

1972

With the launch of the latest 911E there's a longer-stroke engine for 2.4 litres and it's the first time we see the 915 transmission.

1973

Hugely valuable now, the 2.7 RS is launched with lightened bodywork, 210bhp, and that iconic duck-tail spoiler.

1974

The G-series 911 gains a 2.7-litre engine and impact bumpers to comply with US road safety regulations. Top of the range is the Carrera.





Although the interior is basic by today's standards, a buyer in the 60s could choose different trim options including a wood steering wheel or basket weave seat inserts. A four-speed Sportomatic was also available on certain models, which still utilised a conventional shifter

corners of the front bumper. And staying up front, all models got a 62-litre fuel tank in the trimmed front luggage compartment.

Things would be kept simple beneath the unadorned engine cover too, the beautifully engineered flat-six boasting the sort of accessible installation a 991 owner can only dream about. It was a 1,991cc unit with an 80-millimetre bore and 66-millimetre stroke, a single overhead camshaft per bank, sodium-filled exhaust valves and a 9.0:1 compression ratio. At its core was an aluminium alloy crankcase, cast-alloy pistons running in 'Biral' cast-iron barrels with aluminium cooling fins, and an eight-bearing crankshaft. Lubrication was via a dry sump arrangement and it was fuelled by Solex carburettors that would be replaced with the ubiquitous Weber items in March 1966. The upshot was an output of 130 brake horsepower at 6,100rpm that was enough to get the lightweight coupe to 62 miles per hour in 8.3 seconds and on to 131 miles per

hour. What hadn't changed, though, was Porsche's eagerness to give buyers something more. That would arrive in 1967 in the shape of the 911S - or Super - that brought substantial changes to the 2.0-litre powerplant. There were now forged-alloy pistons allied to stronger, forged-steel connecting rods and larger intake and exhaust valves that had grown from 39 and 35 millimetres to 42 and 38 millimetres respectively. With Bosch ignition, a compression ratio upped to 9.8:1 and the addition of two Weber 40IDS carburettors, power had risen to 160 brake horsepower while torque had increased to 179Nm at a higher 5,200rpm. It was enough to shave 0.3 seconds from the 0-62 miles-per-hour sprint time and add six miles per hour to the top speed, but the real benefits were felt in improved driveability; an early sign that continuous development was very much on the Zuffenhausen agenda.

But whichever model you chose, power was delivered to the rear wheels via the five-speed

manual gearbox (designated 901) and there was the option of a ZF limited-slip differential. Also available for those who wanted a more relaxed, two-pedal approach to 911 motoring was the Sportomatic '905' transmission that arrived in late-1967. Developed by Fichtel and Sachs and offering four-speeds - L, D, D3, and D4 - this was a torque converter 'box' that also included an automatic clutch operated by a micro-switch in the gear-lever knob. However, this gearbox didn't draw universal praise from owners or journalists of the day, although it somehow survived in Porsche's options catalogue all the way to 1979. Thankfully, the rest of the running gear was a little less quirky. The unassisted rack-and-pinion steering was courtesy of ZF and stopping duties were taken care of by a single-circuit braking system with 11.1-inch diameter ATE discs at the front and 11.2-inch items at the rear, ventilated on the 'S'. The suspension was independent at all four corners ➡



“

WHEN YOU CLICKED OPEN
THE LIGHTWEIGHT DOOR
OF AN EARLY 911, THE CABIN
APPEARS AS A MODEL OF
SPORTING RESTRAINT

”

BUYING TIPS

A 911 of this age is always going to present a risk unless it's already been subject to a top-quality restoration. A car in need of major work is going to require substantial financial investment, so getting it checked by an OPC or specialist is always going to make sense.

- **Originality and rarity:** A car that's correct in every detail will always be valued. Rarity of parts is an issue, though, exacerbated by the various changes over the years, so be prepared to settle for second-hand items or a lengthy search for the right bits.
- **Corrosion:** The only option is to examine every panel with forensic levels of care as eradicating all traces of rot will be pricey. Check for accident damage and previous bodes, and don't assume US cars are rot-free. Panel prices can exceed £1,000 so be warned.
- **Engines:** The aluminium crankcase unit is considered pretty bulletproof, although parts are costly. Engine swaps aren't uncommon, especially with imported vehicles, so make sure you know what you're buying.
- **Low mileage:** Collector cars may need substantial recommissioning so budget accordingly. It's not necessarily difficult, but the costs can add up so you might be better off with one that's been used regularly.
- **Interiors:** Wear and damage should be obvious. It can obviously be re-trimmed – at a price – but it's worth checking that trim and materials are original, as well as looking for signs of water leaks.

and used a combination of MacPherson struts and longitudinally mounted torsion-bar springs up front and trailing arms allied to telescopic dampers and transverse torsion bars at the rear. A 13-millimetre anti-roll bar was optional, although the 'S' would receive an upgrade in the form of stiffer Koni dampers and anti-roll bars front and rear as standard in 15 and 16-millimetre diameters respectively. It was a set-up that would serve the 911 well for many years, but there's one last detail that amply demonstrates the gulf that separates these early cars from the current generation, and that's in the choice of wheels and rubber. The earliest SWB models employed plain-Jane 4.5x15-inch steel wheels – albeit with lovely chrome hubcaps – fitted with 165/80 tyres, and it wasn't until the 'S' arrived that you got a marginally wider wheel fashioned from a more exotic alloy. In fact, this was the first 911 to get the iconic wheels from Otto Fuchs that were a useful 2.3 kilograms lighter than steels. It's something of a revelation compared to the steam-roller sized boots that fill the arches of a modern 911, even if it does go a long way to explaining the agility and delicacy of response that so enchanted the buyers of Porsche's finest back in the day, and indeed continues to do so even now.

The simplicity employed elsewhere would also be found when you clicked open the lightweight

door, the cabin appearing as a model of sporting restraint. There was no bulky and intrusive dashboard here, with passengers separated by a leather-clad and button-festooned centre console. Instead what you'd find was a slim, wood-trimmed fascia with the classic five-dial instrument pack facing the driver, chrome instrument bezels, and a modest – if a little random – scattering of knobs and switches. And if the seats looked a little minimalist, they would actually prove very supportive, and just like today Porsche understood the importance of ergonomics, so the driving position itself was spot on. Those perches were trimmed in vinyl as standard, but leather was optional and you could also choose to have the centre panels covered in basket-weave leatherette or cloth. Buyers could choose to team the subtle interior with typical colourful 1960s exterior hues such as canary yellow or tangerine, although there were more subdued tones available as well as various special-order colours for those who appreciated a more low-key approach for their Porsche.

Going back to basics reveals a charmingly simple 911, one that was just the first taste of the top-notch engineering Porsche would employ for many decades to come, and that is something all fans of this evergreen sports car can appreciate. Here's to the next half century of evolution, too. **911**

“

A SWB 911 MEASURES 30 CENTIMETRES SHORTER OVERALL AND 20 CENTIMETRES NARROWER THAN A CURRENT 991

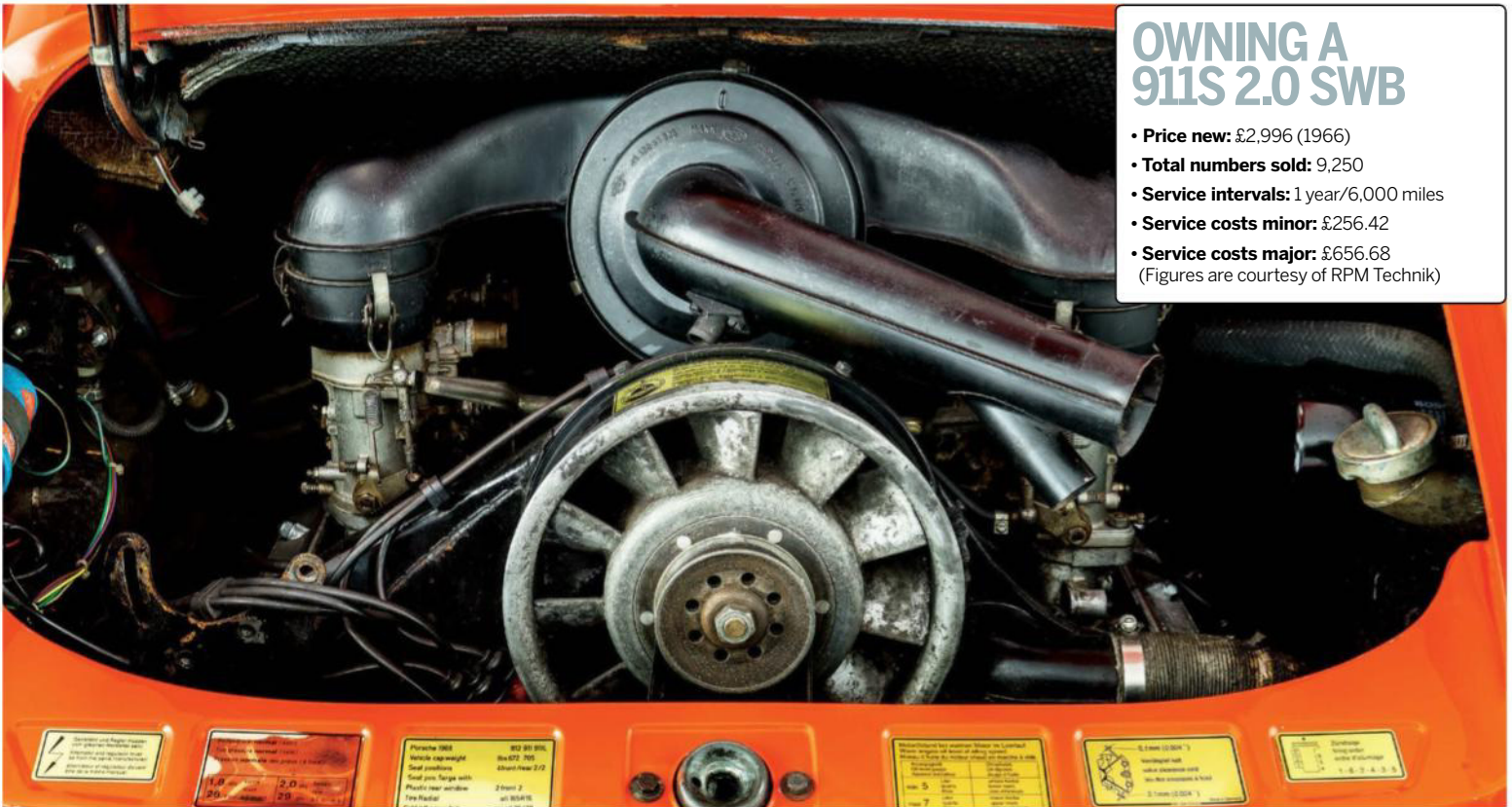
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SPECIALIST VIEW

“There's no doubt that when you're talking about a 911 produced in such small numbers, prices are going to be kept very buoyant in the future. Values of SWB models clearly have some way to go yet, I think, but interest in these earliest cars is growing strongly as more and more people come to appreciate the purity they offer, and that almost certainly means there is going to be strong investment potential. Having said that, I do think they offer excellent value at the moment, especially when compared to other sports cars of the period, so it's going to be really interesting to see how the market reacts over the next few years.”

Jonathan Franklin, Hexagon





OWNING A 911S 2.0 SWB

- **Price new:** £2,996 (1966)
- **Total numbers sold:** 9,250
- **Service intervals:** 1 year/6,000 miles
- **Service costs minor:** £256.42
- **Service costs major:** £656.68
(Figures are courtesy of RPM Technik)



"I'VE GOT ONE"



"The short wheelbase 911 represents the Porsche 911 in its original and purest form. Without any of the later bulges and wings to disrupt the smooth flow and svelte lines one can appreciate the artistry and beauty of the original design. There are very few cars that can connect you so closely to the road through the steering and suspension like an original 911, making every journey a visceral experience."

Marcus Carlton

911 2.2S

Get it for
£160,000-220,000

Performance

★★★★☆

Maintenance costs

★★★★☆

Rarity

★★★★☆

Value

★★★★☆



STORY OF THE 911 S/T

With motorsport always high on Porsche's agenda, it's perhaps no surprise that a suitable 911 of the period would arrive – that car being the S/T. As always in competition, lightness was key, so all extraneous weight was removed – the bodyshell shorn of its protective under-seal and soundproofing for starters. Contributing to the diet was the use of thinner steel in key areas including the floorpan and roof, while plastic replaced metal in other areas and the paint was thinner than usual. A two-inch wider track also featured. The S/T recorded a number of victories in top-line rallying and with just 33 produced, it's one of the rarer 911s around.





Think back to 2013 and all the talk amongst 911 enthusiasts was of the fiftieth anniversary celebrations, which let's face it, is a pretty amazing milestone for a sports car, never mind one as unique in its approach as this one. However, for our Ultimate Guide this month we're spooling back 44 of those years to 1969, when buyers after a sporting German coupe were offered this, the 2.2S. Today it's the 2.4-litre 911S that has stolen the limelight in auction rooms and in the wider media, but let's not forget it's the earlier car with the truly celebrity connection – need we remind you of the model's appearance in the racing film *Le Mans*, when it was leant upon by a moody Steve McQueen?

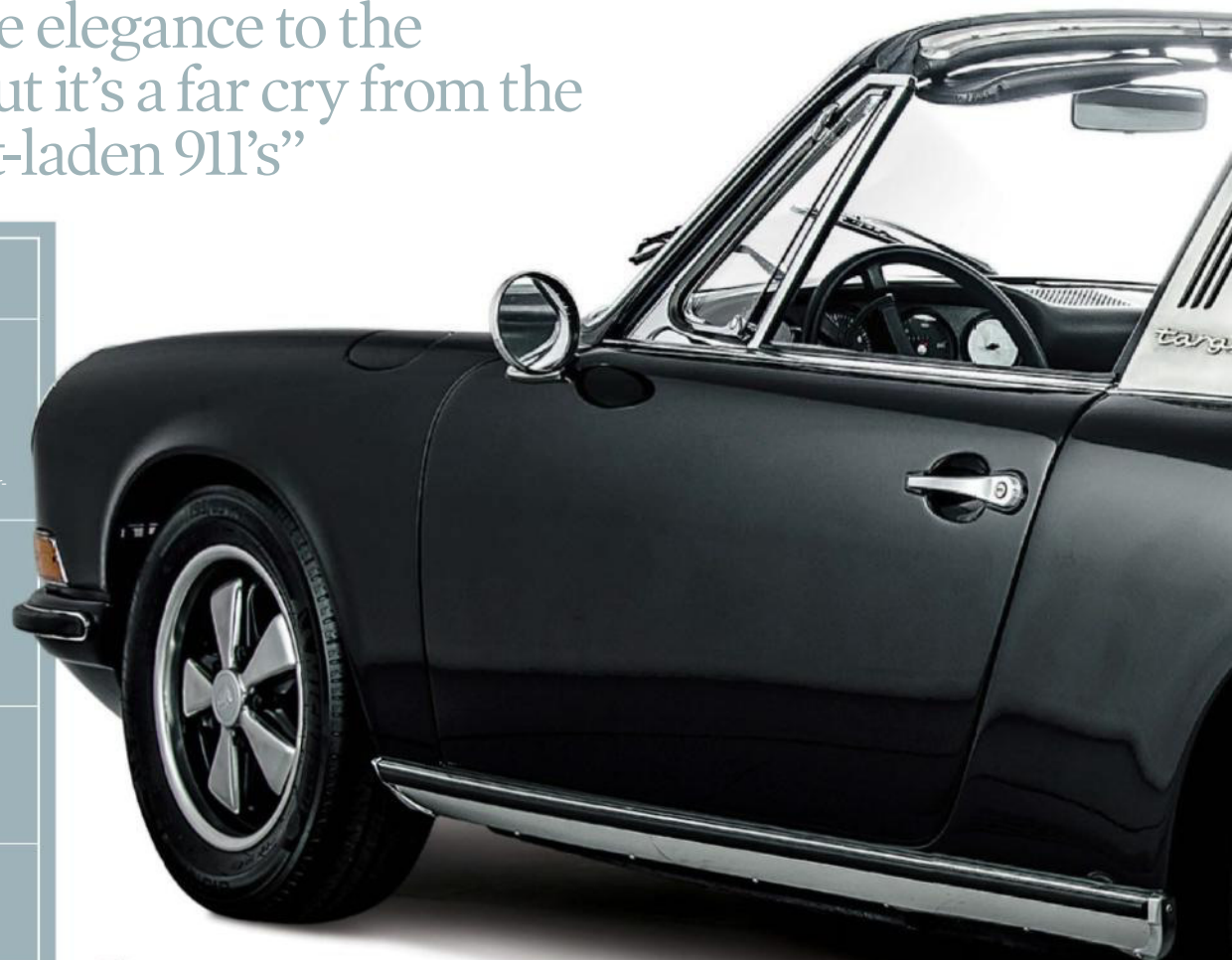
But with that inevitable mention out of the way it's time to focus on the business at hand, and

the first thing you notice is the pure simplicity of the design. There is a subtle elegance to the familiar lines and it's a far cry from the modern, gadget-laden 911s that usually appear in these very pages. There are no clever aerodynamic tweaks or prominent spoilers, the bodyshell comprising a conventional steel monocoque that in a nod to longevity, received a healthy layer of PVC underseal and a partial zinc coating. Both coupe and Targa body styles were available – the latter featuring the iconic steel roll hoop and a glass rear window, adding around 50kilograms to the overall weight – but the 2.2S had also grown over previous incarnations, an extra 2.2-inches of wheelbase sharpening the proportions and improving cabin space. It's still a petite 911 compared to today's model though, being 328 millimetres shorter, 198 millimetres narrower and 360 kilos lighter.

The use of aluminium for the engine cover and the centre section of the bumpers helped keep weight in check, while Porsche had also paid attention to weight distribution, mounting the twin batteries in the front compartment to help offset that pendulous flat-six. There was a 62-litre fuel tank squeezed in there with buyers getting the option of a 110-litre tank to assist with long-distance jaunts to La Sarthe and there was even a reasonable amount of luggage space, 7.0 cubic feet available in the nose and a further 8.8 cubic feet if you dropped the rear seats. Oh, and there were some impressively period colours to choose from including Signal orange and tangerine, both proving quite popular in the UK by all accounts. This then was a practical sports car, very much as it remains today. What it wouldn't have been was quite as safe

“There is a subtle elegance to the familiar lines but it's a far cry from the modern, gadget-laden 911's”

Model	911 2.2S
Year	1969-1971
Engine Capacity	2,195cc
Compression ratio	9.8:1
Maximum power	180bhp @ 6,500rpm
Maximum torque	199Nm @5,200rpm
Transmission	Five-speed manual, rear-wheel drive
Suspension	
Front	Telescopic dampers; torsion bar springs; anti-roll bar
Rear	Telescopic dampers; torsion bar springs; anti-roll bar
Wheels & tyres	
Front	6x15-inch Fuchs; 185/70/15
Rear	6x15-inch Fuchs; 185/70/15
Dimensions	
Length	4,163mm
Width	1,610mm
Weight	1,020kg
Performance	
0-62mph	6.6 secs
Top speed	145mph





There is little in the way of external differences to be had between the C and D-series 2.2-litre 911S, except for the zinc-coated underbody on D-series cars. Horn grills were in silver, as were the window frames



EARLY 911S TIMELINE

1967

The first of the 'Super' models arrives with a 2.0-litre engine pushing out 160bhp, 30bhp more than the regular 911. Weighing little more than a ton, it can crack 60mph in 8.0 seconds.

1968

B-Series cars are still 2.0-litre but fuel injection replaces the twin Weber carburettors, upping the power to 170bhp.

1969

It's the turn of the C/D-Series cars and with a new 2.2-litre engine power is up to a punchy 180bhp. There are brake and suspension upgrades as well.

1973

Just over 5,000 F-Series models are produced. Power is up another 10bhp thanks to the bigger 2.4-litre engine, while various styling tweaks keep the 911 looking fresh.

1974

More major changes occur and the 911S is relegated to the mid-range option, with impact bumpers and a bigger 2.7-litre powerplant. Just 173bhp means it's slower than its top-spec predecessor too.





“As always though, it was the engine that was the star here”

as today's air-bag-filled models, although Porsche literature of the day did boast of a padded fascia and a collapsible, three section steering column with two universal joints – which provided some protection should you find yourself on the wrong side of a hedge. At least the standard quartz-iodine headlamps made night time excursions a much more pleasurable experience.

As always though, it was the engine that was the star here and it was an increase in bore from 80millimetres to 84millimetres that increased capacity to 2.2-litres. Courtesy of Bosch mechanical fuel injection and a 9.8:1 compression ratio, power was up to 180bhp at 6,500rpm with a useful 199Nm of torque, both handy increases over the previous

2.0S and enough for an impressive 166bhp per tonne. After the monster power outputs of recent 911s, discussing a power figure that starts with a one seems faintly absurd, but a kerb weight of just 1,020kilograms ensured ample punch. Official figures quoted a top speed of 145mph and a 0-62mph sprint in 6.6 seconds, all achieved with the free-revving feel and pin-sharp responses of an engine unencumbered by digital interference. Lubrication was by a dry sump arrangement, while the two-valves per cylinder were operated by a single chain-driven overhead camshaft per bank. Stronger connecting rods and a magnesium crankcase also featured and while all 2.2-litre models had a common cylinder head design, the ‘S’ received

tweaks to the camshaft profiles and valves, as well as improved porting. Dig deep enough and you'd also find a head gasket redesigned for better sealing, re-shaped cylinder barrels with more cooling fins, and a high-capacity discharge ignition system with an in-built ignition cut-out. It's also worth noting that the 2.2S saw the '901' engine numbering come to an end, the new power plant issued with the 911/02 designation.

While we're in the engine bay it's worth mentioning the delightful period details that adorn an older 911, in this case the stickers that sit on the lock panel. Four in total, they detail tyre pressures, oil capacity, valve clearances and firing order – the figures for the latter pair 0.1millimetres and 1-6-2-4-3-5 respectively, which could come in handy for a spot of DIY maintenance. Bolted to the flywheel was a larger clutch – now 225millimetres in diameter rather than 215millimetres – that was lighter in operation and that transferred drive



Front seats in the 2.2-litre 911S were much improved from earlier variants, now offering more lateral support. A Sportomatic option was dropped for the model in 1970, meaning the only gearbox on offer was manual

to a 5-speed manual gearbox with revised ratios and a first gear out on a dog-leg. There was no Sportomatic option for the 'S' but buyers seeking ultimate traction could specify a ZF limited slip differential if they wanted.

Attention had been paid to the rest of the running gear too. Suspension was still managed by telescopic shock absorbers and torsion bar springs with anti-roll bars at both ends, but changes to the geometry had improved wheel location and included moving the front strut mounts 14mm forward. This improved the castor angle and ensured that the ZF rack and pinion steering was both lighter and much more accurate. The extra performance meant that some improvements were needed in the braking department as well and the 'S' had alloy calipers that gripped ventilated discs measuring just a smidgeon over 11-inches in diameter and backed by vacuum assistance. The stoppers were hidden behind classic 15-inch ➔



BUYING TIPS

Plenty of would-be 911 owners are attracted to the idea of buying an early model, but like any classic car, it pays to tread carefully. Numerous (expensive) pitfalls await those that buy in haste, so get specialist advice before taking the plunge.

- **Originality and provenance:** An important factor in buying an early 911, condition really is everything with these cars. Look for evidence of previous re-builds and be alert for any signs of bodged restorations such as the 'sinking' of paint around filler holes. The Porsche club can help with history and build data too.
- **Corrosion:** They rust just like any classic of the period and you'll need to examine every inch of the bodywork. Eradicating all traces of corrosion will be ferociously expensive, so you have been warned.
- **Engine and transmission:** There is a good chance that both will have been re-built by now, but any neglect will be very costly. Watch for any signs of oil smoke, low oil pressure and crunching synchromesh.
- **Suspension/brakes:** Age-related wear and tear is the main concern and a complete refurbishment is a costly job. Cars that have been sitting around for a long time are likely to have seized lines.
- **Interior:** It might be simple but don't underestimate the cost of bringing a tatty cabin up to scratch. It shouldn't be a deal-breaker if the car is otherwise sound but bear it in mind all the same.

Fuchs alloy rims, half an inch wider than those that were fitted to the entry level 911T at six-inches and carrying 185/70 rubber.

Click open the door handle – operated by a trigger behind rather than the previous push-button – and you were faced with yet another dose of elegant simplicity. Indeed, there's a delicacy to the design and feel of the cabin that feels far removed from the imposing chunkiness that characterises sports cars today, 911 included. But while cabin quality is solid enough – and notably superior to other mainstream cars of the period – it still retains an austere feel that would be unrecognisable now.

The 2.2S doesn't have the acres of soft-touch materials and damped switchgear we're cossetted by today, nor the button-fest that has crept into the 991 interior. Nope, this is a far simpler approach to cabin architecture and one that has plenty of admirers. The good news was that the five-dial instrument pack was present and correct, the faces now surrounded by black rubber rather than chrome rings, while a gauge showing oil level and pressure was standard. At the same time Porsche revised the column stalks, the left-hand one now controlling indicators and lights, the right looking after wipers and washers. Also standard was a leather covering for the slim-rimmed four-spoke steering wheel, a steering lock and a heated rear

window, but if that sounds measly you could seek the solace of the options list and add tinted glass, electric windows and a sunroof. There were other changes to the dashboard including the relocation of the ashtray, but the 'S' did benefit from improvements to that bug-bear of early 911s, the ventilation system. There were opening front quarter-light windows and the Targa received ventilation grills let into the vertical section of the roll hoop that assisted with air circulation, but in all models a trio of sliders controlled things with Porsche proudly trumpeting the addition of a three-speed blower fan. This top-spec 911 did get velour carpeting though, and the leatherette seats with their woven finish for the centre panels could be specified in real hide at extra cost.

Porsche literature described those front seats as offering 'ample' lateral support in hard cornering and while the bolstering seems lacking compared to the modern cars, they were at least comfortable. The interior revamp had a new set of door cards that featured rigid and useful storage pockets.

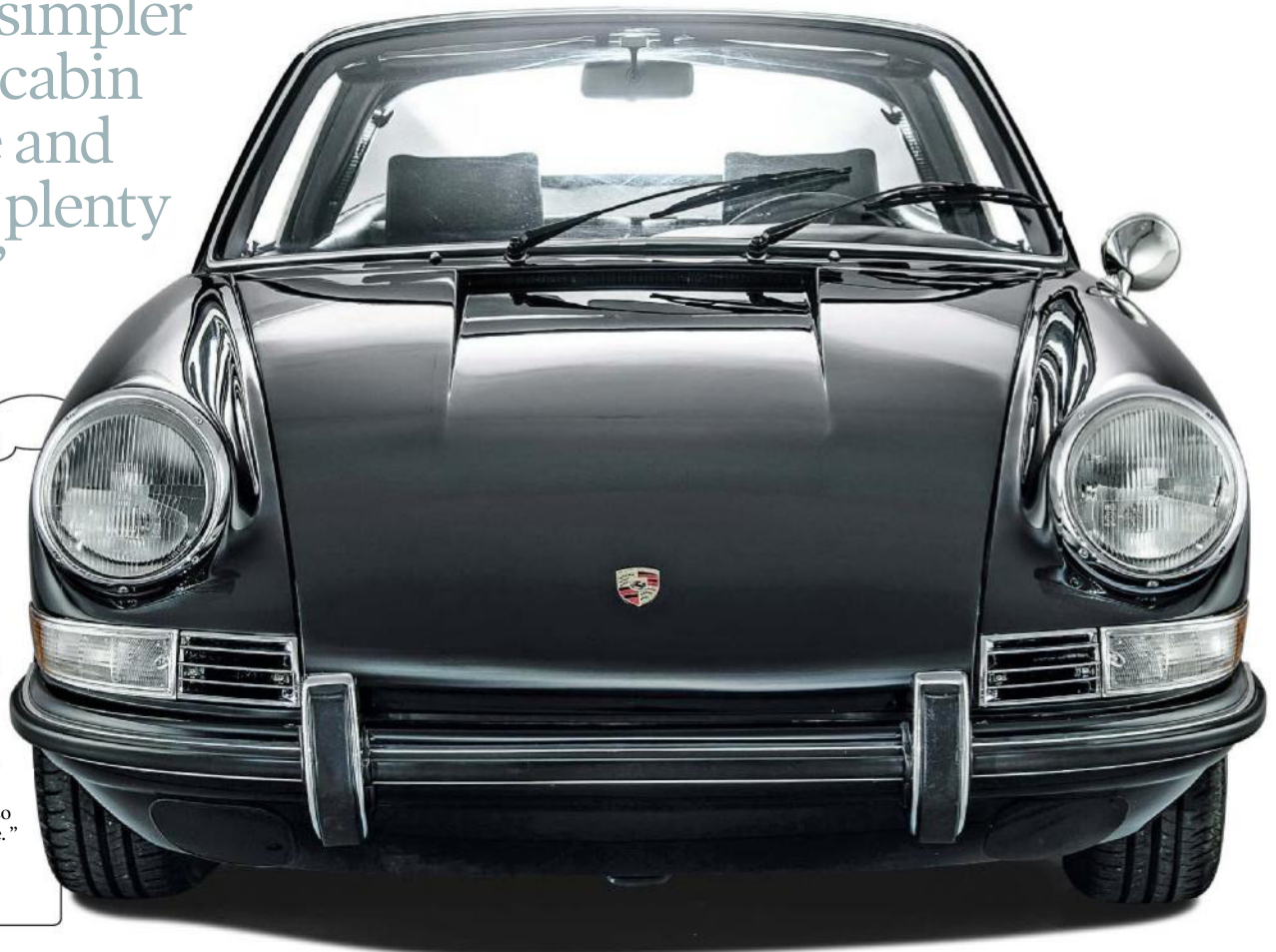
That's the 2.2S. It was a 911 that showed Porsche's commitment to develop their unique sports car, bringing with it the subtle but well-engineered improvements that have remained a hallmark today. Internal wobbles over replacing the 'S' would come, but in 1969 things looked rosy. **911**

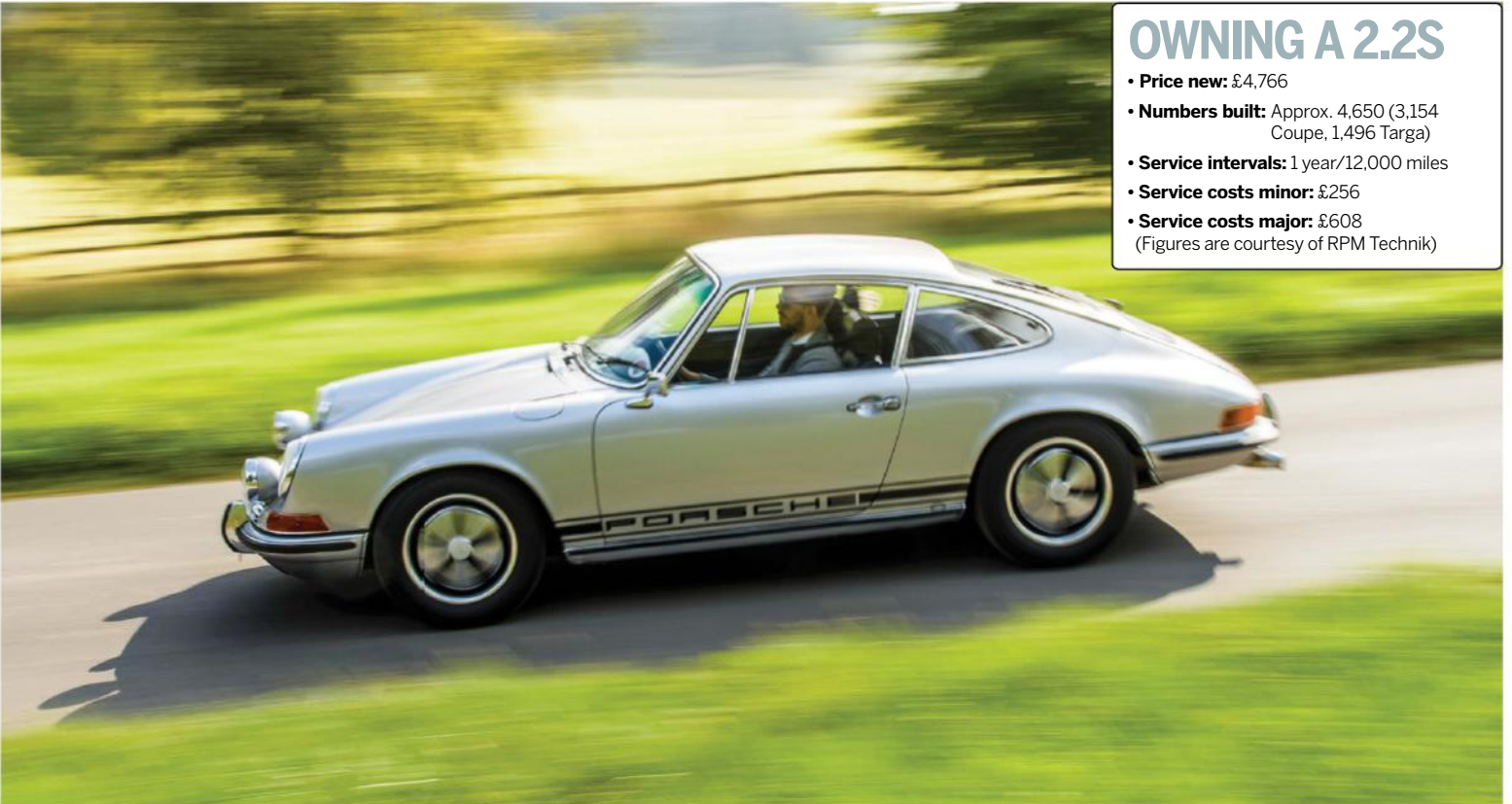
“This is a far simpler approach to cabin architecture and one that has plenty of admirers”

SPECIALIST VIEW

“Nearly any early 911 is sought-after at the moment and the enthusiasm around cars like the 2.2S is a perfect example of that. The 'E' and 'T' variants seem to be proving popular too, no doubt helped by the fact that values of the 'S' are continuing to rise. That's having a positive effect on the models below and we've seen the values for all 2.2s strengthen over the last year. In fact, the rising interest means that project cars are harder to find – they are being snapped up quickly when they come onto the market, restored and then stored away. Values will keep rising so if you want a 2.2S, now is a good time.”

Jonathan Franklin,
Hexagon Modern Classics





OWNING A 2.2S

- **Price new:** £4,766
- **Numbers built:** Approx. 4,650 (3,154 Coupe, 1,496 Targa)
- **Service intervals:** 1 year/12,000 miles
- **Service costs minor:** £256
- **Service costs major:** £608
(Figures are courtesy of RPM Technik)



"I'VE GOT ONE"



"The 2.2-litre 911S is a real racer. From the engine there's plenty of power and the body is as light as possible, keeping the unsprung weight to a minimum, so you can max out the brakes and suspension. Even by modern standards it is quick but thrilling, responsive and direct in a way no modern car can be."

Brandon Davies

2.7 RS

Get it for
£300,000+

Performance
★★★★☆

Maintenance costs
★★★★☆

Rarity
★★★★☆

Value
★★★★☆



CARRERA RS 3.0

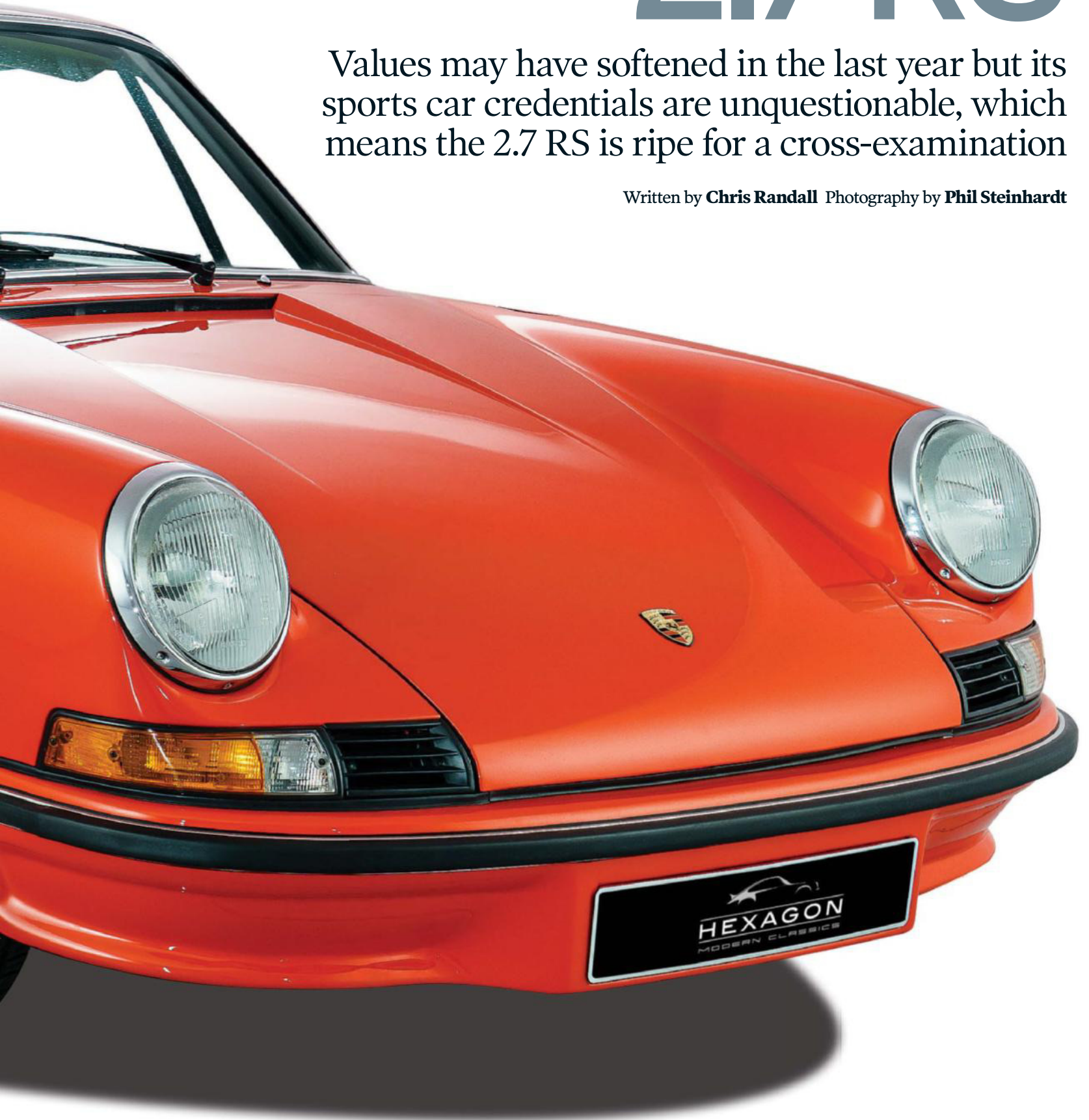
1974 would see a further development of the RS genre when Porsche introduced an even rarer model, so rare in fact that the right-hand-drive cars are identified by their colour alone. Just 109 3.0-litre RSs were made in total, and only six of those came with the steering wheel on the right – five came 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.

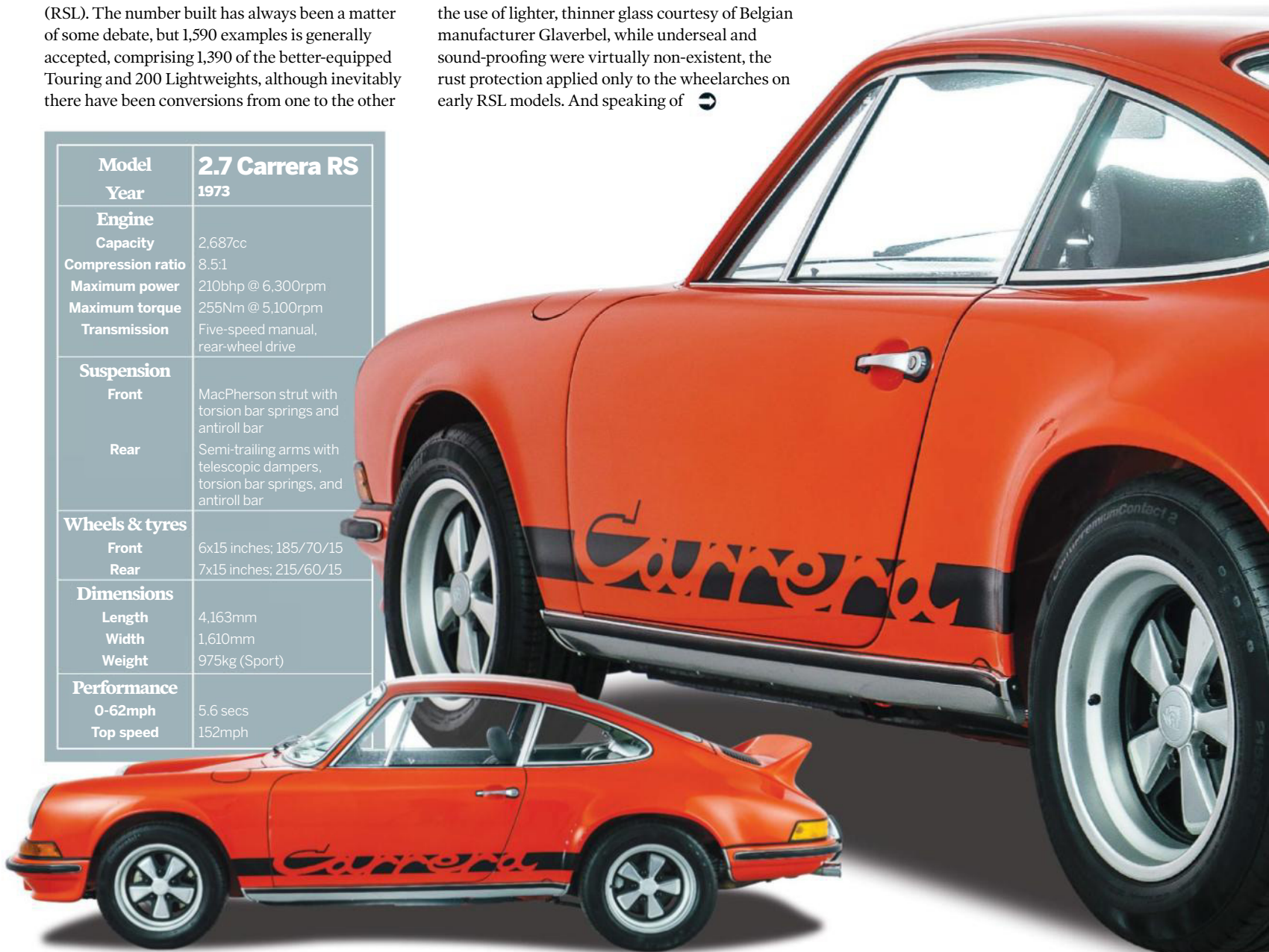
Firstly, the non-load bearing panels such as the roof, front and rear wings, and the front luggage compartment lid were formed from metal just 0.7mm thick when 1.0 to 1.25mm was the norm. And these were joined on Lightweight cars by bumpers formed from fibreglass, pleasingly unadorned items that lacked 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. The weight saving 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 ➔

“

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 (blacked 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

wheelarches, 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 RSL 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 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 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 ➤



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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

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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 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 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 Rennsport 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.

But whichever specification you chose, the fact remains that you were buying into 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. Indeed, it's easy to argue that 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, Hexagon





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

2.7 Carrera

Get it for
£120,000-£250,000

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 converters. 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.

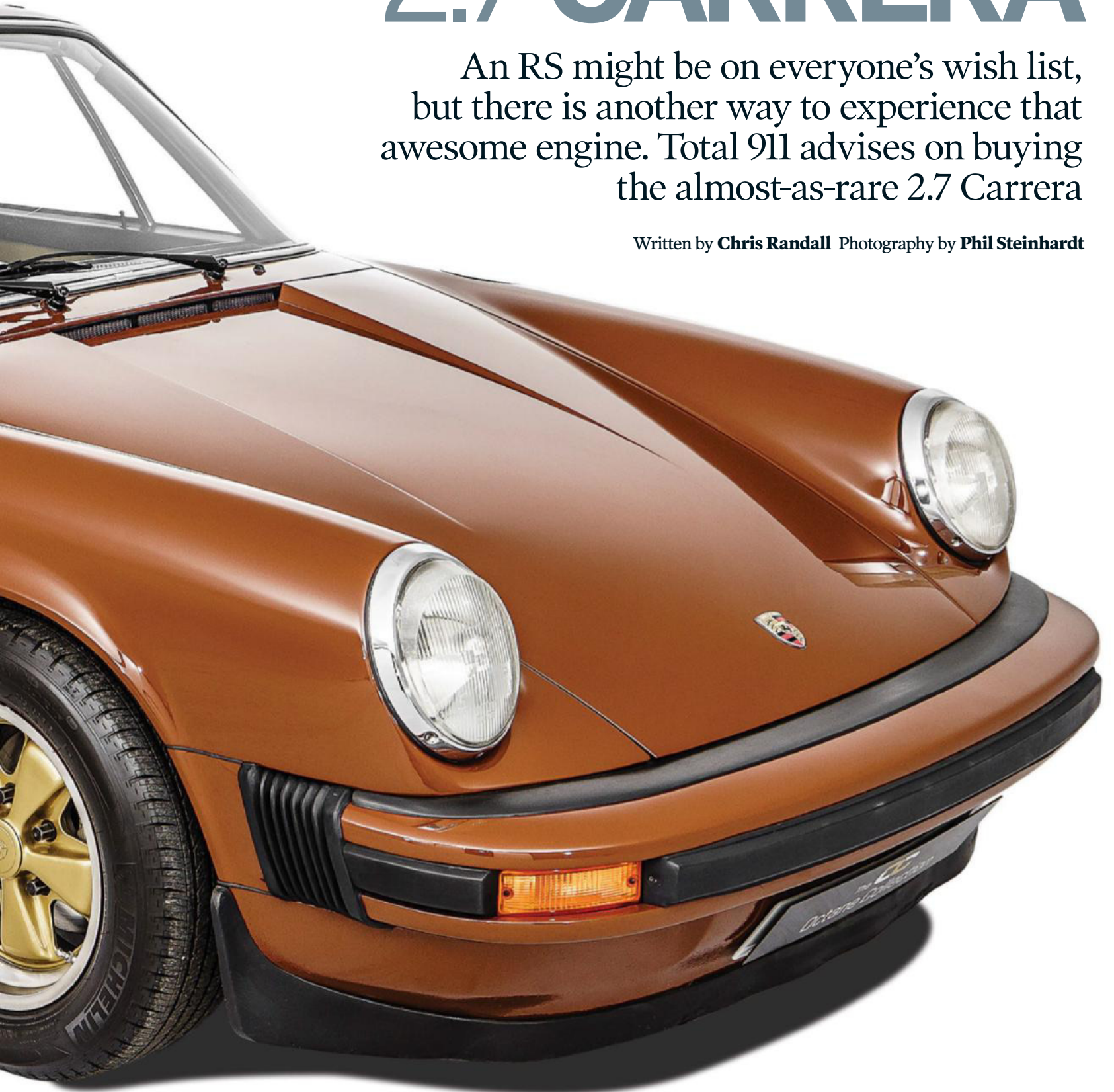




2.7 CARRERA

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

“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”

will cost 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. A complete overhaul with quality parts won't come cheap, of course, so 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



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

account, and it's all too easy to spend thousands of pounds eradicating all traces of corrosion.

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



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.

mountings. The front scuttle and front and rear bulkheads need examination, the latter from inside the engine 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 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.

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 operation of the heating. But there's little else to worry about here – it's the condition of the bodywork and engine that are of far greater importance.

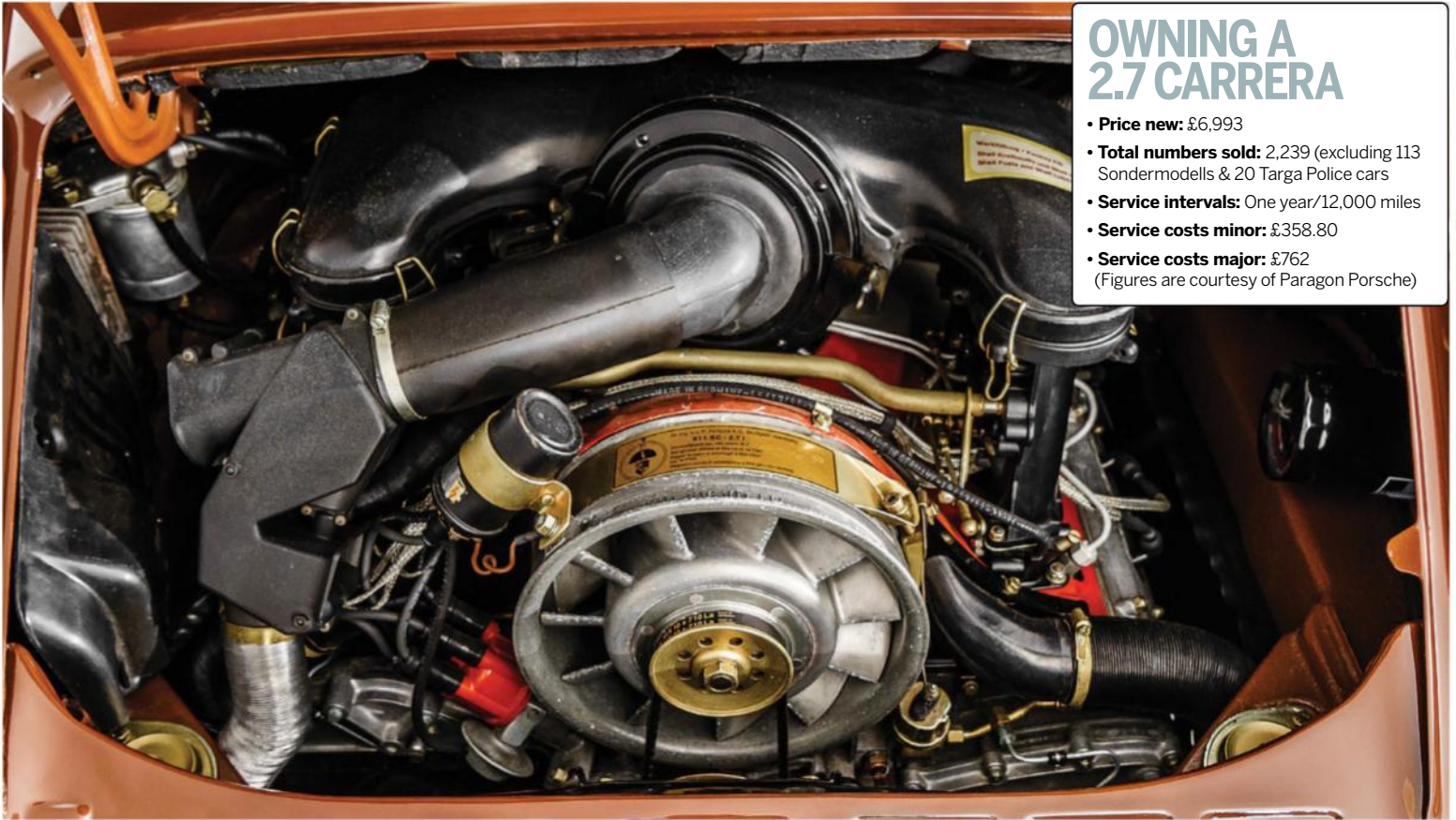
Ultimately, the 2.7 Carrera is an appealing proposition, and that RS-derived engine is a gem, but like any older 911 it takes careful buying. Originality is everything, especially with values continuing to climb, and the cost of a major restoration will be significant. So, it's vital to get it checked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



911 SC

Get it for
£25,000-£50,000

Performance

★★★★☆

Maintenance costs

★★☆☆☆

Rarity

★☆☆☆☆

Value

★★★★☆



THE SC LINE-UP

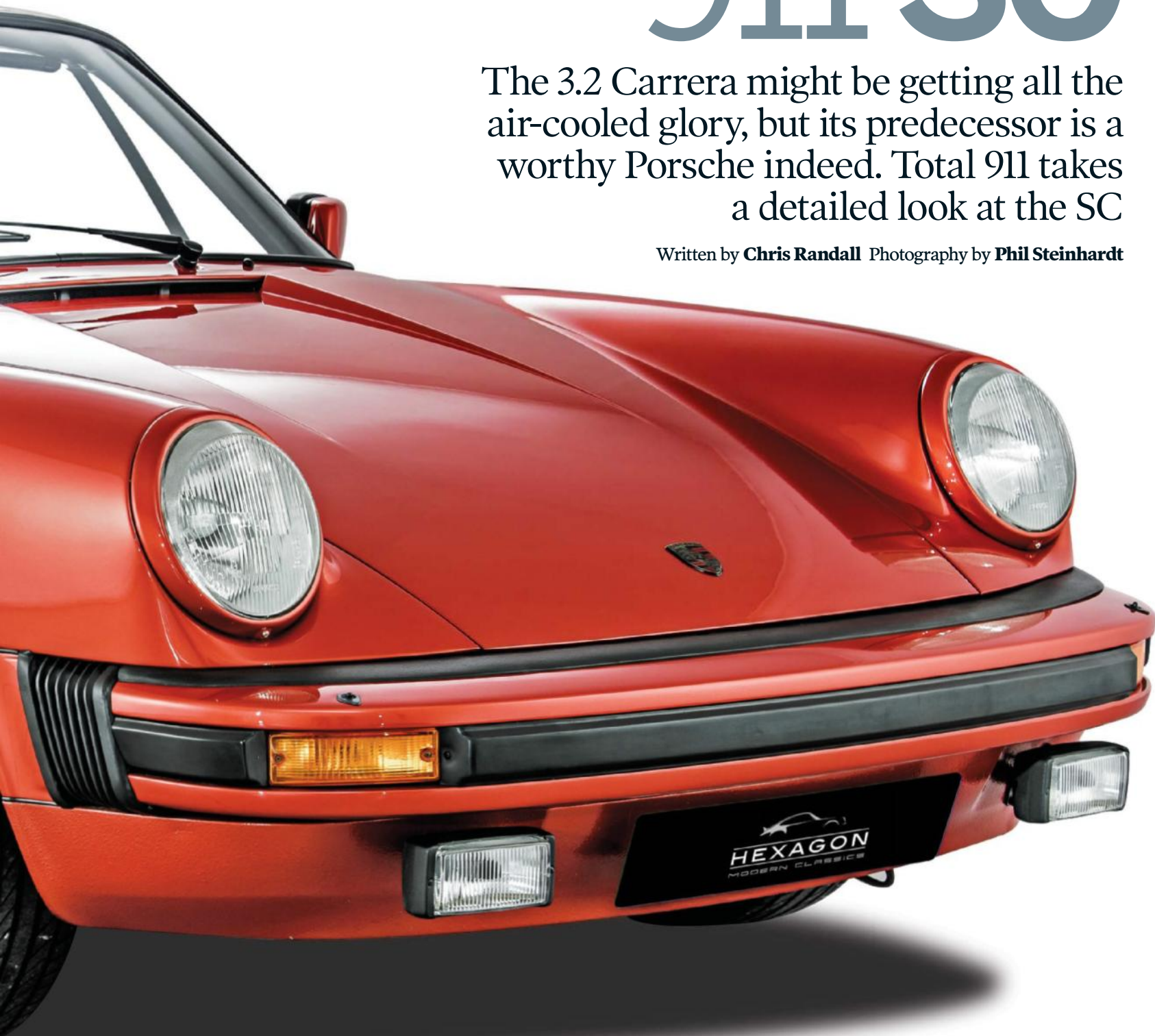
Back when the SC was new, the 911 range was nowhere near as expansive as it is today, but there were some interesting variants available all the same. For example, UK buyers could choose the Sport package, which was fitted with a front chin spoiler and whaletail as standard. The interior got sports seats and the running gear was upgraded with Bilstein gas dampers and 16-inch wheels wearing the latest Pirelli P7 tyres. More exciting though was the SC RS (right), a road-going Touring version of the car developed for Group B rallying. Just 20 were made with the road car gaining a 250-horsepower version of the 3.0-litre unit, courtesy of forged pistons, a 10.3:1 compression ratio and mechanical fuel injection. But if you wanted luxury, the SC Ferry Porsche edition would have fit the bill. Celebrating the company's 50th anniversary, the 200 examples featured Meteor grey metallic paintwork and a burgundy leather interior. Fuchs wheels were standard and as well as extra equipment, each car had Ferry's signature displayed on the headrests.



911 SC

The 3.2 Carrera might be getting all the air-cooled glory, but its predecessor is a worthy Porsche indeed. Total 911 takes a detailed look at the SC

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



You don't need to spend long browsing the internet or flicking through the classic car publications to find commentators extolling the virtues of air-cooled 911s, and more specifically the early cars and the iconic 3.2 Carrera. They're not wrong, of course – both are sought after today – but there's one model that tends to get forgotten, and that's the car you see here. Between 1978 and 1983 the SC was the only normally aspirated 911 you could buy, its only company in the range being the legendary 3.3 Turbo. Therefore, if you wanted something less ballistic and less hardcore than the Turbo for use on a daily basis then it had to be the SC – and that's not a bad thing at all.

Not everyone was thrilled with the new arrival, though, and the main bone of contention was the

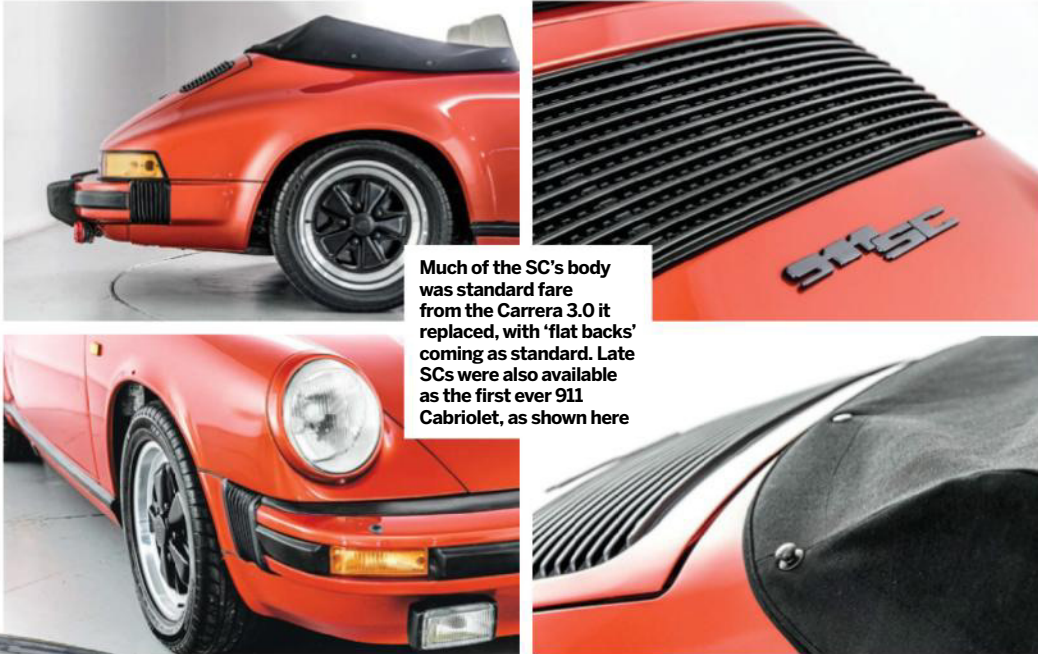
power output. The outgoing 3.0-litre model had managed a useful 200 horsepower or so, while the SC arrived on the market with a 180-horsepower version of the flat six, and frankly that wasn't the sort of progress most 911 buyers were looking for. However, it would benefit from power boosts in the following years, so for now let's concentrate on that original powerplant. The 930/03 unit that could trace its lineage back to the awesome 930 Turbo was constructed around a light alloy crankcase and Nikasil bored cylinders that were fashioned from aluminium rather than magnesium, and was fitted with a forged-steel crankshaft with eight main bearings. The 2,994cc capacity came courtesy of a 95-millimetre bore and 70.4-millimetre stroke and there was a single overhead camshaft per bank that operated two valves per cylinder. Also new for the SC was a duplex chain for the camshaft drive with

spring-loaded tensioners, although in an effort to improve reliability Porsche introduced a revised tensioner idler arm for 1980 – the hydraulic system adopted for the 3.2 Carrera would finally banish the problems for good. A dry sump system took care of lubrication and there was a tubular oil cooler while the company also took the opportunity to upgrade the ignition with a capacitive discharge system that did away with the contact breaker points. Fuelling was taken care of by Bosch K-Jetronic injection that Porsche commonly referred to as CIS, or Continuous Injection System. But while revised valve timing had released a little extra torque from the 3.0-litre unit – up by 10Nm to 265Nm for the new model – the company was coming under increasing pressure to improve the power output to more acceptable levels, and the first increase arrived for 1980. Minor tweaks, including ↻

“Equally familiar was the classic 911 outline, the compact all-steel body wearing gently flared rear wings”

Model	911 SC
Year	1978-1983
Engine	
Capacity	2,994cc
Compression ratio	8.5:1/8.6:1/9.8:1
Maximum power	180/188/204bhp @ 5,500/5,500/5,900rpm
Maximum torque	265/265/267Nm @ 4,200/4,200/4,300rpm
Transmission	Five-speed manual, rear-wheel drive
Suspension	
Front	Struts with torsion bar springs and anti-roll bar
Rear	Semi-trailing arms with telescopic dampers, torsion bar springs, and anti-roll bar
Wheels & tyres	
Front	6x15in; 185/70/15
Rear	7x15in; 215/60/15
Dimensions	
Length	4,291mm
Width	1,626mm
Weight	1,160kg
Performance	
0-62mph	6.5/6.5/5.8sec
Top speed	141/141/146mph





Much of the SC's body was standard fare from the Carrera 3.0 it replaced, with 'flat backs' coming as standard. Late SCs were also available as the first ever 911 Cabriolet, as shown here



IMPACT BUMPER TIMELINE

1974

3.0 RS aside, the 2.7 is the first 911 to be fitted with the controversial impact bumpers, adopted to meet strict US safety regulations.

1976

With the Carrera name to denote the range-topping model, the 3.0-litre gets an engine derived from the mighty 930 Turbo.

1978

The only option if you want a normally aspirated model, the SC doesn't stray far from the standard recipe, although it does introduce the convertible to the 911 range.

1984

The 3.2 Carrera had numerous small revisions in its five-year life, including trim options, bigger Fuchs wheels and even a new gearbox.

1989

Something of a game-changer, the 964 ushers the 911 into a new era. Construction is all-new, with buyers offered power steering, ABS brakes and four-wheel drive for the first time.





“Not everyone was thrilled with the new arrival, though, and the main bone of contention was the power output”

a compression ratio raised from 8.5:1 to 8.6:1 and revisions to the ignition timing, liberated an extra eight horsepower. A year later and Porsche was at it again: with the compression ratio now upped to a significantly higher 9.8:1 and with revised valve timing, the SC produced a much healthier 204 horsepower. At the same time the Bosch injection was revised so that the cold start injector that now sprayed directly into the air intake rather than into the airbox, solving the problem of damaging backfires. In this more powerful incarnation, performance had improved markedly with a top speed of 146 miles per hour and a 0-60-miles-per-

hour sprint time slashed from 6.5 seconds to a far brisker 5.8.

Whichever power output you ended up with, though, the SC sent drive to the rear wheels via the 915 five-speed manual transmission, which now benefited from a lighter and stronger aluminium casing and a longer fifth-gear ratio for more relaxed cruising. The stronger differential was donated by the Turbo and there was the option of a limited-slip unit with a 40 per cent locking ratio, while Porsche also took the opportunity to revise the clutch mechanism by fitting a clutch disc with a rubber damper at its centre. Intended to reduce vibration

and chatter from the transmission, it wasn't entirely successful, as it had a tendency to disintegrate with expensive consequences, so it was replaced with a traditional steel-sprung item later on. And while we're on the subject of transmissions, buyers could still tick option M09 for the Sportomatic gearbox, although this increasingly unloved unit was dropped in 1979.

The rest of the running gear was pretty familiar 911 fare for the most part. Suspension was by telescopic dampers and torsion bar springs at all four corners, with semi-trailing arms at the rear and light alloy employed for various components, along with anti-roll bars front and rear in 20 and 18-millimetre diameters respectively. The rack-and-pinion steering was operated by a chunky three-spoke steering wheel of 380-millimetre diameter that was new for the SC, while the dual-circuit brakes featured ventilated discs at each corner that now benefited from the addition of a vacuum servo



Air vents were a notable addition to the SC's dashboard, while the trusted 915 gearbox remained between the front two seats. A greater variety of trim options were also available, though the Sport seats offered the most firm hold

for reduced pedal weight. Like the 3.0 Carrera that preceded it, the SC also used 15-inch alloy rims, pressure-cast items were wider at the front than at the rear with ATS cookie-cutter wheels a common fitment, although the classic 16-inch Fuchs would also prove incredibly popular.

Equally familiar was the classic 911 outline, the compact all-steel body wearing gently flared rear wings to accommodate the wider wheels and adopting the same impact bumpers as before, which were made from lightweight aluminium and incorporated shock absorbers that were designed to protect the bodywork in impacts of up to five miles per hour. The shell also benefited from a hot-dip galvanising process to arrest corrosion, along with a layer of Polymer underseal. Further reflecting the general conservatism of the period, other changes for the new model were of the detail variety rather than anything radical. Quartz halogen headlamps were standard with



BUYING TIPS

A relatively affordable air-cooled 911 it may be, but like any older model the condition is crucial if you're to avoid eye-watering restoration bills. With the youngest car over three decades old, it pays to be very careful before you commit – and a thorough check will be needed to ensure the car isn't rusting away well below the surface.

- **History:** An unloved example will be a money pit, so investigate its service history thoroughly. Poorly restored cars will be more trouble than they're worth.
- **Bodywork:** Despite the galvanised shell, there are plenty of places where corrosion can strike. Key areas include the front wings, the sills and kidney bowls, the 'B' pillars, and beneath screen rubbers. Don't take for granted that a car from a 'dry state' won't rust, either!
- **Engine:** Anything without a service history should be viewed with suspicion. Broken head studs can be an issue, and ask whether the timing tensioners have been changed or upgraded.
- **Running gear:** Suspension and brakes are straightforward and just need checking for condition. A complete overhaul will be pricey though, and make sure you're happy with any upgrades.
- **Interior:** Its simplicity makes checking the condition easy, but make sure any options such as air-conditioning and electric windows and sun roof are still working. Old wiring can cause problems too.

the option of washers, while the chrome exterior trim could be swapped for black instead, a subtler look that may have sat better with the typically '70s colour palette Porsche offered at the time. Choices including Continental orange, Apple green and Bitter chocolate. There were minor alterations in 1980 when the prominent headlamp washers were swapped for flush fitting items and the body gained a seven-year anti-corrosion warranty, while 1981 would see side repeaters added to the front wings – a good way of spotting a 204-horsepower model – and the option of the whaletail rear wing. Of the 60,000 or so SCs built, the Coupe would prove by far the most popular, especially in later 204-horsepower form with Porsche shifting over 16,000 examples – but buyers could also choose the popular Targa body style. With a matte black roll hoop and tinted rear glass it would account for just over 21,000 sales and proved that wind-in-the-hair motoring was as popular as ever with 911 devotees. It also made the introduction of the Cabriolet variant all the more significant. Announced at the 1982 Geneva Motor Show, it would be the first drop-top Porsche to be launched for the best part of 30 years – the 356 being the first – and prove an instant hit and an option that continues to this day. Based on the Targa body shell and fitted with the 204-horsepower engine, it featured a light

alloy frame covered by a three-layer hood and a detachable plastic rear screen. Manually operated at first, the roof gained electric assistance later on. Just over 4,000 examples would be sold in total.

Things were just as familiar on the inside, with the evocative five-dial instrument pack, a slightly illogical scattering of switches, and the addition of a simple centre console that housed controls for the heater blower and temperature setting. The rear seating was trimmed in vinyl at first with cloth used later on, while most buyers would find themselves sitting on seats covered in typically period tartan cloth. The choice of the somewhat psychedelic Pascha trim would come later, as would a rather smart Berber tweed. There was a lengthy options list, and many cars would leave the production line equipped with niceties such as electric windows and sun roof, air-conditioning, cruise control, the aural wonders of a digital radio/cassette player, and front fog lights, which unfortunately appeared something of an afterthought.

There was the potential to make your 911 very much a luxury sports car, but we shouldn't lose sight of the fact that the SC was still a driver's car at heart. It retained all the traditional appeal of early models, and the air-cooled engine was an absolute gem. With 3.2 Carrera prices heading skyward, that makes one of these very desirable indeed. **911**

“The choice of the psychedelic Pascha trim would come later, as would a smart Berber tweed”

SPECIALIST VIEW

“The SC – if you can find a good one – is a real gem of a classic 911. It's still considered a very underrated car and therefore has superb investment potential. The SC also welcomed an important addition to the 911 line-up by offering a Cabriolet model, which was the first convertible Porsche sports car since the 356. Cabriolets like our example here were launched very late in the SC's life in 1982/83. It was very successful, selling over four thousand cars in the first year.”

Jonathan Franklin, Hexagon





OWNING A 911 SC

- **Price new:** £12,600 (Coupe, 1978)
- **Numbers built:** Circa 60,000
- **Service intervals:** 1 year/12,000 miles
- **Service costs minor:** £178.96
- **Service costs major:** £716.48
(Figures are courtesy of RPM Technik)



"I'VE GOT ONE"



"How would I describe my Porsche 911 SC? Light, agile and fizzy. Fast, as well. I love my SC; it's a simple, hidden gem of a 911. I love that it punches above its weight, I love that it's still (just) under the experts' radar, and I love its 915 gearbox. The revvy motor harks back to pre-impact bumper cars, yet the SC is tough enough for everyday use and enjoyment. It's the perfect classic 911."

Gina Purcell

3.2 CARRERA

3.2 Carrera

Get it for
£30,000-£80,000

Performance

★★★★☆

Maintenance costs

★★★★☆

Rarity

★★★★☆

Value

★★★★☆

Beware the rubber fixings on a 3.2 are susceptible to corroding today



“IT WAS VERY MUCH A CASE OF EVOLUTION NOT REVOLUTION, AN ACCUSATION OFTEN LEVELLED AT THE 911”

Iconic Fuchs wheels made it on to the 3.2, which enlarged to 16-inches in diameter on run out models

A bestseller for Zuffenhausen, Total 911 goes back in time and takes a closer look at the Carrera 3.2, the archetypal non-Turbo Porsche of the Eighties

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

Specification

3.2 Carrera (1984)

Engine

Capacity:

3,164cc air-cooled flat six

Compression ratio: 10.3:1

Maximum power:

231bhp @ 5,900rpm

Maximum torque:

284Nm @ 4,800rpm

Transmission:

Five-speed manual; rear wheel drive

Suspension

Front: MacPherson strut with torsion bars and antiroll bar

Rear: Semi-trailing arms with telescopic dampers; torsion bars; antiroll bar

Wheels & tyres

Front: 7x15-inch Fuchs alloys; 195/65/15 tyres

Rear: 8x15-inch Fuchs alloys 215/60/15 tyres

Dimensions

Length: 4,291mm

Width: 1,650mm

Weight: 1,210 kg

Performance

0-60mph: 5.6 secs

Top speed: 148 mph



Ask anyone with a passing interest in cars to imagine a Porsche 911, and there is every chance that the 3.2 Carrera is the car they would see. Introduced for the 1984 model year, the Carrera was a perfect way to remind the world that the 911 was here to stay – and in Guards red, with the Fuchs alloys and chunky rear wing, many consider it the archetypal Porsche of the Eighties.

Having become distracted by the introduction of the 928 and plans to axe the 911, the 3.0 SC, introduced in 1978, wasn't met with universal approval by Porsche aficionados. Many perceived the car as lacking in power, with output down by 20bhp over the previous 3.0 Carrera to 180bhp, but sales remained strong. Power was boosted to 204bhp for the final iteration, and with any ideas of canning the rear-engined legend forgotten it was time for Porsche to do what they did best and launch an improved version. The result was the 3.2.

With the Carrera name back in use for the first time since the mid-Seventies, outwardly the car

remained similar, the Stuttgart firm seeing no reason to tamper with a successful formula. The big-bumper look remained, there were 'telephone dial' alloy wheels as standard (the classic Fuchs design was optional, finally becoming standard in 1988) and the front end was improved by the addition of a new spoiler with integral fog lamps.

Overall then, it was very much a case of evolution not revolution, an accusation that has often been levelled at the 911 by certain sections of the motoring media. The fully galvanised shell was available in Coupe, Cabriolet and Targa forms right from the beginning, although buyers could also opt to have their Carrera clothed in the wider body from the Turbo model. If anything, the latter was slower than the standard car due to the additional weight and aerodynamic drag of the pumped-up metalwork, but the fact that it looked the part was enough for many buyers. Perhaps stranger still was the addition in 1989 of the 'Speedster', a model that had been unveiled at the Frankfurt Motor Show two years previously. In essence a standard

3.2 Cabriolet but with a lower and more steeply raked windscreen and a humped fibreglass cover hiding a thinner and lighter hood, it wasn't to all tastes – motoring magazines and die-hard 911 fans questioned the aesthetics as well as the purpose – and just over 2,000 were produced.

Also mirroring the previous SC was the interior, which benefited from little more than revisions to the trim and seat fabrics at launch. There were minor changes to the instrument layout and heater controls, the buckles for the seat belts were now seat rather than floor-mounted, and the options list grew a little longer. In fact, the 911 was becoming much more luxurious in its new iteration, and many models left the factory sporting full leather trim, air conditioning, an electric sunroof and a high-quality audio system. Where this did have an impact was on weight, the bigger engine (reckoned to add around 20kg) and extra kit ensuring the Carrera was perhaps a little porkier than Porsche had intended. They had plans to combat this though, which you can read more about in the boxout. ➔

CARRERA TIMELINE

1973

The Carrera badge appears for the first time on the 911, a moniker still being used today.

1978

Porsche launches the 3.0 SC, although the 180bhp output disappoints some 911 fans.

1984

The 3.0 makes way for the 3.2, its electronically managed flat six pushing out a healthy 231bhp.

1989

Production of the 3.2 comes to an end, but not before Porsche launch the chopped-down Speedster variant to a somewhat mixed response.

1997

The first model to carry the Carrera S badge goes on sale, sharing bodywork with the Turbo model.

2012

The 991-model Carrera S arrives, the 3.8-litre engine with direct injection showing how far things have come.

SPECIALIST VIEW

"The market for the 3.2 Carrera has always been solid, and in the last 18 months has strengthened considerably. The G50 gearbox models are the most sought after, and in many ways represent the final evolution of the 'pure' air-cooled 911 experience, with no PAS or ABS to consider. I personally prefer the older models with the 915 transmission, as it is more in character with the early air-cooled experience. Coupes are the most valued, although the Targa that used to be the undesirable entry level car is becoming more popular in its own right. Values start at £10,000 for something that is essentially all together but needs work, up to £25,000 for outstanding examples. There have been recent examples of ultra-low mileage cars selling at circa £40-£50,000, though."

Darren Anderson, RPM Technik



3.2's rear wing has become the hallmark of a conventional 911, with added detail underneath



3.2-litre engine was a return to form after the early SC units were found wanting

“
IF THE BODYWORK AND CABIN WERE FAMILIAR, THE CHANGES WROUGHT TO THE MECHANICALS WERE FAR MORE EXTENSIVE, THE AIR-COOLED ENGINE RECEIVING THE BULK OF THE ALTERATIONS
 ”

But if the bodywork and cabin were familiar, the changes wrought to the mechanicals were far more extensive, the air-cooled engine receiving the bulk of the alterations. Claimed by Porsche to be 80 per cent new, the most obvious change was the increase in capacity to 3,164cc. Forged pistons with a new design of crown contributed to a compression ratio that was now a higher 10.3:1, and there were tweaks to the induction and exhaust systems that mainly consisted of larger ports and pipework for better breathing. The result was a boost in power to 231bhp backed by a healthy 284Nm of torque.

More important still was the addition of Bosch LE-Jetronic injection that was controlled – like the ignition – by a new Bosch Motronic 2 engine management system (termed Digital Motor Electronics), the first time an ECU had been used in

a production 911. There were a number of benefits to the new setup, one being electronic control of the idle speed, which improved driveability when auxiliary items like air conditioning kicked in, but it also contributed to a claimed ten per cent improvement in fuel consumption compared to the SC, mainly as a result of the fuel supply being cut on the overrun – not high on the agenda of most 911 owners, but a welcome improvement all the same.

Porsche weren't finished there though, as they also took the opportunity to rid the 911 of a well-known weak point. Out went the troublesome mechanical tensioners for the cam chain that had been responsible for many an engine rebuild, and in their place was a new system of hydraulic tensioners fed by the engine's main oil system. A new design of finned oil cooler was also fitted. ↻

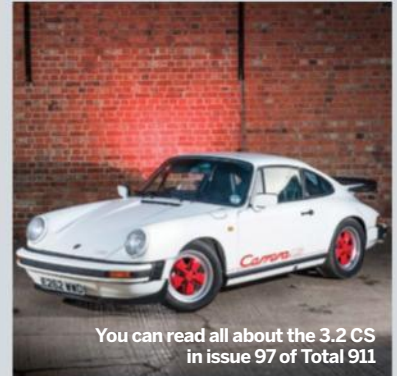


Although the outside of the 3.2 Carrera didn't appear too different to the SC, many changes took place inside. As well as a quality sound system, many examples left the factory with air conditioning and an electric sunroof in Coupes. Four-spoke steering wheel was in place by 1985.



HOW WEIGHT WAS SAVED

If rising weight had become a concern, then Porsche had an answer in the form of the lightweight Clubsport version launched in 1987, which brought a more minimalist approach to the 911. Luxuries such as electric windows and seats were junked, while the front fog lights and rear seats disappeared along with the underseal and sound-deadening. The engine received attention too, including hollow intake valves and a red line that was raised to 6,840rpm. Porsche claimed a modest drop in the 0-60 time and a weight saving of around 50kg. 189 were made, and in the days before less actually cost more the Clubsport was cheaper than the standard Carrera.



You can read all about the 3.2 CS in issue 97 of Total 911



A variety of trim options were available in the 3.2, and later variants possessed electrically adjustable seats with seat mounted instead of floor mounted belt buckles



One thing that hadn't changed at launch was the gearbox, still the 915 unit used in the SC, although minor changes to the top two ratios benefited refinement and economy. Too much has already been written about the merits or otherwise of this 'box to labour the point here, but suffice to say the introduction of the Getrag G50 unit in 1987 was welcomed by many. Hydraulic operation for the clutch accompanied the change. Incidentally, if you're viewing a potential purchase and want to know at a glance which gearbox is fitted, check out the shift pattern on the gear lever – if reverse is to the left and forwards then you've got a G50-equipped car, and if it's to the right and backwards it's a 915.

The rest of the running gear wasn't too different from the SC. The feelsome rack and pinion steering still controlled the gently bobbing nose, while springing was by torsion bars with antiroll bars at both ends. The springs and roll bars would be enlarged in a later round of revisions with a switch to Boge dampers, the changes bringing subtle improvements to the ride and handling as well as helping the Carrera cope with the increased weight of the equipment. It still wasn't a car you could take liberties with, but the handling was being tamed.

With the Carrera firmly ensconced in Porsche's line-up and talk of cancellation a distant memory, the remaining years of production were filled with updates and revisions. Engine output varied slightly as Porsche tuned the engine electronics to improve flexibility and efficiency, the models fitted with a catalytic converter from 1986 put out 217bhp. The interior was radically altered too, with a four-spoke steering wheel fitted in 1985 along with central locking, heated screen washers and electric front seats. The radio aerial was also incorporated into the windscreen – look for the line around the edge and down the centre of the screen.

The following years saw changes to the ventilation system that included larger air vents on the dash, while seats were lowered by 20mm and Cabriolet owners could operate the hood at the push of a button. There were also changes to the rear of the bodywork, with the reversing lights and fog lamps integrated into a full-width reflector panel, while 1986 saw the anti-corrosion warranty extended to ten years. And in a last-gasp round of revisions for 1989, buyers got 16-inch Fuchs wheels as standard and the option of a CD player.

One variant that is worth mentioning is the Anniversary model introduced in 1988. All 875 examples were painted Diamond blue metallic, and inside you'd find blue leather seats with a Ferdinand

BUYING TIPS

The popularity of this generation of 911 and the rise in values sometimes tempts people to go in search of a bargain, but such cars can prove to be risky propositions. Restoration costs can be huge, so bringing a tired example up to scratch isn't for the faint-hearted. It's better to instead find a car that comes with a fat wad of maintenance bills

- **Corrosion:** Galvanised they may have been, but even tidy-looking cars can hide serious rot. The wings, B-pillars and 'kidney bowls' at the rear of the sills are common areas.
- **Engines:** A smoky exhaust or signs of serious oil leaks should ring alarm bells. Rebuilding a tired engine will cost a lot, so beware.
- **Gearbox** A tired '915' gearbox is another expensive problem – odd noises or a particularly recalcitrant gearchange should be treated with caution.
- **Heating:** Corroded heat exchangers are a common issue, and renewing a complete system including exhaust will leave little change from £2,000.
- **Electrics:** Electrical silliness can be caused by poorly fitted aftermarket security systems, so ensure everything works. Watch out for engine management issues too.

“
**WITH TALK OF
 CANCELLATION
 A MEMORY, THE
 REMAINING YEARS OF
 PRODUCTION WERE
 FILLED WITH UPDATES
 AND REVISIONS**
 ”



OWNING A 3.2 CARRERA

- **Price:** £23,366 (1984)
- **Total numbers sold:** 73,972 (excluding Speedster, CS etc)
- **Service intervals:** 1 year/12,000 miles
- **Service costs minor:** £300
- **Service costs major:** £700 (figures courtesy of Dick Lovett Porsche, Swindon)

Bosch L.E.-Jetronic injection as well as revisions to the 3.2's breathing ensured a healthy output of 231bhp

Porsche script embossed on the headrests – and yes, blue carpets. The model was available in all body styles, and 16-inch wheels were standard.

The 964 generation was waiting in the wings though, and by the time production ended the Carrera 3.2 was the best-selling 911 ever with over 73,000 examples leaving the production line. The majority of those were Coupes, although such was their popularity that almost 20,000 each of the Cabriolet and Targa models also found homes. Was it the pinnacle of air-cooled 911s? Many thought so, but what isn't in any doubt is that if bought with care, it makes for one heck of a sports car. **911**

"I'VE GOT ONE"

"Air-cooled 911s have great build quality and engineering, and are unique to drive. I bought my Carrera privately in South Yorkshire in 2008. The condition and history were spot-on, and I have continued to improve it cosmetically while enjoying it on weekends and holidays. My dream is to take it round the old Targa Florio route some day."



Jonathan Braim



964 Carrera

Get it for
£40,000-£60,000

Performance



Maintenance costs



Rarity



Value



964 CARRERA 4

Somewhat unusually, for the 964 it was the all-wheel drive Carrera 4 that arrived on the market first. Launched for the 1989 model year, it featured 'Porsche Dynamische Allrad Steuerung' (Porsche Dynamic All-Wheel-Drive Control, or PDAS for short) with a torque split a nominal 31 per cent/69 per cent front-to-rear via an electronically controlled multi-plate clutch. It apportioned drive to whichever axle had the most grip depending on information received from a variety of sensors. Meanwhile, a knob on the centre console could be used to lock the centre and rear differentials for maximum grip, with the system defaulting to automatic operation above 25mph. Unlike the C2, which retained a vacuum servo, the brakes utilised a high-pressure hydraulic booster operating at 2,600psi. If you prefer the added security of four-wheel drive, it's crucial to ensure the system is healthy and has been maintained with regular oil changes.



964 CARRERA 2

The 964 was a significant evolution in the Neunelfer story, and buyers are fast waking up to its charms. Here, then, is Total 911's guide to buying the best example

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



The 964 last graced our Ultimate Guide pages in Issue 130 when we got beneath the skin of the awesome 3.6 Turbo. This time it's the naturally aspirated Carrera 2 that's the focus of our attentions. Rather more accessible than the blown car, prices are nonetheless rising as buyers come to appreciate its abilities, but is care needed when buying one? Let's find out.

On the outside, the bodywork needs the same careful scrutiny you'd afford any 911. The occasional track day and making full use of the performance on the road can result in accident damage, so examine the alignment of the panels, especially around the doors and rear quarter panels, and examine the inside of the front luggage compartment for ripples in the floor

or inner wings. The original finish wasn't that good, so particularly tidy seams could indicate previous repairs. Stone chipping around the nose isn't uncommon and look for cracks in the polyurethane bumpers and front lights, but if the paintwork is scruffy what else has been neglected?

The good news is that the shell was fully galvanised, which limits the advance of tin-worm, but it's worth checking beneath the screen rubbers and around the scuttle for tell-tale bubbling where the wipers are fitted. Blocked sunroof drain holes can cause problems too, so look for any corrosion around the opening or evidence that water has entered the cabin. This was the first 911 to get plastic wheel-arch liners, which afford extra protection, although an accumulation of road muck can rot the bumper mounts. Rust around the inner rear wing and above the light

units could be a result of poor accident repairs, and replacing cracked light units is around £800 a pair. Another first was the electric rear spoiler, which rose at 50mph and disappeared again at 6mph and could be manually operated via a cabin switch. This switch can stick, so look for correct deployment as a sticking switch can result in engine overheating. Replacement micro-switches are inexpensive, and an exchange control unit is around £160. The curtain will split over time but can be sourced for £70 or so.

As for the 250bhp, 3.6-litre flat six, the M64/01 unit is inherently strong. The bottom end is good for 200,000 miles with conscientious servicing but a degree of oil leakage is to be expected. Early examples suffered from seepage between the cylinder head and barrel, mainly due to heat distortion, but a sealing ring and steel head

“As for the 250bhp, 3.6-litre flat six, the M64/01 unit is inherently strong but a degree of oil leakage is to be expected”

Model 964 Carrera 2

Year 1990-1993

Engine

Capacity 3,600cc

Compression ratio 11.3:1

Maximum power 250bhp @ 6,100rpm

Maximum torque 310Nm @ 4,800rpm

Transmission Five-speed manual or Four-speed Tiptronic, rear-wheel drive

Suspension

Front MacPherson struts with coil springs and anti-roll bar

Rear Semi-trailing arms with telescopic dampers, coil springs, and anti-roll bar

Wheels & tyres

Front 6x16-inch, 205/55/ZR16

Rear 8x16-inch, 225/50/ZR16

Dimensions

Length 4,250mm

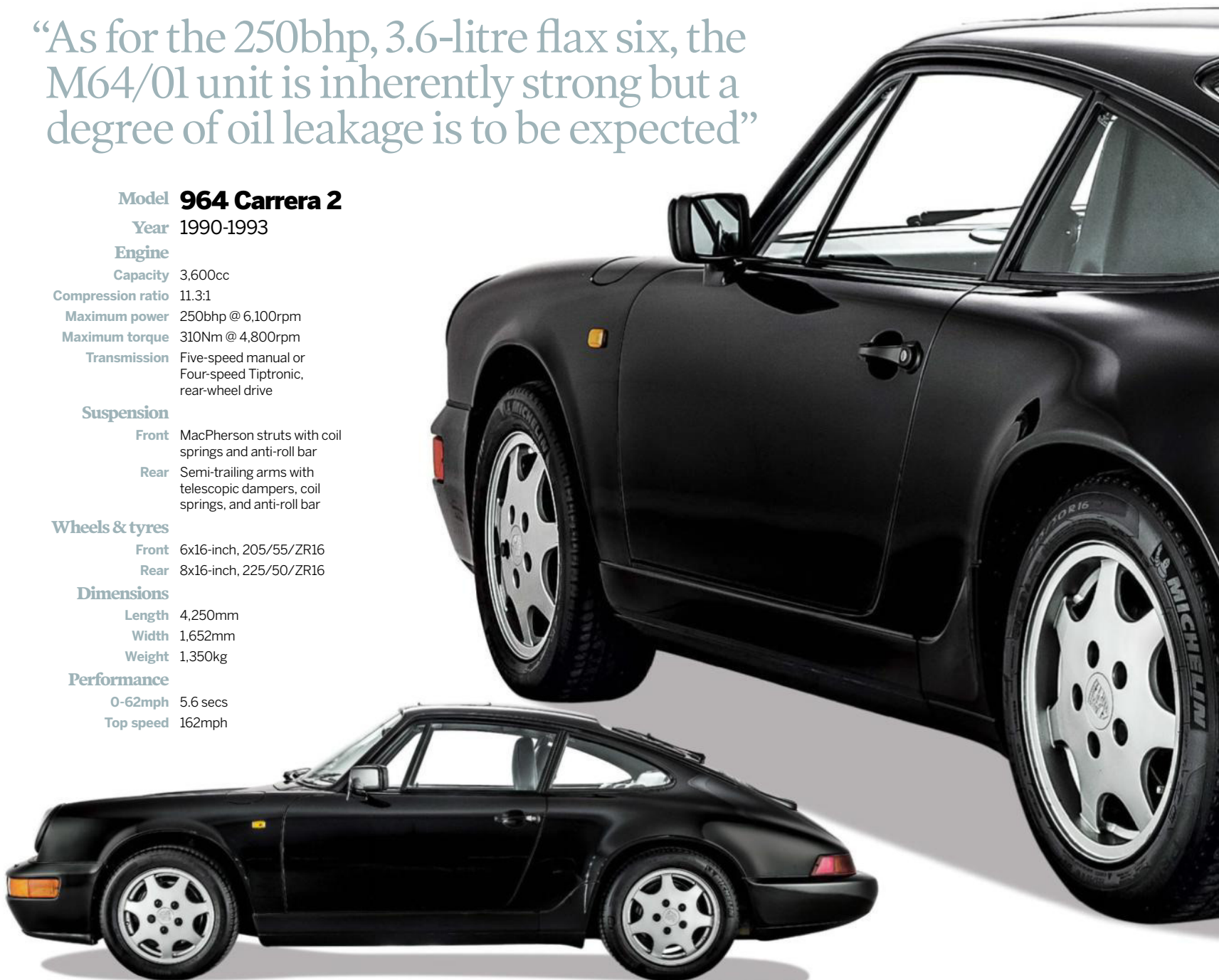
Width 1,652mm

Weight 1,350kg

Performance

0-62mph 5.6 secs

Top speed 162mph





The 964 was the first 911 to get an active rear wing rising at speeds above 50mph; Design 90s were a new wheel style; on later cars, curved 'teardrop' exterior mirrors replaced 'elephant ear' items



PRICES OF PARTS

- Front brake caliper £631.47
- Dual mass flywheel £1,280
- Air-con evaporator £692.77
- Dry-sump oil tank £1,150.72
- Front wishbone £497.24
- ABS control unit (exch) £2,288.65
- Tiptronic control unit £1,272.44

Prices are inclusive of VAT and come courtesy of Paragon Porsche.

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 £60,000 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 £27,000
- Regular use £38,000-£45,000
- Concours £60,000+

HEXAGON
MODERN CLASSICS



“The five-speed manual is considered to be pretty much bulletproof”

studs fitted for the 1991 model year effectively cured the problem. Still, don't expect the motor to be completely oil-tight but leaks should only be minor and can be lived with. Oil pressure should be at least 2.0 bar at idle.

One area that will require careful checking, though, is around the oil tank for the dry-sump lubrication system. Located in the offside rear wing, not only can the rubber mounts perish, but also any signs of seepage will need thorough investigation as the tank and pipework can corrode. The tank itself is over £1,000 and budget around the same again to have the entire system removed and overhauled. You'll also need to establish the condition of the front-mounted oil cooler ahead of the offside wheel, and the pipes that run through the right-hand sill. It's often said

that the engine will require a top-end rebuild at around 100,000 miles and while this is not necessarily the case, a specialist check is certainly worthwhile given the hefty four-figure sum that it can result in. And, while a little blue smoke on start-up is okay, anything excessive could point to worn valve guides, so get a cylinder leakage test carried out for peace of mind. This engine was one of the last to feature mechanical tappets and adjustment is time-consuming, as parts of the exhaust need to be removed for access – it may have been ignored by a penny-pinching owner, so bear in mind that dealing with corroded exhaust fittings and flanges will add to labour costs. A heat exchanger is around £2,000 and two are fitted.

The 964 also benefitted from a twin distributor arrangement, the two units linked by a rubber belt.

This belt can perish due to an ozone build-up within the distributor body, and Porsche added a small plastic vent pipe later on to minimise the problem. Check to see if this has been retrofitted. At the very least, failure of the belt will cause poor running and sluggish performance but the worst-case scenario is that the rotor arm stops in a position where it continually fires a spark plug, which will destroy a piston with predictably calamitous consequences.

Transmission-wise, the five-speed manual unit is considered to be pretty much bulletproof and is certainly the enthusiast's choice. Hard use will take its toll, though, so listen out for any odd noises – especially in second or third gear. There's also the dual-mass flywheel, and while it should have been sorted by now – either by replacing the troublesome Freudenburg item fitted early on with the later LUK one (fitted from 1993), or by fitting a solid flywheel – it's worth checking for unusual rattles or vibrations at idle or as the clutch is operated. Clutch replacement is an expensive



A Tiptronic gearbox was optional on the 964, the first auto 'box since the Sportomatic was discontinued nearly a decade previously. New four-spoke steering wheel was also a new design, though a smaller diameter, three-spoke Clubsport option was available

engine-out job, so be wary of juddering. The 964 was also the first recipient of the four-speed Tiptronic automatic gearbox, and although it's not especially troublesome, it doesn't provide the involvement that many 911 owners crave. Regular oil and filter changes will keep things healthy, but if you must have just the two pedals, make sure there's no slippage or jerky shifts. Failure of the control unit will mean a £1,200 bill for a new part.

As part of the far-reaching changes for the 964, the torsion bar suspension was replaced with a set-up comprising MacPherson struts and coil springs with lower wishbones at the front and semi-trailing arms aft, both in light alloy. A reliable arrangement, it's worth ensuring that quality parts have been used during any overhaul as well as checking for any modifications. The front ride height was deemed oddly high at launch, with many owners opting for a lower set-up, but uneven tyre wear is a sign that something is awry with bushes or wheel alignment. Front wishbone bushes perish, and a common fix is



BUYING TIPS

Modest values at one time ensured a steady supply of buyers wanting to own a slice of the 911 legend, but without necessarily spending on maintenance. That presents a risk today, along with the chance of over-priced substandard examples. It's tempting to view the 964 as a modern car that will soldier on without much care, but that would ultimately be a mistake.

- **History:** You'll want to be certain that previous owners haven't skimped on servicing, so expect a fat sheaf of bills. Accident repairs are also a risk, so check to ensure nothing nasty lurks in the car's history.
- **Bodywork:** Corrosion isn't a major concern, but don't ignore the possibility as it can nibble at the edges. More pressing is the need to avoid scruffy or badly re-painted examples, or ones that need exterior parts replacing or renovating.
- **Engines:** Tough if looked after, get compression and cylinder leakage tests done for peace of mind. You'll probably have to live with a few oil leaks, but ensure that the ignition and injection system are in good fettle. Also watch for corrosion in the dry-sump system.
- **Transmission:** Little to worry about with the manual, but check the paperwork for evidence of clutch or flywheel replacement as both are pricey. Tiptronic autos last well, but try before you buy as they don't suit everyone.
- **Brakes/suspension:** A major overhaul of either won't be cheap, so budget accordingly if it looks due. Corroded brake calipers and ABS woes are the main issues, along with perished front wishbone bushes and iffy wheel alignment.
- **Interior:** There's no need to put up with a scruffy cabin, so find another that's been better cared for. Sorting a failed heating and ventilation system will get expensive, so be sure it operates properly.

replacing the entire arm at around £500 for the part, while rear anti-roll bar links are another wear point, which can lead to rattles and odd handling. The brakes were more than up to the job but, given the four-figure cost of a complete overhaul, it's wise to examine the discs and pads for wear or neglect.

ABS was another 911 first, so ensure the warning light illuminates and extinguishes correctly on start-up. Moisture can affect the control unit located in the front compartment – a replacement is more than £2,000 on an exchange basis, although companies such as BBA Reman can repair them. There's also a common problem with the aluminium calipers which have a steel insert and the ensuing corrosion can cause the pads to stick, resulting in binding or pulling to one side under braking, and it makes changing the pads difficult. Stripping them down and removing the oxidation is time-consuming and costly, but the alternative is replacing the caliper at £630.

Also new was the appearance of hydraulically-assisted steering, and it's a case of checking the pump for leaks, along with corroded pipework. The C2 wore 16-inch Design 90 wheels, with 17-inch Cup 1 items appearing in 1992 – scuffs and corrosion points to careless ownership. Oily stuff out of the way, attention should turn to the cabin. It's reasonable to expect some signs of wear, especially on seat bolsters, but anything

too scruffy signals neglect and is best avoided. One area for particular scrutiny is the heating and ventilation system, which was thoroughly upgraded for the new model. It can prove troublesome and costly, though, with control motors seizing and failure of the electronic control unit. Check that every setting works correctly and don't assume a re-gas will revive the air-conditioning, whatever the vendor might say. The condenser and evaporator are both prone to failure and replacements are eye-wateringly expensive. Electrics aren't a particular issue, but it is common sense to ensure that powered seats, sunroofs and the like all operate properly, as 1990 saw the introduction of Cabriolet and Targa variants.

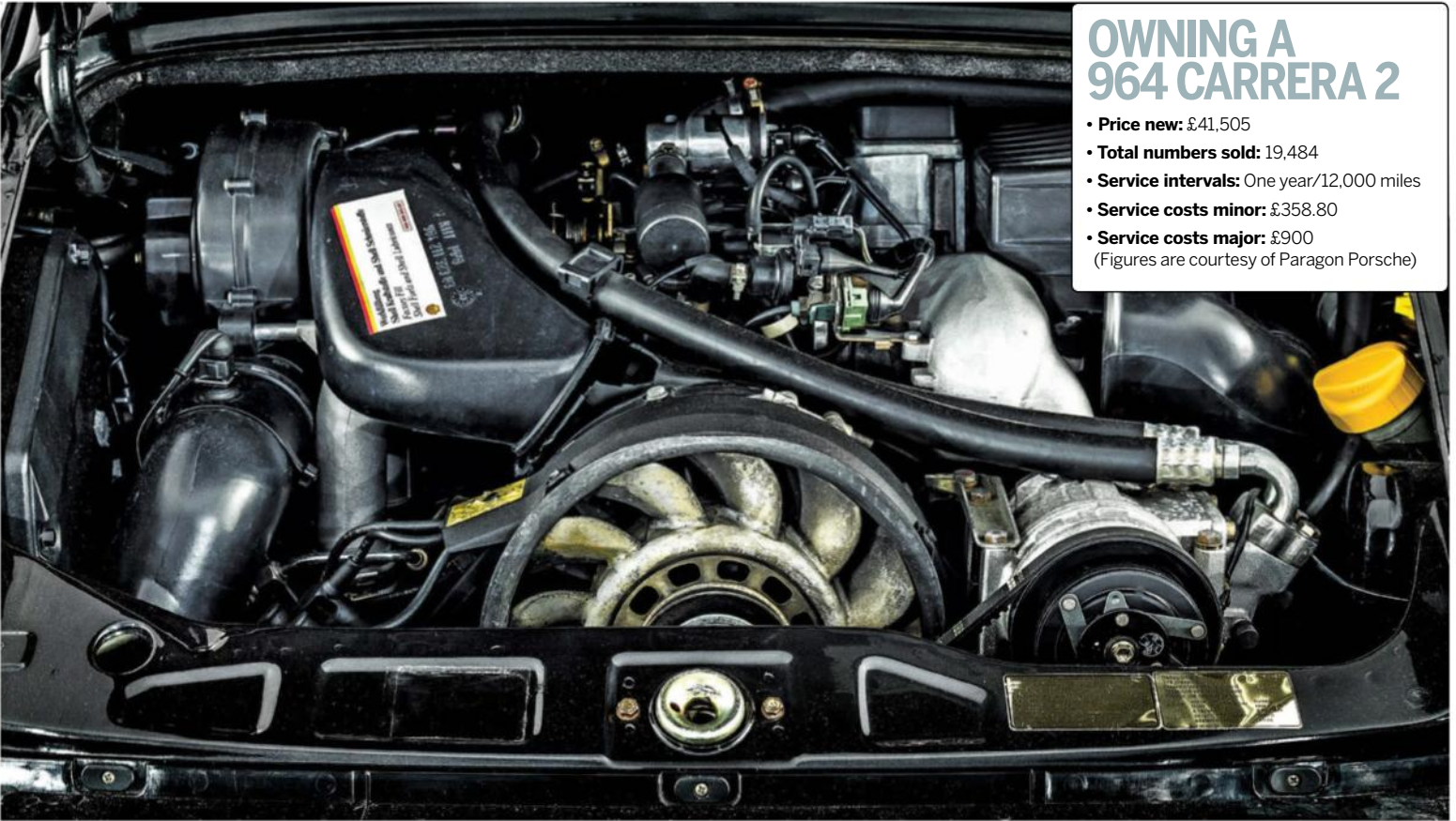
If open-air motoring tempts you, pay close attention to the condition of the roof panel and the associated seals. Ensure the mechanism for the former operates smoothly and be sure that water leaks haven't led to damp carpets or mouldy trim. If all that seems like a litany of woes, don't be put off, as the 964 is well understood by specialists. Clearly, with the earliest examples a more than a quarter of a century old, caution is needed, but this model brought the 911 into the modern age and buyers are beginning to appreciate this. Opinion continues to be divided over exactly where values may head, but given they will only be upwards, now seems a good time to grab a slice of this game-changing generation. **911**



SPECIALIST VIEW

“The 964's turnaround in fortunes in the last five years has been nothing short of spectacular: once the unloved 911, this generation is now many people's favourite as it provides more of a modern driving experience over a G-series car while retaining classic looks. Any 964 with a good service history is extremely sought after and if it's been restored, make sure it's had good money spent on a proper restoration. Find the right car and it's likely you'll want to hold on to it for a very long time indeed.”

Jonathan Franklin, Hexagon



**OWNING A
964 CARRERA 2**

- **Price new:** £41,505
- **Total numbers sold:** 19,484
- **Service intervals:** One year/12,000 miles
- **Service costs minor:** £358.80
- **Service costs major:** £900

(Figures are courtesy of Paragon Porsche)



993 GT2

Get it for
£750,000-1.25million

Performance

★★★★★

Maintenance costs

★★★★★

Rarity

★★★★★

Value

★★★★☆



WATER-COOLING AND THE GT2

With such a rapturous reception for the 993 variant, it was hardly a surprise that Porsche would look to repeat the success with the water-cooled 996. The GT2 model duly arrived in 2001, once again, based on the Turbo model and boasting a hefty six-figure price tag. The wider body shell was to receive the attention of the aerodynamicists, gaining a composite front splitter and adjustable rear wing as part of a package of measures aimed at keeping the car in proper contact with the ground. It was for the best, as the top speed was now just a whisker short of the magic double-ton, propelled there by a further development of the 996 Turbo engine. Larger KKK24 blowers and 13.5psi of boost helped stretch the power to 462bhp, and once again, a six-speed manual gearbox and rear-wheel drive were standard. It was also the first Porsche to get PCCB composite brakes as standard and buyers could again choose from 'Comfort' or 'Clubsport' specifications.

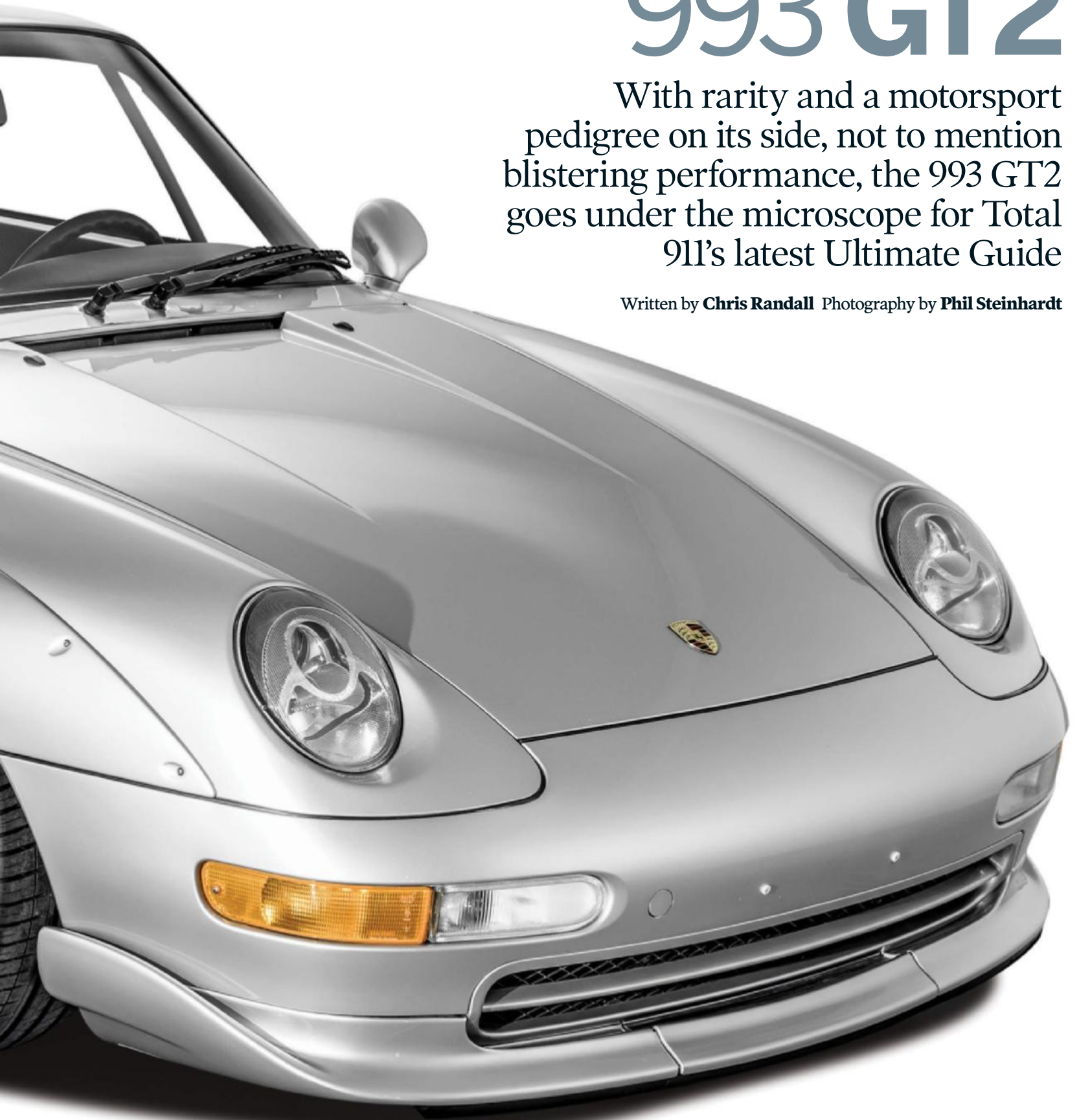




993 GT2

With rarity and a motorsport pedigree on its side, not to mention blistering performance, the 993 GT2 goes under the microscope for Total 911's latest Ultimate Guide

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



Porsche's motorsport history is truly legendary. Let's face it, they've now won the Le Mans 24 Hour race a record 17 times and on this occasion they had our very own Nick Tandy at the wheel, so there's plenty to celebrate at Zuffenhausen and Weissach these days. Part of the reason that they've been able to dominate in so many motorsport disciplines is the ability to adapt – to meet changing regulations and the needs of those that sat right at the top of their respective sports. In the 1990s, that would lead to the development of the 993 GT2. Designed to compete in the new GT2 class, it would go on to be a huge success on track and form the basis of a very special homologated road car.

Soon granted the dubious 'widowmaker' tag, the GT2 appeared at the 1995 Geneva Motor

Show being nothing more than a thinly disguised racer – and nowhere was this more apparent than on the outside. The 993 Turbo formed the basis of the new car, which adopted the same hot-dip galvanised steel body but with added stiffening, including a front strut brace. However, from there the appearance took on a far more brutal slant compared to the smooth lines of the original Tony Hatter design.

At the front was a deeply sculpted bumper made from polyurethane, which fed air to the twin oil coolers mounted in the nose and featured a prominent air dam, complete with wing-like extensions at the outer edges to aid airflow around the front wheels. Purposeful sill extensions added to the hunkered down look, and while the rear bumper was a smooth and fairly simple affair, the spoiler that sat above it was

anything but. The biplane wing sat atop a plastic engine cover and not only was it adjustable, but it was also the biggest yet to be seen on a 911. It also featured a pair of distinctive air intakes, one on each side, that helped feed air to the glorious flat six – we'll come to those details in a moment.

In a move that would contribute to the shedding of nearly 200 kilograms from the weight of a Turbo model – the GT2 tipping the scales at a relatively litesome 1,290 kilograms – the doors and front luggage cover were fashioned from aluminium and there was thinner glass for the side and rear windows. Of course, then there were those wheel arches. With metal pared from the edges of the wings in preparation, Porsche bolted plastic extensions to the arches. Measuring an extra 32 millimetres at the front and 30 millimetres aft, their ease of replacement ➤

“Designed to compete in the new GT2 class, it would go on to be a huge success on track”

- Model** 993 GT2
- Year** 1995-1996
- Engine**
- Capacity** 3,600cc
- Compression ratio** 8.0:1
- Maximum power** 430bhp @ 5750rpm
- Maximum torque** 540Nm @ 4500rpm
- Transmission** Six-speed manual, rear-wheel drive
- Suspension**
- Front** MacPherson struts with coil springs and anti-roll bar
- Rear** Multi-link with telescopic dampers, coil springs, and anti-roll bar
- Wheels & tyres**
- Front** 9x18-inch; 235/40/ZR18
- Rear** 11x18-inch; 285/35/ZR18
- Dimensions**
- Length** 4,245mm
- Width** 1,855mm
- Weight** 1,290 kg
- Performance**
- 0-62mph** 3.9 secs
- Top speed** 189mph





Styling of the 993 GT2 – badged 911 GT – left little illusion as to its homologated racing heritage, with ram-air intakes, plastic bolt-on arches and tweaked bodywork to better manage airflow at speed

TIMELINE OF THE PORSCHE 911 GT2

1995

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

2001

996 GT2 becomes the most powerful 911 to date. Rear-wheel drive only and with no traction control, it's as focused as they come.

2004

A revised model goes on sale, now boasting a massive 483bhp via tweaks to ECU and turbos. Thankfully, carbon ceramic brakes are standard.

2007

The 997 GT2 arrives with 530bhp and 680Nm of torque. Essentially a Turbo with rear-wheel drive and the wick turned up to 11.

2010

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

2013

Spy pictures emerge of the 991 GT2 testing at Nurburgring. Porsche then announce there are no plans for another GT2.





“There was no doubting the ferocious performance on offer with the GT2”

suit the motorsport ethos perfectly, not to mention cementing the GT2s racetrack refugee image. With its look completed by the classic red reflector panel between the rear lights containing fog and reversing lamps, this was a 993 like no other. Lastly, as an interesting aside, the badges were somewhat unusual, as the car wore a ‘911 GT’ badge on the engine cover and ‘GT’ was embossed into the ends of the rear spoiler.

Needless to say, the mechanical recipe was just as enticing. Once again it was the Turbo model that donated its engine – a 3.6-litre unit featuring twin KKK blowers boosting at 0.9 bar, and twin intercoolers that were fixed directly above the motor. Along with dry sump lubrication, the

cylinder heads were forged rather than cast and there were stronger connected rods, while the re-profiled camshafts were driven by double-row chains and operated two valves per cylinder. With fuel and ignition taken care of by a modified version of Bosch’s DME Motronic 5.2 system that featured full OBDII diagnostics, tweaks to the exhaust and an 8.0:1 compression ratio, the results were nothing short of sensational. Maximum output was 430bhp at 5,750rpm, backed by 540Nm of torque at an accessible 4,500rpm, with the specific output at an impressive 119.4bhp per litre. All of which translated into a maximum speed of 189mph and a sub-four second 0-62mph time – the sort of numbers that wouldn’t be matched

until the 997 Turbo appeared a decade later. As for fuel consumption, it was probably better not to ask. Making proper use of the performance would see the 92-litre fuel tank empty remarkably quickly, as the figures tumbled into the early to mid-teens. It’s unlikely that potential buyers cared one jot, of course. Somewhat unbelievably, given the sledgehammer performance that was on offer, Porsche had chosen to ditch the four-wheel drive hardware that featured on the 993 Turbo, so drive was transmitted to the rear wheels only, via a dual mass flywheel and the G64/51 six-speed manual transmission. Overall gearing was slightly higher and the GT2 benefitted, thankfully, from a limited slip differential with a locking ratio of 25 per cent under load and 40 per cent on the overrun.

So it certainly looked the part, and there was no doubting the ferocious performance on offer, but Porsche weren’t finished yet as the chassis was to come in for some detailed changes. Power



Comfort-specification GT2s such as this example had carpets and leather-trimmed seats rather than buckets and a Matter rollcage as found in the Clubsport. Air conditioning, airbags and audio were all options

assisted steering was standard, although more direct than that fitted to the Turbo, and the brakes comprised of ventilated and cross-drilled discs at all four corners – 322 millimetres in diameter, 32 millimetres wide at the front and 28 millimetres wide at the rear. The ‘Big Red’ calipers were made from aluminium alloy and used four pistons to clamp the upgraded pads, then everything was backed by Bosch ABS. As for the suspension, the front featured the ubiquitous MacPherson struts with dual-tube dampers, while the lower wishbones were in light alloy. At the rear was the ‘Lightweight, Stable, Agile’ arrangement, again in lightweight alloy and with dual-tube dampers, and there were beefier anti-roll bars at both ends. The ride height was 20 millimetres lower than normal and there was considerable more use of solid bushings and added adjustability.

The final piece of the aesthetic puzzle was provided by three-piece Speedline wheels ➔



BUYING TIPS

Given the rarity and spiralling values, you could almost consider this section to be somewhat immaterial. Buying from a specialist source and exercising due diligence on condition and history are going to be the crucial factors.

- **Provenance:** With so few around, it will be easy to establish the car's past. Let's face it, no one should part with such serious sums of money without being certain of the history.
- **Bodywork:** Chances are the car has sat rarely used in a collection, so any damage should be viewed with suspicion. Replacing or repairing the lightweight parts is going to be costly, while it appears that items like the rear wing are no longer available new. It would have cost £5,000 with VAT.
- **Engine:** It should be faultless, but examine the history for any signs of major work. Needless to say, a rebuild is going to be a pricey business so a potential purchase will need a thorough inspection, including a computer diagnostic check for any signs of abuse.
- **Running gear:** Neither the brakes nor the suspension should exhibit any inherent weaknesses, but a complete overhaul isn't cheap. A full set of brakes will cost in the region of £1,300 in parts alone, while the Speedline wheels are near to a thousand pounds each.
- **Interior:** Build and material quality should be top-notch and, like the rest of the car, it should look like it hasn't been used at all.

that used aluminium for the rim and even lighter magnesium for the centres. Measuring a total of 18-inches in diameter, they wore 235/40 rubber up front and a rubber band-like 285/35 at the rear.

As usual with Porsche, buyers had a further choice to make – whether to go with the 'Comfort' specification (relatively speaking, of course, for such a road racer) or tick the option box marked M003, which would buy them something a little more extreme in the form of the Clubsport. Either way, manual windows and a lack of sunroof were the order of the day, although those that opted for a tad more civility benefitted from beautifully sculpted leather trimmed bucket seats and three-point seatbelts. A Momo steering wheel was standard too, while air-conditioning, air bags and an audio system were all available as options – although the limited soundproofing and carpeting in all GT2s would no doubt have rendered the latter somewhat pointless. That's without considering the aural delights of that engine which is surely all the soundtrack you'd ever need. Clubsport buyers, on the other hand, would find themselves behind the wheel of something that made no pretence of hiding its circuit origins. A Matter roll cage was welded in place, and there were fixed racing seats covered in fire-resistant Nomex with full harnesses. Simple

pull straps were fitted to the doors, the roof lining was deleted and there were mats rather than carpets – and just in case you needed further reminding that this was a 911 built for Silverstone and not suburbia, the cabin featured a battery kill switch and fire extinguisher. If all that mattered to you was the serious business of driving, then this would certainly have been your car of choice, any comprises it demanded for road use paling into the background the first time those blowers spooled up.

At this stage it's worth talking numbers. The headline alluded to the GT2s rarity – there are 173 examples built in total, with 16 of those reckoned to be Clubsport variants. Although the GT2 was officially made between 1995 and 1996, a further 21 examples were made in 1998 – these differed by featuring steel doors, standard rather than thinner gauge glass, and engine mods that resulted in 450bhp. The price for these last models was in the region of DM 287,500 – not an insubstantial sum back then – although the 'standard' model demanded DM 268,000, which was around £135,000. But then such excellence never comes cheap, and the first of the GT2s was excellent indeed. Judging by the values that are being fetched today, it's a star that's unlikely to wane any time soon. **911**

“Such excellence never comes cheap, and the first of the GT2s was excellent”



SPECIALIST VIEW

“The Porsche 993 GT2 is an exceptionally desirable sports car. With such limited production numbers, seeing one in the metal is a rare sight, and its phenomenal performance credentials has many believing it represents the pinnacle of the air-cooled flat six – and I'd have to agree.

A race-ready car with a licence plate, it is perhaps one of the most coveted and breathtaking 911s you could ever hope to own.”

Jonathan Franklin,
Hexagon Modern Classics



OWNING A 993 GT2

- **Price new:** £135,000 (1995)
- **Numbers built:** 173
- **Service intervals:** 1 year/12,000 miles
- **Service costs minor:** £528
- **Service costs major:** £900
(Figures are courtesy of Paragon Porsche)





WATER-COOLED

996 Anniversary _____	084
997 GT3 _____	092
991 GT3 _____	100





996 Anniversary

Get it for
£28,000-£40,000

Performance

★★★★☆

Maintenance costs

★★★★☆

Rarity

★★★★☆

Value

★★★★☆



THE 'OTHER' LIMITED-RUN 996

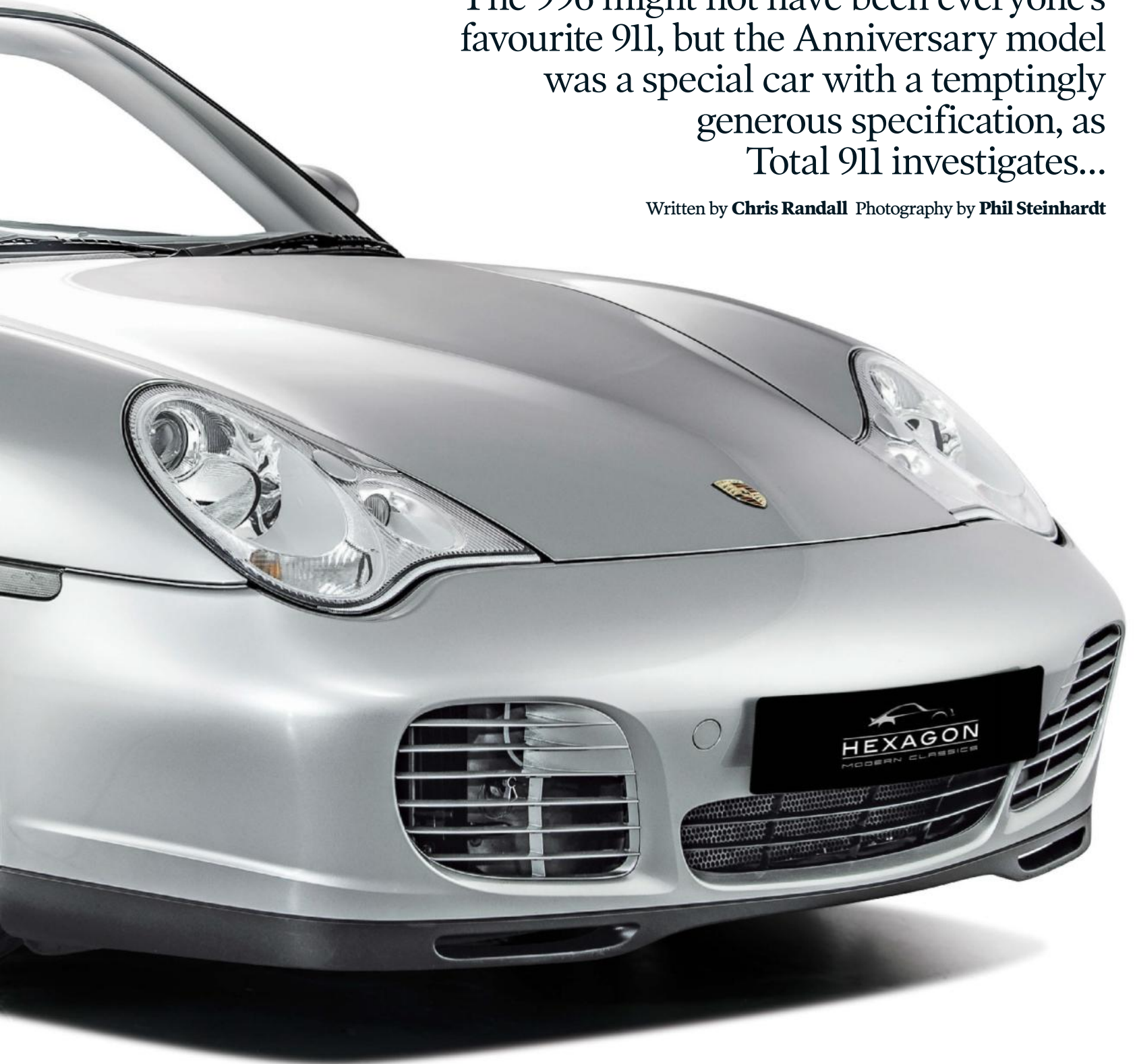
The '40 Jahre' wasn't the only limited edition 996, as Porsche also used this generation to celebrate the new millennium. Rather unimaginatively called 'The 911 for the New Millennium' it went on sale in 2000 (obviously enough) and was based on the C4 Coupe. Just 911 examples were produced, each one fitted with the 300bhp, 3.4-litre engine and a choice of six-speed manual or five-speed Tiptronic gearboxes. 18-inch wheels and lowered suspension also featured. The most striking visual difference, though, was the use of Violet-chromaffair paint, which appeared to change colour in different lights, from black through dark green to dark violet. It was matched with a cabin smothered in brown leather, complemented by dark burr maple wood on the steering wheel, door trims, handbrake, and gear lever. And as Porsche were in a celebratory mood, they added a special interior plaque and sill tread plates, and fitted heated seats and the PCM system as standard.



996 ANNIVERSARY

The 996 might not have been everyone's favourite 911, but the Anniversary model was a special car with a temptingly generous specification, as Total 911 investigates...

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



Launched at the 1997 Frankfurt Motor Show, the 996 generation was larger in just about every dimension, stiffer by an impressive 45 per cent, and more aerodynamic (the drag co-efficient was 0.30 for the record) than any previous 911, and was the work of Pinky Lai and Harm Lagaay. But it also marked a change in the development of the legendary sports car, introducing the 911 faithful to the concept of water-cooling, which was to upset more than a few apple carts.

In the ensuing years, the new engine developed a reputation for expensive trouble, and while the oft-discussed issue doesn't merit further detail here, suffice to say the car continues to divide opinion even today. By 2003, however, thoughts in Stuttgart were turning to how best to celebrate 40 years of this motoring icon, and the result was

the car you see here. Just 1,963 examples of the 996 Anniversary – or '40 Jahre', to give it its proper title – were built. On sale between 2003 and 2004, it was the perfect example of Porsche's skill in blending the sort of subtlety and desirability that had buyers queuing at the doors of their local OPC, chequebook in hand. Not that this special model was cheap; the asking price of around £63,000 being the best part of £14,000 above that of a standard 996 C2 Coupe.

Based on the narrow-body Carrera, each car was painted in GT Silver metallic, and featured a special aluminium badge on the engine lid. The new model retained the standard electrically operated rear spoiler that rose at 75mph, but up front the bumper featured the larger air intakes from the 996 Turbo, with the side ducts finished in body colour and the central intake in black. GT3-style sill extensions

added a meatier presence to the side profile, while the exterior styling was further distinguished by unique 18-inch Carrera wheels, although their polished finish perhaps added a little too much bling for some tastes.

Other special touches included polished stainless-steel tips for the exhaust and sill tread plates that featured a 911 logo. The overall effect, then, was impressively understated and a fitting tribute to the 911's longevity, but this wouldn't be a special Porsche if the mechanicals didn't also come in for some fettling. At the rear was the same M96/03 3.6-litre flat six as the regular model, the dry-sump unit boasting four-valves per cylinder operated by two camshafts per bank that were driven directly from the intermediate shaft via a double-roller chain with hydraulic tensioners. The unit used the same forged and 'cracked' ↻

“This was the perfect example of Porsche's skill in blending subtlety and desirability in a 911”

Model	996 Anniversary
Year	2003
Engine	
Capacity	3,596cc
Compression ratio	11.3:1
Maximum power	345bhp @ 6,800rpm
Maximum torque	370Nm @ 4,800rpm
Transmission	Six-speed manual, rear-wheel drive
Suspension	
Front	MacPherson struts with coil springs and anti-roll bar
Rear	Multi-link with telescopic dampers, coil springs, and anti-roll bar
Wheels & tyres	
Front	8x18-inches; 225/40/R18
Rear	10x18-inches; 285/30/R18
Dimensions	
Length	4,430mm
Width	1,770mm
Weight	1,370kg
Performance	
0-62mph	4.9 secs
Top speed	180mph





GT silver paint adorned all 996 Anniversary models, while a special '911' plaque on the decklid marked this out from the rest. Carrera wheels were chrome finished from the factory, unlike those seen here

THE SPECIAL 911 TIMELINE

1989: 930 LE

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

1993: 964 Anniversary

The '30 Jahre' 964 Anniversary got a Turbo-look body and C4 running gear. Plenty of kit and some unique colours featured.

1998: 993 Turbo S

The 993 Turbo S was the final model for the air-cooled generation. With 450bhp and a manual gearbox, it was very quick, very luxurious, and a very special 911 with just 345 made.

2003: 996 Anniversary

Another Anniversary model, this time the 996. Upgrades included a boost to 345bhp, 10mm lower Sports suspension, a limited-slip differential, and a Turbo front bumper.

2010: 997 GTS

The GTS marked the end of the 997. The Powerkit was standard along with styling upgrades and centre-lock wheels, and there was a luxury interior too.

2013: 991 Anniversary

Celebrating 50 years of the 911, the 991 Anniversary was special indeed, and with 400bhp it hit 62mph in 4.5 seconds and topped-out at 188mph. A wide body and lavish spec were standard.





“It certainly looked the part outside, but Porsche was determined to make this a special 911 on the inside too”

connecting rods as the smaller 3.4-litre engine, although there were larger crankshaft bearings and Graphal-coated pistons running in Lokasil bores.

The latest VarioCam Plus system now altered the valve timing on both inlet and exhaust camshafts. The difference here, though, was the addition of the X51 Powerkit that, via a compression ratio of 11.3:1, lifted power to 345bhp at a singing 6,800rpm, backed by a solid 370Nm of torque that was generated at a slightly higher 4,800rpm. Controlled by a tweaked Bosch DME management system, the extra 20bhp was liberated courtesy of wide-ranging modifications that included new pistons, larger

valves operated by re-profiled camshafts, changes to the cylinder head and porting, and revised inlet and exhaust manifolds.

Cooling was improved by the addition of a second radiator, and the lubrication system was upgraded. The result was performance that was as impressive as you'd expect, Porsche quoting a 180mph top speed with the 0-62mph sprint reeled off in just 4.9 seconds and 0-124mph in 16.5 seconds. And just in case you're thinking those increases seem modest compared to the standard C2 (which managed 178mph and 0-62mph in 5.0 seconds), the benefits were felt in improvements to the power delivery,

with greater urge across the mid-range. Power was delivered to the rear wheels via a standard Getrag six-speed manual gearbox with double-cone synchromesh, a cable-operated shift and a mechanical limited-slip differential with a locking ratio of 22 per cent under power and 27 per cent on the overrun. Porsche Stability Management (PSM) was standard, although it could be manually disabled if you fancied a little extra excitement on the commute to work.

Underpinning the dynamic potential was the same suspension system found beneath the regular 996, a combination of MacPherson struts up front with plenty of aluminium used for the components and the multi-link 'Lightweight-Stable-Agile' (LSA) setup at the rear that was mounted on a separate alloy subframe. However, the Anniversary benefitted from firmer springs and a 10mm drop in ride height as part of the M030 suspension package. The hydraulically assisted rack and pinion steering



This was the most lavish 996 interior outside of a Turbo, with another '911' plaque in the centre of the dashboard reminding its owner of the car's significance. Dials and other interior gubbins are finished in GT silver, while a sunroof was standard



was unchanged, while the job of bringing things to a halt fell to ventilated and cross-drilled discs at all four corners clamped by four-piston, monobloc aluminium calipers backed by Bosch 5.7 ABS. Those unique wheels were 8x18-inch items up front and 10x18 inches at the rear, wearing 225/40 and 285/30 boots respectively.

So the celebratory model certainly looked the part, and there was no doubting the performance on offer, but Porsche was determined to make this a very special 911 on the inside too. The cabin of the 996 had already received substantial changes compared to the previous generation, with a greater focus on comfort and luxury and a more logical control layout, while changes for the 2002 model year saw the addition of electric releases for the front and rear compartment lids, along with cup holders and a proper lid for the glove box. And while the floor-hinged pedals had finally been consigned to ➡



BUYING TIPS

It's a well-known truism that tired 996s aren't too hard to find in the classifieds, but the rarer nature of the Anniversary model should mean it's been suitably looked after. There's no guarantee of this, of course, so take the usual care when checking history and condition of any potential purchase. Some particular pointers include:

- **Bodywork:** Rust shouldn't be an issue, but it's worth checking for stone chips and dings in the panels, and make sure the electric rear spoiler operates correctly. Windscreens are prone to de-laminating, causing a milky effect around the edges.
- **Engine:** The 3.6-litre engine is considered more robust than the 3.4-litre unit found in pre-facelift 996s but corroded radiators need watching for, while lumpy running could be indicative of Variocam issues. Oil leaks aren't uncommon either, so be sure to have a good look around for these.
- **Running gear:** Suspension and brakes are fairly straightforward, and just need checking for condition. 996s are sensitive to proper wheel alignment though, so look for uneven tyre wear and ask about previous bush replacement.
- **Interior:** Most cabin fittings on the 996 are fairly robust but as always it's worth ensuring that everything works, especially the climate control and optional PCM system, as well as the electric adjustment on the seats.

the history books, the five-dial instrument pack still featured, although the 996 came with the addition of a digital speed read-out in the tachometer, and the switchgear was more sensibly arranged, with the climate-control panel and hi-fi incorporated into the centre console, the latter (along with the handbrake) finished in the same GT Silver metallic as the exterior and featuring a numbered plaque.

Speaking of sound systems, the Anniversary was fitted with a suitably upgraded setup that comprised an RDS radio and CD player with speed-dependent volume control, along with a six-channel amplifier and four 40w speakers and two 70w items. A Bose system was optional, along with a four-disc CD changer, and buyers could also add the full Porsche Communication Management (PCM) system that included a 5.8-inch display screen, an on-board computer and satellite navigation.

Aural enhancements aside, Porsche had added a few other luxuries. The heated sports seats were trimmed in leather, and niceties such as an electric sunroof and bi-xenon 'Litronic' headlights were standard, although naturally Porsche had been canny enough not to over-endow the new version with kit. This meant that it was left to those with deeper pockets to take advantage of an options list

that included cruise control, electric memory seats, and full telephone preparation. Having said that, while the hike in the purchase price might have appeared steep, it's worth bearing in mind that adding the Powerkit to a standard Carrera would have cost the thick end of £6,000 alone, and in that context the Anniversary appeared slightly better value for the whole package.

But just in case buyers didn't feel they were getting enough for the money, Porsche filled the 130-litre front luggage compartment with two handmade suitcases, a large and medium-sized one that were covered in leather. A bespoke key case and wallet – both in soft leather again – were the finishing touches.

Make no mistake, Porsche can develop a special edition like few other manufacturers, and are masters of the art when it comes to mining that rich seam of buyers who want their 911 to be the very best available. And if, like us, you marvelled at the model's sheer staying power over the course of four decades, this would have been a fine way to celebrate indeed. Okay, it wasn't cheap, and it would have done little to change your mind if you were rooted firmly in the air-cooled camp, but as 996s go this one was very desirable indeed. In fact, you could argue it was models like this that ensured the 911 would still be around to celebrate 50 years. **911**

“A bespoke key case and wallet – both in soft leather – were the finishing touches”

SPECIALIST VIEW

“The 40 Jahre Anniversary 911 is a very special 996 that boasts a limited build run and a host of enviable optional extras, including the Powerkit (which wasn't available to UK customers on the 991 Anniversary, don't forget).

It's far more desirable than a C4S and is without doubt the 996 to have outside of a Turbo or GT3. We've just sold the low-mileage car in your pictures but find a similar example and you'll have a special ownership experience with a special 911.”

Philip Kyriacou, Hexagon





OWNING A 996 ANNIVERSARY

- **Price new:** £63,000 (Coupe, 2003)
- **Numbers built:** 1,963
- **Service intervals:** 1 year/12,000 miles
- **Service costs minor:** £282.19
- **Service costs major:** £827.22
(Figures are courtesy of RPM Technik)



"I'VE GOT ONE"



"I personally love the lines of the car, the Turbo front and GT3 skirts in my opinion really work on the narrow body. My number one reason for loving the car is the X51 Powerkit and sports suspension. I've driven normal Carreras and the difference is striking. Given the combined cost of adding these options the car is a real second hand bargain. Maintenance-wise the Anniversary is very similar to a standard Carrera (with the exception of the Turbo radiators) and certainly cheaper than the C4S.

I also like the exclusivity of it and there is a real club feeling growing around these models with a dedicated Facebook page running (find us!)."

Paul Churnside

997 GT3

The rear bi-plane wing with 'Gurney flap' was mildly adjustable, despite appearing to be fixed in position



997 GT3

Get it for
£80,000-£110,000

Performance

★★★★★

Maintenance costs

★★★★★

Rarity

★★★★☆

Value

★★★★★

“
IF TURBOCHARGED
PERFORMANCE DIDN'T
APPEAL, PORSCHE HAD
AN ANSWER IN THE
FORM OF THE GT3
”

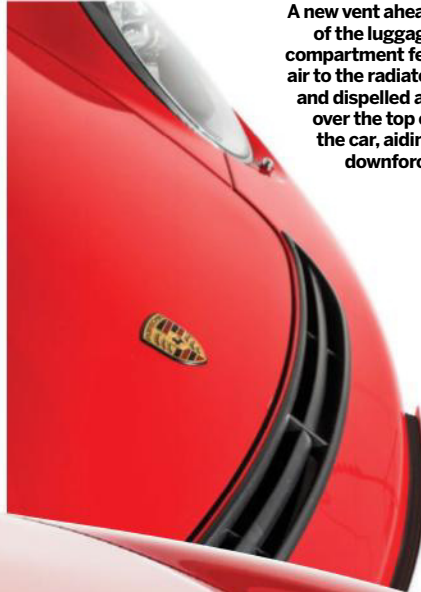
The 996 generation introduced buyers to the GT3 tag, but how did its successor stack up? Total 911 turns the spotlight on the first 997 version introduced in 2006

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

First 997 GT3 had bigger air intakes while new front spoiler was deeper than ever before



A new vent ahead of the luggage compartment fed air to the radiator and dispelled air over the top of the car, aiding downforce



Model Year	997.1 GT3 (2006)
Engine Capacity	3,600cc air-cooled flat six 12.0:1
Compression ratio	12.0:1
Maximum power	415bhp@7,600rpm
Maximum torque	405Nm@5,500rpm
Maximum torque	Six-speed manual; rear wheel drive
Suspension	
Front	MacPherson strut; coil springs; antiroll bar
Rear	Multi-link; telescopic dampers; coil springs; antiroll bar
Wheels & tyres	
Front	8.5x19-inch alloys; 235/35/ZR19 tyres
Rear	12x19-inch alloys; 305/30/ZR19 tyres
Dimensions	
Length	4,445mm
Width	1,808mm
Weight	1,395kg
Performance	
0-62mph	4.3 secs
Top speed	192mph



There's no doubt that buyers after the cream of 911s were spoilt for choice when it came to the 997 generation, a range that encompassed the mighty Turbo and the seriously focused GT2 that somehow managed to push more than 500bhp through its overworked back wheels. But if turbocharging didn't appeal when it came to performance then Porsche had an answer in the form of the GT3. The name tag was first seen back in 1999 when it adorned the rump of the 996, a car that would qualify – appropriately enough – for the GT3 endurance racing category. So successful was the formula that the 2006 Geneva Show saw the launch of the latest 997 variant that arrived in the UK in August that year.

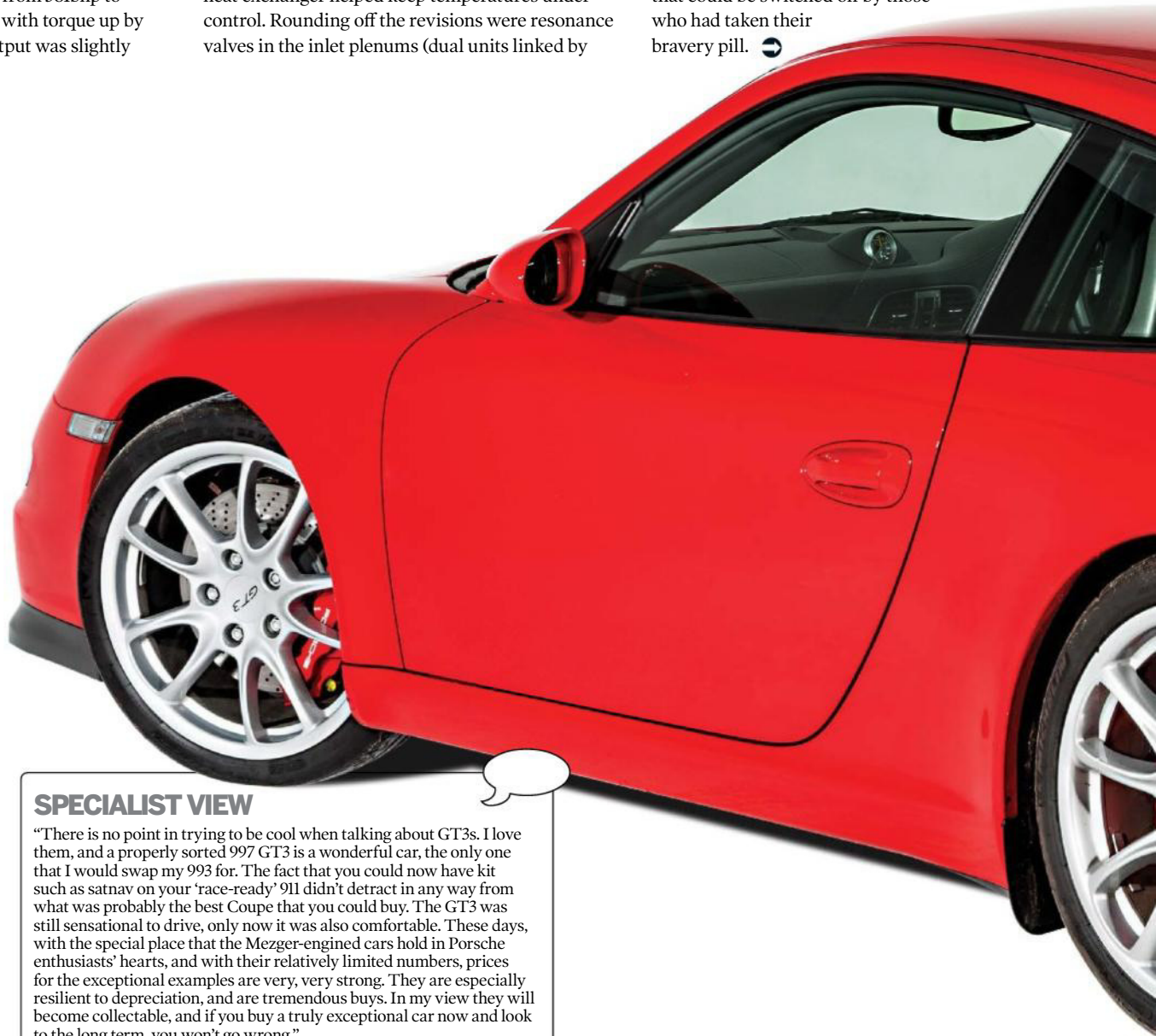
Wedge beneath the new bi-plane rear wing was a 3.6-litre motor that had been carried over relatively unchanged from its 996 installation, although power had increased from 381bhp to 415bhp at a howling 7,600rpm, with torque up by 20Nm to a peak of 405Nm. Output was slightly

over 115bhp per litre, and the rev limit was also raised, action not being curtailed, until 8,400rpm was showing on the tachometer. Essentially, the engine was the water-cooled bottom end from the 996, but topped with the latest cylinder head design, featuring four valves per cylinder and 'Variocam' variable valve timing on both inlet camshafts.

Using rotary-type adjusters to tweak the timing according to load and engine speed and controlled by the Bosch Motronic ME7.8 management system, it improved driveability as well as contributing to those hugely impressive headline figures. The engine featured lightweight pistons with titanium con-rods along with specially lightened tappets and hydraulic adjusters, and there were revisions to the lubrication system. The latter was a dry sump arrangement that featured two pumps in the cylinder head, driven from the exhaust camshafts, and two pumps in the crankcase, while an oil/water heat exchanger helped keep temperatures under control. Rounding off the revisions were resonance valves in the inlet plenums (dual units linked by

three separate pipes), larger exhaust tracts for better gas flow, and a lightweight sports exhaust system with two catalytic converters that now exited via centrally mounted pipes.

Driving through a dual-mass flywheel, power was fed to the rear wheels and a limited-slip differential via a six-speed manual gearbox that featured a cable-operated change and a shorter throw to the gearshift. First gear apart, all the other ratios had been shortened for greater straight-line punch, and things were beefed up with steel baulk rings for third to fifth gear and a heat exchanger for the transmission fluid. What this all amounted to were some very impressive performance figures, the GT3 claiming to stop the clock at 4.3 seconds for the 0-62mph sprint and passing 100mph in 8.7 seconds on the way to a 193mph maximum speed. Porsche also added a traction control system for the first time, albeit one that could be switched off by those who had taken their bravery pill. ➔



GT3 TIMELINE

1999

Porsche introduce the first GT3 with the 996 generation. Substantially lighter than the Carrera, 1,890 'Gen1' cars are built.

2003

The Gen2 996 facelift version arrives, boasting a revised rear spoiler, 381bhp and optional ceramic brakes.

2006

Once again it's a Geneva Show launch for the 997 GT3. Power is raised to 415bhp helped by the addition of VarioCam.

2009

In Gen2 form, a power hike produces 435bhp, with revised spoilers and better brakes. The lighter RS variant saves 25kg.

2010

Porsche introduces a 997 GT3 RS with nigh-on 500bhp from a 4.0-litre engine and a 0-60 time below four seconds.

2013

The latest 991 gets the GT3 treatment, with power upped to 475bhp from the 3.8-litre DFI engine with PDK.

SPECIALIST VIEW

"There is no point in trying to be cool when talking about GT3s. I love them, and a properly sorted 997 GT3 is a wonderful car, the only one that I would swap my 993 for. The fact that you could now have kit such as satnav on your 'race-ready' 911 didn't detract in any way from what was probably the best Coupe that you could buy. The GT3 was still sensational to drive, only now it was also comfortable. These days, with the special place that the Mezger-engined cars hold in Porsche enthusiasts' hearts, and with their relatively limited numbers, prices for the exceptional examples are very, very strong. They are especially resilient to depreciation, and are tremendous buys. In my view they will become collectable, and if you buy a truly exceptional car now and look to the long term, you won't go wrong."

Jason Shepherd, Paragon Porsche



A variety of gills in the rear of the GT3 helped dissipate heat from the high-revving, dry-sump Mezger engine



“

THE CABIN OF A 997 WAS ALREADY A FINE PLACE TO BE, WITH EXCELLENT BUILD AND MATERIAL QUALITY, SO PORSCHE SAW LITTLE REASON TO MESS WITH THE RECIPE WHEN IT CAME TO THE GT3

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As you might expect, Porsche altered the exterior, starting at the front, where you'd find a redesigned bumper with bigger intakes and a deeper front spoiler. Feeding air to an additional central radiator was a new vent just ahead of the luggage compartment lid that then expelled the air over the car to provide added downforce.

Balancing the aero package was the previously mentioned bi-plane rear wing that featured a rubber 'Gurney flap' on the lower section, along with a degree of adjustability despite appearing fixed, while vents in the engine lid helped remove hot air from the engine bay via the rear apron. The bodyshell itself featured improvements to the crash structure compared to the 996, and there was greater use of super high-strength steels and tailored blanks and a larger proportion of

lightweight alloy, with the doors and front bonnet in aluminium. With a claimed curb weight of 1,395 kilograms, it amounted to a power/weight ratio of 297bhp per ton. No wonder it was quick.

The cabin of a 997 was already a fine place to be, with excellent build and material quality, so Porsche saw little reason to mess with the recipe when it came to the GT3. Climate control and a decent stereo were standard along with lightweight, race-derived seats, and most interiors were smothered in Alcantara and leather. Safety was top notch too, with a full complement of airbags, while the dials featured GT3 logos, yellow needles and a change-up light. Where things departed from standard was the chance to equip the car with all the accoutrements needed for an assault on the Nordschleife, the no-cost 'Clubsport' package including a rear roll →



The addition of PASM to the factory spec list wasn't the interior's only impressive new feature. PCM with satnav was ideal for finding your way home, the Sport Chrono package great for lap timing, and a blend of leather and Alcantara in Comfort guise ensured the GT3 retained as much class as it did purpose. Note that manual gear shifter, too: with PDK-only on 991 GT3 variants, the transmission alone has assured the 997 GT3 of its long-term desirability



GT3 RS



Porsche wasn't going to pass up the opportunity to add the latest GT3 to the rich heritage of RS models. Introduced in autumn 2006, it was now based on the wider C4 bodyshell, adding 44mm across the hips, but it had also lost 20kg in the process thanks to the use of carbon fibre for the seats and rear wing, and a plastic rear window. Power remained the same, the engine now sporting a single-mass

flywheel, and there was a scant 0.1 sec reduction in the 0-62mph time. Porsche claimed the same top speed, although in reality the wider bodywork and more aggressive rear wing would have reduced it a little. It didn't matter though, as the roll cage and six-point harnesses were standard for the full race effect. And the price? A mildly eye-watering £94,000.



GT3s with the Comfort pack had the rear seats deleted, as shown here, while the Clubsport pack went a step further, with a full rear roll cage fitted in place. Sports seats were optional for Comfort GT3s, but a required option for Clubsport variants



cage, six-point safety harness, fire extinguisher and wiring for a battery master switch. The CS option was only available in conjunction with the lightweight carbon bucket seats based on those fitted to the Carrera GT, weighing ten kilograms each and covered in flame-retardant fabric.

There was no need to be too minimalist when equipping a GT3, with plenty of opportunity to offset the weight savings by raiding the options list. Niceties like bi-xenon lights, electric seats, carbon interior garnishes, an upgraded sound system and tyre pressure monitoring were just a tick of a pen away, as were some particularly lurid exterior hues. Another popular choice was the Porsche Communications Management system, which provided satellite navigation, a high-resolution colour screen and phone prep – necessary if you wanted Sport Chrono Plus, which gave added lap-timing and data storage capability (basic Sport Chrono was effectively little more than a dash-mounted stopwatch).

The fettling didn't stop there, and there were major changes to the suspension compared to 'regular' 997s. Approximately 30mm lower all-round than a Carrera, up front was still the familiar MacPherson strut arrangement, but with rose joints and a range of adjustability that included the ability to tweak camber, ride height and toe angle. If you were after the perfect setup, the GT3 could certainly oblige. Propping up the rear was the subframe-mounted multi-link arrangement that Porsche named 'Lightweight-Stable-Agile' (LSA), first seen on the 993 and still pinning down the rear end. Steel bearings on the front strut mounts and an absence of rubber in the rear subframe mountings helped eliminate movement between suspension and the body for better wheel control.

More interesting still was the use of 'Porsche Active Suspension Management' as standard, in essence a system of continually adjustable dampers. A button on the centre console allowed the driver the pick of 'Normal' or 'Sport' modes depending on preference or road surface, although the harder setting was reckoned to be a bit extreme for anything other than a smooth circuit, while a variety of sensors monitored body movement during cornering, acceleration and braking.

The ECU then adjusted the valving of individual dampers to keep things even. The merits of such a system are still debated, but there is no doubting the effectiveness of the system in reducing body deflection. The stoppers received attention too, the GT3 getting 350mm vented and cross-drilled steel discs as standard squeezed by six-piston Monoblock alloy calipers at the front and four-piston items at the rear, backed by ABS. But for maximum stopping power it was the optional Porsche Ceramic Composite Brake (PCCB) setup

BUYING TIPS

Offering epic performance and real track ability, a 997 GT3 is a special machine, but it needs to be treated like one.

- **History:** Buying from a recognised specialist or Porsche-approved seller is advisable for peace of mind. At the very least, get it inspected if you decide to buy privately.
- **Bodywork:** Accept nothing less than perfect when it comes to the body and paintwork. It's worth making sure it hasn't visited a gravel trap or two.
- **Engines:** Essentially bulletproof as long as the maintenance record is unimpeachable. Anything neglected should be avoided at all costs.
- **Gearbox:** Any issues caused by track abuse will be costly, so make sure there are no nasty noises. Clutch replacement is labour intensive too, so watch for signs of slippage.
- **Suspension:** Not known to be problematic, but hard use will take its toll on bushes and joints. It's also worth checking to see if the various settings have been needlessly fiddled with.

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THERE WAS NO
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THERE WERE PLENTY
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”



OWNING A 997 GT3

- **Price new:** £79,540
- **Total numbers sold:** 3,329
- **Service intervals:** 1 year/12,000 miles
- **Service costs minor:** £358
- **Service costs major:** £714 (including spark plug change)
Figures courtesy of Paragon Porsche

that many buyers coveted, with larger 380mm front discs, yellow calipers instead of red and a claimed 50 per cent weight reduction over the steel items. Like other 997s, the GT3 was fitted with variable-ratio steering with hydraulic assistance, and there were new one-piece, 19-inch wheels wrapped with tyres of a special tread design and compound.

It's a tasty spec, but what's important here is the true purpose of the 997 GT3. It substituted the sledgehammer performance of the Turbo and GT2 for an altogether more subtle blend of road and track ability, and rightly has a reputation for being one of the most thrilling 911s. **911**

"I'VE GOT ONE"

"I've owned my 997.1 GT3 since February 2011. I was immediately excited when I first set my eyes on the 'for sale' advertisement, which revealed a generous spec: finished in rare Cobalt Blue with PCCB, carbon Cup seats, and an RS-spec rear roll cage.

The first test drive was a little intimidating, but in the end the full Porsche history pushed me into the seat and I bought it.

It's a great car for track use and driving all day. After a stint on track I just put my racing helmet in the boot and drive home with the air conditioning on, so it really is the perfect package. Every time I climb into the GT3, I get excited: you know the drive ahead is going to be fun."

Chris Stewart, Southampton



991 GT3

Get it for
£120,000-£140,000

Performance

★★★★★

Maintenance costs

★★★★★

Rarity

★★★★☆

Value

★★★★☆



991 GT3 RENNSPORT

On the off chance that the GT3 doesn't quite manage the lap times you were looking for, then the Rennsport version will provide the answer. Launched in 2015 and with around 60 UK examples, spending £131,296 (\$174,407) secured a 911 that benefitted from a package of aerodynamic measures that substantially reduced lift at the front and increased downforce at the rear. Chief among the former were exit vents cut into the tops of the front wings, items fashioned from carbon-fibre along with the front and rear compartment lids and the rear wing. A plastic rear window and magnesium roof panel further contributed to weight saving, while 21-inch rear wheels completed the racer looks. Under the lid was a 4.0-litre, 500hp motor that drove through a PDK gearbox and shoved the RS from 0-62mph in just 3.3 seconds. The optional Sport Chrono package included the new Porsche Track Position app, which allowed detailed lap data to be shared with a smartphone. Nice.



991 GT3

More spacious, opulent and technically advanced, the 991 fully deserves the GT3 badge. Here's how to buy the best

Written by Chris Randall
Photography by Daniel Pullen



GT3 TIMELINE

1999

First GT3 launched at the Geneva Motor Show in 996 form, with a choice of Comfort or Clubsport. 1,858 produced

2003

The 'Gen2' 996 boasts 381bhp, optional ceramic brakes and changes to the engine and transmission. 2,313 produced

2004

The 996 GT3 gets the RS treatment. Power and torque remain the same, but weight-saving is implemented. 682 produced

2006

Again, it's a Geneva launch for the 997 GT3. Power is up to 415bhp with VarioCam Plus, while PASM is standard. 2,378 produced

2009

In 'Gen2' form, the GT3 RS gets a power hike to 450bhp. Minimal standard spec leads to a road car lap record at the 'Ring. 1,500 produced

2010

Perhaps saving the best for last, Porsche introduce a 997 GT3 RS with a 4.0-litre engine that produces 500bhp. 600 produced

2013

The 991 gets the GT3 treatment. Power is upped to 475hp from the 3.8-litre engine, but it's PDK only. Still in production

We've previously subjected the first model to sport the GT3 badge, the awesome 996, to our Buyer's Guide microscope. This time, we fast-forward more than ten years to the very latest. Make no mistake, Total 911 is a huge fan of the latest GT3, and having pitted it against a 997 GT3 RS back in issue 131, we were left staggered by its combination of technology, cossetting luxury, and exquisite handling. Not only is it the most breathtaking, it's possibly the most everyday-friendly 911 ever to sport the GT3 badge, ever the embodiment of a proper Porsche according to Butzi himself.

One of the reasons we rated it so highly was down to what lies beneath that purposeful rear wing, a 3.8-litre motor producing 475hp at a spine-tingling 8,250rpm. Almost 100bhp more than the

original GT3, it's a thrilling confection of cutting edge, lightweight construction with titanium con-rods and forged pistons that allow it to rev to an intoxicating 9,000rpm. With VarioCam variable valve timing for both inlet and exhaust camshafts and an advanced dry sump lubrication system, it's also the first GT3 to feature direct fuel injection.

But as regular readers will know, it hasn't been without issue, with a spate of high profile engine fires threatening to put a dent in Porsche's reputation for peerless engineering. We've previously covered the problem in some detail, but essentially a failed connecting rod bolt could lead to terminal engine failure, with the resulting oil leakage leading to the much-publicised infernos. After issuing a 'stop driving' notice to owners – some of whom were understandably dismayed after parting with more than £100,000 (\$133,000) for their car – Porsche set about

changing the engines in the 785 model year 2013-2014 cars affected.

However, despite a dozen examples being fitted with a second new motor due to a valve-train issue, and the recall of 35 model year 2015 cars to have the spark plugs and coil packs replaced (a short circuit could have caused damaging engine misfires), it seems that Porsche's quick action has left used values unharmed. Given their age, these cars are almost certainly being maintained within the dealer network so there's nothing to worry about in terms of service history, although the 20,000-mile/two year maintenance intervals means that some OPCs are seeing conscientious customers opt for an annual oil change as well; at around £300 it's a sensible decision, especially as the GT3's everyday usability is seeing some examples cover healthy mileages. And while on the subject of lubricant, ↻

“The 991 is the most everyday-friendly 911 ever to sport the GT3 badge, ever the embodiment of a proper Porsche according to Butzi himself”

Model 991 GT3
Year 2013

Engine

Capacity 3,800cc

Compression ratio 12.9:1

Maximum power 475hp @ 8,250rpm

Maximum torque 440Nm @ 6,250rpm

Transmission 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 and anti-roll bar

Wheels & tyres

Front 9x20-inch; 245/35/ZR20

Rear 12x20-inch; 305/30/ZR20

Dimensions

Length 4,545mm

Width 1,852mm

Weight 1,430kg

Performance

0-62mph 3.5 secs

Top speed 196mph





Porsche equipped the latest GT3 with 380mm discs at all four corners, clamped by six-piston aluminium monobloc calipers at the front and four-piston items at the rear. It also featured a composite rear wing



PARTS PRICE CHECK

• Centre lock wheel (front)	£2,271.24
• Front damper (with lift kit)	£635.83
• Set of PCCB brake discs	£16,624.32
• Exhaust system (complete)	£6,111.86
• Catalytic converter	£1,546.86
• Front brake caliper	£917.17

Prices are inclusive of VAT and come courtesy of Paragon Porsche

991 GT3 VALUES

Greig Daly at RPM Technik reveals that prices dipped around six to eight months ago, but now seem stable in the short to medium term. Of course, values vary from £130,000 to £160,000 depending on specification, though there is some variation present in the market. Comfort models sit at the lower end of the price spectrum, while a Clubsport with Paint to Sample is at the upper end.





“PDK is a reliable gearbox that’s fully up to the rigours of track work”

some owners have expressed concern over high oil consumption, although it differs between cars and is dependent on the extent of track use; requiring a pint of oil every 600-1,000 miles could well prove normal.

Less acceptable to a number of potential owners though, was Porsche’s decision to equip the 991 GT3 with a PDK transmission only. A seven-speed unit, it was retuned with specific ratios for the new application and featured shorter-throw shift paddles for improved response, along with a ‘paddle neutral’ function; pulling both paddles disengaged the pair of clutches, which could then be re-engaged either from a standstill or on the move with predictably spectacular results (and the loss of a few millimetres of rear tyre tread!). Still, it is a reliable

gearbox that’s fully up to the rigours of track work and avoids any over-rev scares.

Keeping everything under control on road or track was a chassis featuring MacPherson-type struts up front and a multi-link axle at the rear, with the ability to adjust settings for optimum handling. Riding 30mm lower than a Carrera, the GT3 also benefitted from PASM (Porsche Active Suspension Management) as standard, along with the electromechanical rear-axle steering system that provided a virtual shortening of the wheelbase. Porsche Active Drivetrain Mounts (PADM) were also standard, along with Porsche Torque Vectoring Plus that further sharpens handling and stability by braking an inside rear wheel. The front-axle lift system was optional and was chosen by a large proportion of buyers with

more of an eye on street use. GT3s of this age certainly shouldn’t be exhibiting any issues with the suspension, although it is worth checking for wear on the inner edges of the tyres as this points to time spent on a circuit.

Take to the track and you’d have found the brakes more than up to the task, Porsche equipping the latest model with 380mm discs at all four corners, clamped by six-piston aluminium monobloc calipers at the front and four-piston items at the rear. PCCB composite brakes were a £6,248 option, one not taken up by many buyers, and largely unnecessary given the abilities of the standard setup, which wear well. A replacement set of pads and discs will cost £3,500 at a specialist such as RPM Technik, so it is worth checking them over. The stoppers are fronted by 20-inch forged alloy wheels with centre-lock fixings, so ensure the rims are undamaged as replacements are over £2,000 each.

Externally, the latest car had grown over the 997 with an extra 100mm in the wheelbase



Inside the 991 GT3's cabin, comfort trim was standard, bringing a feast of leather, Alcantara and brushed metal finishes, along with a seven-inch touchscreen. Clubsport variants got a roll cage and fire extinguisher, which was housed in the front passenger footwell

significantly improving cabin space, while the rear wings and track were 44mm and 31mm broader respectively. And with a widened front splitter and composite rear wing, Porsche had given plenty of attention to the aerodynamics.

Any example you find today should be in immaculate condition but it is worth consulting an OPC regarding any dealer campaigns affecting the model; one involved the addition of a mesh grille within the front wheel-arch liners to prevent stone damage to the radiators, while another involved checking the hydraulic pipe unions for the front-axle lift system, so ensure that the example you're considering has had any update work carried out. And then there's the issue of accident damage; track mishaps are a distinct possibility so scrutinise the history to ensure there's nothing unpleasant lurking in the car's past.

A final point on the exterior is in regards to colour, a choice that can significantly effect resale values. Porsche offered a number of solid, ➔



BUYING TIPS

Obviously a much more recent model than our usual **Total 911** Buyer's Guide subjects, but you'll still need to ensure that the example you're looking at is in perfect condition. It's advisable to discuss specification with an OPC or specialist beforehand to decide which options will best suit your needs.

- **Comfort or Clubsport?** The latter are more numerous, with 50 to 70 per cent of cars specified this way, and will be worth more come resale time, but don't dismiss the Comfort option if you plan on plenty of road use.
- **Specification:** You'll be hard-pressed to find an example that hasn't been lavished with plenty of options, so it's worth taking the time to find the one that suits you best.
- **Bodywork:** Don't settle for anything less than spotless. Special paint colours can add value, but check for any track-induced accident damage.
- **Engine/transmission:** Neither should be a source of worry; don't be surprised to find a record of additional servicing by meticulous owners.
- **Brakes/suspension:** Both are incredibly robust even when used hard. It's worth checking for any signs of premature wear, as replacements are pricey.

metallic, and special finishes for the GT3, and whether 'Lime gold' floats your boat is down to personal choice, but experts say that quite a few buyers opted to go down the 'Paint to Sample' route that provides an almost unlimited choice of colours. A carefully chosen shade could have increased the value of a used example so it's worth getting the views of an OPC or specialist before you buy.

Inside you'll find a spacious cabin that's supremely comfortable and luxuriously appointed, and there's the usual bewildering array of trims and options to consider. Comfort trim was standard, bringing with it a feast of leather, Alcantara, and brushed metal finishes along with a seven-inch touchscreen for control of the hi-fi system, climate control, and for the first time in a GT3, a 4.6-inch TFT display in the instrument panel that could display readouts from the trip computer. It doesn't end there, of course, plenty of buyers plundering the options list to add cruise control, electrically-adjustable adaptive Sports seats, the Porsche Communications Management system and the Sport Chrono Package.

Indeed, many buyers were acutely aware of what was needed when it came to resale time, so don't be surprised to find this track-focused Neunelfer laden with convenience kit, although modestly-specced examples are out there if you prefer more driver focus and less opulence.

But it's the Clubsport option that attracts the most attention on the forecourt, the addition of a roll cage, six-point harness, fire extinguisher, and battery master switch prep delivering the sort of track appeal that GT3 buyers demanded. According to specialists, it's possible that between 50 and 75 per cent of cars were specified this way – although even these cars benefitted from a raid on the options list to add extra luxury – and it's likely to prove the best decision in terms of investment. A quick trawl of OPCs will find GT3s sporting price tags of up to £145,000 (\$193,000) – a tidy profit on the original £100,000 (\$133,000) asking price.

Don't shy away from a Comfort model though; the supreme blend of everyday usability and track talent means you're unlikely to feel short-changed if you prefer a less hardcore approach. Whichever model you choose, expect an interior that's nothing less than perfect.

Ultimately, a used GT3 is going to prove a spectacular ownership proposition and one of which you'll almost certainly never tire from. Buying one should be a painless exercise, although if you choose to buy privately, you should certainly have the car checked by an OPC or specialist – there is too much money involved here to take any chances. But whichever route you take, you're in for a very special, and potentially profitable, experience indeed. **911**

SPECIALIST VIEW

"Like all GT3s, the 991 is an amazing car to own and drive and benefits from relatively manageable running costs compared to models from the likes of Ferrari and Lamborghini. That means it will always appeal to buyers wanting something special, so despite the economic uncertainty caused by the recent EU referendum in the UK, it will be a safe place to put your money. Having said that, the best thing is to buy one to enjoy now rather than worrying about investment, although some care is needed as we're already aware of examples that have been damaged on a race circuit, so it's important to check the history before you part with any money."

Greig Daly,
RPM Technik





OWNING A 991 GT3

- **UK Price new:** £100,540
 - **Total numbers sold:** Still in production
 - **Service intervals:** Two years/20,000 miles
 - **Service costs minor:** £396
 - **Service costs major:** £756
- (Figures are courtesy of RPM Technik)





TURBO

930 Turbo LE	110
964 Turbo	118
993 Turbo	126
996 Turbo	134
997 Turbo	142



930 LE

Get it for
£150,000-180,000

Performance

★★★★☆

Maintenance costs

★★★★★

Rarity

★★★★★

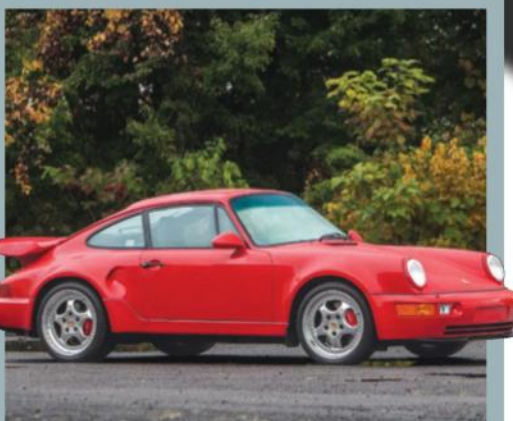
Value

★★★★★



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.

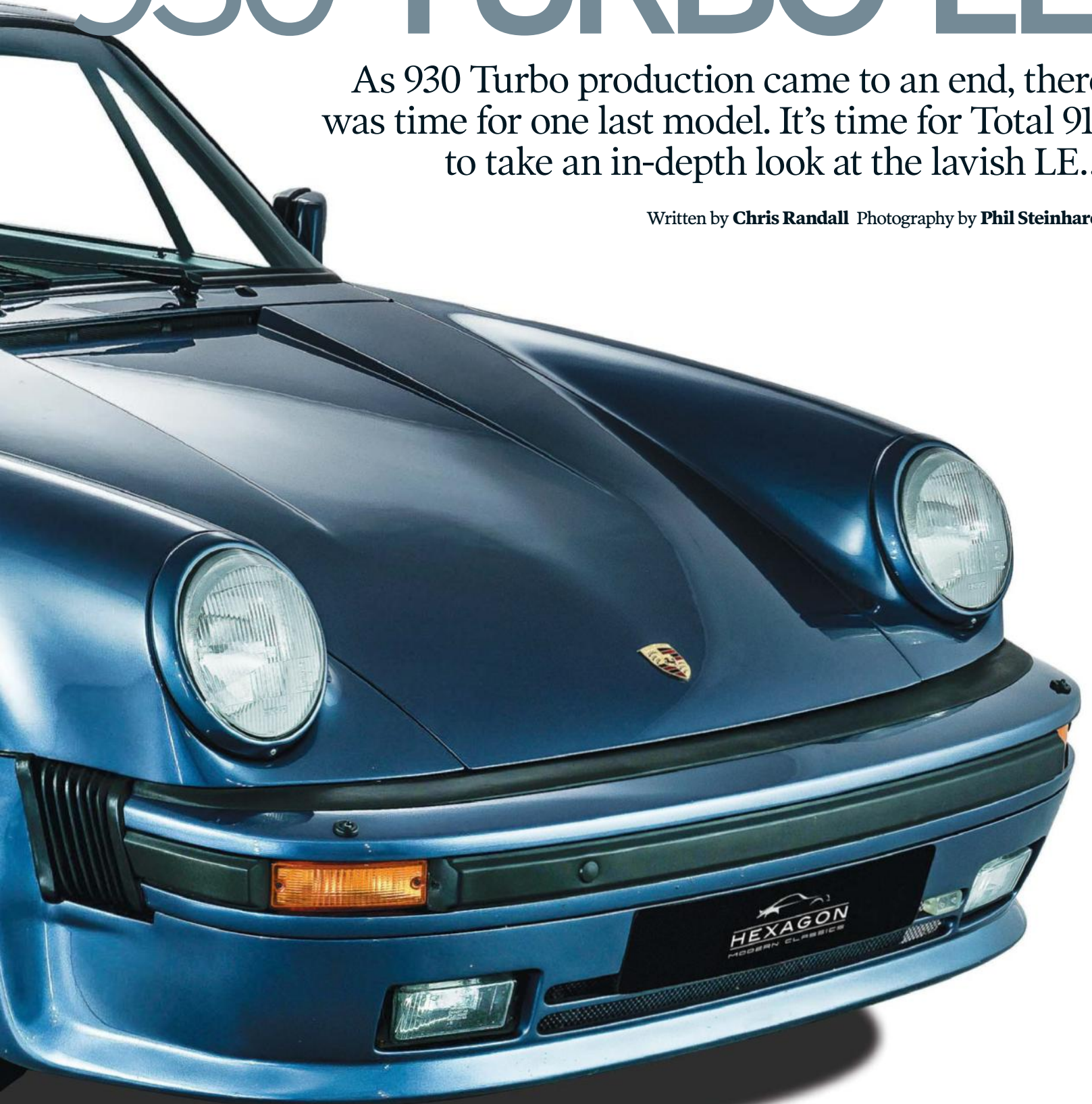




930 TURBO LE

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 'Exclusive' department, who stripped it down again and rebuilt it 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 'tea tray' spoiler remained though.

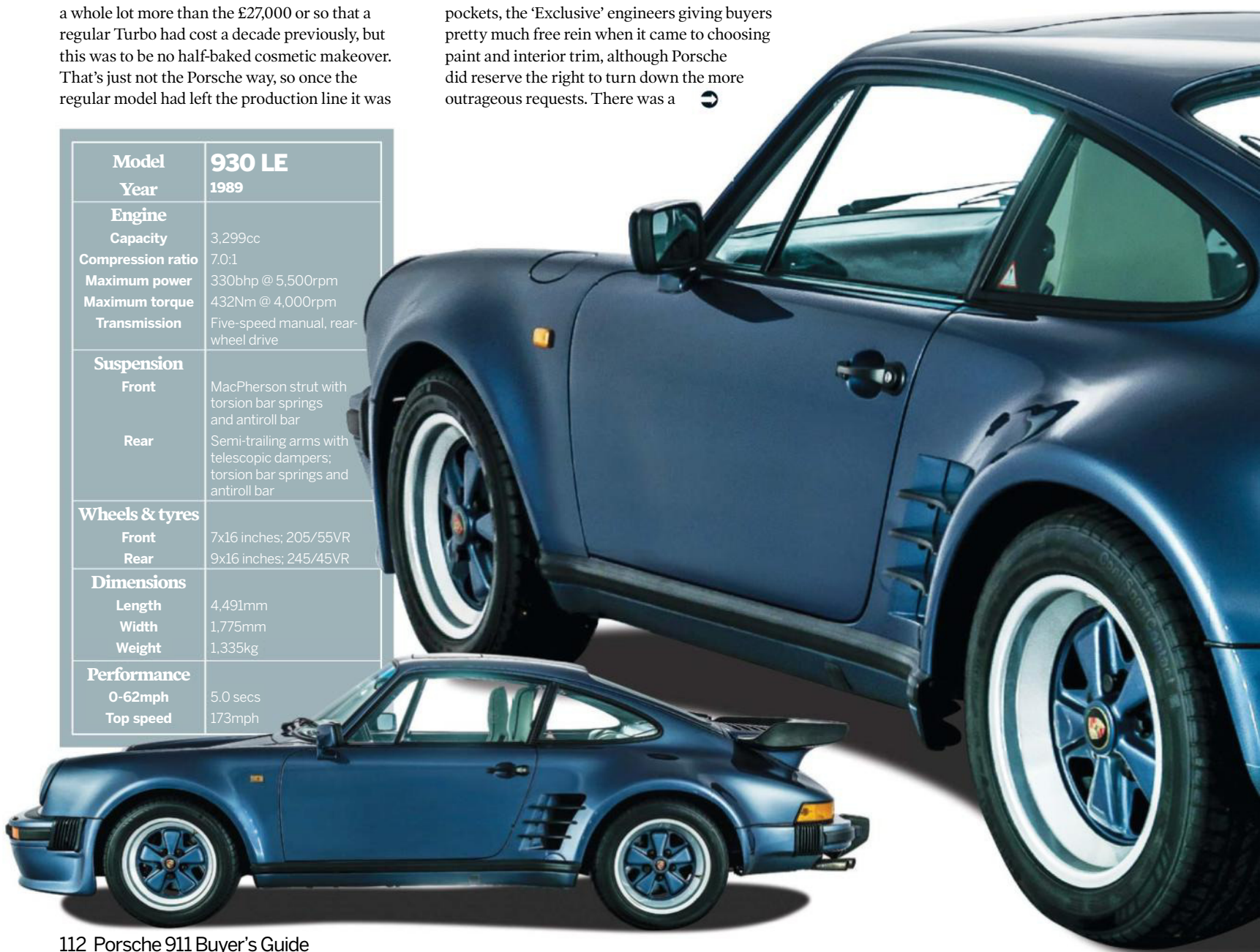
The colour palette was essentially standard Turbo, although there was plenty of scope for something different if you had deep enough pockets, the 'Exclusive' engineers giving buyers pretty much free rein when it came to choosing paint and interior trim, although Porsche did reserve the right to turn down the more outrageous requests. There was a ➔

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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

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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





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.



(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





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

hard-fought reputation to protect after all, and it's unlikely that lurid hues – outside or in – would have quite fitted the bill.

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 432Nm at 4,000rpm.

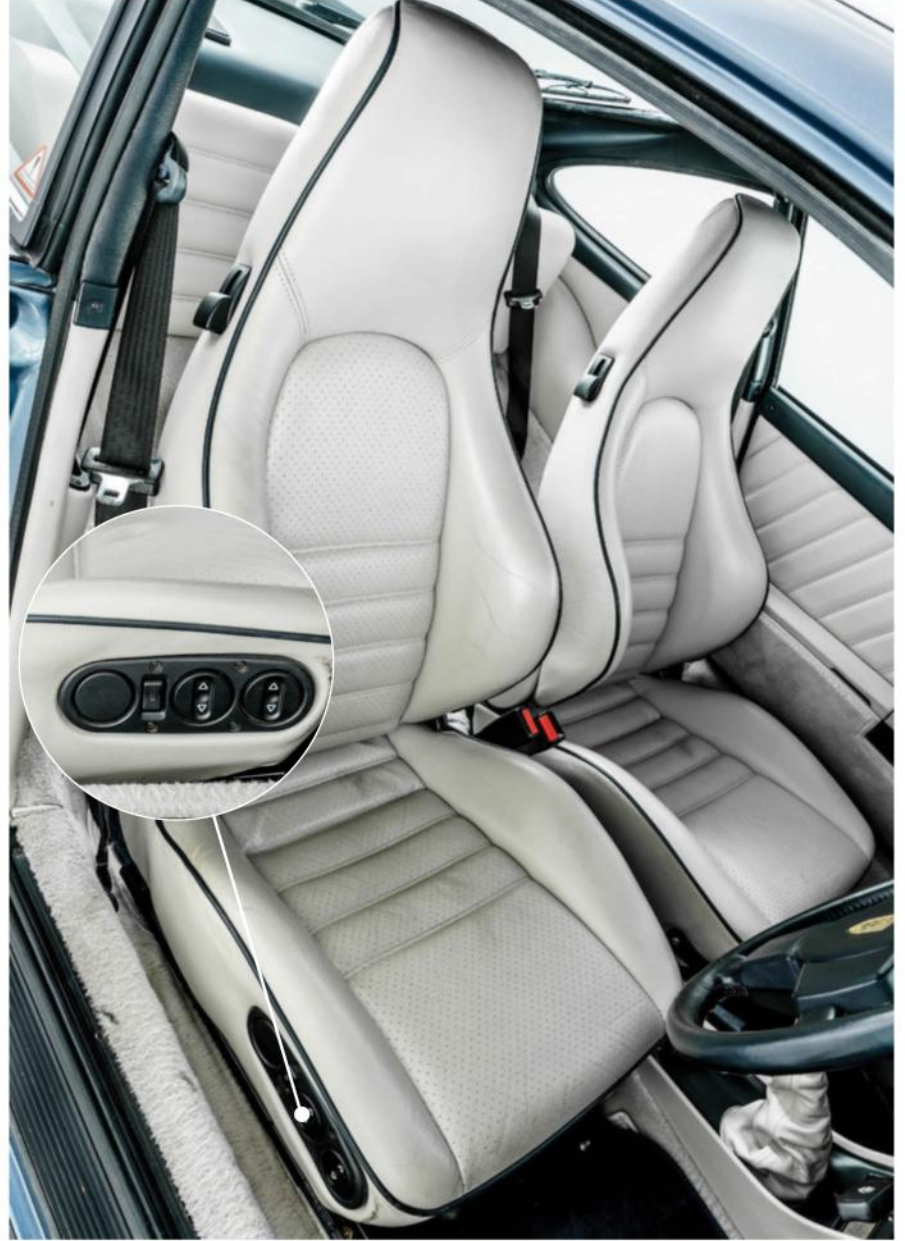
The compression ratio of 7.0:1 remained unchanged, as did the 6,700rpm red line. The result was stunning pace, with the top speed rated at 173mph and the 0-60mph sprint despatched in a claimed five seconds. This was partly down to the relatively lithe 1,335 kilogram curb weight, but it's a quick speed 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



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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.

– 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 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 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.

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 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 LE was special in 1989 and it's arguably even more special now thanks to its provenance and that lavish spec. **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 911 to keep a very close eye on in the coming years.”

Jonathan Franklin, Hexagon





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
£120,000-£160,000

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 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, connecting 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

“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”

coated and stainless steel rings had been added to improve the sealing of the cylinders, effectively curbing 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



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

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. 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. ➔



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.

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.

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 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,
Hexagon Modern Classics





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
£130,000-£160,000

Performance

★★★★★

Maintenance costs

★★★★☆

Rarity

★★★★☆

Value

★★★★☆



'Big red' brake calipers made a huge statement as to the Turbo's unworlly 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	993 Turbo
Year	(1996)
Engine	3,600cc air-cooled flat six
Capacity	8.0:1
Compression ratio	408bhp @ 5,750rpm
Maximum power	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 ever available with the Coupe body, from the outside it was instantly recognisable as being a bit special, perfectly 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. Small 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 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 ➔

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



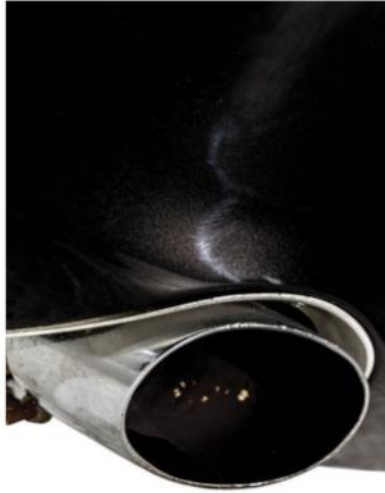
SPECIALIST VIEW

"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

”

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 180mph.

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



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



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 – 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

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

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 again, of course, but in the meantime the car 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



996 TURBO



The rear spoiler was unique to the Turbo and was raised hydraulically at 75mph, helpfully flagging your speed to law enforcement!

996 Turbo

Get it for
£40,000-£60,000

Performance

★★★★☆

Maintenance costs

★★★★☆

Rarity

★★★★☆

Value

★★★★☆

“

THERE WERE CHANGES THAT INSTANTLY SET THE TURBO APART FROM ITS NORMALLY ASPIRATED BRETHREN

”

The 996 had already caused waves in the 911 world thanks to its water-cooled engine, but was the Turbo the car to mollify the detractors?

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

Not everyone was a fan of the 'runny-egg' headlamps, although the Turbo was the first 996 to sport the improved 'facelift' lights



Model Year	996 Turbo (2002)
Engine Capacity	3,600cc air-cooled flat six
Compression ratio	9.4:1
Maximum power	420bhp @ 6,000rpm
Maximum torque	560Nm @ 2,700-600rpm
Maximum torque	Six-speed manual or five-speed Tiptronic automatic, four-wheel drive
Suspension	
Front	MacPherson strut with coil springs; antiroll bar
Rear	Multi-link with telescopic dampers, coil springs; antiroll bar
Wheels & tyres	
Front	8x18 inches, 225/40/ZR18
Rear	11x18 inches, 295/30/ZR18
Dimensions	
Length	4,435mm
Width	1,830mm
Weight	1,540kg
Performance	
0-62mph	4.2 secs
Top speed	189mph



The 996 was something of a revelation at launch, not least because it introduced 911 buyers to the world of water cooling. Needless to say, this development wasn't met with universal approval, despite being caused by legislative changes that Porsche had no control over. We've previously looked at the 996 as a buying proposition, but one model that did hit the mark was the Turbo that arrived in 2002.

In terms of style, the 996 embraced the familiar 911 DNA – even if Pinky Lai's design was somewhat smoother and less aggressive than previous iterations. But there were changes that instantly set the Turbo apart from its normally-aspirated brethren, most noticeably at the front and rear. The front bumper was now deeper and contained a trio of large air intakes that fed much-needed air to the three engine-cooling radiators and the air-conditioning condenser. Incidentally, Porsche claimed that those radiators offered a 50 per cent larger cooling area and ten per cent improvement in

overall cooling capacity compared to the outgoing and air-cooled 993 Turbo.

Cast your eyes towards the muscular rear wings – 66mm wider than a standard Carrera – and you'd come across intakes ahead of each rear wheel arch that force-fed air to the twin intercoolers, before arriving at a bumper unique to the Turbo with vents that helped draw air through those side intakes. Also new was the rear spoiler, the upper portion of which was lifted 2.4 inches by hydraulic rams when the speedometer hit 75mph. Overall, the 996's body was claimed to be 45 per cent stiffer than its predecessor – and lighter too – thanks to the greater use of Boron steel, high-strength steels and tailored blanks in key areas. It was also more aerodynamic than the 993, boasting a drag coefficient of 0.31 thanks to the smoother bodywork and extensive use of underbody panelling.

But the star of this particular show was to be found at the rear, hidden beneath various covers and bits of plastic trunking. So while the 3.6-litre unit didn't look that dramatic when you peered

in the engine bay, there was no doubting the depth and effectiveness of the engineering. Rather than the occasionally troublesome M96 motor found in other 996s, the engine was based on that found in the 993 Turbo, and it was one that benefitted from Porsche's obsessive attention to detail.

At its core was a light-alloy crankcase, Nikasil-coated cylinders, lightweight aluminium pistons and forged connecting rods, with chain-driven camshafts incorporating VarioCam Plus variable valve timing. A dry sump system took care of lubrication, while the boost was provided by a pair of KKK turbos sucking air through twin intercoolers. With a 9.4:1 compression ratio and Bosch's 7.8 Motronic management system keeping a tight rein on proceedings, the result was a storming 420bhp at 6,000rpm, 560Nm of torque and

TURBO TIMELINE

1974

The first 911 Turbo arrives with a 3.0-litre engine and single turbocharger, delivering 260bhp

1977

The revised version is announced, with 300bhp of power thanks to a 3.3-litre engine and intercooler

1989

Production of the 930 generation of Turbo models ends with over 21,000 examples sold

1990

964 Turbo appears with a version of the 930 3.3-litre engine and 320bhp, later a 3.6-litre engine is produced

1995

993 Turbo arrives with more power and fitted with twin turbochargers, plus four-wheel drive

2000

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

2006

The Gen1 997 Turbo is introduced with even more power, now 480bhp, and Variable Turbine Geometry

2009

Porsche release Gen2 997 Turbo with 500bhp plus a Turbo S with 530, before the arrival of the 991 Turbo



SPECIALIST VIEW

"The 996 Turbo has been an interesting car to track. We noted that values hit an all-time low around the £20,000 mark. Unfortunately, this meant some cars slipped into the hands of buyers that perhaps couldn't maintain what was once a £100,000 supercar, and as such these cars can be financially ruinous. The Turbos to get involved with are cars with excellent histories. Really, £26-27,000 is now the entry point. Manual Coupes are the car of choice, with X50-optioned cars commanding a premium and Turbo S variants leading the way on values. As the resurgence in 996 values has just begun, the 996 Turbo is becoming a modern classic, but one that can hold its own against more modern machinery. If current classic 911 prices are anything to go by, I would buy one now."

Greig Daly, RPM Technik

Purposeful dual exhaust tips were further unique additions, mounted in a redesigned apron that drew air through the wing-mounted intakes



The active rear wing on the 996 was a Turbo first, and is a trait embodied on the 911 with forced induction today



“

JUST FIVE PER CENT OF THE POWER WAS SENT TO THE FRONT AXLE IN NORMAL RUNNING, ALTHOUGH THE ELECTRONICS COULD INCREASE THAT TO UP TO 40 PER CENT AT MAXIMUM ATTACK

”

a power to weight ratio of 272bhp per ton. It was capable of firing the car to 60mph in 4.2 seconds and onto a shade under 190mph. Even those purists that bemoaned the lack of air cooling couldn't fail to be impressed by numbers like these, which are still more than respectable for a supercar today.

Responsibility for getting power to the road – and keeping your precious 996 separated from hedges and other road-side furniture – fell to a viscous-coupled four-wheel-drive system. Just five per cent of the power was sent to the front axle in normal running, although the electronics could increase that to up to 40 per cent at maximum attack, and it was backed by the full gamut of microprocessor-controlled safety systems, including Automatic Brake Differential, which braked a spinning wheel to restore grip, and Porsche Stability Management.

Buyers opting for six-speed manual transmission got a cable-operated shift that Porsche claimed reduced weight and vibration, while the gearbox featured redesigned internals for a quicker shift and greater longevity. A dual-mass flywheel was standard, as was a servo-assisted clutch mechanism similar to that seen on the 993 Turbo.

But if you wanted access to the performance to be a little easier to come by, you could now specify your Turbo with a five-speed Tiptronic automatic gearbox. Many owners did, and while outright performance suffered slightly – a 0.6-second drop in 0-60mph time and 4mph slower overall – the ability to perform easily repeatable full-bore starts without fluffing your lines was seen as ample compensation by many. Manual shifts were managed by switches on the steering wheel, and while they were less →



Porsche didn't skimp on luxury kit for the Turbo, and most owners duly obliged by raiding the options list. Popular additions were an upgraded Bose hi-fi and the PCM system with satellite navigation and telephone, although the handset looks dated here in a world of smartphones and Bluetooth



X50 POWER

As always, Porsche was on hand to offer the discerning 996 Turbo buyer something extra – just as long as they were prepared to pay around £6,000 for the privilege. The X50 Power Kit offered from 2002 boosted power and torque to 450bhp and 620Nm respectively courtesy of tweaks to the turbochargers, intercooler and ECU. Some balked at the extra cost, but it was effective, the 0-60mph time being shaved by a couple of tenths, with the 100mph barrier broken in around nine seconds. In 2005 the Turbo S was to prove a fitting end to 996 production, even if the £99,300 price tag was a touch eye-watering (the Turbo S Cabriolet weighed in at an even loftier £105,000). However, you did get the

X50 modifications as standard along with the PCCB carbon-ceramic brakes, PCM with satellite navigation, the top-notch Bose hi-fi with CD changer and numerous other luxury accoutrements.



Although these weren't the most comfy seats to come out of Zuffenhausen, the leather trim was standard, and there was electric operation for them, too



BUYING TIPS

It will come as no surprise that a 911 with this magnitude of performance and ability needs proper looking after. An unimpeachable service record is also a must, as a neglected car could easily become a money pit.

- **Bodywork:** A history check will reveal any previous accidents, but keep an eye out for damage underneath caused by circuit 'offs'.
- **Engines:** Few inherent problems, but it's worth ensuring that the unit is leak-free and doesn't exhibit any electrical issues. They will take tuning, but ensure you're happy with what's been done before committing.
- **Cooling system:** The cooling radiators and air-con condenser can become clogged with debris, leading to corrosion. Check them thoroughly, as replacing the whole setup won't be cheap.
- **Transmission:** Expect some noise from the four-wheel drive system, but it shouldn't be excessive. Tiptronic automatic was popular and should be smooth, but check that the steering wheel switches work.
- **Suspension/Brakes:** A complete overhaul will be pricey, so don't skimp on the checks here. Given the eye-watering replacement costs, it's worth considering whether you really need the PCCB items.

“
 AS YOU'D EXPECT, THE
 TURBO BENEFITTED
 FROM THE UPDATES
 THAT WERE APPLIED
 TO THE REST OF THE
 RANGE OVER THE
 ENSUING YEARS
 ”

handy than the now ubiquitous paddles, they worked well enough on the whole.

Porsche paid plenty of attention to the rest of the mechanicals too. 10mm lower and with extensive use of lightweight alloys, the front suspension was still a MacPherson strut arrangement, but new bearings for the control arms improved wheel location, while the shape of the steering knuckles was tweaked for optimum brake cooling.

At the rear was the same multi-link setup found on standard 996s that was mounted on a separate subframe, although the wider track demanded some changes, like the use of longer control arms. The deliciously accurate rack and pinion steering featured speed-sensitive hydraulic assistance.

Make full use of the turbocharged shove, and you could reel in the horizon at a ferocious rate, so the attention Porsche had lavished on the brakes was more than welcome. The standard arrangement comprised 330mm steel discs that were cross-drilled and ventilated, and gripped by 'Big Red' four-piston calipers, backed by Bosch 5.7 ABS.

For those with track action in mind, you could specify your Turbo with PCCB carbon-ceramic stoppers. Claimed to offer a 50 per cent weight reduction over steel items, disc diameter grew to 350mm and the yellow calipers now contained six pistons. Fronting the anchors were 18-inch hollow-spoke 'Turbo II' alloy rims wrapped at launch with Pirelli P-Zero rubber. Not only did the new design contribute to a reduction in aerodynamic lift; they also helped draw hot air from the brakes and saved ten kilograms overall compared to the solid-spoke items. Those prone to such detail could tell them apart by checking the rear of each spoke – rounded when hollow rather than ribbed.

Head inside, and buyers enjoyed the extra room and strong build quality of all 996s, and there was plenty of standard kit too. Leather upholstery adorned the electrically adjustable seats, while climate control and an electric sunroof were included. You also got 'Litronic' bi-xenon headlamps and a top-quality hi-fi system, although it was easy to see the price approach six figures if you got carried away with the options. Most opted for the PCM communications system with satnav, while upgraded Bose sound and different interior finishes were temptations. There was also an extensive range of exterior colours, although most opted for the resale safety of darker hues, leaving Speed yellow for the more flamboyant buyer.

As you'd expect, the Turbo benefitted from the updates that were applied to the rest of the 911 range over the ensuing years. 2001 saw a series of minor tweaks, including electric releases for the front and rear lids, replacing the cables and aluminium levers fitted at launch, while a software update in that year improved the throttle response. Cabin upgrades for the 2002 MY were more extensive, including an opening glovebox lid, cup holders, improved ventilation and some softer-touch

OWNING A 996 TURBO

- **Price new:** £86,000
 - **Total numbers sold:** Approx 22,000 (all variants)
 - **Service intervals:** 1 year/12,000 miles
 - **Service costs minor:** £301.40
 - **Service costs major:** £970.60 (manual gearbox)
- (Figures courtesy of RPM Technik)



plastics. Rain-sensing wipers and an auto-dimming interior mirror were added, while the Bose stereo was standard. Crash safety and body stiffness also increased, and the arrival of the Convertible variant in 2003 meant you could enjoy some rapid hair ruffling if al fresco motoring was your bag.

The 996 wasn't always welcomed with open arms, but it proved that Porsche's turbocharging mojo was as strong as ever. Air cooling might have gone, but this iconic sports car remained in the rudest of health, and the 996 Turbo is now considered one of the best-value supercars on the used car market today. **911**

"I'VE GOT ONE"

"I remember the 996 Turbo's release fondly, a month or two before my 18th birthday. I saw it on *Top Gear*, and thought 'One day, one day.' Well, that day was yesterday! The surroundings are familiar next to the C4, but behind the wheel it feels totally different. The steering is a lot heavier, the chassis feels more planted, and there's less body roll. Power delivery is incredible, the torque is just stupendous, and it's very fast, even when you're just pootling through the gear. Its limits, at least at this point, seem to be moons ahead of mine, and I do find the car somewhat intimidating - which is the point, right?"

Joel Newman



997.1 Turbo

Get it for
£40,000-£55,000

Performance

★★★★☆

Maintenance costs

★★★★☆

Rarity

★★★☆☆

Value

★★★★☆



THE GEN2 TURBO

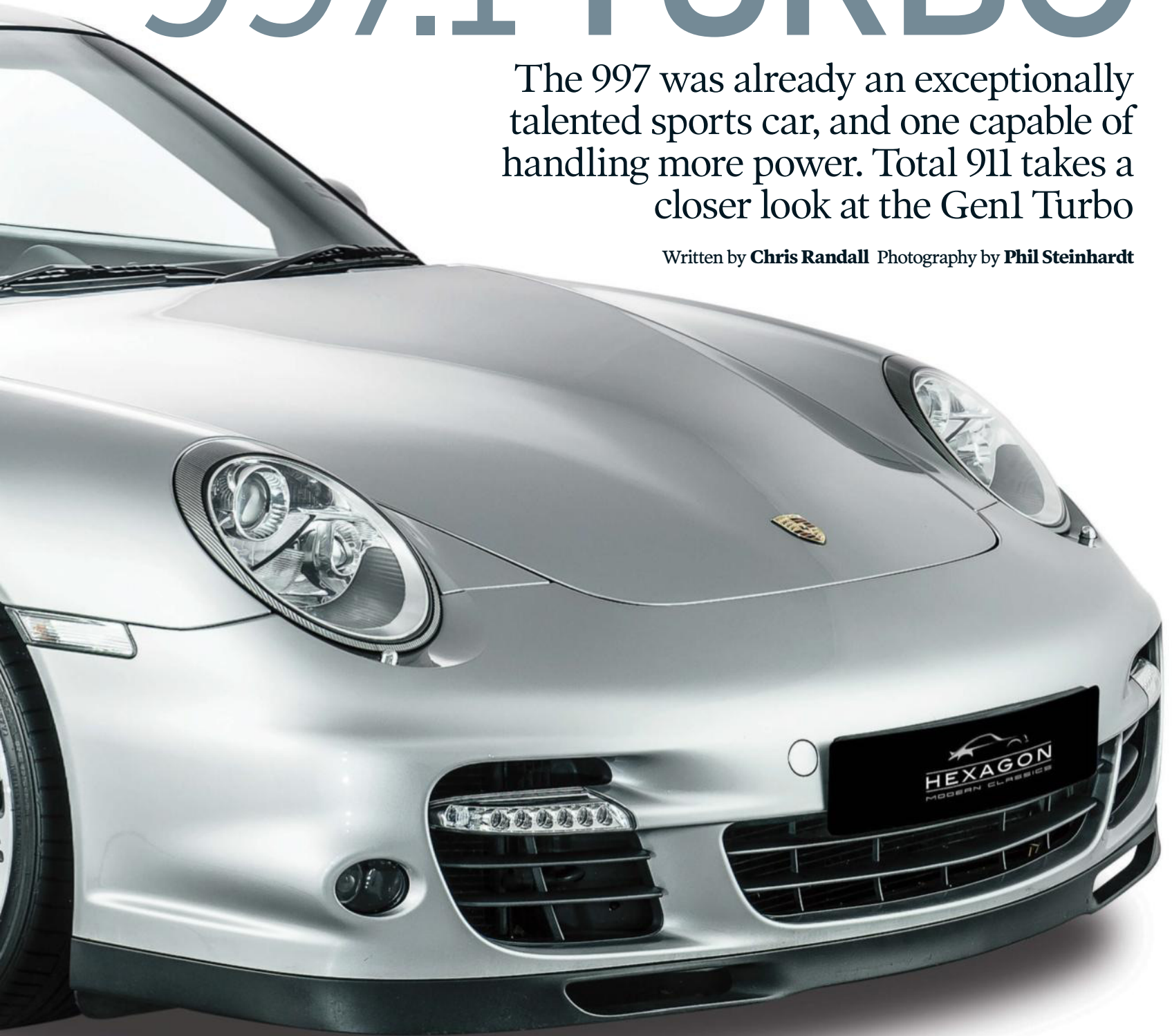
The Gen2 997 had already been launched, and 2009 would see the Turbo receive its makeover. As expected, there were no half measures. There were the usual cosmetic improvements, including new LED tail lights, but it was the engine that received the most attention. Capacity was up to 3.8 litres, the twin-turbo motor getting direct injection and some mighty impressive outputs, which now stood at 500bhp and 650Nm of torque. Together, they lopped half a second from the 0-62mph sprint, with top speed raised a fraction to 194mph. There were some useful efficiency improvements too, Porsche claiming reductions in fuel consumption and CO2 emissions of 16 and 18 per cent respectively. Also new was a seven-speed PDK transmission to replace the old Tiptronic unit, which brought paddle shifters and a launch-control function, and steering wheel display when teamed with the Sport Chrono Package.



997.1 TURBO

The 997 was already an exceptionally talented sports car, and one capable of handling more power. Total 911 takes a closer look at the Gen1 Turbo

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



There are plenty of 911 devotees that consider the 997 to represent the finest iteration yet of this venerable sports car, and they would have a point. Here is a model that boasts an astounding range of abilities – from capable handling and a well-resolved ride to a luxurious and beautifully assembled cabin – and no small measure of performance. It was a beguiling package, and one that cried out for the extra power that would make the most of that fine chassis. That car would arrive in 2006 in the shape of the Gen1 997 Turbo.

We'll get to the engine in a moment, but first it's worth exploring the changes that marked this model out from its less powerful brethren. While the shape was familiar 997 – and none the worse for that – the blown variant used the wider-hipped shell from the C4S, and made greater use of aluminium in its construction. Around 20 per cent of the body was made from the stuff, in fact, including the doors and engine lid, which contributed to a modest weight saving over the outgoing 996 Turbo.

The new model was also distinguishable by a new front bumper and air dam featuring three substantial air intakes, and a split rear spoiler with an upper section that rose at 75mph and retracted

at 37mph. The front end also received bi-xenon headlights as standard, along with LED daytime running lights that sat in the outer air intakes. Underpinning all of the visual drama was the same, strong bodysell found beneath all 997s, which made substantial use of high-strength and super-high strength steels in crucial areas, and was backed by a ten-year anti-corrosion guarantee.

Staying with the exterior theme, 2007 saw the arrival of the Cabriolet model, priced at £106,000. But despite an increase of £8,300 over the Coupe, drop-top buyers would be glad to discover that there was little penalty to pay in terms of performance or dynamics. It was just 70 kilograms heavier than the closed car (90 kilograms in automatic form, but still lighter than the 996 version), while the aerodynamics remained the same with the hood up at 0.31Cd. The hood itself could be raised or lowered in just 20 seconds too.

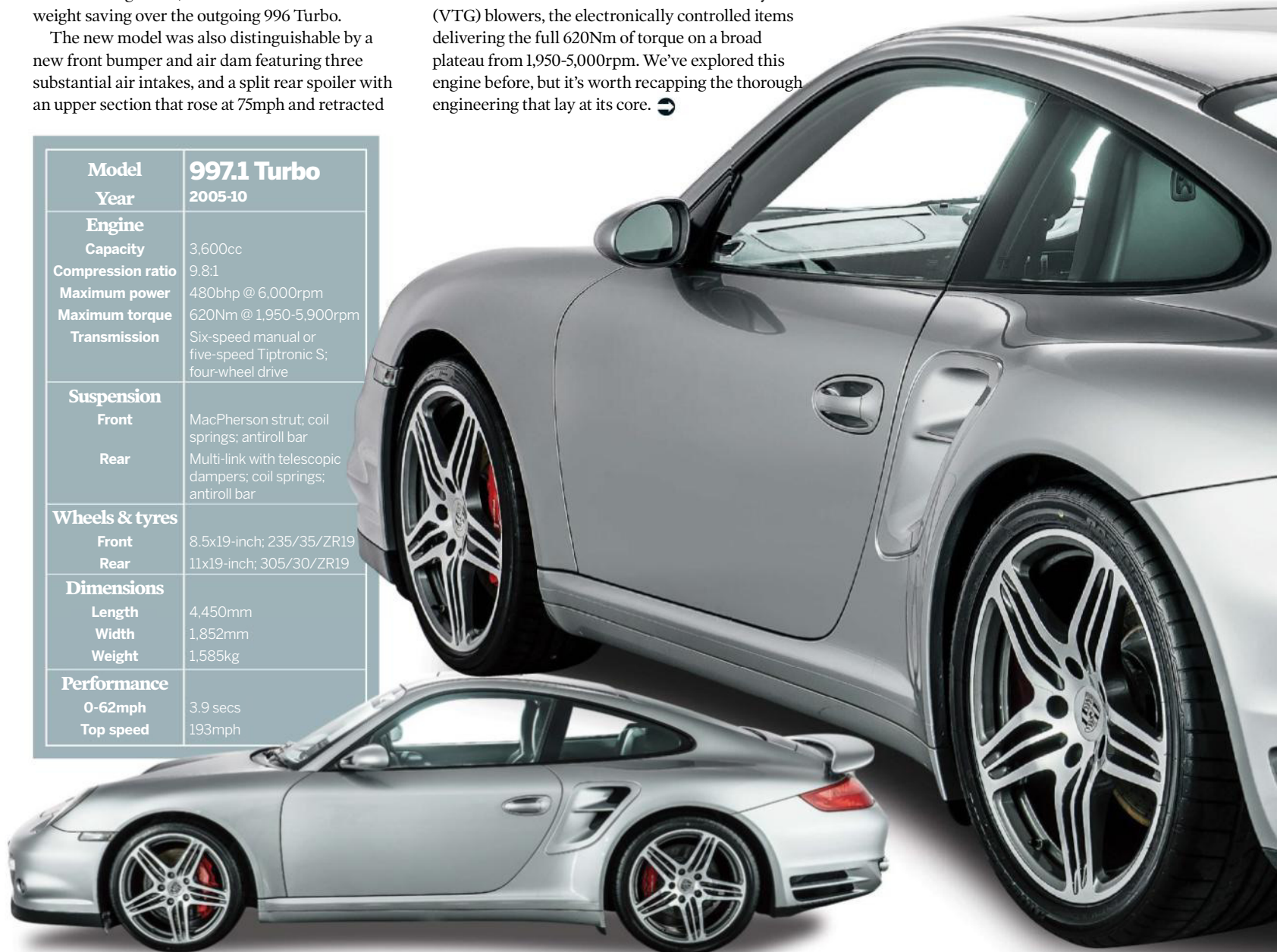
Essentially, this was the 996 Turbo motor with the addition of two Variable Turbine Geometry (VTG) blowers, the electronically controlled items delivering the full 620Nm of torque on a broad plateau from 1,950-5,000rpm. We've explored this engine before, but it's worth recapping the thorough engineering that lay at its core. ➔

“

THE GEN1 997 TURBO IS A MODEL THAT BOASTS AN ASTOUNDING RANGE OF ABILITIES - FROM CAPABLE HANDLING AND A WELL-RESOLVED RIDE TO A LUXURIOUS AND BEAUTIFULLY ASSEMBLED CABIN - AND NO SMALL MEASURE OF PERFORMANCE

”

Model Year	997.1 Turbo 2005-10
Engine Capacity	3,600cc
Compression ratio	9.8:1
Maximum power	480bhp @ 6,000rpm
Maximum torque	620Nm @ 1,950-5,900rpm
Transmission	Six-speed manual or five-speed Tiptronic S; four-wheel drive
Suspension	
Front	MacPherson strut; coil springs; antiroll bar
Rear	Multi-link with telescopic dampers; coil springs; antiroll bar
Wheels & tyres	
Front	8.5x19-inch; 235/35/ZR19
Rear	11x19-inch; 305/30/ZR19
Dimensions	
Length	4,450mm
Width	1,852mm
Weight	1,585kg
Performance	
0-62mph	3.9 secs
Top speed	193mph





THE TURBO TIMELINE

1974

The first 911 Turbo, Type 930, is unveiled at the London Motor Show, boasting a 3.0-litre engine with 260bhp.

1977

Porsche announce the revised 930 version with power hiked to 300bhp courtesy of a bigger 3.3-litre engine and a single intercooler.

1989

Production of the 930 generation of Turbo models ends with over 21,000 examples sold, including LE and SE variants.

1990

The 964 Turbo is launched, though a later version in 1992 would see a capacity increase to 3.6 litres with a new engine.

1995

The 993 Turbo arrives with more power, all-wheel drive and twin turbochargers.

2001

Power increased to 420bhp with the 996, the first of the water-cooled Turbo engines.

2006

997 Turbo introduced with even more power, now 480bhp, with Gen2s later hitting 500bhp.

2013

Porsche announce the 991 Turbo with 513bhp and four-wheel steering as standard for even sharper handling.



(Clockwise from top left): 19-inch wheels hid 350mm steel brakes or PCCBs; the wider C4S shell; at 75mph the split rear spoiler extended; air intakes were both functional and purposeful





The Turbo benefitted from a lavish standard spec, and build quality was beyond reproach. Opting for Sport Chrono Package Turbo brought a ten-second power overboost; PCM and stunning Bose hi-fi were standard, but few owners could resist the options list; just in case the power wasn't enough, Turbo script on dials and sill finishers (far right) were reminders of where your £97,000 had gone

Constructed around a light alloy crankcase and Nikasil-coated cylinder bores, it utilised lightweight aluminium pistons and forged connecting rods, with two chain-driven camshafts per bank incorporating VarioCam Plus variable valve timing. It also featured dual-valve springs and hydraulic tappets, while a dry-sump system took care of lubrication, featuring no fewer than nine pumps.

The Bosch ME 7.8.1 engine management featured individual cylinder knock control to avert damaging pre-ignition, and if you opted for the Sport Chrono Package Turbo then you benefitted from a ten-second overboost, which delivered extra torque. In all, the new motor was good for 480bhp, and performance was as eye-watering as you'd expect – light the fuses for those blowers, and you'd hit 62mph just 3.9 seconds later (0.3 seconds less in self-shifting form) on the way to a 193mph maximum.

Relaying that to the tarmac was six-speed manual transmission or five-speed Tiptronic S

automatic, with steering wheel-mounted shift buttons and shift patterns that varied according to driving style, road conditions and grip. The manual also got a dual-mass flywheel, while both transmissions drove through an acronym-laden four-wheel-drive system. The viscous coupling of the 996 Turbo was replaced by a faster-acting, electronically controlled multi-plate clutch supported by the full gamut of safety systems, including Porsche Traction Management (PTM), Automatic Brake Differential (ABD) and Porsche Stability Management (PSM).

The suspension was familiar 997 fare, with MacPherson struts up front that incorporated ducting elements to direct air to the brakes and the multi-link 'Lightweight Stable Agile' (LSA) arrangement at the rear. Aluminium was used for most of the components, and Porsche Active Stability Management (PASM) was standard, with a choice of driver-selectable Normal or Sport modes.

Using inputs from a host of sensors – measuring lateral and longitudinal loads and throttle, brake and steering inputs among other parameters – the system continually adjusted the dampers at each corner. Complex it may have been, but it did much to seal the 997's reputation as a dynamic but secure handler, no matter the road conditions or the driver's skill level. It had plenty of power, but this wasn't a 911 that would bite back.

Further confidence was added by deliciously accurate and feelsome steering courtesy of a variable-ratio, hydraulically assisted rack. The standard brakes were fearsomely effective too, with 350mm vented and cross-drilled discs squeezed by six-piston monobloc alloy calipers up front and four-piston items at the rear. Backed by the latest Bosch ABS 8.0 anti-lock system, they also benefitted from emergency brake assist that applied maximum braking in the event of an emergency stop, and a pre-fill arrangement ➤



“

ALUMINIUM WAS USED FOR MOST OF THE COMPONENTS, AND PORSCHE ACTIVE STABILITY MANAGEMENT (PASM) WAS STANDARD, WITH A CHOICE OF DRIVER-SELECTABLE NORMAL OR SPORT MODES

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BUYING TIPS

The 997 isn't known for being troublesome, but with the earliest Turbos approaching a decade of use it pays to be cautious. Buy from a reputable source and dismiss any examples that appear neglected or abused, and you won't go far wrong.

- **Bodywork:** Even minor dings can prove costly, so examine every inch of the panels for signs of careless ownership. Rust isn't an issue, and will be the result of poorly repaired accident damage.
- **Engine/Transmission:** There's little to worry about if it's been properly maintained, but be wary of modifications or aftermarket power boosts. Turbo wear will result in painful bills, so be alert for signs of smoke or poor running.
- **Suspension/brakes:** Track use will accelerate wear and tear, so check every joint and bush. The usual cost-related caveats apply to fitted PCCB stoppers, so think about whether you need the hassle.
- **Interior:** Over and above signs of wear, the main thing inside is a thorough check of all the switchgear and gadgets. The more heavily optioned the car, the more important this becomes. Faulty electric motors or PCM problems can be wallet-busting to fix.
- **Air conditioning:** The front-mounted condensers are prone to collecting debris, which results in corrosion. Make sure the air-con is blowing cold and reacts promptly to temperature selections.

that primed the hydraulics if the throttle was released suddenly.

This meant that short of an assault on the lap record at the Nürburgring, running out of stopping power was pretty unlikely, but those in need of a further confidence boost could always opt for the larger PCCB discs with their distinctive yellow calipers. Whichever setup you chose was fronted by a unique design of forged alloy wheels, 19 inches in diameter and with a two-tone paint finish, and there was tyre pressure monitoring as standard.

Mechanically then, the Turbo was much as expected, featuring the attention to detail and depth of engineering that Porsche buyers admired and craved in equal measure. It was no less impressive when ensconced in the control room, the cabin offering a blend of luxury, build quality and ergonomic rightness that is as impressive today as it was almost a decade ago when the 997 arrived.

Of course, it was only right that Porsche ratcheted things up a notch for the new range-topper, so the Turbo interior was a feast of high-quality leather and labour-saving devices. Electric seats were standard, as was the Porsche Communication Management (PCM) system, a Bose hi-fi boasting surround sound and 13 speakers and, well, just about every other convenience feature you might reasonably want and expect.

And every time you swapped ratios, the gear lever design unique to the Turbo provided reassurance that you'd chosen wisely.

Naturally, there was huge scope to increase the purchase price and feel-good factor by delving into the options, where you'd find goodies like special leather and carbon-fibre trims, CD changers, parking sensors, sports or adaptive seats and, of course, Sport Chrono that enabled you to fiddle with various electronic settings in the PSM and PASM systems and record data from track performances. On top of this, the 997 remained practical as an everyday sports car, with buyers getting 95 litres of luggage space in the front and an extra 190 litres with the rear seats folded back.

The only complaint was the slightly miserly 67-litre fuel tank, which would have meant plenty of fuel stops if you planned on taking advantage of the Turbo's continent-crushing ability. It was safe too, with all models getting six airbags that now featured organic propellant, making them lighter and more compact as well as easier to recycle.

We've finished on something of a sensible note, but that shouldn't detract from what this 911 is about. The Turbo added accessible sledgehammer performance to the already über-desirable 997 platform, and in the process almost certainly cemented its place as a future classic. **911**

“
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ADMIRE
”

SPECIALIST VIEW

“The 997 Turbo certainly offers a lot of 911 for the money, and the fact they're not hugely desirable from a collector's point of view makes them good value. And with so many made – around 20,000 – it's unlikely that you'll see any real rise in values either, certainly not in the medium term. Prices have been static for a while now too. It's also a model that tends to get used by owners so low mileage cars like the one you see are relatively unusual, and the fact it's a manual (rather than Tiptronic, as PDK was introduced for Gen2 997 Turbos) makes it even more desirable for me. If you're after a fast 911, this one ticks a lot of boxes.”

Jonathan Franklin, Hexagon





OWNING A 997.1 TURBO

- **Price new:** £97,840
- **Total numbers sold:** 19,201 (up to 2008)
- **Service intervals:** 2 years/20,000 miles
- **Service costs minor:** £322.96
- **Service costs major:** £827.65
(Figures are courtesy of RPM Technik)



"I'VE GOT ONE"



"I narrowed my choice down to two cars: a GTR and a 997 Turbo. I need more than two seats, and wanted to be able to tune the car, drive it both on the road and track, be a fairly safe financial bet, and above all be something I lusted after. I was intoxicated with the way the 911 drove - it's precise, nimble and devastatingly quick!

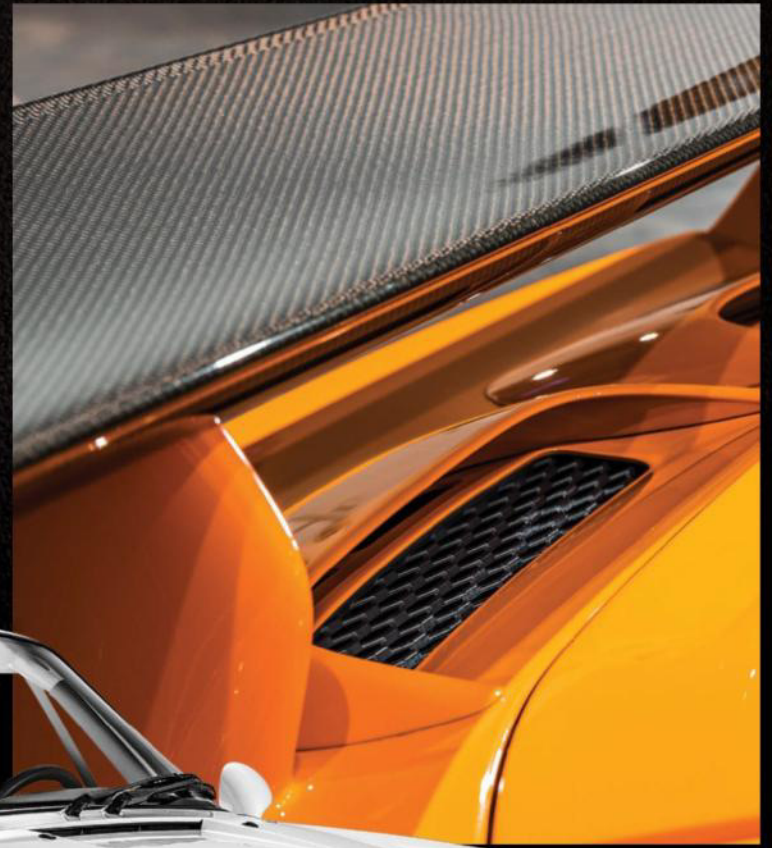
I bought my car in October 2013, and I've done around 10,000 miles in the last year. A recent custom sports exhaust from Powerspeed has transformed the car, giving it a much-needed voice, which I personally feel was the only area in which it was lacking."

Andy Ransley



RENNSPORT

964 RS	152
993 RS	160
997.1 GT3 RS	168



964 RS

Get it for
£150,000-£230,000

Performance

★★★★☆

Maintenance costs

★★★★☆

Rarity

★★★★☆

Value

★★★★☆



3.8-LITRE: THE WIDEBODY 964 RS

Porsche has always been adept at going that one step further. Just when you thought a model had reached its zenith, the company would launch something that little bit more special, and that's the case with the 3.8-litre RS version of the 964. Around 100 examples were built for 1993 so Porsche could mix it with larger-capacity GT racers, and that meant fitting a 3,746cc flat six, dubbed M64/04. The increase was courtesy of a 2mm-wider bore, and it was accompanied by a variety of engine modifications that included lighter pistons and an exhaust with less back pressure. The result was a storming 300bhp and 360Nm of torque, enough to punch the RS to 62mph in 4.9 seconds and on to 170mph. Those figures might have been higher still if it wasn't for the wide body that blunted the aerodynamics, although there is no doubting the effectiveness of the adjustable bi-plane rear wing. Completing the transformation were a set of impressively large Speedline alloys, a split-rim design

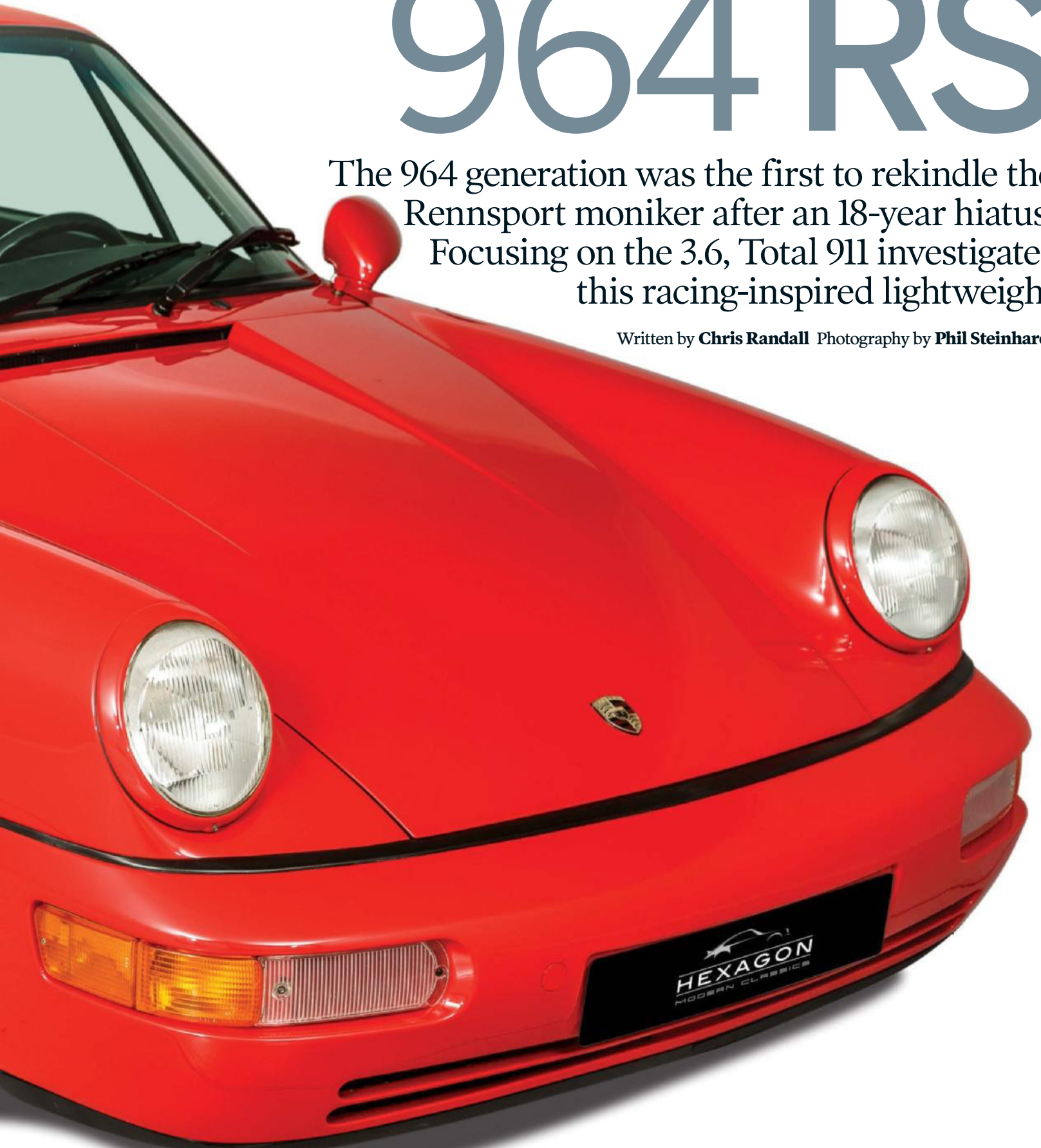
that measured 9x18 inches at the front and 11x18 inches at the rear. The 3.8 also marked the first appearance of 'Speed yellow' paint, although more subtle colours were available for those wishing to make less of a statement.



964 RS

The 964 generation was the first to rekindle the Rennsport moniker after an 18-year hiatus. Focusing on the 3.6, Total 911 investigates this racing-inspired lightweight

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



The last 964 to be subjected to the Ultimate Guide treatment was the Carrera 4, but this time we're focusing on a very special incarnation of the penultimate air-cooled 911.

Before we get to the meat of what the RS is all about, however, it's worth taking a moment for a broader reminder of the 964's pivotal role in the model's evolution. Essentially, it stood as a bridge between the old guard that was the 3.2 Carrera and the 911s we admire today, introducing modernities such as power steering, anti-lock brakes and coil-sprung rather than torsion-bar suspension. Four-wheel drive and Tiptronic gearboxes also made their first appearance, and the 964 was both stiffer and more aerodynamic than its predecessor, while we'd also marvel at the electric rear spoiler and modern heating system that was no longer unfathomable. This was the march of 911 progress, and the range would grow to encompass some very special cars, perhaps none more so than this one.

Like many Porsche 911s before and since, the 964 RS was born from the need to go racing, in this case acting as a homologation model for the Carrera Cup series. The RS was launched at the 1991 Geneva

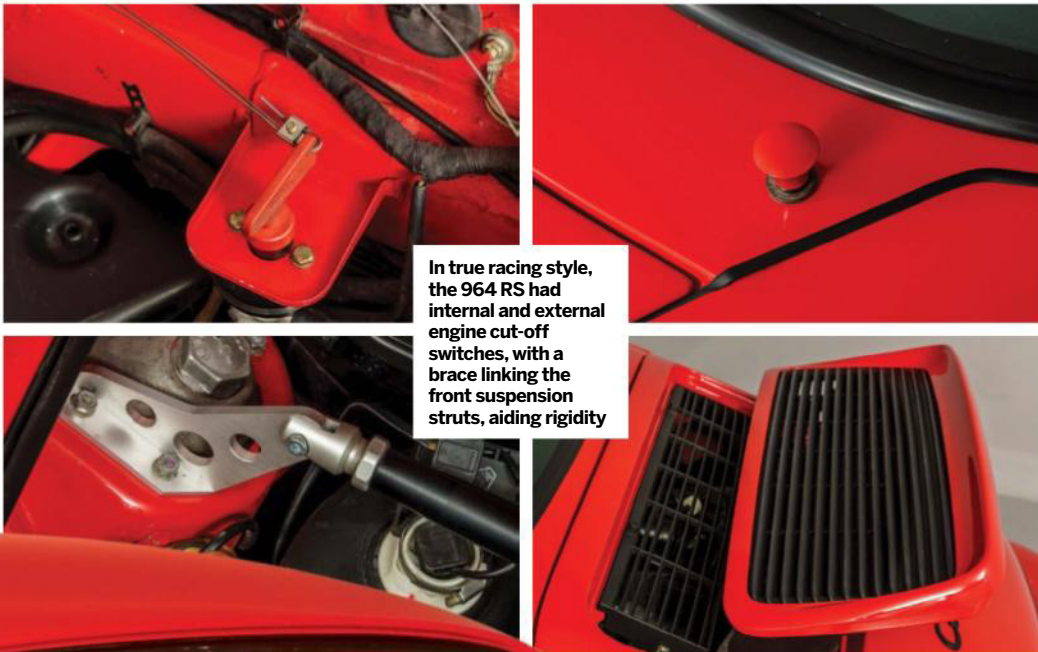
Motor Show, and went on sale later that year as a 1992 model, with total sales reckoned to be in the region of 2,400. Production would be split between four key variants – the majority of which (just under 2,000) would be in 'Sport' or 'Touring' specification, with the remainder in 'M001' and 'M003' form – and it's worth exploring those in more detail before going any further. The Sport model was marketed as 'Lightweight' in the UK, and was designed both as a road car and club racer, making it uncompromising as a choice for the daily commute. Closer to the race cars in reality, there were no luxuries inside, although you did at least get a smattering of carpet – albeit a very thin one.

As the name suggests, Touring models were a little more comfortable, gaining leather-clad seats from the Carrera 2 and niceties such as a stereo, electric windows, central locking, air conditioning and more sound insulation. Weighing around 70 kilograms more than the pared-back Lightweight, it was also possible to make more of a concerted raid on the options list – not to mention further defeating of the object – by adding heated seats, headlamp washers and an electric sunroof. M001 and M003 models, on the other hand, were proper racing cars, most with just the one seat ➔

“ AS THE NAME SUGGESTS, TOURING MODELS WERE A LITTLE MORE COMFORTABLE, GAINING LEATHER-CLAD SEATS FROM THE CARRERA 2 AND NICETIES SUCH AS A STEREO, ELECTRIC WINDOWS, CENTRAL LOCKING, AIR CONDITIONING AND MORE SOUND INSULATION ”

Model Year	964 RS 1991-92
Engine Capacity	3,600cc
Compression ratio	10.3:1
Maximum power	260bhp @ 6,100rpm
Maximum torque	310Nm @ 4,800rpm
Transmission	Five-speed manual; rear-wheel drive
Suspension	
Front	MacPherson strut; coil springs; anti-roll bar
Rear	Semi-trailing arms with telescopic dampers; coil springs; anti-roll bar
Wheels & tyres	
Front	7.5x17-inch Cup alloys; 205/50/17 tyres
Rear	9x17-inch Cup alloys; 255/40/17 tyres
Dimensions	
Length	4,250mm
Width	1,650mm
Weight	1,220kg (Sport/ Lightweight)
Performance	
0-62mph	5.4 secs
Top speed	162mph





In true racing style, the 964 RS had internal and external engine cut-off switches, with a brace linking the front suspension struts, aiding rigidity



RS TIMELINE



1972

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

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 compared to a Carrera.

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.

2005

It was the 996's turn for the lightweight treatment, the GT3 making 381bhp. Top speed is an epic 190mph, but thankfully PCCB brakes are standard.

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, of course, being turbocharged.

2015

The latest 991 is likely to arrive in GT3 RS form in 2015. Expect an output of around 500bhp and PDK gearbox as standard.



The interior of the 964 RS followed the Rennsport tradition of paring back on niceties to save weight. Notice the blanking plate in place of the radio/cassette player, plus the minimalist door cards with grab handles

and strictly for track sorties. The M003 – built for the European GT championship and known as the ‘N-GT’ – was re-named ‘Clubsport’ for the UK, and boasted a Recaro seat that was shelled in kevlar and covered in fire-retardant cloth, as well as a four-point Schroth harness and Matter roll cage. This was very much the business end of the 964 RS.

Less complicated than the model range was the bodywork, the outline of which deviated little from the standard 964 – save for a handful of RS-specific tweaks. All versions featured a stronger seam-welded shell to withstand the battering from circuit curbs, and although it was zinc-coated as standard, the Lightweight models lacked the layer of underseal. These cars therefore got a three-year anti-corrosion warranty rather than the usual ten years. The Turbo-style teardrop mirrors were lighter and more aerodynamic, and there was a new rear bumper identified by numberplate lights positioned at the side rather than above.

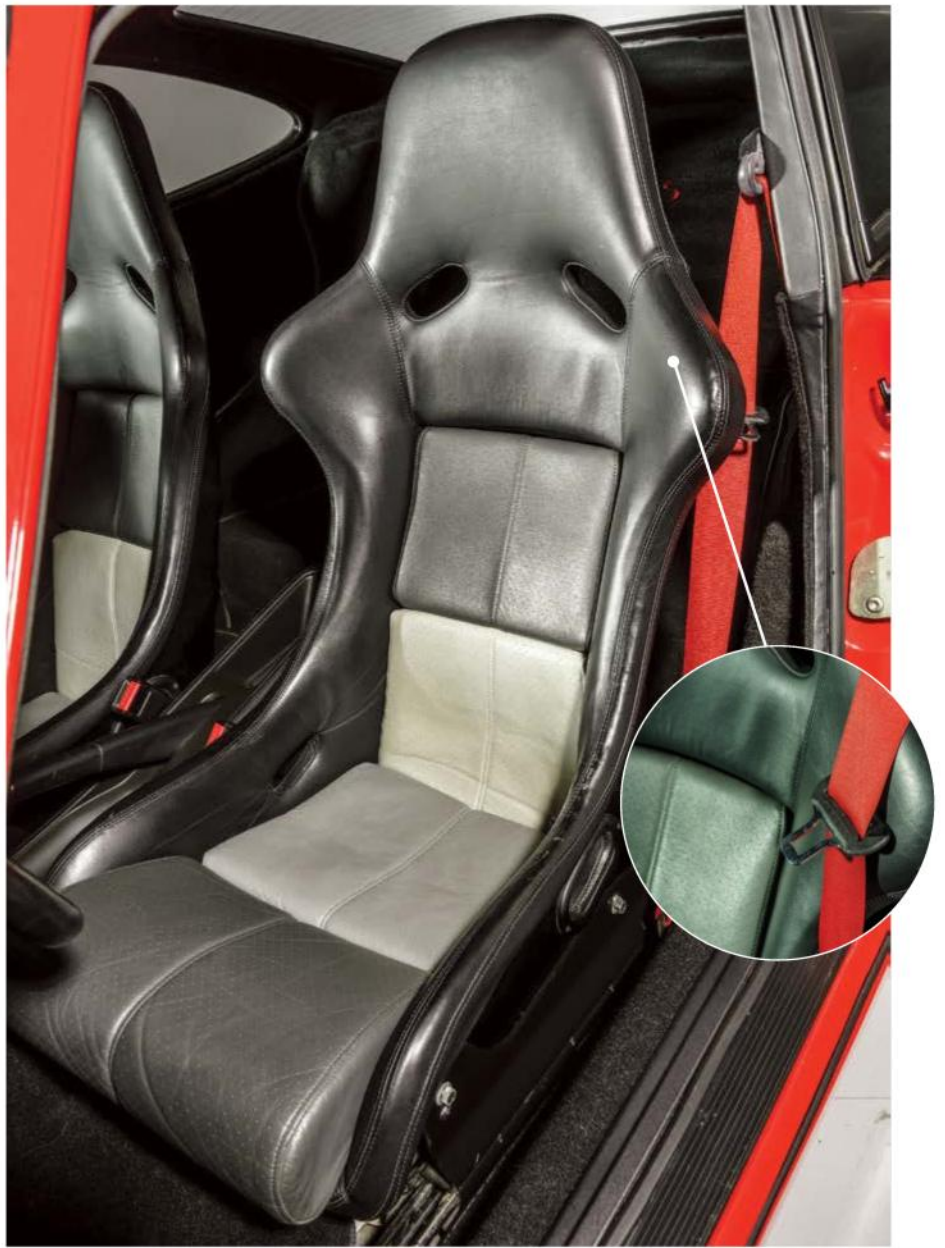
Further weight-saving measures included a luggage compartment lid that was fashioned from aluminium, side and rear glass that was now just 3mm thick instead of 4.7mm, and a larger 92-litre plastic fuel tank in the nose in place of the standard car’s 75-litre steel item. Porsche had done just what you might have expected with this special model, and approached the whole business with their usual laser-sharp focus and obsessive attention to detail. There were no half measures here, and the 964 RS was all the better for it.

However, in a far cry from the stratospheric power outputs we are used to today, things were to remain fairly standard in the engine room. Power for the 3.6-litre M64/03 unit was officially increased by just 10bhp courtesy of a revised ECU (although it was likely to be a little higher in reality), and a single or dual-mass flywheel was included depending on the model. The catalytic converters were retained, along with dual-distributor ignition and Bosch DME

engine management, and although Porsche were cagey about other engine changes, it is reasonable to assume that greater attention was paid to the weight and assembly of the internals.

Apart from the very rare Carrera 4 Lightweight, drive was sent to the rear wheels via a Carrera 2 gearbox with revised ratios and stronger synchromesh, and there was a limited-slip differential. But with track action very much in mind, one area that did come in for attention were the brakes, those at the front being donated by the 964 Turbo with Carrera Cup items. That meant that there were cross-drilled and ventilated discs, in addition to four-piston calipers at each corner with ABS and the standard hydraulic booster.

Given the modest power increase and lower weight, the RS was arguably over-endowed in the stopping department, but the changes would have been reassuring – especially if fast-approaching Armco barriers were involved. Hydraulically ➔



“
 LESS COMPLICATED THAN
 THE MODEL RANGE WAS
 THE BODYWORK, THE
 OUTLINE OF WHICH
 DEVIATED LITTLE FROM
 THE STANDARD 964 - SAVE
 FOR A HANDFUL OF RS-
 SPECIFIC TWEAKS
 ”



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.

- **History:** Provenance is everything with an RS, so be extra thorough with the background checks. Fakes do exist, so be wary.
- **Bodywork:** The rising values keep many off the race circuit, but not all of them. Evidence of previous accident repairs will need investigation and assurance that all is now well.
- **Engine and Transmission:** A specialist inspection is best for peace of mind. Needless to say, any signs of smoke, oil leaks or nasty noises are a no-no if big bills are to be avoided.
- **Suspension/Brakes:** That specialist inspection will more than likely identify any issues here. Everything needs to be spot-on in order for an RS to give its best, and there's no reason to accept an unloved example.
- **Interior:** With a variety of choices, it's up to you exactly how stripped-back you choose to go, but just make sure you can live with the more uncompromising versions. Condition should be perfect, though.

assisted rack and pinion steering was retained, while the suspension gained uni-ball top mountings for the front struts, along with a strut brace, and there were cast-aluminium components present at the rear. The RS also sat 40mm lower than regular 964s, which provided a nicely purposeful stance, as well as ensuring that the 17-inch magnesium alloy 'Cup 91' wheels filled the wheel arches. Most road-going cars came fitted with Yokohama or Bridgestone rubber when new, and with 205/50s at the front and 255/40s at the rear, you'd need to be tackling public roads at an insane speed to run out of grip in the dry.

Jump inside, and what faced you depended on the level of weight-saving you'd chosen, although it was still recognisably a 964 cabin. Setting aside the true race cars, most opted for the next closest thing in the form of the Lightweight (or Sport) model, in which case you were in for a pretty Spartan experience. It goes without saying that air-conditioning and a stereo were off the standard menu, although you could add the latter at no extra cost, even if the likelihood of being able to enjoy those early Nineties chart hits was questionable given the limited soundproofing. You'd also find manual window winders attached to vinyl door trims that sported straps rather than proper handles, a lighter wiring harness, a thin carpet,

and a pair of colour-coded seat belts. Also included were some subtle reminders of this car's potential in the form of an RS logo in the centre of the four-spoke steering wheel and RS script in the carpeted area – where the rear seats once resided.

If you still liked the idea of a 911 for the track, there was always the sanctuary of the Touring's more comfortable interior. The extra luxuries are detailed earlier on, but a fair few owners found this more to their liking. Most would also have been happy with the colour choices, which generally reflected the palette available to other 964 buyers. There was the usual selection of silver, black, Guards red, and blue, as well as the fetching Amethyst Metallic and the more exotic Rubystone red. Subtle it wasn't, with 'bright pink' probably the most accurate way to best describe this striking hue.

As recent values and auction prices have shown, there's no question that the 964 RS deserves to be taken seriously. Such purity of purpose hadn't been seen since the 2.7 RS first appeared some 20 years previously, and in our eyes that makes this model something to be cherished. As for the fact that the car you see in these pictures was driven by Walter Röhrl himself in its role as development car for suspension experts Bilstein – well, that's just the icing on the cake. **911**

“

THE RS SAT 40MM LOWER THAN REGULAR 964S, ENSURING THE 17-INCH MAGNESIUM ALLOY 'CUP 91' WHEELS FILLED THE WHEEL ARCHES

”

SPECIALIST VIEW

“Chassis number 491254 was originally supplied to Bilstein and driven by Walter Röhrl in the development of world-leading suspensions. The RS subsequently came to England in 2008, covering just 7,000km in the hands of one private owner since. On acquisition, Hexagon Classics embarked upon a sympathetic refurbishment programme that included a complete repaint in the original factory Guards Red with a total mechanical overhaul carried out by renowned marque specialists, BS Motorsport.”

Jonathan Franklin, Hexagon





OWNING A 964 CARRERA RS

- **Price new:** £64,500
- **Total numbers sold:** 2,400 (all variants)
- **Service intervals:** 1 year/12,000 miles
- **Service costs minor:** £605.78
- **Service costs major:** £787.22
(Figures courtesy of RPM Technik)



"I'VE GOT ONE"



"For me it is the prettiest 911 ever made, and the sound (wow, the sound) is the purest. There's no press this, press that marketing rubbish here! It's the feel it gives you and how it rewards you that's most alluring; it's not about the 0-60 time, it's how it can carry the speed. If you can play a tune, this car can dance to it like no other."

Christian Ayres

993 RS

Get it for
£220,000-£300,000

Performance

★★★★☆

Maintenance costs

★★★★☆

Rarity

★★★★☆

Value

★★★★☆



STORY OF THE 993 RSR

We already know the Clubsport version of the 993 RS was more hardcore, but for those buyers that ticked the option box marked M003, this was the ultimate incarnation of this special 993. Representing around 20 per cent of total production, the variant, also referred to as the RSR in some markets, wasn't really intended for road driving, although some of the more committed owners did indeed use them that way. Instead, it was aimed at those that intended to wring the maximum enjoyment out of the RS on the race circuit, and here it excelled. Costing in excess of £70,000 when new, just about all unnecessary kit was cut to maximise the weight saving, so you'd struggle in vain to find the likes of air-conditioning, electric windows, or carpets. Full harnesses were fitted as standard along with a Matter roll cage that was welded in place, and the seats gained fire-resistant Nomex coverings. Meanwhile, on the outside was an improved aero package that featured a deeper front splitter and bi-plane rear wing with substantial end plates. Highly sought after today, it's the ultimate embodiment of the RS philosophy.

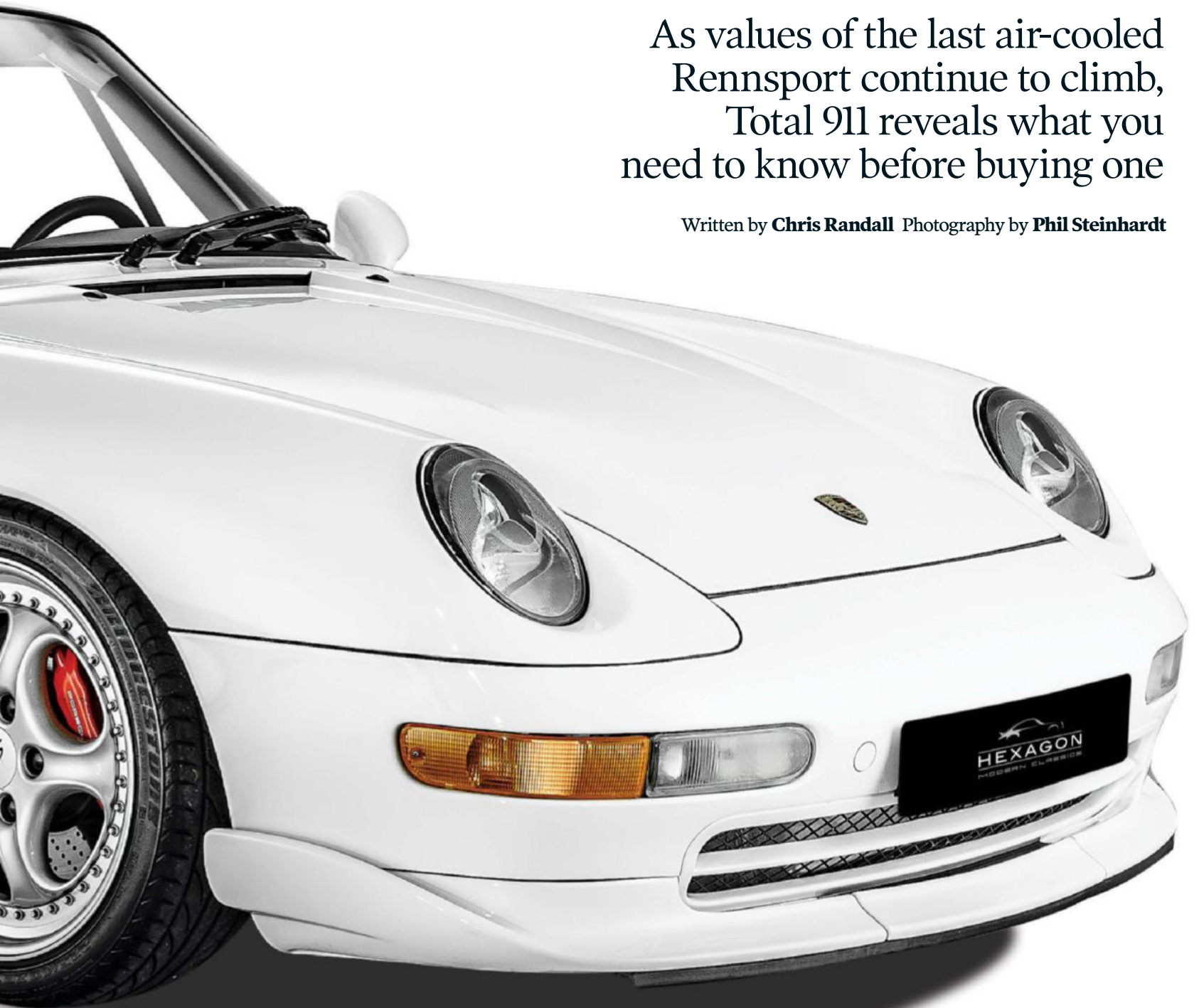




993 RS

As values of the last air-cooled
Rennsport continue to climb,
Total 911 reveals what you
need to know before buying one

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



It was back in Issue 119 that we last got behind the wheel of the 993 RS and we were mightily impressed by the combination of rawness and purity on offer. That shouldn't really come as any surprise as this last of the air-cooled Rennsport cars is a special model indeed, and that makes it incredibly sought after today. Launched in 1995, just 1,104 were built – with 227 of those produced in more hardcore Clubsport trim – and only 38 examples arrived in the UK in right-hand drive form.

It's a rare beast and a bad one will be an expensive mistress, so as values climb it's vital to meticulously investigate the history before examining a potential purchase any further. Naturally, the paperwork should all stack up with no question marks over maintenance record or

mileage. The market is also seeing more cars returning from abroad, especially Japan, which can make understanding the history that bit more difficult, so it pays to be cautious. If you've any doubt whatsoever, seek the advice of an OPC or specialist. And before we get into the detail of these cars, there's also the matter of its previous usage.

Like many 911s, the 993 RS went through a stage where values were reasonably low, and where owners would have been quite happy to explore its abilities on track. Understandable, of course, given the performance and handling on offer, but it's worth trying to establish what sort of circuit work it might have seen. It shouldn't necessarily put you off, but there's clearly a difference between the occasional track day and a car that spent its early life lapping the

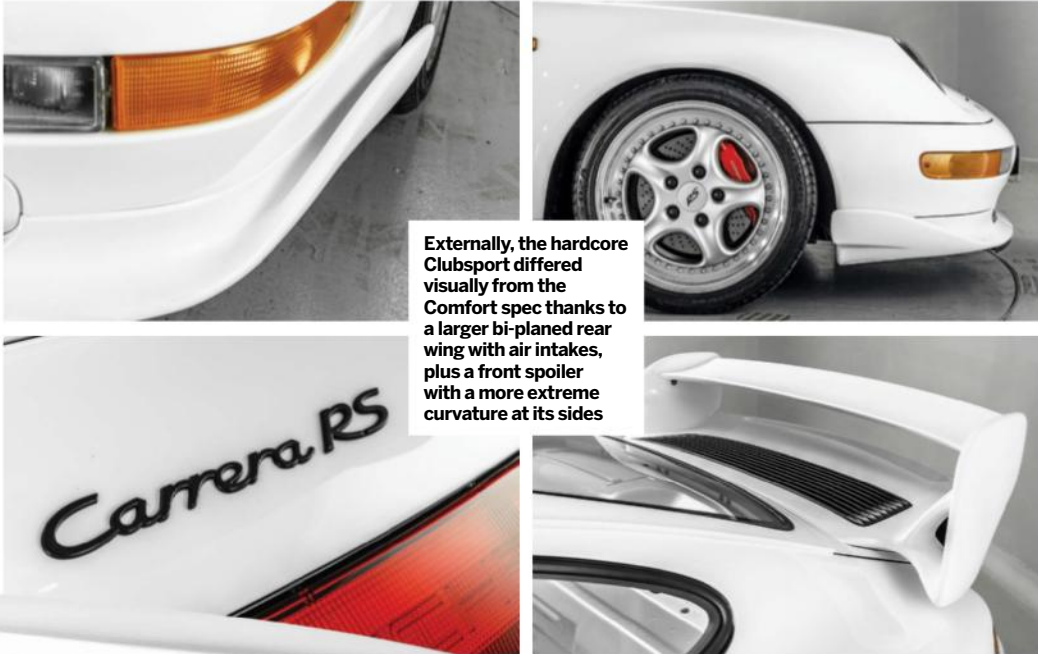
Nordschleife – which takes us on to another important aspect, and that's accident damage. Some previous paintwork such as stone-chip repairs isn't an issue, but it's crucial to ensure that the seam-welded shell hasn't sustained anything worse after a brush with the Armco. Proper repairs are crucial and not always easy, depending on where the damage was sustained, and once again, a specialist will be able to spot the tell-tale signs of major panel repair so you know what you're dealing with.

While we're on the subject, damage to RS-specific parts such as the front bumper/splitter or rear wing will be costly, as replacements cost £1,700 and £2,600 respectively, before VAT and fitting. It's not uncommon for these parts to suffer from bubbling in the paint on original examples, so budget for re-painting if there's any evidence

“The galvanised shell should have kept panel rust at bay, so it's likely to be the result of poor accident repairs”

- Model** 993 RS
- Year** 1995-1996
- Engine**
- Capacity** 3,746cc
- Compression ratio** 11.5:1
- Maximum power** 300bhp @ 6,000rpm
- Maximum torque** 355Nm @ 5,400rpm
- Transmission** Six-speed manual, rear-wheel drive
- Suspension**
- Front** MacPherson struts with coil springs; anti-roll bar
- Rear** Multi-link with telescopic dampers; coil springs; anti-roll bar
- Wheels & tyres**
- Front** 8x18-inch; 225/40/ZR18
- Rear** 10x18-inch; 265/35/ZR18
- Dimensions**
- Length** 4,245mm
- Width** 1,735mm
- Weight** 1,279kg
- Performance**
- 0-62mph** 5.0 secs
- Top speed** 172 mph





Externally, the hardcore Clubsport differed visually from the Comfort spec thanks to a larger bi-planed rear wing with air intakes, plus a front spoiler with a more extreme curvature at its sides

PARTS PRICES

• Front bumper	£788.45
• Rear spoiler (Comfort)	£2,687.18
• Clutch kit	£745.40
• Front damper (each)	£335.44
• Front brake disc (pair)	£433.38
• Rear brake caliper	£591.50
• Front wheel (each)	£1,127.28

VALUES

The values here represent what you can expect to pay for a left-hand drive example. Specialists say you can expect to pay substantially more for one of the rare right-hand drive UK cars.

• Project	£150,000
• Regular use	£200,000
• Weekend thrills	£250,000
• Concours	£300,000+





“Compression and cylinder leakage tests will confirm the engine condition”

of this. As for the rest of the bodywork, the RS can suffer from the same issues that afflict other 993s, including the annoying windscreen creak that can be exacerbated by the stiffer suspension set up – though it can be fixed without excessive difficulty or cost.

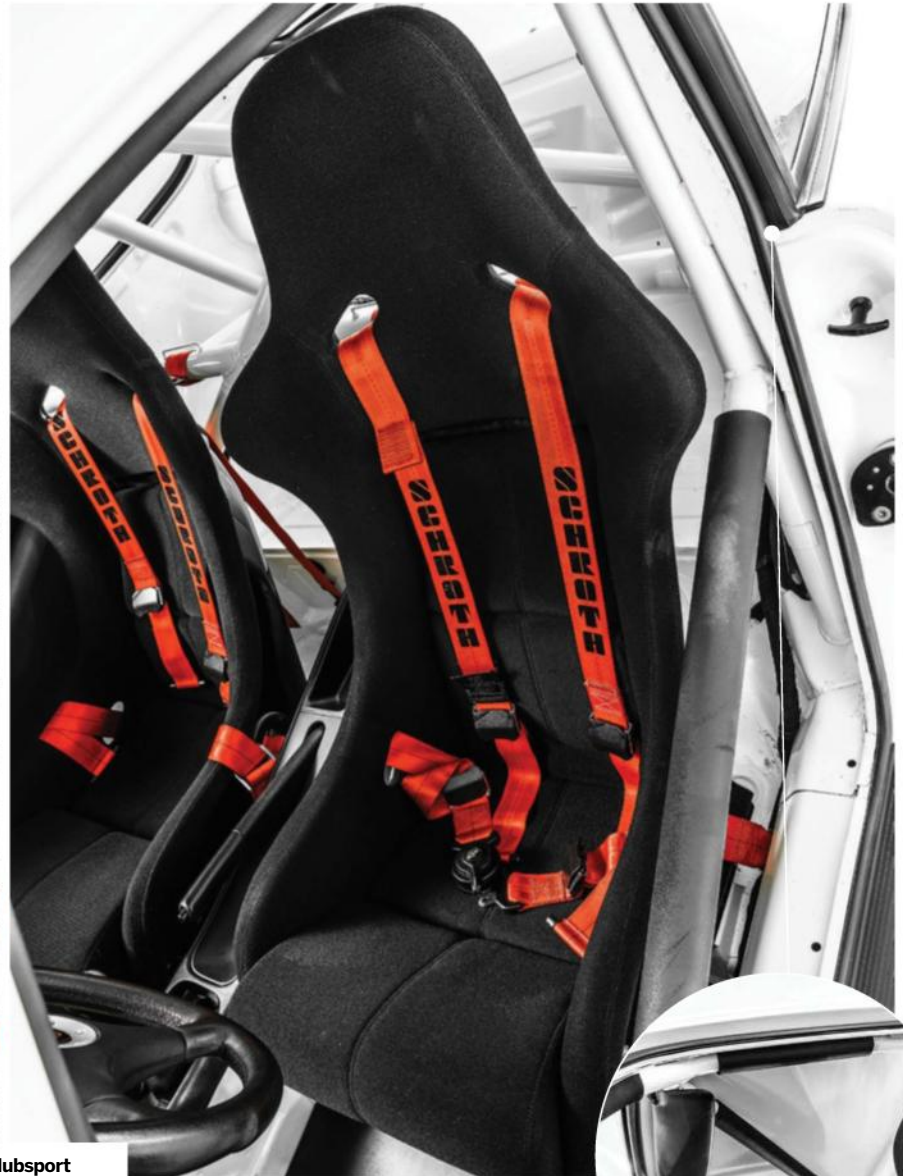
It's also important to check for signs of corrosion around the front and rear screens, especially the lower edges as damage to the paintwork caused by cack-handed replacement of the bonded screen can accelerate the onset of rot. Corrosion can also affect the bumper mountings, especially at the rear, so check these are securely attached. The galvanised shell should have kept poor accident repairs. Make sure, too, that the door check straps are working correctly, as a

clicking sound indicates a common issue. Proper repairs involve letting in a new section of A-post and you'll be looking at a bill of £500 upwards per side. The problem lies on the inside of the pillar, and previous owners may have been tempted to bodge the job by just having the outside welded. Otherwise, it's just worth checking for excessive stone-chipping around the nose; dings in the aluminium luggage compartment lid; rear light units that have turned hazy; and for milkiness around the edge of the windscreen that signifies delamination.

As for the engine, the 300bhp, 3.8-litre unit is very strong and, if cared for, shouldn't prove any more of a high-maintenance proposition than any 911 motor. Clearly, an unimpeachable service history will provide peace of mind here, but get

a specialist inspection if you have any doubts. Excessive hydraulic tappet noise needs listening for as replacing them all costs at least £2,000 including labour, and raises concerns about what else might be wrong. So carrying out compression and cylinder leakage tests will confirm the internal condition, and with a re-build costing five figures – it could be double that if it extends to more major surgery such as replacing pistons or crankshaft – it's clearly money well spent.

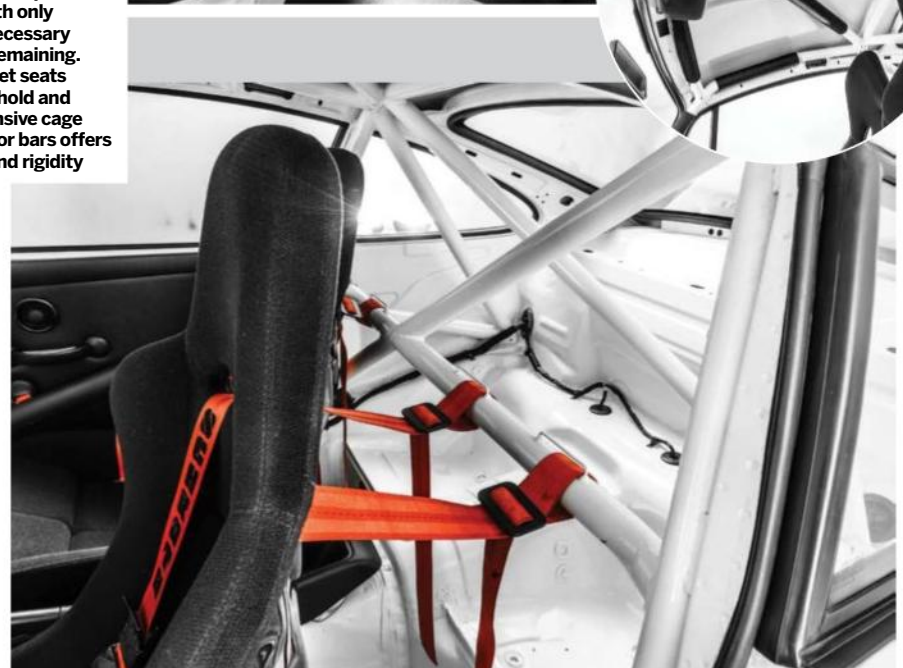
Even a fundamentally healthy engine can leak a little oil, usually from the rocker or timing chain covers, but it shouldn't be a major problem with these units, unless an item such as the crank oil seal is involved, which is where things get more expensive. And if there's more than just the smallest puff of blue exhaust smoke, be prepared to walk away. Remember, too, that the RS was the first 911 to benefit from the VarioRam intake system and acceleration should be strong throughout the rev range with no signs of hesitation or flat spots. Perished vacuum pipes can



Inside, the Clubsport is sparse, with only extremely necessary equipment remaining. Nomex bucket seats offer a tight hold and a comprehensive cage including door bars offers protection and rigidity

cause problems, and while repairs to the unit itself are possible, complete replacement is both costly and labour-intensive. Transmission-wise, the solid flywheel is trouble-free, and it's likely to be weak synchromesh in the lower gears that gives away a gearbox that's in need of a re-build. That said, it is a robust unit, so any problems usually point to hard use or abuse in the past. It's advisable to check for any clunks or whines from the limited-slip differential, and to ensure there's no sign of clutch slippage, as the three-piece kit costs around £750 plus fitting, although it's not an engine-out job thankfully.

The rest of the mechanical package will need equally close inspection if big bills are to be avoided, starting with the brakes. The discs are ventilated and cross-drilled items, 322mm and 299mm diameter front and rear respectively, clamped by 'Big Red' calipers. Prolonged hard use will take its toll, so ensure the discs are in good condition with no cracking around the holes or pitting/scoring on the inner surfaces. ➔



BUYING TIPS

Make no mistake, the 993 RS is a specialist proposition and one that commands increasingly high prices. It's a car that demands respect, and that goes for buying one, where researching the history and condition is crucial. It would be very unwise to take the plunge without seeking the advice of an OPC or respected specialist.

- **History:** The most important aspect of buying an RS. It's vital to ensure that numbers and mileage all tally up, and extra care is needed with imported cars. Any doubts or gaps in the history, and you should tread extremely carefully.
- **Crash damage:** Hard to believe now, but when these cars were cheaper many were subjected to circuit use with all the risks that implies. Crash repairs aren't a deal-breaker as long as you know exactly what's been done and how well.
- **Bodywork:** RS parts are eye-wateringly expensive so examine them closely and carefully for any damage. Corrosion isn't a major concern, though it can take hold around the windscreen.
- **Engine:** Strong and with few inherent problems, the 3.8-litre unit should have been fastidiously maintained. Check for flat spots in the rev range. Oil leaks are common, though rocker cover leaks are an easy fix.
- **Transmission:** Very strong if used sensibly, but hard use will take its toll. Odd noises from the gearbox will end in a big bill, so be careful – especially check for crunching synchronesh.
- **Brakes/suspension:** Refurbishing a tired set-up will cost plenty, so if an owner has skimped here what else hasn't been done? And original Speedline wheels in perfect condition are a real plus given the huge cost of their replacement.
- **Interior:** Condition here is a good indicator of previous ownership, so be wary of a scruffy cabin for Comforts. There's less equipment than other 911s, but make sure what's there works properly.

Replacing all four corners will cost £700 in parts before VAT, so it's a hefty outlay. The calipers themselves can suffer from sticking pads, caused by corrosion between the alloy caliper and steel insert – they can be refurbished as long as things haven't gone too far, but you're looking at the best part of £600 for a new rear item. Bosch ABS was standard and shouldn't be a concern, although it's worth ensuring that the warning light illuminates and extinguishes correctly on start-up. The brakes are fronted by gorgeous split-rim Speedline wheels and while they can be renovated at a reasonable cost, new ones are eye-wateringly expensive, as in £1,100 each at the front and £1,200 each at the rear, so you've been warned.

The power steering can suffer from fluid leaks, so check the pipe unions and rack, while the suspension bushes should be free of any perishing or obvious wear. It was a stiffer set-up, lowered by 30mm at the front and 40mm at the rear, and with adjustable anti-roll bars, so any geometry that's gone awry or been tinkered with by track amateurs will have a dire effect on the handling. Uneven tyre wear should also ring alarm bells. Dampers themselves are another pricey item at around £700 per pair for the front, so budget accordingly if an overhaul is on the cards.

Head inside, and you'll find a cabin that's solidly constructed from good quality materials. It's also a good indicator of a car's past, so don't

be hasty when it comes to checking its condition and look for scuffs caused by an uncaring owner. The Clubsport models are a sparse affair, equipment-wise, and it's worth ensuring that you could live with the track-focused roll cage and harnesses before taking the plunge. And even if the model you're looking at appears standard, it's worth looking at the trim in the rear of the cabin for signs that such track items haven't been previously installed and then removed. Comfort versions certainly made for a more usable proposition, and although the lighter wiring loom and lower equipment levels should make things more reliable, it's no guarantee. Make sure everything works, then, focussing on items such as electric windows and air-conditioning if fitted. The latter can suffer from failure of the fan's ballast resistor, which is a cheap fix, and problems with the evaporator and condenser, which aren't. If it doesn't blow cold, the system is likely to need more than just a re-gas.

Overall, the RS is an exciting proposition and one that should last well as long as it's been cared for. And given the prices now being asked, you'd perhaps expect nothing less. An abused example in need of major work will empty your bank account with stomach-churning ease, so think long and hard before taking on any sort of project. Look instead for an original, pampered car and you'll own a very special Rennsport indeed. **911**

SPECIALIST VIEW

"The 993 RS is an incredibly special car indeed and has witnessed a huge leap in values since the start of last year. We're lucky enough to have had a few in stock including the immaculate Clubsport seen here in your pictures.

While a right-hand-drive car is the ultimate in terms of an investment opportunity, any 993 RS makes for a tantalising drive in Comfort spec, with the Clubsport reserved only for those who enjoy a fully hardcore driving experience."

Jonathan Franklin,
Hexagon Modern Classics





OWNING A 993 RS

- **Price new:** £68,495 (Comfort spec, 1995)
- **Numbers built:** 1,014
- **Service intervals:** 1 year/12,000 miles
- **Service costs minor:** £358.80
- **Service costs major:** £900
(Figures are courtesy of Paragon Porsche)



“With an engine rebuild in the region of £10k it’s worth getting a thorough health check”

997.1 GT3 RS

Get it for
£120,000-£160,000

Performance

★★★★☆

Maintenance costs

★★★★☆

Rarity

★★★★☆

Value

★★★★☆



**THE SECOND-GEN
997 RENNSPORT**

Given the desirability of the car you see here, it's no real surprise that the second-generation 997 range would include a GT3 RS. It was no mild refresh though, as the new model would receive some substantial changes, not least of which was a 3.8-litre motor that sat on active engine mounts. With power and torque both increased – to 450hp and 430Nm respectively – the 0-62mph time was cut by 0.2 seconds to 4.0 seconds dead, and both response and mid-range shove were boosted. VarioCam Plus and a higher 8,500rpm redline also featured. Further revisions included gorgeous new centre-lock wheels and suspension that featured stiffer spring rates and tweaks to the anti-roll bars. Externally, the new model boasted various subtle changes, including redesigned air intakes, and there was a new aero package to improve downforce. 1,500 examples were produced before the 997 disappeared in 2012.



997.1 GT3 RS

Just in case the standard GT3 wasn't quite enough, Porsche added the fabled Rennsport tag to this special 911. When it comes to buying one, Total 911 is on hand to advise

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



WATER-COOLED RS TIMELINE

2004

The 996 GT3 is the first water-cooled Neunelfer to get the RS treatment. The 3.6-litre engine produces 381bhp, enough to despatch the 0-62mph sprint in just 4.4 seconds. 682 produced

2006

Porsche follow up with the 997 GT3 RS, with essentially the same engine as the 996. Power is raised to 415bhp though, and a weight-saving regime saves 20kg. 1,106 produced

2009

It's the turn of the Gen 2 997, this time the RS getting a larger 3.8-litre engine with 450bhp that cuts the 0-62mph time to just 4.0 seconds. Aero tweaks and dynamic engine mounts feature. 1,500 produced

2010

A sure-fire future classic arrives in the shape of the 997 GT3 RS 4.0. Boasting a stunning 500bhp, it's the quickest RS yet. 600 produced

2010

It's the 997 GT2 that gets the RS treatment. There's 620bhp from the 3.6-litre engine, a 205mph top speed, and plenty of tasty carbon fibre bits. 500 produced

2015

Huge road presence marks out the RS in 991 GT3 form. Substantially lighter than Turbo variants, the 4.0-litre engine makes 500bhp. 42 sold in the UK last year

You have to head back a little over a decade, to 2004 in fact, to find the first GT3 to benefit from the legendary RS suffix. Then, it was attached to the rump of the 996 with around 680 lucky buyers getting to experience the delights of a 381bhp flat six allied to a useful weight reduction.

It would hardly come as a surprise, then, when Porsche announced that the 997 GT3 would also get the Rennsport treatment, although this time both models would arrive together in August 2006. 996 buyers had to wait five years or so for the same development. Even with an eye-watering £94,280 price tag, this new generation would prove immediately popular, so much so that 1,106

examples would leave the production line before the Gen2 version arrived three years later. Like the 996 incarnation, the first 997 GT3 RS was all about weight saving. The first-generation GT3 RS featured the wider rear bodyshell of the Carrera 4 and Porsche shaved a healthy 20kg off the weight of the Gen1 GT3.

The diet was assisted by using carbon fibre for the adjustable rear wing and engine cover, and plastic instead of glass for the rear screen (saving almost 3kg) and, given the cost, it's worth ensuring parts are undamaged on the example you're looking at. At a gulp-inducing £5,900 for the rear wing, the need for care is obvious. The ten year anti-corrosion warranty means that rust shouldn't be a concern, but it's worth checking whether a previous owner has added

paint protection film to the front end as the nose is susceptible to stone chips. If not, ask whether there has been any paint rectification work to the panels and bumper.

Far more important, though, is whether an RS has seen action on the track and while soaring values make it a little less likely today, that wasn't always the case. Aside from the fact that pounding over kerbs can prematurely age the bodyshell – listen out for unusual creaks – there's the risk that trips through the gravel trap has resulted in damage to the underside panelling. A specialist will check for this, of course, but otherwise it's worth a thorough examination of the undertrays and front splitter for grazing. And it goes without saying that you need to be sure of the car's history, looking for any evidence of ➔

“It certainly looked the part, but it's what was hidden beneath that composite engine cover that really captured the imagination”

Model	997.1 GT3 RS
Year	2006-2007
Engine	
Capacity	3,600cc
Compression ratio	12.0:1
Maximum power	415bhp @ 7,600rpm
Maximum torque	405Nm @ 5,500rpm
Transmission	Six-speed manual, 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	8.5x19-inch; 235/35/R19
Rear	12x19-inch; 305/30/R19
Dimensions	
Length	4,460mm
Width	1,808mm
Weight	1,375kg
Performance	
0-62mph	4.2 secs
Top speed	194mph





The 997.1 GT3 RS standard specification included 350mm steel discs clamped by six piston monoblock aluminium calipers at the front, and four piston items at the rear. Customary front bonnet vents and carbon rear wing aids downforce

PARTS PRICE CHECK

- Front bumper £4,458.70
- Rear wing blade (carbon) £5,921.53
- Exhaust system (exc. Cats) £5,712.16
- Front damper £480.60
- Brake disc set (steel) £1,179.24
- Front wheel £1,835.57

Prices are inclusive of VAT and come courtesy of Paragon Porsche

997.1 RS VALUES

As mentioned, prices for the RS have slowed recently, marking an end to a period of strong growth for the model. That's not to say they aren't going to rise in the future, of course (as they almost certainly will), but it's likely to be slower this time around. Left-hand-drive examples are worth a little less than the values quoted here.

- Project £140,000
- Good £150,000+
- Concours £190,000





“An over-rev check is an important indicator of past use and especially vital on track-focused 911s”

major accident repair. It's also worth mentioning that the RS was available in some pretty extrovert colours, so you might want to consider whether you'd be happier with black or silver rather than the Orange or Viper green! That said, it seems buyers are happy to pay a small premium for their RS to stand out.

It certainly looked the part, then, but it's what was hidden beneath that composite engine cover that really captured the imagination. A revised version of the unit found in the 996 GT3, the 3.6-litre engine produced 415bhp at 7,600rpm and 405Nm of torque at 5,500rpm, and could safely rev to a stratospheric 8,400rpm. Featuring VarioCam variable inlet valve timing, titanium connecting

rods, and a revised dry sump lubrication system, it shoved the RS from 0-62mph in 4.2 seconds and on to 194mph. The good news for buyers is a depth of engineering that rendered it bulletproof in the eyes of most specialists, although it pays to undertake some careful checks before taking the plunge. Oil and filter changes were at 12,000 miles, and while particularly careful owners may well have shortened the interval, you certainly don't want to find any gaps in the service history. And, while regular maintenance is slightly higher than for the GT3, it's not by a great deal, so budget around £370 and £800 for a minor and major check respectively at a specialists such as RPM Technik.

More crucial, though, is an over-rev check, something that a reputable specialist will already have done. It's an important indicator of past use – and especially vital on track-focused 911s – as you'll want to know how often the motor has nudged that lofty redline. A cylinder leakage test will provide further reassurance that nothing serious is awry within the flat six. Otherwise, it's just a case of examining the unit for any signs of oil leaks from the cam chain covers and between the engine and transmission, the latter indicating a weeping Rear Main Seal; expect to pay around £1,100 to have this rectified at a specialist such as Parr Motorsports.

The RS used a single mass flywheel, so that's one less thing to worry about, but expect to reach around 30,000 miles before the clutch requires replacement, an engine-out job that will cost in the region of £1,300. A noticeably high biting point is a sign that renewal isn't far away, so haggle accordingly. The six-speed transmission is strong, though, benefitting from beefier internals and an



Lightweight carbon-shelled seats in flame retardant fabric came as standard and saved around 10kg compared to the GT3 items. Despite having a track-focused interior, luxury Alcantara covered the surfaces and steering wheel

additional oil cooler, and it would take particularly ham-fisted track use to cause any issues. Likewise for the limited-slip differential, although an obstructive gearshift or any odd noises from either unit would need further investigation as replacement is extremely costly.

You certainly shouldn't have any problems hauling the RS down from speed, though, thanks to the impressively powerful brakes. The standard specification was 350mm steel discs clamped by six piston monoblock aluminium calipers at the front and four piston items at the rear, and they are more than adequate for road use. Any problems are likely to be a result of overheating, so examine the discs for any sign of cracks appearing around the cross-drilling. A replacement set costs around £1,200 but a previous owner may have gone down the aftermarket route for replacements, so check what's fitted. The alternative option was the PCCB carbon items, identified by yellow calipers. While they might have saved a substantial amount



BUYING TIPS

With the earliest examples barely seven years old, it's reasonable to expect that any car you find should be in good shape, both bodily and mechanically. There are no guarantees, of course, so tread carefully, but strong build quality ensures that this is one of the easier 911s to inspect.

- **History:** A track-focused nature means that extra care is needed. Diligence is crucial to ensure you're not looking at a tired or crashed trackday warrior.
- **Bodywork:** Corrosion isn't a concern, so spend time examining the panels for any sign of previous repair or replacement. Ensure there's no damage to the RS-specific carbon fibre parts, and look for evidence of damage to the undertrays, which points to circuit-offs.
- **Engines:** If it's been religiously maintained, there's little to worry about. Check for oil leaks and make sure you see the results of a recent over-rev check.
- **Transmission:** The gearbox is tough and shouldn't be suffering from weak synchromesh unless abused. More likely is clutch wear, so check the history to see if it's already been done as it's not a cheap job.
- **Brakes/suspension:** Hard use will take its toll on the brakes, so be sure to check their condition carefully; extensive cracking around the cross-drillings indicate a hard life and imminent replacement. Adjustable suspension may have been fiddled with, so an alignment check is advisable.
- **Interiors:** Aside from being sure you can live with the Clubsport arrangement, the interior wears well. Just look for scuffed trim and overly-smooth Alcantara.

in unsprung weight – they were around 50 per cent lighter according to Porsche – replacing them costs in excess of £10,000. As we've said before in these guides, think long and hard about whether you really need them.

Suspension-wise, Porsche Active Suspension Management (PASM) was standard and the RS benefitted from a five-millimetre increase in wheelbase and the fitment of split rear wishbones to allow greater camber adjustability. Owners could also make changes to the ride height, toe angle, and anti-roll bar settings, but inexpert tinkering could have resulted in a less than optimum setup. Any doubts about how the car feels on the road, or evidence of uneven tyre wear, points to the need for a specialist alignment check; RPM Technik charges £264 for this, so it's an inexpensive way of ensuring all is well. There are no issues with the hydraulically-assisted steering, but do check the condition of the 19-inch wheels. Refurbishment isn't too pricey, but replacing them is around £1,800 for a front one.

Head inside and you're left in no doubt about where this 911 was intended to spend time. The RS came with the Clubsport package as standard, which bought a roll cage in the rear, fire extinguisher prep, a six-point harness, and wiring for a battery master switch. Also standard were a pair of lightweight, carbon-shelled seats that

saved around 10kg compared to the GT3 items and they were covered in flame-retardant fabric. It's a pretty hardcore arrangement for regular use, so you'll want to be sure you can live with it before committing. Despite the track-focused specification, there was luxury on offer, too, with plenty of Alcantara covering the surfaces and steering wheel (which got a straight ahead marker at the top of the rim). Significant wear isn't very common but it's worth checking that a clumsy previous owner hasn't scuffed the seat or door cards. Porsche didn't skimp on the standard kit with the RS, and there was a lengthy options list to dip into, so make sure you establish the specification of the example you're looking at, although everything should work. Also, ensure the air-conditioning is blowing cold as corrosion could attack the nose-mounted condensers, although the system could be deleted entirely which saved a further 20kg.

Ultimately, the 997 generation is renowned for its usable, reliable nature and the GT3 RS does nothing to dispel that view. Yes, it was designed for the ultimate in thrills on road or track but the quality of its construction means there's little to worry about if you're considering buying one today. Find one that has been maintained regardless of cost and it'll prove an immensely rewarding experience. **911**

SPECIALIST VIEW

"Any 911 with an RS badge is highly sought after, and the same definitely applies to the 997.1 GT3 RS. They've got a strong following, which is to be expected given their ability and the fact that they are reliable, too. Prices have settled a bit of late, which given their meteoric rise in the past three years is no surprise. Ultimately, an RS like this one will still represent a really good purchase as a machine to get in and enjoy, as well as its investment potential."

Greig Daly,
RPM Technik

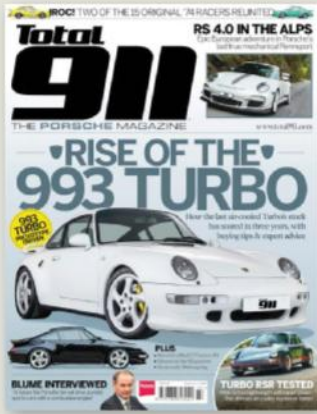




OWNING A 997.1 GT3 RS

- **Price new:** £94,280
- **Total numbers sold:** 1,106
- **Service intervals:** One-year/12,000 miles
- **Service costs minor:** £368.49
- **Service costs major:** £798.64
(Figures are courtesy of RPM Technik)





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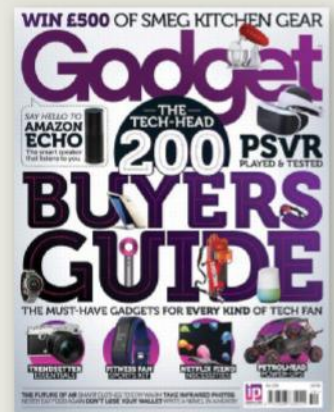


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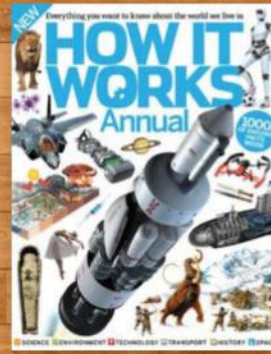
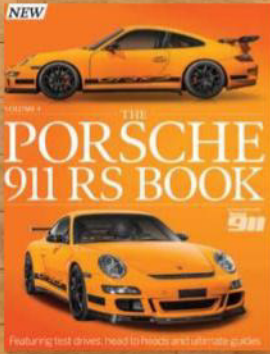


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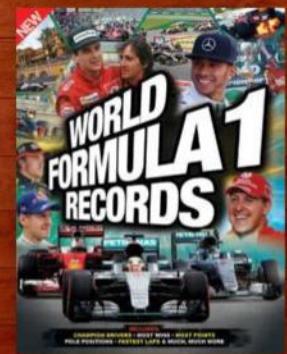
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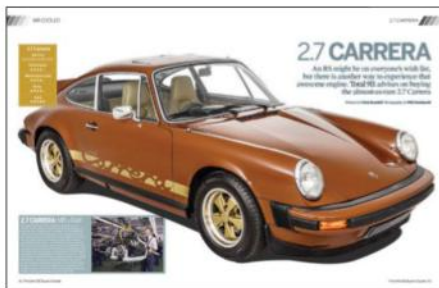
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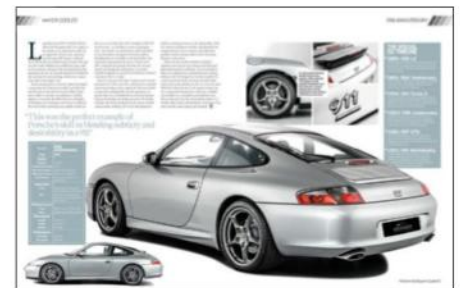
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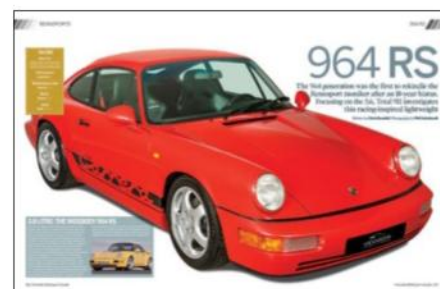
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